

WEBVTT

NOTE duration: "00:54:59.880"

NOTE Confidence: 0.89882827

00:00:00.960 --> 00:00:02.560 Professor Petrie will teach us

NOTE Confidence: 0.89882827

00:00:02.560 --> 00:00:03.060 today.

NOTE Confidence: 0.96582717

00:00:04.720 --> 00:00:05.220 So,

NOTE Confidence: 0.9957188

00:00:05.519 --> 00:00:06.879 first and foremost, just to

NOTE Confidence: 0.9957188

00:00:06.879 --> 00:00:07.700 remind everyone,

NOTE Confidence: 0.91473126

00:00:09.200 --> 00:00:09.700 welcome,

NOTE Confidence: 0.9828346

00:00:10.240 --> 00:00:11.200 among I think we have

NOTE Confidence: 0.9828346

00:00:11.360 --> 00:00:12.580 I've been told eight

NOTE Confidence: 0.94217086

00:00:12.985 --> 00:00:14.125 watch parties happening.

NOTE Confidence: 0.9301214

00:00:14.505 --> 00:00:15.865 Hopefully, you received the food.

NOTE Confidence: 0.9301214

00:00:15.865 --> 00:00:16.364 And,

NOTE Confidence: 0.90127444

00:00:17.545 --> 00:00:19.145 Mark, that's because we have

NOTE Confidence: 0.90127444

00:00:19.145 --> 00:00:20.425 a a a very,

NOTE Confidence: 0.9924511

00:00:20.985 --> 00:00:23.005 committed faculty across many different,

NOTE Confidence: 0.9714624

00:00:23.864 --> 00:00:25.544 hospital sites, and so we've
NOTE Confidence: 0.9714624

00:00:25.544 --> 00:00:27.030 tried to bring the the
NOTE Confidence: 0.9714624

00:00:27.030 --> 00:00:28.390 grand rounds to them, so
NOTE Confidence: 0.9714624

00:00:28.390 --> 00:00:29.030 that they don't have to
NOTE Confidence: 0.9714624

00:00:29.030 --> 00:00:29.750 get in the car and
NOTE Confidence: 0.9714624

00:00:29.750 --> 00:00:30.630 spend a lot of windshield
NOTE Confidence: 0.9714624

00:00:30.630 --> 00:00:31.130 time.
NOTE Confidence: 0.8379694

00:00:32.550 --> 00:00:32.710 And,
NOTE Confidence: 0.97705585

00:00:33.909 --> 00:00:34.650 and so,
NOTE Confidence: 0.8006934

00:00:35.030 --> 00:00:35.530 welcome.
NOTE Confidence: 0.88818336

00:00:35.830 --> 00:00:36.790 Let's go ahead and just
NOTE Confidence: 0.88818336

00:00:36.790 --> 00:00:37.690 a few reminders.
NOTE Confidence: 0.9827104

00:00:38.070 --> 00:00:39.590 Please sign up for CME
NOTE Confidence: 0.9827104

00:00:39.590 --> 00:00:40.090 activities,
NOTE Confidence: 0.97644806

00:00:41.235 --> 00:00:42.594 for five four three three
NOTE Confidence: 0.97644806

00:00:42.594 --> 00:00:43.094 six.

NOTE Confidence: 0.9073895
00:00:44.515 --> 00:00:45.555 Put that into your phone,
NOTE Confidence: 0.9073895
00:00:45.555 --> 00:00:46.774 you'll get your activity.
NOTE Confidence: 0.9625125
00:00:47.235 --> 00:00:48.515 Just a reminder of what's
NOTE Confidence: 0.9625125
00:00:48.515 --> 00:00:49.715 coming up next, we have
NOTE Confidence: 0.9625125
00:00:49.715 --> 00:00:51.074 one of our, I think,
NOTE Confidence: 0.9625125
00:00:51.074 --> 00:00:51.735 our third,
NOTE Confidence: 0.8531752
00:00:52.835 --> 00:00:54.274 case conference, this one on
NOTE Confidence: 0.8531752
00:00:54.274 --> 00:00:54.774 electrophysiology
NOTE Confidence: 0.92433053
00:00:55.155 --> 00:00:56.120 led by Gabriela.
NOTE Confidence: 0.8652871
00:00:56.740 --> 00:00:58.660 To to date, the there's
NOTE Confidence: 0.8652871
00:00:58.660 --> 00:01:00.600 a a tremendous,
NOTE Confidence: 0.93083143
00:01:02.660 --> 00:01:03.640 you know, I think,
NOTE Confidence: 0.952729
00:01:04.980 --> 00:01:06.360 really, we're very so excited
NOTE Confidence: 0.952729
00:01:06.500 --> 00:01:08.340 about the quality of those
NOTE Confidence: 0.952729
00:01:08.340 --> 00:01:10.180 case conferences and the leadership
NOTE Confidence: 0.952729

00:01:10.180 --> 00:01:11.155 of the fellows in that.
NOTE Confidence: 0.952729

00:01:11.155 --> 00:01:11.715 So I,
NOTE Confidence: 0.9364329

00:01:12.275 --> 00:01:13.235 really wanna thank,
NOTE Confidence: 0.9713665

00:01:13.635 --> 00:01:15.155 our teams and our faculty
NOTE Confidence: 0.9713665

00:01:15.155 --> 00:01:16.194 and fellows for working together,
NOTE Confidence: 0.9713665

00:01:16.194 --> 00:01:16.915 and this has been a
NOTE Confidence: 0.9713665

00:01:16.915 --> 00:01:17.895 tremendous success.
NOTE Confidence: 0.9767361

00:01:19.075 --> 00:01:20.194 The next week is we
NOTE Confidence: 0.9767361

00:01:20.194 --> 00:01:20.675 have our,
NOTE Confidence: 0.92124623

00:01:21.875 --> 00:01:23.895 Giants in Cardiovascular Medicine series,
NOTE Confidence: 0.9173606

00:01:24.194 --> 00:01:25.800 recognizing Barry Zarrad and a
NOTE Confidence: 0.9173606

00:01:25.880 --> 00:01:26.620 full day
NOTE Confidence: 0.9963397

00:01:27.080 --> 00:01:27.580 of,
NOTE Confidence: 0.8443675

00:01:28.440 --> 00:01:28.920 of,
NOTE Confidence: 0.95711225

00:01:29.480 --> 00:01:31.340 a cardiovascular imaging symposium.
NOTE Confidence: 0.9662598

00:01:32.680 --> 00:01:34.540 This one, because of the

NOTE Confidence: 0.9662598
00:01:34.600 --> 00:01:35.100 size,
NOTE Confidence: 0.92371637
00:01:35.720 --> 00:01:36.940 and the location,
NOTE Confidence: 0.9325858
00:01:37.400 --> 00:01:38.200 will be held in the
NOTE Confidence: 0.9325858
00:01:38.200 --> 00:01:39.560 Park Street Auditorium. So that's
NOTE Confidence: 0.9325858
00:01:39.560 --> 00:01:40.440 where the rest of the
NOTE Confidence: 0.9325858
00:01:40.440 --> 00:01:42.425 symposium will will take place
NOTE Confidence: 0.9325858
00:01:42.425 --> 00:01:43.165 that day.
NOTE Confidence: 0.9115524
00:01:43.465 --> 00:01:45.084 I believe, Al, that starts
NOTE Confidence: 0.9115524
00:01:45.145 --> 00:01:47.065 at eight AM on on,
NOTE Confidence: 0.9115524
00:01:47.225 --> 00:01:48.425 the nineteenth, and it goes
NOTE Confidence: 0.9115524
00:01:48.425 --> 00:01:49.945 through the day with the
NOTE Confidence: 0.9115524
00:01:49.945 --> 00:01:51.145 the noon conference being a
NOTE Confidence: 0.9115524
00:01:51.145 --> 00:01:52.745 grand rounds, led by Todd
NOTE Confidence: 0.9115524
00:01:52.745 --> 00:01:54.030 Vilnius. And then we have
NOTE Confidence: 0.9115524
00:01:54.030 --> 00:01:54.570 a a
NOTE Confidence: 0.8909675

00:01:55.350 --> 00:01:56.790 subsequent, case conference led by

NOTE Confidence: 0.8909675

00:01:56.790 --> 00:01:58.229 our fellows. So Lindsay will

NOTE Confidence: 0.8909675

00:01:58.229 --> 00:01:59.430 be on the hook,

NOTE Confidence: 0.8665803

00:01:59.990 --> 00:02:01.909 with Jacob. So a lot

NOTE Confidence: 0.8665803

00:02:01.909 --> 00:02:02.630 coming up.

NOTE Confidence: 0.65488374

00:02:03.350 --> 00:02:04.409 These are these are disclosures,

NOTE Confidence: 0.9696253

00:02:05.670 --> 00:02:07.265 and, just a free a

NOTE Confidence: 0.9696253

00:02:07.265 --> 00:02:08.565 few brief notes,

NOTE Confidence: 0.9822997

00:02:09.585 --> 00:02:10.085 about,

NOTE Confidence: 0.83614486

00:02:10.945 --> 00:02:12.225 professor Petrie here,

NOTE Confidence: 0.9994104

00:02:12.625 --> 00:02:13.125 who

NOTE Confidence: 0.953689

00:02:13.505 --> 00:02:14.785 is a rock star and

NOTE Confidence: 0.953689

00:02:14.785 --> 00:02:16.225 one of my good friends

NOTE Confidence: 0.953689

00:02:16.225 --> 00:02:16.625 and,

NOTE Confidence: 0.8315292

00:02:17.345 --> 00:02:18.165 that I've made

NOTE Confidence: 0.9430143

00:02:18.770 --> 00:02:19.169 through,

NOTE Confidence: 0.9326989
00:02:19.570 --> 00:02:20.290 our travels,
NOTE Confidence: 0.99518085
00:02:20.610 --> 00:02:21.490 in the world of of
NOTE Confidence: 0.99518085
00:02:21.490 --> 00:02:23.090 clinical investigation. So,
NOTE Confidence: 0.94303155
00:02:23.730 --> 00:02:25.110 Mark, just to briefly,
NOTE Confidence: 0.9272023
00:02:27.010 --> 00:02:28.530 provide you a summary, trained
NOTE Confidence: 0.9272023
00:02:28.530 --> 00:02:29.190 in Edinburgh.
NOTE Confidence: 0.94350916
00:02:30.370 --> 00:02:31.270 He's a Glaswegian,
NOTE Confidence: 0.96612626
00:02:31.650 --> 00:02:33.169 I guess, now. Is that
NOTE Confidence: 0.96612626
00:02:33.169 --> 00:02:34.055 right? How you say it?
NOTE Confidence: 0.96612626
00:02:34.055 --> 00:02:34.694 I don't know. You'll tell
NOTE Confidence: 0.96612626
00:02:34.694 --> 00:02:35.435 me how.
NOTE Confidence: 0.9719107
00:02:36.294 --> 00:02:37.514 And, and,
NOTE Confidence: 0.9115735
00:02:38.135 --> 00:02:38.635 he,
NOTE Confidence: 0.98207694
00:02:39.575 --> 00:02:41.575 is, someone who has had
NOTE Confidence: 0.98207694
00:02:41.575 --> 00:02:42.935 a huge impact on our
NOTE Confidence: 0.98207694

00:02:42.935 --> 00:02:43.894 day to day practice.
NOTE Confidence: 0.9111444

00:02:44.614 --> 00:02:45.334 There is,
NOTE Confidence: 0.952523

00:02:46.215 --> 00:02:47.114 not a,
NOTE Confidence: 0.87744236

00:02:49.490 --> 00:02:51.030 a a medication we currently
NOTE Confidence: 0.9972362

00:02:51.410 --> 00:02:51.910 use
NOTE Confidence: 0.9986801

00:02:52.290 --> 00:02:53.830 actively for heart failure
NOTE Confidence: 0.9569322

00:02:54.210 --> 00:02:54.710 that,
NOTE Confidence: 0.98865885

00:02:55.330 --> 00:02:56.370 he and his team have
NOTE Confidence: 0.98865885

00:02:56.370 --> 00:02:58.050 not had an important part
NOTE Confidence: 0.98865885

00:02:58.050 --> 00:02:59.110 in positioning,
NOTE Confidence: 0.9838453

00:03:00.705 --> 00:03:01.445 with data,
NOTE Confidence: 0.9295708

00:03:01.905 --> 00:03:03.425 for its use. And I
NOTE Confidence: 0.9295708

00:03:03.505 --> 00:03:04.785 and that that's a it's
NOTE Confidence: 0.9295708

00:03:04.785 --> 00:03:05.905 a lot to say, but,
NOTE Confidence: 0.9295708

00:03:05.905 --> 00:03:06.945 you know, you can run
NOTE Confidence: 0.9295708

00:03:06.945 --> 00:03:07.445 down,

NOTE Confidence: 0.99120426

00:03:08.385 --> 00:03:10.305 his impact, his publications, his

NOTE Confidence: 0.99120426

00:03:10.305 --> 00:03:10.805 roles,

NOTE Confidence: 0.8960335

00:03:11.505 --> 00:03:13.585 in expanding our understanding of

NOTE Confidence: 0.8960335

00:03:13.585 --> 00:03:14.725 vestibule two inhibitions

NOTE Confidence: 0.8999572

00:03:15.030 --> 00:03:16.969 in clinical medicine, particularly cardiovascular

NOTE Confidence: 0.8999572

00:03:17.110 --> 00:03:17.610 medicine,

NOTE Confidence: 0.9065492

00:03:18.950 --> 00:03:20.790 in work that, he and

NOTE Confidence: 0.9065492

00:03:20.790 --> 00:03:21.849 I have done together,

NOTE Confidence: 0.89783776

00:03:22.629 --> 00:03:24.549 in in RAS inhibition with,

NOTE Confidence: 0.9174249

00:03:24.950 --> 00:03:25.450 both

NOTE Confidence: 0.88039607

00:03:25.829 --> 00:03:27.849 ARBs and then now ARNI's,

NOTE Confidence: 0.71974045

00:03:29.075 --> 00:03:30.855 in turn with aldosterone and

NOTE Confidence: 0.71974045

00:03:30.995 --> 00:03:31.495 antagonism,

NOTE Confidence: 0.977987

00:03:32.194 --> 00:03:33.175 and most recently,

NOTE Confidence: 0.9197685

00:03:33.555 --> 00:03:35.415 of an increasing focus on,

NOTE Confidence: 0.9864214

00:03:36.035 --> 00:03:36.935 the cardiometabolic
NOTE Confidence: 0.9860908

00:03:37.395 --> 00:03:39.235 kidney access and work that
NOTE Confidence: 0.9860908

