

WEBVTT

NOTE duration: "01:51:04.405"

NOTE Confidence: 0.9713381

00:00:03.520 --> 00:00:04.740 Good evening, everyone.

NOTE Confidence: 0.9998686

00:00:05.120 --> 00:00:06.559 It's so wonderful to see

NOTE Confidence: 0.9998686

00:00:06.559 --> 00:00:08.240 you all here today. Thank

NOTE Confidence: 0.9998686

00:00:08.240 --> 00:00:09.280 you so much for coming

NOTE Confidence: 0.9998686

00:00:09.280 --> 00:00:09.780 out.

NOTE Confidence: 0.9814091

00:00:10.400 --> 00:00:11.840 You know, today, we're we're

NOTE Confidence: 0.9814091

00:00:11.840 --> 00:00:13.219 all here because,

NOTE Confidence: 0.96082133

00:00:14.080 --> 00:00:15.120 we all have some,

NOTE Confidence: 0.89085555

00:00:16.814 --> 00:00:17.795 connection to,

NOTE Confidence: 0.98822665

00:00:18.175 --> 00:00:18.994 interest in,

NOTE Confidence: 0.9847179

00:00:20.414 --> 00:00:21.695 or some other relationship with

NOTE Confidence: 0.9847179

00:00:21.695 --> 00:00:22.435 lung cancer.

NOTE Confidence: 0.99336123

00:00:23.215 --> 00:00:24.095 I think many I know

NOTE Confidence: 0.99336123

00:00:24.095 --> 00:00:24.895 many of you in the

NOTE Confidence: 0.99336123

00:00:24.895 --> 00:00:26.574 audience, and it's really so  
NOTE Confidence: 0.99336123

00:00:26.574 --> 00:00:27.855 fantastic to to have you  
NOTE Confidence: 0.99336123

00:00:27.855 --> 00:00:29.400 here. We don't have a  
NOTE Confidence: 0.99336123

00:00:29.400 --> 00:00:30.680 Zoom component, so we don't  
NOTE Confidence: 0.99336123

00:00:30.680 --> 00:00:32.700 have virtual people listening in,  
NOTE Confidence: 0.99336123

00:00:32.920 --> 00:00:34.520 but we are recording this  
NOTE Confidence: 0.99336123

00:00:34.520 --> 00:00:35.900 so that we can  
NOTE Confidence: 0.9808271

00:00:36.360 --> 00:00:37.320 you all can watch it  
NOTE Confidence: 0.9808271

00:00:37.320 --> 00:00:38.280 again if you just thought  
NOTE Confidence: 0.9808271

00:00:38.280 --> 00:00:39.400 it was so fantastic. You  
NOTE Confidence: 0.9808271

00:00:39.400 --> 00:00:40.280 wanna see it a second  
NOTE Confidence: 0.9808271

00:00:40.280 --> 00:00:41.479 time around, or, of course,  
NOTE Confidence: 0.9808271

00:00:41.479 --> 00:00:43.159 other people can can watch  
NOTE Confidence: 0.9808271

00:00:43.159 --> 00:00:44.140 it later on.  
NOTE Confidence: 0.93033934

00:00:45.055 --> 00:00:46.254 So I'm Sarah Goldberg. For  
NOTE Confidence: 0.93033934

00:00:46.254 --> 00:00:46.895 those of you who don't

NOTE Confidence: 0.93033934

00:00:46.895 --> 00:00:47.635 know me,

NOTE Confidence: 0.9777324

00:00:48.015 --> 00:00:48.735 I'm one of the co

NOTE Confidence: 0.9777324

00:00:48.735 --> 00:00:49.934 directors for the Center for

NOTE Confidence: 0.9777324

00:00:49.934 --> 00:00:52.114 Thoracic Cancers here at Yale.

NOTE Confidence: 0.9777324

00:00:52.254 --> 00:00:53.555 I'm a medical oncologist.

NOTE Confidence: 0.99975544

00:00:54.975 --> 00:00:56.175 I've been here for almost

NOTE Confidence: 0.99975544

00:00:56.175 --> 00:00:57.774 fourteen years. We've done this

NOTE Confidence: 0.99975544

00:00:57.774 --> 00:00:59.475 program for many years

NOTE Confidence: 0.995955

00:00:59.920 --> 00:01:01.460 now, and I think it's

NOTE Confidence: 0.995955

00:01:01.600 --> 00:01:03.379 probably one of the highlights

NOTE Confidence: 0.9996198

00:01:03.920 --> 00:01:05.119 of the year for many

NOTE Confidence: 0.9996198

00:01:05.119 --> 00:01:05.780 of us.

NOTE Confidence: 0.9993379

00:01:06.640 --> 00:01:07.759 I think it's just so

NOTE Confidence: 0.9993379

00:01:07.759 --> 00:01:08.880 special to be able to

NOTE Confidence: 0.9993379

00:01:08.880 --> 00:01:09.920 see all of you in

NOTE Confidence: 0.9993379

00:01:09.920 --> 00:01:10.580 this setting,  
NOTE Confidence: 0.9997153

00:01:11.439 --> 00:01:13.325 and to share the excitement  
NOTE Confidence: 0.9997153

00:01:13.325 --> 00:01:15.084 that we have over what's  
NOTE Confidence: 0.9997153

00:01:15.084 --> 00:01:15.825 been happening  
NOTE Confidence: 0.93408775

00:01:16.444 --> 00:01:18.045 in research in for lung  
NOTE Confidence: 0.93408775

00:01:18.045 --> 00:01:19.744 cancer and in the advances  
NOTE Confidence: 0.93408775

00:01:19.965 --> 00:01:21.564 in so many ways and  
NOTE Confidence: 0.93408775

00:01:21.564 --> 00:01:22.765 and to just to to  
NOTE Confidence: 0.93408775

00:01:22.765 --> 00:01:23.665 be able to,  
NOTE Confidence: 0.97950983

00:01:24.590 --> 00:01:25.950 to show you what we  
NOTE Confidence: 0.97950983

00:01:25.950 --> 00:01:27.230 work on kind of behind  
NOTE Confidence: 0.97950983

00:01:27.230 --> 00:01:28.270 the scenes when we're not  
NOTE Confidence: 0.97950983

00:01:28.270 --> 00:01:29.230 in the office with you  
NOTE Confidence: 0.97950983

00:01:29.230 --> 00:01:29.730 all.  
NOTE Confidence: 0.9499286

00:01:30.430 --> 00:01:31.390 We we do a lot  
NOTE Confidence: 0.9499286

00:01:31.390 --> 00:01:32.430 of work here and lots

NOTE Confidence: 0.9499286  
00:01:32.430 --> 00:01:33.550 of other places do too  
NOTE Confidence: 0.9499286  
00:01:33.550 --> 00:01:34.910 to try to make lung  
NOTE Confidence: 0.9499286  
00:01:34.910 --> 00:01:35.410 cancer  
NOTE Confidence: 0.99055684  
00:01:35.870 --> 00:01:37.150 better, to try to understand  
NOTE Confidence: 0.99055684  
00:01:37.150 --> 00:01:38.105 it better, to try to  
NOTE Confidence: 0.99055684  
00:01:38.105 --> 00:01:39.465 figure out better treatments and  
NOTE Confidence: 0.99055684  
00:01:39.465 --> 00:01:40.425 better ways to take care  
NOTE Confidence: 0.99055684  
00:01:40.425 --> 00:01:41.865 of of our patients and  
NOTE Confidence: 0.99055684  
00:01:41.865 --> 00:01:43.385 their families. So we're really  
NOTE Confidence: 0.99055684  
00:01:43.385 --> 00:01:44.265 excited to be able to  
NOTE Confidence: 0.99055684  
00:01:44.265 --> 00:01:45.065 share all of that with  
NOTE Confidence: 0.99055684  
00:01:45.065 --> 00:01:45.565 you.  
NOTE Confidence: 0.982851  
00:01:46.185 --> 00:01:47.465 I wanted to introduce two  
NOTE Confidence: 0.982851  
00:01:47.465 --> 00:01:49.145 other people. One person is  
NOTE Confidence: 0.982851  
00:01:49.145 --> 00:01:50.025 standing right next to me.  
NOTE Confidence: 0.982851

00:01:50.025 --> 00:01:51.565 This is doctor Katie Politti.  
NOTE Confidence: 0.982851

00:01:51.625 --> 00:01:53.005 She is a cancer biologist.  
NOTE Confidence: 0.95983094

00:01:53.600 --> 00:01:55.380 We work very closely together  
NOTE Confidence: 0.95983094

00:01:55.520 --> 00:01:56.560 in all those behind the  
NOTE Confidence: 0.95983094

00:01:56.560 --> 00:01:57.759 scenes things, so trying to  
NOTE Confidence: 0.95983094

00:01:57.759 --> 00:01:59.359 understand lung cancer better and  
NOTE Confidence: 0.95983094

00:01:59.359 --> 00:02:00.880 figure out better treatments. Katie  
NOTE Confidence: 0.95983094

00:02:00.880 --> 00:02:02.640 is the scientific director for  
NOTE Confidence: 0.95983094

00:02:02.640 --> 00:02:03.520 the Center for the Rest  
NOTE Confidence: 0.95983094

00:02:03.520 --> 00:02:04.179 of Cancers,  
NOTE Confidence: 0.99179494

00:02:04.640 --> 00:02:05.759 and she's you're gonna hear  
NOTE Confidence: 0.99179494

00:02:05.759 --> 00:02:06.675 from her in a minute.  
NOTE Confidence: 0.98201287

00:02:07.155 --> 00:02:08.275 I will also introduce someone  
NOTE Confidence: 0.98201287

00:02:08.275 --> 00:02:09.575 who's not here right now.  
NOTE Confidence: 0.90925777

00:02:09.875 --> 00:02:10.835 He will be shortly.  
NOTE Confidence: 0.97144324

00:02:11.155 --> 00:02:12.675 Doctor Justin Blasberg. He's a

NOTE Confidence: 0.97144324  
00:02:12.675 --> 00:02:14.115 thoracic surgeon, another one of  
NOTE Confidence: 0.97144324  
00:02:14.115 --> 00:02:15.495 the directors of the center.  
NOTE Confidence: 0.97144324  
00:02:15.635 --> 00:02:16.675 And, again, we all work  
NOTE Confidence: 0.97144324  
00:02:16.675 --> 00:02:17.655 together to,  
NOTE Confidence: 0.996242  
00:02:18.195 --> 00:02:19.315 to take better care of  
NOTE Confidence: 0.996242  
00:02:19.315 --> 00:02:20.595 our patients and to advance  
NOTE Confidence: 0.996242  
00:02:20.595 --> 00:02:21.895 our scientific mission,  
NOTE Confidence: 0.9958603  
00:02:22.250 --> 00:02:23.849 help educate our trainees, and  
NOTE Confidence: 0.9958603  
00:02:23.849 --> 00:02:24.730 and do all sorts of  
NOTE Confidence: 0.9958603  
00:02:24.730 --> 00:02:25.849 things to to make things  
NOTE Confidence: 0.9958603  
00:02:25.849 --> 00:02:27.389 better for for this disease.  
NOTE Confidence: 0.9823026  
00:02:28.970 --> 00:02:29.470 So  
NOTE Confidence: 0.9736281  
00:02:29.849 --> 00:02:30.569 look at my notes to  
NOTE Confidence: 0.9736281  
00:02:30.569 --> 00:02:31.530 make sure I'm not missing  
NOTE Confidence: 0.9736281  
00:02:31.530 --> 00:02:32.569 anything. I think that was  
NOTE Confidence: 0.9736281

00:02:32.569 --> 00:02:33.530 all that I was supposed  
NOTE Confidence: 0.9736281

00:02:33.530 --> 00:02:34.110 to say.  
NOTE Confidence: 0.99342215

00:02:34.410 --> 00:02:36.365 I will just briefly show  
NOTE Confidence: 0.99342215

00:02:36.365 --> 00:02:37.405 you what we're gonna be  
NOTE Confidence: 0.99342215

00:02:37.405 --> 00:02:39.245 talking about this evening. This  
NOTE Confidence: 0.99342215

00:02:39.245 --> 00:02:40.285 is our agenda. You might  
NOTE Confidence: 0.99342215

00:02:40.285 --> 00:02:41.005 have seen it hanging up  
NOTE Confidence: 0.99342215

00:02:41.005 --> 00:02:41.645 on the walls in the  
NOTE Confidence: 0.99342215

00:02:41.645 --> 00:02:42.845 clinic or gotten an email  
NOTE Confidence: 0.99342215

00:02:42.845 --> 00:02:43.505 to you.  
NOTE Confidence: 0.99244183

00:02:43.965 --> 00:02:45.165 Our our goal is to  
NOTE Confidence: 0.99244183

00:02:45.165 --> 00:02:46.605 focus on exactly what this  
NOTE Confidence: 0.99244183

00:02:46.605 --> 00:02:48.125 title is, progress and hope,  
NOTE Confidence: 0.99244183

00:02:48.125 --> 00:02:49.530 to show you how far  
NOTE Confidence: 0.99244183

00:02:49.530 --> 00:02:50.810 we've come and what we're  
NOTE Confidence: 0.99244183

00:02:50.810 --> 00:02:52.190 hoping for in the future.

NOTE Confidence: 0.9954628  
00:02:53.050 --> 00:02:53.790 And so  
NOTE Confidence: 0.97909147  
00:02:54.169 --> 00:02:55.690 we will be first hearing  
NOTE Confidence: 0.97909147  
00:02:55.690 --> 00:02:57.370 from doctor Roy Harps. Katie's  
NOTE Confidence: 0.97909147  
00:02:57.370 --> 00:02:58.250 gonna introduce him, so I  
NOTE Confidence: 0.97909147  
00:02:58.250 --> 00:02:59.209 won't go into details, but  
NOTE Confidence: 0.97909147  
00:02:59.209 --> 00:03:00.010 he's gonna, I think, give  
NOTE Confidence: 0.97909147  
00:03:00.010 --> 00:03:01.364 you a great talk. Unfortunately,  
NOTE Confidence: 0.97909147  
00:03:01.364 --> 00:03:02.485 he's not here tonight, but  
NOTE Confidence: 0.97909147  
00:03:02.485 --> 00:03:03.784 he's gonna join us virtually.  
NOTE Confidence: 0.9901585  
00:03:04.485 --> 00:03:05.525 Then a lot of people  
NOTE Confidence: 0.9901585  
00:03:05.525 --> 00:03:06.405 last year told me they  
NOTE Confidence: 0.9901585  
00:03:06.405 --> 00:03:07.284 wanted to hear more about  
NOTE Confidence: 0.9901585  
00:03:07.284 --> 00:03:08.485 what's coming next. What are  
NOTE Confidence: 0.9901585  
00:03:08.485 --> 00:03:10.165 the really exciting drugs coming?  
NOTE Confidence: 0.9901585  
00:03:10.165 --> 00:03:11.484 And so we're gonna take  
NOTE Confidence: 0.9901585

00:03:11.484 --> 00:03:12.325 a little bit of a  
NOTE Confidence: 0.9901585

00:03:12.325 --> 00:03:13.845 closer look at some emerging  
NOTE Confidence: 0.9901585

00:03:13.845 --> 00:03:14.965 therapies, and we have some  
NOTE Confidence: 0.9901585

00:03:14.965 --> 00:03:16.025 great speakers there,  
NOTE Confidence: 0.9985274

00:03:16.530 --> 00:03:17.730 to get you excited about  
NOTE Confidence: 0.9985274

00:03:17.730 --> 00:03:18.470 what's coming,  
NOTE Confidence: 0.99227077

00:03:19.169 --> 00:03:20.050 in the next couple of  
NOTE Confidence: 0.99227077

00:03:20.050 --> 00:03:21.510 years, what's in trials now.  
NOTE Confidence: 0.9702172

00:03:21.970 --> 00:03:22.930 And then we we always  
NOTE Confidence: 0.9702172

00:03:22.930 --> 00:03:23.970 think it's so important to  
NOTE Confidence: 0.9702172

00:03:23.970 --> 00:03:25.570 talk about screening, lung cancer  
NOTE Confidence: 0.9702172

00:03:25.570 --> 00:03:26.710 screening, because  
NOTE Confidence: 0.9677702

00:03:27.090 --> 00:03:28.290 as the title says, early  
NOTE Confidence: 0.9677702

00:03:28.290 --> 00:03:29.410 detection saves lives. So, we're  
NOTE Confidence: 0.9677702

00:03:29.410 --> 00:03:30.370 gonna have a panel about  
NOTE Confidence: 0.9677702

00:03:30.370 --> 00:03:31.250 that. You'll hear from some

NOTE Confidence: 0.9677702

00:03:31.250 --> 00:03:32.985 people about that. I'll moderate

NOTE Confidence: 0.9677702

00:03:32.985 --> 00:03:34.745 a panel on lung cancer

NOTE Confidence: 0.9677702

00:03:34.745 --> 00:03:36.185 clinical trials and why they're

NOTE Confidence: 0.9677702

00:03:36.185 --> 00:03:37.724 so important in our progress.

NOTE Confidence: 0.9641028

00:03:38.105 --> 00:03:39.064 And then we're gonna talk

NOTE Confidence: 0.9641028

00:03:39.064 --> 00:03:40.985 about bridging expertise, so bringing

NOTE Confidence: 0.9641028

00:03:40.985 --> 00:03:41.944 it all together, all the

NOTE Confidence: 0.9641028

00:03:41.944 --> 00:03:43.305 different disciplines and people that

NOTE Confidence: 0.9641028

00:03:43.305 --> 00:03:44.520 help to take care of,

NOTE Confidence: 0.9641028

00:03:44.760 --> 00:03:45.640 people who in their fam

NOTE Confidence: 0.9641028

00:03:45.720 --> 00:03:46.440 people who have lung cancer

NOTE Confidence: 0.9641028

00:03:46.440 --> 00:03:47.240 in their family. So you'll

NOTE Confidence: 0.9641028

00:03:47.240 --> 00:03:48.120 hear from lots of different

NOTE Confidence: 0.9641028

00:03:48.120 --> 00:03:49.100 people about that.

NOTE Confidence: 0.9955975

00:03:49.480 --> 00:03:50.520 So I think that was

NOTE Confidence: 0.9955975

00:03:50.520 --> 00:03:51.400 all I wanted to say.  
NOTE Confidence: 0.9955975

00:03:51.400 --> 00:03:52.280 I will turn it over  
NOTE Confidence: 0.9955975

00:03:52.280 --> 00:03:53.480 to Katie to say hello  
NOTE Confidence: 0.9955975

00:03:53.480 --> 00:03:54.380 and introduce  
NOTE Confidence: 0.9966562

00:03:54.840 --> 00:03:56.600 our first speaker. Thank you  
NOTE Confidence: 0.9966562

00:03:56.600 --> 00:03:57.480 all so much again for  
NOTE Confidence: 0.9966562

00:03:57.480 --> 00:03:58.220 being here.  
NOTE Confidence: 0.9990287

00:04:03.295 --> 00:04:04.754 Thank you very much,  
NOTE Confidence: 0.9743544

00:04:05.215 --> 00:04:05.715 Sarah.  
NOTE Confidence: 0.98250085

00:04:06.655 --> 00:04:07.775 It really is a pleasure  
NOTE Confidence: 0.98250085

00:04:07.775 --> 00:04:08.894 to be here tonight, and  
NOTE Confidence: 0.98250085

00:04:08.894 --> 00:04:10.095 thank you very much to  
NOTE Confidence: 0.98250085

00:04:10.095 --> 00:04:11.295 all of you for coming  
NOTE Confidence: 0.98250085

00:04:11.295 --> 00:04:12.114 and participating  
NOTE Confidence: 0.99992275

00:04:12.495 --> 00:04:13.474 in this event.  
NOTE Confidence: 0.9968752

00:04:14.180 --> 00:04:15.860 Before I introduce our first

NOTE Confidence: 0.9968752  
00:04:15.860 --> 00:04:16.820 speaker, I'd,  
NOTE Confidence: 0.99318063  
00:04:17.380 --> 00:04:19.640 really like to thank Emily  
NOTE Confidence: 0.686137  
00:04:20.100 --> 00:04:20.600 Montemerlo  
NOTE Confidence: 0.8822836  
00:04:21.300 --> 00:04:22.520 and Renee Gaudette  
NOTE Confidence: 0.9506966  
00:04:22.900 --> 00:04:24.520 who helped put this together  
NOTE Confidence: 0.874397  
00:04:25.060 --> 00:04:26.680 and everybody who's also  
NOTE Confidence: 0.89012295  
00:04:28.245 --> 00:04:29.445 at the tables to give  
NOTE Confidence: 0.89012295  
00:04:29.445 --> 00:04:30.685 you information on lung cancer,  
NOTE Confidence: 0.89012295  
00:04:30.685 --> 00:04:32.904 lung cancer screening, smoking cessation.  
NOTE Confidence: 0.89012295  
00:04:32.965 --> 00:04:33.945 So thank you,  
NOTE Confidence: 0.90913  
00:04:34.565 --> 00:04:35.625 to everybody.  
NOTE Confidence: 0.93405056  
00:04:37.285 --> 00:04:38.885 So, it really is my  
NOTE Confidence: 0.93405056  
00:04:38.885 --> 00:04:40.529 pleasure to introduce our first  
NOTE Confidence: 0.93405056  
00:04:40.529 --> 00:04:42.130 speaker who's gonna be speaking,  
NOTE Confidence: 0.9612703  
00:04:42.529 --> 00:04:45.250 virtually. Doctor Roy Herbst is  
NOTE Confidence: 0.9612703

00:04:45.250 --> 00:04:47.089 the deputy director at the  
NOTE Confidence: 0.9612703

00:04:47.089 --> 00:04:48.770 Yale Cancer Center. He's an  
NOTE Confidence: 0.9612703

00:04:48.770 --> 00:04:50.610 Ensign professor of medicine and  
NOTE Confidence: 0.9612703

00:04:50.610 --> 00:04:52.630 the chief of medical oncology  
NOTE Confidence: 0.9612703

00:04:52.770 --> 00:04:53.510 and hematology  
NOTE Confidence: 0.9997904

00:04:53.889 --> 00:04:54.389 here.  
NOTE Confidence: 0.97415406

00:04:54.845 --> 00:04:56.785 Doctor Herbst is a pioneer  
NOTE Confidence: 0.97415406

00:04:57.085 --> 00:04:58.845 in lung cancer care and  
NOTE Confidence: 0.97415406

00:04:58.845 --> 00:04:59.345 treatment,  
NOTE Confidence: 0.9847508

00:04:59.964 --> 00:05:01.565 and really has advanced our  
NOTE Confidence: 0.9847508

00:05:01.565 --> 00:05:03.565 knowledge of lung cancer over  
NOTE Confidence: 0.9847508

00:05:03.565 --> 00:05:05.824 the years, running clinical trials,  
NOTE Confidence: 0.9847508

00:05:05.884 --> 00:05:06.384 innovative  
NOTE Confidence: 0.99058783

00:05:07.229 --> 00:05:08.750 science, and really leading the  
NOTE Confidence: 0.99058783

00:05:08.750 --> 00:05:10.110 field. And we're so lucky  
NOTE Confidence: 0.99058783

00:05:10.110 --> 00:05:11.069 that he's been here at

NOTE Confidence: 0.99058783

00:05:11.069 --> 00:05:12.289 the Yale Cancer Center,

NOTE Confidence: 0.95434636

00:05:13.069 --> 00:05:14.509 for many years and all

NOTE Confidence: 0.95434636

00:05:14.509 --> 00:05:15.569 have had the opportunity

NOTE Confidence: 0.99459267

00:05:15.870 --> 00:05:17.150 to to to work with

NOTE Confidence: 0.99459267

00:05:17.150 --> 00:05:18.190 him. So,

NOTE Confidence: 0.98862034

00:05:18.750 --> 00:05:20.029 tonight, he's going to tell

NOTE Confidence: 0.98862034

00:05:20.029 --> 00:05:22.050 you about advances in

NOTE Confidence: 0.9893157

00:05:22.404 --> 00:05:24.165 cancer immunotherapy and the things

NOTE Confidence: 0.9893157

00:05:24.165 --> 00:05:25.445 that have happened over the

NOTE Confidence: 0.9893157

00:05:25.445 --> 00:05:26.345 past decade

NOTE Confidence: 0.97838175

00:05:26.885 --> 00:05:28.904 in, in lung cancer immunotherapy,

NOTE Confidence: 0.951142

00:05:30.485 --> 00:05:31.685 in the the lung cancer

NOTE Confidence: 0.951142

00:05:31.685 --> 00:05:33.604 immunotherapy field. So thank you

NOTE Confidence: 0.951142

00:05:33.604 --> 00:05:35.385 very much, doctor Herbst.

NOTE Confidence: 0.99976796

00:05:36.005 --> 00:05:37.125 I'll turn it over to

NOTE Confidence: 0.99976796

00:05:37.125 --> 00:05:37.625 you.  
NOTE Confidence: 0.9862202

00:05:38.759 --> 00:05:40.599 Thanks, and welcome to everyone.  
NOTE Confidence: 0.9862202

00:05:40.599 --> 00:05:42.539 I'm really sorry that I'm,  
NOTE Confidence: 0.97510344

00:05:42.839 --> 00:05:43.800 not with you tonight. If  
NOTE Confidence: 0.97510344

00:05:43.800 --> 00:05:44.680 we could have the first  
NOTE Confidence: 0.97510344

00:05:44.680 --> 00:05:45.580 slide, please.  
NOTE Confidence: 0.9791075

00:05:47.400 --> 00:05:48.599 A little well, you're a  
NOTE Confidence: 0.9791075

00:05:48.599 --> 00:05:49.720 little bit quiet. I'm just  
NOTE Confidence: 0.9791075

00:05:49.720 --> 00:05:50.759 maybe give us one second  
NOTE Confidence: 0.9791075

00:05:50.759 --> 00:05:51.400 to see if we can  
NOTE Confidence: 0.9791075

00:05:51.400 --> 00:05:52.220 make you louder.  
NOTE Confidence: 0.9997223

00:05:52.964 --> 00:05:53.464 Sure.  
NOTE Confidence: 0.8419529

00:05:57.925 --> 00:05:58.805 I can go get some  
NOTE Confidence: 0.8419529

00:05:58.805 --> 00:05:59.785 earbuds too.  
NOTE Confidence: 0.9356872

00:06:00.885 --> 00:06:01.685 I'm not sure. What do  
NOTE Confidence: 0.9356872

00:06:01.685 --> 00:06:02.325 you all think? Can you

NOTE Confidence: 0.9356872  
00:06:02.325 --> 00:06:03.205 hear them okay, or should  
NOTE Confidence: 0.9356872  
00:06:03.205 --> 00:06:04.345 we work on the volume?  
NOTE Confidence: 0.9785984  
00:06:04.645 --> 00:06:06.825 Up. They're saying up. Let's  
NOTE Confidence: 0.9785984  
00:06:07.045 --> 00:06:07.545 see.  
NOTE Confidence: 0.9826374  
00:06:10.930 --> 00:06:12.150 How's this now?  
NOTE Confidence: 0.97940636  
00:06:13.729 --> 00:06:14.629 About the same.  
NOTE Confidence: 0.9733672  
00:06:16.050 --> 00:06:16.550 Well,  
NOTE Confidence: 0.97673434  
00:06:18.129 --> 00:06:19.029 what to do?  
NOTE Confidence: 0.9287732  
00:06:19.409 --> 00:06:20.529 We're working on it from  
NOTE Confidence: 0.9287732  
00:06:20.529 --> 00:06:21.409 our end, seeing if we  
NOTE Confidence: 0.9287732  
00:06:21.409 --> 00:06:22.130 can make you louder. Should  
NOTE Confidence: 0.9287732  
00:06:22.130 --> 00:06:22.930 I do someone here, you  
NOTE Confidence: 0.9287732  
00:06:22.930 --> 00:06:23.295 think?  
NOTE Confidence: 0.9191138  
00:06:23.775 --> 00:06:24.915 I think my data Oh,  
NOTE Confidence: 0.9191138  
00:06:25.055 --> 00:06:25.935 here we go. Do you  
NOTE Confidence: 0.9191138

00:06:25.935 --> 00:06:26.895 wanna go ahead to the  
NOTE Confidence: 0.9191138

00:06:26.895 --> 00:06:28.035 next session?  
NOTE Confidence: 0.9897438

00:06:29.215 --> 00:06:30.095 Oh, I think this might  
NOTE Confidence: 0.9897438

00:06:30.095 --> 00:06:31.795 work. Hold on. Try now.  
NOTE Confidence: 0.9897438

00:06:32.095 --> 00:06:32.595 Hello?  
NOTE Confidence: 0.5695742

00:06:33.535 --> 00:06:35.235 I like that. Thank you.  
NOTE Confidence: 0.9483264

00:06:35.920 --> 00:06:37.520 Okay. I they're trying to  
NOTE Confidence: 0.9483264

00:06:37.520 --> 00:06:38.720 mute me. Well, listen. If  
NOTE Confidence: 0.9483264

00:06:38.720 --> 00:06:39.360 we can have the first  
NOTE Confidence: 0.9483264

00:06:39.360 --> 00:06:40.560 slide, I'm so honored to  
NOTE Confidence: 0.9483264

00:06:40.560 --> 00:06:41.060 be,  
NOTE Confidence: 0.9994375

00:06:41.440 --> 00:06:42.560 joining. I've I've been to  
NOTE Confidence: 0.9994375

00:06:42.560 --> 00:06:43.300 this event  
NOTE Confidence: 0.99438125

00:06:43.680 --> 00:06:44.880 pretty much every year since  
NOTE Confidence: 0.99438125

00:06:44.880 --> 00:06:45.680 I've been here, which is  
NOTE Confidence: 0.99438125

00:06:45.680 --> 00:06:47.120 almost fifteen years. And if

NOTE Confidence: 0.99438125

00:06:47.120 --> 00:06:48.000 we can have the first

NOTE Confidence: 0.99438125

00:06:48.000 --> 00:06:48.320 slide

NOTE Confidence: 0.99971855

00:06:48.995 --> 00:06:49.815 Working on

NOTE Confidence: 0.99852633

00:06:50.995 --> 00:06:52.055 it. Technology.

NOTE Confidence: 0.9995833

00:06:52.595 --> 00:06:53.095 Okay.

NOTE Confidence: 0.99975073

00:06:53.555 --> 00:06:54.055 Okay.

NOTE Confidence: 0.9971621

00:06:54.515 --> 00:06:56.115 So, what I thought I'd

NOTE Confidence: 0.9971621

00:06:56.115 --> 00:06:58.055 do is talk about advancements

NOTE Confidence: 0.9971621

00:06:58.115 --> 00:06:59.395 in immunotherapy. I bet there

NOTE Confidence: 0.9971621

00:06:59.395 --> 00:07:00.195 are some people in the

NOTE Confidence: 0.9971621

00:07:00.195 --> 00:07:02.055 audience who are on immunotherapy,

NOTE Confidence: 0.90944386

00:07:02.355 --> 00:07:03.315 who know someone who's on

NOTE Confidence: 0.90944386

00:07:03.315 --> 00:07:03.815 immunotherapy,

NOTE Confidence: 0.98760515

00:07:04.290 --> 00:07:05.270 who have seen immunotherapy

NOTE Confidence: 0.98631454

00:07:05.730 --> 00:07:07.410 on TV. So I just

NOTE Confidence: 0.98631454

00:07:07.410 --> 00:07:08.450 talk a little bit about  
NOTE Confidence: 0.98631454

00:07:08.450 --> 00:07:09.890 what it is and why  
NOTE Confidence: 0.98631454

00:07:09.890 --> 00:07:11.250 it's important to get us  
NOTE Confidence: 0.98631454

00:07:11.250 --> 00:07:12.850 started tonight and and to  
NOTE Confidence: 0.98631454

00:07:12.850 --> 00:07:13.570 show you that we are  
NOTE Confidence: 0.98631454

00:07:13.570 --> 00:07:15.090 making progress. The next slide,  
NOTE Confidence: 0.98631454

00:07:15.090 --> 00:07:15.590 please.  
NOTE Confidence: 0.9986329

00:07:16.335 --> 00:07:17.375 So the reason I'm not  
NOTE Confidence: 0.9986329

00:07:17.375 --> 00:07:18.755 there is I'm actually in,  
NOTE Confidence: 0.9962694

00:07:19.294 --> 00:07:20.595 New Mexico, Albuquerque  
NOTE Confidence: 0.9435879

00:07:21.055 --> 00:07:22.175 at at a conference that  
NOTE Confidence: 0.9435879

00:07:22.175 --> 00:07:22.914 I'm coleading,  
NOTE Confidence: 0.9816246

00:07:23.535 --> 00:07:24.735 which is, used to be  
NOTE Confidence: 0.9816246

00:07:24.735 --> 00:07:26.514 called diversity in clinical trials.  
NOTE Confidence: 0.9816246

00:07:26.574 --> 00:07:27.294 Now if you hit it  
NOTE Confidence: 0.9816246

00:07:27.294 --> 00:07:28.115 again, please,

NOTE Confidence: 0.96028787  
00:07:28.655 --> 00:07:30.014 Sarah, now it's called excellence  
NOTE Confidence: 0.96028787  
00:07:30.014 --> 00:07:31.215 in clinical trials given the  
NOTE Confidence: 0.96028787  
00:07:31.215 --> 00:07:31.455 current,  
NOTE Confidence: 0.9665898  
00:07:32.470 --> 00:07:33.430 you know, climate in the  
NOTE Confidence: 0.9665898  
00:07:33.430 --> 00:07:34.630 United States, but still the  
NOTE Confidence: 0.9665898  
00:07:34.630 --> 00:07:36.790 same thing. We're teaching eighty  
NOTE Confidence: 0.9665898  
00:07:36.790 --> 00:07:37.290 students,  
NOTE Confidence: 0.9788469  
00:07:38.070 --> 00:07:39.590 young faculty, how to do  
NOTE Confidence: 0.9788469  
00:07:39.590 --> 00:07:41.210 clinical trials in the community.  
NOTE Confidence: 0.9662473  
00:07:41.510 --> 00:07:42.550 And, actually, we have five  
NOTE Confidence: 0.9662473  
00:07:42.550 --> 00:07:43.669 people from Yale here with  
NOTE Confidence: 0.9662473  
00:07:43.669 --> 00:07:46.085 me, including Soyeon Kim, who  
NOTE Confidence: 0.9662473  
00:07:46.085 --> 00:07:46.805 I'll be seeing in a  
NOTE Confidence: 0.9662473  
00:07:46.805 --> 00:07:48.025 few minutes, one of our  
NOTE Confidence: 0.9662473  
00:07:48.245 --> 00:07:50.265 lung cancer doctors. Next slide.  
NOTE Confidence: 0.9993193

00:07:51.365 --> 00:07:51.865 So  
NOTE Confidence: 0.993715

00:07:52.325 --> 00:07:54.165 what Katie, myself, Sarah, and  
NOTE Confidence: 0.993715

00:07:54.165 --> 00:07:55.125 all the people here really  
NOTE Confidence: 0.993715

00:07:55.125 --> 00:07:56.745 do is translational research.  
NOTE Confidence: 0.99596864

00:07:57.205 --> 00:07:58.165 What we're trying to do  
NOTE Confidence: 0.99596864

00:07:58.165 --> 00:07:58.825 is take  
NOTE Confidence: 0.9975801

00:07:59.340 --> 00:08:00.860 discoveries from the bedside on  
NOTE Confidence: 0.9975801

00:08:00.860 --> 00:08:01.440 the left  
NOTE Confidence: 0.96819097

00:08:02.300 --> 00:08:03.740 and and and and understand  
NOTE Confidence: 0.96819097

00:08:03.740 --> 00:08:04.620 what we need and then  
NOTE Confidence: 0.96819097

00:08:04.620 --> 00:08:05.500 go to the bench, the  
NOTE Confidence: 0.96819097

00:08:05.500 --> 00:08:07.500 lab bench. Doctor Paletti has  
NOTE Confidence: 0.96819097

00:08:07.500 --> 00:08:08.780 a lab where she's studying  
NOTE Confidence: 0.96819097

00:08:08.780 --> 00:08:10.320 different models of lung cancer  
NOTE Confidence: 0.96819097

00:08:10.460 --> 00:08:11.740 and then finding new therapies,  
NOTE Confidence: 0.96819097

00:08:11.740 --> 00:08:12.540 and then we bring them

NOTE Confidence: 0.96819097  
00:08:12.540 --> 00:08:13.855 back to the bedside so  
NOTE Confidence: 0.96819097  
00:08:13.855 --> 00:08:15.155 that we can help patients  
NOTE Confidence: 0.96819097  
00:08:15.215 --> 00:08:16.195 with this disease.  
NOTE Confidence: 0.9863901  
00:08:16.815 --> 00:08:17.795 The next slide.  
NOTE Confidence: 0.9986781  
00:08:19.695 --> 00:08:20.995 So what about immunotherapy?  
NOTE Confidence: 0.9995491  
00:08:21.695 --> 00:08:22.515 Next slide.  
NOTE Confidence: 0.99725074  
00:08:23.295 --> 00:08:24.895 So immunotherapy, if we click  
NOTE Confidence: 0.99725074  
00:08:24.895 --> 00:08:25.555 this twice,  
NOTE Confidence: 0.9756898  
00:08:26.015 --> 00:08:27.695 began over a hundred years  
NOTE Confidence: 0.9756898  
00:08:27.695 --> 00:08:28.195 ago,  
NOTE Confidence: 0.8526729  
00:08:28.890 --> 00:08:30.350 by a doctor Coley,  
NOTE Confidence: 0.99817276  
00:08:30.810 --> 00:08:31.690 in New York. What he  
NOTE Confidence: 0.99817276  
00:08:31.690 --> 00:08:32.330 used to do is he  
NOTE Confidence: 0.99817276  
00:08:32.330 --> 00:08:33.390 used to put bacteria  
NOTE Confidence: 0.9663762  
00:08:34.010 --> 00:08:35.870 and actually inject them into,  
NOTE Confidence: 0.9532412

00:08:36.490 --> 00:08:38.090 tumors, and that would create  
NOTE Confidence: 0.9532412

00:08:38.090 --> 00:08:38.750 an inflammation.  
NOTE Confidence: 0.99376243

00:08:39.210 --> 00:08:40.730 And that inflammation brought in  
NOTE Confidence: 0.99376243

00:08:40.730 --> 00:08:42.170 immune cells, and that was  
NOTE Confidence: 0.99376243

00:08:42.170 --> 00:08:43.390 actually the first immunotherapy.  
NOTE Confidence: 0.98267204

00:08:44.250 --> 00:08:45.585 But immunotherapy at Yale, if  
NOTE Confidence: 0.98267204

00:08:45.585 --> 00:08:46.865 we can click again, began  
NOTE Confidence: 0.98267204

00:08:46.865 --> 00:08:48.645 with actually doctor Mario Snow  
NOTE Confidence: 0.95812494

00:08:49.105 --> 00:08:51.265 and, Mario who's actually leaving  
NOTE Confidence: 0.95812494

00:08:51.265 --> 00:08:52.705 us and retiring this year.  
NOTE Confidence: 0.95812494

00:08:52.705 --> 00:08:53.525 But Mario,  
NOTE Confidence: 0.97833073

00:08:55.505 --> 00:08:57.870 sixteen, seventeen years ago, recognized  
NOTE Confidence: 0.97833073

00:08:57.870 --> 00:08:59.470 that immune therapy was something  
NOTE Confidence: 0.97833073

00:08:59.470 --> 00:09:00.850 that would help lung cancer,  
NOTE Confidence: 0.9766384

00:09:01.390 --> 00:09:02.750 melanoma, a type of skin  
NOTE Confidence: 0.9766384

00:09:02.750 --> 00:09:04.510 cancer, kidney cancer, and he

NOTE Confidence: 0.9766384

00:09:04.510 --> 00:09:05.470 brought some of the earliest

NOTE Confidence: 0.9766384

00:09:05.470 --> 00:09:06.990 trials to Yale. On the

NOTE Confidence: 0.9766384

00:09:06.990 --> 00:09:07.730 next slide.

NOTE Confidence: 0.9779299

00:09:08.910 --> 00:09:10.030 And then it's really been

NOTE Confidence: 0.9779299

00:09:10.030 --> 00:09:10.755 a team, and

NOTE Confidence: 0.97452796

00:09:11.235 --> 00:09:12.515 I'm sure doctor Gettinger is

NOTE Confidence: 0.97452796

00:09:12.515 --> 00:09:13.875 there, and he looks the

NOTE Confidence: 0.97452796

00:09:13.875 --> 00:09:14.755 same now as he did

NOTE Confidence: 0.97452796

00:09:14.755 --> 00:09:15.715 in this picture ten years

NOTE Confidence: 0.97452796

00:09:15.715 --> 00:09:17.795 ago. There's doctor Gettinger, doctor

NOTE Confidence: 0.97452796

00:09:17.795 --> 00:09:19.715 Snow, doctor Kluger, and then

NOTE Confidence: 0.97452796

00:09:19.715 --> 00:09:21.635 Liping Shen. These are really

NOTE Confidence: 0.97452796

00:09:21.635 --> 00:09:23.040 the pioneers here who who

NOTE Confidence: 0.97452796

00:09:23.040 --> 00:09:24.640 started working with immunotherapy at

NOTE Confidence: 0.97452796

00:09:24.640 --> 00:09:26.420 Yale in early phase trials,

NOTE Confidence: 0.97452796

00:09:26.640 --> 00:09:27.519 and some of you may  
NOTE Confidence: 0.97452796

00:09:27.519 --> 00:09:28.559 have even been on them.  
NOTE Confidence: 0.97452796

00:09:28.559 --> 00:09:29.380 Next slide.  
NOTE Confidence: 0.96646357

00:09:30.000 --> 00:09:31.679 And Li Ping, who's highly  
NOTE Confidence: 0.96646357

00:09:31.679 --> 00:09:33.200 honored scientist in all the  
NOTE Confidence: 0.96646357

00:09:33.200 --> 00:09:34.179 national societies,  
NOTE Confidence: 0.9861025

00:09:34.959 --> 00:09:36.000 really was one of the  
NOTE Confidence: 0.9861025

00:09:36.000 --> 00:09:36.820 first people,  
NOTE Confidence: 0.9681805

00:09:37.225 --> 00:09:38.345 top four or five in  
NOTE Confidence: 0.9681805

00:09:38.345 --> 00:09:39.945 the world, who discovered what's  
NOTE Confidence: 0.9681805

00:09:39.945 --> 00:09:41.785 called PD L1, which is  
NOTE Confidence: 0.9681805

00:09:41.785 --> 00:09:43.705 what makes immunotherapy possible. And  
NOTE Confidence: 0.9681805

00:09:43.705 --> 00:09:44.505 I'm gonna show you now  
NOTE Confidence: 0.9681805

00:09:44.505 --> 00:09:45.465 on the next few slides  
NOTE Confidence: 0.9681805

00:09:45.465 --> 00:09:46.365 what that is.  
NOTE Confidence: 0.9983352

00:09:46.905 --> 00:09:48.105 So many of you have

NOTE Confidence: 0.9983352

00:09:48.105 --> 00:09:48.605 seen

NOTE Confidence: 0.99856883

00:09:48.985 --> 00:09:50.610 immunotherapy, but what is it?

NOTE Confidence: 0.99856883

00:09:50.850 --> 00:09:52.450 Well, the immune system is

NOTE Confidence: 0.99856883

00:09:52.450 --> 00:09:53.269 very special.

NOTE Confidence: 0.97513926

00:09:53.649 --> 00:09:55.170 It's specific. You know, you

NOTE Confidence: 0.97513926

00:09:55.170 --> 00:09:56.149 don't wanna make

NOTE Confidence: 0.9727287

00:09:56.529 --> 00:09:58.050 a reaction against something that's

NOTE Confidence: 0.9727287

00:09:58.050 --> 00:09:59.890 normal. Otherwise, you'll have something

NOTE Confidence: 0.9727287

00:09:59.890 --> 00:10:01.089 like poison ivy. You'll have

NOTE Confidence: 0.9727287

00:10:01.089 --> 00:10:02.149 a very bad problem.

NOTE Confidence: 0.9862173

00:10:02.450 --> 00:10:04.070 The immune system has memory,

NOTE Confidence: 0.9862173

00:10:04.130 --> 00:10:05.535 meaning once you have a

NOTE Confidence: 0.9862173

00:10:05.535 --> 00:10:07.154 reaction, once you have antibodies,

NOTE Confidence: 0.9862173

00:10:07.295 --> 00:10:08.654 they stay around, and it

NOTE Confidence: 0.9862173

00:10:08.654 --> 00:10:09.695 can be adaptive. It can

NOTE Confidence: 0.9862173

00:10:09.695 --> 00:10:11.235 change depending on the circumstance.

NOTE Confidence: 0.975502

00:10:11.695 --> 00:10:12.575 So what you see here

NOTE Confidence: 0.975502

00:10:12.575 --> 00:10:13.454 is you see the tumor

NOTE Confidence: 0.975502

00:10:13.454 --> 00:10:14.975 cell. And see that little

NOTE Confidence: 0.975502

00:10:14.975 --> 00:10:16.755 red dot? That's the abnormal

NOTE Confidence: 0.975502

00:10:16.815 --> 00:10:18.095 tumor protein on the tumor

NOTE Confidence: 0.975502

00:10:18.095 --> 00:10:19.410 cell. So So what happens

NOTE Confidence: 0.975502

00:10:19.410 --> 00:10:20.610 is, if you click click

NOTE Confidence: 0.975502

00:10:20.610 --> 00:10:21.429 again, please,

NOTE Confidence: 0.9207188

00:10:22.130 --> 00:10:23.730 the immune system, the t

NOTE Confidence: 0.9207188

00:10:23.730 --> 00:10:25.649 cell, can recognize through a

NOTE Confidence: 0.9207188

00:10:25.649 --> 00:10:27.029 very specific mechanism.

NOTE Confidence: 0.9869447

00:10:27.410 --> 00:10:29.089 It can recognize that that

NOTE Confidence: 0.9869447

00:10:29.089 --> 00:10:29.910 tumor cell,

NOTE Confidence: 0.9820779

00:10:30.210 --> 00:10:31.570 and you would want that

NOTE Confidence: 0.9820779

00:10:31.570 --> 00:10:33.084 to to kill it. But

NOTE Confidence: 0.9820779

00:10:33.084 --> 00:10:34.365 that doesn't happen because if

NOTE Confidence: 0.9820779

00:10:34.365 --> 00:10:35.325 you look at the next

NOTE Confidence: 0.9820779

00:10:35.325 --> 00:10:35.825 click,

NOTE Confidence: 0.9790247

00:10:36.925 --> 00:10:38.524 there's there's a loop. There's

NOTE Confidence: 0.9790247

00:10:38.524 --> 00:10:40.464 a feedback loop that protects

NOTE Confidence: 0.9790247

00:10:40.605 --> 00:10:42.365 the immune system from killing

NOTE Confidence: 0.9790247

00:10:42.365 --> 00:10:43.565 that tumor. And see that

NOTE Confidence: 0.9790247

00:10:43.565 --> 00:10:45.404 little red line? That's an

NOTE Confidence: 0.9790247

00:10:45.404 --> 00:10:47.485 inhibition that occurs through something

NOTE Confidence: 0.9790247

00:10:47.485 --> 00:10:48.705 called PD one.

NOTE Confidence: 0.964018

00:10:49.679 --> 00:10:50.720 So the bottom line, when

NOTE Confidence: 0.964018

00:10:50.720 --> 00:10:51.600 you hear about a PD

NOTE Confidence: 0.964018

00:10:51.600 --> 00:10:53.120 one inhibitor or a PD

NOTE Confidence: 0.964018

00:10:53.120 --> 00:10:54.559 l one inhibitor, what it's

NOTE Confidence: 0.964018

00:10:54.559 --> 00:10:55.279 trying to do, if you

NOTE Confidence: 0.964018

00:10:55.279 --> 00:10:56.339 click again, please,  
NOTE Confidence: 0.998673

00:10:56.720 --> 00:10:57.839 it's trying to block that  
NOTE Confidence: 0.998673

00:10:57.839 --> 00:10:58.339 interaction.  
NOTE Confidence: 0.98203444

00:10:58.800 --> 00:11:00.240 These drugs that one gives  
NOTE Confidence: 0.98203444

00:11:00.240 --> 00:11:01.279 to a patient that some  
NOTE Confidence: 0.98203444

00:11:01.279 --> 00:11:02.355 of you might take, that  
NOTE Confidence: 0.98203444

00:11:02.355 --> 00:11:03.554 your friend or family member  
NOTE Confidence: 0.98203444

00:11:03.554 --> 00:11:05.415 takes, it blocks that interaction.  
NOTE Confidence: 0.98203444

00:11:05.635 --> 00:11:06.595 And what that does is  
NOTE Confidence: 0.98203444

00:11:06.595 --> 00:11:08.035 it allows the immune system  
NOTE Confidence: 0.98203444

00:11:08.035 --> 00:11:09.154 to do its thing against  
NOTE Confidence: 0.98203444

00:11:09.154 --> 00:11:10.834 the tumor. It recognizes the  
NOTE Confidence: 0.98203444

00:11:10.834 --> 00:11:12.214 tumor as a foreign invader.  
NOTE Confidence: 0.98203444

00:11:12.274 --> 00:11:13.235 And if you click again,  
NOTE Confidence: 0.98203444

00:11:13.235 --> 00:11:15.395 you'll see that, it can  
NOTE Confidence: 0.98203444

00:11:15.395 --> 00:11:16.535 have amazing results.

NOTE Confidence: 0.9785699  
00:11:17.000 --> 00:11:18.440 So Maureen shown here, and  
NOTE Confidence: 0.9785699  
00:11:18.440 --> 00:11:19.160 she might even be in  
NOTE Confidence: 0.9785699  
00:11:19.160 --> 00:11:19.740 the audience,  
NOTE Confidence: 0.9775312  
00:11:20.760 --> 00:11:21.720 was one of the first  
NOTE Confidence: 0.9775312  
00:11:21.720 --> 00:11:23.639 patients who was treated. And  
NOTE Confidence: 0.9775312  
00:11:23.639 --> 00:11:24.519 you can see that, you  
NOTE Confidence: 0.9775312  
00:11:24.519 --> 00:11:27.000 know, she's now fifteen, fourteen  
NOTE Confidence: 0.9775312  
00:11:27.000 --> 00:11:28.679 years in, and she received  
NOTE Confidence: 0.9775312  
00:11:28.679 --> 00:11:30.265 a phase one trial. So  
NOTE Confidence: 0.9775312  
00:11:30.265 --> 00:11:31.145 that's the beauty of a  
NOTE Confidence: 0.9775312  
00:11:31.145 --> 00:11:32.925 place like ours at Yale,  
NOTE Confidence: 0.9775312  
00:11:33.225 --> 00:11:34.684 the top clinic at Smilow,  
NOTE Confidence: 0.9775312  
00:11:34.825 --> 00:11:35.945 is we have drugs that  
NOTE Confidence: 0.9775312  
00:11:35.945 --> 00:11:38.184 are early drugs that were  
NOTE Confidence: 0.9775312  
00:11:38.184 --> 00:11:39.945 clinical trials. Now they're the  
NOTE Confidence: 0.9775312

00:11:39.945 --> 00:11:41.005 standard of care.  
NOTE Confidence: 0.9874988

00:11:41.464 --> 00:11:42.825 Twenty, thirty million people have  
NOTE Confidence: 0.9874988

00:11:42.825 --> 00:11:44.265 been treated worldwide with these  
NOTE Confidence: 0.9874988

00:11:44.265 --> 00:11:45.570 drugs. But the first trials  
NOTE Confidence: 0.9874988

00:11:45.570 --> 00:11:46.610 were done here at Yale  
NOTE Confidence: 0.9874988

00:11:46.610 --> 00:11:47.670 with great effect.  
NOTE Confidence: 0.9881979

00:11:48.209 --> 00:11:49.490 That's the good news. The  
NOTE Confidence: 0.9881979

00:11:49.490 --> 00:11:50.370 bad news is they don't  
NOTE Confidence: 0.9881979

00:11:50.370 --> 00:11:51.410 always work quite as well  
NOTE Confidence: 0.9881979

00:11:51.410 --> 00:11:52.769 as we want. Like any  
NOTE Confidence: 0.9881979

00:11:52.769 --> 00:11:53.829 process in nature,  
NOTE Confidence: 0.9724393

00:11:54.209 --> 00:11:55.329 tumors learn how to become  
NOTE Confidence: 0.9724393

00:11:55.329 --> 00:11:56.690 resistant, and that's why we're  
NOTE Confidence: 0.9724393

00:11:56.690 --> 00:11:59.010 continuing to fight find cancers  
NOTE Confidence: 0.9724393

00:11:59.010 --> 00:12:00.585 earlier and use these drugs.  
NOTE Confidence: 0.99913645

00:12:01.145 --> 00:12:02.045 Next slide.

NOTE Confidence: 0.97839904  
00:12:03.304 --> 00:12:04.585 This is actually another drug.  
NOTE Confidence: 0.97839904  
00:12:04.585 --> 00:12:06.184 It was originally a phase  
NOTE Confidence: 0.97839904  
00:12:06.184 --> 00:12:08.265 one trial, MPDL thirty two  
NOTE Confidence: 0.97839904  
00:12:08.265 --> 00:12:09.465 eighty. Now the drug is  
NOTE Confidence: 0.97839904  
00:12:09.465 --> 00:12:11.005 known as atezolab. Atezolizumab,  
NOTE Confidence: 0.96693575  
00:12:11.705 --> 00:12:12.505 we did some of the  
NOTE Confidence: 0.96693575  
00:12:12.505 --> 00:12:13.705 earliest studies with this drug  
NOTE Confidence: 0.96693575  
00:12:13.705 --> 00:12:14.770 at Yale. You can see  
NOTE Confidence: 0.96693575  
00:12:14.770 --> 00:12:15.890 on the top someone with  
NOTE Confidence: 0.96693575  
00:12:15.890 --> 00:12:17.170 lung cancer. See those red  
NOTE Confidence: 0.96693575  
00:12:17.170 --> 00:12:18.770 lines? Those are lung tumors.  
NOTE Confidence: 0.96693575  
00:12:18.770 --> 00:12:19.650 And look look how well  
NOTE Confidence: 0.96693575  
00:12:19.650 --> 00:12:20.390 they responded  
NOTE Confidence: 0.9901439  
00:12:20.770 --> 00:12:21.890 just after eight to ten  
NOTE Confidence: 0.9901439  
00:12:21.890 --> 00:12:23.250 weeks on the drug. You  
NOTE Confidence: 0.9901439

00:12:23.250 --> 00:12:24.290 don't see there's nothing where  
NOTE Confidence: 0.9901439

00:12:24.290 --> 00:12:25.330 those arrows are on the  
NOTE Confidence: 0.9901439

00:12:25.330 --> 00:12:25.830 right.  
NOTE Confidence: 0.9708558

00:12:26.210 --> 00:12:26.929 If you look at the  
NOTE Confidence: 0.9708558

00:12:26.929 --> 00:12:27.890 lower left, what you can  
NOTE Confidence: 0.9708558

00:12:27.890 --> 00:12:29.375 see is CD eight cells,  
NOTE Confidence: 0.9708558

00:12:29.375 --> 00:12:30.415 which are the killer T  
NOTE Confidence: 0.9708558

00:12:30.415 --> 00:12:31.455 cells, the ones we want  
NOTE Confidence: 0.9708558

00:12:31.455 --> 00:12:32.675 to upregulate.  
NOTE Confidence: 0.99297935

00:12:33.135 --> 00:12:34.015 You can see they're very  
NOTE Confidence: 0.99297935

00:12:34.015 --> 00:12:34.835 low pretreatment,  
NOTE Confidence: 0.9853653

00:12:35.215 --> 00:12:36.335 but posttreatment, there are a  
NOTE Confidence: 0.9853653

00:12:36.335 --> 00:12:37.615 lot of them. So this  
NOTE Confidence: 0.9853653

00:12:37.615 --> 00:12:38.575 is what we can do.  
NOTE Confidence: 0.9853653

00:12:38.575 --> 00:12:40.495 We can reactivate the immune  
NOTE Confidence: 0.9853653

00:12:40.495 --> 00:12:40.995 system

NOTE Confidence: 0.9948465

00:12:41.309 --> 00:12:43.710 with these, checkpoint inhibitors. It's

NOTE Confidence: 0.9948465

00:12:43.710 --> 00:12:44.610 really fantastic.

NOTE Confidence: 0.9889723

00:12:45.309 --> 00:12:46.429 I've never seen anything like

NOTE Confidence: 0.9889723

00:12:46.429 --> 00:12:47.150 that. In fact, I'm gonna

NOTE Confidence: 0.9889723

00:12:47.150 --> 00:12:48.190 be talking to the students

NOTE Confidence: 0.9889723

00:12:48.190 --> 00:12:49.630 here at at this course

NOTE Confidence: 0.9889723

00:12:49.630 --> 00:12:51.490 tonight in my opening lecture

NOTE Confidence: 0.9889723

00:12:51.550 --> 00:12:52.670 about the progress we've made

NOTE Confidence: 0.9889723

00:12:52.670 --> 00:12:53.870 in lung cancer, and this

NOTE Confidence: 0.9889723

00:12:53.870 --> 00:12:54.590 is just part of it.

NOTE Confidence: 0.9889723

00:12:54.590 --> 00:12:55.390 And you're gonna hear a

NOTE Confidence: 0.9889723

00:12:55.390 --> 00:12:56.635 lot tonight. You're gonna hear

NOTE Confidence: 0.9889723

00:12:56.635 --> 00:12:57.835 about what we're doing, and

NOTE Confidence: 0.9889723

00:12:57.835 --> 00:12:59.054 and you're gonna hear about

NOTE Confidence: 0.9695147

00:12:59.595 --> 00:13:01.915 advanced disease, early disease, and

NOTE Confidence: 0.9695147

00:13:01.915 --> 00:13:03.755 about screening and prevention. On

NOTE Confidence: 0.9695147

00:13:03.755 --> 00:13:04.654 the next slide.

NOTE Confidence: 0.9472026

00:13:05.595 --> 00:13:06.635 And then this is just,

NOTE Confidence: 0.9472026

00:13:07.035 --> 00:13:08.714 doctor Goldberg, you know, who,

NOTE Confidence: 0.9472026

00:13:08.795 --> 00:13:10.780 you know, professor Goldberg now.

NOTE Confidence: 0.96397173

00:13:11.640 --> 00:13:13.160 Doctor Goldberg, actually, when she

NOTE Confidence: 0.96397173

00:13:13.160 --> 00:13:14.600 came here, in her early

NOTE Confidence: 0.96397173

00:13:14.600 --> 00:13:16.200 career working with doctor Kluger,

NOTE Confidence: 0.96397173

00:13:16.200 --> 00:13:16.860 the melanoma,

NOTE Confidence: 0.9665835

00:13:17.320 --> 00:13:18.840 leader, and doctor Chang, who's

NOTE Confidence: 0.9665835

00:13:18.840 --> 00:13:19.960 our neurosurgeon, some of you

NOTE Confidence: 0.9665835

00:13:19.960 --> 00:13:20.840 might know her. She does

NOTE Confidence: 0.9665835

00:13:20.840 --> 00:13:22.204 all the the the radiation

NOTE Confidence: 0.9665835

00:13:22.204 --> 00:13:23.485 to the brain. They did

NOTE Confidence: 0.9665835

00:13:23.485 --> 00:13:24.684 a study where they actually

NOTE Confidence: 0.9665835

00:13:24.684 --> 00:13:26.065 took a drug, pembrolizumab.

NOTE Confidence: 0.98599565

00:13:26.605 --> 00:13:27.245 Some of you might know

NOTE Confidence: 0.98599565

00:13:27.245 --> 00:13:28.684 it as Keytruda, and did

NOTE Confidence: 0.98599565

00:13:28.684 --> 00:13:30.225 the very, very first study

NOTE Confidence: 0.98599565

00:13:30.285 --> 00:13:31.565 where they took patients that

NOTE Confidence: 0.98599565

00:13:31.565 --> 00:13:32.625 had brain disease,

NOTE Confidence: 0.9709063

00:13:33.084 --> 00:13:34.365 cancer in the brain, and

NOTE Confidence: 0.9709063

00:13:34.365 --> 00:13:35.985 they didn't radiate those patients.

NOTE Confidence: 0.9709063

00:13:36.080 --> 00:13:37.200 But they gave those patients

NOTE Confidence: 0.9709063

00:13:37.200 --> 00:13:39.040 this drug, Keytruda. And you

NOTE Confidence: 0.9709063

00:13:39.040 --> 00:13:40.480 can see, those two red

NOTE Confidence: 0.9709063

00:13:40.480 --> 00:13:41.760 lines that tumors in the

NOTE Confidence: 0.9709063

00:13:41.760 --> 00:13:43.780 brain responded. This was phenomenal

NOTE Confidence: 0.9709063

00:13:43.840 --> 00:13:45.520 because why take radiation when

NOTE Confidence: 0.9709063

00:13:45.520 --> 00:13:46.640 the immune therapy will do

NOTE Confidence: 0.9709063

00:13:46.640 --> 00:13:47.679 it? And I can tell

NOTE Confidence: 0.9709063

00:13:47.679 --> 00:13:48.880 you that I remember when  
NOTE Confidence: 0.9709063

00:13:48.880 --> 00:13:50.240 they called Sarah and and  
NOTE Confidence: 0.9709063

00:13:50.240 --> 00:13:51.975 Harriet about president Carter, you  
NOTE Confidence: 0.9709063

00:13:51.975 --> 00:13:53.415 know, who had melanoma. For  
NOTE Confidence: 0.9709063

00:13:53.415 --> 00:13:54.455 ten years, he lived with  
NOTE Confidence: 0.9709063

00:13:54.455 --> 00:13:56.055 brain metastases because he got  
NOTE Confidence: 0.9709063

00:13:56.055 --> 00:13:57.195 Keytruda pembrolizumab  
NOTE Confidence: 0.99765545

00:13:57.735 --> 00:13:59.335 as per the routine developed  
NOTE Confidence: 0.99765545

00:13:59.335 --> 00:14:01.015 here at Yale. Next slide.  
NOTE Confidence: 0.99765545

00:14:01.015 --> 00:14:02.855 I'm just about done. So,  
NOTE Confidence: 0.937768

00:14:03.575 --> 00:14:04.695 we already saw this. Next  
NOTE Confidence: 0.937768

00:14:04.695 --> 00:14:05.655 slide. I should should have  
NOTE Confidence: 0.937768

00:14:05.655 --> 00:14:06.720 removed that. So we have  
NOTE Confidence: 0.937768

00:14:06.720 --> 00:14:08.260 a spore. Katie and I,  
NOTE Confidence: 0.93919563

00:14:08.640 --> 00:14:10.080 lead a lead a a  
NOTE Confidence: 0.93919563

00:14:10.080 --> 00:14:11.600 large grant here at Yale,

NOTE Confidence: 0.93919563  
00:14:11.600 --> 00:14:12.959 so we're constantly trying to  
NOTE Confidence: 0.93919563  
00:14:12.959 --> 00:14:14.080 raise the bar. And if  
NOTE Confidence: 0.93919563  
00:14:14.080 --> 00:14:15.279 we just click quickly because  
NOTE Confidence: 0.93919563  
00:14:15.279 --> 00:14:16.399 my time is running out,  
NOTE Confidence: 0.93919563  
00:14:16.399 --> 00:14:17.140 we're studying  
NOTE Confidence: 0.9695409  
00:14:17.520 --> 00:14:19.185 on the first project, how  
NOTE Confidence: 0.9695409  
00:14:19.185 --> 00:14:20.545 how to work and and  
NOTE Confidence: 0.9695409  
00:14:20.545 --> 00:14:21.505 and do even better with  
NOTE Confidence: 0.9695409  
00:14:21.505 --> 00:14:22.785 immune therapy because we know  
NOTE Confidence: 0.9695409  
00:14:22.785 --> 00:14:24.385 sometimes the immune cells can't  
NOTE Confidence: 0.9695409  
00:14:24.385 --> 00:14:25.185 get to the tumor. There  
NOTE Confidence: 0.9695409  
00:14:25.345 --> 00:14:26.545 there's a force field, so  
NOTE Confidence: 0.9695409  
00:14:26.545 --> 00:14:27.905 we're figuring that out. We're  
NOTE Confidence: 0.9695409  
00:14:27.905 --> 00:14:29.185 also figuring out how to  
NOTE Confidence: 0.9695409  
00:14:29.185 --> 00:14:30.625 deal with targeted therapy that  
NOTE Confidence: 0.9695409

00:14:30.625 --> 00:14:31.825 you'll hear about from Scott

NOTE Confidence: 0.9695409

00:14:31.825 --> 00:14:33.365 next. And next slide.

NOTE Confidence: 0.9824733

00:14:35.390 --> 00:14:36.350 Here's the group. This is

NOTE Confidence: 0.9824733

00:14:36.350 --> 00:14:37.150 my last slide. It's a

NOTE Confidence: 0.9824733

00:14:37.150 --> 00:14:38.910 team. I'm just so proud

NOTE Confidence: 0.9824733

00:14:38.910 --> 00:14:39.710 to have been a member

NOTE Confidence: 0.9824733

00:14:39.710 --> 00:14:40.670 of this team and being

NOTE Confidence: 0.9824733

00:14:40.670 --> 00:14:41.870 a member of this team.

NOTE Confidence: 0.9824733

00:14:41.870 --> 00:14:43.310 This is why, even though

NOTE Confidence: 0.9824733

00:14:43.310 --> 00:14:44.670 it's it's still pretty early

NOTE Confidence: 0.9824733

00:14:44.670 --> 00:14:45.630 here, I I wanted to

NOTE Confidence: 0.9824733

00:14:45.630 --> 00:14:46.589 make sure that I could

NOTE Confidence: 0.9824733

00:14:46.589 --> 00:14:48.255 get on, the call today

NOTE Confidence: 0.9824733

00:14:48.255 --> 00:14:49.295 to tell you how excited

NOTE Confidence: 0.9824733

00:14:49.295 --> 00:14:50.415 I have been am about

NOTE Confidence: 0.9824733

00:14:50.415 --> 00:14:51.535 this wonderful team that you're

NOTE Confidence: 0.9824733

00:14:51.535 --> 00:14:52.975 gonna hear from tonight. Thank

NOTE Confidence: 0.9824733

00:14:52.975 --> 00:14:54.095 you all for having your

NOTE Confidence: 0.9824733

00:14:54.095 --> 00:14:55.055 trust in us, and I

NOTE Confidence: 0.9824733

00:14:55.055 --> 00:14:56.014 look forward. I'm gonna watch

NOTE Confidence: 0.9824733

00:14:56.014 --> 00:14:56.975 the program for the next

NOTE Confidence: 0.9824733

00:14:56.975 --> 00:14:58.514 hour myself. So thank you.

NOTE Confidence: 0.9941119

00:15:04.279 --> 00:15:05.720 Thank you very much, Roy.

NOTE Confidence: 0.9941119

00:15:05.720 --> 00:15:07.160 And we have time for

NOTE Confidence: 0.9941119

00:15:07.160 --> 00:15:08.459 a couple of questions.

NOTE Confidence: 0.97530735

00:15:10.360 --> 00:15:12.200 Are there any questions? And,

NOTE Confidence: 0.97530735

00:15:12.200 --> 00:15:13.160 Katie, you might wanna tell

NOTE Confidence: 0.97530735

00:15:13.160 --> 00:15:14.540 them what this picture is.

NOTE Confidence: 0.999136

00:15:15.455 --> 00:15:16.815 Oh, sure. This is a

NOTE Confidence: 0.999136

00:15:16.815 --> 00:15:17.315 picture

NOTE Confidence: 0.9935173

00:15:17.855 --> 00:15:18.335 from,

NOTE Confidence: 0.99206764

00:15:18.735 --> 00:15:20.495 one of our lung spore  
NOTE Confidence: 0.99206764

00:15:20.495 --> 00:15:22.755 meetings that we hosted here  
NOTE Confidence: 0.97483206

00:15:23.215 --> 00:15:25.135 in June of twenty twenty  
NOTE Confidence: 0.97483206

00:15:25.135 --> 00:15:26.655 four at Yale. So this  
NOTE Confidence: 0.97483206

00:15:26.655 --> 00:15:28.095 is a specialized program of  
NOTE Confidence: 0.97483206

00:15:28.095 --> 00:15:30.400 research excellence, and we hold  
NOTE Confidence: 0.97483206

00:15:30.400 --> 00:15:31.600 one, a grant on this  
NOTE Confidence: 0.97483206

00:15:31.600 --> 00:15:32.800 in lung cancer. And so  
NOTE Confidence: 0.97483206

00:15:32.800 --> 00:15:34.420 we hosted all the other,  
NOTE Confidence: 0.94524574

00:15:35.120 --> 00:15:36.800 lung spores from across the  
NOTE Confidence: 0.94524574

00:15:36.800 --> 00:15:37.300 nation.  
NOTE Confidence: 0.9993289

00:15:37.920 --> 00:15:39.300 And we took the opportunity  
NOTE Confidence: 0.9989981

00:15:39.760 --> 00:15:41.520 in twenty twenty four to  
NOTE Confidence: 0.9989981

00:15:41.520 --> 00:15:43.460 really recognize the anniversary  
NOTE Confidence: 0.96099013

00:15:44.405 --> 00:15:45.465 of the of the discovery  
NOTE Confidence: 0.96099013

00:15:45.525 --> 00:15:47.525 of eGFR mutations in lung

NOTE Confidence: 0.96099013  
00:15:47.525 --> 00:15:49.045 cancer. They were discovered in  
NOTE Confidence: 0.96099013  
00:15:49.045 --> 00:15:50.245 two thousand and four, so  
NOTE Confidence: 0.96099013  
00:15:50.245 --> 00:15:51.705 it was the twentieth anniversary.  
NOTE Confidence: 0.9921686  
00:15:52.405 --> 00:15:53.925 And we hosted this event  
NOTE Confidence: 0.9921686  
00:15:53.925 --> 00:15:55.125 here and had all of  
NOTE Confidence: 0.9921686  
00:15:55.125 --> 00:15:56.565 the people who discovered the  
NOTE Confidence: 0.9921686  
00:15:56.565 --> 00:15:58.005 mutations and the people who  
NOTE Confidence: 0.9921686  
00:15:58.005 --> 00:15:59.529 developed the therapies,  
NOTE Confidence: 0.9739133  
00:15:59.910 --> 00:16:00.949 that are used now to  
NOTE Confidence: 0.9739133  
00:16:00.949 --> 00:16:02.790 treat EGFR driven lung cancer.  
NOTE Confidence: 0.9739133  
00:16:02.790 --> 00:16:03.750 So it was very a  
NOTE Confidence: 0.9739133  
00:16:03.750 --> 00:16:04.569 very special,  
NOTE Confidence: 0.999789  
00:16:05.269 --> 00:16:05.769 occasion.  
NOTE Confidence: 0.9711373  
00:16:06.310 --> 00:16:07.430 It was quite a powerhouse  
NOTE Confidence: 0.9711373  
00:16:07.430 --> 00:16:09.029 of lung cancer experts. And,  
NOTE Confidence: 0.9711373

00:16:09.029 --> 00:16:09.990 you know, whenever we take  
NOTE Confidence: 0.9711373

00:16:09.990 --> 00:16:11.235 care of you, we're always  
NOTE Confidence: 0.9711373

00:16:11.235 --> 00:16:12.435 asking others, you know, what's  
NOTE Confidence: 0.9711373

00:16:12.435 --> 00:16:13.655 going on in other places.  
NOTE Confidence: 0.9711373

00:16:13.875 --> 00:16:14.835 Look in the very upper  
NOTE Confidence: 0.9711373

00:16:14.835 --> 00:16:16.435 left. That's Tom Lynch looking  
NOTE Confidence: 0.9711373

00:16:16.435 --> 00:16:18.115 a little askance there. Top  
NOTE Confidence: 0.9711373

00:16:18.115 --> 00:16:19.315 left, you know, our former  
NOTE Confidence: 0.9711373

00:16:19.315 --> 00:16:20.915 director, but everyone came for  
NOTE Confidence: 0.9711373

00:16:20.915 --> 00:16:21.795 this because they were so  
NOTE Confidence: 0.9711373

00:16:21.795 --> 00:16:23.095 excited about the collaborations.  
NOTE Confidence: 0.9941919

00:16:25.149 --> 00:16:26.449 So any questions?  
NOTE Confidence: 0.9742869

00:16:26.750 --> 00:16:28.290 If not, I'm gonna ask,  
NOTE Confidence: 0.9742869

00:16:28.589 --> 00:16:29.889 you a question, Roy.  
NOTE Confidence: 0.99719197

00:16:31.389 --> 00:16:32.509 What are some of the  
NOTE Confidence: 0.99719197

00:16:32.509 --> 00:16:33.490 other immunotherapeutic

NOTE Confidence: 0.9996027

00:16:34.110 --> 00:16:35.730 approaches that are being developed

NOTE Confidence: 0.99681

00:16:36.045 --> 00:16:37.085 now? So what are some

NOTE Confidence: 0.99681

00:16:37.085 --> 00:16:37.964 of the things on the

NOTE Confidence: 0.99681

00:16:37.964 --> 00:16:39.585 horizon in terms of immunotherapies

NOTE Confidence: 0.99675786

00:16:40.045 --> 00:16:41.245 that we should be thinking

NOTE Confidence: 0.99675786

00:16:41.245 --> 00:16:42.524 about and keeping an eye

NOTE Confidence: 0.99675786

00:16:42.524 --> 00:16:43.745 out in lung cancer

NOTE Confidence: 0.9671987

00:16:44.125 --> 00:16:45.904 beyond immune checkpoint inhibitors?

NOTE Confidence: 0.97516704

00:16:46.605 --> 00:16:47.964 Right. So that's a great

NOTE Confidence: 0.97516704

00:16:47.964 --> 00:16:49.325 question. So the immune checkpoint

NOTE Confidence: 0.97516704

00:16:49.325 --> 00:16:51.570 inhibitors relieve the block. So

NOTE Confidence: 0.97516704

00:16:51.570 --> 00:16:52.950 that's the first step because,

NOTE Confidence: 0.97516704

00:16:53.010 --> 00:16:54.530 you know, in order to

NOTE Confidence: 0.97516704

00:16:54.530 --> 00:16:55.730 get the water in yet,

NOTE Confidence: 0.97516704

00:16:55.730 --> 00:16:57.250 you have to relieve the

NOTE Confidence: 0.97516704

00:16:57.250 --> 00:16:59.170 block. But then we need  
NOTE Confidence: 0.97516704

00:16:59.170 --> 00:17:00.370 ways to bring more immune  
NOTE Confidence: 0.97516704

00:17:00.370 --> 00:17:02.130 cells into the tumor. And  
NOTE Confidence: 0.97516704

00:17:02.130 --> 00:17:03.170 now we have this whole  
NOTE Confidence: 0.97516704

00:17:03.170 --> 00:17:04.705 field of what's called T  
NOTE Confidence: 0.97516704

00:17:04.705 --> 00:17:05.525 cell engagers.  
NOTE Confidence: 0.96590793

00:17:06.065 --> 00:17:07.585 They're they're molecules that actually  
NOTE Confidence: 0.96590793

00:17:07.585 --> 00:17:09.345 go to the tumor, to  
NOTE Confidence: 0.96590793

00:17:09.345 --> 00:17:09.985 the to the,  
NOTE Confidence: 0.99296075

00:17:10.545 --> 00:17:12.065 the cells around the tumor.  
NOTE Confidence: 0.99296075

00:17:12.065 --> 00:17:13.285 We call that the stroma,  
NOTE Confidence: 0.99296075

00:17:13.425 --> 00:17:14.085 the microenvironment,  
NOTE Confidence: 0.98557013

00:17:14.625 --> 00:17:15.985 and they actually attract T  
NOTE Confidence: 0.98557013

00:17:15.985 --> 00:17:17.200 cells. We call them t  
NOTE Confidence: 0.98557013

00:17:17.200 --> 00:17:17.940 cell engagers.  
NOTE Confidence: 0.9902684

00:17:18.240 --> 00:17:19.279 You might hear them called

NOTE Confidence: 0.9902684

00:17:19.279 --> 00:17:20.500 bispecific antibodies.

NOTE Confidence: 0.94287646

00:17:20.880 --> 00:17:22.000 In small cell lung cancer,

NOTE Confidence: 0.94287646

00:17:22.000 --> 00:17:23.200 there's a drug that Anne

NOTE Confidence: 0.94287646

00:17:23.200 --> 00:17:24.899 Cheng is studying called tarlatinib.

NOTE Confidence: 0.9947171

00:17:25.440 --> 00:17:26.820 So those are very exciting,

NOTE Confidence: 0.9947171

00:17:26.880 --> 00:17:27.840 and keep your eye out

NOTE Confidence: 0.9947171

00:17:27.840 --> 00:17:28.500 for those.

NOTE Confidence: 0.99670535

00:17:28.815 --> 00:17:29.534 The other thing that we

NOTE Confidence: 0.99670535

00:17:29.534 --> 00:17:30.514 have are vaccines.

NOTE Confidence: 0.98446256

00:17:31.134 --> 00:17:32.734 Vaccines, I'm a strong believer

NOTE Confidence: 0.98446256

00:17:32.734 --> 00:17:33.695 in vaccine. I've had all

NOTE Confidence: 0.98446256

00:17:33.695 --> 00:17:35.695 my vaccines, but vaccines will

NOTE Confidence: 0.98446256

00:17:35.695 --> 00:17:37.294 work in cancer. The problem

NOTE Confidence: 0.98446256

00:17:37.294 --> 00:17:38.254 is we have to figure

NOTE Confidence: 0.98446256

00:17:38.254 --> 00:17:40.095 out first, you know, what

NOTE Confidence: 0.98446256

00:17:40.095 --> 00:17:42.174 the, what the protein is  
NOTE Confidence: 0.98446256

00:17:42.174 --> 00:17:43.799 to target, and that requires  
NOTE Confidence: 0.98446256

00:17:43.799 --> 00:17:44.679 a great deal of study  
NOTE Confidence: 0.98446256

00:17:44.679 --> 00:17:45.640 and work. We're doing that  
NOTE Confidence: 0.98446256

00:17:45.640 --> 00:17:47.240 here. But we're actually studying  
NOTE Confidence: 0.98446256

00:17:47.240 --> 00:17:48.359 vaccines where you actually get  
NOTE Confidence: 0.98446256

00:17:48.359 --> 00:17:50.380 a vaccine that stimulates  
NOTE Confidence: 0.9874654

00:17:50.760 --> 00:17:51.960 the the right immune cells  
NOTE Confidence: 0.9874654

00:17:51.960 --> 00:17:53.000 to go after the the  
NOTE Confidence: 0.9874654

00:17:53.000 --> 00:17:54.679 the cancer. So that's ongoing  
NOTE Confidence: 0.9874654

00:17:54.679 --> 00:17:55.740 right now as well.  
NOTE Confidence: 0.99007845

00:17:56.085 --> 00:17:57.365 And then we're combining things.  
NOTE Confidence: 0.99007845

00:17:57.365 --> 00:17:58.645 You know? It looks like  
NOTE Confidence: 0.99007845

00:17:58.645 --> 00:17:59.684 we're gonna have to combine  
NOTE Confidence: 0.99007845

00:17:59.684 --> 00:18:01.304 some chemotherapy with immunotherapy,  
NOTE Confidence: 0.9152762

00:18:01.924 --> 00:18:03.845 maybe some anti vascular agents

NOTE Confidence: 0.9152762

00:18:03.845 --> 00:18:04.505 with chemotherapy.

NOTE Confidence: 0.96677667

00:18:05.044 --> 00:18:06.484 We're trying everything, and we're

NOTE Confidence: 0.96677667

00:18:06.484 --> 00:18:07.445 doing it in this in

NOTE Confidence: 0.96677667

00:18:07.445 --> 00:18:09.044 that bed to bench bedside

NOTE Confidence: 0.96677667

00:18:09.044 --> 00:18:09.845 way that I told you

NOTE Confidence: 0.96677667

00:18:09.845 --> 00:18:10.820 about to try to figure

NOTE Confidence: 0.96677667

00:18:10.820 --> 00:18:12.180 out what the best ways

NOTE Confidence: 0.96677667

00:18:12.180 --> 00:18:13.220 are. These will be where

NOTE Confidence: 0.96677667

00:18:13.220 --> 00:18:14.100 there might so many of

NOTE Confidence: 0.96677667

00:18:14.100 --> 00:18:15.080 these will be protocols.

NOTE Confidence: 0.9776107

00:18:15.380 --> 00:18:16.340 So be sure to ask

NOTE Confidence: 0.9776107

00:18:16.340 --> 00:18:17.320 when you're in the clinic

NOTE Confidence: 0.9776107

00:18:17.460 --> 00:18:18.740 if you need something else.

NOTE Confidence: 0.9776107

00:18:18.740 --> 00:18:19.859 What are the protocols? What

NOTE Confidence: 0.9776107

00:18:19.859 --> 00:18:20.900 are the studies? Because as

NOTE Confidence: 0.9776107

00:18:20.900 --> 00:18:22.100 I showed you, everything I

NOTE Confidence: 0.9776107

00:18:22.100 --> 00:18:23.305 showed you here, you you

NOTE Confidence: 0.9776107

00:18:23.305 --> 00:18:24.185 could only get at Yale

NOTE Confidence: 0.9776107

00:18:24.185 --> 00:18:24.984 ten years ago, and now

NOTE Confidence: 0.9776107

00:18:24.984 --> 00:18:26.105 it's standard of care. So

NOTE Confidence: 0.9776107

00:18:26.105 --> 00:18:26.905 now we're working on the

NOTE Confidence: 0.9776107

00:18:26.905 --> 00:18:28.365 next generation of studies.

NOTE Confidence: 0.9996032

00:18:30.425 --> 00:18:31.645 Thank you very much,

NOTE Confidence: 0.96351206

00:18:31.945 --> 00:18:32.744 Roy, and,

NOTE Confidence: 0.99981946

00:18:33.305 --> 00:18:34.984 enjoy the rest of your

NOTE Confidence: 0.99981946

00:18:34.984 --> 00:18:36.744 time in Arizona. Thank you

NOTE Confidence: 0.99981946

00:18:36.744 --> 00:18:38.125 very much. Thanks.

NOTE Confidence: 0.8263991

00:18:38.840 --> 00:18:40.119 Oh, New Mexico. Why is

NOTE Confidence: 0.8263991

00:18:40.119 --> 00:18:40.940 that thing Arizona?

NOTE Confidence: 0.7956477

00:18:41.720 --> 00:18:42.760 I wasn't gonna correct you,

NOTE Confidence: 0.7956477

00:18:42.760 --> 00:18:43.640 but they they look very

NOTE Confidence: 0.7956477  
00:18:43.640 --> 00:18:44.520 similar. But it's not an  
NOTE Confidence: 0.7956477  
00:18:44.520 --> 00:18:45.880 accident. Correct. So, yeah, I  
NOTE Confidence: 0.7956477  
00:18:45.880 --> 00:18:46.520 don't know. I was like  
NOTE Confidence: 0.7956477  
00:18:46.600 --> 00:18:47.100 Yeah.  
NOTE Confidence: 0.9246132  
00:18:48.440 --> 00:18:49.720 So we,  
NOTE Confidence: 0.99751216  
00:18:50.040 --> 00:18:51.400 are going to move on  
NOTE Confidence: 0.99751216  
00:18:51.400 --> 00:18:53.100 to the next session. So  
NOTE Confidence: 0.99751216  
00:18:53.160 --> 00:18:55.445 we have, three talks that  
NOTE Confidence: 0.99751216  
00:18:55.445 --> 00:18:57.865 are on some new emerging  
NOTE Confidence: 0.9304524  
00:18:58.165 --> 00:18:58.665 therapies.  
NOTE Confidence: 0.97440475  
00:19:00.005 --> 00:19:01.205 And so we're gonna go  
NOTE Confidence: 0.97440475  
00:19:01.205 --> 00:19:02.805 through these three five minute  
NOTE Confidence: 0.97440475  
00:19:02.805 --> 00:19:04.005 talks, and then we'll have  
NOTE Confidence: 0.97440475  
00:19:04.005 --> 00:19:04.805 time for,  
NOTE Confidence: 0.9581454  
00:19:05.285 --> 00:19:06.645 some questions if you have  
NOTE Confidence: 0.9581454

00:19:06.645 --> 00:19:08.025 questions for the speakers.  
NOTE Confidence: 0.9799621

00:19:08.659 --> 00:19:10.980 So, our first presenter is  
NOTE Confidence: 0.9799621

00:19:10.980 --> 00:19:12.600 doctor Rick Wilson.  
NOTE Confidence: 0.9478104

00:19:13.779 --> 00:19:16.179 Rick is, doctor Wilson is  
NOTE Confidence: 0.9478104

00:19:16.179 --> 00:19:17.480 a physician scientist.  
NOTE Confidence: 0.9887562

00:19:18.100 --> 00:19:19.299 And so he works in  
NOTE Confidence: 0.9887562

00:19:19.299 --> 00:19:20.519 the lab in addition  
NOTE Confidence: 0.9978726

00:19:20.945 --> 00:19:23.045 to, practicing as a thoracic  
NOTE Confidence: 0.9978726

00:19:23.105 --> 00:19:24.625 oncologist. And so he's gonna  
NOTE Confidence: 0.9978726

00:19:24.625 --> 00:19:25.505 tell you about some of  
NOTE Confidence: 0.9978726

00:19:25.505 --> 00:19:27.205 the newer targeted therapies  
NOTE Confidence: 0.8321027

00:19:27.744 --> 00:19:29.205 that are emerging.  
NOTE Confidence: 0.96483135

00:19:29.825 --> 00:19:30.945 So I'm gonna turn it  
NOTE Confidence: 0.96483135

00:19:30.945 --> 00:19:33.045 over to Rick. Thank you.  
NOTE Confidence: 0.9897142

00:19:39.049 --> 00:19:40.269 Great. Thank you, Katie,  
NOTE Confidence: 0.9975448

00:19:40.649 --> 00:19:41.929 for the kind introduction, and

NOTE Confidence: 0.9975448

00:19:41.929 --> 00:19:42.889 thank you all for being

NOTE Confidence: 0.9975448

00:19:42.889 --> 00:19:44.109 here, this evening.

NOTE Confidence: 0.9452059

00:19:45.049 --> 00:19:45.450 So,

NOTE Confidence: 0.9812901

00:19:46.375 --> 00:19:47.575 I'm excited to have the

NOTE Confidence: 0.9812901

00:19:47.575 --> 00:19:49.035 opportunity to provide,

NOTE Confidence: 0.9979282

00:19:49.414 --> 00:19:51.414 a brief overview about recent

NOTE Confidence: 0.9979282

00:19:51.414 --> 00:19:53.655 developments in targeted therapies in

NOTE Confidence: 0.9979282

00:19:53.655 --> 00:19:54.395 lung cancer.

NOTE Confidence: 0.9971002

00:19:54.934 --> 00:19:56.535 So, these are therapies that

NOTE Confidence: 0.9971002

00:19:56.535 --> 00:19:57.755 are developed specifically

NOTE Confidence: 0.9982235

00:19:58.135 --> 00:20:00.294 to target gene changes or

NOTE Confidence: 0.9982235

00:20:00.294 --> 00:20:01.275 gene alterations

NOTE Confidence: 0.94958216

00:20:02.109 --> 00:20:03.409 that we find in subsets

NOTE Confidence: 0.94958216

00:20:03.470 --> 00:20:04.669 of lung cancers with the

NOTE Confidence: 0.94958216

00:20:04.669 --> 00:20:06.369 goal being to try to,

NOTE Confidence: 0.98821944

00:20:07.309 --> 00:20:09.230 stop those cancers from growing

NOTE Confidence: 0.98821944

00:20:09.230 --> 00:20:09.970 and spreading.

NOTE Confidence: 0.9795176

00:20:11.309 --> 00:20:12.750 And so, on the slide

NOTE Confidence: 0.9795176

00:20:12.750 --> 00:20:13.869 here on the far left,

NOTE Confidence: 0.9795176

00:20:14.190 --> 00:20:15.470 this is showing you some

NOTE Confidence: 0.9795176

00:20:15.470 --> 00:20:16.850 of those gene targets.

NOTE Confidence: 0.995241

00:20:17.625 --> 00:20:18.665 And then to the right,

NOTE Confidence: 0.97527

00:20:19.065 --> 00:20:20.585 what is being shown is

NOTE Confidence: 0.97527

00:20:20.585 --> 00:20:22.984 a timeline showing you, the

NOTE Confidence: 0.97527

00:20:22.984 --> 00:20:25.785 development of specific therapies against

NOTE Confidence: 0.97527

00:20:25.785 --> 00:20:27.085 those gene targets.

NOTE Confidence: 0.9855682

00:20:27.705 --> 00:20:28.585 And the purpose of the

NOTE Confidence: 0.9855682

00:20:28.585 --> 00:20:29.545 slide is just to show

NOTE Confidence: 0.9855682

00:20:29.545 --> 00:20:30.665 you that over the last

NOTE Confidence: 0.9855682

00:20:30.665 --> 00:20:31.565 fifteen years,

NOTE Confidence: 0.99830097

00:20:31.890 --> 00:20:33.430 we've actually seen the development

NOTE Confidence: 0.99830097  
00:20:33.570 --> 00:20:34.290 of many,  
NOTE Confidence: 0.9948304  
00:20:34.690 --> 00:20:36.609 new targeted therapies in lung  
NOTE Confidence: 0.9948304  
00:20:36.609 --> 00:20:37.109 cancer.  
NOTE Confidence: 0.98293936  
00:20:37.730 --> 00:20:38.609 And, of course, this is  
NOTE Confidence: 0.98293936  
00:20:38.609 --> 00:20:39.890 very exciting to us because  
NOTE Confidence: 0.98293936  
00:20:39.890 --> 00:20:41.090 we always want to have  
NOTE Confidence: 0.98293936  
00:20:41.090 --> 00:20:43.090 as many, treatment options as  
NOTE Confidence: 0.98293936  
00:20:43.090 --> 00:20:45.010 possible to consider for our  
NOTE Confidence: 0.98293936  
00:20:45.010 --> 00:20:45.510 patients.  
NOTE Confidence: 0.9792887  
00:20:46.825 --> 00:20:47.784 And in fact, when we  
NOTE Confidence: 0.9792887  
00:20:47.784 --> 00:20:48.904 meet new patients in the  
NOTE Confidence: 0.9792887  
00:20:48.904 --> 00:20:50.445 clinic and in the outpatient  
NOTE Confidence: 0.9792887  
00:20:50.505 --> 00:20:50.744 setting,  
NOTE Confidence: 0.9867905  
00:20:52.424 --> 00:20:54.205 especially those with a diagnosis  
NOTE Confidence: 0.9867905  
00:20:54.264 --> 00:20:55.465 of a specific type of  
NOTE Confidence: 0.9867905

00:20:55.465 --> 00:20:57.404 lung cancer called lung adenocarcinoma,

NOTE Confidence: 0.9895435

00:20:58.540 --> 00:21:00.080 we're always thinking to ourselves,

NOTE Confidence: 0.9895435

00:21:00.220 --> 00:21:01.500 you know, is this patient

NOTE Confidence: 0.9895435

00:21:01.500 --> 00:21:03.180 potentially a candidate for one

NOTE Confidence: 0.9895435

00:21:03.180 --> 00:21:05.040 of these, targeted therapies?

NOTE Confidence: 0.99796295

00:21:07.020 --> 00:21:08.380 So, this is a pie

NOTE Confidence: 0.99796295

00:21:08.380 --> 00:21:09.920 chart showing you the frequency

NOTE Confidence: 0.99796295

00:21:10.220 --> 00:21:11.580 of some of these gene

NOTE Confidence: 0.99796295

00:21:11.580 --> 00:21:13.440 changes in lung adenocarcinoma.

NOTE Confidence: 0.94975024

00:21:14.905 --> 00:21:16.185 And you can see that,

NOTE Confidence: 0.94975024

00:21:16.425 --> 00:21:17.965 some of these gene changes

NOTE Confidence: 0.94975024

00:21:18.025 --> 00:21:19.945 are fairly common, such as

NOTE Confidence: 0.94975024

00:21:19.945 --> 00:21:21.785 KRAS shown in green in

NOTE Confidence: 0.94975024

00:21:21.785 --> 00:21:22.685 the upper right

NOTE Confidence: 0.7622266

00:21:23.385 --> 00:21:24.205 or EGFR

NOTE Confidence: 0.94092184

00:21:24.585 --> 00:21:26.025 shown in navy blue below

NOTE Confidence: 0.94092184  
00:21:26.025 --> 00:21:26.525 that.  
NOTE Confidence: 0.90130436  
00:21:27.330 --> 00:21:28.549 Whereas there are other,  
NOTE Confidence: 0.95622724  
00:21:29.090 --> 00:21:29.590 oncogenic  
NOTE Confidence: 0.9177704  
00:21:29.890 --> 00:21:31.510 or the other gene changes,  
NOTE Confidence: 0.9987461  
00:21:31.890 --> 00:21:32.950 that are less common.  
NOTE Confidence: 0.95470047  
00:21:33.570 --> 00:21:35.250 One of these, less common  
NOTE Confidence: 0.95470047  
00:21:35.250 --> 00:21:37.669 gene changes is called, HER2.  
NOTE Confidence: 0.99167174  
00:21:38.210 --> 00:21:39.730 And we see gene changes  
NOTE Confidence: 0.99167174  
00:21:39.730 --> 00:21:40.470 in HER2  
NOTE Confidence: 0.81351566  
00:21:41.185 --> 00:21:41.765 in about  
NOTE Confidence: 0.9686905  
00:21:42.065 --> 00:21:43.585 three percent of our patients  
NOTE Confidence: 0.9686905  
00:21:43.585 --> 00:21:44.565 with lung adenocarcinoma.  
NOTE Confidence: 0.96826017  
00:21:45.825 --> 00:21:48.065 And we've never had any  
NOTE Confidence: 0.96826017  
00:21:48.065 --> 00:21:50.325 targeted therapies for our patients  
NOTE Confidence: 0.96826017  
00:21:50.385 --> 00:21:51.744 with lung cancer that have  
NOTE Confidence: 0.96826017

00:21:51.744 --> 00:21:52.645 HER2 alterations.  
NOTE Confidence: 0.93779516

00:21:53.700 --> 00:21:54.760 But that's changed,  
NOTE Confidence: 0.96881276

00:21:55.299 --> 00:21:56.580 in just a few months  
NOTE Confidence: 0.96881276

00:21:56.580 --> 00:21:59.399 ago. The FDA recently approved  
NOTE Confidence: 0.96881276

00:21:59.460 --> 00:22:01.140 a new targeted therapy called  
NOTE Confidence: 0.96881276

00:22:01.140 --> 00:22:01.640 zongertinib  
NOTE Confidence: 0.98123497

00:22:02.820 --> 00:22:04.419 for patients with advanced lung  
NOTE Confidence: 0.98123497

00:22:04.419 --> 00:22:06.039 cancers with HER2 alterations.  
NOTE Confidence: 0.9574239

00:22:06.975 --> 00:22:08.174 And this is the first  
NOTE Confidence: 0.9574239

00:22:08.174 --> 00:22:08.674 approved,  
NOTE Confidence: 0.9741856

00:22:09.135 --> 00:22:11.635 oral targeted therapy, meaning pill,  
NOTE Confidence: 0.9940236

00:22:12.015 --> 00:22:13.135 that can be taken by  
NOTE Confidence: 0.9940236

00:22:13.135 --> 00:22:13.635 mouth,  
NOTE Confidence: 0.9770118

00:22:14.494 --> 00:22:16.255 for our patients, with lung  
NOTE Confidence: 0.9770118

00:22:16.255 --> 00:22:18.115 cancer with HER2 alterations.  
NOTE Confidence: 0.9783784

00:22:19.740 --> 00:22:20.859 There are and and we're

NOTE Confidence: 0.9783784

00:22:20.859 --> 00:22:22.060 excited to be able to

NOTE Confidence: 0.9783784

00:22:22.060 --> 00:22:23.180 now offer this to our

NOTE Confidence: 0.9783784

00:22:23.180 --> 00:22:24.619 patients as part of standard,

NOTE Confidence: 0.9609885

00:22:25.020 --> 00:22:26.080 standard of care.

NOTE Confidence: 0.97549415

00:22:26.780 --> 00:22:28.220 But, there are actually,

NOTE Confidence: 0.9871367

00:22:28.540 --> 00:22:29.280 other agents,

NOTE Confidence: 0.90605617

00:22:29.580 --> 00:22:31.660 also in clinical development, and

NOTE Confidence: 0.90605617

00:22:31.660 --> 00:22:32.780 here at Yale, we actually

NOTE Confidence: 0.90605617

00:22:32.780 --> 00:22:34.335 have a clinical trial of

NOTE Confidence: 0.90605617

00:22:34.335 --> 00:22:36.095 one of these, new targeted

NOTE Confidence: 0.90605617

00:22:36.095 --> 00:22:38.335 therapies called ORIC one one

NOTE Confidence: 0.90605617

00:22:38.335 --> 00:22:38.835 four.

NOTE Confidence: 0.996068

00:22:39.455 --> 00:22:40.595 This is being evaluated

NOTE Confidence: 0.984913

00:22:41.455 --> 00:22:42.975 both in patients whose lung

NOTE Confidence: 0.984913

00:22:42.975 --> 00:22:45.475 cancers have HER2 gene changes

NOTE Confidence: 0.95868623

00:22:46.030 --> 00:22:46.770 but also,  
NOTE Confidence: 0.9868459  
00:22:47.230 --> 00:22:48.930 in patients whose lung cancers  
NOTE Confidence: 0.9868459  
00:22:48.990 --> 00:22:50.369 have certain EGFR  
NOTE Confidence: 0.99706215  
00:22:50.750 --> 00:22:51.250 alterations  
NOTE Confidence: 0.9720707  
00:22:51.550 --> 00:22:53.230 as well. Making this a  
NOTE Confidence: 0.9720707  
00:22:53.230 --> 00:22:55.250 targeted therapy that is potentially  
NOTE Confidence: 0.9720707  
00:22:55.309 --> 00:22:55.809 relevant  
NOTE Confidence: 0.99125755  
00:22:56.190 --> 00:22:58.350 for two different, gene targets  
NOTE Confidence: 0.99125755  
00:22:58.350 --> 00:22:59.410 in lung cancer.  
NOTE Confidence: 0.9656092  
00:23:01.015 --> 00:23:01.975 I mentioned that one of  
NOTE Confidence: 0.9656092  
00:23:01.975 --> 00:23:03.895 the more common gene changes  
NOTE Confidence: 0.9656092  
00:23:03.895 --> 00:23:04.875 that we see  
NOTE Confidence: 0.81744456  
00:23:05.175 --> 00:23:06.475 in lung adenocarcinoma  
NOTE Confidence: 0.9760953  
00:23:07.175 --> 00:23:09.175 are KRAS gene changes. We  
NOTE Confidence: 0.9760953  
00:23:09.175 --> 00:23:10.535 see these in about thirty  
NOTE Confidence: 0.9760953  
00:23:10.535 --> 00:23:12.375 percent of our patients with

NOTE Confidence: 0.9760953  
00:23:12.375 --> 00:23:13.115 lung adenocarcinoma.  
NOTE Confidence: 0.970224  
00:23:14.550 --> 00:23:16.150 And this is a,  
NOTE Confidence: 0.97688365  
00:23:16.630 --> 00:23:17.990 gene target that we have  
NOTE Confidence: 0.97688365  
00:23:17.990 --> 00:23:19.290 known about for decades.  
NOTE Confidence: 0.987098  
00:23:20.070 --> 00:23:21.830 But for decades, we have  
NOTE Confidence: 0.987098  
00:23:21.830 --> 00:23:23.910 not had any targeted therapies  
NOTE Confidence: 0.987098  
00:23:23.910 --> 00:23:24.890 against KRAS.  
NOTE Confidence: 0.994192  
00:23:25.590 --> 00:23:27.350 That has recently changed in  
NOTE Confidence: 0.994192  
00:23:27.350 --> 00:23:28.804 the last couple of years,  
NOTE Confidence: 0.98143286  
00:23:29.345 --> 00:23:31.345 with the development of an  
NOTE Confidence: 0.98143286  
00:23:31.345 --> 00:23:33.904 FDA approval of two targeted  
NOTE Confidence: 0.98143286  
00:23:33.904 --> 00:23:34.404 therapies.  
NOTE Confidence: 0.92643404  
00:23:35.264 --> 00:23:36.945 One called sotorasib and one  
NOTE Confidence: 0.92643404  
00:23:36.945 --> 00:23:37.764 called atagracib.  
NOTE Confidence: 0.9975075  
00:23:38.865 --> 00:23:40.244 These are approved  
NOTE Confidence: 0.95116603

00:23:40.930 --> 00:23:42.210 for our patients with lung  
NOTE Confidence: 0.95116603

00:23:42.210 --> 00:23:44.290 cancers, advanced lung cancers having  
NOTE Confidence: 0.95116603

00:23:44.290 --> 00:23:46.310 a specific KRAS alteration  
NOTE Confidence: 0.9126055

00:23:47.010 --> 00:23:47.490 called,  
NOTE Confidence: 0.7587521

00:23:47.810 --> 00:23:48.310 G12C.  
NOTE Confidence: 0.9882406

00:23:49.250 --> 00:23:50.050 And as you can see  
NOTE Confidence: 0.9882406

00:23:50.050 --> 00:23:51.010 in the pie chart in  
NOTE Confidence: 0.9882406

00:23:51.010 --> 00:23:52.310 the middle, G12C  
NOTE Confidence: 0.97965544

00:23:52.690 --> 00:23:54.630 is the most common KRAS  
NOTE Confidence: 0.97965544

00:23:54.690 --> 00:23:56.470 gene change that we see,  
NOTE Confidence: 0.99567

00:23:56.825 --> 00:23:57.965 in lung adenocarcinoma.  
NOTE Confidence: 0.9940201

00:23:59.385 --> 00:24:00.505 But we're always trying to  
NOTE Confidence: 0.9940201

00:24:00.505 --> 00:24:01.145 do better,  
NOTE Confidence: 0.98231924

00:24:01.545 --> 00:24:02.744 and there are newer,  
NOTE Confidence: 0.9802862

00:24:03.145 --> 00:24:04.125 targeted therapies,  
NOTE Confidence: 0.9738493

00:24:05.625 --> 00:24:07.705 directed against KRAS g twelve

NOTE Confidence: 0.9738493  
00:24:07.705 --> 00:24:09.005 c that are being evaluated  
NOTE Confidence: 0.9738493  
00:24:09.065 --> 00:24:10.665 in clinical trials that may  
NOTE Confidence: 0.9738493  
00:24:10.665 --> 00:24:12.869 work better, than these agents.  
NOTE Confidence: 0.99856496  
00:24:13.570 --> 00:24:14.770 And we currently have a  
NOTE Confidence: 0.99856496  
00:24:14.770 --> 00:24:16.530 couple of clinical trials looking  
NOTE Confidence: 0.99856496  
00:24:16.530 --> 00:24:17.030 at  
NOTE Confidence: 0.93518513  
00:24:17.410 --> 00:24:19.650 two different new targeted therapies  
NOTE Confidence: 0.93518513  
00:24:19.650 --> 00:24:21.350 for KRAS g twelve c.  
NOTE Confidence: 0.90436834  
00:24:21.809 --> 00:24:22.950 One called devarasib,  
NOTE Confidence: 0.9177112  
00:24:23.570 --> 00:24:25.030 one called olamirasib.  
NOTE Confidence: 0.99101543  
00:24:26.785 --> 00:24:27.905 Finally, if you look at  
NOTE Confidence: 0.99101543  
00:24:27.905 --> 00:24:29.025 the pie chart, one thing  
NOTE Confidence: 0.99101543  
00:24:29.025 --> 00:24:30.465 that you'll notice is that  
NOTE Confidence: 0.99101543  
00:24:30.465 --> 00:24:31.665 there are a lot of  
NOTE Confidence: 0.99101543  
00:24:31.665 --> 00:24:34.065 other KRAS gene changes in  
NOTE Confidence: 0.99101543

00:24:34.065 --> 00:24:35.665 lung cancer that are not,  
NOTE Confidence: 0.99101543

00:24:35.984 --> 00:24:37.125 g twelve c.  
NOTE Confidence: 0.9967391

00:24:37.425 --> 00:24:38.785 And we currently do not  
NOTE Confidence: 0.9967391

00:24:38.785 --> 00:24:41.330 have any FDA approved targeted  
NOTE Confidence: 0.9967391

00:24:41.390 --> 00:24:42.770 therapies for these patients.  
NOTE Confidence: 0.9233306

00:24:43.470 --> 00:24:45.070 But, again, there are new,  
NOTE Confidence: 0.9233306

00:24:45.309 --> 00:24:45.809 treatments,  
NOTE Confidence: 0.9900565

00:24:46.109 --> 00:24:47.390 in development that are being  
NOTE Confidence: 0.9900565

00:24:47.390 --> 00:24:49.010 looked at in clinical trials,  
NOTE Confidence: 0.9900565

00:24:49.230 --> 00:24:50.190 and we actually have a  
NOTE Confidence: 0.9900565

00:24:50.190 --> 00:24:51.630 clinical trial here looking at  
NOTE Confidence: 0.9900565

00:24:51.630 --> 00:24:52.429 one of these,  
NOTE Confidence: 0.9375165

00:24:52.830 --> 00:24:54.990 new targeted therapies called direct  
NOTE Confidence: 0.9375165

00:24:54.990 --> 00:24:55.490 sunrasib.  
NOTE Confidence: 0.9110677

00:24:56.645 --> 00:24:57.524 One of the things,  
NOTE Confidence: 0.9400068

00:24:58.005 --> 00:24:59.544 that is particularly

NOTE Confidence: 0.9828487

00:25:00.085 --> 00:25:02.505 interesting about this targeted therapy

NOTE Confidence: 0.9828487

00:25:02.565 --> 00:25:04.005 is that it can actually

NOTE Confidence: 0.9828487

00:25:04.005 --> 00:25:04.505 target

NOTE Confidence: 0.95588475

00:25:05.044 --> 00:25:07.784 multiple different KRAS gene changes,

NOTE Confidence: 0.9625322

00:25:09.179 --> 00:25:10.460 which is a really

NOTE Confidence: 0.9625322

00:25:10.460 --> 00:25:12.859 innovative new development in KRAS

NOTE Confidence: 0.9625322

00:25:12.859 --> 00:25:13.760 targeted therapies.

NOTE Confidence: 0.9645426

00:25:14.380 --> 00:25:15.179 So this is just to

NOTE Confidence: 0.9645426

00:25:15.179 --> 00:25:16.539 give you an overview of

NOTE Confidence: 0.9645426

00:25:16.539 --> 00:25:18.240 some of the new, therapies

NOTE Confidence: 0.9645426

00:25:18.299 --> 00:25:19.340 that are coming down the

NOTE Confidence: 0.9645426

00:25:19.340 --> 00:25:20.880 pipeline, and we're excited,

NOTE Confidence: 0.98634785

00:25:21.340 --> 00:25:22.460 to be able to offer

NOTE Confidence: 0.98634785

00:25:22.460 --> 00:25:23.840 access to these therapies,

NOTE Confidence: 0.99918145

00:25:24.465 --> 00:25:26.065 to eligible patients here at

NOTE Confidence: 0.99918145

00:25:26.065 --> 00:25:28.085 Yale through our clinical trials.

NOTE Confidence: 0.9992424

00:25:28.785 --> 00:25:29.285 Thanks.

NOTE Confidence: 0.9797218

00:25:34.785 --> 00:25:36.085 Thank you very much,

NOTE Confidence: 0.97514534

00:25:36.660 --> 00:25:37.940 for that. Our next speaker

NOTE Confidence: 0.97514534

00:25:37.940 --> 00:25:39.320 is doctor Anne Chang.

NOTE Confidence: 0.99924415

00:25:39.780 --> 00:25:42.040 Doctor Chang is a thoracic

NOTE Confidence: 0.99924415

00:25:42.180 --> 00:25:42.680 oncologist

NOTE Confidence: 0.9247086

00:25:43.300 --> 00:25:45.480 and an expert, especially,

NOTE Confidence: 0.9829187

00:25:45.780 --> 00:25:47.300 amongst other things, on small

NOTE Confidence: 0.9829187

00:25:47.300 --> 00:25:48.660 cell lung cancer. And she's

NOTE Confidence: 0.9829187

00:25:48.660 --> 00:25:50.100 gonna be telling us about

NOTE Confidence: 0.9829187

00:25:50.100 --> 00:25:50.600 bispecific

NOTE Confidence: 0.9482827

00:25:51.060 --> 00:25:53.294 antibodies this evening. Doctor Chang?

NOTE Confidence: 0.9482827

00:25:53.294 --> 00:25:54.115 Thank you.

NOTE Confidence: 0.97598135

00:26:02.014 --> 00:26:03.455 Perfect. What a great turnout.

NOTE Confidence: 0.97598135

00:26:03.455 --> 00:26:04.894 I I spoke this weekend

NOTE Confidence: 0.97598135

00:26:04.894 --> 00:26:06.095 in New York at a

NOTE Confidence: 0.97598135

00:26:06.095 --> 00:26:07.375 at a patient, the Cure

NOTE Confidence: 0.97598135

00:26:07.375 --> 00:26:09.309 Lung Summit, and there's twice

NOTE Confidence: 0.97598135

00:26:09.309 --> 00:26:10.429 as many people here. So

NOTE Confidence: 0.97598135

00:26:10.429 --> 00:26:11.710 you guys turned out tonight.

NOTE Confidence: 0.97598135

00:26:11.710 --> 00:26:12.669 Thank you so much for

NOTE Confidence: 0.97598135

00:26:12.669 --> 00:26:13.169 coming.

NOTE Confidence: 0.9785405

00:26:13.629 --> 00:26:14.909 I know it's, it's at

NOTE Confidence: 0.9785405

00:26:14.909 --> 00:26:15.789 the end of a long

NOTE Confidence: 0.9785405

00:26:15.789 --> 00:26:17.629 day, so really appreciate your

NOTE Confidence: 0.9785405

00:26:17.629 --> 00:26:19.309 interest. And and, you know,

NOTE Confidence: 0.9785405

00:26:19.549 --> 00:26:20.509 one of the questions at

NOTE Confidence: 0.9785405

00:26:20.509 --> 00:26:21.869 that summit was, you know,

NOTE Confidence: 0.9785405

00:26:21.869 --> 00:26:22.369 how

NOTE Confidence: 0.9855356

00:26:22.835 --> 00:26:23.875 how how do we get

NOTE Confidence: 0.9855356

00:26:23.875 --> 00:26:25.234 folks to ask more questions?  
NOTE Confidence: 0.9855356

00:26:25.234 --> 00:26:26.275 And and,  
NOTE Confidence: 0.9827704

00:26:27.075 --> 00:26:28.275 what I said is that  
NOTE Confidence: 0.9827704

00:26:28.275 --> 00:26:29.875 it's really important for us  
NOTE Confidence: 0.9827704

00:26:29.875 --> 00:26:31.415 as doctors and us as  
NOTE Confidence: 0.9827704

00:26:31.715 --> 00:26:33.234 nurses and your your care  
NOTE Confidence: 0.9827704

00:26:33.234 --> 00:26:35.070 team, the more questions you  
NOTE Confidence: 0.9827704

00:26:35.149 --> 00:26:36.190 you ask and the more  
NOTE Confidence: 0.9827704

00:26:36.190 --> 00:26:38.029 you understand about what's going  
NOTE Confidence: 0.9827704

00:26:38.029 --> 00:26:39.630 on, the easier it is  
NOTE Confidence: 0.9827704

00:26:39.630 --> 00:26:40.669 for us to for us  
NOTE Confidence: 0.9827704

00:26:40.669 --> 00:26:41.549 to do our job and  
NOTE Confidence: 0.9827704

00:26:41.549 --> 00:26:42.909 for and, actually, the the  
NOTE Confidence: 0.9827704

00:26:42.909 --> 00:26:43.710 better we can do our  
NOTE Confidence: 0.9827704

00:26:43.710 --> 00:26:44.830 job. So thanks for coming  
NOTE Confidence: 0.9827704

00:26:44.830 --> 00:26:45.330 tonight.

NOTE Confidence: 0.97607434

00:26:46.350 --> 00:26:48.029 So I have, been given

NOTE Confidence: 0.97607434

00:26:48.029 --> 00:26:49.809 the topic of bispecific antibodies

NOTE Confidence: 0.97607434

00:26:49.869 --> 00:26:50.769 in lung cancer.

NOTE Confidence: 0.99939424

00:26:51.365 --> 00:26:52.484 So I'll start with that.

NOTE Confidence: 0.99939424

00:26:52.484 --> 00:26:54.265 What is a bispecific antibody?

NOTE Confidence: 0.98511106

00:26:57.285 --> 00:26:58.665 So in in this

NOTE Confidence: 0.9742159

00:26:59.605 --> 00:27:00.484 I don't know if I

NOTE Confidence: 0.9742159

00:27:00.484 --> 00:27:00.984 can

NOTE Confidence: 0.9984203

00:27:01.365 --> 00:27:02.585 point to it here.

NOTE Confidence: 0.9989399

00:27:02.965 --> 00:27:03.465 Okay.

NOTE Confidence: 0.9856902

00:27:04.325 --> 00:27:05.445 No. Okay. Well

NOTE Confidence: 0.94520354

00:27:06.289 --> 00:27:07.029 oh, it was?

NOTE Confidence: 0.9413546

00:27:07.409 --> 00:27:08.369 Okay. Can you have a

NOTE Confidence: 0.9413546

00:27:08.369 --> 00:27:10.130 laser too on the Ah,

NOTE Confidence: 0.9413546

00:27:10.130 --> 00:27:11.429 can you see my laser?