00:03:39.235 --> 00:03:39.875 he's done,
NOTE Confidence: 0.9057558

00:03:40.355 --> 00:03:41.555 in, in the,
NOTE Confidence: 0.98345834

00:03:43.470 --> 00:03:45.230 GLP one space, that I'm
NOTE Confidence: 0.98345834

00:03:45.230 --> 00:03:46.590 sure he's gonna teach us
NOTE Confidence: 0.98345834

00:03:46.590 --> 00:03:48.110 about. He's also had an
NOTE Confidence: 0.98345834

00:03:48.110 --> 00:03:50.189 important role in the in
NOTE Confidence: 0.98345834

00:03:50.189 --> 00:03:51.629 how we conduct the kind
NOTE Confidence: 0.98345834

00:03:51.629 --> 00:03:52.689 of clinical trials
NOTE Confidence: 0.9667758

00:03:52.989 --> 00:03:54.349 that have that make this
NOTE Confidence: 0.9667758

00:03:54.349 --> 00:03:55.870 impact on our guidelines and
NOTE Confidence: 0.9667758

00:03:55.870 --> 00:03:57.010 our day to day practice.
NOTE Confidence: 0.9374775

00:03:58.035 --> 00:03:59.715 A tremendous citizen of the
NOTE Confidence: 0.9374775

00:03:59.715 --> 00:04:00.215 world,
NOTE Confidence: 0.942167

00:04:00.675 --> 00:04:02.355 in terms of cardiology clinical

NOTE Confidence: 0.942167
00:04:02.355 --> 00:04:02.855 trials,
NOTE Confidence: 0.99245226
00:04:03.235 --> 00:04:06.115 serving in in, countless roles,
NOTE Confidence: 0.9605955
00:04:06.755 --> 00:04:07.955 chairing as well as a
NOTE Confidence: 0.9605955
00:04:07.955 --> 00:04:08.775 member of,
NOTE Confidence: 0.9202265
00:04:09.440 --> 00:04:11.780 events committees, of executive committees,
NOTE Confidence: 0.9202265
00:04:12.000 --> 00:04:13.060 of design committees,
NOTE Confidence: 0.89364195
00:04:13.920 --> 00:04:15.040 and having a,
NOTE Confidence: 0.8648001
00:04:15.680 --> 00:04:17.060 not only a focus
NOTE Confidence: 0.9717494
00:04:17.520 --> 00:04:18.000 on,
NOTE Confidence: 0.99423516
00:04:18.400 --> 00:04:19.140 on pharmacological
NOTE Confidence: 0.9885547
00:04:19.520 --> 00:04:20.020 interventions,
NOTE Confidence: 0.98819053
00:04:20.880 --> 00:04:22.160 but also in terms of,
NOTE Confidence: 0.70024085
00:04:22.800 --> 00:04:23.300 procedural,
NOTE Confidence: 0.97337025
00:04:25.714 --> 00:04:27.075 and implementation work in the
NOTE Confidence: 0.97337025
00:04:27.075 --> 00:04:28.855 field. He has been
NOTE Confidence: 0.8881829

00:04:29.235 --> 00:04:30.915 a leader in the European
NOTE Confidence: 0.8881829

00:04:30.915 --> 00:04:31.815 Society of Cardiology,
NOTE Confidence: 0.9310842

00:04:32.275 --> 00:04:33.955 helping to develop guidelines for
NOTE Confidence: 0.9310842

00:04:33.955 --> 00:04:35.555 cardio oncology just to name
NOTE Confidence: 0.9310842

00:04:35.555 --> 00:04:36.135 a few,
NOTE Confidence: 0.96847075

00:04:36.675 --> 00:04:38.639 heart failure with preserved ejection
NOTE Confidence: 0.96847075

00:04:38.639 --> 00:04:39.139 fraction,
NOTE Confidence: 0.976075

00:04:39.600 --> 00:04:41.520 and others. And so, really,
NOTE Confidence: 0.976075

00:04:41.919 --> 00:04:43.680 truly an exciting time for
NOTE Confidence: 0.976075

00:04:43.680 --> 00:04:45.199 me personally. I've known him
NOTE Confidence: 0.976075

00:04:45.199 --> 00:04:47.300 for probably twenty years plus.
NOTE Confidence: 0.95474046

00:04:47.839 --> 00:04:48.880 I think our first paper
NOTE Confidence: 0.95474046

00:04:48.880 --> 00:04:50.720 together was maybe fifteen years
NOTE Confidence: 0.95474046

00:04:50.720 --> 00:04:51.120 ago,
NOTE Confidence: 0.90629095

00:04:51.759 --> 00:04:52.785 on a dataset that we
NOTE Confidence: 0.90629095

00:04:52.945 --> 00:04:54.464 we helped create with his

NOTE Confidence: 0.90629095

00:04:54.464 --> 00:04:55.685 colleague John McMurray,

NOTE Confidence: 0.98624176

00:04:56.385 --> 00:04:57.665 in the nineteen nineties.

NOTE Confidence: 0.9699958

00:04:58.145 --> 00:04:59.265 And, and so it's just

NOTE Confidence: 0.9699958

00:04:59.265 --> 00:05:00.005 been wonderful

NOTE Confidence: 0.9374367

00:05:00.385 --> 00:05:02.065 to, to take this journey

NOTE Confidence: 0.9374367

00:05:02.065 --> 00:05:03.025 with Mark and see how

NOTE Confidence: 0.9374367

00:05:03.025 --> 00:05:04.705 much he's accomplished, and thanks,

NOTE Confidence: 0.9374367

00:05:04.865 --> 00:05:05.904 thanks for being here with

NOTE Confidence: 0.9374367

00:05:05.904 --> 00:05:06.645 us so much.

NOTE Confidence: 0.9527093

00:05:13.850 --> 00:05:14.730 Yeah. Yeah. I'll turn it

NOTE Confidence: 0.9527093

00:05:14.730 --> 00:05:16.730 on. So, again, Eric, thank

NOTE Confidence: 0.9527093

00:05:16.730 --> 00:05:17.930 you, first of all, for

NOTE Confidence: 0.9527093

00:05:17.930 --> 00:05:19.130 inviting me here. It's an

NOTE Confidence: 0.9527093

00:05:19.130 --> 00:05:21.210 absolute honor and a privilege

NOTE Confidence: 0.9527093

00:05:21.210 --> 00:05:22.010 to be here, and I

NOTE Confidence: 0.9527093

00:05:22.010 --> 00:05:22.970 think all of you should
NOTE Confidence: 0.9527093

00:05:22.970 --> 00:05:24.350 realize what a fantastic
NOTE Confidence: 0.92663

00:05:25.154 --> 00:05:26.514 setup you have. I've,
NOTE Confidence: 0.96294945

00:05:27.794 --> 00:05:29.634 seen Yale functioning from afar
NOTE Confidence: 0.96294945

00:05:29.634 --> 00:05:30.514 for a long time, but
NOTE Confidence: 0.96294945

00:05:30.514 --> 00:05:31.414 today meeting,
NOTE Confidence: 0.98340124

00:05:31.794 --> 00:05:33.154 people in the department has
NOTE Confidence: 0.98340124

00:05:33.154 --> 00:05:35.235 been, fascinating. So I hope
NOTE Confidence: 0.98340124

00:05:35.235 --> 00:05:36.435 you enjoy your time here.
NOTE Confidence: 0.98340124

00:05:36.435 --> 00:05:37.574 It's obviously a real
NOTE Confidence: 0.9876696

00:05:38.009 --> 00:05:39.370 privilege and an honor, and
NOTE Confidence: 0.9876696

00:05:39.370 --> 00:05:40.490 I feel humbled to be
NOTE Confidence: 0.9876696

00:05:40.490 --> 00:05:40.990 here.
NOTE Confidence: 0.9618712

00:05:41.529 --> 00:05:42.650 So what I'm gonna do
NOTE Confidence: 0.9618712

00:05:42.650 --> 00:05:45.150 is I'm gonna look forward,
NOTE Confidence: 0.9618712

00:05:45.289 --> 00:05:46.490 not back. So some of

NOTE Confidence: 0.9618712
00:05:46.490 --> 00:05:47.690 the things Eric's talked about,
NOTE Confidence: 0.9618712
00:05:47.690 --> 00:05:48.650 I'm not gonna go into
NOTE Confidence: 0.9618712
00:05:48.650 --> 00:05:49.710 detail. So hopefully,
NOTE Confidence: 0.99426246
00:05:50.089 --> 00:05:51.690 I'm gonna interest you and
NOTE Confidence: 0.99426246
00:05:51.690 --> 00:05:53.055 entice you about things which
NOTE Confidence: 0.99426246
00:05:53.055 --> 00:05:54.195 are currently happening
NOTE Confidence: 0.9309105
00:05:54.654 --> 00:05:56.035 or are going to happen.
NOTE Confidence: 0.9309105
00:05:56.175 --> 00:05:57.775 So, and I also a
NOTE Confidence: 0.9309105
00:05:57.775 --> 00:05:58.275 disclaimer.
NOTE Confidence: 0.98516107
00:05:58.895 --> 00:06:00.014 First of all, I speak
NOTE Confidence: 0.98516107
00:06:00.014 --> 00:06:01.535 Scottish and not English, so
NOTE Confidence: 0.98516107
00:06:01.535 --> 00:06:03.074 I have to apologize for
NOTE Confidence: 0.98516107
00:06:03.134 --> 00:06:05.055 for the accent. So please,
NOTE Confidence: 0.98516107
00:06:05.375 --> 00:06:07.134 throw tomatoes or tomatoes at
NOTE Confidence: 0.98516107
00:06:07.134 --> 00:06:08.110 me if there's a if
NOTE Confidence: 0.98516107

00:06:08.110 --> 00:06:08.850 there's a
NOTE Confidence: 0.99396884
00:06:09.150 --> 00:06:09.470 problem.
NOTE Confidence: 0.9403418
00:06:10.750 --> 00:06:11.890 You know, secondly,
NOTE Confidence: 0.9557173
00:06:12.270 --> 00:06:14.050 I have to confess that
NOTE Confidence: 0.9557173
00:06:14.350 --> 00:06:15.710 although I am here as
NOTE Confidence: 0.9557173
00:06:15.710 --> 00:06:17.330 a kind of researcher academic,
NOTE Confidence: 0.9872728
00:06:17.870 --> 00:06:19.310 I started my career very
NOTE Confidence: 0.9872728
00:06:19.310 --> 00:06:20.510 much as a clinician. So
NOTE Confidence: 0.9872728
00:06:20.510 --> 00:06:22.370 I started off my attending
NOTE Confidence: 0.9872728
00:06:22.590 --> 00:06:23.570 consultant job
NOTE Confidence: 0.8430596
00:06:24.295 --> 00:06:25.895 setting up a PCI, primary
NOTE Confidence: 0.8430596
00:06:25.895 --> 00:06:26.935 PCI, wrote out as an
NOTE Confidence: 0.8430596
00:06:26.935 --> 00:06:27.915 interventional cardiologist.
NOTE Confidence: 0.9006986
00:06:28.615 --> 00:06:29.575 I was director of a
NOTE Confidence: 0.9006986
00:06:29.575 --> 00:06:30.935 vaginal transplant program at the
NOTE Confidence: 0.9006986
00:06:30.935 --> 00:06:32.135 same time and run a

NOTE Confidence: 0.9006986
00:06:32.135 --> 00:06:33.575 lot of heart failure services
NOTE Confidence: 0.9006986
00:06:33.575 --> 00:06:34.935 in clinics. So I'm a
NOTE Confidence: 0.9006986
00:06:34.935 --> 00:06:35.755 really clinician
NOTE Confidence: 0.9964063
00:06:36.135 --> 00:06:37.195 turned researcher
NOTE Confidence: 0.9723684
00:06:37.735 --> 00:06:39.415 rather than anything else, but
NOTE Confidence: 0.9723684
00:06:39.415 --> 00:06:40.770 I think what we share,
NOTE Confidence: 0.9430575
00:06:41.170 --> 00:06:42.870 Eric, is a common,
NOTE Confidence: 0.9766446
00:06:43.330 --> 00:06:45.270 feeling about cardiology that
NOTE Confidence: 0.9349518
00:06:45.650 --> 00:06:46.930 all of us every day
NOTE Confidence: 0.9349518
00:06:46.930 --> 00:06:48.550 see patients and the clinical
NOTE Confidence: 0.9349518
00:06:48.690 --> 00:06:50.130 questions come out of those
NOTE Confidence: 0.9349518
00:06:50.130 --> 00:06:50.630 interactions
NOTE Confidence: 0.9632847
00:06:51.250 --> 00:06:52.850 with patients and really demand
NOTE Confidence: 0.9632847
00:06:52.850 --> 00:06:53.350 research.
NOTE Confidence: 0.983904
00:06:53.835 --> 00:06:55.275 I think most people involved
NOTE Confidence: 0.983904

00:06:55.275 --> 00:06:56.654 in cardiology or cardiovascular
NOTE Confidence: 0.99840873

00:06:57.035 --> 00:06:57.535 medicine
NOTE Confidence: 0.9706562

00:06:58.074 --> 00:06:59.835 realize as they progress that
NOTE Confidence: 0.9706562

00:06:59.835 --> 00:07:01.115 really it's our job every
NOTE Confidence: 0.9706562

00:07:01.115 --> 00:07:03.595 day to embed research along
NOTE Confidence: 0.9706562

00:07:03.595 --> 00:07:05.514 with clinical practice. And the
NOTE Confidence: 0.9706562

00:07:05.514 --> 00:07:06.634 ethos that we have is
NOTE Confidence: 0.9706562

00:07:06.634 --> 00:07:08.060 that every single patient should
NOTE Confidence: 0.9706562

00:07:08.060 --> 00:07:09.100 be in a registry or
NOTE Confidence: 0.9706562

00:07:09.100 --> 00:07:10.700 a trial or certainly be
NOTE Confidence: 0.9706562

00:07:10.700 --> 00:07:11.840 part of understanding
NOTE Confidence: 0.88765293

00:07:12.540 --> 00:07:13.200 the pathophysiology,
NOTE Confidence: 0.9800172

00:07:13.660 --> 00:07:15.340 natural history, and treatment of
NOTE Confidence: 0.9800172

00:07:15.340 --> 00:07:15.840 cardiovascular
NOTE Confidence: 0.9804412

00:07:16.220 --> 00:07:17.740 conditions. So I know at
NOTE Confidence: 0.9804412

00:07:17.740 --> 00:07:19.120 Yale, you're at the forefront

NOTE Confidence: 0.9804412

00:07:19.180 --> 00:07:20.540 of these things, but all

NOTE Confidence: 0.9804412

00:07:20.540 --> 00:07:21.419 of us, I think, have

NOTE Confidence: 0.9804412

00:07:21.419 --> 00:07:23.955 a we're all required to

NOTE Confidence: 0.9804412

00:07:23.955 --> 00:07:25.175 do research alongside

NOTE Confidence: 0.9989721

00:07:25.875 --> 00:07:27.575 our day to day lives.