NOTE Confidence: 0.9413546

00:27:11.649 --> 00:27:12.149 Yay.  
NOTE Confidence: 0.9944351

00:27:12.529 --> 00:27:13.830 Okay. So an antibody  
NOTE Confidence: 0.99972135

00:27:14.210 --> 00:27:16.390 so this antibody here recognizes  
NOTE Confidence: 0.9658702

00:27:17.409 --> 00:27:19.250 a protein called CD three  
NOTE Confidence: 0.9658702

00:27:19.250 --> 00:27:20.369 on the surface of the  
NOTE Confidence: 0.9658702

00:27:20.369 --> 00:27:21.350 white blood cell,  
NOTE Confidence: 0.9853865

00:27:21.784 --> 00:27:23.625 and this antibody in purple  
NOTE Confidence: 0.9853865

00:27:23.625 --> 00:27:24.445 or red  
NOTE Confidence: 0.9723709

00:27:25.065 --> 00:27:27.225 recognizes a protein called DLL  
NOTE Confidence: 0.9723709

00:27:27.225 --> 00:27:28.585 three on the tumor cell.  
NOTE Confidence: 0.9723709

00:27:28.585 --> 00:27:29.484 So bispecific  
NOTE Confidence: 0.87681216

00:27:29.865 --> 00:27:30.924 antibody basically  
NOTE Confidence: 0.96566176

00:27:31.304 --> 00:27:32.825 is an antibody that can  
NOTE Confidence: 0.96566176

00:27:32.825 --> 00:27:34.524 bind to two different proteins,  
NOTE Confidence: 0.96566176

00:27:34.810 --> 00:27:36.090 And here you see this  
NOTE Confidence: 0.96566176

00:27:36.090 --> 00:27:37.150 this drug tarlatanab,

NOTE Confidence: 0.99929327  
00:27:37.530 --> 00:27:38.270 an antibody  
NOTE Confidence: 0.9904132  
00:27:38.730 --> 00:27:40.890 that has and it binds  
NOTE Confidence: 0.9904132  
00:27:40.890 --> 00:27:41.710 both to,  
NOTE Confidence: 0.88016486  
00:27:42.650 --> 00:27:44.250 CD three, that's in orange,  
NOTE Confidence: 0.88016486  
00:27:44.250 --> 00:27:45.150 and in purple,  
NOTE Confidence: 0.8879779  
00:27:45.450 --> 00:27:46.830 the d l l three.  
NOTE Confidence: 0.967097  
00:27:47.369 --> 00:27:49.050 On on so it brings  
NOTE Confidence: 0.967097  
00:27:49.050 --> 00:27:51.085 together here the the t  
NOTE Confidence: 0.9938669  
00:27:51.465 --> 00:27:53.405 cell to the tumor cell,  
NOTE Confidence: 0.9938669  
00:27:53.625 --> 00:27:55.305 and this activates the immune  
NOTE Confidence: 0.9938669  
00:27:55.305 --> 00:27:55.805 system  
NOTE Confidence: 0.98085636  
00:27:56.265 --> 00:27:57.805 to attack the cancer cells.  
NOTE Confidence: 0.98085636  
00:27:57.945 --> 00:27:59.145 And this is so great  
NOTE Confidence: 0.98085636  
00:27:59.145 --> 00:28:00.665 because you notice here, there's  
NOTE Confidence: 0.98085636  
00:28:00.665 --> 00:28:01.965 no chemo involved.  
NOTE Confidence: 0.9977618

00:28:02.265 --> 00:28:03.805 You're actually just taking  
NOTE Confidence: 0.9998074

00:28:04.265 --> 00:28:04.765 your  
NOTE Confidence: 0.9917869

00:28:05.460 --> 00:28:06.900 immune system and bringing it  
NOTE Confidence: 0.9917869

00:28:06.900 --> 00:28:08.179 over to your tumor cells.  
NOTE Confidence: 0.9917869

00:28:08.179 --> 00:28:08.679 So,  
NOTE Confidence: 0.99345326

00:28:09.380 --> 00:28:10.580 so it's really exciting. You  
NOTE Confidence: 0.99345326

00:28:10.580 --> 00:28:11.700 can avoid a lot of  
NOTE Confidence: 0.99345326

00:28:11.700 --> 00:28:13.799 those toxicities that chemo has,  
NOTE Confidence: 0.9977416

00:28:14.100 --> 00:28:15.940 and, that's why we're actually  
NOTE Confidence: 0.9977416

00:28:15.940 --> 00:28:17.320 really excited about this.  
NOTE Confidence: 0.9865491

00:28:17.884 --> 00:28:20.205 So there are already FDA  
NOTE Confidence: 0.9865491

00:28:20.205 --> 00:28:21.264 approved bispecifics.  
NOTE Confidence: 0.9356773

00:28:21.965 --> 00:28:23.404 So I I these are  
NOTE Confidence: 0.9356773

00:28:23.404 --> 00:28:24.365 hard to say, but I'll  
NOTE Confidence: 0.9356773

00:28:24.365 --> 00:28:25.184 try. Blinatumumab  
NOTE Confidence: 0.9576244

00:28:26.365 --> 00:28:28.445 binds CD three t cells

NOTE Confidence: 0.9576244  
00:28:28.445 --> 00:28:30.284 to CD nineteen b cells,  
NOTE Confidence: 0.9576244  
00:28:30.284 --> 00:28:31.644 and that's been approved for  
NOTE Confidence: 0.9576244  
00:28:31.644 --> 00:28:32.144 leukemia.  
NOTE Confidence: 0.492443  
00:28:34.500 --> 00:28:35.000 Tembentafus  
NOTE Confidence: 0.96410596  
00:28:36.020 --> 00:28:38.660 targets g p, one hundred  
NOTE Confidence: 0.96410596  
00:28:38.660 --> 00:28:40.420 protein to anti CD three  
NOTE Confidence: 0.96410596  
00:28:40.420 --> 00:28:42.100 on on t cells, and  
NOTE Confidence: 0.96410596  
00:28:42.100 --> 00:28:43.700 that's approved for the use  
NOTE Confidence: 0.96410596  
00:28:43.700 --> 00:28:45.880 of melanoma in the eye.  
NOTE Confidence: 0.96410596  
00:28:46.125 --> 00:28:47.265 And then amivantamab  
NOTE Confidence: 0.995165  
00:28:47.885 --> 00:28:49.585 is another FDA approved,  
NOTE Confidence: 0.97938883  
00:28:50.605 --> 00:28:52.145 non small cell lung cancer,  
NOTE Confidence: 0.94993013  
00:28:53.005 --> 00:28:54.205 drug, and it binds to  
NOTE Confidence: 0.94993013  
00:28:54.205 --> 00:28:54.705 EGFR  
NOTE Confidence: 0.8677378  
00:28:55.005 --> 00:28:55.665 and MET,  
NOTE Confidence: 0.93321824

00:28:56.045 --> 00:28:57.645 and it's been approved for,  
NOTE Confidence: 0.93321824

00:28:57.885 --> 00:29:00.525 EGFR exon twenty insertion mutation.  
NOTE Confidence: 0.93321824

00:29:00.525 --> 00:29:01.860 So those patients. And and  
NOTE Confidence: 0.93321824

00:29:01.940 --> 00:29:03.460 this is a waterfall plot.  
NOTE Confidence: 0.93321824

00:29:03.460 --> 00:29:04.200 Each line  
NOTE Confidence: 0.9928557

00:29:04.580 --> 00:29:06.020 is a patient and how  
NOTE Confidence: 0.9928557

00:29:06.020 --> 00:29:07.240 much shrinkage  
NOTE Confidence: 0.9938511

00:29:07.540 --> 00:29:08.520 of their tumor,  
NOTE Confidence: 0.98489344

00:29:08.980 --> 00:29:10.580 has occurred. So we like  
NOTE Confidence: 0.98489344

00:29:10.580 --> 00:29:11.860 all that shrinkage to be  
NOTE Confidence: 0.98489344

00:29:11.860 --> 00:29:13.299 below the line. In this  
NOTE Confidence: 0.98489344

00:29:13.299 --> 00:29:14.500 case, you have some folks  
NOTE Confidence: 0.98489344

00:29:14.500 --> 00:29:15.780 who have a hundred percent  
NOTE Confidence: 0.98489344

00:29:15.780 --> 00:29:17.080 shrinkage, which is fantastic.  
NOTE Confidence: 0.9409995

00:29:19.245 --> 00:29:20.365 So this is a slide,  
NOTE Confidence: 0.9409995

00:29:20.365 --> 00:29:21.404 actually, I got from from

NOTE Confidence: 0.9409995  
00:29:21.404 --> 00:29:22.304 doctor Goldberg,  
NOTE Confidence: 0.97017664  
00:29:22.605 --> 00:29:23.804 and it's a little complicated,  
NOTE Confidence: 0.97017664  
00:29:23.804 --> 00:29:25.005 but basically, I'm gonna walk  
NOTE Confidence: 0.97017664  
00:29:25.005 --> 00:29:25.965 you through it. So all  
NOTE Confidence: 0.97017664  
00:29:25.965 --> 00:29:28.125 of these are different targets  
NOTE Confidence: 0.97017664  
00:29:28.125 --> 00:29:29.664 on the surface of cells.  
NOTE Confidence: 0.9955613  
00:29:29.965 --> 00:29:31.105 And so bispecific  
NOTE Confidence: 0.9997414  
00:29:31.485 --> 00:29:31.985 antibodies  
NOTE Confidence: 0.98709214  
00:29:32.820 --> 00:29:34.419 are are targeting any number  
NOTE Confidence: 0.98709214  
00:29:34.419 --> 00:29:35.399 of these, including  
NOTE Confidence: 0.998495  
00:29:35.700 --> 00:29:37.299 ones that are associated with  
NOTE Confidence: 0.998495  
00:29:37.299 --> 00:29:38.200 tumor cells,  
NOTE Confidence: 0.99436826  
00:29:38.500 --> 00:29:40.019 ones that are involved with  
NOTE Confidence: 0.99436826  
00:29:40.019 --> 00:29:41.460 the immune cells, and ones  
NOTE Confidence: 0.99436826  
00:29:41.460 --> 00:29:42.279 that also,  
NOTE Confidence: 0.9997744

00:29:43.140 --> 00:29:43.640 target  
NOTE Confidence: 0.89597994

00:29:44.419 --> 00:29:45.779 PD one, PD L one,  
NOTE Confidence: 0.89597994

00:29:45.779 --> 00:29:47.595 like doctor Herbst was mentioning,  
NOTE Confidence: 0.89597994

00:29:47.735 --> 00:29:48.235 etcetera.  
NOTE Confidence: 0.9948947

00:29:48.695 --> 00:29:50.134 And so these are the  
NOTE Confidence: 0.9948947

00:29:50.134 --> 00:29:51.575 number of antibodies that have  
NOTE Confidence: 0.9948947

00:29:51.575 --> 00:29:53.174 been developed. Each line is  
NOTE Confidence: 0.9948947

00:29:53.174 --> 00:29:54.154 a different antibody.  
NOTE Confidence: 0.9710635

00:29:54.695 --> 00:29:55.975 In this, this tells you  
NOTE Confidence: 0.9710635

00:29:55.975 --> 00:29:57.335 that in two thousand eleven,  
NOTE Confidence: 0.9710635

00:29:57.335 --> 00:29:59.195 there were twelve clinical trials  
NOTE Confidence: 0.9710635

00:29:59.335 --> 00:30:00.875 with bispecific antibodies.  
NOTE Confidence: 0.9753436

00:30:01.370 --> 00:30:02.810 In two thousand twenty three,  
NOTE Confidence: 0.9753436

00:30:02.810 --> 00:30:04.410 there were sixty two, and  
NOTE Confidence: 0.9753436

00:30:04.410 --> 00:30:05.690 now I think there's upwards  
NOTE Confidence: 0.9753436

00:30:05.690 --> 00:30:06.990 of a hundred and some.

NOTE Confidence: 0.9863288  
00:30:07.370 --> 00:30:08.810 And, these are all the  
NOTE Confidence: 0.9863288  
00:30:08.810 --> 00:30:10.650 different tumor types. So lung  
NOTE Confidence: 0.9863288  
00:30:10.810 --> 00:30:12.010 non small cell lung cancer  
NOTE Confidence: 0.9863288  
00:30:12.010 --> 00:30:12.970 is at the top there  
NOTE Confidence: 0.9863288  
00:30:12.970 --> 00:30:14.350 with sixty two trials.  
NOTE Confidence: 0.9996562  
00:30:15.315 --> 00:30:15.815 So  
NOTE Confidence: 0.99651  
00:30:16.115 --> 00:30:17.654 very exciting area.  
NOTE Confidence: 0.9859028  
00:30:17.955 --> 00:30:19.235 Okay. Now I'm gonna switch  
NOTE Confidence: 0.9859028  
00:30:19.235 --> 00:30:20.355 for a moment to small  
NOTE Confidence: 0.9859028  
00:30:20.355 --> 00:30:21.635 cell because this drug was  
NOTE Confidence: 0.9859028  
00:30:21.635 --> 00:30:23.554 just approved last year. And  
NOTE Confidence: 0.9859028  
00:30:23.554 --> 00:30:25.394 this bispecific, again, makes a  
NOTE Confidence: 0.9859028  
00:30:25.394 --> 00:30:26.434 lot of sense here in  
NOTE Confidence: 0.9859028  
00:30:26.434 --> 00:30:28.514 small cell because this slide  
NOTE Confidence: 0.9859028  
00:30:28.514 --> 00:30:29.014 here  
NOTE Confidence: 0.9661611

00:30:29.315 --> 00:30:30.919 on the on the left,  
NOTE Confidence: 0.9846569

00:30:32.019 --> 00:30:33.460 the blue cells are tumor  
NOTE Confidence: 0.9846569

00:30:33.460 --> 00:30:34.820 cells, and this is a  
NOTE Confidence: 0.9846569

00:30:34.820 --> 00:30:35.960 baseline biopsy  
NOTE Confidence: 0.9780037

00:30:36.340 --> 00:30:37.779 before treatment. And what you  
NOTE Confidence: 0.9780037

00:30:37.779 --> 00:30:38.500 can see there, there are  
NOTE Confidence: 0.9780037

00:30:38.500 --> 00:30:39.700 a lot of tumor cells,  
NOTE Confidence: 0.9780037

00:30:39.700 --> 00:30:40.980 but there aren't pink or  
NOTE Confidence: 0.9780037

00:30:40.980 --> 00:30:42.500 yellow cells. Those are the  
NOTE Confidence: 0.9780037

00:30:42.500 --> 00:30:43.559 white blood cells.  
NOTE Confidence: 0.9180571

00:30:44.285 --> 00:30:45.965 And and then this is,  
NOTE Confidence: 0.96811813

00:30:46.684 --> 00:30:48.544 this is not specifically tarlatanab,  
NOTE Confidence: 0.96811813

00:30:48.765 --> 00:30:49.885 but the idea here is  
NOTE Confidence: 0.96811813

00:30:49.885 --> 00:30:51.345 you can see massive  
NOTE Confidence: 0.99739146

00:30:51.804 --> 00:30:53.424 infiltration of a lot of  
NOTE Confidence: 0.99739146

00:30:53.485 --> 00:30:53.965 different,

NOTE Confidence: 0.9752189  
00:30:54.285 --> 00:30:55.565 white blood cells, and that  
NOTE Confidence: 0.9752189  
00:30:55.565 --> 00:30:56.924 we think is what is  
NOTE Confidence: 0.9752189  
00:30:56.924 --> 00:30:58.525 helping to activate the immune  
NOTE Confidence: 0.9752189  
00:30:58.525 --> 00:31:00.620 system to recognize cancer cells.  
NOTE Confidence: 0.9992939  
00:31:00.920 --> 00:31:01.420 So  
NOTE Confidence: 0.9909947  
00:31:02.920 --> 00:31:04.600 the the this drug in  
NOTE Confidence: 0.9909947  
00:31:04.600 --> 00:31:06.120 small cell lung cancer, this  
NOTE Confidence: 0.9909947  
00:31:06.120 --> 00:31:07.160 was the Delphi three zero  
NOTE Confidence: 0.9909947  
00:31:07.160 --> 00:31:08.280 one trial that led to  
NOTE Confidence: 0.9909947  
00:31:08.280 --> 00:31:10.280 FDA approval. Just pay attention  
NOTE Confidence: 0.9909947  
00:31:10.280 --> 00:31:11.900 here. So in in  
NOTE Confidence: 0.9897112  
00:31:12.664 --> 00:31:14.024 forty percent of the patients,  
NOTE Confidence: 0.9897112  
00:31:14.024 --> 00:31:15.385 they had shrinkage of their  
NOTE Confidence: 0.9897112  
00:31:15.385 --> 00:31:15.885 disease.  
NOTE Confidence: 0.9831328  
00:31:16.904 --> 00:31:18.825 Another thirty percent had stable  
NOTE Confidence: 0.9831328

00:31:18.825 --> 00:31:20.265 disease, so that means about  
NOTE Confidence: 0.9831328

00:31:20.265 --> 00:31:21.645 seventy percent of the patients  
NOTE Confidence: 0.9879946

00:31:22.024 --> 00:31:23.804 were responding to this drug.  
NOTE Confidence: 0.9879946

00:31:23.865 --> 00:31:25.385 And all of those patients  
NOTE Confidence: 0.9879946

00:31:25.385 --> 00:31:27.440 had already been treated with  
NOTE Confidence: 0.9879946

00:31:27.440 --> 00:31:29.040 two different lines before that  
NOTE Confidence: 0.9879946

00:31:29.040 --> 00:31:30.500 of treatment. So this is,  
NOTE Confidence: 0.99717027

00:31:32.160 --> 00:31:33.460 on the basis of this,  
NOTE Confidence: 0.9773395

00:31:34.000 --> 00:31:35.440 this drug was approved by  
NOTE Confidence: 0.9773395

00:31:35.440 --> 00:31:37.200 the FDA last year, and  
NOTE Confidence: 0.9773395

00:31:37.200 --> 00:31:37.940 then another  
NOTE Confidence: 0.62145036

00:31:38.960 --> 00:31:39.460 trial  
NOTE Confidence: 0.96160656

00:31:40.615 --> 00:31:42.475 in June confirmed the results  
NOTE Confidence: 0.96160656

00:31:42.615 --> 00:31:43.735 and actually showed if you  
NOTE Confidence: 0.96160656

00:31:43.735 --> 00:31:44.235 compared  
NOTE Confidence: 0.9783437

00:31:44.855 --> 00:31:46.554 patients treated with tarlatanab

NOTE Confidence: 0.9727584  
00:31:46.934 --> 00:31:48.395 to patients with chemotherapy,  
NOTE Confidence: 0.96570474  
00:31:48.775 --> 00:31:50.635 there was really a positive,  
NOTE Confidence: 0.9200049  
00:31:51.735 --> 00:31:53.115 to extend the overall survival  
NOTE Confidence: 0.9200049  
00:31:53.174 --> 00:31:54.855 by five months. So really  
NOTE Confidence: 0.9200049  
00:31:54.855 --> 00:31:55.355 exciting.  
NOTE Confidence: 0.986119  
00:31:56.070 --> 00:31:56.789 And the other thing I  
NOTE Confidence: 0.986119  
00:31:56.789 --> 00:31:58.390 didn't mention is that those  
NOTE Confidence: 0.986119  
00:31:58.390 --> 00:32:00.010 those patients who are responding,  
NOTE Confidence: 0.986119  
00:32:00.150 --> 00:32:01.850 the median duration of response  
NOTE Confidence: 0.9805836  
00:32:02.470 --> 00:32:04.070 is almost ten months.  
NOTE Confidence: 0.9805836  
00:32:04.070 --> 00:32:05.429 So you're not just saying,  
NOTE Confidence: 0.9805836  
00:32:05.429 --> 00:32:06.870 let's just let's push it  
NOTE Confidence: 0.9805836  
00:32:06.870 --> 00:32:08.565 out a couple couple months  
NOTE Confidence: 0.9805836  
00:32:08.565 --> 00:32:10.005 before you have something that's  
NOTE Confidence: 0.9805836  
00:32:10.005 --> 00:32:11.765 popping up. It's really ten  
NOTE Confidence: 0.9805836

00:32:11.765 --> 00:32:13.385 months, so that's really great.

NOTE Confidence: 0.97733533

00:32:15.044 --> 00:32:15.544 So

NOTE Confidence: 0.97360736

00:32:15.845 --> 00:32:17.125 briefly about some of the

NOTE Confidence: 0.97360736

00:32:17.125 --> 00:32:18.325 side effects of these kinds

NOTE Confidence: 0.97360736

00:32:18.325 --> 00:32:18.985 of drugs,

NOTE Confidence: 0.99090266

00:32:19.445 --> 00:32:21.445 is is cytokine release syndrome.

NOTE Confidence: 0.99090266

00:32:21.445 --> 00:32:22.560 So if you think about

NOTE Confidence: 0.99090266

00:32:22.720 --> 00:32:24.400 activating your immune system, if

NOTE Confidence: 0.99090266

00:32:24.400 --> 00:32:25.920 you get a vaccine shot,

NOTE Confidence: 0.99090266

00:32:25.920 --> 00:32:26.820 flu, COVID,

NOTE Confidence: 0.9736832

00:32:27.200 --> 00:32:28.160 sometimes you get,

NOTE Confidence: 0.98383904

00:32:28.560 --> 00:32:30.000 some fever and chills that

NOTE Confidence: 0.98383904

00:32:30.000 --> 00:32:30.960 night. You feel a little

NOTE Confidence: 0.98383904

00:32:30.960 --> 00:32:32.420 achy, really tired,

NOTE Confidence: 0.9838297

00:32:33.840 --> 00:32:35.120 you know, over the over

NOTE Confidence: 0.9838297

00:32:35.120 --> 00:32:36.080 the course of the next

NOTE Confidence: 0.9838297

00:32:36.080 --> 00:32:37.280 day. And so this is

NOTE Confidence: 0.9838297

00:32:37.280 --> 00:32:39.175 similar, but so here,

NOTE Confidence: 0.9817024

00:32:39.655 --> 00:32:41.255 over half the patients had

NOTE Confidence: 0.9817024

00:32:41.255 --> 00:32:41.755 CRS,

NOTE Confidence: 0.98792017

00:32:42.375 --> 00:32:43.735 mostly low grade one or

NOTE Confidence: 0.98792017

00:32:43.735 --> 00:32:45.975 two, symptoms of fever, chills,

NOTE Confidence: 0.98792017

00:32:45.975 --> 00:32:47.335 maybe the blood pressure was

NOTE Confidence: 0.98792017

00:32:47.335 --> 00:32:48.375 a low a little low,

NOTE Confidence: 0.98792017

00:32:48.375 --> 00:32:49.815 the the oxygen a little

NOTE Confidence: 0.98792017

00:32:49.815 --> 00:32:51.680 low. These can these symptoms

NOTE Confidence: 0.98792017

00:32:51.680 --> 00:32:53.140 can be treated with Tylenol,

NOTE Confidence: 0.98792017

00:32:53.360 --> 00:32:54.340 IV fluids,

NOTE Confidence: 0.9887696

00:32:54.880 --> 00:32:56.340 oxygen, and steroids.

NOTE Confidence: 0.99761975

00:32:56.640 --> 00:32:57.920 Only one percent of those

NOTE Confidence: 0.99761975

00:32:57.920 --> 00:32:58.900 patients had,

NOTE Confidence: 0.9906897

00:32:59.360 --> 00:33:01.040 more severe grade of grade  
NOTE Confidence: 0.9906897

00:33:01.040 --> 00:33:03.040 three CRS that went into  
NOTE Confidence: 0.9906897

00:33:03.040 --> 00:33:04.740 the the ICU for monitoring  
NOTE Confidence: 0.9906897

00:33:04.800 --> 00:33:07.005 there. And this CRS usually  
NOTE Confidence: 0.9906897

00:33:07.005 --> 00:33:07.505 occurs,  
NOTE Confidence: 0.9669913

00:33:08.044 --> 00:33:09.505 again, like that flu vaccine,  
NOTE Confidence: 0.9839075

00:33:10.205 --> 00:33:11.644 within twenty four hours of  
NOTE Confidence: 0.9839075

00:33:11.644 --> 00:33:13.005 the first two infusions. So  
NOTE Confidence: 0.9839075

00:33:13.005 --> 00:33:14.125 week one and week two  
NOTE Confidence: 0.9839075

00:33:14.125 --> 00:33:15.725 right now, we admit patients  
NOTE Confidence: 0.9839075

00:33:15.725 --> 00:33:17.505 into the hospital for monitoring  
NOTE Confidence: 0.97502863

00:33:18.000 --> 00:33:19.280 overnight. They can go home  
NOTE Confidence: 0.97502863

00:33:19.280 --> 00:33:20.560 the next day, and then  
NOTE Confidence: 0.97502863

00:33:20.560 --> 00:33:21.840 the rest of the,  
NOTE Confidence: 0.97676617

00:33:23.040 --> 00:33:25.040 infusions can happen every two  
NOTE Confidence: 0.97676617

00:33:25.040 --> 00:33:26.500 weeks in in the outpatient

NOTE Confidence: 0.97676617

00:33:26.640 --> 00:33:27.700 setting in the clinic.

NOTE Confidence: 0.99117506

00:33:29.280 --> 00:33:30.400 And we're working on a

NOTE Confidence: 0.99117506

00:33:30.400 --> 00:33:31.600 a pilot to do this

NOTE Confidence: 0.99117506

00:33:31.600 --> 00:33:32.745 outpatient as well

NOTE Confidence: 0.9449334

00:33:33.145 --> 00:33:35.405 safely. So what's next? Well,

NOTE Confidence: 0.9449334

00:33:35.465 --> 00:33:37.305 you heard from Doctor Herbst.

NOTE Confidence: 0.9449334

00:33:37.305 --> 00:33:38.845 When you have active drugs,

NOTE Confidence: 0.9449334

00:33:39.065 --> 00:33:39.945 we want to try to

NOTE Confidence: 0.9449334

00:33:39.945 --> 00:33:41.465 move them earlier in treatment,

NOTE Confidence: 0.9449334

00:33:41.465 --> 00:33:42.905 either first line or in

NOTE Confidence: 0.9449334

00:33:42.905 --> 00:33:45.245 maintenance or after you have

NOTE Confidence: 0.9184077

00:33:49.000 --> 00:33:50.520 or in early stage. So

NOTE Confidence: 0.9184077

00:33:50.520 --> 00:33:52.280 that those those trials are

NOTE Confidence: 0.9184077

00:33:52.280 --> 00:33:54.540 happening now. There are also

NOTE Confidence: 0.9072365

00:33:55.559 --> 00:33:57.400 lots of bispecifics and even

NOTE Confidence: 0.9072365

00:33:57.400 --> 00:33:58.220 tri specifics,  
NOTE Confidence: 0.99000514

00:33:59.080 --> 00:34:00.440 and this shows you one  
NOTE Confidence: 0.99000514

00:34:00.440 --> 00:34:01.985 where not only is there  
NOTE Confidence: 0.99000514

00:34:01.985 --> 00:34:04.164 the CD three and, DLL  
NOTE Confidence: 0.99000514

00:34:04.225 --> 00:34:06.085 three, but but the antibody  
NOTE Confidence: 0.99000514

00:34:06.225 --> 00:34:07.205 also recognizes  
NOTE Confidence: 0.9747248

00:34:07.664 --> 00:34:09.505 albumin, which is basically protein  
NOTE Confidence: 0.9747248

00:34:09.505 --> 00:34:10.224 in your body, and it  
NOTE Confidence: 0.9747248

00:34:10.224 --> 00:34:11.505 helps to extend the half  
NOTE Confidence: 0.9747248

00:34:11.505 --> 00:34:12.704 life. So there's lots of  
NOTE Confidence: 0.9747248

00:34:12.704 --> 00:34:14.085 ways to augment this,  
NOTE Confidence: 0.9793723

00:34:14.610 --> 00:34:15.970 and, right now, they're being  
NOTE Confidence: 0.9793723

00:34:15.970 --> 00:34:17.890 used in combinations with standard  
NOTE Confidence: 0.9793723

00:34:17.890 --> 00:34:19.490 of care and other novel  
NOTE Confidence: 0.9793723

00:34:19.490 --> 00:34:21.190 drugs. Super exciting.  
NOTE Confidence: 0.94679284

00:34:22.050 --> 00:34:23.010 Keep your eyes out for

NOTE Confidence: 0.94679284

00:34:23.010 --> 00:34:24.370 this. And again, I love

NOTE Confidence: 0.94679284

00:34:24.370 --> 00:34:26.050 it because we're just avoiding

NOTE Confidence: 0.94679284

00:34:26.050 --> 00:34:27.670 chemo altogether. So,

NOTE Confidence: 0.9815407

00:34:28.265 --> 00:34:29.465 alright. Thanks. That's it for

NOTE Confidence: 0.9815407

00:34:29.465 --> 00:34:30.985 me, and I'll I'll, and

NOTE Confidence: 0.9815407

00:34:30.985 --> 00:34:31.705 thanks for your,

NOTE Confidence: 0.99985707

00:34:32.185 --> 00:34:32.685 attention.

NOTE Confidence: 0.98313385

00:34:35.864 --> 00:34:37.965 Thank you, doctor Chang. So

NOTE Confidence: 0.98313385

00:34:38.025 --> 00:34:39.225 last but not least in

NOTE Confidence: 0.98313385

00:34:39.225 --> 00:34:40.650 this session is doctor Scott

NOTE Confidence: 0.98313385

00:34:40.650 --> 00:34:42.329 Gettinger. Doctor Gettinger is a

NOTE Confidence: 0.98313385

00:34:42.329 --> 00:34:43.930 thoracic oncologist. And as you

NOTE Confidence: 0.98313385

00:34:43.930 --> 00:34:45.690 heard from doctor Herbst, he

NOTE Confidence: 0.98313385

00:34:45.690 --> 00:34:46.190 led,

NOTE Confidence: 0.8831026

00:34:46.730 --> 00:34:48.670 some of the, early immunotherapy

NOTE Confidence: 0.9911823

00:34:49.049 --> 00:34:50.650 trials here. So thank you  
NOTE Confidence: 0.9911823

00:34:50.650 --> 00:34:51.390 very much.  
NOTE Confidence: 0.85555905

00:34:54.025 --> 00:34:55.225 There we go. So I  
NOTE Confidence: 0.85555905

00:34:55.225 --> 00:34:56.685 can just advance it here.  
NOTE Confidence: 0.79911065

00:34:58.505 --> 00:34:59.005 Nice.  
NOTE Confidence: 0.98412454

00:34:59.625 --> 00:35:00.445 Hello, everybody.  
NOTE Confidence: 0.9991704

00:35:00.905 --> 00:35:01.864 It's great to see all  
NOTE Confidence: 0.9991704

00:35:01.864 --> 00:35:02.525 of you  
NOTE Confidence: 0.9586411

00:35:02.985 --> 00:35:04.505 here, and some of you  
NOTE Confidence: 0.9586411

00:35:04.905 --> 00:35:06.185 well, I met you over  
NOTE Confidence: 0.9586411

00:35:06.185 --> 00:35:07.465 ten years ago, so it's  
NOTE Confidence: 0.9586411

00:35:07.465 --> 00:35:08.960 really a different world in  
NOTE Confidence: 0.9586411

00:35:08.960 --> 00:35:10.180 lung cancer. So  
NOTE Confidence: 0.95035964

00:35:10.960 --> 00:35:12.260 I, welcome everybody.  
NOTE Confidence: 0.9748616

00:35:14.799 --> 00:35:16.319 So I was, asked to  
NOTE Confidence: 0.9748616

00:35:16.319 --> 00:35:18.480 discuss antibody drug conjugates, and,

NOTE Confidence: 0.9748616

00:35:18.480 --> 00:35:19.920 initially, my plan was to

NOTE Confidence: 0.9748616

00:35:19.920 --> 00:35:20.900 show you a video

NOTE Confidence: 0.93001276

00:35:21.359 --> 00:35:22.079 that I think,

NOTE Confidence: 0.94490653

00:35:23.075 --> 00:35:25.395 describes antibiotic conjugates very well.

NOTE Confidence: 0.94490653

00:35:25.395 --> 00:35:27.315 But, my colleagues told me

NOTE Confidence: 0.94490653

00:35:27.315 --> 00:35:28.275 you don't come here to

NOTE Confidence: 0.94490653

00:35:28.275 --> 00:35:29.315 see a video. You come

NOTE Confidence: 0.94490653

00:35:29.315 --> 00:35:30.915 here to see us talk.

NOTE Confidence: 0.94490653

00:35:30.915 --> 00:35:31.415 So,

NOTE Confidence: 0.97779435

00:35:32.595 --> 00:35:33.795 I'm I put some slides

NOTE Confidence: 0.97779435

00:35:33.795 --> 00:35:35.520 together to to, to illustrate

NOTE Confidence: 0.97779435

00:35:35.520 --> 00:35:36.400 this, but at the end,

NOTE Confidence: 0.97779435

00:35:36.400 --> 00:35:37.360 I'm gonna show just a

NOTE Confidence: 0.97779435

00:35:37.360 --> 00:35:38.719 truncated version of the video

NOTE Confidence: 0.97779435

00:35:38.719 --> 00:35:39.680 and just to see how

NOTE Confidence: 0.97779435

00:35:39.680 --> 00:35:40.340 I did.  
NOTE Confidence: 0.9983989

00:35:41.680 --> 00:35:42.180 Okay.  
NOTE Confidence: 0.9780938

00:35:42.719 --> 00:35:43.920 So on the right here,  
NOTE Confidence: 0.9780938

00:35:43.920 --> 00:35:45.140 you can see a tumor.  
NOTE Confidence: 0.9780938

00:35:45.280 --> 00:35:46.320 So what is a tumor?  
NOTE Confidence: 0.9780938

00:35:46.320 --> 00:35:47.520 So you have one cell  
NOTE Confidence: 0.9780938

00:35:47.520 --> 00:35:48.719 in an organ, let's say,  
NOTE Confidence: 0.9780938

00:35:48.719 --> 00:35:50.165 the lung. One cell that  
NOTE Confidence: 0.9780938

00:35:50.165 --> 00:35:51.605 does its business day by  
NOTE Confidence: 0.9780938

00:35:51.605 --> 00:35:53.125 day. And then for some  
NOTE Confidence: 0.9780938

00:35:53.125 --> 00:35:54.485 reason, that one cell becomes  
NOTE Confidence: 0.9780938

00:35:54.485 --> 00:35:55.925 two, becomes four, becomes a  
NOTE Confidence: 0.9780938

00:35:55.925 --> 00:35:57.685 million. And that happens because  
NOTE Confidence: 0.9780938

00:35:57.685 --> 00:35:59.305 of mutations in the DNA  
NOTE Confidence: 0.9780938

00:35:59.364 --> 00:36:00.185 of that cell.  
NOTE Confidence: 0.99964255

00:36:01.205 --> 00:36:02.265 The immune system

NOTE Confidence: 0.9998355  
00:36:02.565 --> 00:36:03.065 distinguishes  
NOTE Confidence: 0.99795395  
00:36:03.525 --> 00:36:05.049 a tumor cell from a  
NOTE Confidence: 0.99795395  
00:36:05.049 --> 00:36:06.430 normal cell based  
NOTE Confidence: 0.9644624  
00:36:07.690 --> 00:36:08.890 upon proteins that are expressed  
NOTE Confidence: 0.9644624  
00:36:08.890 --> 00:36:09.930 in the surface. We've heard  
NOTE Confidence: 0.9644624  
00:36:09.930 --> 00:36:11.369 about this. We call them  
NOTE Confidence: 0.9644624  
00:36:11.369 --> 00:36:11.869 antigens.  
NOTE Confidence: 0.97817546  
00:36:12.250 --> 00:36:13.770 Okay? And that's how you  
NOTE Confidence: 0.97817546  
00:36:13.770 --> 00:36:15.849 initiate an immune response to,  
NOTE Confidence: 0.87279344  
00:36:16.569 --> 00:36:17.849 to different things, whether it's  
NOTE Confidence: 0.87279344  
00:36:17.849 --> 00:36:18.829 tumor or viruses.  
NOTE Confidence: 0.9906308  
00:36:19.770 --> 00:36:20.270 So  
NOTE Confidence: 0.96984  
00:36:20.625 --> 00:36:21.665 there are two types of  
NOTE Confidence: 0.96984  
00:36:21.665 --> 00:36:22.165 antigens,  
NOTE Confidence: 0.9820696  
00:36:22.465 --> 00:36:23.585 tumor antigens. One is a  
NOTE Confidence: 0.9820696

00:36:23.585 --> 00:36:25.045 tumor specific antigen  
NOTE Confidence: 0.9191177

00:36:25.344 --> 00:36:26.705 which is different patient to  
NOTE Confidence: 0.9191177

00:36:26.705 --> 00:36:28.145 patient. So very hard to  
NOTE Confidence: 0.9191177

00:36:28.145 --> 00:36:29.425 target these antigens because we'd  
NOTE Confidence: 0.9191177

00:36:29.425 --> 00:36:30.545 have to figure out the  
NOTE Confidence: 0.9191177

00:36:30.545 --> 00:36:31.665 difference in each patients and  
NOTE Confidence: 0.9191177

00:36:31.665 --> 00:36:32.545 then would have to create  
NOTE Confidence: 0.9191177

00:36:32.545 --> 00:36:33.285 an antibody.  
NOTE Confidence: 0.9821604

00:36:33.710 --> 00:36:34.510 And then there are the  
NOTE Confidence: 0.9821604

00:36:34.510 --> 00:36:36.190 tumor associated antigens. These are  
NOTE Confidence: 0.9821604

00:36:36.190 --> 00:36:37.569 antigens that are preferentially  
NOTE Confidence: 0.9433136

00:36:38.029 --> 00:36:39.650 expressed on tumor cells,  
NOTE Confidence: 0.99257636

00:36:40.109 --> 00:36:41.730 and these might occur in  
NOTE Confidence: 0.99257636

00:36:42.029 --> 00:36:43.309 anywhere from ten to twenty  
NOTE Confidence: 0.99257636

00:36:43.309 --> 00:36:45.010 five percent of lung cancers.  
NOTE Confidence: 0.9767041

00:36:46.035 --> 00:36:46.994 So here on the left,

NOTE Confidence: 0.9767041  
00:36:46.994 --> 00:36:48.594 you see an antibody. And  
NOTE Confidence: 0.9767041  
00:36:48.594 --> 00:36:49.955 what an antibody is supposed  
NOTE Confidence: 0.9767041  
00:36:49.955 --> 00:36:50.515 to do,  
NOTE Confidence: 0.94031304  
00:36:51.075 --> 00:36:52.114 let's just pretend this is  
NOTE Confidence: 0.94031304  
00:36:52.114 --> 00:36:53.075 not a tumor cell. Let's  
NOTE Confidence: 0.94031304  
00:36:53.075 --> 00:36:54.194 pretend pretend this is a  
NOTE Confidence: 0.94031304  
00:36:54.194 --> 00:36:55.815 cell that's infected with COVID.  
NOTE Confidence: 0.9975977  
00:36:56.114 --> 00:36:56.994 And let's say you've been  
NOTE Confidence: 0.9975977  
00:36:56.994 --> 00:36:58.454 exposed to COVID before.  
NOTE Confidence: 0.96654075  
00:36:58.940 --> 00:37:00.300 So when COVID infects a  
NOTE Confidence: 0.96654075  
00:37:00.300 --> 00:37:01.260 cell, it takes over the  
NOTE Confidence: 0.96654075  
00:37:01.260 --> 00:37:03.020 machinery of the cell, and  
NOTE Confidence: 0.96654075  
00:37:03.020 --> 00:37:04.140 it starts making all sorts  
NOTE Confidence: 0.96654075  
00:37:04.140 --> 00:37:05.100 of proteins. And some of  
NOTE Confidence: 0.96654075  
00:37:05.100 --> 00:37:06.400 these proteins are  
NOTE Confidence: 0.901126

00:37:06.780 --> 00:37:08.480 expressed. Let's see here.

NOTE Confidence: 0.9219296

00:37:11.114 --> 00:37:11.995 Not sure how to show

NOTE Confidence: 0.9219296

00:37:11.995 --> 00:37:12.715 it, but you see these

NOTE Confidence: 0.9219296

00:37:12.715 --> 00:37:13.455 these bright

NOTE Confidence: 0.9708372

00:37:15.355 --> 00:37:16.715 oh, yeah. So you can

NOTE Confidence: 0.9708372

00:37:16.715 --> 00:37:17.835 see these. So one of

NOTE Confidence: 0.9708372

00:37:17.835 --> 00:37:18.795 these might be a COVID

NOTE Confidence: 0.9708372

00:37:18.795 --> 00:37:19.935 associated antigen.

NOTE Confidence: 0.9965266

00:37:20.315 --> 00:37:21.055 And so

NOTE Confidence: 0.9971955

00:37:21.435 --> 00:37:22.335 when that happens,

NOTE Confidence: 0.9619515

00:37:22.715 --> 00:37:24.210 we have antibodies that are

NOTE Confidence: 0.9619515

00:37:24.210 --> 00:37:25.570 made by our own immune

NOTE Confidence: 0.9619515

00:37:25.570 --> 00:37:26.770 system, by our b cells,

NOTE Confidence: 0.9619515

00:37:26.770 --> 00:37:28.130 and they come and they

NOTE Confidence: 0.9619515

00:37:28.130 --> 00:37:28.630 recognize,

NOTE Confidence: 0.9543854

00:37:29.570 --> 00:37:31.730 this infected cell and they,

NOTE Confidence: 0.9543854

00:37:32.130 --> 00:37:33.570 they flag the immune system

NOTE Confidence: 0.9543854

00:37:33.570 --> 00:37:34.790 to destroy the cell.

NOTE Confidence: 0.9665208

00:37:35.565 --> 00:37:36.525 So you've heard a lot

NOTE Confidence: 0.9665208

00:37:36.525 --> 00:37:37.964 about antibodies and the antibodies

NOTE Confidence: 0.9665208

00:37:37.964 --> 00:37:38.925 that you heard about tonight

NOTE Confidence: 0.9665208

00:37:38.925 --> 00:37:40.305 are ones that we create.

NOTE Confidence: 0.9595097

00:37:41.085 --> 00:37:42.364 So in a case of

NOTE Confidence: 0.9595097

00:37:42.364 --> 00:37:43.025 a tumor

NOTE Confidence: 0.9674496

00:37:43.325 --> 00:37:45.085 associated antigen, we might not

NOTE Confidence: 0.9674496

00:37:45.085 --> 00:37:47.405 have antibodies because these antigens

NOTE Confidence: 0.9674496

00:37:47.405 --> 00:37:48.445 might have been expressed on

NOTE Confidence: 0.9674496

00:37:48.445 --> 00:37:50.145 normal cells early in development

NOTE Confidence: 0.9674496

00:37:50.285 --> 00:37:52.160 or on some rare normal

NOTE Confidence: 0.9674496

00:37:52.160 --> 00:37:53.700 cells now in low degree.

NOTE Confidence: 0.95592606

00:37:54.400 --> 00:37:55.940 So we have made antibodies,

NOTE Confidence: 0.9425313

00:37:56.880 --> 00:37:58.160 against some of these antigens.

NOTE Confidence: 0.9425313

00:37:58.160 --> 00:37:59.519 We initially just started making

NOTE Confidence: 0.9425313

00:37:59.519 --> 00:38:01.039 antibodies and there's one for

NOTE Confidence: 0.9425313

00:38:01.039 --> 00:38:02.180 example called Cetuximab.

NOTE Confidence: 0.9624025

00:38:03.325 --> 00:38:04.844 Anyone remember Martha Stewart? She

NOTE Confidence: 0.9624025

00:38:04.844 --> 00:38:05.885 went to jail because of

NOTE Confidence: 0.9624025

00:38:05.885 --> 00:38:07.405 Erbitux. Okay. So that was

NOTE Confidence: 0.9624025

00:38:07.405 --> 00:38:08.205 an antibody. It's one of

NOTE Confidence: 0.9624025

00:38:08.205 --> 00:38:09.965 these, one of these antigens

NOTE Confidence: 0.9624025

00:38:09.965 --> 00:38:11.405 and promise it doesn't it

NOTE Confidence: 0.9624025

00:38:11.405 --> 00:38:12.364 didn't work that well. At

NOTE Confidence: 0.9624025

00:38:12.364 --> 00:38:13.405 least in lung cancer, it

NOTE Confidence: 0.9624025

00:38:13.405 --> 00:38:14.685 didn't work that well. So

NOTE Confidence: 0.9624025

00:38:14.685 --> 00:38:15.750 we need to do better

NOTE Confidence: 0.9624025

00:38:15.989 --> 00:38:16.230 and,

NOTE Confidence: 0.9956605

00:38:16.870 --> 00:38:18.810 technology has allowed us to

NOTE Confidence: 0.9956605  
00:38:18.870 --> 00:38:20.870 modify antibodies in all sorts  
NOTE Confidence: 0.9956605  
00:38:20.870 --> 00:38:21.530 of ways.  
NOTE Confidence: 0.99882597  
00:38:22.070 --> 00:38:23.110 So these are the three  
NOTE Confidence: 0.99882597  
00:38:23.110 --> 00:38:25.030 components of an antibody drug  
NOTE Confidence: 0.99882597  
00:38:25.030 --> 00:38:25.530 conjugate.  
NOTE Confidence: 0.9241343  
00:38:25.830 --> 00:38:27.610 K? You have the  
NOTE Confidence: 0.96059674  
00:38:28.545 --> 00:38:29.984 you have the antibody, we  
NOTE Confidence: 0.96059674  
00:38:29.984 --> 00:38:31.505 call it a monoclonal antibody  
NOTE Confidence: 0.96059674  
00:38:31.505 --> 00:38:32.244 that's created,  
NOTE Confidence: 0.9984277  
00:38:32.545 --> 00:38:33.265 and then we have a  
NOTE Confidence: 0.9984277  
00:38:33.265 --> 00:38:33.765 linker  
NOTE Confidence: 0.9560479  
00:38:34.145 --> 00:38:35.585 that links a warhead, in  
NOTE Confidence: 0.9560479  
00:38:35.585 --> 00:38:36.724 this case, chemotherapy  
NOTE Confidence: 0.91560036  
00:38:37.344 --> 00:38:38.165 to the antibody.  
NOTE Confidence: 0.97247726  
00:38:38.625 --> 00:38:39.425 So now you can have  
NOTE Confidence: 0.97247726

00:38:39.425 --> 00:38:41.105 the antibody that's gonna circulate

NOTE Confidence: 0.97247726

00:38:41.105 --> 00:38:42.305 around the body. It's gonna

NOTE Confidence: 0.97247726

00:38:42.305 --> 00:38:43.650 find the the tumor cell,

NOTE Confidence: 0.97247726

00:38:43.650 --> 00:38:44.770 and it's gonna bring this

NOTE Confidence: 0.97247726

00:38:44.770 --> 00:38:45.270 chemotherapy

NOTE Confidence: 0.97873676

00:38:45.730 --> 00:38:47.270 smart bomb along with it.

NOTE Confidence: 0.97735804

00:38:47.730 --> 00:38:48.770 So blowing this up a

NOTE Confidence: 0.97735804

00:38:48.770 --> 00:38:50.210 little bit, let's just start

NOTE Confidence: 0.97735804

00:38:50.210 --> 00:38:51.589 here. So let's say,

NOTE Confidence: 0.910001

00:38:53.010 --> 00:38:54.130 you know, you know, in

NOTE Confidence: 0.910001

00:38:54.130 --> 00:38:55.089 clinic, I have a big

NOTE Confidence: 0.910001

00:38:55.089 --> 00:38:55.890 arrow so I can see

NOTE Confidence: 0.910001

00:38:55.890 --> 00:38:56.770 it. I can't see it

NOTE Confidence: 0.910001

00:38:56.770 --> 00:38:57.945 here. But anyway,

NOTE Confidence: 0.9451995

00:38:58.505 --> 00:38:59.725 you probably see it.

NOTE Confidence: 0.86012375

00:39:00.025 --> 00:39:01.065 It's they make fun of

NOTE Confidence: 0.86012375  
00:39:01.065 --> 00:39:01.725 me. But,  
NOTE Confidence: 0.96290535  
00:39:02.344 --> 00:39:03.145 so so this is the  
NOTE Confidence: 0.96290535  
00:39:03.145 --> 00:39:04.105 tumor. Right? And here are  
NOTE Confidence: 0.96290535  
00:39:04.105 --> 00:39:05.465 some antigens on the tumor,  
NOTE Confidence: 0.96290535  
00:39:05.465 --> 00:39:06.745 and this is the ADC  
NOTE Confidence: 0.96290535  
00:39:06.745 --> 00:39:07.705 that you get through an  
NOTE Confidence: 0.96290535  
00:39:07.705 --> 00:39:08.985 IV infusion. And let's say  
NOTE Confidence: 0.96290535  
00:39:08.985 --> 00:39:10.185 this is an ADC that  
NOTE Confidence: 0.96290535  
00:39:10.185 --> 00:39:11.625 recognizes something on a tumor  
NOTE Confidence: 0.96290535  
00:39:11.625 --> 00:39:12.780 called TROPE two.  
NOTE Confidence: 0.89731216  
00:39:13.260 --> 00:39:14.300 K? So here you see  
NOTE Confidence: 0.89731216  
00:39:14.300 --> 00:39:15.040 in brown,  
NOTE Confidence: 0.9879324  
00:39:15.340 --> 00:39:16.700 this is TROPE-two. So the  
NOTE Confidence: 0.9879324  
00:39:16.700 --> 00:39:18.000 antibody drug conjugate  
NOTE Confidence: 0.96279514  
00:39:18.540 --> 00:39:19.920 binds to this antibody,  
NOTE Confidence: 0.7539995

00:39:20.620 --> 00:39:21.600 binds this antigen,  
NOTE Confidence: 0.9845476

00:39:21.900 --> 00:39:23.420 and then this causes the  
NOTE Confidence: 0.9845476

00:39:23.420 --> 00:39:24.780 cell to take in the  
NOTE Confidence: 0.9845476

00:39:24.780 --> 00:39:26.060 antibody in a process called  
NOTE Confidence: 0.9845476

00:39:26.060 --> 00:39:26.560 endocytosis.  
NOTE Confidence: 0.9930642

00:39:27.405 --> 00:39:28.864 And once in the cell,  
NOTE Confidence: 0.9984261

00:39:29.645 --> 00:39:30.145 the  
NOTE Confidence: 0.6550956

00:39:30.525 --> 00:39:32.225 antibody inside an endosome,  
NOTE Confidence: 0.9360154

00:39:33.085 --> 00:39:34.685 merges with a lysosome which  
NOTE Confidence: 0.9360154

00:39:34.685 --> 00:39:35.825 allows cleavage  
NOTE Confidence: 0.8645407

00:39:36.364 --> 00:39:37.185 here of  
NOTE Confidence: 0.99806887

00:39:37.485 --> 00:39:38.305 the chemotherapy  
NOTE Confidence: 0.9383765

00:39:38.925 --> 00:39:40.525 from the antibody and now  
NOTE Confidence: 0.9383765

00:39:40.525 --> 00:39:42.045 the chemotherapy can do its  
NOTE Confidence: 0.9383765

00:39:42.045 --> 00:39:43.520 effect, can kill the cancer.  
NOTE Confidence: 0.91944283

00:39:44.060 --> 00:39:45.580 There is another potential effect

NOTE Confidence: 0.91944283  
00:39:45.580 --> 00:39:47.360 called the bystander effect. So  
NOTE Confidence: 0.91944283  
00:39:47.500 --> 00:39:49.739 the once this, chemotherapy is  
NOTE Confidence: 0.91944283  
00:39:49.739 --> 00:39:50.239 is  
NOTE Confidence: 0.91775036  
00:39:50.620 --> 00:39:52.560 is released, it can permeate  
NOTE Confidence: 0.91775036  
00:39:52.620 --> 00:39:54.620 into nearby cells regardless if  
NOTE Confidence: 0.91775036  
00:39:54.620 --> 00:39:55.275 those cells  
NOTE Confidence: 0.8968968  
00:39:55.674 --> 00:39:57.275 express that particular trop two  
NOTE Confidence: 0.8968968  
00:39:57.275 --> 00:39:58.954 antigen or not and cause  
NOTE Confidence: 0.8968968  
00:39:58.954 --> 00:40:00.015 cancer cell death.  
NOTE Confidence: 0.9414053  
00:40:01.275 --> 00:40:02.635 So currently there there are  
NOTE Confidence: 0.9414053  
00:40:02.635 --> 00:40:04.234 many of these antibody drug  
NOTE Confidence: 0.9414053  
00:40:04.234 --> 00:40:05.614 conjugates in development  
NOTE Confidence: 0.92993873  
00:40:06.075 --> 00:40:07.355 for non small cell lung  
NOTE Confidence: 0.92993873  
00:40:07.355 --> 00:40:08.395 cancer on the left and  
NOTE Confidence: 0.92993873  
00:40:08.395 --> 00:40:09.434 small cell lung cancer on  
NOTE Confidence: 0.92993873

00:40:09.434 --> 00:40:11.060 the right. Three of them  
NOTE Confidence: 0.92993873

00:40:11.120 --> 00:40:13.140 are currently FDA approved and  
NOTE Confidence: 0.95302284

00:40:13.760 --> 00:40:15.120 I can see one person  
NOTE Confidence: 0.95302284

00:40:15.120 --> 00:40:16.580 who's on one of them.  
NOTE Confidence: 0.91021806

00:40:17.280 --> 00:40:18.960 One is for a protein  
NOTE Confidence: 0.91021806

00:40:18.960 --> 00:40:20.239 called cMET and here you  
NOTE Confidence: 0.91021806

00:40:20.239 --> 00:40:21.360 can again see this is  
NOTE Confidence: 0.91021806

00:40:21.360 --> 00:40:22.835 the surface of the cell,  
NOTE Confidence: 0.91021806

00:40:22.895 --> 00:40:24.255 and here are the antigens  
NOTE Confidence: 0.91021806

00:40:24.255 --> 00:40:25.695 that are expressed. One is  
NOTE Confidence: 0.91021806

00:40:25.695 --> 00:40:26.815 for TROKE two, and then  
NOTE Confidence: 0.91021806

00:40:26.815 --> 00:40:28.114 one is for HER2.  
NOTE Confidence: 0.96423256

00:40:29.295 --> 00:40:30.594 So we here are  
NOTE Confidence: 0.969484

00:40:30.974 --> 00:40:32.655 running several clinical trials looking  
NOTE Confidence: 0.969484

00:40:32.655 --> 00:40:34.355 at new antibody drug conjugates.  
NOTE Confidence: 0.9552603

00:40:34.869 --> 00:40:35.830 And now that I've gotten

NOTE Confidence: 0.9552603

00:40:35.830 --> 00:40:36.950 to this part, I'd like

NOTE Confidence: 0.9552603

00:40:36.950 --> 00:40:37.910 to show two minutes of

NOTE Confidence: 0.9552603

00:40:37.910 --> 00:40:38.790 a video. Is that okay?

NOTE Confidence: 0.9552603

00:40:38.790 --> 00:40:39.910 Yeah. That's it. Because I

NOTE Confidence: 0.9552603

00:40:39.910 --> 00:40:41.349 think it if I

NOTE Confidence: 0.9552603

00:40:41.349 --> 00:40:42.230 can figure out how to

NOTE Confidence: 0.9552603

00:40:42.230 --> 00:40:42.890 do this.

NOTE Confidence: 0.9892795

00:40:44.230 --> 00:40:44.890 Oh, boy.

NOTE Confidence: 0.91031003

00:40:48.065 --> 00:40:49.765 Yeah. There we go. Antibody

NOTE Confidence: 0.91031003

00:40:49.985 --> 00:40:51.925 drug conjugates or ADCs

NOTE Confidence: 0.99744517

00:40:52.305 --> 00:40:53.425 are a kind of cancer

NOTE Confidence: 0.99744517

00:40:53.425 --> 00:40:54.945 treatment approved to treat a

NOTE Confidence: 0.99744517

00:40:54.945 --> 00:40:56.085 variety of cancers.

NOTE Confidence: 0.99911034

00:40:57.025 --> 00:40:58.625 ADCs were created as a

NOTE Confidence: 0.99911034

00:40:58.625 --> 00:41:00.705 way of delivering chemotherapy drugs

NOTE Confidence: 0.99911034

00:41:00.705 --> 00:41:02.670 directly into cancer cells with  
NOTE Confidence: 0.99911034

00:41:02.670 --> 00:41:04.310 the goal of minimizing damage  
NOTE Confidence: 0.99911034

00:41:04.310 --> 00:41:05.290 to healthy cells.  
NOTE Confidence: 0.9984135

00:41:05.590 --> 00:41:06.550 You can think of them  
NOTE Confidence: 0.9984135

00:41:06.550 --> 00:41:07.770 as a kind of targeted  
NOTE Confidence: 0.9984135

00:41:07.910 --> 00:41:08.410 chemotherapy.  
NOTE Confidence: 0.9989608

00:41:09.190 --> 00:41:10.950 As their name suggests, each  
NOTE Confidence: 0.9989608

00:41:10.950 --> 00:41:13.110 antibody drug conjugate is comprised  
NOTE Confidence: 0.9989608

00:41:13.110 --> 00:41:14.010 of an antibody,  
NOTE Confidence: 0.996429

00:41:14.550 --> 00:41:15.290 a drug,  
NOTE Confidence: 0.9997708

00:41:15.645 --> 00:41:17.005 and a linker that holds  
NOTE Confidence: 0.9997708

00:41:17.005 --> 00:41:17.745 them together.  
NOTE Confidence: 0.9903917

00:41:18.364 --> 00:41:20.605 Antibodies can precisely locate and  
NOTE Confidence: 0.9903917

00:41:20.605 --> 00:41:22.525 bind to specific proteins found  
NOTE Confidence: 0.9903917

00:41:22.525 --> 00:41:23.825 on the surface of cells.  
NOTE Confidence: 0.99929947

00:41:24.205 --> 00:41:26.045 So the antibody component of

NOTE Confidence: 0.99929947  
00:41:26.045 --> 00:41:27.645 an ADC is designed to  
NOTE Confidence: 0.99929947  
00:41:27.645 --> 00:41:29.565 precisely locate and bind to  
NOTE Confidence: 0.99929947  
00:41:29.565 --> 00:41:31.619 a specific protein found mainly  
NOTE Confidence: 0.99929947  
00:41:31.619 --> 00:41:33.140 on whatever type of cancer  
NOTE Confidence: 0.99929947  
00:41:33.140 --> 00:41:34.359 cell is being targeted.  
NOTE Confidence: 0.9936254  
00:41:35.059 --> 00:41:36.660 This antibody serves as a  
NOTE Confidence: 0.9936254  
00:41:36.660 --> 00:41:38.420 guided missile to deliver to  
NOTE Confidence: 0.9936254  
00:41:38.420 --> 00:41:39.700 the inside of the cancer  
NOTE Confidence: 0.9936254  
00:41:39.700 --> 00:41:41.859 cell tiny payloads in the  
NOTE Confidence: 0.9936254  
00:41:41.859 --> 00:41:43.319 form of a potent chemotherapy  
NOTE Confidence: 0.99849105  
00:41:43.619 --> 00:41:44.119 drug.  
NOTE Confidence: 0.9997373  
00:41:44.505 --> 00:41:45.944 Because the chemo is being  
NOTE Confidence: 0.9997373  
00:41:45.944 --> 00:41:47.704 delivered directly to the cancer  
NOTE Confidence: 0.9997373  
00:41:47.704 --> 00:41:48.204 cells,  
NOTE Confidence: 0.9982371  
00:41:48.505 --> 00:41:49.944 ADCs can use a very  
NOTE Confidence: 0.9982371

00:41:49.944 --> 00:41:51.224 low dose of a more  
NOTE Confidence: 0.9982371

00:41:51.224 --> 00:41:53.144 powerful type of chemotherapy than  
NOTE Confidence: 0.9982371

00:41:53.144 --> 00:41:54.265 the kind of chemo that  
NOTE Confidence: 0.9982371

00:41:54.265 --> 00:41:55.805 is delivered throughout the body.  
NOTE Confidence: 0.99969363

00:41:56.585 --> 00:41:58.630 Finally, the linker is designed  
NOTE Confidence: 0.99969363

00:41:58.630 --> 00:41:59.910 to help prevent the chemo  
NOTE Confidence: 0.99969363

00:41:59.910 --> 00:42:01.830 from releasing until it reaches  
NOTE Confidence: 0.99969363

00:42:01.830 --> 00:42:02.890 the target cells.  
NOTE Confidence: 0.9818409

00:42:03.670 --> 00:42:05.430 ADCs are delivered through an  
NOTE Confidence: 0.9818409

00:42:05.430 --> 00:42:05.930 IV.  
NOTE Confidence: 0.9964388

00:42:06.469 --> 00:42:08.150 The antibody component of the  
NOTE Confidence: 0.9964388

00:42:08.150 --> 00:42:08.650 ADC  
NOTE Confidence: 0.9992471

00:42:09.030 --> 00:42:10.550 seeks out cancer cells by  
NOTE Confidence: 0.9992471

00:42:10.550 --> 00:42:11.670 looking for the protein it  
NOTE Confidence: 0.9992471

00:42:11.670 --> 00:42:12.969 was designed to identify.  
NOTE Confidence: 0.99763864

00:42:13.565 --> 00:42:15.085 When the antibody binds to

NOTE Confidence: 0.99763864

00:42:15.085 --> 00:42:17.105 this protein, the cell responds

NOTE Confidence: 0.99763864

00:42:17.165 --> 00:42:18.465 by pulling the ADC

NOTE Confidence: 0.9997575

00:42:18.765 --> 00:42:19.905 inside the cell.

NOTE Confidence: 0.98271286

00:42:20.445 --> 00:42:22.125 Once inside the cancer cell,

NOTE Confidence: 0.98271286

00:42:22.125 --> 00:42:23.665 the laker breaks down.

NOTE Confidence: 0.9801821

00:42:24.045 --> 00:42:26.285 This releases the chemotherapy payload

NOTE Confidence: 0.9801821

00:42:26.285 --> 00:42:27.485 so it can destroy the

NOTE Confidence: 0.9801821

00:42:27.485 --> 00:42:27.985 cell.

NOTE Confidence: 0.9972155

00:42:28.969 --> 00:42:30.489 Now within a tumor, there

NOTE Confidence: 0.9972155

00:42:30.489 --> 00:42:31.770 may be cancer cells that

NOTE Confidence: 0.9972155

00:42:31.770 --> 00:42:33.469 don't have the target protein.

NOTE Confidence: 0.99792576

00:42:34.010 --> 00:42:35.609 Some ADCs are able to

NOTE Confidence: 0.99792576

00:42:35.609 --> 00:42:37.230 destroy these cells too.

NOTE Confidence: 0.9972615

00:42:37.530 --> 00:42:39.309 That's because their chemo payload

NOTE Confidence: 0.9972615

00:42:39.369 --> 00:42:40.329 can seep out of the

NOTE Confidence: 0.9972615

00:42:40.329 --> 00:42:42.089 targeted cells to reach neighboring

NOTE Confidence: 0.9972615

00:42:42.089 --> 00:42:43.815 cells as well. This is

NOTE Confidence: 0.9972615

00:42:43.815 --> 00:42:45.435 called the bystander effect.

NOTE Confidence: 0.9935943

00:42:45.974 --> 00:42:46.935 There are more than a

NOTE Confidence: 0.9935943

00:42:46.935 --> 00:42:48.455 dozen ADCs approved for

NOTE Confidence: 0.9530544

00:42:49.734 --> 00:42:50.695 That's enough. I was gonna

NOTE Confidence: 0.9530544

00:42:50.695 --> 00:42:52.055 show longer initially, but

NOTE Confidence: 0.952703

00:42:52.455 --> 00:42:53.915 alright. Thank you, guys.

NOTE Confidence: 0.9958225

00:42:59.300 --> 00:43:00.660 Thank you all. So I'd

NOTE Confidence: 0.9958225

00:43:00.660 --> 00:43:01.640 like to invite,

NOTE Confidence: 0.9752645

00:43:02.100 --> 00:43:04.020 doctor Wilson, doctor Chang, and

NOTE Confidence: 0.9752645

00:43:04.020 --> 00:43:05.460 doctor Goettinger to just come

NOTE Confidence: 0.9752645

00:43:05.460 --> 00:43:06.200 up here,

NOTE Confidence: 0.99950284

00:43:06.980 --> 00:43:08.020 so that we can they

NOTE Confidence: 0.99950284

00:43:08.020 --> 00:43:09.239 can answer some questions.

NOTE Confidence: 0.98997194

00:43:10.704 --> 00:43:13.125 Does anybody have a question?

NOTE Confidence: 0.8651743  
00:43:15.424 --> 00:43:15.924 Yes.  
NOTE Confidence: 0.99589765  
00:43:16.864 --> 00:43:17.585 I don't know if I  
NOTE Confidence: 0.99589765  
00:43:17.585 --> 00:43:18.405 need the microphone.  
NOTE Confidence: 0.98774415  
00:43:19.105 --> 00:43:20.065 Well, I'm gonna I'll give  
NOTE Confidence: 0.98774415  
00:43:20.065 --> 00:43:20.864 you the mic. I'll pass  
NOTE Confidence: 0.98774415  
00:43:20.864 --> 00:43:22.385 it down. Yeah. My question  
NOTE Confidence: 0.98774415  
00:43:22.385 --> 00:43:23.424 is, regarding,  
NOTE Confidence: 0.9881935  
00:43:23.744 --> 00:43:25.364 heated heated chemotherapy.  
NOTE Confidence: 0.9227803  
00:43:26.520 --> 00:43:27.960 I read something probably in  
NOTE Confidence: 0.9227803  
00:43:27.960 --> 00:43:29.719 the Cure magazine that is  
NOTE Confidence: 0.9227803  
00:43:29.719 --> 00:43:31.020 gonna be a game changer.  
NOTE Confidence: 0.9227803  
00:43:31.160 --> 00:43:32.280 So is that something that  
NOTE Confidence: 0.9227803  
00:43:32.280 --> 00:43:33.560 you folks are working on?  
NOTE Confidence: 0.9227803  
00:43:33.560 --> 00:43:33.800 Or  
NOTE Confidence: 0.9151796  
00:43:36.040 --> 00:43:37.980 Certain spaces we we have.  
NOTE Confidence: 0.9689714

00:43:43.585 --> 00:43:45.185 So there there's certain spaces

NOTE Confidence: 0.9689714

00:43:45.185 --> 00:43:46.145 in the body, like the

NOTE Confidence: 0.9689714

00:43:46.145 --> 00:43:47.665 pleural space, which is, you

NOTE Confidence: 0.9689714

00:43:47.665 --> 00:43:48.704 know, a bag that's around

NOTE Confidence: 0.9689714

00:43:48.704 --> 00:43:49.984 the lung. We have the

NOTE Confidence: 0.9689714

00:43:49.984 --> 00:43:51.425 the peritoneum, which is sort

NOTE Confidence: 0.9689714

00:43:51.425 --> 00:43:52.385 of a bag around all

NOTE Confidence: 0.9689714

00:43:52.385 --> 00:43:53.425 the organs in the in

NOTE Confidence: 0.9689714

00:43:53.425 --> 00:43:54.085 the abdomen.

NOTE Confidence: 0.99818075

00:43:54.920 --> 00:43:55.980 And in those situations,

NOTE Confidence: 0.9804365

00:43:56.360 --> 00:43:57.180 we sometimes

NOTE Confidence: 0.9667803

00:43:58.120 --> 00:43:59.480 will will try to well,

NOTE Confidence: 0.9667803

00:43:59.480 --> 00:44:00.760 we won't, but it's been

NOTE Confidence: 0.9667803

00:44:00.760 --> 00:44:01.719 done where you heat a

NOTE Confidence: 0.9667803

00:44:01.719 --> 00:44:03.000 chemotherapy and you put it

NOTE Confidence: 0.9667803

00:44:03.000 --> 00:44:03.980 into that space

NOTE Confidence: 0.93568265

00:44:04.360 --> 00:44:05.320 or you put some other

NOTE Confidence: 0.93568265

00:44:05.320 --> 00:44:06.520 thing into that space, whether

NOTE Confidence: 0.93568265

00:44:06.520 --> 00:44:07.500 it's another immunotherapy,

NOTE Confidence: 0.99917847

00:44:08.120 --> 00:44:09.565 and that can cause cell

NOTE Confidence: 0.99917847

00:44:09.565 --> 00:44:10.925 death, you know, within that

NOTE Confidence: 0.99917847

00:44:10.925 --> 00:44:11.425 area.

NOTE Confidence: 0.98972

00:44:11.965 --> 00:44:13.665 It's particularly used for mesothelioma,

NOTE Confidence: 0.9820215

00:44:14.765 --> 00:44:15.805 but we're beginning we have

NOTE Confidence: 0.9820215

00:44:15.805 --> 00:44:16.945 a program here,

NOTE Confidence: 0.98709583

00:44:17.245 --> 00:44:18.385 a guy who does mesothelioma

NOTE Confidence: 0.9712743

00:44:18.685 --> 00:44:20.045 for the peritoneum, and he

NOTE Confidence: 0.9712743

00:44:20.045 --> 00:44:20.844 wants us to do this

NOTE Confidence: 0.9712743

00:44:20.844 --> 00:44:22.110 in the pleura. So we're

NOTE Confidence: 0.9712743

00:44:22.110 --> 00:44:23.330 beginning to do this,

NOTE Confidence: 0.9483282

00:44:23.710 --> 00:44:24.910 but it's really a local

NOTE Confidence: 0.9483282

00:44:24.910 --> 00:44:26.110 effect. And there might be  
NOTE Confidence: 0.9483282

00:44:26.110 --> 00:44:27.890 some subsequent immune activation,  
NOTE Confidence: 0.9973152

00:44:28.750 --> 00:44:29.950 but it's it's more local  
NOTE Confidence: 0.9973152

00:44:29.950 --> 00:44:31.070 right now. So when you  
NOTE Confidence: 0.9973152

00:44:31.070 --> 00:44:32.510 say local, that means just  
NOTE Confidence: 0.9973152

00:44:32.510 --> 00:44:33.010 to  
NOTE Confidence: 0.9354199

00:44:33.790 --> 00:44:34.670 say per se, like, the  
NOTE Confidence: 0.9354199

00:44:34.670 --> 00:44:35.630 the log here. In that  
NOTE Confidence: 0.9354199

00:44:35.630 --> 00:44:36.765 cavity, you know, where the  
NOTE Confidence: 0.9354199

00:44:36.765 --> 00:44:38.525 cancer cells line that cavity  
NOTE Confidence: 0.9354199

00:44:38.525 --> 00:44:39.885 and often you have fluid  
NOTE Confidence: 0.9354199

00:44:39.885 --> 00:44:41.164 that's produced because that that  
NOTE Confidence: 0.9354199

00:44:41.164 --> 00:44:42.844 cavity, those lining has holes  
NOTE Confidence: 0.9354199

00:44:42.844 --> 00:44:44.224 in it and you get  
NOTE Confidence: 0.9354199

00:44:44.285 --> 00:44:45.645 pleural effusion. Some of you  
NOTE Confidence: 0.9354199

00:44:45.645 --> 00:44:46.364 might know what that is

NOTE Confidence: 0.9354199

00:44:46.364 --> 00:44:47.484 where you get fluid around

NOTE Confidence: 0.9354199

00:44:47.484 --> 00:44:48.684 the lung or fluid around

NOTE Confidence: 0.9354199

00:44:48.684 --> 00:44:50.670 the abdomen ascites. It's really

NOTE Confidence: 0.9354199

00:44:50.670 --> 00:44:52.510 supposed to treat local disease.

NOTE Confidence: 0.9354199

00:44:52.510 --> 00:44:54.190 But once you get cell

NOTE Confidence: 0.9354199

00:44:54.190 --> 00:44:55.469 death, you can have an

NOTE Confidence: 0.9354199

00:44:55.469 --> 00:44:56.750 immune response, and that immune

NOTE Confidence: 0.9354199

00:44:56.750 --> 00:44:58.349 response can extend beyond that

NOTE Confidence: 0.9354199

00:44:58.349 --> 00:44:58.849 area.

NOTE Confidence: 0.97458786

00:44:59.310 --> 00:45:00.670 Thank you. Can I ask

NOTE Confidence: 0.97458786

00:45:00.670 --> 00:45:01.570 one more question?

NOTE Confidence: 0.9455234

00:45:02.664 --> 00:45:03.164 AI.

NOTE Confidence: 0.9624322

00:45:03.864 --> 00:45:04.825 Where are you folks at

NOTE Confidence: 0.9624322

00:45:04.904 --> 00:45:06.184 in in that whole process

NOTE Confidence: 0.9624322

00:45:06.184 --> 00:45:08.125 of getting that fully implemented

NOTE Confidence: 0.9624322

00:45:08.184 --> 00:45:08.844 at Yale?  
NOTE Confidence: 0.9703548

00:45:09.944 --> 00:45:10.825 Are you at the beginning  
NOTE Confidence: 0.9703548

00:45:10.825 --> 00:45:12.184 stages? When do you expect  
NOTE Confidence: 0.9703548

00:45:12.184 --> 00:45:13.484 it to be fully functional?  
NOTE Confidence: 0.997235

00:45:14.744 --> 00:45:15.724 It's not me.  
NOTE Confidence: 0.9913423

00:45:18.239 --> 00:45:20.000 So AI is super interesting  
NOTE Confidence: 0.9913423

00:45:20.000 --> 00:45:21.120 now, and there's so many  
NOTE Confidence: 0.9913423

00:45:21.120 --> 00:45:22.320 ways that it can be,  
NOTE Confidence: 0.9922836

00:45:23.040 --> 00:45:24.320 used. I think that right  
NOTE Confidence: 0.9922836

00:45:24.320 --> 00:45:24.820 now,  
NOTE Confidence: 0.99540865

00:45:25.920 --> 00:45:27.120 there are there's a lot  
NOTE Confidence: 0.99540865

00:45:27.120 --> 00:45:28.719 of interest, for example, in  
NOTE Confidence: 0.99540865

00:45:28.719 --> 00:45:29.219 pathology.  
NOTE Confidence: 0.9963455

00:45:29.600 --> 00:45:30.100 So,  
NOTE Confidence: 0.98191726

00:45:30.719 --> 00:45:32.340 there is work being done,  
NOTE Confidence: 0.9937916

00:45:33.494 --> 00:45:35.434 where you can you know,

NOTE Confidence: 0.9937916  
00:45:35.575 --> 00:45:36.795 we talk a lot about  
NOTE Confidence: 0.88601243  
00:45:37.255 --> 00:45:39.035 mutation targets like eGFR,  
NOTE Confidence: 0.9715772  
00:45:40.214 --> 00:45:41.815 and and how you can  
NOTE Confidence: 0.9715772  
00:45:41.815 --> 00:45:43.094 sequence and look for that  
NOTE Confidence: 0.9715772  
00:45:43.094 --> 00:45:45.174 DNA. There's work around looking  
NOTE Confidence: 0.9715772  
00:45:45.174 --> 00:45:46.910 at the pathology slide, the  
NOTE Confidence: 0.9715772  
00:45:46.910 --> 00:45:48.989 digital pathology slide, and being  
NOTE Confidence: 0.9715772  
00:45:48.989 --> 00:45:50.349 able to determine whether or  
NOTE Confidence: 0.9715772  
00:45:50.349 --> 00:45:51.650 not you have an EGFR  
NOTE Confidence: 0.9715772  
00:45:51.789 --> 00:45:52.289 mutation  
NOTE Confidence: 0.99045056  
00:45:52.670 --> 00:45:53.549 just from looking at the  
NOTE Confidence: 0.99045056  
00:45:53.549 --> 00:45:54.049 slide  
NOTE Confidence: 0.97835195  
00:45:54.349 --> 00:45:55.789 and teaching folks to do  
NOTE Confidence: 0.97835195  
00:45:55.789 --> 00:45:56.670 that. And so you could  
NOTE Confidence: 0.97835195  
00:45:56.670 --> 00:45:58.210 imagine that would be really  
NOTE Confidence: 0.97835195

00:45:58.455 --> 00:46:00.135 important in places where you  
NOTE Confidence: 0.97835195

00:46:00.135 --> 00:46:01.495 don't have access to the  
NOTE Confidence: 0.97835195

00:46:01.495 --> 00:46:03.195 pathologist or to the sequencing.  
NOTE Confidence: 0.99721706

00:46:03.655 --> 00:46:04.855 So that's one area where  
NOTE Confidence: 0.99721706

00:46:04.855 --> 00:46:05.594 it's really,  
NOTE Confidence: 0.99744797

00:46:06.215 --> 00:46:07.995 important and and active.  
NOTE Confidence: 0.9981558

00:46:08.295 --> 00:46:10.075 Another area is with radiology.  
NOTE Confidence: 0.9682909

00:46:10.455 --> 00:46:11.930 Right? So you have right  
NOTE Confidence: 0.9682909

00:46:11.930 --> 00:46:13.530 now, we have radiologists looking  
NOTE Confidence: 0.9682909

00:46:13.530 --> 00:46:14.430 at the scans,  
NOTE Confidence: 0.9992845

00:46:14.730 --> 00:46:15.770 but if there's a way  
NOTE Confidence: 0.9992845

00:46:15.770 --> 00:46:16.890 that we can help to  
NOTE Confidence: 0.9992845

00:46:16.890 --> 00:46:18.510 augment that by,  
NOTE Confidence: 0.9997453

00:46:19.050 --> 00:46:20.110 you know, training  
NOTE Confidence: 0.90470004

00:46:20.650 --> 00:46:22.170 training AI to look and  
NOTE Confidence: 0.90470004

00:46:22.170 --> 00:46:23.290 see if there are their

NOTE Confidence: 0.90470004  
00:46:23.290 --> 00:46:24.510 particular characteristic  
NOTE Confidence: 0.9505796  
00:46:24.970 --> 00:46:26.110 patterns of cancer.  
NOTE Confidence: 0.96277094  
00:46:26.655 --> 00:46:28.094 And especially if you're looking  
NOTE Confidence: 0.96277094  
00:46:28.094 --> 00:46:29.455 at a scan maybe after  
NOTE Confidence: 0.96277094  
00:46:29.455 --> 00:46:31.055 you have surgery or, you  
NOTE Confidence: 0.96277094  
00:46:31.055 --> 00:46:32.094 know, could you look at  
NOTE Confidence: 0.96277094  
00:46:32.094 --> 00:46:33.855 that and and have,  
NOTE Confidence: 0.9844739  
00:46:35.455 --> 00:46:36.655 see a pattern that might  
NOTE Confidence: 0.9844739  
00:46:36.655 --> 00:46:37.955 put you at more risk  
NOTE Confidence: 0.9844739  
00:46:38.175 --> 00:46:40.030 of developing recurrence or less  
NOTE Confidence: 0.9844739  
00:46:40.030 --> 00:46:41.309 risk. And then you could  
NOTE Confidence: 0.9844739  
00:46:41.309 --> 00:46:43.170 dial you could, you know,  
NOTE Confidence: 0.9876938  
00:46:43.790 --> 00:46:45.950 do more therapy or or  
NOTE Confidence: 0.9876938  
00:46:45.950 --> 00:46:47.309 monitoring or in the high  
NOTE Confidence: 0.9876938  
00:46:47.309 --> 00:46:48.910 risk patient or vice versa.  
NOTE Confidence: 0.9876938

00:46:48.910 --> 00:46:50.190 And that's something that was

NOTE Confidence: 0.9876938

00:46:50.190 --> 00:46:51.489 just presented at

NOTE Confidence: 0.9528735

00:46:53.265 --> 00:46:55.145 ESMO, recently. And so there's

NOTE Confidence: 0.9528735

00:46:55.145 --> 00:46:56.464 a lot of activity, you

NOTE Confidence: 0.9528735

00:46:56.464 --> 00:46:58.224 know, utilizing AI in all

NOTE Confidence: 0.9528735

00:46:58.224 --> 00:46:59.184 sorts of the things that

NOTE Confidence: 0.9528735

00:46:59.184 --> 00:47:00.385 we we do, and I

NOTE Confidence: 0.9528735

00:47:00.385 --> 00:47:01.585 think it's it's sort of

NOTE Confidence: 0.9528735

00:47:01.585 --> 00:47:02.704 rapid learning and,

NOTE Confidence: 0.99767923

00:47:03.825 --> 00:47:04.864 you know, we're all trying

NOTE Confidence: 0.99767923

00:47:04.864 --> 00:47:06.190 to put our heads around

NOTE Confidence: 0.99767923

00:47:06.190 --> 00:47:06.910 that and see if it

NOTE Confidence: 0.99767923

00:47:06.910 --> 00:47:08.210 can help us in our,

NOTE Confidence: 0.98792523

00:47:08.510 --> 00:47:09.489 and help patients.

NOTE Confidence: 0.99957454

00:47:10.830 --> 00:47:11.630 I think we have time

NOTE Confidence: 0.99957454

00:47:11.630 --> 00:47:12.850 for one last question.

NOTE Confidence: 0.9952651

00:47:13.550 --> 00:47:14.050 Yes.

NOTE Confidence: 0.98567307

00:47:23.885 --> 00:47:24.864 Has immunotherapy,

NOTE Confidence: 0.9692689

00:47:25.484 --> 00:47:26.685 reached the level where it's

NOTE Confidence: 0.9692689

00:47:26.685 --> 00:47:28.445 used, only by itself and

NOTE Confidence: 0.9692689

00:47:28.445 --> 00:47:30.065 not in conjunction with chemotherapy

NOTE Confidence: 0.9692689

00:47:30.285 --> 00:47:30.945 as well?

NOTE Confidence: 0.964669

00:47:31.489 --> 00:47:32.930 Is it, always used with

NOTE Confidence: 0.964669

00:47:32.930 --> 00:47:33.430 chemotherapy?

NOTE Confidence: 0.9997398

00:47:35.010 --> 00:47:36.390 Yeah. That's a great question.

NOTE Confidence: 0.98967683

00:47:37.809 --> 00:47:39.410 There are some situations where

NOTE Confidence: 0.98967683

00:47:39.410 --> 00:47:40.369 we might use,

NOTE Confidence: 0.99991006

00:47:40.770 --> 00:47:41.270 immunotherapy

NOTE Confidence: 0.9946764

00:47:41.809 --> 00:47:43.250 alone. We do use it

NOTE Confidence: 0.9946764

00:47:43.250 --> 00:47:44.630 sometimes in combination,

NOTE Confidence: 0.999919

00:47:45.089 --> 00:47:45.829 with chemotherapy.

NOTE Confidence: 0.96183777

00:47:47.145 --> 00:47:48.185 One of the, what we  
NOTE Confidence: 0.96183777

00:47:48.185 --> 00:47:49.864 call biomarkers that we use  
NOTE Confidence: 0.96183777

00:47:49.864 --> 00:47:51.225 to kinda help us to  
NOTE Confidence: 0.96183777

00:47:51.225 --> 00:47:52.685 determine what the likelihood  
NOTE Confidence: 0.9763636

00:47:53.065 --> 00:47:54.665 is of a patient with  
NOTE Confidence: 0.9763636

00:47:54.665 --> 00:47:55.785 a certain type of lung  
NOTE Confidence: 0.9763636

00:47:55.785 --> 00:47:57.385 cancer called non small cell  
NOTE Confidence: 0.9763636

00:47:57.385 --> 00:47:58.125 lung cancer  
NOTE Confidence: 0.8622049

00:47:58.665 --> 00:48:00.205 of benefiting from the immunotherapy  
NOTE Confidence: 0.9826815

00:48:00.745 --> 00:48:02.280 is looking at the tumor  
NOTE Confidence: 0.9826815

00:48:02.280 --> 00:48:04.040 PDL one expression. We've heard  
NOTE Confidence: 0.9826815

00:48:04.040 --> 00:48:06.440 about PDL one, tonight. And  
NOTE Confidence: 0.9826815

00:48:06.440 --> 00:48:07.960 sometimes that can give us  
NOTE Confidence: 0.9826815

00:48:07.960 --> 00:48:08.920 a sense of what the  
NOTE Confidence: 0.9826815

00:48:08.920 --> 00:48:10.520 likelihood of benefit is to  
NOTE Confidence: 0.9826815

00:48:10.520 --> 00:48:11.020 immunotherapy

NOTE Confidence: 0.9992267  
00:48:11.480 --> 00:48:11.980 alone.  
NOTE Confidence: 0.99474293  
00:48:12.600 --> 00:48:14.540 It's not a perfect biomarker,  
NOTE Confidence: 0.99474293  
00:48:14.680 --> 00:48:15.640 and there's a lot of  
NOTE Confidence: 0.99474293  
00:48:15.640 --> 00:48:16.140 research  
NOTE Confidence: 0.9608234  
00:48:17.005 --> 00:48:18.445 going on, not only looking  
NOTE Confidence: 0.9608234  
00:48:18.445 --> 00:48:20.225 at PD L1, other biomarkers  
NOTE Confidence: 0.9608234  
00:48:20.445 --> 00:48:21.585 as well, genetic  
NOTE Confidence: 0.99947125  
00:48:21.885 --> 00:48:22.385 characteristics  
NOTE Confidence: 0.99548143  
00:48:22.685 --> 00:48:23.505 of the cancer,  
NOTE Confidence: 0.98913985  
00:48:24.285 --> 00:48:26.205 that can be important in  
NOTE Confidence: 0.98913985  
00:48:26.205 --> 00:48:27.665 helping to kind of formulate  
NOTE Confidence: 0.98913985  
00:48:27.805 --> 00:48:28.465 the optimal  
NOTE Confidence: 0.96974784  
00:48:28.860 --> 00:48:30.460 treatment plan for a given  
NOTE Confidence: 0.96974784  
00:48:30.460 --> 00:48:31.680 individual patient,  
NOTE Confidence: 0.9995982  
00:48:32.220 --> 00:48:33.840 and that might involve immunotherapy  
NOTE Confidence: 0.9772855

00:48:34.140 --> 00:48:35.500 alone. It might involve,  
NOTE Confidence: 0.9158608

00:48:36.300 --> 00:48:36.800 immunotherapy  
NOTE Confidence: 0.98438156

00:48:37.100 --> 00:48:38.700 together with chemotherapy, and there  
NOTE Confidence: 0.98438156

00:48:38.700 --> 00:48:39.520 may be certain  
NOTE Confidence: 0.93849933

00:48:39.980 --> 00:48:42.160 contexts or situations where immunotherapy  
NOTE Confidence: 0.9453017

00:48:42.540 --> 00:48:44.225 isn't a good choice for  
NOTE Confidence: 0.9453017

00:48:44.225 --> 00:48:44.885 an individual,  
NOTE Confidence: 0.9869719

00:48:45.505 --> 00:48:46.005 patient.  
NOTE Confidence: 0.9987751

00:48:48.225 --> 00:48:49.425 Thank you very much. So  
NOTE Confidence: 0.9987751

00:48:49.425 --> 00:48:50.385 thank you very much for  
NOTE Confidence: 0.9987751

00:48:50.385 --> 00:48:51.665 the speakers in this session.  
NOTE Confidence: 0.9987751

00:48:51.665 --> 00:48:52.885 I think you heard about  
NOTE Confidence: 0.9987751

00:48:52.945 --> 00:48:54.864 some new emerging therapies that  
NOTE Confidence: 0.9987751

00:48:54.864 --> 00:48:56.705 are really exciting and things  
NOTE Confidence: 0.9987751

00:48:56.705 --> 00:48:57.825 for us to keep an  
NOTE Confidence: 0.9987751

00:48:57.825 --> 00:48:59.300 eye out. Thank you very

NOTE Confidence: 0.9999313  
00:49:01.040 --> 00:49:01.540 much.  
NOTE Confidence: 0.95982164  
00:49:05.520 --> 00:49:06.880 Alright. Next, we have a  
NOTE Confidence: 0.95982164  
00:49:06.880 --> 00:49:08.000 panel and,  
NOTE Confidence: 0.9998551  
00:49:09.040 --> 00:49:10.000 that is going to be  
NOTE Confidence: 0.9998551  
00:49:10.000 --> 00:49:10.500 moderated  
NOTE Confidence: 0.9841699  
00:49:10.800 --> 00:49:12.500 by doctor Justin Blasberg  
NOTE Confidence: 0.6443176  
00:49:12.800 --> 00:49:13.300 who  
NOTE Confidence: 0.9997466  
00:49:14.055 --> 00:49:15.035 is right here.  
NOTE Confidence: 0.9278117  
00:49:28.660 --> 00:49:29.560 How are you guys?  
NOTE Confidence: 0.99249053  
00:49:30.020 --> 00:49:31.380 So, this is actually the  
NOTE Confidence: 0.99249053  
00:49:31.380 --> 00:49:33.239 keynote part of the presentation,  
NOTE Confidence: 0.99249053  
00:49:33.300 --> 00:49:33.800 so  
NOTE Confidence: 0.99019575  
00:49:34.260 --> 00:49:35.239 welcome to,  
NOTE Confidence: 0.99070525  
00:49:36.100 --> 00:49:37.480 our session. We're gonna,  
NOTE Confidence: 0.96555847  
00:49:37.860 --> 00:49:39.219 talk about lung cancer screening,  
NOTE Confidence: 0.96555847

00:49:39.219 --> 00:49:40.420 early stage lung cancer, and  
NOTE Confidence: 0.96555847

00:49:40.420 --> 00:49:41.525 a few topics, and we'll  
NOTE Confidence: 0.96555847

00:49:41.525 --> 00:49:42.965 have the group introduce themselves,  
NOTE Confidence: 0.96555847

00:49:42.965 --> 00:49:43.465 and,  
NOTE Confidence: 0.99767274

00:49:44.165 --> 00:49:45.685 we'll run through some questions.  
NOTE Confidence: 0.99767274

00:49:45.685 --> 00:49:46.425 We surveyed  
NOTE Confidence: 0.97882557

00:49:46.805 --> 00:49:48.005 a thousand people to look  
NOTE Confidence: 0.97882557

00:49:48.005 --> 00:49:49.065 for the most important  
NOTE Confidence: 0.9976168

00:49:49.525 --> 00:49:50.725 questions that you guys wanna  
NOTE Confidence: 0.9976168

00:49:50.725 --> 00:49:52.325 know about, and we'll review  
NOTE Confidence: 0.9976168

00:49:52.325 --> 00:49:53.465 some of those things today.  
NOTE Confidence: 0.9844187

00:49:57.219 --> 00:49:58.739 Sure. Hi. Gavett Woodard. I'm  
NOTE Confidence: 0.9844187

00:49:58.739 --> 00:50:00.100 a thoracic surgeon here at  
NOTE Confidence: 0.9844187

00:50:00.100 --> 00:50:01.300 Yale, and we treat a  
NOTE Confidence: 0.9844187

00:50:01.300 --> 00:50:02.420 lot of lung cancer in  
NOTE Confidence: 0.9844187

00:50:02.420 --> 00:50:03.080 our practice.

NOTE Confidence: 0.97633106

00:50:04.180 --> 00:50:05.620 Polly Sather. I'm a nurse

NOTE Confidence: 0.97633106

00:50:05.620 --> 00:50:06.120 practitioner,

NOTE Confidence: 0.9996443

00:50:06.500 --> 00:50:07.860 and I coordinate our lung

NOTE Confidence: 0.9996443

00:50:07.860 --> 00:50:09.239 cancer screening program.

NOTE Confidence: 0.95553714

00:50:11.425 --> 00:50:12.864 Hi. I'm Lynn Tonoye. I'm

NOTE Confidence: 0.95553714

00:50:12.864 --> 00:50:14.805 a pulmonary critical care physician,

NOTE Confidence: 0.95553714

00:50:14.945 --> 00:50:16.065 and I direct the lung

NOTE Confidence: 0.95553714

00:50:16.065 --> 00:50:17.445 cancer screening program.

NOTE Confidence: 0.9992766

00:50:18.065 --> 00:50:18.945 And I also see a

NOTE Confidence: 0.9992766

00:50:18.945 --> 00:50:19.905 lot of patients with lung

NOTE Confidence: 0.9992766

00:50:19.905 --> 00:50:20.405 cancer.

NOTE Confidence: 0.963725

00:50:21.860 --> 00:50:23.700 Good evening. I'm Christina Foos.

NOTE Confidence: 0.963725

00:50:23.700 --> 00:50:24.520 I'm a cardiothoracic

NOTE Confidence: 0.99138594

00:50:24.820 --> 00:50:26.500 radiologist, and I read all

NOTE Confidence: 0.99138594

00:50:26.500 --> 00:50:28.360 these lung cancer screening CDs.

NOTE Confidence: 0.98339844

00:50:30.340 --> 00:50:31.380 So this is a modest  
NOTE Confidence: 0.98339844

00:50:31.380 --> 00:50:32.660 group. If you're having lung  
NOTE Confidence: 0.98339844

00:50:32.660 --> 00:50:34.100 cancer screening anywhere in our  
NOTE Confidence: 0.98339844

00:50:34.100 --> 00:50:36.265 system, probably this group touches  
NOTE Confidence: 0.98339844

00:50:36.485 --> 00:50:37.945 your scan in some form.  
NOTE Confidence: 0.9508346

00:50:38.245 --> 00:50:39.605 That's thousands of scans and  
NOTE Confidence: 0.9508346

00:50:39.605 --> 00:50:41.625 a pretty impressive encatchment. So,  
NOTE Confidence: 0.9977053

00:50:42.005 --> 00:50:43.125 we're fortunate to have this  
NOTE Confidence: 0.9977053

00:50:43.125 --> 00:50:44.405 group today. I wrote my  
NOTE Confidence: 0.9977053

00:50:44.405 --> 00:50:45.385 questions down,  
NOTE Confidence: 0.96896964

00:50:46.005 --> 00:50:47.445 so that we can be  
NOTE Confidence: 0.96896964

00:50:47.445 --> 00:50:48.805 timely. We're gonna start with  
NOTE Confidence: 0.96896964

00:50:48.805 --> 00:50:50.410 Polly. Polly is,  
NOTE Confidence: 0.98532057

00:50:51.590 --> 00:50:53.350 sort of the keeps the  
NOTE Confidence: 0.98532057

00:50:53.350 --> 00:50:54.390 wheels from falling off the  
NOTE Confidence: 0.98532057

00:50:54.390 --> 00:50:55.430 bus of the lung cancer

NOTE Confidence: 0.98532057

00:50:55.430 --> 00:50:56.410 screening machine,

NOTE Confidence: 0.9550523

00:50:57.190 --> 00:50:57.690 and,

NOTE Confidence: 0.99385625

00:50:58.310 --> 00:50:59.350 we were gonna start with

NOTE Confidence: 0.99385625

00:50:59.350 --> 00:51:00.010 some questions

NOTE Confidence: 0.9846386

00:51:00.310 --> 00:51:01.910 mostly about, where we are

NOTE Confidence: 0.9846386

00:51:01.910 --> 00:51:03.370 today with lung cancer screening.

NOTE Confidence: 0.98255676

00:51:04.045 --> 00:51:05.425 Many of you may understand

NOTE Confidence: 0.98255676

00:51:05.565 --> 00:51:06.765 may know who qualifies for

NOTE Confidence: 0.98255676

00:51:06.765 --> 00:51:07.805 lung cancer screening, but we're

NOTE Confidence: 0.98255676

00:51:07.805 --> 00:51:08.945 going to review that quickly

NOTE Confidence: 0.98255676

00:51:09.005 --> 00:51:09.885 and then sort of talk

NOTE Confidence: 0.98255676

00:51:09.885 --> 00:51:10.765 about where we are in

NOTE Confidence: 0.98255676

00:51:10.765 --> 00:51:12.205 twenty twenty five with the

NOTE Confidence: 0.98255676

00:51:12.205 --> 00:51:13.725 success of our program, which

NOTE Confidence: 0.98255676

00:51:13.725 --> 00:51:15.105 has evolved over time,

NOTE Confidence: 0.9815647

00:51:15.725 --> 00:51:17.405 and, what the future looks  
NOTE Confidence: 0.9815647

00:51:17.405 --> 00:51:18.579 like. So why don't we  
NOTE Confidence: 0.9815647

00:51:18.579 --> 00:51:19.460 just start with an update  
NOTE Confidence: 0.9815647

00:51:19.460 --> 00:51:20.900 on lung cancer screening and  
NOTE Confidence: 0.9815647

00:51:20.900 --> 00:51:21.800 and who qualifies?  
NOTE Confidence: 0.98335296

00:51:22.500 --> 00:51:24.260 Sure. So my job kind  
NOTE Confidence: 0.98335296

00:51:24.260 --> 00:51:25.460 of is to keep you  
NOTE Confidence: 0.98335296

00:51:25.460 --> 00:51:26.579 guys having a lot of  
NOTE Confidence: 0.98335296

00:51:26.579 --> 00:51:27.780 free time so we don't  
NOTE Confidence: 0.98335296

00:51:27.780 --> 00:51:29.060 have to talk about those  
NOTE Confidence: 0.98335296

00:51:29.060 --> 00:51:30.739 ADCs and give you guys  
NOTE Confidence: 0.98335296

00:51:30.739 --> 00:51:31.780 a lot of business. But,  
NOTE Confidence: 0.9845203

00:51:32.895 --> 00:51:34.175 so lung cancer screening,  
NOTE Confidence: 0.95385325

00:51:34.575 --> 00:51:36.015 we've had recommendations in the  
NOTE Confidence: 0.95385325

00:51:36.015 --> 00:51:37.535 United States since two thousand  
NOTE Confidence: 0.95385325

00:51:37.535 --> 00:51:39.135 fifteen. But really in March

NOTE Confidence: 0.95385325  
00:51:39.135 --> 00:51:40.675 of two thousand twenty one,  
NOTE Confidence: 0.95385325  
00:51:40.815 --> 00:51:41.555 the recommendations  
NOTE Confidence: 0.98050827  
00:51:41.855 --> 00:51:43.475 by the United States preventative  
NOTE Confidence: 0.98050827  
00:51:43.614 --> 00:51:44.995 task force were updated  
NOTE Confidence: 0.9869701  
00:51:45.369 --> 00:51:47.390 to broaden the eligibility criteria,  
NOTE Confidence: 0.9597383  
00:51:47.770 --> 00:51:49.710 which right now includes anybody  
NOTE Confidence: 0.9597383  
00:51:49.849 --> 00:51:52.089 fifty years to eighty who  
NOTE Confidence: 0.9597383  
00:51:52.089 --> 00:51:52.570 smoked,  
NOTE Confidence: 0.9691421  
00:51:52.969 --> 00:51:54.250 cigarettes a pack a day  
NOTE Confidence: 0.9691421  
00:51:54.250 --> 00:51:55.530 for the equivalent of twenty  
NOTE Confidence: 0.9691421  
00:51:55.530 --> 00:51:57.450 years still smoking or quit  
NOTE Confidence: 0.9691421  
00:51:57.450 --> 00:51:58.830 within fifteen years.  
NOTE Confidence: 0.9555403  
00:51:59.885 --> 00:52:01.265 So that's the current eligibility  
NOTE Confidence: 0.9555403  
00:52:01.484 --> 00:52:02.605 criteria, and the way we  
NOTE Confidence: 0.9555403  
00:52:02.605 --> 00:52:03.645 screen is with a low  
NOTE Confidence: 0.9555403

00:52:03.645 --> 00:52:05.325 dose CAT scan that your  
NOTE Confidence: 0.9555403

00:52:05.325 --> 00:52:06.844 group reads. And we're very  
NOTE Confidence: 0.9555403

00:52:06.844 --> 00:52:08.285 fortunate here at Smilow to  
NOTE Confidence: 0.9555403

00:52:08.285 --> 00:52:09.964 have a dedicated group of  
NOTE Confidence: 0.9555403

00:52:09.964 --> 00:52:10.944 chest radiologists  
NOTE Confidence: 0.8128699

00:52:11.325 --> 00:52:11.645 that,  
NOTE Confidence: 0.9845757

00:52:12.320 --> 00:52:13.600 read these scans. It's not  
NOTE Confidence: 0.9845757

00:52:13.600 --> 00:52:15.200 a general radiology group that  
NOTE Confidence: 0.9845757

00:52:15.200 --> 00:52:17.040 reads them. So that improves  
NOTE Confidence: 0.9845757

00:52:17.040 --> 00:52:18.820 our sensitivity and our specificity  
NOTE Confidence: 0.9845757

00:52:19.119 --> 00:52:20.100 of these tests.  
NOTE Confidence: 0.93331057

00:52:21.119 --> 00:52:22.800 Lung cancer screening, though, has  
NOTE Confidence: 0.93331057

00:52:22.800 --> 00:52:24.480 really been slow in the  
NOTE Confidence: 0.93331057

00:52:24.480 --> 00:52:25.840 uptake. Like, the current,  
NOTE Confidence: 0.9934601

00:52:26.945 --> 00:52:28.945 nationally, we're only screening about  
NOTE Confidence: 0.9934601

00:52:28.945 --> 00:52:30.625 eighteen percent of the eligible

NOTE Confidence: 0.9934601  
00:52:30.625 --> 00:52:31.125 population  
NOTE Confidence: 0.8979986  
00:52:32.145 --> 00:52:33.665 unlike breast, which is about  
NOTE Confidence: 0.8979986  
00:52:33.665 --> 00:52:35.285 eighty percent get mammograms.  
NOTE Confidence: 0.96330446  
00:52:35.985 --> 00:52:38.145 For colorectal screening, it's closer  
NOTE Confidence: 0.96330446  
00:52:38.145 --> 00:52:40.005 to, like, seventy percent. Prostate's  
NOTE Confidence: 0.96330446  
00:52:40.065 --> 00:52:41.605 a little lower, about thirty  
NOTE Confidence: 0.990711  
00:52:41.940 --> 00:52:42.680 six percent.  
NOTE Confidence: 0.9932664  
00:52:43.780 --> 00:52:44.900 But I'm really happy to  
NOTE Confidence: 0.9932664  
00:52:44.900 --> 00:52:46.420 say that in Connecticut, we  
NOTE Confidence: 0.9932664  
00:52:46.420 --> 00:52:47.700 are number two in the  
NOTE Confidence: 0.9932664  
00:52:47.700 --> 00:52:48.820 country in terms of our  
NOTE Confidence: 0.9932664  
00:52:48.820 --> 00:52:50.579 lung cancer screening rates. That  
NOTE Confidence: 0.9932664  
00:52:50.579 --> 00:52:51.540 data just came out from  
NOTE Confidence: 0.9932664  
00:52:51.540 --> 00:52:52.920 the American Lung Association.  
NOTE Confidence: 0.97277355  
00:52:53.380 --> 00:52:55.219 We're just behind our small  
NOTE Confidence: 0.97277355

00:52:55.219 --> 00:52:56.579 little neighbor of Rhode Island  
NOTE Confidence: 0.97277355

00:52:56.579 --> 00:52:57.400 to the north.  
NOTE Confidence: 0.99073195

00:52:57.835 --> 00:52:59.135 And we do have scanners  
NOTE Confidence: 0.99073195

00:52:59.275 --> 00:53:00.555 from, like, Warwick all the  
NOTE Confidence: 0.99073195

00:53:00.555 --> 00:53:01.915 way down to Greenwich, and  
NOTE Confidence: 0.99073195

00:53:01.915 --> 00:53:02.975 we have coordinators,  
NOTE Confidence: 0.96369994

00:53:04.155 --> 00:53:05.435 at all those sites. Some  
NOTE Confidence: 0.96369994

00:53:05.435 --> 00:53:06.875 of them are here. Krista  
NOTE Confidence: 0.96369994

00:53:06.875 --> 00:53:08.875 from New Haven. Emily's here  
NOTE Confidence: 0.96369994

00:53:08.875 --> 00:53:11.055 from Greenwich. Stephanie from Bridgeport.  
NOTE Confidence: 0.9987302

00:53:12.050 --> 00:53:12.930 So we've come a long  
NOTE Confidence: 0.9987302

00:53:12.930 --> 00:53:14.050 way in terms of our  
NOTE Confidence: 0.9987302

00:53:14.050 --> 00:53:15.570 screening, and we're screening, you  
NOTE Confidence: 0.9987302

00:53:15.570 --> 00:53:17.170 know, about three thousand people  
NOTE Confidence: 0.9987302

00:53:17.170 --> 00:53:17.989 now a year.  
NOTE Confidence: 0.9467845

00:53:19.250 --> 00:53:20.070 And in,

NOTE Confidence: 0.9854888  
00:53:21.410 --> 00:53:22.930 the lung cancer screening trials  
NOTE Confidence: 0.9854888  
00:53:22.930 --> 00:53:23.810 that we often,  
NOTE Confidence: 0.9722111  
00:53:24.565 --> 00:53:25.605 think about, talk about, and  
NOTE Confidence: 0.9722111  
00:53:25.605 --> 00:53:26.565 that have shown a benefit  
NOTE Confidence: 0.9722111  
00:53:26.565 --> 00:53:28.105 to lung cancer screening. One  
NOTE Confidence: 0.9998762  
00:53:28.485 --> 00:53:29.145 of the biggest  
NOTE Confidence: 0.9743719  
00:53:29.445 --> 00:53:30.885 parts, the most important parts  
NOTE Confidence: 0.9743719  
00:53:30.885 --> 00:53:31.844 is not just coming in  
NOTE Confidence: 0.9743719  
00:53:31.844 --> 00:53:32.885 to get that initial scan,  
NOTE Confidence: 0.9743719  
00:53:32.885 --> 00:53:34.645 but it's the follow-up. It's  
NOTE Confidence: 0.9743719  
00:53:34.645 --> 00:53:35.844 getting patients to come back  
NOTE Confidence: 0.9743719  
00:53:35.844 --> 00:53:37.364 for the second and third  
NOTE Confidence: 0.9743719  
00:53:37.364 --> 00:53:38.969 scan so that we follow  
NOTE Confidence: 0.9743719  
00:53:38.969 --> 00:53:40.010 nodules that may be growing  
NOTE Confidence: 0.9743719  
00:53:40.010 --> 00:53:41.690 or changing and how have  
NOTE Confidence: 0.9743719

00:53:41.690 --> 00:53:42.890 we or what have we  
NOTE Confidence: 0.9743719

00:53:42.890 --> 00:53:44.750 been doing to help patients  
NOTE Confidence: 0.9743719

00:53:44.890 --> 00:53:46.830 with adherence for those recommendations  
NOTE Confidence: 0.9743719

00:53:46.890 --> 00:53:48.330 because those scans seem like  
NOTE Confidence: 0.9743719

00:53:48.330 --> 00:53:49.450 they're as important as that  
NOTE Confidence: 0.9743719

00:53:49.450 --> 00:53:50.350 initial scan.  
NOTE Confidence: 0.9670451

00:53:51.125 --> 00:53:52.484 Yeah. So adherence is really  
NOTE Confidence: 0.9670451

00:53:52.484 --> 00:53:53.925 worth talking about because in  
NOTE Confidence: 0.9670451

00:53:53.925 --> 00:53:55.785 the lung cancer screening trials,  
NOTE Confidence: 0.9875836

00:53:56.805 --> 00:53:58.085 the majority of the lung  
NOTE Confidence: 0.9875836

00:53:58.085 --> 00:53:59.605 cancers that were found were  
NOTE Confidence: 0.9875836

00:53:59.605 --> 00:54:00.885 not in the initial screen.  
NOTE Confidence: 0.9875836

00:54:00.885 --> 00:54:02.265 It was in the subsequent  
NOTE Confidence: 0.9875836

00:54:02.484 --> 00:54:04.440 screens. So people will have  
NOTE Confidence: 0.9875836

00:54:04.440 --> 00:54:05.560 a normal screen, and then  
NOTE Confidence: 0.9875836

00:54:05.560 --> 00:54:06.440 they do need to come

NOTE Confidence: 0.9875836

00:54:06.440 --> 00:54:07.420 back every year.

NOTE Confidence: 0.9933753

00:54:07.719 --> 00:54:08.119 So,

NOTE Confidence: 0.9989635

00:54:08.599 --> 00:54:10.760 before their initial screen, all

NOTE Confidence: 0.9989635

00:54:10.760 --> 00:54:11.420 the coordinators

NOTE Confidence: 0.98398465

00:54:11.719 --> 00:54:13.739 and I, we call everybody,

NOTE Confidence: 0.98398465

00:54:13.800 --> 00:54:14.760 and we do what's called

NOTE Confidence: 0.98398465

00:54:14.760 --> 00:54:16.359 a shared decision making visit,

NOTE Confidence: 0.98398465

00:54:16.359 --> 00:54:17.239 and we talk a lot

NOTE Confidence: 0.98398465

00:54:17.239 --> 00:54:18.839 about adherence and the importance

NOTE Confidence: 0.98398465

00:54:18.839 --> 00:54:19.755 of coming back.

NOTE Confidence: 0.99863994

00:54:20.795 --> 00:54:21.914 We do also have a

NOTE Confidence: 0.99863994

00:54:21.914 --> 00:54:22.734 pretty sophisticated

NOTE Confidence: 0.97936845

00:54:23.114 --> 00:54:24.634 tracking system within our,

NOTE Confidence: 0.97642124

00:54:25.594 --> 00:54:27.994 EMR, our epic system, where

NOTE Confidence: 0.97642124

00:54:27.994 --> 00:54:29.355 we know when people are

NOTE Confidence: 0.97642124

00:54:29.355 --> 00:54:30.474 late. We know if they  
NOTE Confidence: 0.97642124

00:54:30.474 --> 00:54:32.394 have critical findings, and we  
NOTE Confidence: 0.97642124

00:54:32.394 --> 00:54:33.594 are going to find you  
NOTE Confidence: 0.97642124

00:54:33.594 --> 00:54:34.634 and make sure you get  
NOTE Confidence: 0.97642124

00:54:34.634 --> 00:54:35.730 something done about it.  
NOTE Confidence: 0.9761532

00:54:37.250 --> 00:54:38.450 We also just set up,  
NOTE Confidence: 0.9761532

00:54:38.770 --> 00:54:41.030 a self scheduling option in  
NOTE Confidence: 0.9761532

00:54:41.250 --> 00:54:42.369 the MyChart if we have  
NOTE Confidence: 0.9761532

00:54:42.369 --> 00:54:44.050 MyChart users to help people  
NOTE Confidence: 0.9761532

00:54:44.050 --> 00:54:45.730 schedule their scans and to  
NOTE Confidence: 0.9761532

00:54:45.730 --> 00:54:47.270 improve our adherence rates.  
NOTE Confidence: 0.9993453

00:54:47.905 --> 00:54:48.965 Great. Thank you.  
NOTE Confidence: 0.9002943

00:54:49.665 --> 00:54:51.765 So, doctor Tanui, I'm hoping,  
NOTE Confidence: 0.9977514

00:54:52.465 --> 00:54:53.765 can help us with,  
NOTE Confidence: 0.9853899

00:54:54.465 --> 00:54:55.765 probably the most important  
NOTE Confidence: 0.9957585

00:54:56.065 --> 00:54:58.065 question tonight, which is, why

NOTE Confidence: 0.9957585  
00:54:58.065 --> 00:54:59.025 do you think it's important  
NOTE Confidence: 0.9957585  
00:54:59.025 --> 00:54:59.585 that people  
NOTE Confidence: 0.993123  
00:55:00.145 --> 00:55:01.585 what's the most important reason  
NOTE Confidence: 0.993123  
00:55:01.585 --> 00:55:02.545 that people who are at  
NOTE Confidence: 0.993123  
00:55:02.545 --> 00:55:03.930 risk for lung cancer should  
NOTE Confidence: 0.993123  
00:55:03.930 --> 00:55:05.150 have lung cancer screening?  
NOTE Confidence: 0.91941917  
00:55:05.770 --> 00:55:07.050 So I'm I wanna ask  
NOTE Confidence: 0.91941917  
00:55:07.050 --> 00:55:08.109 the audience a question.  
NOTE Confidence: 0.99854153  
00:55:08.569 --> 00:55:09.450 How many of you have  
NOTE Confidence: 0.99854153  
00:55:09.450 --> 00:55:11.690 had breast, colon, or prostate  
NOTE Confidence: 0.99854153  
00:55:11.690 --> 00:55:13.210 cancer screening in the past  
NOTE Confidence: 0.99854153  
00:55:13.210 --> 00:55:13.950 five years?  
NOTE Confidence: 0.8569294  
00:55:15.369 --> 00:55:17.165 Yeah. So you are motivated,  
NOTE Confidence: 0.8684804  
00:55:17.545 --> 00:55:18.765 educated bunch,  
NOTE Confidence: 0.9607225  
00:55:19.545 --> 00:55:20.045 and,  
NOTE Confidence: 0.9830526

00:55:21.625 --> 00:55:22.905 the whole point of screening  
NOTE Confidence: 0.9830526

00:55:22.905 --> 00:55:24.364 is to find a cancer  
NOTE Confidence: 0.9830526

00:55:24.425 --> 00:55:24.925 early.  
NOTE Confidence: 0.9892938

00:55:25.305 --> 00:55:26.425 Because if we can find  
NOTE Confidence: 0.9892938

00:55:26.425 --> 00:55:28.025 a cancer early before it's  
NOTE Confidence: 0.9892938

00:55:28.025 --> 00:55:29.625 causing any symptoms, so you  
NOTE Confidence: 0.9892938

00:55:29.625 --> 00:55:31.050 wouldn't know to go to  
NOTE Confidence: 0.9892938

00:55:31.050 --> 00:55:31.710 the doctor.  
NOTE Confidence: 0.98847485

00:55:32.090 --> 00:55:34.090 Right? You're healthy, feeling fine,  
NOTE Confidence: 0.98847485

00:55:34.090 --> 00:55:34.969 but you go for your  
NOTE Confidence: 0.98847485

00:55:34.969 --> 00:55:35.469 mammogram,  
NOTE Confidence: 0.9464339

00:55:36.090 --> 00:55:37.770 do your colon rec colon  
NOTE Confidence: 0.9464339

00:55:37.770 --> 00:55:39.610 screening. And PSA, the prostate  
NOTE Confidence: 0.9464339

00:55:39.610 --> 00:55:41.050 specific antigen has had some  
NOTE Confidence: 0.9464339

00:55:41.050 --> 00:55:41.550 controversy,  
NOTE Confidence: 0.9967821

00:55:42.170 --> 00:55:43.930 but most of you men

NOTE Confidence: 0.9967821  
00:55:43.930 --> 00:55:45.530 out there are having it  
NOTE Confidence: 0.9967821  
00:55:45.530 --> 00:55:46.030 monitored.  
NOTE Confidence: 0.9678011  
00:55:48.035 --> 00:55:49.234 If you had a cancer,  
NOTE Confidence: 0.9678011  
00:55:49.234 --> 00:55:50.535 one of those three cancers,  
NOTE Confidence: 0.9678011  
00:55:50.594 --> 00:55:51.335 the likelihood,  
NOTE Confidence: 0.98223495  
00:55:51.954 --> 00:55:53.154 if it was detected by  
NOTE Confidence: 0.98223495  
00:55:53.154 --> 00:55:54.275 screening, that you would be  
NOTE Confidence: 0.98223495  
00:55:54.275 --> 00:55:55.555 alive in five years is  
NOTE Confidence: 0.98223495  
00:55:55.555 --> 00:55:56.775 more than ninety percent.  
NOTE Confidence: 0.9989542  
00:55:57.635 --> 00:55:59.315 And so early detection is  
NOTE Confidence: 0.9989542  
00:55:59.315 --> 00:56:00.855 the reason we're doing screening.  
NOTE Confidence: 0.95255476  
00:56:02.060 --> 00:56:03.580 Right now, all these fancy  
NOTE Confidence: 0.95255476  
00:56:03.580 --> 00:56:05.500 drugs, these exciting science that's  
NOTE Confidence: 0.95255476  
00:56:05.500 --> 00:56:06.640 going on is really  
NOTE Confidence: 0.9883778  
00:56:06.940 --> 00:56:09.120 directed at advanced stage.  
NOTE Confidence: 0.9909083

00:56:09.500 --> 00:56:10.780 They're getting used more and

NOTE Confidence: 0.9909083

00:56:10.780 --> 00:56:12.320 more in earlier stage,

NOTE Confidence: 0.99919504

00:56:12.780 --> 00:56:14.140 but three quarters of people

NOTE Confidence: 0.99919504

00:56:14.140 --> 00:56:15.040 with lung cancer

NOTE Confidence: 0.9917167

00:56:15.340 --> 00:56:17.705 now are diagnosed at advanced

NOTE Confidence: 0.84039015

00:56:18.325 --> 00:56:19.625 stage where surgery

NOTE Confidence: 0.9992807

00:56:19.925 --> 00:56:20.825 or radiation

NOTE Confidence: 0.9941297

00:56:21.605 --> 00:56:22.645 are not gonna be your

NOTE Confidence: 0.9941297

00:56:22.645 --> 00:56:24.425 best options. You need systemic

NOTE Confidence: 0.9941297

00:56:24.485 --> 00:56:26.245 therapy, and so we need

NOTE Confidence: 0.9941297

00:56:26.245 --> 00:56:27.925 all these drugs that have

NOTE Confidence: 0.9941297

00:56:27.925 --> 00:56:30.425 really revolutionized lung cancer care

NOTE Confidence: 0.99816513

00:56:30.830 --> 00:56:32.270 for that seventy five percent

NOTE Confidence: 0.99816513

00:56:32.270 --> 00:56:33.650 of people who have advanced

NOTE Confidence: 0.99816513

00:56:33.790 --> 00:56:35.310 stage disease at the time

NOTE Confidence: 0.99816513

00:56:35.310 --> 00:56:35.969 of diagnosis.