NOTE Confidence: 0.9992021

00:07:28.515 --> 00:07:29.015 So

NOTE Confidence: 0.92068624

00:07:29.475 --> 00:07:30.675 probably one of the hot

NOTE Confidence: 0.92068624

00:07:30.675 --> 00:07:31.955 topics at the moment, I'm

NOTE Confidence: 0.92068624

00:07:31.955 --> 00:07:33.635 sorry for the they're almost

NOTE Confidence: 0.92068624

00:07:33.635 --> 00:07:35.015 a pun, but not quite,

NOTE Confidence: 0.8502445

00:07:35.475 --> 00:07:37.635 is inflammation and cardiovascular disease.

NOTE Confidence: 0.8502445

00:07:37.635 --> 00:07:37.875 So,

NOTE Confidence: 0.9596171

00:07:38.550 --> 00:07:39.290 one of the,

NOTE Confidence: 0.9968155

00:07:40.310 --> 00:07:42.310 conditions that I heard about

NOTE Confidence: 0.9968155

00:07:42.310 --> 00:07:44.090 in audiences for many years

NOTE Confidence: 0.9659846

00:07:44.470 --> 00:07:46.630 was this narrative which, several
NOTE Confidence: 0.9659846

00:07:46.630 --> 00:07:47.770 people around the world
NOTE Confidence: 0.98976374

00:07:48.150 --> 00:07:49.590 drew us towards, which is
NOTE Confidence: 0.98976374

00:07:49.590 --> 00:07:50.090 inflammation
NOTE Confidence: 0.98633385

00:07:50.870 --> 00:07:52.010 driving HFpEF.
NOTE Confidence: 0.9030593

00:07:52.945 --> 00:07:54.965 Obviously, people like Paul Ridker,
NOTE Confidence: 0.95582527

00:07:55.505 --> 00:07:56.545 Peter Libby has spent a
NOTE Confidence: 0.95582527

00:07:56.545 --> 00:07:57.425 lot of time talking about
NOTE Confidence: 0.95582527

00:07:57.425 --> 00:07:59.025 inflammation and coronary heart disease,
NOTE Confidence: 0.95582527

00:07:59.025 --> 00:08:00.625 but in the heart failure
NOTE Confidence: 0.95582527

00:08:00.625 --> 00:08:01.745 world, we've heard all about
NOTE Confidence: 0.95582527

00:08:01.745 --> 00:08:03.365 inflammation and HFpEF. And
NOTE Confidence: 0.9681484

00:08:03.665 --> 00:08:04.945 the narrative and this is
NOTE Confidence: 0.9681484

00:08:04.945 --> 00:08:06.385 a hypothesis and a narrative.
NOTE Confidence: 0.9681484

00:08:06.385 --> 00:08:08.085 This is not necessarily true,
NOTE Confidence: 0.9681484

00:08:08.220 --> 00:08:09.440 but we hear that comorbidities

NOTE Confidence: 0.8847393
00:08:10.060 --> 00:08:10.960 cause inflammation,
NOTE Confidence: 0.98680496
00:08:11.900 --> 00:08:13.340 inflammation in the form of
NOTE Confidence: 0.98680496
00:08:13.340 --> 00:08:15.120 things like the various cytokines,
NOTE Confidence: 0.9571991
00:08:15.900 --> 00:08:18.380 have effects, on blood vessels
NOTE Confidence: 0.9571991
00:08:18.380 --> 00:08:19.280 around the body,
NOTE Confidence: 0.93956375
00:08:19.660 --> 00:08:21.440 particularly focused on the myocardium
NOTE Confidence: 0.93956375
00:08:21.660 --> 00:08:22.560 and the microvascular
NOTE Confidence: 0.6248771
00:08:23.095 --> 00:08:23.675 of myocardium
NOTE Confidence: 0.9079862
00:08:24.135 --> 00:08:25.415 having knock on effects to
NOTE Confidence: 0.9079862
00:08:25.415 --> 00:08:26.715 myocardial problems,
NOTE Confidence: 0.906472
00:08:27.975 --> 00:08:29.195 fibrosis, hypertrophy,
NOTE Confidence: 0.94850165
00:08:30.055 --> 00:08:31.335 cell death, these sorts of
NOTE Confidence: 0.94850165
00:08:31.335 --> 00:08:33.335 things are then causing HFpEF.
NOTE Confidence: 0.94850165
00:08:33.335 --> 00:08:34.135 So we've heard of this
NOTE Confidence: 0.94850165
00:08:34.135 --> 00:08:35.970 for fifteen, twenty years, and
NOTE Confidence: 0.94850165

00:08:35.970 --> 00:08:37.649 I've been fascinated about this,
NOTE Confidence: 0.94850165

00:08:37.649 --> 00:08:38.610 but there's not been a
NOTE Confidence: 0.94850165

00:08:38.610 --> 00:08:40.449 lot of real data behind
NOTE Confidence: 0.94850165

00:08:40.449 --> 00:08:42.129 it. Of course, even more
NOTE Confidence: 0.94850165

00:08:42.129 --> 00:08:43.750 recently, things like the epicardial
NOTE Confidence: 0.94850165

00:08:43.970 --> 00:08:45.569 adipose tissue, the fat, like,
NOTE Confidence: 0.94850165

00:08:45.970 --> 00:08:47.410 around the heart being a
NOTE Confidence: 0.94850165

00:08:47.569 --> 00:08:49.645 having a paracrine function and
NOTE Confidence: 0.94850165

00:08:49.645 --> 00:08:51.964 driving, the myocardial abnormalities has
NOTE Confidence: 0.94850165

00:08:51.964 --> 00:08:52.464 also,
NOTE Confidence: 0.9992779

00:08:52.925 --> 00:08:54.765 been a major feature of
NOTE Confidence: 0.9992779

00:08:54.765 --> 00:08:55.665 lots of presentations.
NOTE Confidence: 0.99951684

00:08:56.845 --> 00:08:57.345 So
NOTE Confidence: 0.97857165

00:08:57.645 --> 00:08:59.165 this whole area is now
NOTE Confidence: 0.97857165

00:08:59.165 --> 00:09:01.165 fascinating, and this inflammation of
NOTE Confidence: 0.97857165

00:09:01.165 --> 00:09:03.160 cardiovascular disease is will be

NOTE Confidence: 0.97857165

00:09:03.160 --> 00:09:04.360 unavoidable for all of us

NOTE Confidence: 0.97857165

00:09:04.360 --> 00:09:05.500 here to try and understand.

NOTE Confidence: 0.90553075

00:09:06.600 --> 00:09:08.600 I have been educated and

NOTE Confidence: 0.90553075

00:09:08.600 --> 00:09:09.900 I actually did an undergraduate,

NOTE Confidence: 0.95244306

00:09:10.760 --> 00:09:12.540 immunology degree by chance,

NOTE Confidence: 0.93425876

00:09:13.080 --> 00:09:14.985 earlier in my career. But

NOTE Confidence: 0.93425876

00:09:15.065 --> 00:09:16.345 working with Paul Ridgkar, who

NOTE Confidence: 0.93425876

00:09:16.345 --> 00:09:17.304 I now work with every

NOTE Confidence: 0.93425876

00:09:17.304 --> 00:09:18.845 search, every week,

NOTE Confidence: 0.98122025

00:09:19.304 --> 00:09:20.745 he's now drawn us towards

NOTE Confidence: 0.98122025

00:09:20.745 --> 00:09:22.365 the NLRP three inflammasome,

NOTE Confidence: 0.99952745

00:09:23.144 --> 00:09:23.644 which

NOTE Confidence: 0.9479429

00:09:24.024 --> 00:09:25.065 even five years ago, I

NOTE Confidence: 0.9479429

00:09:25.065 --> 00:09:26.024 thought I wouldn't be standing

NOTE Confidence: 0.9479429

00:09:26.024 --> 00:09:27.945 here talking about inflammation, massive

NOTE Confidence: 0.9479429

00:09:27.945 --> 00:09:28.985 word, but this does seem
NOTE Confidence: 0.9479429

00:09:28.985 --> 00:09:30.204 to be crucially important.
NOTE Confidence: 0.97408915

00:09:30.959 --> 00:09:31.679 What happens,
NOTE Confidence: 0.88273853

00:09:32.000 --> 00:09:33.760 in the the disease states
NOTE Confidence: 0.88273853

00:09:33.760 --> 00:09:34.559 is that n r p
NOTE Confidence: 0.88273853

00:09:34.559 --> 00:09:36.100 three inflammasome is activated.
NOTE Confidence: 0.964744

00:09:36.639 --> 00:09:38.339 We have interleukin one beta
NOTE Confidence: 0.964744

00:09:38.399 --> 00:09:39.120 is is,
NOTE Confidence: 0.9945644

00:09:39.679 --> 00:09:41.540 activated by by this inflammasome.
NOTE Confidence: 0.9717961

00:09:42.240 --> 00:09:43.440 This leads on to IL
NOTE Confidence: 0.9717961

00:09:43.440 --> 00:09:44.880 six actions, and IL six
NOTE Confidence: 0.9717961

00:09:44.880 --> 00:09:45.620 then stimulates
NOTE Confidence: 0.99810505

00:09:46.065 --> 00:09:47.605 hepatic production of CRP
NOTE Confidence: 0.9666847

00:09:47.985 --> 00:09:49.265 as well as many, many
NOTE Confidence: 0.9666847

00:09:49.265 --> 00:09:50.625 other things IL six does.
NOTE Confidence: 0.9666847

00:09:50.625 --> 00:09:51.425 I could talk about this

NOTE Confidence: 0.9666847

00:09:51.425 --> 00:09:52.465 for hours, but I'm gonna

NOTE Confidence: 0.9666847

00:09:52.465 --> 00:09:53.905 give a relatively high level

NOTE Confidence: 0.9666847

00:09:53.905 --> 00:09:55.345 talk today, so not too

NOTE Confidence: 0.9666847

00:09:55.345 --> 00:09:57.025 much detail. But, certainly, the

NOTE Confidence: 0.9666847

00:09:57.025 --> 00:09:58.065 first thing to talk about

NOTE Confidence: 0.9666847

00:09:58.065 --> 00:09:58.645 is canakinumab,

NOTE Confidence: 0.9764177

00:09:59.184 --> 00:10:00.565 and this, was

NOTE Confidence: 0.97527677

00:10:00.980 --> 00:10:02.660 investigated in the CANTOS trial

NOTE Confidence: 0.97527677

00:10:02.660 --> 00:10:04.600 by Paul Ridker and colleagues.

NOTE Confidence: 0.97263664

00:10:05.059 --> 00:10:05.940 This is not a heart

NOTE Confidence: 0.97263664

00:10:05.940 --> 00:10:07.220 failure trial. This is a

NOTE Confidence: 0.97263664

00:10:07.220 --> 00:10:08.579 trial on people with prior

NOTE Confidence: 0.97263664

00:10:08.579 --> 00:10:10.660 myocardial infarction, so ten thousand

NOTE Confidence: 0.97263664

00:10:10.660 --> 00:10:12.579 people with prior MI and

NOTE Confidence: 0.97263664

00:10:12.579 --> 00:10:13.800 elevated CRP.

NOTE Confidence: 0.9372654

00:10:14.295 --> 00:10:15.894 And the primary endpoint, was

NOTE Confidence: 0.9372654

00:10:15.894 --> 00:10:17.654 a MACE endpoint cardiovascular death,

NOTE Confidence: 0.9372654

00:10:17.654 --> 00:10:18.954 MI and stroke, which was

NOTE Confidence: 0.9372654

00:10:19.095 --> 00:10:20.154 slightly reduced.

NOTE Confidence: 0.978794

00:10:20.615 --> 00:10:21.815 You might remember there was

NOTE Confidence: 0.978794

00:10:21.815 --> 00:10:23.175 slight increase in death due

NOTE Confidence: 0.978794

00:10:23.175 --> 00:10:24.615 to infections and a decrease

NOTE Confidence: 0.978794

00:10:24.615 --> 00:10:25.654 in death due to cancer.

NOTE Confidence: 0.978794

00:10:25.654 --> 00:10:27.975 So interesting, but didn't really

NOTE Confidence: 0.978794

00:10:27.975 --> 00:10:29.514 result in massive prescription.