NOTE Confidence: 0.9996012

00:56:36.830 --> 00:56:38.110 So if we can get

NOTE Confidence: 0.9996012

00:56:38.110 --> 00:56:38.850 lung cancer

NOTE Confidence: 0.99959785

00:56:39.230 --> 00:56:41.090 screening embedded in the community

NOTE Confidence: 0.8737357

00:56:42.110 --> 00:56:43.330 so that instead of

NOTE Confidence: 0.9769454

00:56:44.145 --> 00:56:45.505 being glad that it's twenty

NOTE Confidence: 0.9769454

00:56:45.505 --> 00:56:47.205 percent now instead of zero,

NOTE Confidence: 0.99856806

00:56:47.905 --> 00:56:48.945 what that means is eighty

NOTE Confidence: 0.99856806

00:56:48.945 --> 00:56:50.065 percent of people still aren't

NOTE Confidence: 0.99856806

00:56:50.065 --> 00:56:50.805 being screened.

NOTE Confidence: 0.9998401

00:56:51.105 --> 00:56:52.405 We can shift the needle

NOTE Confidence: 0.9595765

00:56:52.705 --> 00:56:54.065 to where breast is, for

NOTE Confidence: 0.9595765

00:56:54.065 --> 00:56:55.125 instance, where,

NOTE Confidence: 0.98627067

00:56:55.910 --> 00:56:57.030 I don't know, eighty percent

NOTE Confidence: 0.98627067

00:56:57.030 --> 00:56:58.469 of people are diagnosed at

NOTE Confidence: 0.98627067

00:56:58.469 --> 00:56:59.750 early eighty percent of women

NOTE Confidence: 0.98627067

00:56:59.750 --> 00:57:01.530 are diagnosed at early stage.

NOTE Confidence: 0.98627067

00:57:01.750 --> 00:57:02.950 And so breast cancer has

NOTE Confidence: 0.98627067

00:57:02.950 --> 00:57:04.630 become a like, I'm a

NOTE Confidence: 0.98627067

00:57:04.630 --> 00:57:06.969 survivor. It's a chronic disease.

NOTE Confidence: 0.99013233

00:57:07.910 --> 00:57:08.710 I go get checked for

NOTE Confidence: 0.99013233

00:57:08.710 --> 00:57:10.535 it every year or two,

NOTE Confidence: 0.99013233

00:57:10.535 --> 00:57:12.135 but I'm not afraid that

NOTE Confidence: 0.99013233

00:57:12.135 --> 00:57:13.335 I'm gonna die because I

NOTE Confidence: 0.99013233

00:57:13.335 --> 00:57:15.094 know that if something happens,

NOTE Confidence: 0.99013233

00:57:15.094 --> 00:57:16.375 I will be detected early

NOTE Confidence: 0.99013233

00:57:16.375 --> 00:57:17.575 again. And we have to

NOTE Confidence: 0.99013233

00:57:17.575 --> 00:57:18.775 shift the needle for lung

NOTE Confidence: 0.99013233

00:57:18.775 --> 00:57:19.275 cancer

NOTE Confidence: 0.96628934

00:57:19.815 --> 00:57:21.654 there because it right now

NOTE Confidence: 0.96628934

00:57:21.654 --> 00:57:22.775 is the leading cause of

NOTE Confidence: 0.96628934

00:57:22.775 --> 00:57:23.580 cancer death

NOTE Confidence: 0.9934991

00:57:24.300 --> 00:57:25.760 in both women and men.

NOTE Confidence: 0.9788422

00:57:26.140 --> 00:57:27.580 And I'm gonna say something,

NOTE Confidence: 0.9788422

00:57:27.580 --> 00:57:28.700 which is a little shocking,

NOTE Confidence: 0.9788422

00:57:28.700 --> 00:57:29.580 which is that in the

NOTE Confidence: 0.9788422

00:57:29.580 --> 00:57:31.020 US, for the last two

NOTE Confidence: 0.9788422

00:57:31.020 --> 00:57:31.840 to three years,

NOTE Confidence: 0.97533435

00:57:32.860 --> 00:57:34.300 more women have been diagnosed

NOTE Confidence: 0.97533435

00:57:34.300 --> 00:57:35.920 with lung cancer than men.

NOTE Confidence: 0.99836904

00:57:36.305 --> 00:57:37.585 And that shift in the

NOTE Confidence: 0.99836904

00:57:37.585 --> 00:57:39.125 curve is gonna keep getting

NOTE Confidence: 0.99836904

00:57:39.345 --> 00:57:40.245 more pronounced.

NOTE Confidence: 0.9919515

00:57:40.545 --> 00:57:41.585 And so all you women

NOTE Confidence: 0.9919515

00:57:41.585 --> 00:57:42.625 out there and all you

NOTE Confidence: 0.9919515

00:57:42.625 --> 00:57:44.225 men, if you have friends

NOTE Confidence: 0.9919515

00:57:44.225 --> 00:57:45.985 who should be screened, please

NOTE Confidence: 0.9919515

00:57:45.985 --> 00:57:47.365 tell them to go.  
NOTE Confidence: 0.9995543

00:57:48.730 --> 00:57:49.230 Awesome.  
NOTE Confidence: 0.98826677

00:57:50.730 --> 00:57:52.430 I think for our radiology  
NOTE Confidence: 0.98826677

00:57:52.730 --> 00:57:53.230 experts,  
NOTE Confidence: 0.98418

00:57:54.490 --> 00:57:55.610 as a as a segue  
NOTE Confidence: 0.98418

00:57:55.610 --> 00:57:56.330 to that,  
NOTE Confidence: 0.977447

00:57:56.890 --> 00:57:58.170 patients are getting lung cancer  
NOTE Confidence: 0.977447

00:57:58.170 --> 00:57:59.850 screening CTs. They're getting CT  
NOTE Confidence: 0.977447

00:57:59.850 --> 00:58:00.350 scans  
NOTE Confidence: 0.9420687

00:58:00.665 --> 00:58:01.945 in the ER for shortness  
NOTE Confidence: 0.9420687

00:58:01.945 --> 00:58:02.984 of breath, they're getting calcium  
NOTE Confidence: 0.9420687

00:58:02.984 --> 00:58:04.665 scoring CT scans, their scans  
NOTE Confidence: 0.9420687

00:58:04.665 --> 00:58:06.505 happening all the time, information  
NOTE Confidence: 0.9420687

00:58:06.505 --> 00:58:07.464 is being released to patients  
NOTE Confidence: 0.9420687

00:58:07.464 --> 00:58:08.825 immediately, they see all sorts  
NOTE Confidence: 0.9420687

00:58:08.825 --> 00:58:09.325 of

NOTE Confidence: 0.8851035

00:58:09.625 --> 00:58:11.464 findings on Epic on MyChart.

NOTE Confidence: 0.8851035

00:58:11.464 --> 00:58:12.905 They don't really understand what

NOTE Confidence: 0.8851035

00:58:12.905 --> 00:58:13.805 those things mean,

NOTE Confidence: 0.99619377

00:58:14.369 --> 00:58:15.430 and that must be

NOTE Confidence: 0.9425995

00:58:15.809 --> 00:58:17.589 equally a burden or a,

NOTE Confidence: 0.9259723

00:58:19.089 --> 00:58:20.549 an extra amount of workload,

NOTE Confidence: 0.9767494

00:58:21.010 --> 00:58:22.609 in reading these scans, for

NOTE Confidence: 0.9767494

00:58:22.609 --> 00:58:23.829 our radiology colleagues.

NOTE Confidence: 0.9970401

00:58:24.930 --> 00:58:26.150 How do you distinguish

NOTE Confidence: 0.990664

00:58:26.715 --> 00:58:28.155 incidental findings on lung cancer

NOTE Confidence: 0.990664

00:58:28.155 --> 00:58:29.675 screening, CT scans, low dose

NOTE Confidence: 0.990664

00:58:29.675 --> 00:58:30.955 CT scans? How do you

NOTE Confidence: 0.990664

00:58:30.955 --> 00:58:32.955 determine what's clinically meaningful? How

NOTE Confidence: 0.990664

00:58:32.955 --> 00:58:34.235 do you determine what's background

NOTE Confidence: 0.990664

00:58:34.235 --> 00:58:35.515 noise? How do we reassure

NOTE Confidence: 0.990664

00:58:35.515 --> 00:58:36.015 patients  
NOTE Confidence: 0.99639904

00:58:36.315 --> 00:58:37.515 that this little spot that  
NOTE Confidence: 0.99639904

00:58:37.515 --> 00:58:38.395 just popped up on the  
NOTE Confidence: 0.99639904

00:58:38.395 --> 00:58:40.075 scan is is actually okay  
NOTE Confidence: 0.99639904

00:58:40.075 --> 00:58:40.735 to watch?  
NOTE Confidence: 0.9886122

00:58:41.550 --> 00:58:42.670 You bring up an excellent  
NOTE Confidence: 0.9886122

00:58:42.670 --> 00:58:44.110 point. And to everybody who  
NOTE Confidence: 0.9886122

00:58:44.110 --> 00:58:45.410 ever had a CT  
NOTE Confidence: 0.9886135

00:58:46.110 --> 00:58:47.470 with a report that scared  
NOTE Confidence: 0.9886135

00:58:47.470 --> 00:58:48.450 you, I apologize  
NOTE Confidence: 0.9889777

00:58:48.910 --> 00:58:50.610 that this scared you.  
NOTE Confidence: 0.958427

00:58:51.950 --> 00:58:53.870 And I would really encourage  
NOTE Confidence: 0.958427

00:58:53.870 --> 00:58:54.990 you if this happens in  
NOTE Confidence: 0.958427

00:58:54.990 --> 00:58:55.650 the future,  
NOTE Confidence: 0.99447185

00:58:56.085 --> 00:58:57.685 don't be scared and talk  
NOTE Confidence: 0.99447185

00:58:57.685 --> 00:58:58.984 to the ordering provider

NOTE Confidence: 0.99743235

00:58:59.445 --> 00:59:00.484 before you go down the

NOTE Confidence: 0.99743235

00:59:00.484 --> 00:59:01.945 rabbit hole of the Internet.

NOTE Confidence: 0.99743235

00:59:02.085 --> 00:59:03.065 Please do that.

NOTE Confidence: 0.9636955

00:59:04.005 --> 00:59:05.765 We are legally obliged to

NOTE Confidence: 0.9636955

00:59:05.765 --> 00:59:06.965 put certain things in the

NOTE Confidence: 0.9636955

00:59:06.965 --> 00:59:08.905 report because otherwise, they're considered

NOTE Confidence: 0.9999189

00:59:09.285 --> 00:59:09.785 missing.

NOTE Confidence: 0.99978113

00:59:10.244 --> 00:59:11.385 Having said that,

NOTE Confidence: 0.998011

00:59:12.000 --> 00:59:13.280 there are things that we

NOTE Confidence: 0.998011

00:59:13.280 --> 00:59:14.800 see on lung cancer screening

NOTE Confidence: 0.998011

00:59:14.800 --> 00:59:16.080 CTs that are not related

NOTE Confidence: 0.998011

00:59:16.080 --> 00:59:17.520 to lung cancer screening that

NOTE Confidence: 0.998011

00:59:17.520 --> 00:59:18.340 are important.

NOTE Confidence: 0.9990347

00:59:19.200 --> 00:59:20.020 As we know,

NOTE Confidence: 0.99353707

00:59:20.480 --> 00:59:22.000 smoking does not only affect

NOTE Confidence: 0.99353707

00:59:22.000 --> 00:59:22.740 our lungs,  
NOTE Confidence: 0.8863297

00:59:23.040 --> 00:59:24.720 but it only also affects  
NOTE Confidence: 0.8863297

00:59:24.720 --> 00:59:25.380 our vessels.  
NOTE Confidence: 0.98718697

00:59:26.225 --> 00:59:28.065 All vessels in our chest  
NOTE Confidence: 0.98718697

00:59:28.065 --> 00:59:29.585 can be affected, particularly the  
NOTE Confidence: 0.98718697

00:59:29.585 --> 00:59:30.705 ones around the heart, the  
NOTE Confidence: 0.98718697

00:59:30.705 --> 00:59:31.765 coronary arteries.  
NOTE Confidence: 0.9956935

00:59:32.145 --> 00:59:33.445 And so if we read  
NOTE Confidence: 0.8763493

00:59:34.305 --> 00:59:36.065 lung cancer c cleaning CTs  
NOTE Confidence: 0.8763493

00:59:36.065 --> 00:59:36.865 and we see a lot  
NOTE Confidence: 0.8763493

00:59:36.865 --> 00:59:38.725 of coronary artery calcifications,  
NOTE Confidence: 0.9935366

00:59:39.745 --> 00:59:41.580 which is a marker for  
NOTE Confidence: 0.9935366

00:59:41.580 --> 00:59:43.260 coronary artery disease, we will  
NOTE Confidence: 0.9935366

00:59:43.260 --> 00:59:44.620 comment on that. And if  
NOTE Confidence: 0.9935366

00:59:44.620 --> 00:59:46.240 you haven't seen a cardiologist  
NOTE Confidence: 0.9777285

00:59:47.660 --> 00:59:48.860 in the past for that,

NOTE Confidence: 0.9777285  
00:59:48.860 --> 00:59:49.900 there will be a note  
NOTE Confidence: 0.9777285  
00:59:49.900 --> 00:59:51.200 in the report saying,  
NOTE Confidence: 0.9951408  
00:59:51.580 --> 00:59:52.460 maybe you should see a  
NOTE Confidence: 0.9951408  
00:59:52.460 --> 00:59:53.900 cardiologist and be worked up  
NOTE Confidence: 0.9951408  
00:59:53.900 --> 00:59:55.205 for that. So this is  
NOTE Confidence: 0.9951408  
00:59:55.205 --> 00:59:56.805 something that we would not  
NOTE Confidence: 0.9951408  
00:59:56.805 --> 00:59:57.305 just  
NOTE Confidence: 0.9989826  
00:59:57.765 --> 00:59:58.265 forget.  
NOTE Confidence: 0.9703838  
00:59:58.805 --> 01:00:00.485 The same is the large  
NOTE Confidence: 0.9703838  
01:00:00.485 --> 01:00:01.525 vessel that comes out of  
NOTE Confidence: 0.9703838  
01:00:01.525 --> 01:00:02.665 your heart, the aorta,  
NOTE Confidence: 0.9581055  
01:00:03.125 --> 01:00:04.645 can be also affected and  
NOTE Confidence: 0.9581055  
01:00:04.645 --> 01:00:06.085 it can get large. And  
NOTE Confidence: 0.9581055  
01:00:06.085 --> 01:00:07.205 so we also comment on  
NOTE Confidence: 0.9581055  
01:00:07.205 --> 01:00:07.705 that.  
NOTE Confidence: 0.9997665

01:00:08.005 --> 01:00:09.705 If it's over a certain  
NOTE Confidence: 0.9946205

01:00:10.350 --> 01:00:10.850 measurement,  
NOTE Confidence: 0.99789304

01:00:11.390 --> 01:00:12.930 you should probably be seen  
NOTE Confidence: 0.98469037

01:00:13.230 --> 01:00:14.510 by a vascular surgeon or  
NOTE Confidence: 0.98469037

01:00:14.510 --> 01:00:15.730 by also by a cardiologist.  
NOTE Confidence: 0.97702324

01:00:16.910 --> 01:00:18.110 Little things in the liver.  
NOTE Confidence: 0.97702324

01:00:18.110 --> 01:00:19.810 We usually try to say,  
NOTE Confidence: 0.9720373

01:00:20.110 --> 01:00:20.990 it's a little thing in  
NOTE Confidence: 0.9720373

01:00:20.990 --> 01:00:22.110 the liver. Don't worry about  
NOTE Confidence: 0.9720373

01:00:22.110 --> 01:00:23.415 it. And if we say  
NOTE Confidence: 0.9720373

01:00:23.415 --> 01:00:24.375 in the report, don't worry  
NOTE Confidence: 0.9720373

01:00:24.375 --> 01:00:25.655 about it, then please don't  
NOTE Confidence: 0.9720373

01:00:25.655 --> 01:00:27.175 worry about it. We have  
NOTE Confidence: 0.9720373

01:00:27.175 --> 01:00:28.775 to say that it's there.  
NOTE Confidence: 0.9720373

01:00:28.775 --> 01:00:29.995 But, again,  
NOTE Confidence: 0.9633402

01:00:30.375 --> 01:00:31.415 it has something to do

NOTE Confidence: 0.9633402  
01:00:31.415 --> 01:00:32.295 with that we have to  
NOTE Confidence: 0.9633402  
01:00:32.295 --> 01:00:33.435 report these things.  
NOTE Confidence: 0.9992582  
01:00:33.815 --> 01:00:34.315 So  
NOTE Confidence: 0.85292  
01:00:34.935 --> 01:00:35.675 in short,  
NOTE Confidence: 0.9979109  
01:00:36.215 --> 01:00:37.195 if you're worried,  
NOTE Confidence: 0.9809701  
01:00:38.490 --> 01:00:39.950 don't ask doctor Google.  
NOTE Confidence: 0.9858909  
01:00:40.410 --> 01:00:42.170 Ask your ordering provider. Ask  
NOTE Confidence: 0.9858909  
01:00:42.170 --> 01:00:43.150 your PCP.  
NOTE Confidence: 0.99681693  
01:00:43.610 --> 01:00:44.590 Ask your pulmonologist.  
NOTE Confidence: 0.95643514  
01:00:46.170 --> 01:00:47.470 Ask someone who knows,  
NOTE Confidence: 0.9989832  
01:00:48.410 --> 01:00:50.350 and please don't be scared.  
NOTE Confidence: 0.9992546  
01:00:51.050 --> 01:00:51.790 Thank you.  
NOTE Confidence: 0.95404595  
01:00:52.355 --> 01:00:53.234 I'm wondering if we could  
NOTE Confidence: 0.95404595  
01:00:53.234 --> 01:00:54.694 also just touch on emerging  
NOTE Confidence: 0.95404595  
01:00:54.755 --> 01:00:57.075 technologies. Someone asked about, AI  
NOTE Confidence: 0.95404595

01:00:57.075 --> 01:00:59.075 and radiology and pathology and  
NOTE Confidence: 0.95404595

01:00:59.075 --> 01:01:01.015 other emerging technologies in  
NOTE Confidence: 0.973513

01:01:01.315 --> 01:01:03.234 the radiology space that are  
NOTE Confidence: 0.973513

01:01:03.234 --> 01:01:05.095 useful for lung cancer screening,  
NOTE Confidence: 0.973513

01:01:05.315 --> 01:01:06.515 what we might expect on  
NOTE Confidence: 0.973513

01:01:06.515 --> 01:01:07.095 the horizon.  
NOTE Confidence: 0.9587132

01:01:08.270 --> 01:01:09.790 Well, obviously, there's a lot  
NOTE Confidence: 0.9587132

01:01:09.790 --> 01:01:10.530 of technological  
NOTE Confidence: 0.9940102

01:01:10.910 --> 01:01:12.349 developments going on. One of  
NOTE Confidence: 0.9940102

01:01:12.349 --> 01:01:14.270 the things that many people  
NOTE Confidence: 0.9940102

01:01:14.270 --> 01:01:16.270 still fear is I'm doing  
NOTE Confidence: 0.9940102

01:01:16.270 --> 01:01:16.770 screening  
NOTE Confidence: 0.98878694

01:01:17.070 --> 01:01:19.410 with ionizing radiation. I'm exposing  
NOTE Confidence: 0.98878694

01:01:19.550 --> 01:01:20.830 myself to something that is  
NOTE Confidence: 0.98878694

01:01:20.830 --> 01:01:21.730 per se risky.  
NOTE Confidence: 0.9980999

01:01:22.285 --> 01:01:23.725 And one of the reason

NOTE Confidence: 0.9980999  
01:01:23.725 --> 01:01:25.325 why lung cancer screening actually  
NOTE Confidence: 0.9980999  
01:01:25.325 --> 01:01:26.605 made it to where we  
NOTE Confidence: 0.9980999  
01:01:26.605 --> 01:01:27.805 are today is because we  
NOTE Confidence: 0.9980999  
01:01:27.805 --> 01:01:28.845 were able to show that  
NOTE Confidence: 0.9980999  
01:01:28.845 --> 01:01:30.065 the risk from the radiation  
NOTE Confidence: 0.9994858  
01:01:30.765 --> 01:01:31.265 outweighs  
NOTE Confidence: 0.9869629  
01:01:31.725 --> 01:01:33.185 the risk or the benefit  
NOTE Confidence: 0.9869629  
01:01:33.405 --> 01:01:35.405 from being screened. Having said  
NOTE Confidence: 0.9869629  
01:01:35.405 --> 01:01:37.025 that, with our newer technologists,  
NOTE Confidence: 0.9869629  
01:01:37.245 --> 01:01:39.140 we're now able to reduce  
NOTE Confidence: 0.9869629  
01:01:39.140 --> 01:01:41.160 the radiation dose even further.  
NOTE Confidence: 0.98373  
01:01:42.100 --> 01:01:43.540 So it gets now into  
NOTE Confidence: 0.98373  
01:01:43.540 --> 01:01:44.660 the realm of maybe a  
NOTE Confidence: 0.98373  
01:01:44.660 --> 01:01:46.260 couple of a handful of  
NOTE Confidence: 0.98373  
01:01:46.260 --> 01:01:47.240 chest x rays,  
NOTE Confidence: 0.9770869

01:01:47.540 --> 01:01:49.640 which are unfortunately completely useless

NOTE Confidence: 0.9990525

01:01:50.260 --> 01:01:51.640 to screen for lung cancer.

NOTE Confidence: 0.99146914

01:01:52.395 --> 01:01:53.855 But the CT is useful,

NOTE Confidence: 0.99146914

01:01:53.995 --> 01:01:55.455 yet the dose is

NOTE Confidence: 0.99615884

01:01:56.475 --> 01:01:56.975 similar.

NOTE Confidence: 0.9476525

01:01:57.355 --> 01:01:59.275 So that's significant change that

NOTE Confidence: 0.9476525

01:01:59.275 --> 01:02:00.655 we have on we are

NOTE Confidence: 0.98757017

01:02:01.195 --> 01:02:02.795 going to have that particular

NOTE Confidence: 0.98757017

01:02:02.795 --> 01:02:04.955 scanner I'm talking about next

NOTE Confidence: 0.98757017

01:02:04.955 --> 01:02:05.989 year. So I'm keeping my

NOTE Confidence: 0.98757017

01:02:05.989 --> 01:02:06.569 fingers crossed.

NOTE Confidence: 0.9911283

01:02:07.030 --> 01:02:08.490 I'm very excited about this.

NOTE Confidence: 0.99852556

01:02:09.750 --> 01:02:11.670 AI was mentioned. AI is

NOTE Confidence: 0.99852556

01:02:11.670 --> 01:02:12.170 ubiquitous.

NOTE Confidence: 0.9744409

01:02:12.470 --> 01:02:13.750 We have it at our

NOTE Confidence: 0.9744409

01:02:13.750 --> 01:02:15.910 discretion every day regardless where

NOTE Confidence: 0.9744409  
01:02:15.910 --> 01:02:16.650 you are.  
NOTE Confidence: 0.9990302  
01:02:17.030 --> 01:02:17.910 We also have it in  
NOTE Confidence: 0.9990302  
01:02:17.910 --> 01:02:19.190 the reading room. There are  
NOTE Confidence: 0.9990302  
01:02:19.190 --> 01:02:21.369 some tools that look at  
NOTE Confidence: 0.9508182  
01:02:21.735 --> 01:02:23.895 patterns in CTs and try  
NOTE Confidence: 0.9508182  
01:02:23.895 --> 01:02:24.635 to recognize,  
NOTE Confidence: 0.97190475  
01:02:25.095 --> 01:02:26.475 is this bad? Is this  
NOTE Confidence: 0.99875015  
01:02:27.015 --> 01:02:28.615 good? Has this changed? Has  
NOTE Confidence: 0.99875015  
01:02:28.615 --> 01:02:29.195 it grown?  
NOTE Confidence: 0.9767501  
01:02:29.575 --> 01:02:30.775 Has it not? The challenge  
NOTE Confidence: 0.9767501  
01:02:30.775 --> 01:02:31.835 with these is  
NOTE Confidence: 0.9789484  
01:02:32.295 --> 01:02:32.795 that  
NOTE Confidence: 0.9893801  
01:02:33.495 --> 01:02:33.995 the  
NOTE Confidence: 0.9987446  
01:02:35.530 --> 01:02:36.970 no CT is the same.  
NOTE Confidence: 0.9987446  
01:02:36.970 --> 01:02:38.330 So if if one of  
NOTE Confidence: 0.9987446

01:02:38.330 --> 01:02:39.450 you were to get their  
NOTE Confidence: 0.9987446

01:02:39.450 --> 01:02:39.950 CT  
NOTE Confidence: 0.99242836

01:02:40.730 --> 01:02:42.170 this year and then next  
NOTE Confidence: 0.99242836

01:02:42.170 --> 01:02:43.130 year, even if you go  
NOTE Confidence: 0.99242836

01:02:43.130 --> 01:02:44.670 to the exact same place,  
NOTE Confidence: 0.9770935

01:02:45.130 --> 01:02:46.670 it will not look entirely  
NOTE Confidence: 0.9770935

01:02:46.890 --> 01:02:48.090 hundred percent the same. And  
NOTE Confidence: 0.9770935

01:02:48.090 --> 01:02:49.230 so we have to  
NOTE Confidence: 0.999797

01:02:49.610 --> 01:02:50.430 find ways  
NOTE Confidence: 0.9569264

01:02:51.595 --> 01:02:53.115 to assess for the minute  
NOTE Confidence: 0.9569264

01:02:53.115 --> 01:02:54.635 changes that are simply because  
NOTE Confidence: 0.9569264

01:02:54.635 --> 01:02:56.235 it's a different CT to  
NOTE Confidence: 0.9569264

01:02:56.235 --> 01:02:57.675 the changes that are actually  
NOTE Confidence: 0.9569264

01:02:57.675 --> 01:02:58.815 true growth  
NOTE Confidence: 0.9550572

01:03:00.155 --> 01:03:01.515 or true changes in what  
NOTE Confidence: 0.9550572

01:03:01.515 --> 01:03:02.735 we describe density.

NOTE Confidence: 0.9993814

01:03:03.115 --> 01:03:04.395 That's a term that we

NOTE Confidence: 0.9993814

01:03:04.395 --> 01:03:05.915 use when we describe things

NOTE Confidence: 0.9993814

01:03:05.915 --> 01:03:06.735 in the lungs.

NOTE Confidence: 0.9821101

01:03:07.910 --> 01:03:09.430 So I'm excited. There's a

NOTE Confidence: 0.9821101

01:03:09.430 --> 01:03:10.470 lot of development at the

NOTE Confidence: 0.9821101

01:03:10.470 --> 01:03:11.430 end of this month. There's

NOTE Confidence: 0.9821101

01:03:11.430 --> 01:03:13.750 our big annual international meeting

NOTE Confidence: 0.9821101

01:03:13.750 --> 01:03:14.790 in Chicago, and I'm sure

NOTE Confidence: 0.9821101

01:03:14.790 --> 01:03:15.830 that the vendors are gonna

NOTE Confidence: 0.9821101

01:03:15.830 --> 01:03:16.810 be full with this.

NOTE Confidence: 0.99963707

01:03:17.430 --> 01:03:18.730 So I'll report back.

NOTE Confidence: 0.9949373

01:03:19.270 --> 01:03:20.655 Thank you. And then for

NOTE Confidence: 0.9949373

01:03:20.655 --> 01:03:21.555 doctor Woodard,

NOTE Confidence: 0.98769957

01:03:22.095 --> 01:03:23.455 maybe our last question before

NOTE Confidence: 0.98769957

01:03:23.455 --> 01:03:24.895 we ask the crowd if

NOTE Confidence: 0.98769957

01:03:24.895 --> 01:03:25.875 they have questions.  
NOTE Confidence: 0.9527049

01:03:27.135 --> 01:03:29.295 Lung cancer screening, calcium scoring,  
NOTE Confidence: 0.9527049

01:03:29.295 --> 01:03:30.495 CT scans, all of this  
NOTE Confidence: 0.9527049

01:03:30.495 --> 01:03:32.015 imaging has generated a lot  
NOTE Confidence: 0.9527049

01:03:32.015 --> 01:03:32.190 of,  
NOTE Confidence: 0.9898854

01:03:32.910 --> 01:03:34.829 early stage business on the  
NOTE Confidence: 0.9898854

01:03:34.829 --> 01:03:36.270 surgery side. And I'm wondering  
NOTE Confidence: 0.9898854

01:03:36.270 --> 01:03:37.390 if you could tell us  
NOTE Confidence: 0.9898854

01:03:37.390 --> 01:03:39.230 about how that has changed  
NOTE Confidence: 0.9898854

01:03:39.230 --> 01:03:40.770 your practice in terms of  
NOTE Confidence: 0.9898854

01:03:41.069 --> 01:03:42.349 volume of cases, the type  
NOTE Confidence: 0.9898854

01:03:42.349 --> 01:03:43.550 of surgeries that you're doing,  
NOTE Confidence: 0.9898854

01:03:43.550 --> 01:03:45.055 and maybe touch on the  
NOTE Confidence: 0.9898854

01:03:45.055 --> 01:03:46.495 robotics program as we have  
NOTE Confidence: 0.9898854

01:03:46.495 --> 01:03:47.375 built that up quite a  
NOTE Confidence: 0.9898854

01:03:47.375 --> 01:03:48.575 bit with your help. Yeah.

NOTE Confidence: 0.9898854

01:03:48.575 --> 01:03:49.315 Thank you.

NOTE Confidence: 0.96151775

01:03:50.255 --> 01:03:51.615 As was mentioned previously by

NOTE Confidence: 0.96151775

01:03:51.615 --> 01:03:53.055 doctor Tanui, the goal is

NOTE Confidence: 0.96151775

01:03:53.055 --> 01:03:54.355 to shift a diagnosis

NOTE Confidence: 0.9711251

01:03:54.815 --> 01:03:56.015 from a cancer that would

NOTE Confidence: 0.9711251

01:03:56.015 --> 01:03:57.309 have been caught at a

NOTE Confidence: 0.9711251

01:03:57.309 --> 01:03:58.990 very late stage where the

NOTE Confidence: 0.9711251

01:03:58.990 --> 01:04:00.290 treatments are more challenging,

NOTE Confidence: 0.9912115

01:04:00.910 --> 01:04:02.349 our likelihood of cure is

NOTE Confidence: 0.9912115

01:04:02.349 --> 01:04:03.970 less, to a much earlier

NOTE Confidence: 0.9912115

01:04:04.030 --> 01:04:05.549 stage where it's a lot

NOTE Confidence: 0.9912115

01:04:05.549 --> 01:04:06.829 more easy for a patient

NOTE Confidence: 0.9912115

01:04:06.829 --> 01:04:08.109 to undergo a lung cancer

NOTE Confidence: 0.9912115

01:04:08.109 --> 01:04:08.609 treatment.

NOTE Confidence: 0.98629504

01:04:08.925 --> 01:04:10.045 So I'm a surgeon. If

NOTE Confidence: 0.98629504

01:04:10.045 --> 01:04:11.325 you're diagnosed with a stage  
NOTE Confidence: 0.98629504

01:04:11.325 --> 01:04:13.005 one lung cancer or found  
NOTE Confidence: 0.98629504

01:04:13.005 --> 01:04:13.965 to have a lung nodule  
NOTE Confidence: 0.98629504

01:04:13.965 --> 01:04:14.845 that we don't even know  
NOTE Confidence: 0.98629504

01:04:14.845 --> 01:04:15.585 what it is,  
NOTE Confidence: 0.98239475

01:04:15.965 --> 01:04:17.485 the treatment for that is  
NOTE Confidence: 0.98239475

01:04:17.485 --> 01:04:18.865 either going to be something  
NOTE Confidence: 0.98239475

01:04:19.085 --> 01:04:20.125 like an operation that we  
NOTE Confidence: 0.98239475

01:04:20.125 --> 01:04:21.005 would do, and I'll talk  
NOTE Confidence: 0.98239475

01:04:21.005 --> 01:04:22.925 about that, or radiation therapy  
NOTE Confidence: 0.98239475

01:04:22.925 --> 01:04:24.045 if you're not a surgical  
NOTE Confidence: 0.98239475

01:04:24.045 --> 01:04:24.545 candidate.  
NOTE Confidence: 0.98846734

01:04:24.900 --> 01:04:26.200 These are a lot easier  
NOTE Confidence: 0.98846734

01:04:26.260 --> 01:04:28.260 therapies to endure than having  
NOTE Confidence: 0.98846734

01:04:28.260 --> 01:04:30.420 systemic therapy. All the new  
NOTE Confidence: 0.98846734

01:04:30.420 --> 01:04:31.960 cool chemotherapy drugs

NOTE Confidence: 0.98649323

01:04:32.260 --> 01:04:33.539 are great, but the ideal

NOTE Confidence: 0.98649323

01:04:33.539 --> 01:04:35.079 treatment for a lung cancer

NOTE Confidence: 0.9946827

01:04:35.380 --> 01:04:36.339 would be to catch it

NOTE Confidence: 0.9946827

01:04:36.339 --> 01:04:38.200 in this very early stage

NOTE Confidence: 0.9946827

01:04:38.420 --> 01:04:39.299 where we can take it

NOTE Confidence: 0.9946827

01:04:39.299 --> 01:04:40.440 out with a lot

NOTE Confidence: 0.992025

01:04:41.115 --> 01:04:42.875 better health benefits to you,

NOTE Confidence: 0.992025

01:04:42.875 --> 01:04:44.415 more likelihood of a cure,

NOTE Confidence: 0.992025

01:04:44.635 --> 01:04:45.675 as well as, you know,

NOTE Confidence: 0.992025

01:04:45.675 --> 01:04:46.715 not putting you through the

NOTE Confidence: 0.992025

01:04:46.715 --> 01:04:47.775 systemic therapies.

NOTE Confidence: 0.961576

01:04:48.155 --> 01:04:48.955 So we do most of

NOTE Confidence: 0.961576

01:04:48.955 --> 01:04:51.055 our operations here with robotic

NOTE Confidence: 0.961576

01:04:51.115 --> 01:04:52.555 surgery as was mentioned by

NOTE Confidence: 0.961576

01:04:52.555 --> 01:04:54.075 doctor Blasberg who leads up

NOTE Confidence: 0.961576

01:04:54.075 --> 01:04:55.295 our robotics program.  
NOTE Confidence: 0.9848073

01:04:56.170 --> 01:04:57.610 And they're all small incisions  
NOTE Confidence: 0.9848073

01:04:57.610 --> 01:04:58.330 on the side. I like  
NOTE Confidence: 0.9848073

01:04:58.330 --> 01:04:59.370 to tell patients they're the  
NOTE Confidence: 0.9848073

01:04:59.370 --> 01:05:00.490 size of my finger, and  
NOTE Confidence: 0.9848073

01:05:00.490 --> 01:05:02.410 we basically put ports between  
NOTE Confidence: 0.9848073

01:05:02.410 --> 01:05:04.170 your ribs. We put cameras  
NOTE Confidence: 0.9848073

01:05:04.170 --> 01:05:05.930 and long instruments in between  
NOTE Confidence: 0.9848073

01:05:05.930 --> 01:05:07.370 your ribs, and we're able  
NOTE Confidence: 0.9848073

01:05:07.370 --> 01:05:08.730 to remove tumors that way.  
NOTE Confidence: 0.9848073

01:05:08.730 --> 01:05:10.244 We can remove lobes, and  
NOTE Confidence: 0.9848073

01:05:10.244 --> 01:05:11.684 most of our operations are  
NOTE Confidence: 0.9848073

01:05:11.684 --> 01:05:13.204 done this way. Patients leave  
NOTE Confidence: 0.9848073

01:05:13.204 --> 01:05:14.325 the hospital in a few  
NOTE Confidence: 0.9848073

01:05:14.325 --> 01:05:15.525 days. They don't have these  
NOTE Confidence: 0.9848073

01:05:15.525 --> 01:05:16.345 big incisions,

NOTE Confidence: 0.98757464

01:05:17.045 --> 01:05:18.244 and they do really well

NOTE Confidence: 0.98757464

01:05:18.244 --> 01:05:19.845 long term. And so the

NOTE Confidence: 0.98757464

01:05:19.845 --> 01:05:21.625 earlier we catch a cancer,

NOTE Confidence: 0.98757464

01:05:21.845 --> 01:05:23.045 the more likely it is

NOTE Confidence: 0.98757464

01:05:23.045 --> 01:05:24.090 that we're able to treat

NOTE Confidence: 0.98757464

01:05:24.090 --> 01:05:25.470 it with just these interventions

NOTE Confidence: 0.98757464

01:05:25.690 --> 01:05:27.690 alone. And stage one cancers

NOTE Confidence: 0.98757464

01:05:27.690 --> 01:05:28.730 at the moment are not

NOTE Confidence: 0.98757464

01:05:28.730 --> 01:05:30.490 getting any more systemic therapies.

NOTE Confidence: 0.98757464

01:05:30.490 --> 01:05:31.450 We're just treating you with

NOTE Confidence: 0.98757464

01:05:31.450 --> 01:05:32.730 this, and then you're done.

NOTE Confidence: 0.98757464

01:05:32.730 --> 01:05:33.610 And you go into a

NOTE Confidence: 0.98757464

01:05:33.610 --> 01:05:35.370 surveillance mode where you're basically

NOTE Confidence: 0.98757464

01:05:35.370 --> 01:05:37.565 getting your annual CT scan

NOTE Confidence: 0.98757464

01:05:37.565 --> 01:05:39.165 eventually just every year to

NOTE Confidence: 0.98757464

01:05:39.165 --> 01:05:40.365 monitor for any signs of  
NOTE Confidence: 0.98757464

01:05:40.365 --> 01:05:40.865 recurrence.  
NOTE Confidence: 0.99465

01:05:41.165 --> 01:05:42.125 So it really does make  
NOTE Confidence: 0.99465

01:05:42.125 --> 01:05:43.484 a dramatic difference in what  
NOTE Confidence: 0.99465

01:05:43.484 --> 01:05:44.765 the treatments are like for  
NOTE Confidence: 0.99465

01:05:44.765 --> 01:05:46.365 lung cancer if it is  
NOTE Confidence: 0.99465

01:05:46.365 --> 01:05:48.224 caught at an earlier stage.  
NOTE Confidence: 0.99465

01:05:48.360 --> 01:05:49.320 And so that's why we  
NOTE Confidence: 0.99465

01:05:49.320 --> 01:05:50.600 we push these initiatives of  
NOTE Confidence: 0.99465

01:05:50.600 --> 01:05:52.360 lung cancer screening because it  
NOTE Confidence: 0.99465

01:05:52.360 --> 01:05:53.400 makes a difference in how  
NOTE Confidence: 0.99465

01:05:53.400 --> 01:05:54.440 people do in terms of  
NOTE Confidence: 0.99465

01:05:54.440 --> 01:05:55.960 outcomes, but it also makes  
NOTE Confidence: 0.99465

01:05:55.960 --> 01:05:57.400 the treatment a lot easier  
NOTE Confidence: 0.99465

01:05:57.400 --> 01:05:58.360 if you are found to  
NOTE Confidence: 0.99465

01:05:58.360 --> 01:05:59.420 have a lung cancer.

NOTE Confidence: 0.9991578  
01:06:01.944 --> 01:06:02.765 Sounds great.  
NOTE Confidence: 0.98820066  
01:06:03.944 --> 01:06:04.825 I think just for the  
NOTE Confidence: 0.98820066  
01:06:04.825 --> 01:06:06.105 sake of time, does anybody  
NOTE Confidence: 0.98820066  
01:06:06.105 --> 01:06:08.105 have questions for this panel,  
NOTE Confidence: 0.98820066  
01:06:08.105 --> 01:06:08.845 this group?  
NOTE Confidence: 0.9985988  
01:06:10.105 --> 01:06:11.545 Do you have some some  
NOTE Confidence: 0.9985988  
01:06:11.545 --> 01:06:12.845 notion about the  
NOTE Confidence: 0.99037915  
01:06:13.145 --> 01:06:14.184 people who are not in  
NOTE Confidence: 0.99037915  
01:06:14.184 --> 01:06:14.845 the current,  
NOTE Confidence: 0.8930396  
01:06:15.625 --> 01:06:17.319 recommended group, you know, the  
NOTE Confidence: 0.8930396  
01:06:17.319 --> 01:06:18.380 fifty smokers,  
NOTE Confidence: 0.9789169  
01:06:18.680 --> 01:06:19.819 the earlier ones,  
NOTE Confidence: 0.9137219  
01:06:20.760 --> 01:06:22.680 and what the incidence is  
NOTE Confidence: 0.9137219  
01:06:22.680 --> 01:06:24.619 of that that group, and  
NOTE Confidence: 0.8367098  
01:06:24.920 --> 01:06:25.980 and is there any,  
NOTE Confidence: 0.93492913

01:06:27.160 --> 01:06:28.680 thought about or or movement  
NOTE Confidence: 0.93492913

01:06:28.680 --> 01:06:31.420 to expand that that pool?  
NOTE Confidence: 0.93492913

01:06:31.674 --> 01:06:32.875 I have a little personal  
NOTE Confidence: 0.93492913

01:06:32.875 --> 01:06:33.994 investment in that that my  
NOTE Confidence: 0.93492913

01:06:33.994 --> 01:06:35.674 wife was diagnosed with early  
NOTE Confidence: 0.93492913

01:06:35.674 --> 01:06:37.194 stage lung cancer because she  
NOTE Confidence: 0.93492913

01:06:37.194 --> 01:06:38.954 tripped at home and thought  
NOTE Confidence: 0.93492913

01:06:38.954 --> 01:06:40.394 she hurt her ribs, and  
NOTE Confidence: 0.93492913

01:06:40.394 --> 01:06:41.994 the imaging showed up at  
NOTE Confidence: 0.93492913

01:06:41.994 --> 01:06:42.894 early stage.  
NOTE Confidence: 0.94803566

01:06:43.650 --> 01:06:45.010 It's a fascinating question. I  
NOTE Confidence: 0.94803566

01:06:45.010 --> 01:06:46.930 think, maybe we'll ask doctor  
NOTE Confidence: 0.94803566

01:06:46.930 --> 01:06:48.390 Tanui to expand,  
NOTE Confidence: 0.9777569

01:06:49.410 --> 01:06:51.170 you know, the what about  
NOTE Confidence: 0.9777569

01:06:51.170 --> 01:06:53.089 family history? What about exposure  
NOTE Confidence: 0.9777569

01:06:53.089 --> 01:06:54.549 history, occupational exposure?

NOTE Confidence: 0.9957993  
01:06:55.329 --> 01:06:56.930 Those those questions are are  
NOTE Confidence: 0.9957993  
01:06:56.930 --> 01:06:57.430 fascinating.  
NOTE Confidence: 0.9991455  
01:06:58.244 --> 01:06:58.744 So  
NOTE Confidence: 0.849089  
01:07:00.244 --> 01:07:00.744 we,  
NOTE Confidence: 0.995978  
01:07:01.765 --> 01:07:03.305 are stuck right now with,  
NOTE Confidence: 0.9272313  
01:07:04.325 --> 01:07:05.865 the criteria that Pali  
NOTE Confidence: 0.9857132  
01:07:06.404 --> 01:07:07.924 outlined, but we know that  
NOTE Confidence: 0.9857132  
01:07:07.924 --> 01:07:09.845 that's not gonna find about  
NOTE Confidence: 0.9857132  
01:07:09.845 --> 01:07:11.125 half of the people who  
NOTE Confidence: 0.9857132  
01:07:11.125 --> 01:07:12.680 will get lung cancer.  
NOTE Confidence: 0.98525834  
01:07:13.140 --> 01:07:13.960 And so,  
NOTE Confidence: 0.9944761  
01:07:14.980 --> 01:07:16.339 one thing is the American  
NOTE Confidence: 0.9944761  
01:07:16.339 --> 01:07:16.839 population  
NOTE Confidence: 0.9727827  
01:07:17.380 --> 01:07:18.200 is changing,  
NOTE Confidence: 0.99192274  
01:07:18.820 --> 01:07:20.099 and there are a lot  
NOTE Confidence: 0.99192274

01:07:20.099 --> 01:07:21.859 more people who never smoked

NOTE Confidence: 0.99192274

01:07:21.859 --> 01:07:23.220 in this country than there

NOTE Confidence: 0.99192274

01:07:23.220 --> 01:07:23.720 were

NOTE Confidence: 0.9817257

01:07:24.099 --> 01:07:26.359 ten, twenty, thirty, certainly fifty

NOTE Confidence: 0.9074009

01:07:26.964 --> 01:07:27.785 years ago,

NOTE Confidence: 0.9996309

01:07:28.165 --> 01:07:29.365 but we're not seeing the

NOTE Confidence: 0.9996309

01:07:29.365 --> 01:07:31.385 lung cancer rates falling precipitously

NOTE Confidence: 0.9618471

01:07:31.765 --> 01:07:32.964 because of that, although they're

NOTE Confidence: 0.9618471

01:07:32.964 --> 01:07:34.805 coming down. So fewer people

NOTE Confidence: 0.9618471

01:07:34.805 --> 01:07:35.545 are dying.

NOTE Confidence: 0.9967874

01:07:36.165 --> 01:07:37.605 But because the population of

NOTE Confidence: 0.9967874

01:07:37.605 --> 01:07:38.724 the United States has gotten

NOTE Confidence: 0.9967874

01:07:38.724 --> 01:07:39.545 so much bigger,

NOTE Confidence: 0.9464185

01:07:40.010 --> 01:07:40.809 there are actually still a

NOTE Confidence: 0.9464185

01:07:40.809 --> 01:07:41.690 lot of people with lung

NOTE Confidence: 0.9464185

01:07:41.690 --> 01:07:42.190 cancer.

NOTE Confidence: 0.97201043

01:07:42.569 --> 01:07:43.690 And so there is a

NOTE Confidence: 0.97201043

01:07:43.690 --> 01:07:45.470 lot of interest in defining

NOTE Confidence: 0.97201043

01:07:45.609 --> 01:07:47.230 risk outside of cigarettes.

NOTE Confidence: 0.999332

01:07:47.930 --> 01:07:49.630 And there are now

NOTE Confidence: 0.96746725

01:07:49.930 --> 01:07:51.609 really good models that can

NOTE Confidence: 0.96746725

01:07:51.609 --> 01:07:54.105 incorporate things like besides age

NOTE Confidence: 0.96746725

01:07:54.105 --> 01:07:54.925 and smoking,

NOTE Confidence: 0.9899505

01:07:55.545 --> 01:07:56.925 are you male or female?

NOTE Confidence: 0.9899505

01:07:56.985 --> 01:07:57.865 Do you have a family

NOTE Confidence: 0.9899505

01:07:57.865 --> 01:07:59.865 history? Were you exposed to

NOTE Confidence: 0.9899505

01:07:59.865 --> 01:08:01.725 asbestos or other carcinogens?

NOTE Confidence: 0.9873476

01:08:03.385 --> 01:08:04.745 And the future of lung

NOTE Confidence: 0.9873476

01:08:04.745 --> 01:08:06.185 cancer screening really is that

NOTE Confidence: 0.9873476

01:08:06.185 --> 01:08:07.065 there should be a way

NOTE Confidence: 0.9873476

01:08:07.065 --> 01:08:08.765 to combine all that patient

NOTE Confidence: 0.9994501

01:08:09.330 --> 01:08:10.390 individual information  
NOTE Confidence: 0.91227984

01:08:10.930 --> 01:08:11.990 with blood tests.  
NOTE Confidence: 0.99768543

01:08:12.290 --> 01:08:13.170 And so if we could  
NOTE Confidence: 0.99768543

01:08:13.170 --> 01:08:14.310 find some of those  
NOTE Confidence: 0.9782551

01:08:14.850 --> 01:08:17.430 gene genetic mutations in blood,  
NOTE Confidence: 0.9660925

01:08:18.290 --> 01:08:19.970 and we know that somebody  
NOTE Confidence: 0.9660925

01:08:19.970 --> 01:08:20.790 maybe demographically  
NOTE Confidence: 0.9746668

01:08:21.170 --> 01:08:22.850 has more risk because they  
NOTE Confidence: 0.9746668

01:08:22.850 --> 01:08:24.655 have a primary relative of  
NOTE Confidence: 0.9746668

01:08:24.655 --> 01:08:26.655 lung cancer, that should then  
NOTE Confidence: 0.9746668

01:08:26.655 --> 01:08:28.515 expand the pool of people,  
NOTE Confidence: 0.9746668

01:08:28.574 --> 01:08:30.195 perhaps to the general population,  
NOTE Confidence: 0.99864876

01:08:31.135 --> 01:08:32.175 who would then have that  
NOTE Confidence: 0.99864876

01:08:32.175 --> 01:08:32.835 sort of  
NOTE Confidence: 0.97298765

01:08:33.455 --> 01:08:34.594 relatively noninvasive  
NOTE Confidence: 0.9546421

01:08:35.135 --> 01:08:36.670 testing. I mean, a PSA

NOTE Confidence: 0.9546421

01:08:36.670 --> 01:08:37.550 is a blood test after

NOTE Confidence: 0.9546421

01:08:37.550 --> 01:08:38.270 all. So this would be

NOTE Confidence: 0.9546421

01:08:38.270 --> 01:08:40.450 blood test with patient characteristics.

NOTE Confidence: 0.94614

01:08:41.150 --> 01:08:42.189 And I think that is

NOTE Confidence: 0.94614

01:08:42.189 --> 01:08:43.150 the way that this is

NOTE Confidence: 0.94614

01:08:43.150 --> 01:08:44.670 headed, and hopefully, really within

NOTE Confidence: 0.94614

01:08:44.670 --> 01:08:45.650 the next decade,

NOTE Confidence: 0.99954903

01:08:46.510 --> 01:08:47.710 your wife won't have to

NOTE Confidence: 0.99954903

01:08:47.710 --> 01:08:49.090 be diagnosed by accident.

NOTE Confidence: 0.9995257

01:08:52.215 --> 01:08:53.275 Any other questions?

NOTE Confidence: 0.82521755

01:08:56.455 --> 01:08:57.255 Yeah. I have a question.

NOTE Confidence: 0.82521755

01:08:57.255 --> 01:08:57.494 Just,

NOTE Confidence: 0.8743185

01:08:59.094 --> 01:08:59.594 smoking.

NOTE Confidence: 0.9991063

01:09:00.054 --> 01:09:01.514 I mean, what about toxics

NOTE Confidence: 0.95546985

01:09:02.135 --> 01:09:03.354 and other, you know,

NOTE Confidence: 0.9209612

01:09:03.814 --> 01:09:05.195 air stuff in the air  
NOTE Confidence: 0.82086277

01:09:05.620 --> 01:09:06.600 could could cause  
NOTE Confidence: 0.9528301

01:09:07.060 --> 01:09:08.500 tumors in the lungs as  
NOTE Confidence: 0.9528301

01:09:08.500 --> 01:09:10.820 well. And, that's one part.  
NOTE Confidence: 0.9528301

01:09:10.820 --> 01:09:11.800 And second is,  
NOTE Confidence: 0.95147145

01:09:12.420 --> 01:09:13.160 why don't,  
NOTE Confidence: 0.9652263

01:09:14.260 --> 01:09:15.239 medical doctors  
NOTE Confidence: 0.96354055

01:09:15.860 --> 01:09:17.300 in the beginning check for  
NOTE Confidence: 0.96354055

01:09:17.300 --> 01:09:18.979 this at a certain part?  
NOTE Confidence: 0.96354055

01:09:18.979 --> 01:09:19.780 I mean, why does there  
NOTE Confidence: 0.96354055

01:09:19.780 --> 01:09:20.920 have to be an incident  
NOTE Confidence: 0.9630219

01:09:21.225 --> 01:09:22.185 for them to check to  
NOTE Confidence: 0.9630219

01:09:22.185 --> 01:09:23.405 see if you have cancer?  
NOTE Confidence: 0.9778931

01:09:23.945 --> 01:09:25.145 I mean, it's, I mean,  
NOTE Confidence: 0.9778931

01:09:25.145 --> 01:09:25.885 in my case,  
NOTE Confidence: 0.94150805

01:09:26.265 --> 01:09:27.465 I was kinda lucky. I

NOTE Confidence: 0.94150805  
01:09:27.465 --> 01:09:27.905 just  
NOTE Confidence: 0.8839217  
01:09:28.345 --> 01:09:29.865 it's really falling down. If  
NOTE Confidence: 0.8839217  
01:09:29.865 --> 01:09:30.825 I didn't fall down, I  
NOTE Confidence: 0.8839217  
01:09:30.825 --> 01:09:31.705 wouldn't have known what I  
NOTE Confidence: 0.8839217  
01:09:31.705 --> 01:09:32.985 had. You know? Alright. Everybody  
NOTE Confidence: 0.8839217  
01:09:32.985 --> 01:09:33.865 go out and fall down.  
NOTE Confidence: 0.8839217  
01:09:33.865 --> 01:09:34.365 Alright?  
NOTE Confidence: 0.93541116  
01:09:36.040 --> 01:09:37.420 Because we have two falls.  
NOTE Confidence: 0.9884487  
01:09:37.880 --> 01:09:39.000 I I I think you're  
NOTE Confidence: 0.9884487  
01:09:39.000 --> 01:09:40.199 touching on what is really  
NOTE Confidence: 0.9884487  
01:09:40.199 --> 01:09:41.400 the challenge right now. We  
NOTE Confidence: 0.9884487  
01:09:41.400 --> 01:09:42.540 wanna screen everyone.  
NOTE Confidence: 0.9631518  
01:09:42.920 --> 01:09:44.040 But if we did we  
NOTE Confidence: 0.9631518  
01:09:44.040 --> 01:09:45.000 if we did a CT  
NOTE Confidence: 0.9631518  
01:09:45.000 --> 01:09:46.679 scan on everybody, then even  
NOTE Confidence: 0.9631518

01:09:46.679 --> 01:09:48.360 with the tiny dose of  
NOTE Confidence: 0.9631518

01:09:48.360 --> 01:09:50.439 radiation, we'd be exposing a  
NOTE Confidence: 0.9631518

01:09:50.439 --> 01:09:51.645 lot of people to  
NOTE Confidence: 0.99930227

01:09:52.125 --> 01:09:53.345 consecutive scans  
NOTE Confidence: 0.9878875

01:09:53.885 --> 01:09:55.665 who will never get cancer.  
NOTE Confidence: 0.9663845

01:09:56.205 --> 01:09:57.564 And so that these risk  
NOTE Confidence: 0.9663845

01:09:57.564 --> 01:09:58.604 models that I was talking  
NOTE Confidence: 0.9663845

01:09:58.604 --> 01:09:59.985 about do try to incorporate  
NOTE Confidence: 0.9663845

01:10:00.045 --> 01:10:01.425 things like exposures,  
NOTE Confidence: 0.96962804

01:10:02.045 --> 01:10:03.405 although it's really hard to  
NOTE Confidence: 0.96962804

01:10:03.405 --> 01:10:03.905 quantify,  
NOTE Confidence: 0.9999403

01:10:04.445 --> 01:10:05.104 to measure  
NOTE Confidence: 0.97983897

01:10:05.645 --> 01:10:07.270 how much exposure I may  
NOTE Confidence: 0.97983897

01:10:07.270 --> 01:10:08.810 have had from air pollution  
NOTE Confidence: 0.9919096

01:10:09.270 --> 01:10:10.949 versus somebody else who lives  
NOTE Confidence: 0.9919096

01:10:10.949 --> 01:10:12.790 in another city, for instance.

NOTE Confidence: 0.9919096  
01:10:12.790 --> 01:10:13.590 And so I I don't  
NOTE Confidence: 0.9919096  
01:10:13.630 --> 01:10:14.310 I think we have to  
NOTE Confidence: 0.9919096  
01:10:14.310 --> 01:10:15.830 get more sophisticated than that,  
NOTE Confidence: 0.9919096  
01:10:15.830 --> 01:10:17.030 and that really is gonna  
NOTE Confidence: 0.9919096  
01:10:17.030 --> 01:10:18.090 be a biomarker  
NOTE Confidence: 0.9688146  
01:10:18.390 --> 01:10:19.130 blood test,  
NOTE Confidence: 0.999654  
01:10:19.905 --> 01:10:21.185 so that we can screen  
NOTE Confidence: 0.999654  
01:10:21.185 --> 01:10:21.845 the population.  
NOTE Confidence: 0.9158671  
01:10:22.385 --> 01:10:23.425 Like, you know, blood test  
NOTE Confidence: 0.9158671  
01:10:23.425 --> 01:10:24.485 tell you you have cancer.  
NOTE Confidence: 0.9158671  
01:10:24.625 --> 01:10:25.505 Well, we don't have it  
NOTE Confidence: 0.9158671  
01:10:25.505 --> 01:10:26.865 yet, but believe me, there's  
NOTE Confidence: 0.9158671  
01:10:26.865 --> 01:10:27.985 a ton of work going  
NOTE Confidence: 0.9158671  
01:10:27.985 --> 01:10:28.485 on,  
NOTE Confidence: 0.9864711  
01:10:29.104 --> 01:10:30.945 for that. Yeah. Yeah. So,  
NOTE Confidence: 0.9864711

01:10:30.945 --> 01:10:32.710 you know, it's it's truly  
NOTE Confidence: 0.9864711

01:10:32.790 --> 01:10:33.829 we I couldn't have said  
NOTE Confidence: 0.9864711

01:10:33.829 --> 01:10:35.110 this ten years ago when  
NOTE Confidence: 0.9864711

01:10:35.110 --> 01:10:36.469 we started screening that that  
NOTE Confidence: 0.9864711

01:10:36.469 --> 01:10:37.829 was on the horizon, but  
NOTE Confidence: 0.9864711

01:10:37.829 --> 01:10:39.590 it but it is. Yeah.  
NOTE Confidence: 0.9864711

01:10:39.590 --> 01:10:40.329 Thank you.  
NOTE Confidence: 0.96848243

01:10:42.630 --> 01:10:44.229 Alright. Great. Thanks to this  
NOTE Confidence: 0.96848243

01:10:44.229 --> 01:10:45.510 panel and, to the audience  
NOTE Confidence: 0.96848243

01:10:45.510 --> 01:10:46.489 for listening, and  
NOTE Confidence: 0.9994417

01:10:46.814 --> 01:10:47.935 we'll move on to our  
NOTE Confidence: 0.9994417

01:10:47.935 --> 01:10:48.755 last panel.  
NOTE Confidence: 0.9991886

01:10:57.695 --> 01:10:58.975 Alright. So we are moving  
NOTE Confidence: 0.9991886

01:10:58.975 --> 01:11:00.015 on to our next panel.  
NOTE Confidence: 0.9991886

01:11:00.015 --> 01:11:01.155 We have two more panels.  
NOTE Confidence: 0.93583775

01:11:02.290 --> 01:11:03.510 This one, I am moderating.

NOTE Confidence: 0.93583775  
01:11:03.570 --> 01:11:04.950 So this one is called  
NOTE Confidence: 0.93583775  
01:11:05.010 --> 01:11:05.510 progression  
NOTE Confidence: 0.8739123  
01:11:06.770 --> 01:11:07.670 through participation.  
NOTE Confidence: 0.99451417  
01:11:08.610 --> 01:11:10.470 Lung cancer clinical trials matter.  
NOTE Confidence: 0.9838796  
01:11:12.050 --> 01:11:13.270 I don't see any panelists  
NOTE Confidence: 0.9838796  
01:11:13.330 --> 01:11:14.505 here with me. Be asking  
NOTE Confidence: 0.9838796  
01:11:14.505 --> 01:11:16.045 myself questions. Okay.  
NOTE Confidence: 0.91979915  
01:11:16.505 --> 01:11:17.645 So come up.  
NOTE Confidence: 0.9407742  
01:11:18.104 --> 01:11:19.064 Okay. Good. Here are my  
NOTE Confidence: 0.9407742  
01:11:19.064 --> 01:11:20.284 panelists in. Okay.  
NOTE Confidence: 0.9680471  
01:11:23.064 --> 01:11:24.025 Thought I was gonna have  
NOTE Confidence: 0.9680471  
01:11:24.025 --> 01:11:25.225 to ask and answer the  
NOTE Confidence: 0.9680471  
01:11:25.225 --> 01:11:25.725 questions.  
NOTE Confidence: 0.8672374  
01:11:26.505 --> 01:11:27.405 That was cool.  
NOTE Confidence: 0.9994819  
01:11:30.370 --> 01:11:30.870 Alright.  
NOTE Confidence: 0.99970806

01:11:31.250 --> 01:11:33.030 So you have already heard  
NOTE Confidence: 0.99172664

01:11:33.410 --> 01:11:34.770 during the last hour or  
NOTE Confidence: 0.99172664

01:11:34.770 --> 01:11:35.270 so  
NOTE Confidence: 0.9530538

01:11:36.689 --> 01:11:37.910 about clinical trials.  
NOTE Confidence: 0.96858776

01:11:41.565 --> 01:11:42.845 And the reason for that  
NOTE Confidence: 0.96858776

01:11:42.845 --> 01:11:44.365 isn't people have mentioned this  
NOTE Confidence: 0.96858776

01:11:44.365 --> 01:11:45.165 all along is,  
NOTE Confidence: 0.9990737

01:11:46.845 --> 01:11:48.285 the only way we learn  
NOTE Confidence: 0.9990737

01:11:48.285 --> 01:11:49.265 more about  
NOTE Confidence: 0.9815913

01:11:50.285 --> 01:11:51.725 cancer or any disease and  
NOTE Confidence: 0.9815913

01:11:51.725 --> 01:11:52.604 how to best treat it  
NOTE Confidence: 0.9815913

01:11:52.604 --> 01:11:53.565 is through trials. It is  
NOTE Confidence: 0.9815913

01:11:53.565 --> 01:11:55.140 the literally the only way.  
NOTE Confidence: 0.9815913

01:11:55.140 --> 01:11:56.660 We we sometimes can do  
NOTE Confidence: 0.9815913

01:11:56.660 --> 01:11:57.940 other types of studies, but  
NOTE Confidence: 0.9815913

01:11:57.940 --> 01:11:59.240 the best way to to

NOTE Confidence: 0.9815913  
01:11:59.540 --> 01:12:00.979 make progress, to figure things  
NOTE Confidence: 0.9815913  
01:12:00.979 --> 01:12:01.780 out, to get the best  
NOTE Confidence: 0.9815913  
01:12:01.780 --> 01:12:02.280 treatments  
NOTE Confidence: 0.96977115  
01:12:02.740 --> 01:12:03.620 is to do studies. It's  
NOTE Confidence: 0.96977115  
01:12:03.620 --> 01:12:04.820 really the only way that  
NOTE Confidence: 0.96977115  
01:12:04.820 --> 01:12:06.100 that we learn more about  
NOTE Confidence: 0.96977115  
01:12:06.100 --> 01:12:07.060 it and also that the  
NOTE Confidence: 0.96977115  
01:12:07.060 --> 01:12:07.560 FDA  
NOTE Confidence: 0.9997905  
01:12:07.860 --> 01:12:08.360 recognizes  
NOTE Confidence: 0.9860116  
01:12:08.755 --> 01:12:10.375 a medication or a treatment  
NOTE Confidence: 0.9860116  
01:12:10.435 --> 01:12:11.895 that should become standard.  
NOTE Confidence: 0.9620905  
01:12:12.195 --> 01:12:13.875 And so at Yale and  
NOTE Confidence: 0.9620905  
01:12:13.875 --> 01:12:15.815 at really all cancer centers,  
NOTE Confidence: 0.9620905  
01:12:15.955 --> 01:12:17.395 major cancer centers where where  
NOTE Confidence: 0.9620905  
01:12:17.395 --> 01:12:18.535 there's research done,  
NOTE Confidence: 0.9886961

01:12:18.995 --> 01:12:19.975 this is a  
NOTE Confidence: 0.95224667

01:12:20.595 --> 01:12:22.535 really a primary goal because  
NOTE Confidence: 0.99724436

01:12:22.909 --> 01:12:24.189 we, of course, need to  
NOTE Confidence: 0.99724436

01:12:24.189 --> 01:12:24.929 treat everybody  
NOTE Confidence: 0.9877647

01:12:25.389 --> 01:12:26.830 with cancer, but we also  
NOTE Confidence: 0.9877647

01:12:26.830 --> 01:12:27.949 need to make progress. Right?  
NOTE Confidence: 0.9877647

01:12:27.949 --> 01:12:29.150 We never really settle on  
NOTE Confidence: 0.9877647

01:12:29.150 --> 01:12:30.110 where we are now. We  
NOTE Confidence: 0.9877647

01:12:30.110 --> 01:12:31.150 always wanna do better. I  
NOTE Confidence: 0.9877647

01:12:31.150 --> 01:12:32.429 always think until we're curing  
NOTE Confidence: 0.9877647

01:12:32.429 --> 01:12:33.869 all cancer, all lung cancer,  
NOTE Confidence: 0.9877647

01:12:33.869 --> 01:12:35.229 any cancer, we could always  
NOTE Confidence: 0.9877647

01:12:35.229 --> 01:12:36.030 do better, and the only  
NOTE Confidence: 0.9877647

01:12:36.030 --> 01:12:36.670 way to do that is  
NOTE Confidence: 0.9877647

01:12:36.670 --> 01:12:37.975 through research. So we are  
NOTE Confidence: 0.9877647

01:12:37.975 --> 01:12:39.515 all very dedicated to that,

NOTE Confidence: 0.9877647

01:12:39.735 --> 01:12:40.854 and we have a panel

NOTE Confidence: 0.9877647

01:12:40.854 --> 01:12:42.295 here of people that do

NOTE Confidence: 0.9877647

01:12:42.295 --> 01:12:44.455 research for lung cancer and

NOTE Confidence: 0.9877647

01:12:44.455 --> 01:12:45.655 work on trials and other

NOTE Confidence: 0.9877647

01:12:45.655 --> 01:12:46.775 types of research. And, really,

NOTE Confidence: 0.9877647

01:12:46.775 --> 01:12:47.975 everybody you've heard from today

NOTE Confidence: 0.9877647

01:12:47.975 --> 01:12:48.854 does that in some part.

NOTE Confidence: 0.9877647

01:12:48.854 --> 01:12:50.550 Really, everybody at Yale who

NOTE Confidence: 0.9877647

01:12:50.550 --> 01:12:51.670 works here in some way

NOTE Confidence: 0.9877647

01:12:51.670 --> 01:12:53.110 also works on research. So

NOTE Confidence: 0.9877647

01:12:53.110 --> 01:12:54.070 it's something we're all really

NOTE Confidence: 0.9877647

01:12:54.070 --> 01:12:56.229 passionate about. So I will

NOTE Confidence: 0.9877647

01:12:56.229 --> 01:12:58.250 let my panelists introduce themselves

NOTE Confidence: 0.9877647

01:12:58.390 --> 01:12:59.510 and tell you what they

NOTE Confidence: 0.9877647

01:12:59.510 --> 01:13:00.710 do and what role in

NOTE Confidence: 0.9877647

01:13:00.710 --> 01:13:02.470 research specifically they have, and

NOTE Confidence: 0.9877647

01:13:02.470 --> 01:13:03.270 then I will ask some

NOTE Confidence: 0.9877647

01:13:03.270 --> 01:13:04.229 questions and then open it

NOTE Confidence: 0.9877647

01:13:04.229 --> 01:13:05.189 up to all of you.

NOTE Confidence: 0.9877647

01:13:05.189 --> 01:13:05.689 So

NOTE Confidence: 0.95295346

01:13:06.035 --> 01:13:06.935 we have another microphone.

NOTE Confidence: 0.94054604

01:13:09.635 --> 01:13:10.375 Hey, everybody.

NOTE Confidence: 0.99771655

01:13:11.555 --> 01:13:12.755 I'm Mike Grant. I am

NOTE Confidence: 0.99771655

01:13:12.755 --> 01:13:14.055 a thoracic oncologist.

NOTE Confidence: 0.98220694

01:13:15.235 --> 01:13:17.495 I'm up in Waterbury, Connecticut,

NOTE Confidence: 0.9847177

01:13:19.430 --> 01:13:20.570 and I trained here,

NOTE Confidence: 0.99037623

01:13:21.430 --> 01:13:22.630 under Sarah and a lot

NOTE Confidence: 0.99037623

01:13:22.630 --> 01:13:23.370 of these people.

NOTE Confidence: 0.9982419

01:13:24.310 --> 01:13:25.590 And, you know, the the

NOTE Confidence: 0.9982419

01:13:25.590 --> 01:13:26.090 main

NOTE Confidence: 0.9735896

01:13:26.550 --> 01:13:27.590 involvement that I have is

NOTE Confidence: 0.9735896  
01:13:27.590 --> 01:13:29.130 in clinical research. So  
NOTE Confidence: 0.99479383  
01:13:29.510 --> 01:13:30.330 seeing patients,  
NOTE Confidence: 0.97993535  
01:13:30.790 --> 01:13:32.170 in the clinic and then  
NOTE Confidence: 0.986951  
01:13:32.470 --> 01:13:33.910 trying to think about the  
NOTE Confidence: 0.986951  
01:13:33.910 --> 01:13:35.290 trials that we have open,  
NOTE Confidence: 0.96349615  
01:13:36.205 --> 01:13:37.725 Help, you know, use use  
NOTE Confidence: 0.96349615  
01:13:37.725 --> 01:13:39.085 help from our team and  
NOTE Confidence: 0.96349615  
01:13:39.085 --> 01:13:40.525 then match patients to clinical  
NOTE Confidence: 0.96349615  
01:13:40.525 --> 01:13:41.025 trials.  
NOTE Confidence: 0.7203002  
01:13:44.525 --> 01:13:45.745 How's this on? Yes.  
NOTE Confidence: 0.99174047  
01:13:46.125 --> 01:13:47.405 My name is Jennifer Pope.  
NOTE Confidence: 0.99174047  
01:13:47.405 --> 01:13:48.925 I'm the clinical research manager  
NOTE Confidence: 0.99174047  
01:13:48.925 --> 01:13:50.520 in our clinical trials office  
NOTE Confidence: 0.99174047  
01:13:50.520 --> 01:13:51.420 here at Yale.  
NOTE Confidence: 0.97287524  
01:13:51.960 --> 01:13:53.479 So I manage a team  
NOTE Confidence: 0.97287524

01:13:53.479 --> 01:13:55.320 of Clinical Research Nurses and

NOTE Confidence: 0.97287524

01:13:55.320 --> 01:13:56.780 Clinical Research Coordinators,

NOTE Confidence: 0.98461485

01:13:57.960 --> 01:13:59.800 who you may have seen

NOTE Confidence: 0.98461485

01:13:59.800 --> 01:14:00.620 in the clinic,

NOTE Confidence: 0.9374092

01:14:01.080 --> 01:14:01.979 with our providers.

NOTE Confidence: 0.9946677

01:14:02.840 --> 01:14:05.000 And we work directly with

NOTE Confidence: 0.9946677

01:14:05.000 --> 01:14:05.500 clinicians

NOTE Confidence: 0.9957584

01:14:05.880 --> 01:14:07.615 and with patients in order

NOTE Confidence: 0.9957584

01:14:07.615 --> 01:14:09.475 to bring you clinical trials.

NOTE Confidence: 0.9722679

01:14:12.415 --> 01:14:13.455 Hi, everyone. My name is

NOTE Confidence: 0.9722679

01:14:13.455 --> 01:14:15.935 Ben Liu. Excuse me. I'm

NOTE Confidence: 0.9722679

01:14:15.935 --> 01:14:17.695 a physician scientist, and so

NOTE Confidence: 0.9722679

01:14:17.695 --> 01:14:19.135 I'm a medical oncologist who

NOTE Confidence: 0.9722679

01:14:19.135 --> 01:14:20.575 sees patients with lung cancers.

NOTE Confidence: 0.9722679

01:14:20.575 --> 01:14:21.635 And then I also,

NOTE Confidence: 0.9842532

01:14:22.179 --> 01:14:23.639 do research in a laboratory

NOTE Confidence: 0.9842532  
01:14:23.699 --> 01:14:24.579 setting, so a little bit  
NOTE Confidence: 0.9842532  
01:14:24.579 --> 01:14:25.639 different than what,  
NOTE Confidence: 0.9700048  
01:14:26.020 --> 01:14:27.559 doctor Grant does. But,  
NOTE Confidence: 0.97067463  
01:14:28.179 --> 01:14:29.539 I like to ask questions  
NOTE Confidence: 0.97067463  
01:14:29.539 --> 01:14:30.659 and try and understand how  
NOTE Confidence: 0.97067463  
01:14:30.659 --> 01:14:32.520 our immune system interacts with  
NOTE Confidence: 0.97067463  
01:14:32.579 --> 01:14:34.039 tumor cells and particularly,  
NOTE Confidence: 0.9648123  
01:14:34.659 --> 01:14:36.465 what happens when tumor cells  
NOTE Confidence: 0.9648123  
01:14:36.465 --> 01:14:37.585 go into the brain? How  
NOTE Confidence: 0.9648123  
01:14:37.585 --> 01:14:38.805 can our immune system,  
NOTE Confidence: 0.9988872  
01:14:39.585 --> 01:14:41.125 how can we understand how  
NOTE Confidence: 0.9988872  
01:14:41.185 --> 01:14:42.485 that interaction works?  
NOTE Confidence: 0.98435855  
01:14:44.064 --> 01:14:46.305 Right. Superstar team. Ben, keep  
NOTE Confidence: 0.98435855  
01:14:46.305 --> 01:14:47.265 the microphone because I'm gonna  
NOTE Confidence: 0.98435855  
01:14:47.265 --> 01:14:48.405 ask you a question first.  
NOTE Confidence: 0.9951426

01:14:49.104 --> 01:14:49.604 So  
NOTE Confidence: 0.98989433

01:14:50.250 --> 01:14:51.850 a lot of people here  
NOTE Confidence: 0.98989433

01:14:51.850 --> 01:14:52.650 and and,  
NOTE Confidence: 0.9759818

01:14:53.130 --> 01:14:54.890 at Yale may have heard  
NOTE Confidence: 0.9759818

01:14:54.890 --> 01:14:55.930 about a trial or have  
NOTE Confidence: 0.9759818

01:14:55.930 --> 01:14:56.650 been asked to be on  
NOTE Confidence: 0.9759818

01:14:56.650 --> 01:14:57.689 a trial or participate in  
NOTE Confidence: 0.9759818

01:14:57.689 --> 01:14:59.050 a trial, but let's, like,  
NOTE Confidence: 0.9759818

01:14:59.050 --> 01:15:00.570 rewind to the beginning. How  
NOTE Confidence: 0.9759818

01:15:00.570 --> 01:15:01.689 does an idea even get  
NOTE Confidence: 0.9759818

01:15:01.689 --> 01:15:02.410 into a trial in the  
NOTE Confidence: 0.9759818

01:15:02.410 --> 01:15:03.670 first place? So you mentioned  
NOTE Confidence: 0.9759818

01:15:03.670 --> 01:15:04.939 you're in the lab. How  
NOTE Confidence: 0.9759818

01:15:04.939 --> 01:15:06.207 does something you're working on  
NOTE Confidence: 0.9759818

01:15:06.207 --> 01:15:07.476 sells or whatever you're working  
NOTE Confidence: 0.9759818

01:15:07.476 --> 01:15:08.745 on in the lab, how

NOTE Confidence: 0.9759818

01:15:08.745 --> 01:15:10.014 does that become an idea

NOTE Confidence: 0.9759818

01:15:10.014 --> 01:15:11.283 that then finds its way

NOTE Confidence: 0.9759818

01:15:11.283 --> 01:15:12.552 into trial? What's the the

NOTE Confidence: 0.9759818

01:15:12.552 --> 01:15:13.821 brief version of the process?

NOTE Confidence: 0.9759818

01:15:13.821 --> 01:15:15.409 Yeah. That that that's a

NOTE Confidence: 0.9759818

01:15:15.409 --> 01:15:16.689 terrific question. I think you

NOTE Confidence: 0.9759818

01:15:16.689 --> 01:15:18.050 all saw the end product

NOTE Confidence: 0.9759818

01:15:18.050 --> 01:15:19.409 with what Doctor. Herbst had

NOTE Confidence: 0.9759818

01:15:19.409 --> 01:15:21.409 mentioned earlier, what Doctor. Wilson,

NOTE Confidence: 0.9759818

01:15:21.409 --> 01:15:23.570 Doctor. Gettinger, and, everyone has

NOTE Confidence: 0.9759818

01:15:23.570 --> 01:15:24.229 talked about,

NOTE Confidence: 0.82950854

01:15:24.770 --> 01:15:25.250 these,

NOTE Confidence: 0.9897958

01:15:25.969 --> 01:15:27.489 what we define as successes

NOTE Confidence: 0.9897958

01:15:27.489 --> 01:15:28.689 in terms of new treatment

NOTE Confidence: 0.9897958

01:15:28.689 --> 01:15:29.670 options for patients.

NOTE Confidence: 0.9589022

01:15:30.610 --> 01:15:32.025 But Doctor Herbst also showed  
NOTE Confidence: 0.9589022

01:15:32.025 --> 01:15:33.485 a picture of this huge  
NOTE Confidence: 0.93523306

01:15:34.185 --> 01:15:35.864 team of people, and it  
NOTE Confidence: 0.93523306

01:15:35.864 --> 01:15:37.625 really does take an entire  
NOTE Confidence: 0.93523306

01:15:37.625 --> 01:15:39.405 community of clinicians,  
NOTE Confidence: 0.99935824

01:15:39.705 --> 01:15:40.925 nurses, pharmacists,  
NOTE Confidence: 0.99875057

01:15:41.785 --> 01:15:42.925 pharmaceutical companies,  
NOTE Confidence: 0.7479212

01:15:43.465 --> 01:15:43.965 scientists,  
NOTE Confidence: 0.9611556

01:15:44.520 --> 01:15:45.159 to be able to put  
NOTE Confidence: 0.9611556

01:15:45.159 --> 01:15:45.960 that all of that work  
NOTE Confidence: 0.9611556

01:15:45.960 --> 01:15:46.760 together. And part of the  
NOTE Confidence: 0.9611556

01:15:46.760 --> 01:15:47.500 reason why,  
NOTE Confidence: 0.9834904

01:15:47.960 --> 01:15:49.880 everyone celebrated that is because  
NOTE Confidence: 0.9834904

01:15:49.880 --> 01:15:51.320 it it really does take  
NOTE Confidence: 0.9834904

01:15:51.320 --> 01:15:52.360 such a long period of  
NOTE Confidence: 0.9834904

01:15:52.360 --> 01:15:53.639 time for us to be

NOTE Confidence: 0.9834904  
01:15:53.639 --> 01:15:55.320 able to ask the questions  
NOTE Confidence: 0.9834904  
01:15:55.320 --> 01:15:56.139 in the lab,  
NOTE Confidence: 0.92580724  
01:15:56.520 --> 01:15:58.395 show that this is in  
NOTE Confidence: 0.92580724  
01:15:58.395 --> 01:15:59.854 fact what happens,  
NOTE Confidence: 0.99846244  
01:16:00.635 --> 01:16:01.675 come up with the right  
NOTE Confidence: 0.99846244  
01:16:01.675 --> 01:16:03.535 medications to target those  
NOTE Confidence: 0.92675835  
01:16:03.915 --> 01:16:05.435 pathways and then to actually  
NOTE Confidence: 0.92675835  
01:16:05.435 --> 01:16:06.655 bring it to patients.  
NOTE Confidence: 0.94802225  
01:16:07.115 --> 01:16:08.495 And so, you know,  
NOTE Confidence: 0.9198866  
01:16:08.875 --> 01:16:09.995 for me as a human  
NOTE Confidence: 0.9198866  
01:16:09.995 --> 01:16:11.610 immunologist, it starts with,  
NOTE Confidence: 0.9818712  
01:16:12.409 --> 01:16:13.610 and as a physician scientist,  
NOTE Confidence: 0.9818712  
01:16:13.610 --> 01:16:15.229 it starts with learning from  
NOTE Confidence: 0.9818712  
01:16:15.290 --> 01:16:17.150 patients, learning where are  
NOTE Confidence: 0.9357392  
01:16:18.090 --> 01:16:19.210 areas that we need to  
NOTE Confidence: 0.9357392

01:16:19.210 --> 01:16:20.889 improve upon and then taking  
NOTE Confidence: 0.9357392

01:16:20.889 --> 01:16:21.929 that question back to the  
NOTE Confidence: 0.9357392

01:16:21.929 --> 01:16:24.409 laboratory and seeing, Okay, how  
NOTE Confidence: 0.9357392

01:16:24.409 --> 01:16:25.530 can we go about trying  
NOTE Confidence: 0.9357392

01:16:25.530 --> 01:16:26.489 to answer? What is the  
NOTE Confidence: 0.9357392

01:16:26.489 --> 01:16:26.989 fundamental  
NOTE Confidence: 0.9973327

01:16:27.555 --> 01:16:28.295 issue here?  
NOTE Confidence: 0.9428708

01:16:28.995 --> 01:16:29.875 What is a way that  
NOTE Confidence: 0.9428708

01:16:29.875 --> 01:16:30.915 we can address this? And  
NOTE Confidence: 0.9428708

01:16:30.915 --> 01:16:32.435 then once we've come up  
NOTE Confidence: 0.9428708

01:16:32.435 --> 01:16:33.395 with a model like what  
NOTE Confidence: 0.9428708

01:16:33.395 --> 01:16:34.435 Doctor. Felitti does in the  
NOTE Confidence: 0.9428708

01:16:34.435 --> 01:16:35.574 lab that helps  
NOTE Confidence: 0.6905363

01:16:37.314 --> 01:16:37.895 us understand  
NOTE Confidence: 0.9758329

01:16:39.810 --> 01:16:40.770 whether or not we think  
NOTE Confidence: 0.9758329

01:16:40.770 --> 01:16:42.150 this will work in patients,

NOTE Confidence: 0.9758329  
01:16:42.210 --> 01:16:43.890 then bring it along into  
NOTE Confidence: 0.9758329  
01:16:43.890 --> 01:16:45.970 clinical trials and see whether  
NOTE Confidence: 0.9758329  
01:16:45.970 --> 01:16:46.850 or not we can bring  
NOTE Confidence: 0.9758329  
01:16:46.850 --> 01:16:48.130 it, as a new treatment  
NOTE Confidence: 0.9758329  
01:16:48.130 --> 01:16:49.110 option for patients.  
NOTE Confidence: 0.96358997  
01:16:50.290 --> 01:16:50.790 Great.  
NOTE Confidence: 0.93111414  
01:16:51.490 --> 01:16:52.530 Jenna, I'm gonna turn to  
NOTE Confidence: 0.93111414  
01:16:52.530 --> 01:16:53.030 you.  
NOTE Confidence: 0.99880326  
01:16:53.545 --> 01:16:54.185 How long have you been  
NOTE Confidence: 0.99880326  
01:16:54.185 --> 01:16:55.405 working on clinical trials?  
NOTE Confidence: 0.9590901  
01:16:57.225 --> 01:16:58.665 Fifteen years, I think. A  
NOTE Confidence: 0.9590901  
01:16:58.665 --> 01:17:00.265 long time. Great. So perfect.  
NOTE Confidence: 0.9590901  
01:17:00.265 --> 01:17:00.905 So I knew it was  
NOTE Confidence: 0.9590901  
01:17:00.905 --> 01:17:01.625 a while. I didn't know  
NOTE Confidence: 0.9590901  
01:17:01.625 --> 01:17:02.985 exactly how long. Tell us  
NOTE Confidence: 0.9590901

01:17:02.985 --> 01:17:04.265 what you've seen change over

NOTE Confidence: 0.9590901

01:17:04.265 --> 01:17:05.225 the years because I've been

NOTE Confidence: 0.9590901

01:17:05.225 --> 01:17:06.900 doing this about a little

NOTE Confidence: 0.9590901

01:17:06.900 --> 01:17:08.100 around that amount of time

NOTE Confidence: 0.9590901

01:17:08.100 --> 01:17:08.979 too, and I I feel

NOTE Confidence: 0.9590901

01:17:08.979 --> 01:17:10.100 like things have really changed.

NOTE Confidence: 0.9590901

01:17:10.100 --> 01:17:11.140 So a lot of the

NOTE Confidence: 0.9590901

01:17:11.140 --> 01:17:12.260 work that you do is

NOTE Confidence: 0.9590901

01:17:12.260 --> 01:17:13.939 is the I mentioned this

NOTE Confidence: 0.9590901

01:17:13.939 --> 01:17:15.140 expression before, but really the

NOTE Confidence: 0.9590901

01:17:15.140 --> 01:17:16.340 behind the scenes. Right? Making

NOTE Confidence: 0.9590901

01:17:16.340 --> 01:17:17.219 all this work. So what

NOTE Confidence: 0.9590901

01:17:17.219 --> 01:17:17.939 what has changed in you

NOTE Confidence: 0.9590901

01:17:17.939 --> 01:17:19.060 from your perspective? And tell

NOTE Confidence: 0.9590901

01:17:19.060 --> 01:17:19.780 us a little bit about

NOTE Confidence: 0.9590901

01:17:19.780 --> 01:17:20.625 that behind the scenes, how

NOTE Confidence: 0.9590901  
01:17:20.625 --> 01:17:22.145 things actually work with with  
NOTE Confidence: 0.9590901  
01:17:22.145 --> 01:17:22.645 trials.  
NOTE Confidence: 0.9872571  
01:17:23.585 --> 01:17:24.305 Sure. So,  
NOTE Confidence: 0.97859544  
01:17:25.025 --> 01:17:25.905 we talk about this a  
NOTE Confidence: 0.97859544  
01:17:25.905 --> 01:17:27.665 lot on our team that  
NOTE Confidence: 0.97859544  
01:17:27.665 --> 01:17:28.805 we used to have  
NOTE Confidence: 0.96363527  
01:17:29.185 --> 01:17:30.725 a sort of small handful  
NOTE Confidence: 0.96363527  
01:17:30.785 --> 01:17:31.825 of trials that we could  
NOTE Confidence: 0.96363527  
01:17:31.825 --> 01:17:33.025 offer to patients and it  
NOTE Confidence: 0.96363527  
01:17:33.025 --> 01:17:34.550 was more like we had  
NOTE Confidence: 0.96363527  
01:17:34.550 --> 01:17:35.510 a trial that we tried  
NOTE Confidence: 0.96363527  
01:17:35.510 --> 01:17:37.130 to fit every patient into.  
NOTE Confidence: 0.96363527  
01:17:37.349 --> 01:17:38.469 And now we kind of  
NOTE Confidence: 0.96363527  
01:17:38.469 --> 01:17:39.510 are able to take the  
NOTE Confidence: 0.96363527  
01:17:39.510 --> 01:17:40.949 the opposite approach where we  
NOTE Confidence: 0.96363527

01:17:40.949 --> 01:17:42.789 have many options and we're  
NOTE Confidence: 0.96363527

01:17:42.789 --> 01:17:44.229 really trying to find this  
NOTE Confidence: 0.96363527

01:17:44.229 --> 01:17:45.525 the perfect option for each  
NOTE Confidence: 0.96363527

01:17:45.685 --> 01:17:46.185 patient,  
NOTE Confidence: 0.97066885

01:17:46.645 --> 01:17:48.005 and then many options along  
NOTE Confidence: 0.97066885

01:17:48.005 --> 01:17:48.665 the way.  
NOTE Confidence: 0.9181437

01:17:49.125 --> 01:17:51.525 So, right from your initial  
NOTE Confidence: 0.9181437

01:17:51.525 --> 01:17:52.025 diagnosis  
NOTE Confidence: 0.8134589

01:17:52.405 --> 01:17:53.385 through the process,  
NOTE Confidence: 0.9361342

01:17:53.765 --> 01:17:55.465 through multiple lines of therapy,  
NOTE Confidence: 0.9361342

01:17:55.685 --> 01:17:57.685 we're able to find specific  
NOTE Confidence: 0.9361342

01:17:57.685 --> 01:17:58.920 trials that will work best  
NOTE Confidence: 0.9361342

01:17:58.920 --> 01:18:00.360 in those situations. If you're  
NOTE Confidence: 0.9361342

01:18:00.360 --> 01:18:01.960 a early disease or or  
NOTE Confidence: 0.9361342

01:18:01.960 --> 01:18:02.460 later  
NOTE Confidence: 0.9884671

01:18:02.760 --> 01:18:04.380 disease all along the way.

NOTE Confidence: 0.9420237

01:18:04.840 --> 01:18:06.120 And now our what we're

NOTE Confidence: 0.9420237

01:18:06.120 --> 01:18:07.240 looking at, the questions we're

NOTE Confidence: 0.9420237

01:18:07.240 --> 01:18:08.360 trying to answer are much

NOTE Confidence: 0.9420237

01:18:08.360 --> 01:18:10.060 more broad. So we're collecting

NOTE Confidence: 0.9420237

01:18:10.280 --> 01:18:11.479 you know maybe some additional

NOTE Confidence: 0.9420237

01:18:11.479 --> 01:18:12.680 blood samples from you, we're

NOTE Confidence: 0.9420237

01:18:12.680 --> 01:18:14.439 collecting some additional tumor when

NOTE Confidence: 0.9420237

01:18:14.439 --> 01:18:15.295 we're going in for a

NOTE Confidence: 0.9420237

01:18:15.295 --> 01:18:16.914 biopsy so we can

NOTE Confidence: 0.99723345

01:18:17.375 --> 01:18:19.135 answer these broader questions about

NOTE Confidence: 0.99723345

01:18:19.135 --> 01:18:20.494 why a treatment might work

NOTE Confidence: 0.99723345

01:18:20.494 --> 01:18:21.715 better for one person,

NOTE Confidence: 0.99140275

01:18:22.414 --> 01:18:23.074 than another.

NOTE Confidence: 0.97003096

01:18:24.414 --> 01:18:25.375 Thank you. I I always

NOTE Confidence: 0.97003096

01:18:25.375 --> 01:18:26.175 say that we always try

NOTE Confidence: 0.97003096

01:18:26.175 --> 01:18:27.534 to learn as much as  
NOTE Confidence: 0.97003096

01:18:27.534 --> 01:18:28.895 we possibly can. It's not  
NOTE Confidence: 0.97003096

01:18:28.895 --> 01:18:30.255 just does this treatment work,  
NOTE Confidence: 0.97003096

01:18:30.255 --> 01:18:32.489 but why and how, and  
NOTE Confidence: 0.97003096

01:18:32.550 --> 01:18:33.670 if it doesn't work, why  
NOTE Confidence: 0.97003096

01:18:33.670 --> 01:18:35.050 not? So I I absolutely  
NOTE Confidence: 0.97003096

01:18:35.110 --> 01:18:36.010 agree with that.  
NOTE Confidence: 0.98651695

01:18:37.030 --> 01:18:37.530 Mike,  
NOTE Confidence: 0.99512064

01:18:37.830 --> 01:18:38.630 tell us what it's like  
NOTE Confidence: 0.99512064

01:18:38.630 --> 01:18:39.830 when you're seeing a patient  
NOTE Confidence: 0.99512064

01:18:39.830 --> 01:18:41.189 in terms of how you  
NOTE Confidence: 0.99512064

01:18:41.189 --> 01:18:42.710 talk to them about different  
NOTE Confidence: 0.99512064

01:18:42.710 --> 01:18:43.210 options.  
NOTE Confidence: 0.9803694

01:18:43.989 --> 01:18:45.350 When might someone wanna think  
NOTE Confidence: 0.9803694

01:18:45.350 --> 01:18:46.575 about a trial? Is it  
NOTE Confidence: 0.9803694

01:18:46.975 --> 01:18:47.935 you heard from the panel

NOTE Confidence: 0.9803694

01:18:47.935 --> 01:18:49.535 before. Is it only for

NOTE Confidence: 0.9803694

01:18:49.535 --> 01:18:51.135 people with advanced disease, or

NOTE Confidence: 0.9803694

01:18:51.135 --> 01:18:52.095 are we thinking about it

NOTE Confidence: 0.9803694

01:18:52.095 --> 01:18:52.975 at different stages? How do

NOTE Confidence: 0.9803694

01:18:52.975 --> 01:18:53.615 how do you think about

NOTE Confidence: 0.9803694

01:18:53.615 --> 01:18:54.415 it? Do you always think

NOTE Confidence: 0.9803694

01:18:54.415 --> 01:18:55.715 about it for patients also?

NOTE Confidence: 0.97287

01:18:56.575 --> 01:18:57.535 Yeah. I do. I think

NOTE Confidence: 0.97287

01:18:57.535 --> 01:18:58.989 that's that's the first step.

NOTE Confidence: 0.97287

01:18:58.989 --> 01:19:00.369 You know, our our job

NOTE Confidence: 0.97287

01:19:00.590 --> 01:19:01.489 as investigators

NOTE Confidence: 0.99644494

01:19:01.790 --> 01:19:02.689 and people that,

NOTE Confidence: 0.99903655

01:19:03.389 --> 01:19:04.750 have access to these trials

NOTE Confidence: 0.99903655

01:19:04.750 --> 01:19:05.949 and, you know, try to

NOTE Confidence: 0.99903655

01:19:05.949 --> 01:19:07.489 provide access to our patients

NOTE Confidence: 0.98718977

01:19:07.949 --> 01:19:09.330 is to know the trials,  
NOTE Confidence: 0.98718977

01:19:09.389 --> 01:19:10.429 like, to know what we  
NOTE Confidence: 0.98718977

01:19:10.429 --> 01:19:11.090 have open,  
NOTE Confidence: 0.9670557

01:19:12.030 --> 01:19:13.835 to know, you know, to  
NOTE Confidence: 0.9670557

01:19:13.835 --> 01:19:14.795 an extent the ins and  
NOTE Confidence: 0.9670557

01:19:14.795 --> 01:19:16.475 outs of them and what  
NOTE Confidence: 0.9670557

01:19:16.475 --> 01:19:16.975 criteria,  
NOTE Confidence: 0.9554022

01:19:18.235 --> 01:19:19.515 how a patient would would  
NOTE Confidence: 0.9554022

01:19:19.515 --> 01:19:21.295 potentially qualify for the study.  
NOTE Confidence: 0.99627185

01:19:21.915 --> 01:19:22.655 And then,  
NOTE Confidence: 0.99436796

01:19:23.035 --> 01:19:24.314 you know, that's that's what  
NOTE Confidence: 0.99436796

01:19:24.314 --> 01:19:25.275 I'm thinking about when I  
NOTE Confidence: 0.99436796

01:19:25.275 --> 01:19:26.640 see a patient is, you  
NOTE Confidence: 0.99436796

01:19:26.640 --> 01:19:28.000 know, is there an option  
NOTE Confidence: 0.99436796

01:19:28.000 --> 01:19:29.120 that I can provide for  
NOTE Confidence: 0.99436796

01:19:29.120 --> 01:19:29.780 this patient,

NOTE Confidence: 0.98728406

01:19:30.640 --> 01:19:31.920 that is a trial that's

NOTE Confidence: 0.98728406

01:19:31.920 --> 01:19:32.960 better than what we can

NOTE Confidence: 0.98728406

01:19:32.960 --> 01:19:34.500 offer off the trial?

NOTE Confidence: 0.99730617

01:19:35.040 --> 01:19:36.239 Ultimately, what we're trying to

NOTE Confidence: 0.99730617

01:19:36.239 --> 01:19:37.600 do with research is really

NOTE Confidence: 0.99730617

01:19:37.600 --> 01:19:39.679 just build on the treatments

NOTE Confidence: 0.99730617

01:19:39.679 --> 01:19:40.420 that are available.

NOTE Confidence: 0.7783774

01:19:41.895 --> 01:19:42.395 Unfortunately,

NOTE Confidence: 0.99520206

01:19:42.854 --> 01:19:44.055 you know, there there's a

NOTE Confidence: 0.99520206

01:19:44.055 --> 01:19:45.415 lot of deficiencies in lung

NOTE Confidence: 0.99520206

01:19:45.415 --> 01:19:47.175 cancer treatment, and that is

NOTE Confidence: 0.99520206

01:19:47.175 --> 01:19:48.055 sort of what we're trying

NOTE Confidence: 0.99520206

01:19:48.055 --> 01:19:49.015 to use these trials to

NOTE Confidence: 0.99520206

01:19:49.015 --> 01:19:50.314 do to build on. So

NOTE Confidence: 0.99520206

01:19:50.535 --> 01:19:51.175 I think,

NOTE Confidence: 0.93204945

01:19:51.575 --> 01:19:52.935 yeah, every trial is trying  
NOTE Confidence: 0.93204945

01:19:52.935 --> 01:19:54.135 to answer a question like  
NOTE Confidence: 0.93204945

01:19:54.135 --> 01:19:54.955 Jen said,  
NOTE Confidence: 0.9073608

01:19:55.620 --> 01:19:56.360 and every  
NOTE Confidence: 0.99042785

01:19:56.740 --> 01:19:57.540 time that you have a  
NOTE Confidence: 0.99042785

01:19:57.540 --> 01:19:58.760 patient in front of you,  
NOTE Confidence: 0.99042785

01:19:59.060 --> 01:20:00.660 we're trying to fit the  
NOTE Confidence: 0.99042785

01:20:00.660 --> 01:20:01.700 pay we're not trying to  
NOTE Confidence: 0.99042785

01:20:01.700 --> 01:20:02.820 fit the patient on a  
NOTE Confidence: 0.99042785

01:20:02.820 --> 01:20:03.320 trial.  
NOTE Confidence: 0.99191475

01:20:03.780 --> 01:20:04.820 We're trying to find the  
NOTE Confidence: 0.99191475

01:20:04.820 --> 01:20:06.100 right option for the patient,  
NOTE Confidence: 0.99191475

01:20:06.100 --> 01:20:07.140 which may be a trial  
NOTE Confidence: 0.99191475

01:20:07.140 --> 01:20:08.020 and which may not be  
NOTE Confidence: 0.99191475

01:20:08.020 --> 01:20:08.600 a trial.  
NOTE Confidence: 0.9778375

01:20:09.140 --> 01:20:10.020 So I think it it

NOTE Confidence: 0.9778375

01:20:10.020 --> 01:20:11.535 starts with how how we

NOTE Confidence: 0.9778375

01:20:11.535 --> 01:20:12.895 understand the trials, how we

NOTE Confidence: 0.9778375

01:20:12.895 --> 01:20:14.335 how we sort of work

NOTE Confidence: 0.9778375

01:20:14.335 --> 01:20:15.615 with our team to know

NOTE Confidence: 0.9778375

01:20:15.615 --> 01:20:16.595 what we have open,

NOTE Confidence: 0.9995575

01:20:17.135 --> 01:20:18.175 and then, you know, the

NOTE Confidence: 0.9995575

01:20:18.175 --> 01:20:19.935 rest is just conversations with

NOTE Confidence: 0.9995575

01:20:19.935 --> 01:20:20.435 patients.

NOTE Confidence: 0.9516975

01:20:23.310 --> 01:20:24.590 Alright. We're we're running a

NOTE Confidence: 0.9516975

01:20:24.590 --> 01:20:25.389 little low on time, so

NOTE Confidence: 0.9516975

01:20:25.389 --> 01:20:26.449 I I I might

NOTE Confidence: 0.9696268

01:20:27.630 --> 01:20:28.590 maybe I'll open it up

NOTE Confidence: 0.9696268

01:20:28.590 --> 01:20:29.790 to the the floor now,

NOTE Confidence: 0.9696268

01:20:29.790 --> 01:20:30.590 and then I I I

NOTE Confidence: 0.9696268

01:20:30.590 --> 01:20:31.389 could keep going. I have

NOTE Confidence: 0.9696268

01:20:31.389 --> 01:20:32.189 a whole list here. But  
NOTE Confidence: 0.9696268

01:20:32.189 --> 01:20:33.489 does anybody have questions  
NOTE Confidence: 0.9976635

01:20:35.415 --> 01:20:37.415 about clinical trials or anything  
NOTE Confidence: 0.9976635

01:20:37.415 --> 01:20:39.034 else for this esteemed panel?  
NOTE Confidence: 0.797513

01:20:39.335 --> 01:20:39.835 Yes.  
NOTE Confidence: 0.9827818

01:20:46.215 --> 01:20:47.354 How much of a collaboration  
NOTE Confidence: 0.9827818

01:20:47.574 --> 01:20:48.854 is between your teams and  
NOTE Confidence: 0.9827818

01:20:48.854 --> 01:20:50.389 the pharmaceutical industry? You work  
NOTE Confidence: 0.9827818

01:20:50.389 --> 01:20:51.290 hand in hand  
NOTE Confidence: 0.79332334

01:20:51.830 --> 01:20:52.330 collaboratively,  
NOTE Confidence: 0.89024866

01:20:53.670 --> 01:20:55.429 or do you Who wants  
NOTE Confidence: 0.89024866

01:20:55.429 --> 01:20:56.469 to take that one? Hand  
NOTE Confidence: 0.89024866

01:20:56.469 --> 01:20:56.969 off  
NOTE Confidence: 0.94984585

01:20:57.270 --> 01:20:58.489 trials to one another.  
NOTE Confidence: 0.9819461

01:20:59.110 --> 01:20:59.929 Great questions.  
NOTE Confidence: 0.9771699

01:21:01.110 --> 01:21:01.909 Mike, do you wanna take

NOTE Confidence: 0.9771699

01:21:01.909 --> 01:21:03.585 that one? Yeah. So,

NOTE Confidence: 0.9927611

01:21:04.765 --> 01:21:05.805 I think, you know, some

NOTE Confidence: 0.9927611

01:21:05.805 --> 01:21:06.765 of our trials that we

NOTE Confidence: 0.9927611

01:21:06.765 --> 01:21:08.225 have open at Yale are

NOTE Confidence: 0.8424898

01:21:08.604 --> 01:21:09.804 in come you know, in

NOTE Confidence: 0.8424898

01:21:09.804 --> 01:21:10.045 in,

NOTE Confidence: 0.9883777

01:21:10.604 --> 01:21:12.845 industry sponsored, so trials that

NOTE Confidence: 0.9883777

01:21:12.845 --> 01:21:14.064 we work with companies.

NOTE Confidence: 0.99496335

01:21:14.604 --> 01:21:16.525 Other trials are, in the

NOTE Confidence: 0.99496335

01:21:16.525 --> 01:21:18.205 context of cooperative groups, which

NOTE Confidence: 0.99496335

01:21:18.205 --> 01:21:20.300 are large organizations that,

NOTE Confidence: 0.9994656

01:21:21.400 --> 01:21:22.760 you know, try to answer

NOTE Confidence: 0.9994656

01:21:22.760 --> 01:21:25.020 practical questions in cancer care.

NOTE Confidence: 0.983735

01:21:25.800 --> 01:21:26.920 So we have a mix

NOTE Confidence: 0.983735

01:21:26.920 --> 01:21:28.520 of of these these things,

NOTE Confidence: 0.983735

01:21:28.520 --> 01:21:29.880 and I think, you know,  
NOTE Confidence: 0.983735

01:21:29.880 --> 01:21:31.675 it's it's our clinical trial  
NOTE Confidence: 0.983735

01:21:31.675 --> 01:21:33.035 team and and doctor Goldberg  
NOTE Confidence: 0.983735

01:21:33.035 --> 01:21:34.495 who sort of,  
NOTE Confidence: 0.9347501

01:21:35.275 --> 01:21:37.135 were always looking for opportunities  
NOTE Confidence: 0.9701747

01:21:37.835 --> 01:21:38.955 to bring drugs that look  
NOTE Confidence: 0.9701747

01:21:38.955 --> 01:21:41.195 promising. And sometimes this these  
NOTE Confidence: 0.9701747

01:21:41.195 --> 01:21:42.235 are drugs that are very  
NOTE Confidence: 0.9701747

01:21:42.235 --> 01:21:43.135 early in development  
NOTE Confidence: 0.9979721

01:21:43.500 --> 01:21:45.260 and, that we can sort  
NOTE Confidence: 0.9979721

01:21:45.260 --> 01:21:47.019 of work with pharmaceutical companies  
NOTE Confidence: 0.9979721

01:21:47.019 --> 01:21:48.300 to bring them to patients  
NOTE Confidence: 0.9979721

01:21:48.300 --> 01:21:49.199 in our clinics.  
NOTE Confidence: 0.17757024

01:21:50.699 --> 01:21:51.199 You  
NOTE Confidence: 0.5286457

01:21:55.420 --> 01:21:56.079 need this,  
NOTE Confidence: 0.93133676

01:21:57.019 --> 01:21:57.760 they say.

NOTE Confidence: 0.9500536

01:21:58.205 --> 01:21:59.505 We'll try and make that.

NOTE Confidence: 0.9956872

01:22:01.325 --> 01:22:01.965 I don't know if they

NOTE Confidence: 0.9956872

01:22:01.965 --> 01:22:03.405 make it for us. So

NOTE Confidence: 0.9956872

01:22:03.485 --> 01:22:04.525 no. It's such it's such

NOTE Confidence: 0.9956872

01:22:04.525 --> 01:22:05.564 a great question, but I

NOTE Confidence: 0.9956872

01:22:05.645 --> 01:22:06.705 I'll just say something.

NOTE Confidence: 0.9987086

01:22:07.485 --> 01:22:08.604 You might not realize this,

NOTE Confidence: 0.9987086

01:22:08.604 --> 01:22:09.645 but there's actually lots of

NOTE Confidence: 0.9987086

01:22:09.645 --> 01:22:10.785 people from the pharmaceutical

NOTE Confidence: 0.86482114

01:22:11.485 --> 01:22:13.104 industry in this very room.

NOTE Confidence: 0.99883354

01:22:14.290 --> 01:22:15.830 So so we work incredibly

NOTE Confidence: 0.99883354

01:22:16.050 --> 01:22:17.510 closely together. I think

NOTE Confidence: 0.97388333

01:22:17.810 --> 01:22:18.530 so much of what we

NOTE Confidence: 0.97388333

01:22:18.530 --> 01:22:20.229 do, especially as medical oncologists

NOTE Confidence: 0.97388333

01:22:20.370 --> 01:22:21.969 where we're developing drugs and

NOTE Confidence: 0.97388333

01:22:21.969 --> 01:22:23.010 we're trying to make better  
NOTE Confidence: 0.97388333

01:22:23.010 --> 01:22:23.510 drugs,  
NOTE Confidence: 0.9989505

01:22:23.810 --> 01:22:25.010 is is so much in  
NOTE Confidence: 0.9989505

01:22:25.010 --> 01:22:25.510 collaboration  
NOTE Confidence: 0.9747589

01:22:25.810 --> 01:22:27.455 with people in the pharmaceutical  
NOTE Confidence: 0.9747589

01:22:27.675 --> 01:22:28.955 industry. And a lot of  
NOTE Confidence: 0.9747589

01:22:28.955 --> 01:22:30.314 our scientists are working on  
NOTE Confidence: 0.9747589

01:22:30.314 --> 01:22:31.755 things. Maybe Ben is gonna  
NOTE Confidence: 0.9747589

01:22:31.755 --> 01:22:32.635 tell us this about this  
NOTE Confidence: 0.9747589

01:22:32.635 --> 01:22:33.835 now, and then work with  
NOTE Confidence: 0.9747589

01:22:33.835 --> 01:22:35.515 the pharmaceutical companies to try  
NOTE Confidence: 0.9747589

01:22:35.515 --> 01:22:37.115 to bring those to patients.  
NOTE Confidence: 0.9747589

01:22:37.115 --> 01:22:37.995 So it is a kind  
NOTE Confidence: 0.9747589

01:22:37.995 --> 01:22:39.195 of a a circle of  
NOTE Confidence: 0.9747589

01:22:39.195 --> 01:22:40.555 of trying to work together  
NOTE Confidence: 0.9747589

01:22:40.555 --> 01:22:41.055 to

NOTE Confidence: 0.9733456

01:22:41.520 --> 01:22:42.559 do you know, to to

NOTE Confidence: 0.9733456

01:22:42.559 --> 01:22:43.840 create better drugs, to develop

NOTE Confidence: 0.9733456

01:22:43.840 --> 01:22:44.960 better drugs, and then to

NOTE Confidence: 0.9733456

01:22:44.960 --> 01:22:45.920 bring the trials here so

NOTE Confidence: 0.9733456

01:22:45.920 --> 01:22:47.439 that we can can study

NOTE Confidence: 0.9733456

01:22:47.439 --> 01:22:49.219 them better. Ben, go ahead.

NOTE Confidence: 0.9733456

01:22:49.439 --> 01:22:50.559 Yeah. I I just to

NOTE Confidence: 0.9733456

01:22:50.559 --> 01:22:51.840 add to what doctor Gober

NOTE Confidence: 0.9733456

01:22:51.840 --> 01:22:52.639 said, you know, I think

NOTE Confidence: 0.9733456

01:22:52.639 --> 01:22:53.139 that

NOTE Confidence: 0.96801424

01:22:53.920 --> 01:22:56.665 pharmaceutical companies and our academic

NOTE Confidence: 0.96801424

01:22:56.665 --> 01:22:58.505 centers have very complementary roles

NOTE Confidence: 0.96801424

01:22:58.505 --> 01:23:00.205 in terms of the types

NOTE Confidence: 0.96801424

01:23:00.345 --> 01:23:01.085 of the,

NOTE Confidence: 0.96935177

01:23:02.104 --> 01:23:03.145 treatments they can bring to

NOTE Confidence: 0.96935177

01:23:03.145 --> 01:23:03.645 patients.  
NOTE Confidence: 0.96340966

01:23:04.104 --> 01:23:04.905 One thing that I will  
NOTE Confidence: 0.96340966

01:23:04.905 --> 01:23:05.945 say, and I I think  
NOTE Confidence: 0.96340966

01:23:05.945 --> 01:23:07.625 it's particularly beneficial to be  
NOTE Confidence: 0.96340966

01:23:07.625 --> 01:23:08.925 here at a u institution  
NOTE Confidence: 0.96340966

01:23:08.985 --> 01:23:10.790 like Yale where, you know,  
NOTE Confidence: 0.96340966

01:23:11.010 --> 01:23:12.610 the medical oncologists, the clinicians,  
NOTE Confidence: 0.96340966

01:23:12.610 --> 01:23:13.570 and the scientists kind of  
NOTE Confidence: 0.96340966

01:23:13.570 --> 01:23:14.610 stand side by side is  
NOTE Confidence: 0.96340966

01:23:14.610 --> 01:23:16.130 that we do have the  
NOTE Confidence: 0.96340966

01:23:16.130 --> 01:23:16.630 opportunity  
NOTE Confidence: 0.983206

01:23:17.010 --> 01:23:19.270 to ask, you know, probably  
NOTE Confidence: 0.983206

01:23:19.409 --> 01:23:20.869 more unique and,  
NOTE Confidence: 0.985603

01:23:21.969 --> 01:23:24.025 to us, interesting questions that  
NOTE Confidence: 0.985603

01:23:24.025 --> 01:23:26.125 pharmaceutical companies might not be  
NOTE Confidence: 0.9786954

01:23:26.425 --> 01:23:28.425 necessarily thinking about, or we

NOTE Confidence: 0.9786954

01:23:28.425 --> 01:23:29.545 may have access to, you

NOTE Confidence: 0.9786954

01:23:29.545 --> 01:23:31.405 know, science that isn't as

NOTE Confidence: 0.9786954

01:23:31.625 --> 01:23:33.145 mature, but that we can

NOTE Confidence: 0.9786954

01:23:33.145 --> 01:23:34.045 help to develop.

NOTE Confidence: 0.9766286

01:23:34.505 --> 01:23:35.785 And so, you know, I

NOTE Confidence: 0.9766286

01:23:35.785 --> 01:23:36.825 I I do think that

NOTE Confidence: 0.9766286

01:23:36.825 --> 01:23:38.205 the roles are very complementary.

NOTE Confidence: 0.9766286

01:23:38.345 --> 01:23:39.390 Certainly, we do work with

NOTE Confidence: 0.9766286

01:23:39.630 --> 01:23:41.550 pharmaceutical companies, but, there is

NOTE Confidence: 0.9766286

01:23:41.550 --> 01:23:42.510 also a lot of access

NOTE Confidence: 0.9766286

01:23:42.510 --> 01:23:44.130 to clinical trials that,

NOTE Confidence: 0.99976647

01:23:44.670 --> 01:23:46.370 are independent of them.

NOTE Confidence: 0.94294566

01:23:50.189 --> 01:23:52.030 Nobody hurt themselves, please. I'll

NOTE Confidence: 0.94294566

01:23:52.030 --> 01:23:52.610 be quick.

NOTE Confidence: 0.97796136

01:23:52.990 --> 01:23:53.710 How do you work out

NOTE Confidence: 0.97796136

01:23:53.710 --> 01:23:54.350 the ethics,  
NOTE Confidence: 0.997633

01:23:55.265 --> 01:23:56.725 ethical questions that can arise  
NOTE Confidence: 0.997633

01:23:56.945 --> 01:23:58.405 between these kinds of collaborations?  
NOTE Confidence: 0.636175

01:23:59.825 --> 01:24:00.564 Good questions.  
NOTE Confidence: 0.97612053

01:24:01.345 --> 01:24:02.064 Jen, do you wanna take  
NOTE Confidence: 0.97612053

01:24:02.064 --> 01:24:02.865 that since you're holding the  
NOTE Confidence: 0.97612053

01:24:02.865 --> 01:24:03.365 microphone?  
NOTE Confidence: 0.90177023

01:24:04.145 --> 01:24:05.265 Or does anybody else would  
NOTE Confidence: 0.90177023

01:24:05.265 --> 01:24:06.405 like to like to answer?  
NOTE Confidence: 0.97315645

01:24:06.865 --> 01:24:07.985 I can talk just a  
NOTE Confidence: 0.97315645

01:24:07.985 --> 01:24:09.185 a little bit about, like,  
NOTE Confidence: 0.97315645

01:24:09.185 --> 01:24:11.580 the research, like, consenting process.  
NOTE Confidence: 0.97315645

01:24:11.580 --> 01:24:12.939 So when when we pro  
NOTE Confidence: 0.97315645

01:24:13.020 --> 01:24:14.300 when we present a clinical  
NOTE Confidence: 0.97315645

01:24:14.300 --> 01:24:15.280 trial to a patient,  
NOTE Confidence: 0.9712168

01:24:16.060 --> 01:24:17.500 we are required. We have

NOTE Confidence: 0.9712168

01:24:17.500 --> 01:24:19.420 institutional review boards that require

NOTE Confidence: 0.9712168

01:24:19.420 --> 01:24:21.020 this. There's federal regulations and

NOTE Confidence: 0.9712168

01:24:21.020 --> 01:24:21.520 laws,

NOTE Confidence: 0.997788

01:24:22.300 --> 01:24:23.500 that require us to tell

NOTE Confidence: 0.997788

01:24:23.500 --> 01:24:24.540 you about all the options

NOTE Confidence: 0.997788

01:24:24.540 --> 01:24:26.075 that are available to you.