NOTE Confidence: 0.9476329

00:10:30.399 --> 00:10:31.440 But really, one of the

NOTE Confidence: 0.9476329

00:10:31.440 --> 00:10:33.279 fascinating things was the finding

NOTE Confidence: 0.9476329

00:10:33.279 --> 00:10:34.800 of looking at heart failure

NOTE Confidence: 0.9476329

00:10:34.800 --> 00:10:35.860 events in Cantos,

NOTE Confidence: 0.950846

00:10:36.240 --> 00:10:37.520 and there was a dose

NOTE Confidence: 0.950846

00:10:37.520 --> 00:10:39.440 dependent reduction in heart failure

NOTE Confidence: 0.950846
00:10:39.440 --> 00:10:41.279 events with IL one beta
NOTE Confidence: 0.950846
00:10:41.279 --> 00:10:43.300 inhibition with canakinumab in Cantos.
NOTE Confidence: 0.97779334
00:10:43.955 --> 00:10:45.475 So this alerted the world
NOTE Confidence: 0.97779334
00:10:45.475 --> 00:10:46.434 that maybe there was a
NOTE Confidence: 0.97779334
00:10:46.434 --> 00:10:46.934 therapeutic,
NOTE Confidence: 0.99160445
00:10:47.635 --> 00:10:48.855 strategy to be tested,
NOTE Confidence: 0.99887735
00:10:49.475 --> 00:10:51.175 in people with heart failure.
NOTE Confidence: 0.9957967
00:10:51.875 --> 00:10:52.934 A further analysis,
NOTE Confidence: 0.9976916
00:10:53.315 --> 00:10:55.075 that that Paul's team did
NOTE Confidence: 0.9976916
00:10:55.075 --> 00:10:56.195 was looking at people who
NOTE Confidence: 0.9976916
00:10:56.195 --> 00:10:56.695 achieved
NOTE Confidence: 0.9260907
00:10:57.069 --> 00:10:59.089 a lower CRP in CANTOS,
NOTE Confidence: 0.9260907
00:10:59.389 --> 00:11:00.429 and people that achieved the
NOTE Confidence: 0.9260907
00:11:00.429 --> 00:11:01.250 lower CRP
NOTE Confidence: 0.9335731
00:11:01.629 --> 00:11:03.069 had a pretty big reduction
NOTE Confidence: 0.9335731

00:11:03.069 --> 00:11:04.829 in heart failure events. Seeing
NOTE Confidence: 0.9335731

00:11:04.829 --> 00:11:06.029 that there wasn't very many
NOTE Confidence: 0.9335731

00:11:06.029 --> 00:11:07.389 events in these trials, event
NOTE Confidence: 0.9335731

00:11:07.389 --> 00:11:08.429 date was quite low. So
NOTE Confidence: 0.9335731

00:11:08.429 --> 00:11:10.050 this is not definitive data.
NOTE Confidence: 0.9691094

00:11:11.175 --> 00:11:12.295 The other thing that Cantos
NOTE Confidence: 0.9691094

00:11:12.295 --> 00:11:13.575 did was bring us towards
NOTE Confidence: 0.9691094

00:11:13.575 --> 00:11:15.755 IL six, as a potential
NOTE Confidence: 0.9691094

00:11:15.895 --> 00:11:17.355 major player in this area.
NOTE Confidence: 0.9691094

00:11:17.495 --> 00:11:18.295 And if we looked at
NOTE Confidence: 0.9691094

00:11:18.295 --> 00:11:19.575 the turtles of IL six,
NOTE Confidence: 0.9691094

00:11:19.575 --> 00:11:21.095 people with higher IL six
NOTE Confidence: 0.9691094

00:11:21.095 --> 00:11:23.335 levels did, particularly badly in
NOTE Confidence: 0.9691094

00:11:23.335 --> 00:11:24.615 terms of heart failure events
NOTE Confidence: 0.9691094

00:11:24.615 --> 00:11:25.275 in Cantos.
NOTE Confidence: 0.89940464

00:11:26.290 --> 00:11:27.850 There's been explosion of interest

NOTE Confidence: 0.89940464

00:11:27.850 --> 00:11:29.010 in looking at IL six

NOTE Confidence: 0.89940464

00:11:29.010 --> 00:11:31.090 across cardiovascular disease and particularly

NOTE Confidence: 0.89940464

00:11:31.090 --> 00:11:32.150 looking at heart failure.

NOTE Confidence: 0.97546536

00:11:32.530 --> 00:11:34.130 And in primary care, in

NOTE Confidence: 0.97546536

00:11:34.130 --> 00:11:35.809 the community dwellers, we certainly

NOTE Confidence: 0.97546536

00:11:35.809 --> 00:11:37.010 know that IL six is

NOTE Confidence: 0.97546536

00:11:37.010 --> 00:11:38.230 associated with incident,

NOTE Confidence: 0.981789

00:11:38.770 --> 00:11:39.510 heart failure.

NOTE Confidence: 0.85942066

00:11:39.945 --> 00:11:41.385 It's also associated with incident

NOTE Confidence: 0.85942066

00:11:41.385 --> 00:11:42.684 death as well. So certainly

NOTE Confidence: 0.85942066

00:11:42.745 --> 00:11:44.365 IL six goes alongside

NOTE Confidence: 0.986671

00:11:44.905 --> 00:11:46.684 poor outcomes in the community.

NOTE Confidence: 0.94523734

00:11:47.545 --> 00:11:49.625 We also, looked at IL

NOTE Confidence: 0.94523734

00:11:49.625 --> 00:11:51.720 six and, outcomes, heart failure

NOTE Confidence: 0.94523734

00:11:51.720 --> 00:11:53.079 outcomes in hospitalized heart failure

NOTE Confidence: 0.94523734

00:11:53.079 --> 00:11:54.040 people, and it seemed to
NOTE Confidence: 0.94523734

00:11:54.040 --> 00:11:55.579 bear true there as well.
NOTE Confidence: 0.9344128

00:11:56.360 --> 00:11:58.600 So Barry Borlaug, again, who's
NOTE Confidence: 0.9344128

00:11:58.600 --> 00:12:00.519 another close colleague, has looked
NOTE Confidence: 0.9344128

00:12:00.519 --> 00:12:02.120 at several NIH trials and,
NOTE Confidence: 0.9344128

00:12:02.120 --> 00:12:03.579 again, has found an association
NOTE Confidence: 0.9344128

00:12:03.639 --> 00:12:05.420 between higher IL six levels,
NOTE Confidence: 0.94150853

00:12:06.074 --> 00:12:06.554 and,
NOTE Confidence: 0.9890643

00:12:06.875 --> 00:12:08.154 health status or quality of
NOTE Confidence: 0.9890643

00:12:08.154 --> 00:12:08.654 life.
NOTE Confidence: 0.93878174

00:12:09.035 --> 00:12:10.154 But of course, all of
NOTE Confidence: 0.93878174

00:12:10.154 --> 00:12:10.954 us have been,
NOTE Confidence: 0.97729754

00:12:11.434 --> 00:12:12.954 cardiologists are brought up to
NOTE Confidence: 0.97729754

00:12:12.954 --> 00:12:13.934 know that association
NOTE Confidence: 0.98133457

00:12:14.314 --> 00:12:15.595 is not causation. So this
NOTE Confidence: 0.98133457

00:12:15.595 --> 00:12:16.415 is an association

NOTE Confidence: 0.9554748

00:12:16.954 --> 00:12:18.314 with bad outcomes of poor

NOTE Confidence: 0.9554748

00:12:18.314 --> 00:12:19.054 health status.

NOTE Confidence: 0.95024633

00:12:19.915 --> 00:12:22.140 So, what happened then was,

NOTE Confidence: 0.9598708

00:12:22.940 --> 00:12:24.540 a drug was basically bought

NOTE Confidence: 0.9598708

00:12:24.540 --> 00:12:27.040 by Novo Nordisk, called ziltivekimab.

NOTE Confidence: 0.9652956

00:12:27.980 --> 00:12:29.679 This is a once monthly

NOTE Confidence: 0.89072

00:12:30.140 --> 00:12:30.640 subcutaneous,

NOTE Confidence: 0.95896703

00:12:31.340 --> 00:12:33.280 monoclonal antibody to the IL-six

NOTE Confidence: 0.95896703

00:12:33.340 --> 00:12:33.840 ligand.

NOTE Confidence: 0.92764074

00:12:34.620 --> 00:12:35.500 So people,

NOTE Confidence: 0.99541396

00:12:36.515 --> 00:12:37.955 whenever there's a new asset

NOTE Confidence: 0.99541396

00:12:37.955 --> 00:12:39.315 bought, people scratch their heads

NOTE Confidence: 0.99541396

00:12:39.315 --> 00:12:40.275 and think what to do

NOTE Confidence: 0.99541396

00:12:40.275 --> 00:12:40.855 with it.

NOTE Confidence: 0.95193416

00:12:41.235 --> 00:12:42.755 So the data here that's

NOTE Confidence: 0.95193416

00:12:42.835 --> 00:12:43.795 there was a basis of
NOTE Confidence: 0.95193416

00:12:43.795 --> 00:12:45.075 of Novo Nordisk buying this
NOTE Confidence: 0.95193416

00:12:45.075 --> 00:12:46.195 drug was not a heart
NOTE Confidence: 0.95193416

00:12:46.195 --> 00:12:46.695 failure,
NOTE Confidence: 0.89062876

00:12:47.154 --> 00:12:48.434 data not heart failure data
NOTE Confidence: 0.89062876

00:12:48.434 --> 00:12:49.875 or even cardiovascular data. These
NOTE Confidence: 0.89062876

00:12:49.875 --> 00:12:51.255 were CKD patients,
NOTE Confidence: 0.92495245

00:12:51.760 --> 00:12:53.140 with systemic inflammation.
NOTE Confidence: 0.8822142

00:12:53.519 --> 00:12:54.899 I showed this pretty profound,
NOTE Confidence: 0.9992895

00:12:55.360 --> 00:12:55.860 reduction
NOTE Confidence: 0.9322513

00:12:56.240 --> 00:12:59.059 in, CRP with ziltivekumab. So
NOTE Confidence: 0.9322513

00:12:59.200 --> 00:13:00.640 between eighty five and ninety
NOTE Confidence: 0.9322513

00:13:00.640 --> 00:13:02.260 percent. So really profound,
NOTE Confidence: 0.9499345

00:13:03.440 --> 00:13:04.579 inhibition of inflammation.
NOTE Confidence: 0.9455815

00:13:05.645 --> 00:13:07.005 So we went across and
NOTE Confidence: 0.9455815

00:13:07.005 --> 00:13:07.965 over noticed, there's a few

NOTE Confidence: 0.9455815
00:13:07.965 --> 00:13:08.765 of us, three or four
NOTE Confidence: 0.9455815
00:13:08.765 --> 00:13:10.045 of us talking about what
NOTE Confidence: 0.9455815
00:13:10.045 --> 00:13:11.425 to do with this asset
NOTE Confidence: 0.9455815
00:13:11.485 --> 00:13:12.945 in cardiovascular disease.
NOTE Confidence: 0.93709797
00:13:13.485 --> 00:13:14.945 So being a heart failure
NOTE Confidence: 0.93709797
00:13:15.165 --> 00:13:16.765 enthusiast, I was keen that
NOTE Confidence: 0.93709797
00:13:16.765 --> 00:13:17.965 they tried to address this
NOTE Confidence: 0.93709797
00:13:17.965 --> 00:13:19.559 hypothesis I've just talked about.
NOTE Confidence: 0.93709797
00:13:19.880 --> 00:13:20.760 We've heard about it for
NOTE Confidence: 0.93709797
00:13:20.760 --> 00:13:21.880 twenty years. So why don't
NOTE Confidence: 0.93709797
00:13:21.880 --> 00:13:22.620 we do something?
NOTE Confidence: 0.95538104
00:13:23.240 --> 00:13:25.240 So in a proper collaborative
NOTE Confidence: 0.95538104
00:13:25.240 --> 00:13:26.760 way, and, Eric and myself
NOTE Confidence: 0.95538104
00:13:26.760 --> 00:13:27.720 have been talking about how
NOTE Confidence: 0.95538104
00:13:27.720 --> 00:13:29.000 you work with industry, and
NOTE Confidence: 0.95538104

00:13:29.000 --> 00:13:30.200 it's really important to work
NOTE Confidence: 0.95538104

00:13:30.200 --> 00:13:31.720 with industry alongside them and
NOTE Confidence: 0.95538104

00:13:31.720 --> 00:13:32.860 to talk through plans
NOTE Confidence: 0.9803097

00:13:33.275 --> 00:13:33.934 that influence,
NOTE Confidence: 0.9088237

00:13:34.715 --> 00:13:36.235 properly influence the direction of
NOTE Confidence: 0.9088237

00:13:36.235 --> 00:13:37.675 travel. They were gonna do
NOTE Confidence: 0.9088237

00:13:37.675 --> 00:13:39.934 a trial looking at reducing
NOTE Confidence: 0.9088237

00:13:39.995 --> 00:13:41.595 IL six and heart failure
NOTE Confidence: 0.9088237

00:13:41.595 --> 00:13:43.135 or CRP and heart failure.
NOTE Confidence: 0.8968261

00:13:43.675 --> 00:13:44.715 We said, few of us
NOTE Confidence: 0.8968261

00:13:44.715 --> 00:13:45.595 said, what's the point on
NOTE Confidence: 0.8968261

00:13:45.595 --> 00:13:46.875 that? You're gonna show CRP
NOTE Confidence: 0.8968261

00:13:46.875 --> 00:13:48.339 is reduced. Who cares? It'll
NOTE Confidence: 0.8968261

00:13:48.339 --> 00:13:49.380 take you three years. It'll
NOTE Confidence: 0.8968261

00:13:49.380 --> 00:13:50.420 take you three hundred thousand
NOTE Confidence: 0.8968261

00:13:50.420 --> 00:13:52.040 dollars. Don't do that.

NOTE Confidence: 0.95425874

00:13:52.500 --> 00:13:53.940 So I said, why don't

NOTE Confidence: 0.95425874

00:13:53.940 --> 00:13:54.980 we do this trial? It

NOTE Confidence: 0.95425874

00:13:54.980 --> 00:13:56.179 was just give this drug

NOTE Confidence: 0.95425874

00:13:56.179 --> 00:13:57.460 to people with high CRPs

NOTE Confidence: 0.95425874

00:13:57.460 --> 00:13:58.360 and and HFpEF

NOTE Confidence: 0.9142381

00:13:58.980 --> 00:14:00.200 and see what happens.