NOTE Confidence: 0.997788

01:24:26.295 --> 01:24:27.035 So your

NOTE Confidence: 0.9989466

01:24:27.415 --> 01:24:28.775 provider will talk to you

NOTE Confidence: 0.9989466

01:24:28.775 --> 01:24:29.275 about

NOTE Confidence: 0.95564353

01:24:30.695 --> 01:24:32.375 so that that is yes.

NOTE Confidence: 0.95564353

01:24:32.375 --> 01:24:33.895 Exactly. Who's funding it? Who's

NOTE Confidence: 0.95564353

01:24:33.895 --> 01:24:34.935 funding it? Who's gonna ax

NOTE Confidence: 0.95564353

01:24:35.015 --> 01:24:36.314 have access to the information

NOTE Confidence: 0.9649362

01:24:36.854 --> 01:24:37.675 about you?

NOTE Confidence: 0.9979641

01:24:38.679 --> 01:24:39.719 All all of that is

NOTE Confidence: 0.9979641

01:24:39.719 --> 01:24:40.860 presented to you.  
NOTE Confidence: 0.9737642

01:24:41.320 --> 01:24:43.079 I think, in my opinion,  
NOTE Confidence: 0.9737642

01:24:43.079 --> 01:24:44.040 one of the the critical  
NOTE Confidence: 0.9737642

01:24:44.040 --> 01:24:44.920 part is what are the  
NOTE Confidence: 0.9737642

01:24:44.920 --> 01:24:46.199 other options. So this is  
NOTE Confidence: 0.9737642

01:24:46.199 --> 01:24:47.159 the option that the trial  
NOTE Confidence: 0.9737642

01:24:47.159 --> 01:24:48.520 is giving you. And then  
NOTE Confidence: 0.9737642

01:24:48.520 --> 01:24:49.559 these are the other options  
NOTE Confidence: 0.9737642

01:24:49.559 --> 01:24:50.439 that you should also be  
NOTE Confidence: 0.9737642

01:24:50.439 --> 01:24:50.939 considering,  
NOTE Confidence: 0.9995771

01:24:51.800 --> 01:24:52.860 at the same time.  
NOTE Confidence: 0.9802406

01:24:53.585 --> 01:24:54.304 Yeah. I think I think  
NOTE Confidence: 0.9802406

01:24:54.304 --> 01:24:55.505 it's such an important point,  
NOTE Confidence: 0.9802406

01:24:55.505 --> 01:24:56.005 and  
NOTE Confidence: 0.9981675

01:24:56.625 --> 01:24:57.745 we we  
NOTE Confidence: 0.98963207

01:24:58.225 --> 01:24:59.665 and, really, everyone else tries

NOTE Confidence: 0.98963207  
01:24:59.665 --> 01:25:01.505 to be very transparent about  
NOTE Confidence: 0.98963207  
01:25:01.505 --> 01:25:02.245 it because  
NOTE Confidence: 0.9973942  
01:25:03.185 --> 01:25:05.205 the pharmaceutical industry is  
NOTE Confidence: 0.9861513  
01:25:05.920 --> 01:25:07.840 for profit. Right? And that  
NOTE Confidence: 0.9861513  
01:25:07.840 --> 01:25:08.800 is something that you need  
NOTE Confidence: 0.9861513  
01:25:08.800 --> 01:25:09.680 to know about. And so  
NOTE Confidence: 0.9861513  
01:25:09.680 --> 01:25:10.340 in every  
NOTE Confidence: 0.95759994  
01:25:10.640 --> 01:25:12.479 trial and every consent form,  
NOTE Confidence: 0.95759994  
01:25:12.479 --> 01:25:13.920 it will talk about who's  
NOTE Confidence: 0.95759994  
01:25:13.920 --> 01:25:14.900 funding the study,  
NOTE Confidence: 0.9996789  
01:25:15.200 --> 01:25:16.420 if any of the investigators  
NOTE Confidence: 0.9555246  
01:25:16.800 --> 01:25:18.205 have any do do any  
NOTE Confidence: 0.9555246  
01:25:18.205 --> 01:25:19.405 work with that company. It's  
NOTE Confidence: 0.9555246  
01:25:19.405 --> 01:25:20.205 all in there. So it's  
NOTE Confidence: 0.9555246  
01:25:20.205 --> 01:25:21.005 required to be in there.  
NOTE Confidence: 0.9555246

01:25:21.005 --> 01:25:21.885 It's not a Yale thing.  
NOTE Confidence: 0.9555246

01:25:21.885 --> 01:25:22.765 So that that's part of  
NOTE Confidence: 0.9555246

01:25:22.765 --> 01:25:23.725 it so that it's very  
NOTE Confidence: 0.9555246

01:25:23.725 --> 01:25:25.324 transparent, and you can make  
NOTE Confidence: 0.9555246

01:25:25.324 --> 01:25:27.085 it an educated decision about  
NOTE Confidence: 0.9555246

01:25:27.085 --> 01:25:28.545 participating with that information.  
NOTE Confidence: 0.7043398

01:25:29.580 --> 01:25:30.400 Hang on. Sorry.  
NOTE Confidence: 0.9548652

01:25:32.380 --> 01:25:33.580 I I think another thing  
NOTE Confidence: 0.9548652

01:25:33.580 --> 01:25:34.800 is that clinical trials,  
NOTE Confidence: 0.97531843

01:25:35.580 --> 01:25:37.180 I think what doctor Grant  
NOTE Confidence: 0.97531843

01:25:37.180 --> 01:25:39.100 said earlier is, that, you  
NOTE Confidence: 0.97531843

01:25:39.100 --> 01:25:40.300 know, every clinical trial that  
NOTE Confidence: 0.97531843

01:25:40.300 --> 01:25:41.660 we try to offer is  
NOTE Confidence: 0.97531843

01:25:41.660 --> 01:25:43.020 really trying to build upon  
NOTE Confidence: 0.97531843

01:25:43.020 --> 01:25:43.575 and not,  
NOTE Confidence: 0.9453892

01:25:44.455 --> 01:25:45.815 on the standard of care,

NOTE Confidence: 0.9453892  
01:25:45.815 --> 01:25:47.095 meaning care that you would  
NOTE Confidence: 0.9453892  
01:25:47.095 --> 01:25:48.075 get with your,  
NOTE Confidence: 0.9267688  
01:25:48.455 --> 01:25:49.995 providers outside of the trial.  
NOTE Confidence: 0.99822026  
01:25:50.535 --> 01:25:52.295 And I think one behind  
NOTE Confidence: 0.99822026  
01:25:52.295 --> 01:25:54.235 the scenes look at how  
NOTE Confidence: 0.99822026  
01:25:54.535 --> 01:25:56.235 we select the clinical trials  
NOTE Confidence: 0.96118283  
01:25:56.695 --> 01:25:58.155 is that, you know, doctor  
NOTE Confidence: 0.96118283  
01:25:58.330 --> 01:25:59.929 Goldberg and Jen and Doctor.  
NOTE Confidence: 0.96118283  
01:25:59.929 --> 01:26:01.770 Grant, every single week, they're  
NOTE Confidence: 0.96118283  
01:26:02.090 --> 01:26:03.469 every single day, they're constantly  
NOTE Confidence: 0.96118283  
01:26:03.610 --> 01:26:04.969 looking to see, you know,  
NOTE Confidence: 0.96118283  
01:26:04.969 --> 01:26:06.570 what are the most exciting  
NOTE Confidence: 0.96118283  
01:26:06.570 --> 01:26:07.689 options that they can bring  
NOTE Confidence: 0.96118283  
01:26:07.689 --> 01:26:09.530 to patients. And so, you  
NOTE Confidence: 0.96118283  
01:26:09.530 --> 01:26:10.030 know,  
NOTE Confidence: 0.999519

01:26:11.370 --> 01:26:12.030 I think  
NOTE Confidence: 0.9653221

01:26:12.604 --> 01:26:14.205 for them in their selection  
NOTE Confidence: 0.9653221

01:26:14.205 --> 01:26:15.325 process, for us in our  
NOTE Confidence: 0.9653221

01:26:15.325 --> 01:26:16.225 selection process,  
NOTE Confidence: 0.9827035

01:26:16.925 --> 01:26:18.365 it really is about trying  
NOTE Confidence: 0.9827035

01:26:18.365 --> 01:26:19.485 to find the best option  
NOTE Confidence: 0.9827035

01:26:19.485 --> 01:26:20.945 and putting the patients first.  
NOTE Confidence: 0.9073068

01:26:21.485 --> 01:26:23.085 Yes, there are ethical con  
NOTE Confidence: 0.9073068

01:26:23.085 --> 01:26:23.825 con considerations  
NOTE Confidence: 0.9866559

01:26:24.525 --> 01:26:25.830 when we are working with  
NOTE Confidence: 0.9866559

01:26:26.070 --> 01:26:27.750 pharmaceutical companies, but I think  
NOTE Confidence: 0.9866559

01:26:27.750 --> 01:26:28.710 it is it does take  
NOTE Confidence: 0.9866559

01:26:28.710 --> 01:26:30.070 a thoughtful approach to,  
NOTE Confidence: 0.9981958

01:26:30.710 --> 01:26:31.750 be able to present some  
NOTE Confidence: 0.9981958

01:26:31.750 --> 01:26:33.210 of the options to you.  
NOTE Confidence: 0.9459513

01:26:35.750 --> 01:26:37.030 K. I think maybe one

NOTE Confidence: 0.9459513  
01:26:37.030 --> 01:26:38.150 last question, and then we'll  
NOTE Confidence: 0.9459513  
01:26:38.150 --> 01:26:39.210 move on to our  
NOTE Confidence: 0.99985874  
01:26:39.670 --> 01:26:40.490 next panel.  
NOTE Confidence: 0.9132772  
01:26:41.854 --> 01:26:42.854 Just curious if you have  
NOTE Confidence: 0.9132772  
01:26:42.854 --> 01:26:44.255 a notion about kind of  
NOTE Confidence: 0.9132772  
01:26:44.255 --> 01:26:45.135 how it breaks down what  
NOTE Confidence: 0.9132772  
01:26:45.135 --> 01:26:47.054 percentage of your, the clinical  
NOTE Confidence: 0.9132772  
01:26:47.054 --> 01:26:48.735 trials are that you are  
NOTE Confidence: 0.9132772  
01:26:48.735 --> 01:26:50.275 one part of a multisite,  
NOTE Confidence: 0.9443119  
01:26:52.495 --> 01:26:54.975 research that involves other, other  
NOTE Confidence: 0.9443119  
01:26:54.975 --> 01:26:56.335 research sites around the country  
NOTE Confidence: 0.9443119  
01:26:56.335 --> 01:26:57.610 and how much are kind  
NOTE Confidence: 0.9443119  
01:26:57.610 --> 01:26:59.390 of all housed here?  
NOTE Confidence: 0.97377557  
01:27:00.410 --> 01:27:01.689 Yeah. I maybe I'll answer  
NOTE Confidence: 0.97377557  
01:27:01.689 --> 01:27:03.130 that. So most of the  
NOTE Confidence: 0.97377557

01:27:03.130 --> 01:27:04.650 studies that we do are  
NOTE Confidence: 0.97377557

01:27:04.650 --> 01:27:05.630 not just here.  
NOTE Confidence: 0.9821402

01:27:06.570 --> 01:27:07.610 Most of the studies are  
NOTE Confidence: 0.9821402

01:27:07.610 --> 01:27:10.030 multicenter studies that enroll at  
NOTE Confidence: 0.9821402

01:27:10.170 --> 01:27:12.755 many institutions, sometimes dozens or  
NOTE Confidence: 0.9821402

01:27:12.934 --> 01:27:14.255 hundred around the country and  
NOTE Confidence: 0.9821402

01:27:14.255 --> 01:27:15.455 around the world. There are  
NOTE Confidence: 0.9821402

01:27:15.455 --> 01:27:16.415 a few studies that we  
NOTE Confidence: 0.9821402

01:27:16.415 --> 01:27:17.235 have that  
NOTE Confidence: 0.98690224

01:27:18.335 --> 01:27:19.395 are Yale studies  
NOTE Confidence: 0.9964084

01:27:19.854 --> 01:27:21.554 developed by our investigators  
NOTE Confidence: 0.75046253

01:27:21.854 --> 01:27:22.354 here.  
NOTE Confidence: 0.94602275

01:27:22.814 --> 01:27:23.695 A lot of times based  
NOTE Confidence: 0.94602275

01:27:23.695 --> 01:27:24.829 on science that comes from  
NOTE Confidence: 0.94602275

01:27:24.829 --> 01:27:26.110 the laboratories and then we  
NOTE Confidence: 0.94602275

01:27:26.110 --> 01:27:27.150 bring into the into the

NOTE Confidence: 0.94602275

01:27:27.150 --> 01:27:28.110 clinic, a lot of times

NOTE Confidence: 0.94602275

01:27:28.110 --> 01:27:29.229 those are just Yale studies.

NOTE Confidence: 0.94602275

01:27:29.229 --> 01:27:30.110 They tend to be small

NOTE Confidence: 0.94602275

01:27:30.110 --> 01:27:30.610 studies,

NOTE Confidence: 0.9759951

01:27:31.469 --> 01:27:33.150 but but, typically, they're the

NOTE Confidence: 0.9759951

01:27:33.150 --> 01:27:34.189 studies that we have are

NOTE Confidence: 0.9759951

01:27:34.189 --> 01:27:35.250 not just here.

NOTE Confidence: 0.9993008

01:27:36.269 --> 01:27:37.710 They're in collaboration with many

NOTE Confidence: 0.9993008

01:27:37.710 --> 01:27:38.210 others.

NOTE Confidence: 0.9844384

01:27:39.864 --> 01:27:41.784 Good question. Alright. Any last

NOTE Confidence: 0.9844384

01:27:41.784 --> 01:27:43.145 burning questions, or shall we

NOTE Confidence: 0.9844384

01:27:43.145 --> 01:27:43.885 move on?

NOTE Confidence: 0.97862893

01:27:44.425 --> 01:27:45.945 Okay. Thank you so much

NOTE Confidence: 0.97862893

01:27:45.945 --> 01:27:46.824 to our panelists and for

NOTE Confidence: 0.97862893

01:27:46.824 --> 01:27:48.045 all that you do. Thanks.

NOTE Confidence: 0.9947288

01:27:50.824 --> 01:27:51.324 Alright.

NOTE Confidence: 0.9786191

01:27:51.750 --> 01:27:54.170 I'm gonna introduce our last

NOTE Confidence: 0.9786191

01:27:54.390 --> 01:27:56.250 panel, which will be moderated

NOTE Confidence: 0.9786191

01:27:56.310 --> 01:27:58.170 by doctor Dan Baffa,

NOTE Confidence: 0.9782817

01:27:58.550 --> 01:27:59.830 who's the chief of thoracic

NOTE Confidence: 0.9782817

01:27:59.830 --> 01:28:01.290 surgery here at Yale,

NOTE Confidence: 0.99967736

01:28:01.670 --> 01:28:02.570 and he will

NOTE Confidence: 0.99403286

01:28:03.510 --> 01:28:04.950 introduce his panelists or have

NOTE Confidence: 0.99403286

01:28:04.950 --> 01:28:06.470 them introduce themselves. Thank you

NOTE Confidence: 0.99403286

01:28:06.470 --> 01:28:07.370 so much, Dan.

NOTE Confidence: 0.9985812

01:28:10.725 --> 01:28:11.225 Alright.

NOTE Confidence: 0.9629211

01:28:12.725 --> 01:28:13.864 Thank you so much.

NOTE Confidence: 0.9617717

01:28:14.405 --> 01:28:15.925 I'm the last, we're the

NOTE Confidence: 0.9617717

01:28:15.925 --> 01:28:17.385 last act here. So,

NOTE Confidence: 0.984009

01:28:18.885 --> 01:28:20.405 hang tight, and, we'll try

NOTE Confidence: 0.984009

01:28:20.405 --> 01:28:21.205 to make this a little

NOTE Confidence: 0.984009  
01:28:21.205 --> 01:28:21.864 bit more,  
NOTE Confidence: 0.9944651  
01:28:22.670 --> 01:28:24.050 engaging if we can.  
NOTE Confidence: 0.9771525  
01:28:25.790 --> 01:28:26.989 I'll I'll answer a couple  
NOTE Confidence: 0.9771525  
01:28:26.989 --> 01:28:28.429 of things that that came  
NOTE Confidence: 0.9771525  
01:28:28.429 --> 01:28:28.989 up just,  
NOTE Confidence: 0.9296064  
01:28:29.949 --> 01:28:31.310 you there was a question  
NOTE Confidence: 0.9296064  
01:28:31.310 --> 01:28:32.369 about AI  
NOTE Confidence: 0.8860537  
01:28:32.909 --> 01:28:33.150 and,  
NOTE Confidence: 0.9991706  
01:28:34.345 --> 01:28:35.645 how do drug companies  
NOTE Confidence: 0.9999058  
01:28:36.025 --> 01:28:36.525 discover  
NOTE Confidence: 0.9812138  
01:28:36.905 --> 01:28:38.185 new drugs. And just to  
NOTE Confidence: 0.9812138  
01:28:38.185 --> 01:28:39.064 give you a sense of  
NOTE Confidence: 0.9812138  
01:28:39.064 --> 01:28:39.965 how crazy  
NOTE Confidence: 0.96426904  
01:28:40.425 --> 01:28:41.625 the next five years are  
NOTE Confidence: 0.96426904  
01:28:41.625 --> 01:28:42.365 gonna be,  
NOTE Confidence: 0.9793306

01:28:42.905 --> 01:28:44.925 that DeepMind did a collaboration

NOTE Confidence: 0.9793306

01:28:44.985 --> 01:28:46.585 actually with Yale to look

NOTE Confidence: 0.9793306

01:28:46.585 --> 01:28:47.085 at,

NOTE Confidence: 0.99964267

01:28:47.705 --> 01:28:48.604 different drugs

NOTE Confidence: 0.990536

01:28:49.080 --> 01:28:51.739 to, have cancer cells show

NOTE Confidence: 0.990536

01:28:51.880 --> 01:28:53.320 things on their surface that

NOTE Confidence: 0.990536

01:28:53.320 --> 01:28:54.619 would make the immune system

NOTE Confidence: 0.990536

01:28:54.679 --> 01:28:55.659 recognize them.

NOTE Confidence: 0.97816837

01:28:55.960 --> 01:28:57.239 And they tested, like, five

NOTE Confidence: 0.97816837

01:28:57.239 --> 01:28:58.679 thousand drugs and narrowed it

NOTE Confidence: 0.97816837

01:28:58.679 --> 01:28:59.880 down to, like, five, which

NOTE Confidence: 0.97816837

01:28:59.880 --> 01:29:00.619 is simulated

NOTE Confidence: 0.9590469

01:29:00.920 --> 01:29:02.439 AI experiments, and the five

NOTE Confidence: 0.9590469

01:29:02.439 --> 01:29:03.675 actually looked pretty good.

NOTE Confidence: 0.99222946

01:29:04.074 --> 01:29:05.275 And so the the amount

NOTE Confidence: 0.99222946

01:29:05.275 --> 01:29:06.715 of discovery that's gonna happen

NOTE Confidence: 0.99222946

01:29:06.715 --> 01:29:07.675 in the next five years

NOTE Confidence: 0.99222946

01:29:07.675 --> 01:29:08.795 is truly crazy. I mean,

NOTE Confidence: 0.99222946

01:29:08.795 --> 01:29:10.554 the the amount of the

NOTE Confidence: 0.99222946

01:29:10.554 --> 01:29:12.335 amount of information that's collected

NOTE Confidence: 0.99222946

01:29:12.474 --> 01:29:14.395 on patients every year is

NOTE Confidence: 0.99222946

01:29:14.395 --> 01:29:15.375 like a zettabyte.

NOTE Confidence: 0.99967843

01:29:16.235 --> 01:29:17.215 That's the equivalent

NOTE Confidence: 0.99989873

01:29:17.835 --> 01:29:19.054 to every book

NOTE Confidence: 0.9977342

01:29:19.630 --> 01:29:21.570 that's been published ever

NOTE Confidence: 0.9851012

01:29:22.030 --> 01:29:23.090 a million times.

NOTE Confidence: 0.99435264

01:29:23.550 --> 01:29:24.670 So we we collect that

NOTE Confidence: 0.99435264

01:29:24.670 --> 01:29:26.670 much data every year on

NOTE Confidence: 0.99435264

01:29:26.670 --> 01:29:28.510 patients, and and this is

NOTE Confidence: 0.99435264

01:29:28.510 --> 01:29:29.470 going to be used to

NOTE Confidence: 0.99435264

01:29:29.470 --> 01:29:31.390 totally change everything we know

NOTE Confidence: 0.99435264

01:29:31.390 --> 01:29:32.210 about medicine.  
NOTE Confidence: 0.9975462

01:29:32.750 --> 01:29:34.130 So, with that,  
NOTE Confidence: 0.95252824

01:29:34.985 --> 01:29:36.264 let me have, why don't  
NOTE Confidence: 0.95252824

01:29:36.264 --> 01:29:37.145 you guys go ahead and  
NOTE Confidence: 0.95252824

01:29:37.145 --> 01:29:39.145 introduce yourselves and say, something  
NOTE Confidence: 0.95252824

01:29:39.145 --> 01:29:40.425 about yourselves? I'm a thoracic  
NOTE Confidence: 0.95252824

01:29:40.425 --> 01:29:42.284 surgeon, Dan Boffa. Hi  
NOTE Confidence: 0.99070466

01:29:42.824 --> 01:29:43.784 there. I'm Henry Park. I'm  
NOTE Confidence: 0.99070466

01:29:43.784 --> 01:29:45.625 a radiation oncologist, and I  
NOTE Confidence: 0.99070466

01:29:45.625 --> 01:29:46.985 I treat patients with, with  
NOTE Confidence: 0.99070466

01:29:46.985 --> 01:29:48.025 with all stages of lung  
NOTE Confidence: 0.99070466

01:29:48.025 --> 01:29:50.125 cancer, with with radiation therapy.  
NOTE Confidence: 0.9292823

01:29:51.750 --> 01:29:53.830 I'm, Michael Cohen. I'm a  
NOTE Confidence: 0.9292823

01:29:53.830 --> 01:29:54.890 thoracic oncologist  
NOTE Confidence: 0.9218753

01:29:55.350 --> 01:29:57.030 at the Trumbull and one  
NOTE Confidence: 0.9218753

01:29:57.030 --> 01:29:58.330 day a week in Derby,

NOTE Confidence: 0.99832743

01:29:58.870 --> 01:30:00.150 where I treat lung cancer

NOTE Confidence: 0.99832743

01:30:00.150 --> 01:30:00.650 patients.

NOTE Confidence: 0.9928514

01:30:02.310 --> 01:30:04.229 Hello, everyone. I'm Chanel Charles,

NOTE Confidence: 0.9928514

01:30:04.229 --> 01:30:05.270 and I'm the social worker

NOTE Confidence: 0.9928514

01:30:05.270 --> 01:30:06.090 on the team.

NOTE Confidence: 0.98821706

01:30:08.365 --> 01:30:09.585 My name is Michael Glenenning.

NOTE Confidence: 0.98821706

01:30:09.725 --> 01:30:11.005 I'm a physician assistant with

NOTE Confidence: 0.98821706

01:30:11.005 --> 01:30:12.685 the medical oncology team, helping

NOTE Confidence: 0.98821706

01:30:12.685 --> 01:30:13.485 take care of patients while

NOTE Confidence: 0.98821706

01:30:13.485 --> 01:30:14.465 they're getting their treatments.

NOTE Confidence: 0.9993

01:30:16.125 --> 01:30:17.325 So we we kind of

NOTE Confidence: 0.9993

01:30:17.325 --> 01:30:18.705 have a loosely defined

NOTE Confidence: 0.99085116

01:30:19.005 --> 01:30:20.125 category here, and I I

NOTE Confidence: 0.99085116

01:30:20.125 --> 01:30:21.085 sort of think of it

NOTE Confidence: 0.99085116

01:30:21.085 --> 01:30:21.585 as

NOTE Confidence: 0.9881759

01:30:21.885 --> 01:30:22.385 survivorship.  
NOTE Confidence: 0.98885673

01:30:23.220 --> 01:30:25.400 And survivorship is basically everything  
NOTE Confidence: 0.98885673

01:30:25.540 --> 01:30:27.380 after you've been diagnosed and  
NOTE Confidence: 0.98885673

01:30:27.380 --> 01:30:29.380 started treatment. It's the rest  
NOTE Confidence: 0.98885673

01:30:29.380 --> 01:30:30.660 of your life, basically. And  
NOTE Confidence: 0.98885673

01:30:30.660 --> 01:30:31.460 I I like to think  
NOTE Confidence: 0.98885673

01:30:31.460 --> 01:30:32.440 of it as  
NOTE Confidence: 0.93815494

01:30:32.900 --> 01:30:34.340 sur thrivorship because we don't  
NOTE Confidence: 0.93815494

01:30:34.340 --> 01:30:35.540 want you just living. We  
NOTE Confidence: 0.93815494

01:30:35.540 --> 01:30:36.885 want you thriving. And so  
NOTE Confidence: 0.93815494

01:30:36.885 --> 01:30:38.165 all the things that we  
NOTE Confidence: 0.93815494

01:30:38.165 --> 01:30:39.285 need to do to help  
NOTE Confidence: 0.93815494

01:30:39.285 --> 01:30:40.265 you achieve  
NOTE Confidence: 0.9964129

01:30:40.965 --> 01:30:42.325 all of your life goals  
NOTE Confidence: 0.9964129

01:30:42.325 --> 01:30:43.785 between the time you're diagnosed  
NOTE Confidence: 0.9518206

01:30:44.485 --> 01:30:45.525 and the rest of your

NOTE Confidence: 0.9518206  
01:30:45.525 --> 01:30:46.505 life. And so  
NOTE Confidence: 0.98994803  
01:30:46.805 --> 01:30:48.025 that is the framing  
NOTE Confidence: 0.96562004  
01:30:48.325 --> 01:30:50.245 for this next, little session.  
NOTE Confidence: 0.96562004  
01:30:50.245 --> 01:30:52.110 And so I'll start with  
NOTE Confidence: 0.96562004  
01:30:52.110 --> 01:30:53.729 with Michael. And,  
NOTE Confidence: 0.9738686  
01:30:55.390 --> 01:30:56.670 and I I missed the  
NOTE Confidence: 0.9738686  
01:30:56.670 --> 01:30:57.710 first part. So if somebody  
NOTE Confidence: 0.9738686  
01:30:57.710 --> 01:30:58.590 wants to just quickly tell  
NOTE Confidence: 0.9738686  
01:30:58.590 --> 01:30:59.470 me what you guys talked  
NOTE Confidence: 0.9738686  
01:30:59.470 --> 01:31:01.170 about to be yeah.  
NOTE Confidence: 0.96063626  
01:31:02.510 --> 01:31:02.910 The,  
NOTE Confidence: 0.9943656  
01:31:04.189 --> 01:31:05.250 the, so  
NOTE Confidence: 0.9861409  
01:31:05.915 --> 01:31:06.955 the re the impact of  
NOTE Confidence: 0.9861409  
01:31:06.955 --> 01:31:08.314 research on lung cancer is  
NOTE Confidence: 0.9861409  
01:31:08.314 --> 01:31:09.835 truly crazy. I'm I'm sure  
NOTE Confidence: 0.9861409

01:31:09.835 --> 01:31:11.435 somebody covered this, but the

NOTE Confidence: 0.9861409

01:31:11.435 --> 01:31:12.475 the cure rate for lung

NOTE Confidence: 0.9861409

01:31:12.475 --> 01:31:12.975 cancer

NOTE Confidence: 0.99895453

01:31:13.354 --> 01:31:14.875 has doubled in the past

NOTE Confidence: 0.99895453

01:31:14.875 --> 01:31:16.395 eight years. We used to

NOTE Confidence: 0.99895453

01:31:16.395 --> 01:31:17.135 get excited

NOTE Confidence: 0.94973916

01:31:17.515 --> 01:31:19.489 when you increase survival by

NOTE Confidence: 0.94973916

01:31:19.489 --> 01:31:20.530 two weeks. That was a

NOTE Confidence: 0.94973916

01:31:20.530 --> 01:31:22.170 New England Journal paper. If

NOTE Confidence: 0.94973916

01:31:22.170 --> 01:31:23.729 you if people live longer

NOTE Confidence: 0.94973916

01:31:23.729 --> 01:31:25.250 by two weeks, it was

NOTE Confidence: 0.94973916

01:31:25.250 --> 01:31:26.850 a New England Journal paper.

NOTE Confidence: 0.94973916

01:31:26.850 --> 01:31:27.350 Now,

NOTE Confidence: 0.97666806

01:31:27.729 --> 01:31:28.850 it is it's doubled in

NOTE Confidence: 0.97666806

01:31:28.850 --> 01:31:29.969 the past eight years. And

NOTE Confidence: 0.97666806

01:31:29.969 --> 01:31:30.930 so we have a lot

NOTE Confidence: 0.97666806  
01:31:30.930 --> 01:31:31.750 more people  
NOTE Confidence: 0.9998774  
01:31:32.175 --> 01:31:33.314 that are living  
NOTE Confidence: 0.99477875  
01:31:33.615 --> 01:31:34.975 with lung cancer as a  
NOTE Confidence: 0.99477875  
01:31:34.975 --> 01:31:35.795 chronic disease.  
NOTE Confidence: 0.9831549  
01:31:36.495 --> 01:31:36.895 And,  
NOTE Confidence: 0.96820205  
01:31:38.015 --> 01:31:40.755 obviously, living is is preferable  
NOTE Confidence: 0.96820205  
01:31:40.814 --> 01:31:41.715 to the alternative,  
NOTE Confidence: 0.99714124  
01:31:42.335 --> 01:31:42.835 but  
NOTE Confidence: 0.9920148  
01:31:43.375 --> 01:31:45.215 some of these, patients are  
NOTE Confidence: 0.9920148  
01:31:45.215 --> 01:31:45.715 maintained  
NOTE Confidence: 0.9869834  
01:31:46.095 --> 01:31:48.470 on lifelong therapy. And so,  
NOTE Confidence: 0.9869834  
01:31:48.610 --> 01:31:50.610 Michael, just in terms of,  
NOTE Confidence: 0.9749901  
01:31:51.570 --> 01:31:53.010 say, targeted therapy, people who  
NOTE Confidence: 0.9749901  
01:31:53.010 --> 01:31:55.010 are spending a long time  
NOTE Confidence: 0.9749901  
01:31:55.010 --> 01:31:56.150 on targeted therapy,  
NOTE Confidence: 0.9906904

01:31:57.410 --> 01:31:59.110 what are what is that,  
NOTE Confidence: 0.9699899

01:31:59.810 --> 01:32:01.090 what what is that like  
NOTE Confidence: 0.9699899

01:32:01.090 --> 01:32:02.130 and what are the ways  
NOTE Confidence: 0.9699899

01:32:02.130 --> 01:32:03.375 that we can support them  
NOTE Confidence: 0.9699899

01:32:03.375 --> 01:32:05.295 through that in terms of  
NOTE Confidence: 0.9699899

01:32:05.295 --> 01:32:07.375 of making lifestyle changes, and  
NOTE Confidence: 0.9699899

01:32:07.375 --> 01:32:08.335 and what does that look  
NOTE Confidence: 0.9699899

01:32:08.335 --> 01:32:08.835 like?  
NOTE Confidence: 0.7601019

01:32:09.775 --> 01:32:11.074 Me, Michael, or him.  
NOTE Confidence: 0.6547153

01:32:11.695 --> 01:32:12.655 Me, Michael. Owner of them.  
NOTE Confidence: 0.6547153

01:32:12.655 --> 01:32:14.910 Okay. G or c.  
NOTE Confidence: 0.8594415

01:32:15.710 --> 01:32:16.370 We'll c. So  
NOTE Confidence: 0.96077037

01:32:16.830 --> 01:32:18.110 I I agree with Dan.  
NOTE Confidence: 0.96077037

01:32:18.110 --> 01:32:19.550 I mean, not only have  
NOTE Confidence: 0.96077037

01:32:19.550 --> 01:32:21.630 we gone beyond the point  
NOTE Confidence: 0.96077037

01:32:21.630 --> 01:32:23.070 of two weeks, but I

NOTE Confidence: 0.96077037

01:32:23.070 --> 01:32:24.450 mean, when we think about

NOTE Confidence: 0.9821102

01:32:25.390 --> 01:32:26.510 when I first went into

NOTE Confidence: 0.9821102

01:32:26.510 --> 01:32:28.110 oncology, less than five percent

NOTE Confidence: 0.9821102

01:32:28.110 --> 01:32:29.630 of people were living till

NOTE Confidence: 0.9821102

01:32:29.630 --> 01:32:31.245 five years, And now we're

NOTE Confidence: 0.9821102

01:32:31.245 --> 01:32:32.785 pushing over forty percent.

NOTE Confidence: 0.9687109

01:32:33.325 --> 01:32:34.445 I mean, it's really just

NOTE Confidence: 0.9687109

01:32:34.445 --> 01:32:35.905 happening in leaps and bounds.

NOTE Confidence: 0.9673163

01:32:36.365 --> 01:32:38.285 So as Dan said, then

NOTE Confidence: 0.9673163

01:32:38.285 --> 01:32:39.085 we have to think, well,

NOTE Confidence: 0.9673163

01:32:39.085 --> 01:32:40.604 what is life like on

NOTE Confidence: 0.9673163

01:32:40.604 --> 01:32:42.445 treatment? I remember going to

NOTE Confidence: 0.9673163

01:32:42.445 --> 01:32:43.885 a talk at ASCO last

NOTE Confidence: 0.9673163

01:32:43.885 --> 01:32:44.385 year,

NOTE Confidence: 0.98017293

01:32:45.110 --> 01:32:46.490 and there was a survivor

NOTE Confidence: 0.98017293

01:32:46.790 --> 01:32:48.410 who was on anti eGFR  
NOTE Confidence: 0.98017293

01:32:48.630 --> 01:32:49.130 therapy.  
NOTE Confidence: 0.9225531

01:32:49.590 --> 01:32:51.130 I'm treated a really interesting  
NOTE Confidence: 0.9225531

01:32:51.189 --> 01:32:53.350 way of framing it, which  
NOTE Confidence: 0.9225531

01:32:53.350 --> 01:32:53.850 was  
NOTE Confidence: 0.9162143

01:32:54.710 --> 01:32:56.070 we think about side effects,  
NOTE Confidence: 0.9162143

01:32:56.070 --> 01:32:57.590 and doctor Chang talked about  
NOTE Confidence: 0.9162143

01:32:57.590 --> 01:32:59.030 this, grade one, grade two,  
NOTE Confidence: 0.9162143

01:32:59.030 --> 01:32:59.850 grade three.  
NOTE Confidence: 0.9779475

01:33:00.165 --> 01:33:01.764 But even a grade one,  
NOTE Confidence: 0.9779475

01:33:01.764 --> 01:33:03.525 which we as oncologists don't  
NOTE Confidence: 0.9779475

01:33:03.525 --> 01:33:04.485 tend to think about a  
NOTE Confidence: 0.9779475

01:33:04.485 --> 01:33:04.985 lot,  
NOTE Confidence: 0.9913521

01:33:05.445 --> 01:33:07.204 if they have it day  
NOTE Confidence: 0.9913521

01:33:07.204 --> 01:33:09.364 by day, year after year,  
NOTE Confidence: 0.9913521

01:33:09.364 --> 01:33:10.885 that's very impactful. And the

NOTE Confidence: 0.9913521  
01:33:10.885 --> 01:33:12.645 way she described it is  
NOTE Confidence: 0.9913521  
01:33:12.645 --> 01:33:13.525 if you had a little  
NOTE Confidence: 0.9913521  
01:33:13.525 --> 01:33:14.824 pebble in your shoe  
NOTE Confidence: 0.9866222  
01:33:15.679 --> 01:33:16.880 and you're sitting around, it  
NOTE Confidence: 0.9866222  
01:33:16.880 --> 01:33:18.639 doesn't really bother you. If  
NOTE Confidence: 0.9866222  
01:33:18.639 --> 01:33:19.760 that little pebble in your  
NOTE Confidence: 0.9866222  
01:33:19.760 --> 01:33:20.639 shoe is with you on  
NOTE Confidence: 0.9866222  
01:33:20.639 --> 01:33:22.479 a five mile hike, that's  
NOTE Confidence: 0.9866222  
01:33:22.479 --> 01:33:23.699 a really big deal.  
NOTE Confidence: 0.98235863  
01:33:24.320 --> 01:33:25.360 And so we do have  
NOTE Confidence: 0.98235863  
01:33:25.360 --> 01:33:26.719 to entertain these things. You  
NOTE Confidence: 0.98235863  
01:33:26.719 --> 01:33:28.400 know, living with a little  
NOTE Confidence: 0.98235863  
01:33:28.400 --> 01:33:29.219 bit of diarrhea  
NOTE Confidence: 0.965495  
01:33:29.520 --> 01:33:30.739 every day for years  
NOTE Confidence: 0.99130976  
01:33:31.225 --> 01:33:32.045 is impactful.  
NOTE Confidence: 0.9994838

01:33:32.905 --> 01:33:33.865 And a lot of it  
NOTE Confidence: 0.9994838

01:33:33.865 --> 01:33:35.005 is just communication  
NOTE Confidence: 0.9962845

01:33:35.385 --> 01:33:36.665 between the treating team and  
NOTE Confidence: 0.9962845

01:33:36.665 --> 01:33:38.265 the patient. What is tolerable  
NOTE Confidence: 0.9962845

01:33:38.265 --> 01:33:39.565 to you? What is acceptable?  
NOTE Confidence: 0.9994675

01:33:40.025 --> 01:33:41.645 How can we manage this?  
NOTE Confidence: 0.9933498

01:33:42.505 --> 01:33:44.104 And for the most part,  
NOTE Confidence: 0.9933498

01:33:44.104 --> 01:33:45.645 we can help alleviate  
NOTE Confidence: 0.9382233

01:33:45.945 --> 01:33:47.670 almost every side effect,  
NOTE Confidence: 0.9445697

01:33:47.970 --> 01:33:49.330 maybe with the exception of  
NOTE Confidence: 0.9445697

01:33:49.330 --> 01:33:51.090 some, hopefully to the point  
NOTE Confidence: 0.9445697

01:33:51.090 --> 01:33:52.930 where a patient says this  
NOTE Confidence: 0.9445697

01:33:52.930 --> 01:33:54.310 is something I can handle.  
NOTE Confidence: 0.9939692

01:33:54.770 --> 01:33:56.370 And they hopefully will feel  
NOTE Confidence: 0.9939692

01:33:56.370 --> 01:33:57.890 free to advocate for themselves  
NOTE Confidence: 0.9939692

01:33:57.890 --> 01:33:58.790 when they can't

NOTE Confidence: 0.9800095  
01:33:59.965 --> 01:34:01.005 and say, I need a  
NOTE Confidence: 0.9800095  
01:34:01.005 --> 01:34:02.364 break. I need a dose  
NOTE Confidence: 0.9800095  
01:34:02.364 --> 01:34:02.864 reduction.  
NOTE Confidence: 0.99632305  
01:34:03.965 --> 01:34:05.005 I think that's really the  
NOTE Confidence: 0.99632305  
01:34:05.005 --> 01:34:05.505 partnership.  
NOTE Confidence: 0.9649529  
01:34:07.245 --> 01:34:08.925 Great. Was that was that  
NOTE Confidence: 0.9649529  
01:34:08.925 --> 01:34:09.425 Annabelle  
NOTE Confidence: 0.8035524  
01:34:09.725 --> 01:34:11.245 Grewich that gave that talk?  
NOTE Confidence: 0.8035524  
01:34:11.245 --> 01:34:13.185 I my friend. So Yeah.  
NOTE Confidence: 0.8035524  
01:34:13.245 --> 01:34:13.745 So  
NOTE Confidence: 0.9765426  
01:34:14.060 --> 01:34:15.100 I did not ask him  
NOTE Confidence: 0.9765426  
01:34:15.100 --> 01:34:16.560 to give that example. But,  
NOTE Confidence: 0.9635139  
01:34:17.020 --> 01:34:18.140 Annabelle just came out with  
NOTE Confidence: 0.9635139  
01:34:18.140 --> 01:34:18.939 a new book called The  
NOTE Confidence: 0.9635139  
01:34:18.939 --> 01:34:19.900 End of My Life is  
NOTE Confidence: 0.9635139

01:34:19.900 --> 01:34:21.420 Killing Me, and it's about  
NOTE Confidence: 0.9635139

01:34:21.420 --> 01:34:23.840 her lifelong battle with,  
NOTE Confidence: 0.98256147

01:34:24.220 --> 01:34:25.979 EGFR mutated cancer. And she's  
NOTE Confidence: 0.98256147

01:34:25.979 --> 01:34:27.795 gonna be here in March,  
NOTE Confidence: 0.9649815

01:34:28.515 --> 01:34:29.715 giving a talk and doing  
NOTE Confidence: 0.9649815

01:34:29.715 --> 01:34:30.835 a reading, so just,  
NOTE Confidence: 0.9908124

01:34:31.395 --> 01:34:32.675 look out for that. She's  
NOTE Confidence: 0.9908124

01:34:32.675 --> 01:34:33.554 amazing. But,  
NOTE Confidence: 0.9823268

01:34:36.114 --> 01:34:36.614 so  
NOTE Confidence: 0.94658667

01:34:38.195 --> 01:34:39.875 health care is expensive, and,  
NOTE Confidence: 0.94658667

01:34:39.875 --> 01:34:41.074 Chanel, this is coming your  
NOTE Confidence: 0.94658667

01:34:41.074 --> 01:34:41.715 way. So,  
NOTE Confidence: 0.970635

01:34:43.420 --> 01:34:45.580 health health care costs are  
NOTE Confidence: 0.970635

01:34:45.580 --> 01:34:47.920 the the number one cause  
NOTE Confidence: 0.970635

01:34:48.060 --> 01:34:49.500 of bankruptcy in the United  
NOTE Confidence: 0.970635

01:34:49.500 --> 01:34:51.420 States. And it is a

NOTE Confidence: 0.970635

01:34:51.420 --> 01:34:52.700 big deal. It is, you

NOTE Confidence: 0.970635

01:34:52.700 --> 01:34:54.460 know, people are missing work.

NOTE Confidence: 0.970635

01:34:54.460 --> 01:34:54.960 And

NOTE Confidence: 0.98394084

01:34:55.515 --> 01:34:56.795 what what do you when

NOTE Confidence: 0.98394084

01:34:56.795 --> 01:34:57.835 you think of somebody that

NOTE Confidence: 0.98394084

01:34:57.835 --> 01:34:58.975 comes in with a diagnosis,

NOTE Confidence: 0.98394084

01:34:59.115 --> 01:35:00.475 how do we approach that?

NOTE Confidence: 0.98394084

01:35:00.475 --> 01:35:01.515 How do we support that?

NOTE Confidence: 0.98394084

01:35:01.515 --> 01:35:03.055 What are their options and

NOTE Confidence: 0.98394084

01:35:03.354 --> 01:35:03.854 etcetera?

NOTE Confidence: 0.9202598

01:35:04.955 --> 01:35:05.835 Make sure I get this

NOTE Confidence: 0.9202598

01:35:05.835 --> 01:35:07.135 right this time.

NOTE Confidence: 0.87449074

01:35:08.140 --> 01:35:09.440 Can you hear me? Yes.

NOTE Confidence: 0.9941026

01:35:09.980 --> 01:35:10.380 So,

NOTE Confidence: 0.9535121

01:35:10.860 --> 01:35:12.060 thank you for asking that.

NOTE Confidence: 0.9535121

01:35:12.300 --> 01:35:13.920 Now I am the nonmedical  
NOTE Confidence: 0.9535121

01:35:14.140 --> 01:35:15.260 person on the team. And,  
NOTE Confidence: 0.9535121

01:35:15.260 --> 01:35:16.220 of course, with the cancer  
NOTE Confidence: 0.9535121

01:35:16.220 --> 01:35:16.720 diagnosis  
NOTE Confidence: 0.9715504

01:35:17.340 --> 01:35:18.300 comes with a lot of  
NOTE Confidence: 0.9715504

01:35:18.300 --> 01:35:21.260 psychosocial issues, including financial issues.  
NOTE Confidence: 0.9715504

01:35:21.260 --> 01:35:22.000 And so  
NOTE Confidence: 0.97694355

01:35:22.485 --> 01:35:24.165 we, there are grants that  
NOTE Confidence: 0.97694355

01:35:24.165 --> 01:35:25.604 we can apply for for  
NOTE Confidence: 0.97694355

01:35:25.604 --> 01:35:26.104 patients.  
NOTE Confidence: 0.99443084

01:35:26.645 --> 01:35:27.625 We help patients,  
NOTE Confidence: 0.9991488

01:35:28.564 --> 01:35:29.845 tap into resources in the  
NOTE Confidence: 0.9991488

01:35:29.845 --> 01:35:30.345 community,  
NOTE Confidence: 0.90237445

01:35:30.805 --> 01:35:32.725 from different agency. There is  
NOTE Confidence: 0.90237445

01:35:32.725 --> 01:35:34.965 Connecticut Cancer Foundation. There's Cancer  
NOTE Confidence: 0.90237445

01:35:34.965 --> 01:35:36.340 Care. So there are different

NOTE Confidence: 0.90237445  
01:35:36.340 --> 01:35:36.840 organizations  
NOTE Confidence: 0.9961405  
01:35:37.219 --> 01:35:38.100 out there that we can  
NOTE Confidence: 0.9961405  
01:35:38.100 --> 01:35:39.880 apply to for grants,  
NOTE Confidence: 0.9989114  
01:35:40.260 --> 01:35:41.939 on behalf of patients. We  
NOTE Confidence: 0.9989114  
01:35:41.939 --> 01:35:42.760 also help  
NOTE Confidence: 0.7189767  
01:35:44.020 --> 01:35:44.920 government resources.  
NOTE Confidence: 0.64712226  
01:35:46.020 --> 01:35:47.479 Okay. I know. What is  
NOTE Confidence: 0.84787554  
01:35:48.580 --> 01:35:50.200 It's all the government. Okay.  
NOTE Confidence: 0.84787554  
01:35:50.420 --> 01:35:51.160 Thank you.  
NOTE Confidence: 0.74525195  
01:35:51.804 --> 01:35:53.264 That's for government resources.  
NOTE Confidence: 0.5573602  
01:35:54.284 --> 01:35:55.264 Right now and on.  
NOTE Confidence: 0.6611291  
01:35:55.965 --> 01:35:57.344 It's here. Here. Here.  
NOTE Confidence: 0.62543005  
01:35:59.645 --> 01:36:00.465 Thank you.  
NOTE Confidence: 0.87696385  
01:36:00.925 --> 01:36:01.905 Government resources.  
NOTE Confidence: 0.9354356  
01:36:02.604 --> 01:36:04.045 Some patients may be qualified  
NOTE Confidence: 0.9354356

01:36:04.045 --> 01:36:05.184 for title nineteen  
NOTE Confidence: 0.94336176

01:36:06.530 --> 01:36:08.690 or other, Yale has an  
NOTE Confidence: 0.94336176

01:36:08.690 --> 01:36:09.190 assisted  
NOTE Confidence: 0.9714524

01:36:09.650 --> 01:36:10.850 program, a program that they  
NOTE Confidence: 0.9714524

01:36:10.850 --> 01:36:12.290 will assist patients pay for  
NOTE Confidence: 0.9714524

01:36:12.290 --> 01:36:13.030 their care.  
NOTE Confidence: 0.9780382

01:36:13.490 --> 01:36:14.610 So we explore all the  
NOTE Confidence: 0.9780382

01:36:14.610 --> 01:36:15.650 options that are out there,  
NOTE Confidence: 0.9780382

01:36:15.650 --> 01:36:16.930 whether through Yale or in  
NOTE Confidence: 0.9780382

01:36:16.930 --> 01:36:18.290 the community to help patients  
NOTE Confidence: 0.9780382

01:36:18.290 --> 01:36:19.729 pay for care. And just  
NOTE Confidence: 0.9780382

01:36:19.810 --> 01:36:21.110 not just care, but,  
NOTE Confidence: 0.85375273

01:36:22.045 --> 01:36:22.545 bills,  
NOTE Confidence: 0.97765434

01:36:23.005 --> 01:36:24.365 household bills. That's a big  
NOTE Confidence: 0.97765434

01:36:24.365 --> 01:36:26.045 factor. When someone is going  
NOTE Confidence: 0.97765434

01:36:26.045 --> 01:36:27.165 through cancer, now you're no

NOTE Confidence: 0.97765434

01:36:27.165 --> 01:36:28.765 longer able to work, and

NOTE Confidence: 0.97765434

01:36:28.765 --> 01:36:30.525 so the bills fall to

NOTE Confidence: 0.97765434

01:36:30.525 --> 01:36:31.805 the wayside. So we assist

NOTE Confidence: 0.97765434

01:36:31.805 --> 01:36:33.185 patients with getting,

NOTE Confidence: 0.987816

01:36:33.805 --> 01:36:35.265 monies to pay for

NOTE Confidence: 0.989691

01:36:35.805 --> 01:36:36.305 bills.

NOTE Confidence: 0.9579375

01:36:37.429 --> 01:36:38.389 Yeah. I I think the

NOTE Confidence: 0.9579375

01:36:38.389 --> 01:36:40.150 most important thing is you

NOTE Confidence: 0.9579375

01:36:40.150 --> 01:36:41.750 gotta communicate that to your

NOTE Confidence: 0.9579375

01:36:41.750 --> 01:36:43.850 team. These are real things,

NOTE Confidence: 0.9579375

01:36:43.989 --> 01:36:45.830 and you gotta be open,

NOTE Confidence: 0.9579375

01:36:45.830 --> 01:36:46.310 and,

NOTE Confidence: 0.9835246

01:36:46.949 --> 01:36:48.310 it's all a part of

NOTE Confidence: 0.9835246

01:36:48.310 --> 01:36:50.710 the experience. And, sometimes it

NOTE Confidence: 0.9835246

01:36:50.710 --> 01:36:52.305 may mean that you get

NOTE Confidence: 0.9835246

01:36:52.465 --> 01:36:53.505 treated closer to home. I  
NOTE Confidence: 0.9835246

01:36:53.505 --> 01:36:54.865 mean, I I personally believe  
NOTE Confidence: 0.9835246

01:36:54.865 --> 01:36:55.745 you should get as much  
NOTE Confidence: 0.9835246

01:36:55.745 --> 01:36:56.865 care as close to home  
NOTE Confidence: 0.9835246

01:36:56.865 --> 01:36:57.604 as possible.  
NOTE Confidence: 0.99782103

01:36:58.785 --> 01:36:59.665 I think you should have  
NOTE Confidence: 0.99782103

01:36:59.665 --> 01:37:00.705 expert care, but I think  
NOTE Confidence: 0.99782103

01:37:00.705 --> 01:37:01.985 you should have as much  
NOTE Confidence: 0.99782103

01:37:01.985 --> 01:37:03.025 as close to home as  
NOTE Confidence: 0.99782103

01:37:03.025 --> 01:37:04.405 possible. That's my opinion.  
NOTE Confidence: 0.9829196

01:37:06.490 --> 01:37:06.990 Henry  
NOTE Confidence: 0.95626676

01:37:09.530 --> 01:37:10.570 and and Michael, I think  
NOTE Confidence: 0.95626676

01:37:10.570 --> 01:37:11.530 this is a fair question  
NOTE Confidence: 0.95626676

01:37:11.530 --> 01:37:12.250 for both of you. When  
NOTE Confidence: 0.95626676

01:37:12.250 --> 01:37:12.750 you're  
NOTE Confidence: 0.99901825

01:37:13.530 --> 01:37:15.050 thinking about the goals of

NOTE Confidence: 0.99901825  
01:37:15.050 --> 01:37:17.210 care, both of the things  
NOTE Confidence: 0.99901825  
01:37:17.210 --> 01:37:18.670 that you guys are offering  
NOTE Confidence: 0.99901825  
01:37:18.810 --> 01:37:19.550 could affect  
NOTE Confidence: 0.99866986  
01:37:20.135 --> 01:37:21.354 people's ability  
NOTE Confidence: 0.9999149  
01:37:21.735 --> 01:37:22.875 to do things  
NOTE Confidence: 0.9992987  
01:37:23.415 --> 01:37:24.155 in the  
NOTE Confidence: 0.9972041  
01:37:24.455 --> 01:37:26.395 recovery phase and the  
NOTE Confidence: 0.9656335  
01:37:26.854 --> 01:37:28.715 the after cancer phase.  
NOTE Confidence: 0.9966102  
01:37:29.015 --> 01:37:29.975 How do you think about  
NOTE Confidence: 0.9966102  
01:37:29.975 --> 01:37:31.015 that when you talk to  
NOTE Confidence: 0.9966102  
01:37:31.015 --> 01:37:32.795 people about treatment choices,  
NOTE Confidence: 0.9470623  
01:37:34.320 --> 01:37:36.580 about decision making and getting  
NOTE Confidence: 0.9470623  
01:37:36.639 --> 01:37:38.159 a good understanding of what's  
NOTE Confidence: 0.9470623  
01:37:38.159 --> 01:37:39.520 most important to them and  
NOTE Confidence: 0.9470623  
01:37:39.520 --> 01:37:40.719 and how you change your  
NOTE Confidence: 0.9470623

01:37:40.719 --> 01:37:41.780 planning accordingly?  
NOTE Confidence: 0.95132655

01:37:43.520 --> 01:37:44.960 So often for stage one  
NOTE Confidence: 0.95132655

01:37:44.960 --> 01:37:45.939 cancer, for example,  
NOTE Confidence: 0.9050585

01:37:46.835 --> 01:37:47.875 often the choice is between  
NOTE Confidence: 0.9050585

01:37:47.875 --> 01:37:49.235 surgery or radiation therapy, as  
NOTE Confidence: 0.9050585

01:37:49.235 --> 01:37:50.835 doctor Woodard had mentioned earlier,  
NOTE Confidence: 0.9050585

01:37:50.835 --> 01:37:51.795 as as, you know, one  
NOTE Confidence: 0.9050585

01:37:51.795 --> 01:37:52.614 local therapy,  
NOTE Confidence: 0.96815085

01:37:52.915 --> 01:37:54.354 hopefully, without any need for  
NOTE Confidence: 0.96815085

01:37:54.354 --> 01:37:56.034 systemic therapy as well. But  
NOTE Confidence: 0.96815085

01:37:56.034 --> 01:37:57.635 there's they they really are  
NOTE Confidence: 0.96815085

01:37:57.635 --> 01:37:59.235 both very, they're complementary in  
NOTE Confidence: 0.96815085

01:37:59.235 --> 01:37:59.955 a lot of ways for  
NOTE Confidence: 0.96815085

01:37:59.955 --> 01:38:01.235 different people in terms of  
NOTE Confidence: 0.96815085

01:38:01.235 --> 01:38:02.695 who would benefit more from  
NOTE Confidence: 0.9799489

01:38:03.020 --> 01:38:03.900 getting surgery and who would

NOTE Confidence: 0.9799489  
01:38:03.900 --> 01:38:05.260 benefit more from getting radiation  
NOTE Confidence: 0.9799489  
01:38:05.260 --> 01:38:06.860 therapy. It's not so clear  
NOTE Confidence: 0.9799489  
01:38:06.860 --> 01:38:08.220 cut like an algorithm where  
NOTE Confidence: 0.9799489  
01:38:08.220 --> 01:38:09.180 you can say, you know,  
NOTE Confidence: 0.9799489  
01:38:09.180 --> 01:38:10.700 it's very obvious that you  
NOTE Confidence: 0.9799489  
01:38:10.700 --> 01:38:11.500 should go to surgery and  
NOTE Confidence: 0.9799489  
01:38:11.500 --> 01:38:12.560 you should go to radiation.  
NOTE Confidence: 0.9439728  
01:38:12.860 --> 01:38:14.060 Sometimes it's more obvious than  
NOTE Confidence: 0.9439728  
01:38:14.060 --> 01:38:15.979 others, but there's, we'd we'd  
NOTE Confidence: 0.9439728  
01:38:15.979 --> 01:38:16.780 we'd like to meet you  
NOTE Confidence: 0.9439728  
01:38:16.780 --> 01:38:17.840 and really discuss,  
NOTE Confidence: 0.9820574  
01:38:18.655 --> 01:38:19.935 what you are interested in  
NOTE Confidence: 0.9820574  
01:38:19.935 --> 01:38:20.975 in terms of the the  
NOTE Confidence: 0.9820574  
01:38:20.975 --> 01:38:22.335 side effects that you're concerned  
NOTE Confidence: 0.9820574  
01:38:22.335 --> 01:38:22.835 about,  
NOTE Confidence: 0.95313823

01:38:23.375 --> 01:38:24.814 but the the, the kind  
NOTE Confidence: 0.95313823

01:38:24.814 --> 01:38:26.255 of life you're looking to  
NOTE Confidence: 0.95313823

01:38:26.255 --> 01:38:27.215 live for the remainder of  
NOTE Confidence: 0.95313823

01:38:27.215 --> 01:38:28.335 your life as well, especially  
NOTE Confidence: 0.95313823

01:38:28.335 --> 01:38:29.135 when we're in a in  
NOTE Confidence: 0.95313823

01:38:29.135 --> 01:38:30.030 a mode where we're trying  
NOTE Confidence: 0.95313823

01:38:30.110 --> 01:38:31.550 cure your cancers. We we  
NOTE Confidence: 0.95313823

01:38:31.550 --> 01:38:32.829 have an early stage disease.  
NOTE Confidence: 0.95313823

01:38:32.829 --> 01:38:33.869 We wanna make sure that,  
NOTE Confidence: 0.95313823

01:38:33.869 --> 01:38:35.070 you know, we're fitting along  
NOTE Confidence: 0.95313823

01:38:35.070 --> 01:38:36.349 with what the life's the  
NOTE Confidence: 0.95313823

01:38:36.349 --> 01:38:37.389 life you're likely to live  
NOTE Confidence: 0.95313823

01:38:37.389 --> 01:38:38.829 afterwards. Is that gonna look  
NOTE Confidence: 0.95313823

01:38:38.829 --> 01:38:39.710 the way that you're hoping  
NOTE Confidence: 0.95313823

01:38:39.710 --> 01:38:40.909 for? And and and which  
NOTE Confidence: 0.95313823

01:38:40.909 --> 01:38:42.425 of the two options looks

NOTE Confidence: 0.95313823

01:38:42.425 --> 01:38:43.805 better to you overall.

NOTE Confidence: 0.96766317

01:38:44.265 --> 01:38:45.385 You know, some folks decide

NOTE Confidence: 0.96766317

01:38:45.385 --> 01:38:46.665 that they want to get

NOTE Confidence: 0.96766317

01:38:46.665 --> 01:38:47.785 surgery because they they have

NOTE Confidence: 0.96766317

01:38:47.785 --> 01:38:48.825 the cancer removed. I think

NOTE Confidence: 0.96766317

01:38:48.825 --> 01:38:49.945 psychologically, that makes a lot

NOTE Confidence: 0.96766317

01:38:49.945 --> 01:38:50.905 of sense. You know, we

NOTE Confidence: 0.96766317

01:38:50.905 --> 01:38:52.345 don't have a randomized trial

NOTE Confidence: 0.96766317

01:38:52.345 --> 01:38:53.785 yet to prove which is

NOTE Confidence: 0.96766317

01:38:53.785 --> 01:38:55.785 better, surgery or radiation. Often,

NOTE Confidence: 0.96766317

01:38:55.785 --> 01:38:56.745 if you can get surgery,

NOTE Confidence: 0.96766317

01:38:56.745 --> 01:38:57.805 many people do.

NOTE Confidence: 0.9620659

01:38:58.320 --> 01:38:59.760 Some, however, if if they

NOTE Confidence: 0.9620659

01:38:59.760 --> 01:39:00.000 are,

NOTE Confidence: 0.9069036

01:39:00.880 --> 01:39:02.000 candidates for surgery, but they

NOTE Confidence: 0.9069036

01:39:02.000 --> 01:39:02.900 don't don't necessarily  
NOTE Confidence: 0.9712233

01:39:03.439 --> 01:39:04.880 want to undergo surgery, for  
NOTE Confidence: 0.9712233

01:39:04.880 --> 01:39:06.560 whatever reason, then radiation therapy  
NOTE Confidence: 0.9712233

01:39:06.560 --> 01:39:07.439 is a great option as  
NOTE Confidence: 0.9712233

01:39:07.439 --> 01:39:08.160 well. But you have to  
NOTE Confidence: 0.9712233

01:39:08.160 --> 01:39:09.439 understand the effects it can  
NOTE Confidence: 0.9712233

01:39:09.439 --> 01:39:10.479 have on you both in  
NOTE Confidence: 0.9712233

01:39:10.479 --> 01:39:11.280 the short term and the  
NOTE Confidence: 0.9712233

01:39:11.280 --> 01:39:12.295 long term. So that's why  
NOTE Confidence: 0.9712233

01:39:12.295 --> 01:39:12.935 we really try to get  
NOTE Confidence: 0.9712233

01:39:12.935 --> 01:39:13.735 to know you in just  
NOTE Confidence: 0.9712233

01:39:13.735 --> 01:39:14.775 that hour that we meet  
NOTE Confidence: 0.9712233

01:39:14.775 --> 01:39:16.295 in consultation, and then you  
NOTE Confidence: 0.9712233

01:39:16.295 --> 01:39:17.095 meet with the surgeon as  
NOTE Confidence: 0.9712233

01:39:17.095 --> 01:39:18.854 well, because we want to,  
NOTE Confidence: 0.9712233

01:39:19.095 --> 01:39:20.055 and then we wanna meet

NOTE Confidence: 0.9712233

01:39:20.055 --> 01:39:21.095 your family and and get

NOTE Confidence: 0.9712233

01:39:21.095 --> 01:39:22.555 to know what is,

NOTE Confidence: 0.9765

01:39:22.935 --> 01:39:24.055 you you know, your your

NOTE Confidence: 0.9765

01:39:24.055 --> 01:39:24.955 goals ultimately.

NOTE Confidence: 0.9615721

01:39:25.719 --> 01:39:27.079 So, that's for stage one.

NOTE Confidence: 0.9615721

01:39:27.079 --> 01:39:28.040 You know, for stage three,

NOTE Confidence: 0.9615721

01:39:28.040 --> 01:39:29.560 stage four, same same kind

NOTE Confidence: 0.9615721

01:39:29.560 --> 01:39:30.520 of idea that, you know,

NOTE Confidence: 0.9615721

01:39:30.520 --> 01:39:31.979 here are the expectations of

NOTE Confidence: 0.9615721

01:39:32.040 --> 01:39:33.900 what this treatment can provide,

NOTE Confidence: 0.9615721

01:39:33.960 --> 01:39:35.400 but here's also some downsides

NOTE Confidence: 0.9615721

01:39:35.400 --> 01:39:36.520 because there's always gonna be

NOTE Confidence: 0.9615721

01:39:36.520 --> 01:39:38.354 some potential downsides here, for

NOTE Confidence: 0.9615721

01:39:38.354 --> 01:39:39.155 any of the treatments that

NOTE Confidence: 0.9615721

01:39:39.155 --> 01:39:39.895 you undergo.

NOTE Confidence: 0.97512597

01:39:40.275 --> 01:39:41.875 So just the understanding of  
NOTE Confidence: 0.97512597

01:39:41.875 --> 01:39:42.675 what it could look like,  
NOTE Confidence: 0.97512597

01:39:42.675 --> 01:39:43.795 which could vary a lot  
NOTE Confidence: 0.97512597

01:39:43.795 --> 01:39:45.155 depending on the person, but  
NOTE Confidence: 0.97512597

01:39:45.155 --> 01:39:46.595 knowing what your risk factors  
NOTE Confidence: 0.97512597

01:39:46.595 --> 01:39:47.875 are in terms of what  
NOTE Confidence: 0.97512597

01:39:47.875 --> 01:39:49.155 factors may make you more  
NOTE Confidence: 0.97512597

01:39:49.155 --> 01:39:50.520 prone to certain side effects  
NOTE Confidence: 0.97512597

01:39:50.760 --> 01:39:52.040 And what really matters to  
NOTE Confidence: 0.97512597

01:39:52.040 --> 01:39:53.080 you a lot, some people  
NOTE Confidence: 0.97512597

01:39:53.080 --> 01:39:54.280 say, you know, that being  
NOTE Confidence: 0.97512597

01:39:54.280 --> 01:39:55.320 on oxygen is okay with  
NOTE Confidence: 0.97512597

01:39:55.320 --> 01:39:56.040 them if they needed to  
NOTE Confidence: 0.97512597

01:39:56.040 --> 01:39:57.000 be on it. Other people  
NOTE Confidence: 0.97512597

01:39:57.000 --> 01:39:57.820 say I'd really,  
NOTE Confidence: 0.9628337

01:39:58.120 --> 01:39:59.160 that that that would really

NOTE Confidence: 0.9628337

01:39:59.160 --> 01:40:00.760 impact my the the lifestyle

NOTE Confidence: 0.9628337

01:40:00.760 --> 01:40:02.680 I wanna live, for example.

NOTE Confidence: 0.9628337

01:40:02.680 --> 01:40:03.640 Right? There's, you know, if

NOTE Confidence: 0.9628337

01:40:03.640 --> 01:40:05.160 I ever needed steroid medications

NOTE Confidence: 0.9628337

01:40:05.160 --> 01:40:06.125 down the road, oh, I've

NOTE Confidence: 0.9628337

01:40:06.125 --> 01:40:07.325 been on that before. No

NOTE Confidence: 0.9628337

01:40:07.325 --> 01:40:08.845 big deal. Other people say

NOTE Confidence: 0.9628337

01:40:08.845 --> 01:40:10.125 if I can at all

NOTE Confidence: 0.9628337

01:40:10.125 --> 01:40:11.965 avoid that whatsoever, I really

NOTE Confidence: 0.9628337

01:40:11.965 --> 01:40:14.045 wanna wanna do that. So

NOTE Confidence: 0.9628337

01:40:14.045 --> 01:40:15.085 all these things we need

NOTE Confidence: 0.9628337

01:40:15.085 --> 01:40:15.965 to hear about and learn

NOTE Confidence: 0.9628337

01:40:15.965 --> 01:40:17.325 about from you during the

NOTE Confidence: 0.9628337

01:40:17.325 --> 01:40:18.765 consultation. We we don't walk

NOTE Confidence: 0.9628337

01:40:18.765 --> 01:40:19.800 in with a clear, we

NOTE Confidence: 0.9628337

01:40:19.880 --> 01:40:20.760 already know what we're gonna  
NOTE Confidence: 0.9628337

01:40:20.760 --> 01:40:22.059 do for you, right, because  
NOTE Confidence: 0.9628337

01:40:22.119 --> 01:40:23.639 of the fact that and  
NOTE Confidence: 0.9628337

01:40:23.639 --> 01:40:24.679 we wanna have options like  
NOTE Confidence: 0.9628337

01:40:24.679 --> 01:40:26.040 that because each individual person  
NOTE Confidence: 0.9628337

01:40:26.040 --> 01:40:27.639 can be treated differently even  
NOTE Confidence: 0.9628337

01:40:27.639 --> 01:40:28.439 if you have the exact  
NOTE Confidence: 0.9628337

01:40:28.439 --> 01:40:29.880 same scan on the screen  
NOTE Confidence: 0.9628337

01:40:29.880 --> 01:40:31.079 or the exact same stage  
NOTE Confidence: 0.9628337

01:40:31.079 --> 01:40:32.439 of of cancer, same type  
NOTE Confidence: 0.9628337

01:40:32.439 --> 01:40:33.639 of cancer. Each person is  
NOTE Confidence: 0.9628337

01:40:33.639 --> 01:40:34.520 gonna be different in terms  
NOTE Confidence: 0.9628337

01:40:34.520 --> 01:40:35.659 of what they're looking for.  
NOTE Confidence: 0.7955563

01:40:37.295 --> 01:40:37.795 Michael,  
NOTE Confidence: 0.88302606

01:40:39.135 --> 01:40:40.574 please, if if you add  
NOTE Confidence: 0.88302606

01:40:40.574 --> 01:40:41.455 to that or I or

NOTE Confidence: 0.88302606  
01:40:41.455 --> 01:40:42.415 I will give you another  
NOTE Confidence: 0.88302606  
01:40:42.415 --> 01:40:43.955 one. That's fine.  
NOTE Confidence: 0.9755899  
01:40:44.574 --> 01:40:46.094 I mean, the conversation makes  
NOTE Confidence: 0.9755899  
01:40:46.094 --> 01:40:46.975 me think a lot about,  
NOTE Confidence: 0.9806259  
01:40:47.455 --> 01:40:48.335 a a great talk that  
NOTE Confidence: 0.9806259  
01:40:48.335 --> 01:40:49.455 I listened to from a  
NOTE Confidence: 0.9806259  
01:40:49.455 --> 01:40:51.500 clinician who focused on palliative  
NOTE Confidence: 0.9806259  
01:40:51.560 --> 01:40:53.160 care, but they talked about  
NOTE Confidence: 0.9806259  
01:40:53.160 --> 01:40:53.960 when they were meeting their  
NOTE Confidence: 0.9806259  
01:40:53.960 --> 01:40:54.860 patients that  
NOTE Confidence: 0.998039  
01:40:55.320 --> 01:40:56.200 one of the things they  
NOTE Confidence: 0.998039  
01:40:56.200 --> 01:40:56.700 really  
NOTE Confidence: 0.99803704  
01:40:57.320 --> 01:40:58.600 started out with was asking  
NOTE Confidence: 0.99803704  
01:40:58.600 --> 01:40:59.100 them  
NOTE Confidence: 0.97420686  
01:40:59.800 --> 01:41:01.240 what tell them one thing  
NOTE Confidence: 0.97420686

01:41:01.240 --> 01:41:02.860 about them that was just  
NOTE Confidence: 0.97420686

01:41:03.025 --> 01:41:03.985 really important for them to  
NOTE Confidence: 0.97420686

01:41:03.985 --> 01:41:04.945 know that they wanted their  
NOTE Confidence: 0.97420686

01:41:04.945 --> 01:41:06.305 clinician or their physician to  
NOTE Confidence: 0.97420686

01:41:06.305 --> 01:41:06.805 know,  
NOTE Confidence: 0.99359864

01:41:07.425 --> 01:41:08.885 about their life, their lifestyle,  
NOTE Confidence: 0.99359864

01:41:09.025 --> 01:41:10.225 things that were meaningful to  
NOTE Confidence: 0.99359864

01:41:10.225 --> 01:41:11.105 them so that they could  
NOTE Confidence: 0.99359864

01:41:11.105 --> 01:41:12.145 have conversations and get to  
NOTE Confidence: 0.99359864

01:41:12.145 --> 01:41:12.865 know each other a little  
NOTE Confidence: 0.99359864

01:41:12.865 --> 01:41:13.525 bit better,  
NOTE Confidence: 0.99986523

01:41:14.145 --> 01:41:14.885 and understand  
NOTE Confidence: 0.9850603

01:41:15.260 --> 01:41:16.540 what those important things were  
NOTE Confidence: 0.9850603

01:41:16.540 --> 01:41:17.260 and how they might be  
NOTE Confidence: 0.9850603

01:41:17.260 --> 01:41:18.380 impacted by the therapies that  
NOTE Confidence: 0.9850603

01:41:18.380 --> 01:41:19.280 we're being offered.

NOTE Confidence: 0.98093337

01:41:19.740 --> 01:41:20.620 And so I think that

NOTE Confidence: 0.98093337

01:41:20.620 --> 01:41:21.660 that is a great point.

NOTE Confidence: 0.98093337

01:41:21.660 --> 01:41:23.340 I think that spending time

NOTE Confidence: 0.98093337

01:41:23.340 --> 01:41:24.540 and I think it's what

NOTE Confidence: 0.98093337

01:41:24.540 --> 01:41:25.340 all of us try to

NOTE Confidence: 0.98093337

01:41:25.340 --> 01:41:26.939 do when we're interacting with

NOTE Confidence: 0.98093337

01:41:26.939 --> 01:41:28.545 our patients is spending time

NOTE Confidence: 0.98093337

01:41:28.545 --> 01:41:29.745 getting to know them, spending

NOTE Confidence: 0.98093337

01:41:29.745 --> 01:41:31.265 time trying to understand the

NOTE Confidence: 0.98093337

01:41:31.265 --> 01:41:32.225 things that make a difference

NOTE Confidence: 0.98093337

01:41:32.225 --> 01:41:33.045 in your lives,

NOTE Confidence: 0.9817846

01:41:33.665 --> 01:41:35.265 and thinking carefully about the

NOTE Confidence: 0.9817846

01:41:35.265 --> 01:41:36.465 things that we are doing

NOTE Confidence: 0.9817846

01:41:36.465 --> 01:41:37.825 to you to try and

NOTE Confidence: 0.9817846

01:41:37.825 --> 01:41:39.265 help you, but also hopefully

NOTE Confidence: 0.9817846

01:41:39.265 --> 01:41:40.465 not to impair you from  
NOTE Confidence: 0.9817846

01:41:40.465 --> 01:41:41.425 doing the things that are  
NOTE Confidence: 0.9817846

01:41:41.425 --> 01:41:43.000 so important to you. Whether  
NOTE Confidence: 0.9817846

01:41:43.000 --> 01:41:44.520 it's playing instruments that could  
NOTE Confidence: 0.9817846

01:41:44.520 --> 01:41:45.900 be impacted by the neuropathy  
NOTE Confidence: 0.9817846

01:41:45.960 --> 01:41:47.340 from certain chemotherapies,  
NOTE Confidence: 0.99317294

01:41:48.520 --> 01:41:50.439 fatigue that devastates you and  
NOTE Confidence: 0.99317294

01:41:50.439 --> 01:41:52.040 prevents you from exercising in  
NOTE Confidence: 0.99317294

01:41:52.040 --> 01:41:52.920 the ways that are super  
NOTE Confidence: 0.99317294

01:41:52.920 --> 01:41:54.040 important to you, and any  
NOTE Confidence: 0.99317294

01:41:54.040 --> 01:41:55.080 variety of other things. I  
NOTE Confidence: 0.99317294

01:41:55.080 --> 01:41:56.284 think it's just that idea  
NOTE Confidence: 0.99317294

01:41:56.284 --> 01:41:57.324 that we really wanna get  
NOTE Confidence: 0.99317294

01:41:57.324 --> 01:41:58.205 to know you well and  
NOTE Confidence: 0.99317294

01:41:58.205 --> 01:41:59.244 understand the things that are  
NOTE Confidence: 0.99317294

01:41:59.244 --> 01:42:00.045 important to you to make

NOTE Confidence: 0.99317294

01:42:00.045 --> 01:42:01.405 those choices with you and

NOTE Confidence: 0.99317294

01:42:01.405 --> 01:42:02.364 for you that are best

NOTE Confidence: 0.99317294

01:42:02.364 --> 01:42:03.324 going to serve your long

NOTE Confidence: 0.99317294

01:42:03.324 --> 01:42:04.064 term goals.

NOTE Confidence: 0.9833924

01:42:05.804 --> 01:42:06.844 Well, I could keep going.

NOTE Confidence: 0.9833924

01:42:06.844 --> 01:42:08.125 If anybody in the audience

NOTE Confidence: 0.9833924

01:42:08.125 --> 01:42:09.405 has questions, I wanna give

NOTE Confidence: 0.9833924

01:42:09.405 --> 01:42:10.465 you guys time.

NOTE Confidence: 0.9932242

01:42:11.400 --> 01:42:12.140 Here we go.

NOTE Confidence: 0.9828773

01:42:13.720 --> 01:42:14.840 Actually, I don't have a

NOTE Confidence: 0.9828773

01:42:14.840 --> 01:42:16.920 question. I'm Steve Ham. You

NOTE Confidence: 0.9828773

01:42:16.920 --> 01:42:18.300 two guys saved me

NOTE Confidence: 0.9765215

01:42:18.920 --> 01:42:19.960 a year ago, and I

NOTE Confidence: 0.9765215

01:42:19.960 --> 01:42:21.240 just wanna thank you so

NOTE Confidence: 0.9765215

01:42:21.240 --> 01:42:21.979 very much.

NOTE Confidence: 0.87672836

01:42:22.280 --> 01:42:22.780 Okay?  
NOTE Confidence: 0.9989089

01:42:27.285 --> 01:42:28.725 Well, thank you for saying  
NOTE Confidence: 0.9989089

01:42:28.725 --> 01:42:30.505 that. I I commonly,  
NOTE Confidence: 0.9981163

01:42:31.125 --> 01:42:32.485 get asked, like, what it  
NOTE Confidence: 0.9981163

01:42:32.485 --> 01:42:33.305 is about  
NOTE Confidence: 0.97003734

01:42:33.765 --> 01:42:35.285 us and our team, and  
NOTE Confidence: 0.97003734

01:42:35.285 --> 01:42:36.745 it is seven fifteen.  
NOTE Confidence: 0.99395335

01:42:37.365 --> 01:42:38.245 And if you look in  
NOTE Confidence: 0.99395335

01:42:38.245 --> 01:42:40.025 that row right back there,  
NOTE Confidence: 0.99922144

01:42:40.620 --> 01:42:41.280 there are  
NOTE Confidence: 0.9679291

01:42:41.900 --> 01:42:43.979 four five of our five  
NOTE Confidence: 0.9679291

01:42:43.979 --> 01:42:45.600 of our nurses are here.  
NOTE Confidence: 0.9679291

01:42:45.740 --> 01:42:46.240 Six  
NOTE Confidence: 0.7739357

01:42:46.939 --> 01:42:47.760 can just  
NOTE Confidence: 0.98304176

01:42:48.300 --> 01:42:49.740 can can our team just  
NOTE Confidence: 0.98304176

01:42:49.740 --> 01:42:50.540 stand up? I just I

NOTE Confidence: 0.98304176  
01:42:50.540 --> 01:42:51.500 want you guys to just  
NOTE Confidence: 0.98304176  
01:42:51.500 --> 01:42:52.540 see this is the type  
NOTE Confidence: 0.98304176  
01:42:52.540 --> 01:42:53.740 of commitment. This is what  
NOTE Confidence: 0.98304176  
01:42:53.740 --> 01:42:55.145 separates us. This is how  
NOTE Confidence: 0.98304176  
01:42:55.145 --> 01:42:56.285 we're able to do  
NOTE Confidence: 0.9804484  
01:42:56.665 --> 01:42:57.785 the things that we're able  
NOTE Confidence: 0.9804484  
01:42:57.785 --> 01:42:58.445 to do.  
NOTE Confidence: 0.9907671  
01:43:00.905 --> 01:43:02.345 So that is that is  
NOTE Confidence: 0.9907671  
01:43:02.345 --> 01:43:03.465 really the that is the  
NOTE Confidence: 0.9907671  
01:43:03.465 --> 01:43:04.925 Yale difference right there.  
NOTE Confidence: 0.8988961  
01:43:09.305 --> 01:43:09.805 Well,  
NOTE Confidence: 0.96803075  
01:43:10.320 --> 01:43:10.960 I'll tell you. So a  
NOTE Confidence: 0.96803075  
01:43:10.960 --> 01:43:11.460 question  
NOTE Confidence: 0.9704698  
01:43:11.920 --> 01:43:13.520 I commonly get asked is  
NOTE Confidence: 0.9704698  
01:43:13.520 --> 01:43:14.960 what can you what can  
NOTE Confidence: 0.9704698

01:43:14.960 --> 01:43:15.619 I do  
NOTE Confidence: 0.97982615

01:43:16.320 --> 01:43:17.920 to make treatment work better?  
NOTE Confidence: 0.97982615

01:43:17.920 --> 01:43:19.199 Should I eat an all  
NOTE Confidence: 0.97982615

01:43:19.199 --> 01:43:21.439 blueberry diet? Should I, you  
NOTE Confidence: 0.97982615

01:43:21.439 --> 01:43:22.479 know, I and and I  
NOTE Confidence: 0.97982615

01:43:22.479 --> 01:43:23.219 don't know.  
NOTE Confidence: 0.9971062

01:43:23.835 --> 01:43:25.115 Do you guys have any  
NOTE Confidence: 0.9971062

01:43:25.115 --> 01:43:26.875 thoughts about things that people  
NOTE Confidence: 0.9971062

01:43:26.875 --> 01:43:28.235 can do? You're diagnosed with  
NOTE Confidence: 0.9971062

01:43:28.235 --> 01:43:28.735 cancer.  
NOTE Confidence: 0.95253074

01:43:29.354 --> 01:43:30.795 What can they do to  
NOTE Confidence: 0.95253074

01:43:30.795 --> 01:43:32.395 make the treatment work better,  
NOTE Confidence: 0.95253074

01:43:32.395 --> 01:43:33.755 to make the cancer not  
NOTE Confidence: 0.95253074

01:43:33.755 --> 01:43:34.635 come back? Or is there  
NOTE Confidence: 0.95253074

01:43:34.635 --> 01:43:36.095 anything that they can do?  
NOTE Confidence: 0.95253074

01:43:36.235 --> 01:43:37.455 Stop. Stop. Okay.

NOTE Confidence: 0.9043226

01:43:38.479 --> 01:43:39.760 That's a hundred percent. So

NOTE Confidence: 0.9043226

01:43:39.760 --> 01:43:41.040 the the the side effects

NOTE Confidence: 0.9043226

01:43:41.040 --> 01:43:41.860 of chemotherapy

NOTE Confidence: 0.95896673

01:43:42.239 --> 01:43:43.840 and treatment are less if

NOTE Confidence: 0.95896673

01:43:43.840 --> 01:43:44.820 you stop smoking.

NOTE Confidence: 0.9950003

01:43:45.120 --> 01:43:46.640 The recurrence rates are lower.

NOTE Confidence: 0.9950003

01:43:46.640 --> 01:43:47.540 It's actually

NOTE Confidence: 0.9438459

01:43:47.920 --> 01:43:48.420 as

NOTE Confidence: 0.9907444

01:43:49.040 --> 01:43:49.540 powerful

NOTE Confidence: 0.9952762

01:43:50.239 --> 01:43:51.140 as immunotherapy

NOTE Confidence: 0.9750921

01:43:51.520 --> 01:43:53.300 in terms of mortality reduction,

NOTE Confidence: 0.9750921

01:43:53.439 --> 01:43:55.585 quitting smoking. So quitting smoking

NOTE Confidence: 0.9750921

01:43:55.585 --> 01:43:56.785 at any age, at any

NOTE Confidence: 0.9750921

01:43:56.785 --> 01:43:57.285 stage,

NOTE Confidence: 0.9975473

01:43:58.545 --> 01:44:00.165 will make you live longer.

NOTE Confidence: 0.7204097

01:44:02.305 --> 01:44:03.445 As active as possible.  
NOTE Confidence: 0.8928121

01:44:04.865 --> 01:44:06.645 Go expand on that.  
NOTE Confidence: 0.9747984

01:44:08.410 --> 01:44:09.930 Just being active is is  
NOTE Confidence: 0.9747984

01:44:09.930 --> 01:44:11.290 critically important. We know there's  
NOTE Confidence: 0.9747984

01:44:11.290 --> 01:44:12.330 a lot of research that's  
NOTE Confidence: 0.9747984

01:44:12.330 --> 01:44:12.830 ongoing,  
NOTE Confidence: 0.9629319

01:44:13.610 --> 01:44:14.410 a lot of research that's  
NOTE Confidence: 0.9629319

01:44:14.410 --> 01:44:15.689 been gathered over the years.  
NOTE Confidence: 0.9629319

01:44:15.689 --> 01:44:16.510 People who  
NOTE Confidence: 0.9723329

01:44:16.890 --> 01:44:18.250 are active, and it doesn't  
NOTE Confidence: 0.9723329

01:44:18.250 --> 01:44:20.810 mean running marathons or lifting,  
NOTE Confidence: 0.9723329

01:44:20.810 --> 01:44:21.930 you know, three hundred pound  
NOTE Confidence: 0.9723329

01:44:21.930 --> 01:44:22.650 bench presses,  
NOTE Confidence: 0.95969015

01:44:23.565 --> 01:44:24.765 But being active on a  
NOTE Confidence: 0.95969015

01:44:24.765 --> 01:44:26.604 regular basis really impacts how  
NOTE Confidence: 0.95969015

01:44:26.604 --> 01:44:27.745 you tolerate therapy.

NOTE Confidence: 0.98352975

01:44:28.365 --> 01:44:30.205 It impacts survival and how

NOTE Confidence: 0.98352975

01:44:30.205 --> 01:44:30.925 you will do in the

NOTE Confidence: 0.98352975

01:44:30.925 --> 01:44:32.225 long term, and it impacts

NOTE Confidence: 0.98352975

01:44:32.445 --> 01:44:33.645 you in ways that can

NOTE Confidence: 0.98352975

01:44:33.645 --> 01:44:34.765 counteract the effects of the

NOTE Confidence: 0.98352975

01:44:34.765 --> 01:44:35.885 therapies that you're on. So

NOTE Confidence: 0.98352975

01:44:35.885 --> 01:44:37.085 it's really important,

NOTE Confidence: 0.9979701

01:44:37.920 --> 01:44:39.120 to find ways that you

NOTE Confidence: 0.9979701

01:44:39.120 --> 01:44:40.240 enjoy being active and that

NOTE Confidence: 0.9979701

01:44:40.240 --> 01:44:41.840 you can be active. And

NOTE Confidence: 0.9979701

01:44:41.840 --> 01:44:42.800 if you're in doubt about

NOTE Confidence: 0.9979701

01:44:42.800 --> 01:44:43.680 what you should or could

NOTE Confidence: 0.9979701

01:44:43.680 --> 01:44:45.040 do, talk with your clinicians

NOTE Confidence: 0.9979701

01:44:45.040 --> 01:44:46.080 about that. They can help

NOTE Confidence: 0.9979701

01:44:46.080 --> 01:44:47.920 guide you, for the appropriate

NOTE Confidence: 0.9979701

01:44:47.920 --> 01:44:49.120 kinds of activity for your

NOTE Confidence: 0.9979701

01:44:49.120 --> 01:44:50.180 particular cases.

NOTE Confidence: 0.9537188

01:44:53.764 --> 01:44:54.564 Yeah. I'll just add to

NOTE Confidence: 0.9537188

01:44:54.564 --> 01:44:56.165 that. I often get asked

NOTE Confidence: 0.9537188

01:44:56.165 --> 01:44:57.125 about diet. We we have

NOTE Confidence: 0.9537188

01:44:57.205 --> 01:44:58.485 we do have dietitians in

NOTE Confidence: 0.9537188

01:44:58.485 --> 01:45:00.005 both medical oncology and radiation

NOTE Confidence: 0.9537188

01:45:00.005 --> 01:45:01.525 oncology who definitely can help

NOTE Confidence: 0.9537188

01:45:01.525 --> 01:45:02.324 with that in terms of

NOTE Confidence: 0.9537188

01:45:02.324 --> 01:45:04.165 how to get enough nutrition

NOTE Confidence: 0.9537188

01:45:04.165 --> 01:45:05.250 in, especially if you're, you

NOTE Confidence: 0.9537188

01:45:05.330 --> 01:45:06.290 know, some some forms of

NOTE Confidence: 0.9537188

01:45:06.290 --> 01:45:07.650 radiation, especially with larger field

NOTE Confidence: 0.9537188

01:45:07.650 --> 01:45:09.189 radiation close to the esophagus.

NOTE Confidence: 0.9537188

01:45:09.410 --> 01:45:10.290 If a large length of

NOTE Confidence: 0.9537188

01:45:10.290 --> 01:45:11.729 esophagus is covered, then sometimes

NOTE Confidence: 0.9537188

01:45:11.729 --> 01:45:13.170 we'll have, you know, patients

NOTE Confidence: 0.9537188

01:45:13.170 --> 01:45:14.450 will have difficulty being able

NOTE Confidence: 0.9537188

01:45:14.450 --> 01:45:15.890 to maintain their weight. So

NOTE Confidence: 0.9537188

01:45:15.890 --> 01:45:17.010 we're we're we're actually of

NOTE Confidence: 0.9537188

01:45:17.010 --> 01:45:17.890 the and and I think

NOTE Confidence: 0.9537188

01:45:17.890 --> 01:45:18.495 with with

NOTE Confidence: 0.8504224

01:45:20.415 --> 01:45:21.715 trying to keep people

NOTE Confidence: 0.9279399

01:45:22.095 --> 01:45:23.055 at at at steady weight,

NOTE Confidence: 0.9279399

01:45:23.055 --> 01:45:24.415 which is maybe this may

NOTE Confidence: 0.9279399

01:45:24.415 --> 01:45:25.615 be different from other parts

NOTE Confidence: 0.9279399

01:45:25.615 --> 01:45:26.175 of your life where you're

NOTE Confidence: 0.9279399

01:45:26.175 --> 01:45:26.975 trying to lose weight. Here

NOTE Confidence: 0.9279399

01:45:26.975 --> 01:45:28.015 we're trying to keep you

NOTE Confidence: 0.9279399

01:45:28.015 --> 01:45:29.135 from losing weight as much

NOTE Confidence: 0.9279399

01:45:29.135 --> 01:45:30.015 as possible, but also to

NOTE Confidence: 0.9279399

01:45:30.015 --> 01:45:30.975 keep on muscle and to  
NOTE Confidence: 0.9279399

01:45:30.975 --> 01:45:32.040 keep on, you know, your  
NOTE Confidence: 0.9279399

01:45:32.040 --> 01:45:33.720 ability to, to to move  
NOTE Confidence: 0.9279399

01:45:33.720 --> 01:45:34.620 and and function,  
NOTE Confidence: 0.9290668

01:45:35.800 --> 01:45:37.400 well, also. So, you know,  
NOTE Confidence: 0.9290668

01:45:37.400 --> 01:45:38.680 I think with with, with  
NOTE Confidence: 0.9290668

01:45:38.680 --> 01:45:40.840 with just good exercise, good  
NOTE Confidence: 0.9290668

01:45:40.840 --> 01:45:41.960 diet, as much as is  
NOTE Confidence: 0.9290668

01:45:41.960 --> 01:45:43.755 reasonable. Right? Like you're saying,  
NOTE Confidence: 0.9290668

01:45:43.995 --> 01:45:45.455 not everyone can do everything.  
NOTE Confidence: 0.9290668

01:45:45.594 --> 01:45:46.795 But but but trying to  
NOTE Confidence: 0.9290668

01:45:46.795 --> 01:45:48.635 maintain and kinda push yourself  
NOTE Confidence: 0.9290668

01:45:48.635 --> 01:45:49.835 to to some degree, not  
NOTE Confidence: 0.9290668

01:45:49.835 --> 01:45:51.594 not over tire yourself, but  
NOTE Confidence: 0.9290668

01:45:51.594 --> 01:45:52.795 push yourself to take those  
NOTE Confidence: 0.9290668

01:45:52.795 --> 01:45:53.295 steps.

NOTE Confidence: 0.9482793

01:45:53.755 --> 01:45:54.635 You you know, there there's

NOTE Confidence: 0.9482793

01:45:54.635 --> 01:45:55.594 there's some people who use

NOTE Confidence: 0.9482793

01:45:55.594 --> 01:45:57.240 Fitbits to try to keep,

NOTE Confidence: 0.9482793

01:45:57.320 --> 01:45:58.440 you know, or or even

NOTE Confidence: 0.9482793

01:45:58.440 --> 01:45:59.240 the eye for the phones

NOTE Confidence: 0.9482793

01:45:59.240 --> 01:46:00.280 now can can track the

NOTE Confidence: 0.9482793

01:46:00.280 --> 01:46:01.240 number of steps you take.

NOTE Confidence: 0.9482793

01:46:01.240 --> 01:46:02.520 So even things like that,

NOTE Confidence: 0.9482793

01:46:02.520 --> 01:46:03.640 simple things like just taking

NOTE Confidence: 0.9482793

01:46:03.640 --> 01:46:05.000 walks and such, you you

NOTE Confidence: 0.9482793

01:46:05.000 --> 01:46:06.280 may feel pretty down with

NOTE Confidence: 0.9482793

01:46:06.280 --> 01:46:07.560 your treatment sometimes and wanna

NOTE Confidence: 0.9482793

01:46:07.560 --> 01:46:08.920 just lie around the the,

NOTE Confidence: 0.9482793

01:46:08.920 --> 01:46:09.880 you know, to to to

NOTE Confidence: 0.9482793

01:46:09.880 --> 01:46:10.840 watch TV all day and

NOTE Confidence: 0.9482793

01:46:10.840 --> 01:46:11.480 and and and be in  
NOTE Confidence: 0.9482793

01:46:11.480 --> 01:46:12.585 your house all day. As  
NOTE Confidence: 0.9482793

01:46:12.585 --> 01:46:13.305 much as you can just  
NOTE Confidence: 0.9482793

01:46:13.305 --> 01:46:14.905 do kind of daily errands,  
NOTE Confidence: 0.9482793

01:46:14.905 --> 01:46:16.185 things like that, it'll keep  
NOTE Confidence: 0.9482793

01:46:16.185 --> 01:46:17.625 you both mentally and physically  
NOTE Confidence: 0.9482793

01:46:17.625 --> 01:46:18.125 sharper.  
NOTE Confidence: 0.9454462

01:46:19.785 --> 01:46:21.145 And I I think also  
NOTE Confidence: 0.9454462

01:46:21.145 --> 01:46:23.145 it's really critical, again, just  
NOTE Confidence: 0.9454462

01:46:23.145 --> 01:46:24.745 communicate with your care team,  
NOTE Confidence: 0.9454462

01:46:25.145 --> 01:46:27.085 especially when we think about,  
NOTE Confidence: 0.52095723

01:46:28.320 --> 01:46:28.820 complimentary  
NOTE Confidence: 0.9436606

01:46:29.199 --> 01:46:30.159 treatments that a lot of  
NOTE Confidence: 0.9436606

01:46:30.159 --> 01:46:31.679 patients will take and they  
NOTE Confidence: 0.9436606

01:46:31.679 --> 01:46:32.880 think sometimes they're afraid to  
NOTE Confidence: 0.9436606

01:46:32.880 --> 01:46:34.179 bring up with their caregivers.

NOTE Confidence: 0.9241412

01:46:34.719 --> 01:46:35.380 As many

NOTE Confidence: 0.97319645

01:46:36.080 --> 01:46:37.679 very valuable and very safe

NOTE Confidence: 0.97319645

01:46:37.679 --> 01:46:39.199 complimentary treatments as there are,

NOTE Confidence: 0.97319645

01:46:39.199 --> 01:46:40.080 there are some that are

NOTE Confidence: 0.97319645

01:46:40.080 --> 01:46:40.580 harmful

NOTE Confidence: 0.9861509

01:46:41.064 --> 01:46:42.664 or that are detrimental because

NOTE Confidence: 0.9861509

01:46:42.664 --> 01:46:44.684 they counteract with the chemotherapies.

NOTE Confidence: 0.94195765

01:46:45.465 --> 01:46:46.425 Talk to us and we

NOTE Confidence: 0.94195765

01:46:46.425 --> 01:46:47.564 will go through

NOTE Confidence: 0.99648887

01:46:47.945 --> 01:46:50.204 each, you know, naturopathic

NOTE Confidence: 0.99093133

01:46:50.824 --> 01:46:52.344 thing that you're taking. We

NOTE Confidence: 0.99093133

01:46:52.344 --> 01:46:53.804 can refer to our integrative

NOTE Confidence: 0.99093133

01:46:53.864 --> 01:46:55.085 medicine specialists.

NOTE Confidence: 0.99006724

01:46:55.470 --> 01:46:56.910 I mean, we wanna know

NOTE Confidence: 0.99006724

01:46:56.910 --> 01:46:58.989 everything because we're open to

NOTE Confidence: 0.99006724

01:46:58.989 --> 01:47:00.110 that. We know that there's  
NOTE Confidence: 0.99006724

01:47:00.110 --> 01:47:01.790 always room to add to  
NOTE Confidence: 0.99006724

01:47:01.790 --> 01:47:03.250 the care of our patients  
NOTE Confidence: 0.9603817

01:47:03.630 --> 01:47:04.989 and that sometimes we need  
NOTE Confidence: 0.9603817

01:47:04.989 --> 01:47:05.950 to think outside of the  
NOTE Confidence: 0.9603817

01:47:05.950 --> 01:47:06.450 box.  
NOTE Confidence: 0.9584643

01:47:09.635 --> 01:47:10.435 I'd like to comment more  
NOTE Confidence: 0.9584643

01:47:10.435 --> 01:47:12.035 on the complimentary alternative medicine  
NOTE Confidence: 0.9584643

01:47:12.035 --> 01:47:13.075 aspect. You know, we've we've  
NOTE Confidence: 0.9584643

01:47:13.075 --> 01:47:14.515 done some studies here on  
NOTE Confidence: 0.9584643

01:47:14.515 --> 01:47:15.155 on that as well, and  
NOTE Confidence: 0.9584643

01:47:15.155 --> 01:47:16.195 I think it's important to  
NOTE Confidence: 0.9584643

01:47:16.195 --> 01:47:17.075 understand what the difference is  
NOTE Confidence: 0.9584643

01:47:17.075 --> 01:47:19.015 between complimentary and alternative.  
NOTE Confidence: 0.99138194

01:47:19.715 --> 01:47:21.235 They're often linked together, but  
NOTE Confidence: 0.99138194

01:47:21.235 --> 01:47:23.415 alternative really means instead of

NOTE Confidence: 0.9484108

01:47:23.920 --> 01:47:25.439 some part of your care.

NOTE Confidence: 0.9484108

01:47:25.439 --> 01:47:26.800 Right? That's recommended from other

NOTE Confidence: 0.9484108

01:47:26.880 --> 01:47:28.159 the cancer related care that's

NOTE Confidence: 0.9484108

01:47:28.159 --> 01:47:29.939 recommended either whether it's chemotherapy,

NOTE Confidence: 0.9484108

01:47:30.000 --> 01:47:32.239 immunotherapy, radiation surgery. If you're

NOTE Confidence: 0.9484108

01:47:32.239 --> 01:47:33.599 omitting all of it or

NOTE Confidence: 0.9484108

01:47:33.599 --> 01:47:34.639 some of it, that's would

NOTE Confidence: 0.9484108

01:47:34.639 --> 01:47:36.579 be considered alternative, whereas complementary

NOTE Confidence: 0.9484108

01:47:36.854 --> 01:47:38.135 is really more in addition

NOTE Confidence: 0.9484108

01:47:38.135 --> 01:47:39.295 to. So I just want

NOTE Confidence: 0.9484108

01:47:39.295 --> 01:47:40.455 to make sure we understood

NOTE Confidence: 0.9484108

01:47:40.455 --> 01:47:41.595 the the definitions

NOTE Confidence: 0.9354741

01:47:42.055 --> 01:47:43.495 of this as well. There's

NOTE Confidence: 0.9354741

01:47:43.495 --> 01:47:45.255 a lot of misinformation out

NOTE Confidence: 0.9354741

01:47:45.255 --> 01:47:45.975 there. Right? I think it'd

NOTE Confidence: 0.9354741

01:47:45.975 --> 01:47:46.854 be just yeah. I do  
NOTE Confidence: 0.9354741

01:47:46.854 --> 01:47:47.735 wanna spend a little time  
NOTE Confidence: 0.9354741

01:47:47.735 --> 01:47:48.555 on this because,  
NOTE Confidence: 0.9461436

01:47:49.015 --> 01:47:49.814 you know, if if you  
NOTE Confidence: 0.9461436

01:47:49.814 --> 01:47:51.479 open any social media anytime  
NOTE Confidence: 0.9461436

01:47:51.479 --> 01:47:52.600 or the news or anything,  
NOTE Confidence: 0.9461436

01:47:52.600 --> 01:47:53.720 you're going to see a  
NOTE Confidence: 0.9461436

01:47:53.720 --> 01:47:55.080 lot of information out there  
NOTE Confidence: 0.9461436

01:47:55.080 --> 01:47:56.680 that's very difficult to elucidate.  
NOTE Confidence: 0.9461436

01:47:56.680 --> 01:47:58.040 Well, to figure out what's  
NOTE Confidence: 0.9461436

01:47:58.040 --> 01:47:59.180 fact and what's fiction,  
NOTE Confidence: 0.9405869

01:47:59.640 --> 01:48:00.760 especially with just the news  
NOTE Confidence: 0.9405869

01:48:00.760 --> 01:48:02.200 cycle these days. It's very  
NOTE Confidence: 0.9405869

01:48:02.200 --> 01:48:03.495 hard to tell sometime. I  
NOTE Confidence: 0.9405869

01:48:03.495 --> 01:48:04.535 mean, not making any any  
NOTE Confidence: 0.9405869

01:48:04.535 --> 01:48:06.235 any judgments, you know, specifically.

NOTE Confidence: 0.9405869  
01:48:06.455 --> 01:48:07.655 Just just saying that it's  
NOTE Confidence: 0.9405869  
01:48:07.655 --> 01:48:08.955 sometimes very hard to separate  
NOTE Confidence: 0.9405869  
01:48:09.015 --> 01:48:10.055 fact from fiction and almost  
NOTE Confidence: 0.9405869  
01:48:10.055 --> 01:48:11.575 anything these days. Right? So  
NOTE Confidence: 0.9405869  
01:48:11.575 --> 01:48:11.975 I think,  
NOTE Confidence: 0.99518603  
01:48:12.935 --> 01:48:14.135 when someone tells you something  
NOTE Confidence: 0.99518603  
01:48:14.135 --> 01:48:15.515 in a very convincing way,  
NOTE Confidence: 0.94185454  
01:48:16.110 --> 01:48:17.070 it's it's hard to know  
NOTE Confidence: 0.94185454  
01:48:17.070 --> 01:48:18.270 where is that coming from.  
NOTE Confidence: 0.94185454  
01:48:18.270 --> 01:48:19.550 So ask those questions no  
NOTE Confidence: 0.94185454  
01:48:19.550 --> 01:48:20.430 matter who it is. Even  
NOTE Confidence: 0.94185454  
01:48:20.430 --> 01:48:21.350 if it's your physicians who's  
NOTE Confidence: 0.94185454  
01:48:21.470 --> 01:48:22.590 who are telling you something,  
NOTE Confidence: 0.94185454  
01:48:22.590 --> 01:48:23.950 ask the questions that are  
NOTE Confidence: 0.94185454  
01:48:23.950 --> 01:48:25.870 are making you wonder, is  
NOTE Confidence: 0.94185454

01:48:25.870 --> 01:48:27.150 this true? Right? How do  
NOTE Confidence: 0.94185454

01:48:27.150 --> 01:48:28.210 you know this is true?  
NOTE Confidence: 0.94185454

01:48:28.354 --> 01:48:29.395 How sure are you about  
NOTE Confidence: 0.94185454

01:48:29.395 --> 01:48:30.675 this? Right? We can explain  
NOTE Confidence: 0.94185454

01:48:30.675 --> 01:48:31.354 that to you as much  
NOTE Confidence: 0.94185454

01:48:31.475 --> 01:48:32.515 as best as we can.  
NOTE Confidence: 0.94185454

01:48:32.515 --> 01:48:33.395 Other people should be able  
NOTE Confidence: 0.94185454

01:48:33.395 --> 01:48:34.354 to explain this too. Right?  
NOTE Confidence: 0.94185454

01:48:34.354 --> 01:48:35.635 If they're writing just because  
NOTE Confidence: 0.94185454

01:48:35.635 --> 01:48:36.594 someone wrote a book about  
NOTE Confidence: 0.94185454

01:48:36.594 --> 01:48:37.795 something doesn't mean that that's  
NOTE Confidence: 0.94185454

01:48:37.795 --> 01:48:38.995 true. Right? Just because something's  
NOTE Confidence: 0.94185454

01:48:38.995 --> 01:48:39.875 in the in the the  
NOTE Confidence: 0.94185454

01:48:39.875 --> 01:48:41.795 mainstream news versus, you know,  
NOTE Confidence: 0.94185454

01:48:41.795 --> 01:48:43.015 some alternative source,  
NOTE Confidence: 0.960076

01:48:43.360 --> 01:48:44.160 you know, that doesn't mean

NOTE Confidence: 0.960076

01:48:44.160 --> 01:48:45.440 it's true or false either.

NOTE Confidence: 0.960076

01:48:45.440 --> 01:48:46.640 So, it it but it's

NOTE Confidence: 0.960076

01:48:46.640 --> 01:48:48.080 very difficult to distinguish sometimes,

NOTE Confidence: 0.960076

01:48:48.080 --> 01:48:49.200 and and we'll try to

NOTE Confidence: 0.960076

01:48:49.200 --> 01:48:50.320 help you through that. Again,

NOTE Confidence: 0.960076

01:48:50.320 --> 01:48:51.600 and don't be shy about

NOTE Confidence: 0.960076

01:48:51.600 --> 01:48:52.560 bringing something up that you've

NOTE Confidence: 0.960076

01:48:52.560 --> 01:48:54.000 read about. Even if you

NOTE Confidence: 0.960076

01:48:54.000 --> 01:48:55.040 feel like it will sound

NOTE Confidence: 0.960076

01:48:55.040 --> 01:48:55.920 silly to you or or

NOTE Confidence: 0.960076

01:48:55.920 --> 01:48:57.220 your family or to us,

NOTE Confidence: 0.960076

01:48:57.440 --> 01:48:58.455 we wanna hear about it

NOTE Confidence: 0.960076

01:48:58.455 --> 01:48:59.575 because that's something that we

NOTE Confidence: 0.960076

01:48:59.575 --> 01:49:01.015 can help you sort through

NOTE Confidence: 0.960076

01:49:01.015 --> 01:49:01.515 it.

NOTE Confidence: 0.92444205

01:49:02.375 --> 01:49:03.575 If it's on TikTok, it's  
NOTE Confidence: 0.92444205

01:49:03.575 --> 01:49:04.075 pro.  
NOTE Confidence: 0.68026483

01:49:06.455 --> 01:49:06.615 The,  
NOTE Confidence: 0.9845193

01:49:07.335 --> 01:49:08.535 just and I think we're  
NOTE Confidence: 0.9845193

01:49:08.535 --> 01:49:09.495 at the time. I just  
NOTE Confidence: 0.9845193

01:49:09.495 --> 01:49:11.189 wanna give one last plug  
NOTE Confidence: 0.9845193

01:49:11.189 --> 01:49:12.090 to research.  
NOTE Confidence: 0.9851719

01:49:13.189 --> 01:49:14.070 The there's been a lot  
NOTE Confidence: 0.9851719

01:49:14.070 --> 01:49:15.989 of talk about research being  
NOTE Confidence: 0.9851719

01:49:15.989 --> 01:49:17.590 cut. There's been forty percent  
NOTE Confidence: 0.9851719

01:49:17.590 --> 01:49:19.290 NIH cuts, and I just  
NOTE Confidence: 0.9851719

01:49:19.590 --> 01:49:20.250 I just,  
NOTE Confidence: 0.9523625

01:49:20.950 --> 01:49:23.364 people don't commonly realize how  
NOTE Confidence: 0.9523625

01:49:23.364 --> 01:49:24.485 good we are at research  
NOTE Confidence: 0.9523625

01:49:24.485 --> 01:49:25.604 in the United States. We  
NOTE Confidence: 0.9523625

01:49:25.604 --> 01:49:26.645 not only have the most

NOTE Confidence: 0.9523625  
01:49:26.645 --> 01:49:28.185 Nobel prizes in medicine,  
NOTE Confidence: 0.97991836  
01:49:28.724 --> 01:49:30.165 we have more than three  
NOTE Confidence: 0.97991836  
01:49:30.165 --> 01:49:31.864 times more than second place.  
NOTE Confidence: 0.9828222  
01:49:32.244 --> 01:49:34.324 That fuels the economy. Every  
NOTE Confidence: 0.9828222  
01:49:34.324 --> 01:49:36.324 dollar the NIH spends brings  
NOTE Confidence: 0.9828222  
01:49:36.324 --> 01:49:37.764 two dollars back to the  
NOTE Confidence: 0.9828222  
01:49:37.764 --> 01:49:38.640 United States,  
NOTE Confidence: 0.9981074  
01:49:39.200 --> 01:49:40.800 and it's we get early  
NOTE Confidence: 0.9981074  
01:49:40.800 --> 01:49:42.020 access to drugs,  
NOTE Confidence: 0.9828499  
01:49:42.640 --> 01:49:44.660 and new devices. And so  
NOTE Confidence: 0.9828499  
01:49:44.720 --> 01:49:46.340 I really do believe research  
NOTE Confidence: 0.9828499  
01:49:46.479 --> 01:49:47.840 is, the best way to  
NOTE Confidence: 0.9828499  
01:49:47.840 --> 01:49:49.600 turn hope into miracles. So  
NOTE Confidence: 0.9828499  
01:49:49.600 --> 01:49:50.640 thank you guys for coming.  
NOTE Confidence: 0.9828499  
01:49:50.640 --> 01:49:51.200 I don't know if,  
NOTE Confidence: 0.9933133

01:49:58.054 --> 01:49:59.435 So I'll I'll just say  
NOTE Confidence: 0.9933133

01:49:59.735 --> 01:50:01.014 two last comments, and then  
NOTE Confidence: 0.9933133

01:50:01.014 --> 01:50:02.135 we can break for the  
NOTE Confidence: 0.9933133

01:50:02.135 --> 01:50:02.635 evening.  
NOTE Confidence: 0.99545556

01:50:03.175 --> 01:50:04.614 I wanted to first thank  
NOTE Confidence: 0.99545556

01:50:04.614 --> 01:50:05.514 all of the  
NOTE Confidence: 0.9999716

01:50:05.890 --> 01:50:06.390 speakers  
NOTE Confidence: 0.9767386

01:50:07.090 --> 01:50:08.310 and panelists  
NOTE Confidence: 0.9752316

01:50:08.770 --> 01:50:10.470 and people who helped organize  
NOTE Confidence: 0.9752316

01:50:10.530 --> 01:50:11.910 this, Emily and Renee,  
NOTE Confidence: 0.9967191

01:50:12.530 --> 01:50:13.010 and,  
NOTE Confidence: 0.9464571

01:50:13.410 --> 01:50:14.689 all the other team members  
NOTE Confidence: 0.9464571

01:50:14.689 --> 01:50:15.729 who are in the audience  
NOTE Confidence: 0.9464571

01:50:15.729 --> 01:50:16.770 who are here as Dan  
NOTE Confidence: 0.9464571

01:50:16.770 --> 01:50:17.729 pointed out. Thank you for  
NOTE Confidence: 0.9464571

01:50:17.729 --> 01:50:18.930 doing that. We have such

NOTE Confidence: 0.9464571  
01:50:18.930 --> 01:50:20.050 an incredible team, and I  
NOTE Confidence: 0.9464571  
01:50:20.050 --> 01:50:21.664 love, this is selfish, but  
NOTE Confidence: 0.9464571  
01:50:21.664 --> 01:50:23.344 I love this this that  
NOTE Confidence: 0.9464571  
01:50:23.425 --> 01:50:23.744 this,  
NOTE Confidence: 0.95096195  
01:50:24.304 --> 01:50:25.344 session that we do because  
NOTE Confidence: 0.95096195  
01:50:25.344 --> 01:50:26.465 it brings us all together,  
NOTE Confidence: 0.95096195  
01:50:26.465 --> 01:50:28.005 and it reminds me again.  
NOTE Confidence: 0.99257606  
01:50:28.545 --> 01:50:29.505 I know this every day,  
NOTE Confidence: 0.99257606  
01:50:29.505 --> 01:50:30.465 but it reminds me even  
NOTE Confidence: 0.99257606  
01:50:30.465 --> 01:50:31.824 more how amazing our team  
NOTE Confidence: 0.99257606  
01:50:31.824 --> 01:50:32.465 is, and I am so  
NOTE Confidence: 0.99257606  
01:50:32.465 --> 01:50:33.505 proud of everybody and to  
NOTE Confidence: 0.99257606  
01:50:33.505 --> 01:50:34.625 be part of this. So  
NOTE Confidence: 0.99257606  
01:50:34.625 --> 01:50:36.070 that's the the first comment.  
NOTE Confidence: 0.99257606  
01:50:36.070 --> 01:50:36.949 The second is to thank  
NOTE Confidence: 0.99257606

01:50:36.949 --> 01:50:38.469 all of our patients and  
NOTE Confidence: 0.99257606

01:50:38.469 --> 01:50:39.910 families. We are all here  
NOTE Confidence: 0.99257606

01:50:39.910 --> 01:50:41.130 because of all of you.  
NOTE Confidence: 0.98011714

01:50:42.070 --> 01:50:43.510 And, again, it's so amazing  
NOTE Confidence: 0.98011714

01:50:43.510 --> 01:50:44.310 to see you all here  
NOTE Confidence: 0.98011714

01:50:44.310 --> 01:50:45.670 in person, and hello to  
NOTE Confidence: 0.98011714

01:50:45.670 --> 01:50:47.030 everybody who's watching this later  
NOTE Confidence: 0.98011714

01:50:47.030 --> 01:50:48.150 on, you as well. Thank  
NOTE Confidence: 0.98011714

01:50:48.150 --> 01:50:49.610 you for for listening.  
NOTE Confidence: 0.9832681

01:50:49.910 --> 01:50:51.465 And, again, thank you for  
NOTE Confidence: 0.9832681

01:50:51.465 --> 01:50:52.425 for being here and for  
NOTE Confidence: 0.9832681

01:50:52.425 --> 01:50:53.305 your interest. And,  
NOTE Confidence: 0.9803625

01:50:54.104 --> 01:50:55.145 again, we're here for you.  
NOTE Confidence: 0.9803625

01:50:55.145 --> 01:50:56.185 So come up and talk  
NOTE Confidence: 0.9803625

01:50:56.185 --> 01:50:57.465 to us afterwards. Find us  
NOTE Confidence: 0.9803625

01:50:57.465 --> 01:50:58.345 in clinic when you have

NOTE Confidence: 0.9803625

01:50:58.345 --> 01:50:58.845 questions.

NOTE Confidence: 0.9744653

01:50:59.225 --> 01:51:00.745 And, I think that's it.

NOTE Confidence: 0.9744653

01:51:00.745 --> 01:51:01.945 Any last comments from anyone

NOTE Confidence: 0.9744653

01:51:01.945 --> 01:51:03.705 else? Okay. Thank you so

NOTE Confidence: 0.9744653

01:51:03.705 --> 01:51:04.405 much again.