NOTE Confidence: 0.9523234

00:14:00.585 --> 00:14:01.465 I thought they were they

NOTE Confidence: 0.9523234

00:14:01.465 --> 00:14:02.505 were gonna laugh and say,

NOTE Confidence: 0.9523234

00:14:02.505 --> 00:14:04.025 you know, go away. Well,

NOTE Confidence: 0.9523234

00:14:04.025 --> 00:14:05.065 we don't wanna take this

NOTE Confidence: 0.9523234

00:14:05.065 --> 00:14:06.605 risk, but luckily, they were

NOTE Confidence: 0.9523234

00:14:06.745 --> 00:14:07.865 wealthy enough at the time

NOTE Confidence: 0.9523234

00:14:07.865 --> 00:14:09.545 to take the risk. So

NOTE Confidence: 0.9523234

00:14:09.545 --> 00:14:11.465 we managed to, convince them

NOTE Confidence: 0.9523234

00:14:11.465 --> 00:14:12.345 to do this trial called

NOTE Confidence: 0.9523234

00:14:12.345 --> 00:14:13.649 the herpes trial, and I'm
NOTE Confidence: 0.9523234

00:14:13.649 --> 00:14:15.089 fortunate to be chairing, the
NOTE Confidence: 0.9523234

00:14:15.089 --> 00:14:16.629 senior committee for this. So
NOTE Confidence: 0.9523234

00:14:16.850 --> 00:14:18.709 five thousand people, very straightforward
NOTE Confidence: 0.9523234

00:14:18.769 --> 00:14:20.470 trial, HFpEF, high CRP,
NOTE Confidence: 0.92414886

00:14:20.930 --> 00:14:22.310 randomized to zoltovecimab
NOTE Confidence: 0.9902552

00:14:22.769 --> 00:14:23.750 or not. So
NOTE Confidence: 0.9169717

00:14:24.209 --> 00:14:26.584 a fascinating trial, primary endpoint,
NOTE Confidence: 0.9169717

00:14:26.584 --> 00:14:27.945 usual heart failure endpoint to
NOTE Confidence: 0.9169717

00:14:27.945 --> 00:14:29.385 turn to first cardiovascular death
NOTE Confidence: 0.9169717

00:14:29.385 --> 00:14:30.584 or heart failure event, and
NOTE Confidence: 0.9169717

00:14:30.584 --> 00:14:32.105 we're gonna complete this trial
NOTE Confidence: 0.9169717

00:14:32.105 --> 00:14:33.704 pretty soon. So I don't
NOTE Confidence: 0.9169717

00:14:33.704 --> 00:14:34.345 know if this will be
NOTE Confidence: 0.9169717

00:14:34.345 --> 00:14:35.964 positive or neutral or negative.
NOTE Confidence: 0.9169717

00:14:36.185 --> 00:14:37.005 We're scrutinizing

NOTE Confidence: 0.9677746
00:14:37.385 --> 00:14:39.030 things like infections and
NOTE Confidence: 0.9275569
00:14:39.430 --> 00:14:40.710 all different types of events
NOTE Confidence: 0.9275569
00:14:40.710 --> 00:14:41.430 in this trial, so we'll
NOTE Confidence: 0.9275569
00:14:41.430 --> 00:14:42.810 do the positives and negatives.
NOTE Confidence: 0.9926712
00:14:43.270 --> 00:14:44.550 I really, really hope this
NOTE Confidence: 0.9926712
00:14:44.550 --> 00:14:45.290 will be positive.
NOTE Confidence: 0.9875175
00:14:45.670 --> 00:14:46.950 There are other trials going
NOTE Confidence: 0.9875175
00:14:46.950 --> 00:14:48.170 on post MI,
NOTE Confidence: 0.9550312
00:14:48.870 --> 00:14:50.330 which are looking at zoltepecamab
NOTE Confidence: 0.93326604
00:14:50.710 --> 00:14:52.310 post MI called ARTEMIS and
NOTE Confidence: 0.93326604
00:14:52.310 --> 00:14:53.930 ZEUS, which is a CKD
NOTE Confidence: 0.9730259
00:14:54.755 --> 00:14:56.435 cardiovascular disease trial as well.
NOTE Confidence: 0.9730259
00:14:56.435 --> 00:14:57.635 So these trials are all
NOTE Confidence: 0.9730259
00:14:57.635 --> 00:14:58.595 finishing in the next two
NOTE Confidence: 0.9730259
00:14:58.595 --> 00:15:00.115 years. So these are coming
NOTE Confidence: 0.9730259

00:15:00.115 --> 00:15:01.555 your way, and I hope
NOTE Confidence: 0.9730259

00:15:01.635 --> 00:15:03.175 really hope they'll be positive,
NOTE Confidence: 0.9730259

00:15:03.475 --> 00:15:04.355 and then we can move
NOTE Confidence: 0.9730259

00:15:04.355 --> 00:15:05.815 on with the anti inflammatory
NOTE Confidence: 0.9730259

00:15:05.955 --> 00:15:07.495 drugs in in cardiovascular
NOTE Confidence: 0.9764447

00:15:07.875 --> 00:15:09.649 disease. There are now new
NOTE Confidence: 0.9764447

00:15:09.649 --> 00:15:11.410 companies that are are springing
NOTE Confidence: 0.9764447

00:15:11.410 --> 00:15:13.329 up, focused only on anti
NOTE Confidence: 0.9764447

00:15:13.329 --> 00:15:15.089 inflammatory drugs with a heavy
NOTE Confidence: 0.9764447

00:15:15.089 --> 00:15:15.589 cardiovascular,
NOTE Confidence: 0.9450095

00:15:16.690 --> 00:15:18.610 angle. So we're discussing other
NOTE Confidence: 0.9450095

00:15:18.610 --> 00:15:20.050 trials and I was talking
NOTE Confidence: 0.9450095

00:15:20.050 --> 00:15:21.649 to, people as well talking
NOTE Confidence: 0.9450095

00:15:21.649 --> 00:15:23.010 about the sarcoid angle, which
NOTE Confidence: 0.9450095

00:15:23.010 --> 00:15:24.485 is a beautiful angle, and
NOTE Confidence: 0.9450095

00:15:24.485 --> 00:15:25.865 there's lots of different niches

NOTE Confidence: 0.9450095

00:15:26.085 --> 00:15:27.625 which could be identified.

NOTE Confidence: 0.9450095

00:15:27.685 --> 00:15:28.645 This is quite a broad

NOTE Confidence: 0.9450095

00:15:28.645 --> 00:15:30.085 group, but hopefully we can

NOTE Confidence: 0.9450095

00:15:30.085 --> 00:15:31.225 get there quite soon.

NOTE Confidence: 0.9863952

00:15:31.685 --> 00:15:33.125 These are the secondary endpoints.

NOTE Confidence: 0.94453955

00:15:33.525 --> 00:15:34.725 Normally in heart failure trials,

NOTE Confidence: 0.94453955

00:15:34.725 --> 00:15:35.845 we just focus on death

NOTE Confidence: 0.94453955

00:15:35.845 --> 00:15:37.320 and heart failure. But here

NOTE Confidence: 0.94453955

00:15:37.320 --> 00:15:38.440 we are thinking there's a

NOTE Confidence: 0.94453955

00:15:38.440 --> 00:15:39.800 vascular effect. So we've got

NOTE Confidence: 0.94453955

00:15:39.800 --> 00:15:41.100 combined endpoints including

NOTE Confidence: 0.9028046

00:15:41.480 --> 00:15:42.600 MI and stroke as well

NOTE Confidence: 0.9028046

00:15:42.600 --> 00:15:43.420 as heart failure.

NOTE Confidence: 0.94909745

00:15:44.360 --> 00:15:46.200 So moving rapidly onto a

NOTE Confidence: 0.94909745

00:15:46.200 --> 00:15:48.920 totally different area. Eric, mentioned

NOTE Confidence: 0.94909745

00:15:48.920 --> 00:15:50.440 briefly the whole weight loss
NOTE Confidence: 0.94909745

00:15:50.440 --> 00:15:52.065 drugs and heart failure area,
NOTE Confidence: 0.94909745

00:15:52.305 --> 00:15:53.765 which is really interesting.
NOTE Confidence: 0.9466209

00:15:54.305 --> 00:15:55.905 So again about seven years
NOTE Confidence: 0.9466209

00:15:55.905 --> 00:15:57.425 ago, we went to a
NOTE Confidence: 0.9466209

00:15:57.425 --> 00:15:58.865 variety of companies who had
NOTE Confidence: 0.9466209

00:15:58.865 --> 00:15:59.985 weight loss drugs and heart
NOTE Confidence: 0.9466209

00:15:59.985 --> 00:16:01.505 failure, and in my clinic
NOTE Confidence: 0.9466209

00:16:01.505 --> 00:16:03.025 people that were overweight or
NOTE Confidence: 0.9466209

00:16:03.025 --> 00:16:04.320 obese with heart failure seemed
NOTE Confidence: 0.9466209

00:16:04.320 --> 00:16:05.760 to do badly and I
NOTE Confidence: 0.9466209

00:16:05.760 --> 00:16:07.040 was pretty sure these drugs
NOTE Confidence: 0.9466209

00:16:07.040 --> 00:16:07.680 that cause a lot of
NOTE Confidence: 0.9466209

00:16:07.680 --> 00:16:08.800 weight loss would be good
NOTE Confidence: 0.9466209

00:16:08.800 --> 00:16:10.100 for people with heart failure,
NOTE Confidence: 0.9466209

00:16:10.400 --> 00:16:12.080 but we were told that

NOTE Confidence: 0.9466209

00:16:12.080 --> 00:16:14.080 we were crazy because there

NOTE Confidence: 0.9466209

00:16:14.080 --> 00:16:14.720 was a thing called the

NOTE Confidence: 0.9466209

00:16:14.720 --> 00:16:16.400 obesity paradox that people that

NOTE Confidence: 0.9466209

00:16:16.400 --> 00:16:18.000 were heavier did better, people

NOTE Confidence: 0.9466209

00:16:18.000 --> 00:16:19.695 that are lighter did worse,

NOTE Confidence: 0.9466209

00:16:20.015 --> 00:16:21.135 weight loss was bad for

NOTE Confidence: 0.9466209

00:16:21.135 --> 00:16:22.815 you, and these drugs put

NOTE Confidence: 0.9466209

00:16:22.815 --> 00:16:23.695 your heart rate up. So

NOTE Confidence: 0.9466209

00:16:23.695 --> 00:16:24.895 we were gonna kill people.

NOTE Confidence: 0.9466209

00:16:24.895 --> 00:16:26.175 So they said, no, we

NOTE Confidence: 0.9466209

00:16:26.175 --> 00:16:27.055 are not gonna do an

NOTE Confidence: 0.9466209

00:16:27.055 --> 00:16:28.335 outcomes trial because you're gonna

NOTE Confidence: 0.9466209

00:16:28.335 --> 00:16:30.015 kill people. So this was

NOTE Confidence: 0.9466209

00:16:30.015 --> 00:16:31.295 a big deal, and this

NOTE Confidence: 0.9466209

00:16:31.295 --> 00:16:32.890 was across people that had

NOTE Confidence: 0.9466209

00:16:32.890 --> 00:16:34.250 these drugs and we just
NOTE Confidence: 0.9466209

00:16:34.250 --> 00:16:35.450 told there were no way
NOTE Confidence: 0.9466209

00:16:35.450 --> 00:16:36.090 were they were going to
NOTE Confidence: 0.9466209

00:16:36.090 --> 00:16:36.910 do these trials.
NOTE Confidence: 0.92246854

00:16:37.370 --> 00:16:39.450 So we we irritated them
NOTE Confidence: 0.92246854

00:16:39.450 --> 00:16:40.410 and went back to them
NOTE Confidence: 0.92246854

00:16:40.410 --> 00:16:41.370 again and again and there
NOTE Confidence: 0.92246854

00:16:41.370 --> 00:16:43.230 was various different groups actually,
NOTE Confidence: 0.89596003

00:16:43.530 --> 00:16:44.890 around around the world that
NOTE Confidence: 0.89596003

00:16:44.890 --> 00:16:46.570 were approaching, three different prominent
NOTE Confidence: 0.89596003

00:16:46.570 --> 00:16:48.495 groups came together, We created
NOTE Confidence: 0.89596003

00:16:48.495 --> 00:16:49.455 such a noise, we were
NOTE Confidence: 0.89596003

00:16:49.455 --> 00:16:51.135 so irritating, they allowed us
NOTE Confidence: 0.89596003

00:16:51.135 --> 00:16:52.095 to do two of these
NOTE Confidence: 0.89596003

00:16:52.095 --> 00:16:53.535 trials, so STEP FPF and
NOTE Confidence: 0.89596003

00:16:53.535 --> 00:16:54.515 STEP FM FM.

NOTE Confidence: 0.9396925

00:16:54.895 --> 00:16:56.255 There's another trial called Summit,

NOTE Confidence: 0.9396925

00:16:56.255 --> 00:16:57.635 which happened after that.

NOTE Confidence: 0.94841516

00:16:58.095 --> 00:16:58.895 So I'm not gonna talk

NOTE Confidence: 0.94841516

00:16:58.895 --> 00:16:59.855 about this for too long,

NOTE Confidence: 0.94841516

00:16:59.855 --> 00:17:01.475 but the STEP FPF program

NOTE Confidence: 0.9469876

00:17:01.830 --> 00:17:04.070 comprised two different trials. One

NOTE Confidence: 0.9469876

00:17:04.070 --> 00:17:05.350 in people with diabetes and

NOTE Confidence: 0.9469876

00:17:05.350 --> 00:17:06.950 one people without diabetes. But

NOTE Confidence: 0.9469876

00:17:06.950 --> 00:17:07.910 look at the numbers here.

NOTE Confidence: 0.9469876

00:17:07.910 --> 00:17:09.190 These are small trials. So

NOTE Confidence: 0.9469876

00:17:09.190 --> 00:17:10.230 five hundred and six hundred

NOTE Confidence: 0.9469876

00:17:10.230 --> 00:17:11.270 people. These are not mega

NOTE Confidence: 0.9469876

00:17:11.270 --> 00:17:12.470 trials. The trials that we

NOTE Confidence: 0.9469876

00:17:12.470 --> 00:17:14.150 normally do are five thousand,

NOTE Confidence: 0.9469876

00:17:14.150 --> 00:17:15.590 eight thousand, ten thousand. These

NOTE Confidence: 0.9469876

00:17:15.590 --> 00:17:17.535 are small, little, little trials.

NOTE Confidence: 0.9449666

00:17:18.255 --> 00:17:20.015 The endpoints as well, people

NOTE Confidence: 0.9449666

00:17:20.015 --> 00:17:21.215 laughed at these endpoints. So

NOTE Confidence: 0.9449666

00:17:21.215 --> 00:17:22.494 body weight, you've got weight

NOTE Confidence: 0.9449666

00:17:22.494 --> 00:17:23.775 loss drug. You're gonna body

NOTE Confidence: 0.9449666

00:17:23.775 --> 00:17:24.815 weight is your endpoint. Why

NOTE Confidence: 0.9449666

00:17:24.815 --> 00:17:25.535 are why are you doing

NOTE Confidence: 0.9449666

00:17:25.535 --> 00:17:27.135 that? That's crazy. Or quality

NOTE Confidence: 0.9449666

00:17:27.135 --> 00:17:27.795 of life.

NOTE Confidence: 0.9492792

00:17:28.415 --> 00:17:30.095 Importantly, this was semaglutide at

NOTE Confidence: 0.9492792

00:17:30.095 --> 00:17:31.135 the weight loss dose of

NOTE Confidence: 0.9492792

00:17:31.135 --> 00:17:32.415 two point four milligrams against

NOTE Confidence: 0.9492792

00:17:32.415 --> 00:17:32.915 placebo.

NOTE Confidence: 0.94037807

00:17:33.375 --> 00:17:34.869 So a GLP one receptor

NOTE Confidence: 0.94037807

00:17:34.869 --> 00:17:36.630 agonist straightforward GOP not nothing

NOTE Confidence: 0.94037807

00:17:36.630 --> 00:17:38.550 added on. The secondary endpoints

NOTE Confidence: 0.94037807
00:17:38.550 --> 00:17:39.910 are really important. Quite often,
NOTE Confidence: 0.94037807
00:17:39.910 --> 00:17:41.030 these are not important, but
NOTE Confidence: 0.94037807
00:17:41.030 --> 00:17:42.550 for this, they are. So
NOTE Confidence: 0.94037807
00:17:42.550 --> 00:17:44.070 six minute walk hasn't been
NOTE Confidence: 0.94037807
00:17:44.070 --> 00:17:45.109 shifted by lots of heart
NOTE Confidence: 0.94037807
00:17:45.109 --> 00:17:45.930 failure therapies.
NOTE Confidence: 0.94905937
00:17:46.304 --> 00:17:48.625 The hierarchical endpoint was important.
NOTE Confidence: 0.94905937
00:17:48.625 --> 00:17:49.744 So this is a win
NOTE Confidence: 0.94905937
00:17:49.744 --> 00:17:51.825 ratio, death, heart failure events,
NOTE Confidence: 0.94905937
00:17:51.825 --> 00:17:53.184 and quality of life, and
NOTE Confidence: 0.94905937
00:17:53.184 --> 00:17:53.684 CRP.
NOTE Confidence: 0.9657665
00:17:54.304 --> 00:17:55.504 So just one slide in
NOTE Confidence: 0.9657665
00:17:55.504 --> 00:17:56.865 the results. So we we
NOTE Confidence: 0.9657665
00:17:56.865 --> 00:17:58.384 we did, make people feel
NOTE Confidence: 0.9657665
00:17:58.384 --> 00:18:00.149 better, and the magnitude of
NOTE Confidence: 0.9657665

00:18:00.149 --> 00:18:01.350 effect here is really important.
NOTE Confidence: 0.9657665

00:18:01.350 --> 00:18:02.809 So seven point improvement
NOTE Confidence: 0.94581455

00:18:03.269 --> 00:18:05.130 is important. The sg otolipiter
NOTE Confidence: 0.94581455

00:18:05.269 --> 00:18:06.389 trials and other trials are
NOTE Confidence: 0.94581455

00:18:06.389 --> 00:18:07.669 usually one or two points
NOTE Confidence: 0.94581455

00:18:07.669 --> 00:18:09.429 maximum. These people came back
NOTE Confidence: 0.94581455

00:18:09.429 --> 00:18:11.049 to clinic. They loved you.
NOTE Confidence: 0.94581455

00:18:11.055 --> 00:18:12.255 They had a new wardrobe,
NOTE Confidence: 0.94581455

00:18:12.255 --> 00:18:13.375 they could do their shopping,
NOTE Confidence: 0.94581455

00:18:13.375 --> 00:18:14.415 they could walk up a
NOTE Confidence: 0.94581455

00:18:14.415 --> 00:18:14.915 incline,
NOTE Confidence: 0.9561304

00:18:15.295 --> 00:18:16.895 these people were transformed, they
NOTE Confidence: 0.9561304

00:18:16.895 --> 00:18:18.494 loved it. And the weight
NOTE Confidence: 0.9561304

00:18:18.494 --> 00:18:19.615 loss was also seen as
NOTE Confidence: 0.9561304

00:18:19.615 --> 00:18:20.895 well, we all see more
NOTE Confidence: 0.9561304

00:18:20.895 --> 00:18:22.015 weight loss in people without

NOTE Confidence: 0.9561304

00:18:22.015 --> 00:18:23.395 diabetes than with diabetes,

NOTE Confidence: 0.9283253

00:18:23.720 --> 00:18:25.240 But importantly, people could walk

NOTE Confidence: 0.9283253

00:18:25.240 --> 00:18:26.600 further that hadn't happened with

NOTE Confidence: 0.9283253

00:18:26.600 --> 00:18:27.980 previous heart failure therapies.

NOTE Confidence: 0.9436334

00:18:28.359 --> 00:18:30.200 And this clinical hierarchical endpoint

NOTE Confidence: 0.9436334

00:18:30.200 --> 00:18:31.880 of death, hospitalizations, and quality

NOTE Confidence: 0.9436334

00:18:31.880 --> 00:18:33.560 of life was also improved.

NOTE Confidence: 0.9436334

00:18:33.560 --> 00:18:34.940 So we weren't killing people.

NOTE Confidence: 0.9436334

00:18:35.240 --> 00:18:36.440 People now look back at

NOTE Confidence: 0.9436334

00:18:36.440 --> 00:18:37.240 this trial and say, why

NOTE Confidence: 0.9436334

00:18:37.240 --> 00:18:38.040 do you even do that?

NOTE Confidence: 0.9436334

00:18:38.040 --> 00:18:39.000 It's, you know, it's so

NOTE Confidence: 0.9436334

00:18:39.000 --> 00:18:40.335 obvious. But that was that

NOTE Confidence: 0.9436334

00:18:40.335 --> 00:18:41.455 was really important at the

NOTE Confidence: 0.9436334

00:18:41.455 --> 00:18:42.575 time as led on to

NOTE Confidence: 0.9436334

00:18:42.575 --> 00:18:44.815 other trials. The CRP reduction

NOTE Confidence: 0.9436334

00:18:44.815 --> 00:18:46.255 here is interesting too. So

NOTE Confidence: 0.9436334

00:18:46.255 --> 00:18:47.295 some of these effects might

NOTE Confidence: 0.9436334

00:18:47.295 --> 00:18:48.275 be anti inflammatory,

NOTE Confidence: 0.92621243

00:18:48.655 --> 00:18:49.935 thirty five to forty percent

NOTE Confidence: 0.92621243

00:18:49.935 --> 00:18:51.075 reduction of CRP.

NOTE Confidence: 0.9780805

00:18:52.270 --> 00:18:53.090 Now this is

NOTE Confidence: 0.94195426

00:18:53.470 --> 00:18:53.970 for,

NOTE Confidence: 0.9580171

00:18:54.350 --> 00:18:55.869 heart failure trialists. This is

NOTE Confidence: 0.9580171

00:18:55.869 --> 00:18:57.869 almost an embarrassing slide because

NOTE Confidence: 0.9580171

00:18:57.869 --> 00:18:58.910 I'm showing you a slide

NOTE Confidence: 0.9580171

00:18:58.910 --> 00:19:00.430 of outcomes with only thirty

NOTE Confidence: 0.9580171

00:19:00.430 --> 00:19:01.869 eight events in it. So

NOTE Confidence: 0.9580171

00:19:01.869 --> 00:19:02.910 you should be laughing at

NOTE Confidence: 0.9580171

00:19:02.910 --> 00:19:03.869 me and saying, don't show

NOTE Confidence: 0.9580171

00:19:03.869 --> 00:19:04.990 me these data. There are

NOTE Confidence: 0.9580171

00:19:04.990 --> 00:19:05.970 two small numbers.

NOTE Confidence: 0.9470336

00:19:06.585 --> 00:19:08.265 But, actually, there's only eight

NOTE Confidence: 0.9470336

00:19:08.265 --> 00:19:09.544 in the semaglutide arm and

NOTE Confidence: 0.9470336

00:19:09.544 --> 00:19:10.924 thirty in the placebo arm.

NOTE Confidence: 0.9470336

00:19:11.065 --> 00:19:12.345 So on the background of

NOTE Confidence: 0.9470336

00:19:12.345 --> 00:19:12.845 us,

NOTE Confidence: 0.9688073

00:19:13.145 --> 00:19:14.505 we're killing people or causing

NOTE Confidence: 0.9688073

00:19:14.505 --> 00:19:15.945 heart failure. This suggests maybe

NOTE Confidence: 0.9688073

00:19:15.945 --> 00:19:17.544 we're not killing people, and

NOTE Confidence: 0.9688073

00:19:17.544 --> 00:19:18.744 maybe there's a signal of

NOTE Confidence: 0.9688073

00:19:18.744 --> 00:19:20.550 efficacy here. But, certainly, we

NOTE Confidence: 0.9688073

00:19:20.550 --> 00:19:21.990 cannot conclude here that we

NOTE Confidence: 0.9688073

00:19:21.990 --> 00:19:23.190 improve heart failure events on

NOTE Confidence: 0.9688073

00:19:23.190 --> 00:19:24.470 the basis of a small

NOTE Confidence: 0.9688073

00:19:24.470 --> 00:19:25.290 number of trials.

NOTE Confidence: 0.88712424

00:19:25.830 --> 00:19:26.710 The other thing we were
NOTE Confidence: 0.88712424

00:19:26.710 --> 00:19:28.230 petrified about was the n
NOTE Confidence: 0.88712424

00:19:28.230 --> 00:19:30.310 terminal pro bmp and in
NOTE Confidence: 0.88712424

00:19:30.310 --> 00:19:32.230 this trial because people that
NOTE Confidence: 0.88712424

00:19:32.230 --> 00:19:33.830 are are heavier have lower
NOTE Confidence: 0.88712424

00:19:33.830 --> 00:19:35.705 n terminal pro bmp's and
NOTE Confidence: 0.88712424

00:19:35.705 --> 00:19:37.085 lighter have high end pro
NOTE Confidence: 0.88712424

00:19:37.145 --> 00:19:37.645 bmp's.
NOTE Confidence: 0.9555352

00:19:38.025 --> 00:19:39.065 So we thought as you
NOTE Confidence: 0.9555352

00:19:39.065 --> 00:19:41.145 lost weight people's bmp's would
NOTE Confidence: 0.9555352

00:19:41.145 --> 00:19:42.265 go up, people would say
NOTE Confidence: 0.9555352

00:19:42.265 --> 00:19:43.545 you've made people's heart failure
NOTE Confidence: 0.9555352

00:19:43.545 --> 00:19:45.484 worse. So we were delighted
NOTE Confidence: 0.9555352

00:19:45.545 --> 00:19:46.905 that the NT pro bmp
NOTE Confidence: 0.9555352

00:19:46.905 --> 00:19:48.025 went down in this trial
NOTE Confidence: 0.9555352

00:19:48.025 --> 00:19:49.085 and does suggest

NOTE Confidence: 0.9996991

00:19:49.490 --> 00:19:50.150 a possible

NOTE Confidence: 0.9093197

00:19:50.690 --> 00:19:53.010 heart failure mechanistic benefit, but

NOTE Confidence: 0.9093197

00:19:53.010 --> 00:19:54.850 possible heart failure mechanistic benefit.

NOTE Confidence: 0.9093197

00:19:54.850 --> 00:19:55.910 So we were delighted

NOTE Confidence: 0.8997517

00:19:56.450 --> 00:19:57.810 and even better the people

NOTE Confidence: 0.8997517

00:19:57.810 --> 00:19:58.930 that were sicker the higher

NOTE Confidence: 0.8997517

00:19:58.930 --> 00:20:00.609 n terminal proBNPs had greater

NOTE Confidence: 0.8997517

00:20:00.609 --> 00:20:02.050 benefit in terms of improvement

NOTE Confidence: 0.8997517

00:20:02.050 --> 00:20:03.385 of quality of life, So

NOTE Confidence: 0.8997517

00:20:03.385 --> 00:20:04.665 the sicker people, we didn't

NOTE Confidence: 0.8997517

00:20:04.665 --> 00:20:06.045 see bad things happening.

NOTE Confidence: 0.926243

00:20:06.585 --> 00:20:07.945 And again, sorry to labour

NOTE Confidence: 0.926243

00:20:07.945 --> 00:20:09.145 this point, but people that

NOTE Confidence: 0.926243

00:20:09.145 --> 00:20:10.525 lost weight in the placebo

NOTE Confidence: 0.926243

00:20:10.744 --> 00:20:12.345 arm, their BMPs did go

NOTE Confidence: 0.926243

00:20:12.345 --> 00:20:13.385 up and people that lost
NOTE Confidence: 0.926243

00:20:13.385 --> 00:20:14.285 weight in the semaglutide
NOTE Confidence: 0.93267095

00:20:14.665 --> 00:20:16.365 arm, the BMPs went down.
NOTE Confidence: 0.93267095

00:20:16.424 --> 00:20:18.030 So that really was quite
NOTE Confidence: 0.93267095

00:20:18.030 --> 00:20:18.530 encouraging.
NOTE Confidence: 0.9851422

00:20:19.470 --> 00:20:20.290 So alongside
NOTE Confidence: 0.93445987

00:20:20.590 --> 00:20:22.190 our two small trials, there
NOTE Confidence: 0.93445987

00:20:22.190 --> 00:20:23.550 was also trial called SUMMIT,
NOTE Confidence: 0.93445987

00:20:23.790 --> 00:20:25.310 this is with tirzepatide, so
NOTE Confidence: 0.93445987

00:20:25.310 --> 00:20:26.270 this is a GLP one
NOTE Confidence: 0.93445987

00:20:26.270 --> 00:20:28.110 receptor agonist and a GIP
NOTE Confidence: 0.93445987

00:20:28.110 --> 00:20:29.730 agonist as opposed to semaglutide,
NOTE Confidence: 0.93445987

00:20:29.869 --> 00:20:30.690 just a single,
NOTE Confidence: 0.877929

00:20:31.150 --> 00:20:33.165 single mechanism of action. So
NOTE Confidence: 0.877929

00:20:33.165 --> 00:20:35.005 similar trial against small again,
NOTE Confidence: 0.877929

00:20:35.005 --> 00:20:36.465 seven hundred and thirty patients.

NOTE Confidence: 0.88307524

00:20:36.925 --> 00:20:38.285 These were less sick people.

NOTE Confidence: 0.88307524

00:20:38.285 --> 00:20:38.765 So,

NOTE Confidence: 0.8744481

00:20:39.245 --> 00:20:40.445 I was very keen as

NOTE Confidence: 0.8744481

00:20:40.445 --> 00:20:41.725 TEPEPE. We had quite high

NOTE Confidence: 0.8744481

00:20:41.725 --> 00:20:43.405 BMPs. We had BMPs of

NOTE Confidence: 0.8744481

00:20:43.405 --> 00:20:45.025 four hundred and fifty median.

NOTE Confidence: 0.8744481

00:20:45.230 --> 00:20:45.950 Here there was only one

NOTE Confidence: 0.8744481

00:20:45.950 --> 00:20:47.230 hundred and eighty because Barry

NOTE Confidence: 0.8744481

00:20:47.230 --> 00:20:48.830 Borleg and we were having

NOTE Confidence: 0.8744481

00:20:48.830 --> 00:20:50.030 a big argument in Step

NOTE Confidence: 0.8744481

00:20:50.030 --> 00:20:51.550 Pepe, but Milton Packard and

NOTE Confidence: 0.8744481

00:20:51.550 --> 00:20:52.910 Barry ran this trial together.

NOTE Confidence: 0.8744481

00:20:52.910 --> 00:20:55.150 So lowered entomrupo BNP's, lowered

NOTE Confidence: 0.8744481

00:20:55.150 --> 00:20:55.890 event rates,

NOTE Confidence: 0.8718661

00:20:56.590 --> 00:20:58.609 comparing tirzepatide to placebo,

NOTE Confidence: 0.890279

00:20:59.185 --> 00:21:00.625 And basically, they changed their
NOTE Confidence: 0.890279

00:21:00.625 --> 00:21:01.984 primary outcome during the trial
NOTE Confidence: 0.890279

00:21:01.984 --> 00:21:03.185 after seeing our small number
NOTE Confidence: 0.890279

00:21:03.185 --> 00:21:04.465 of heart failure events. And
NOTE Confidence: 0.890279

00:21:04.465 --> 00:21:06.145 they they showed similar findings,
NOTE Confidence: 0.890279

00:21:06.145 --> 00:21:07.505 so reduction in heart failure
NOTE Confidence: 0.890279

00:21:07.505 --> 00:21:09.105 events, c v death or
NOTE Confidence: 0.890279

00:21:09.105 --> 00:21:10.565 oral direct intensification
NOTE Confidence: 0.969457

00:21:11.025 --> 00:21:12.565 against small numbers of events
NOTE Confidence: 0.89320165

00:21:12.900 --> 00:21:14.180 and improvement in quality of
NOTE Confidence: 0.89320165

00:21:14.180 --> 00:21:15.940 life as well and similar
NOTE Confidence: 0.89320165

00:21:15.940 --> 00:21:16.920 secondary endpoints.
NOTE Confidence: 0.99451417

00:21:17.780 --> 00:21:18.280 So,
NOTE Confidence: 0.92459065

00:21:18.820 --> 00:21:20.680 basically, a summit was confirmatory
NOTE Confidence: 0.92459065

00:21:20.900 --> 00:21:21.859 of what our findings were,
NOTE Confidence: 0.92459065

00:21:21.859 --> 00:21:22.980 but against small numbers of

NOTE Confidence: 0.92459065

00:21:22.980 --> 00:21:24.680 events, only thirty eight hospitalization

NOTE Confidence: 0.92459065

00:21:24.900 --> 00:21:25.940 in both of these trials.

NOTE Confidence: 0.92459065

00:21:25.940 --> 00:21:26.840 So inconclusive.

NOTE Confidence: 0.92847234

00:21:27.815 --> 00:21:29.255 Looking further afield in the

NOTE Confidence: 0.92847234

00:21:29.255 --> 00:21:31.015 select trial, you remember select

NOTE Confidence: 0.92847234

00:21:31.015 --> 00:21:32.135 was a, again this is

NOTE Confidence: 0.92847234

00:21:32.135 --> 00:21:33.174 not a heart failure trial,

NOTE Confidence: 0.92847234

00:21:33.174 --> 00:21:34.375 this is seventeen and a

NOTE Confidence: 0.92847234

00:21:34.375 --> 00:21:35.895 half thousand people with overweight,

NOTE Confidence: 0.92847234

00:21:35.895 --> 00:21:38.054 obesity and cardiovascular disease with

NOTE Confidence: 0.92847234

00:21:38.054 --> 00:21:39.915 semaglutide at weight loss dose.

NOTE Confidence: 0.92847234

00:21:40.080 --> 00:21:41.039 And there were there were

NOTE Confidence: 0.92847234

00:21:41.039 --> 00:21:43.519 investigator reported HFpEF people at

NOTE Confidence: 0.92847234

00:21:43.519 --> 00:21:44.880 baseline, so these are not

NOTE Confidence: 0.92847234

00:21:44.880 --> 00:21:46.480 people carefully defined by ECHO

NOTE Confidence: 0.92847234

00:21:46.480 --> 00:21:48.580 and BNP, just investigator reported.
NOTE Confidence: 0.92847234

00:21:48.720 --> 00:21:49.600 And you see the hazard
NOTE Confidence: 0.92847234

00:21:49.600 --> 00:21:51.119 ratio here was point seven
NOTE Confidence: 0.92847234

00:21:51.119 --> 00:21:53.600 five. Again, broad, confident intervals,
NOTE Confidence: 0.92847234

00:21:53.600 --> 00:21:54.720 not too many events, but
NOTE Confidence: 0.92847234

00:21:54.720 --> 00:21:56.965 again signaling possible benefit.
NOTE Confidence: 0.9824452

00:21:58.065 --> 00:21:59.665 So after we've completed these
NOTE Confidence: 0.9824452

00:21:59.665 --> 00:22:01.425 small trials, there's big debate
NOTE Confidence: 0.9824452

00:22:01.425 --> 00:22:02.545 about how much of the
NOTE Confidence: 0.9824452

00:22:02.545 --> 00:22:03.585 the effects are due to
NOTE Confidence: 0.9824452

00:22:03.585 --> 00:22:04.785 weight loss or weight loss
NOTE Confidence: 0.9824452

00:22:04.785 --> 00:22:06.705 independent mechanisms. We can't be
NOTE Confidence: 0.9824452

00:22:06.705 --> 00:22:08.305 sure, obviously, because these people
NOTE Confidence: 0.9824452

00:22:08.305 --> 00:22:09.345 all were obese in the
NOTE Confidence: 0.9824452

00:22:09.345 --> 00:22:10.305 first place, so we can't
NOTE Confidence: 0.9824452

00:22:10.305 --> 00:22:12.309 really pick apart weight loss

NOTE Confidence: 0.9824452
00:22:12.309 --> 00:22:13.770 dependent independent mechanisms.
NOTE Confidence: 0.9607895
00:22:14.309 --> 00:22:15.510 But things like the BNP
NOTE Confidence: 0.9607895
00:22:15.510 --> 00:22:17.109 going down are promising. The
NOTE Confidence: 0.9607895
00:22:17.109 --> 00:22:18.630 BNP went down early. The
NOTE Confidence: 0.9607895
00:22:18.630 --> 00:22:20.390 CRP went down early. I'd
NOTE Confidence: 0.9607895
00:22:20.390 --> 00:22:22.070 suggest there probably are heart
NOTE Confidence: 0.9607895
00:22:22.070 --> 00:22:23.130 failure benefits,
NOTE Confidence: 0.9619983
00:22:23.669 --> 00:22:25.005 over and above, the weight
NOTE Confidence: 0.9619983
00:22:25.005 --> 00:22:26.125 loss benefits, but we don't
NOTE Confidence: 0.9619983
00:22:26.125 --> 00:22:26.845 know that for sure and
NOTE Confidence: 0.9619983
00:22:26.845 --> 00:22:28.205 people need to do trials
NOTE Confidence: 0.9619983
00:22:28.205 --> 00:22:29.505 in non obese populations.
NOTE Confidence: 0.99485856
00:22:30.125 --> 00:22:31.325 We also have seen,
NOTE Confidence: 0.9288106
00:22:31.805 --> 00:22:33.085 good data from the FLOW
NOTE Confidence: 0.9288106
00:22:33.085 --> 00:22:34.945 trial with semaglutide and CKD
NOTE Confidence: 0.9288106

00:22:35.005 --> 00:22:35.965 showing a reduction in heart
NOTE Confidence: 0.9288106

00:22:35.965 --> 00:22:36.785 failure events,
NOTE Confidence: 0.9462689

00:22:37.085 --> 00:22:38.285 and the absence of major
NOTE Confidence: 0.9462689

00:22:38.285 --> 00:22:39.025 weight loss,
NOTE Confidence: 0.9152214

00:22:39.720 --> 00:22:40.840 as well as the the
NOTE Confidence: 0.9152214

00:22:40.840 --> 00:22:42.679 diabetes cardiovascular outcome trials as
NOTE Confidence: 0.9152214

00:22:42.679 --> 00:22:44.040 well showed a small reduction
NOTE Confidence: 0.9152214

00:22:44.040 --> 00:22:45.340 in heart failure events.
NOTE Confidence: 0.95541376

00:22:45.640 --> 00:22:47.320 So to conclude from these
NOTE Confidence: 0.95541376

00:22:47.320 --> 00:22:48.920 small trials, we have shown
NOTE Confidence: 0.95541376

00:22:48.920 --> 00:22:50.359 a reduction in body weight
NOTE Confidence: 0.95541376

00:22:50.359 --> 00:22:51.559 and improvement of quality of
NOTE Confidence: 0.95541376

00:22:51.559 --> 00:22:53.020 life, but not much else.
NOTE Confidence: 0.8496267

00:22:53.465 --> 00:22:54.425 And just to just to
NOTE Confidence: 0.8496267

00:22:54.425 --> 00:22:56.185 emphasize, so deliver, which is
NOTE Confidence: 0.8496267

00:22:56.185 --> 00:22:57.625 a tobacco flosin hep f

NOTE Confidence: 0.8496267

00:22:57.625 --> 00:22:58.984 trial or fine arts, the

NOTE Confidence: 0.8496267

00:22:58.984 --> 00:23:00.585 fine r one had almost

NOTE Confidence: 0.8496267

00:23:00.585 --> 00:23:02.265 two thousand events. Look at

NOTE Confidence: 0.8496267

00:23:02.265 --> 00:23:03.305 the tiny number of events

NOTE Confidence: 0.8496267

00:23:03.305 --> 00:23:05.005 in these trials. So we

NOTE Confidence: 0.96193314

00:23:05.800 --> 00:23:07.480 firmly believe we need proper

NOTE Confidence: 0.96193314

00:23:07.480 --> 00:23:09.340 large outcome trials to quantify

NOTE Confidence: 0.92953086

00:23:09.960 --> 00:23:11.480 the the benefits of these

NOTE Confidence: 0.92953086

00:23:11.480 --> 00:23:12.680 drugs in heart failure, not

NOTE Confidence: 0.92953086

00:23:12.680 --> 00:23:13.800 just the benefits, but it's

NOTE Confidence: 0.92953086

00:23:13.800 --> 00:23:15.320 the safety and efficacy in

NOTE Confidence: 0.92953086

00:23:15.320 --> 00:23:15.980 heart failure.

NOTE Confidence: 0.95669323

00:23:16.920 --> 00:23:18.680 So again, when we finished

NOTE Confidence: 0.95669323

00:23:18.680 --> 00:23:19.800 these trials, we went to

NOTE Confidence: 0.95669323

00:23:19.800 --> 00:23:21.764 a variety of sponsors, and

NOTE Confidence: 0.95669323

00:23:21.764 --> 00:23:22.264 we
NOTE Confidence: 0.9164032

00:23:22.644 --> 00:23:24.264 spoke to some really fantastic
NOTE Confidence: 0.9164032

00:23:24.325 --> 00:23:25.304 people in Amgen,
NOTE Confidence: 0.92580736

00:23:25.684 --> 00:23:28.184 a really cracking team, of,
NOTE Confidence: 0.93650424

00:23:28.804 --> 00:23:30.325 serious people in industry. Again,
NOTE Confidence: 0.93650424

00:23:30.325 --> 00:23:31.125 this is going back to
NOTE Confidence: 0.93650424

00:23:31.125 --> 00:23:32.325 working with industry and finding
NOTE Confidence: 0.93650424

00:23:32.325 --> 00:23:33.205 the right people to work
NOTE Confidence: 0.93650424

00:23:33.205 --> 00:23:34.940 with. So we worked up,
NOTE Confidence: 0.93650424

00:23:34.940 --> 00:23:36.380 Javid Butler and myself are
NOTE Confidence: 0.93650424

00:23:36.380 --> 00:23:37.980 co chairing this, program, the
NOTE Confidence: 0.93650424

00:23:37.980 --> 00:23:38.960 maritime HF,
NOTE Confidence: 0.97208023

00:23:39.420 --> 00:23:40.460 trial. So we've got a
NOTE Confidence: 0.97208023

00:23:40.460 --> 00:23:42.220 proper outcome trial essentially here
NOTE Confidence: 0.97208023

00:23:42.220 --> 00:23:43.420 to see to quantify the
NOTE Confidence: 0.97208023

00:23:43.420 --> 00:23:44.400 safety and efficacy

NOTE Confidence: 0.9811272
00:23:44.700 --> 00:23:46.060 in heart failure with preserved
NOTE Confidence: 0.9811272
00:23:46.060 --> 00:23:46.960 ejection fraction.
NOTE Confidence: 0.9353471
00:23:47.615 --> 00:23:48.915 Nothing very surprising.
NOTE Confidence: 0.9037451
00:23:49.855 --> 00:23:51.055 This drug is actually a
NOTE Confidence: 0.9037451
00:23:51.055 --> 00:23:52.655 GLP one receptor agonist and
NOTE Confidence: 0.9037451
00:23:52.655 --> 00:23:54.494 a GIP antagonist, which is
NOTE Confidence: 0.9037451
00:23:54.494 --> 00:23:55.935 interesting. Perhaps we can talk
NOTE Confidence: 0.9037451
00:23:55.935 --> 00:23:57.775 about that, but otherwise pretty
NOTE Confidence: 0.9037451
00:23:57.775 --> 00:23:58.275 typical.
NOTE Confidence: 0.95886785
00:23:58.815 --> 00:24:00.415 The the number of events
NOTE Confidence: 0.95886785
00:24:00.415 --> 00:24:01.635 is eight hundred and fifty.
NOTE Confidence: 0.95886785
00:24:01.760 --> 00:24:03.280 The finishing timeline is actually
NOTE Confidence: 0.95886785
00:24:03.280 --> 00:24:04.480 twenty twenty eight for the
NOTE Confidence: 0.95886785
00:24:04.480 --> 00:24:05.840 main trial. There's an open
NOTE Confidence: 0.95886785
00:24:05.840 --> 00:24:07.920 label extension going on, after
NOTE Confidence: 0.95886785

00:24:07.920 --> 00:24:09.940 the trial until twenty thirty.
NOTE Confidence: 0.9441383

00:24:10.400 --> 00:24:11.360 The reason for the open
NOTE Confidence: 0.9441383

00:24:11.360 --> 00:24:12.880 label extension is interesting, but
NOTE Confidence: 0.9441383

00:24:12.880 --> 00:24:14.320 we're anxious about people in
NOTE Confidence: 0.9441383

00:24:14.320 --> 00:24:16.080 the placebo arm taking GLP
NOTE Confidence: 0.9441383

00:24:16.080 --> 00:24:17.755 ones open label or not
NOTE Confidence: 0.9441383

00:24:17.755 --> 00:24:19.195 open label just off off
NOTE Confidence: 0.9441383

00:24:19.195 --> 00:24:20.875 trial drug, so we're going
NOTE Confidence: 0.9441383

00:24:20.875 --> 00:24:21.835 to test the blood and
NOTE Confidence: 0.9441383

00:24:21.835 --> 00:24:22.635 urine of people in the
NOTE Confidence: 0.9441383

00:24:22.635 --> 00:24:24.234 trial to detect anybody who's
NOTE Confidence: 0.9441383

00:24:24.234 --> 00:24:25.915 taken these drugs, and people
NOTE Confidence: 0.9441383

00:24:25.915 --> 00:24:27.434 only qualify for their open
NOTE Confidence: 0.9441383

00:24:27.434 --> 00:24:29.375 label extension free two years,
NOTE Confidence: 0.9441383

00:24:29.595 --> 00:24:30.875 and if they stay in
NOTE Confidence: 0.9441383

00:24:30.875 --> 00:24:31.535 the trial

NOTE Confidence: 0.9729526

00:24:31.869 --> 00:24:33.230 and do not have a

NOTE Confidence: 0.9729526

00:24:33.230 --> 00:24:34.510 drug in the placebo arm.

NOTE Confidence: 0.9729526

00:24:34.510 --> 00:24:34.909 So that's,

NOTE Confidence: 0.9719739

00:24:35.549 --> 00:24:36.710 really important that we try

NOTE Confidence: 0.9719739

00:24:36.710 --> 00:24:37.950 and keep people, on the

NOTE Confidence: 0.9719739

00:24:37.950 --> 00:24:39.090 right, strategy.

NOTE Confidence: 0.9377294

00:24:40.190 --> 00:24:41.669 Okay. So another jump onto

NOTE Confidence: 0.9377294

00:24:41.669 --> 00:24:43.070 a completely different area, and

NOTE Confidence: 0.9377294

00:24:43.070 --> 00:24:44.990 this is, hopefully will excite

NOTE Confidence: 0.9377294

00:24:44.990 --> 00:24:46.830 you, this subcutaneous furosemide in

NOTE Confidence: 0.9377294

00:24:46.830 --> 00:24:48.615 heart failure. So about twelve

NOTE Confidence: 0.9377294

00:24:48.615 --> 00:24:49.655 years ago, I met a

NOTE Confidence: 0.9377294

00:24:49.655 --> 00:24:50.875 guy who had developed

NOTE Confidence: 0.821203

00:24:51.895 --> 00:24:53.175 a a different formulation of

NOTE Confidence: 0.821203

00:24:53.175 --> 00:24:53.675 furosemide.

NOTE Confidence: 0.9666169

00:24:54.135 --> 00:24:55.655 So in this small vial,
NOTE Confidence: 0.9666169

00:24:55.655 --> 00:24:56.935 this is a three mil
NOTE Confidence: 0.9666169

00:24:56.935 --> 00:24:58.775 vial. There's eighty milligrams of
NOTE Confidence: 0.9666169

00:24:58.775 --> 00:24:59.994 furosemide, so concentrated
NOTE Confidence: 0.9517705

00:25:00.615 --> 00:25:02.215 furosemide in a small vial,
NOTE Confidence: 0.9517705

00:25:02.215 --> 00:25:03.515 which is pH neutral.
NOTE Confidence: 0.9417536

00:25:04.080 --> 00:25:05.520 He's then married it to
NOTE Confidence: 0.9417536

00:25:05.520 --> 00:25:07.119 this modified insulin pump, which
NOTE Confidence: 0.9417536

00:25:07.119 --> 00:25:08.260 you stick in your abdomen.
NOTE Confidence: 0.9417536

00:25:08.480 --> 00:25:09.919 So I'm hoping, and I
NOTE Confidence: 0.9417536

00:25:09.919 --> 00:25:10.880 was when I met this
NOTE Confidence: 0.9417536

00:25:10.880 --> 00:25:12.320 guy, I thought that looks
NOTE Confidence: 0.9417536

00:25:12.320 --> 00:25:14.080 really good. And seeing people
NOTE Confidence: 0.9417536

00:25:14.080 --> 00:25:15.039 lying around in the hospital
NOTE Confidence: 0.9417536

00:25:15.039 --> 00:25:16.080 with a vent with a
NOTE Confidence: 0.9417536

00:25:16.080 --> 00:25:17.059 cannula and

NOTE Confidence: 0.9734122

00:25:17.494 --> 00:25:19.915 getting feeler, getting chest infections,

NOTE Confidence: 0.9734122

00:25:20.135 --> 00:25:22.295 getting staph aureus bacteremia, all

NOTE Confidence: 0.9734122

00:25:22.295 --> 00:25:23.895 these horrible things. I I

NOTE Confidence: 0.9734122

00:25:23.895 --> 00:25:25.255 was thought people could go

NOTE Confidence: 0.9734122

00:25:25.255 --> 00:25:26.375 home with that and and,

NOTE Confidence: 0.9734122

00:25:26.375 --> 00:25:27.815 you know, pee in their

NOTE Confidence: 0.9734122

00:25:27.815 --> 00:25:29.175 own toilets and, you know,

NOTE Confidence: 0.9734122

00:25:29.175 --> 00:25:30.295 carry on their lives to

NOTE Confidence: 0.9734122

00:25:30.295 --> 00:25:30.955 some extent.

NOTE Confidence: 0.9705388

00:25:31.279 --> 00:25:32.559 So we got together with

NOTE Confidence: 0.9705388

00:25:32.559 --> 00:25:34.799 this very small company, and

NOTE Confidence: 0.9705388

00:25:34.799 --> 00:25:35.700 we designed

NOTE Confidence: 0.88915056

00:25:36.159 --> 00:25:37.359 a first in man study,

NOTE Confidence: 0.88915056

00:25:37.359 --> 00:25:38.399 first of all. So that

NOTE Confidence: 0.88915056

00:25:38.399 --> 00:25:39.139 that happened.

NOTE Confidence: 0.94205874

00:25:39.440 --> 00:25:40.179 The bioavailability
NOTE Confidence: 0.9787624

00:25:40.559 --> 00:25:41.840 was actually better than IV
NOTE Confidence: 0.9787624

00:25:41.840 --> 00:25:43.919 furosemide, and people passed just
NOTE Confidence: 0.9787624

00:25:43.919 --> 00:25:45.539 slightly more urine as well.
NOTE Confidence: 0.9568507

00:25:45.845 --> 00:25:46.805 So we we then in
NOTE Confidence: 0.9568507

00:25:46.805 --> 00:25:48.165 Glasgow, we do a lot
NOTE Confidence: 0.9568507

00:25:48.165 --> 00:25:49.205 of our own trials in
NOTE Confidence: 0.9568507

00:25:49.205 --> 00:25:50.645 Glasgow. So we sponsor we
NOTE Confidence: 0.9568507

00:25:50.645 --> 00:25:51.765 run our own trials. So
NOTE Confidence: 0.9568507

00:25:51.765 --> 00:25:52.585 we did this,
NOTE Confidence: 0.96805245

00:25:53.285 --> 00:25:55.125 first in heart failure drug
NOTE Confidence: 0.96805245

00:25:55.125 --> 00:25:56.325 device trial, which takes a
NOTE Confidence: 0.96805245

00:25:56.325 --> 00:25:57.705 lot of effort through regulatory
NOTE Confidence: 0.96805245

00:25:57.765 --> 00:25:58.645 bodies and all the rest
NOTE Confidence: 0.96805245

00:25:58.645 --> 00:25:59.445 of it. So we did
NOTE Confidence: 0.96805245

00:25:59.445 --> 00:26:01.305 this as an academic team.

NOTE Confidence: 0.9725612

00:26:01.710 --> 00:26:03.230 We had we basically got

NOTE Confidence: 0.9725612

00:26:03.230 --> 00:26:04.350 people with heart failure in

NOTE Confidence: 0.9725612

00:26:04.350 --> 00:26:05.869 hospital, put it on them,

NOTE Confidence: 0.9725612

00:26:05.869 --> 00:26:07.250 they peed, they were happy.

NOTE Confidence: 0.960415

00:26:07.869 --> 00:26:09.710 So we then led that

NOTE Confidence: 0.960415

00:26:09.710 --> 00:26:11.309 onto a randomized trial. So

NOTE Confidence: 0.960415

00:26:11.309 --> 00:26:12.270 what we've done is we've

NOTE Confidence: 0.960415

00:26:12.270 --> 00:26:13.630 identified people who come into

NOTE Confidence: 0.960415

00:26:13.630 --> 00:26:15.325 hospital with heart failure and

NOTE Confidence: 0.960415

00:26:15.325 --> 00:26:17.185 congestion, and then we've randomized

NOTE Confidence: 0.960415

00:26:17.244 --> 00:26:18.945 them to either going home

NOTE Confidence: 0.960415

00:26:19.005 --> 00:26:20.545 with the drug device pump,

NOTE Confidence: 0.9912916

00:26:20.845 --> 00:26:22.365 seeing them with nursing staff

NOTE Confidence: 0.9912916

00:26:22.365 --> 00:26:23.345 every three days,

NOTE Confidence: 0.9347537

00:26:23.885 --> 00:26:25.165 or staying in hospital on

NOTE Confidence: 0.9347537

00:26:25.165 --> 00:26:26.365 IV fuzumide. So we've we've
NOTE Confidence: 0.9347537

00:26:26.365 --> 00:26:27.960 finished enrollment in this trial.
NOTE Confidence: 0.9347537

00:26:28.119 --> 00:26:29.000 Please don't laugh at the
NOTE Confidence: 0.9347537

00:26:29.000 --> 00:26:30.119 numbers. It's hundred and seventy
NOTE Confidence: 0.9347537

00:26:30.119 --> 00:26:31.320 people, but these are academic,
NOTE Confidence: 0.9347537

00:26:31.320 --> 00:26:32.440 you know, trials we run
NOTE Confidence: 0.9347537

00:26:32.440 --> 00:26:33.179 by ourselves.
NOTE Confidence: 0.9114736

00:26:33.559 --> 00:26:34.359 So we finished,
NOTE Confidence: 0.9309261

00:26:34.840 --> 00:26:36.600 enrollment, and we're we're presenting
NOTE Confidence: 0.9309261

00:26:36.600 --> 00:26:37.659 this next year.
NOTE Confidence: 0.9608857

00:26:38.279 --> 00:26:39.399 Obviously, this is a UK
NOTE Confidence: 0.9608857

00:26:39.399 --> 00:26:40.440 health care environment, so it
NOTE Confidence: 0.9608857

00:26:40.440 --> 00:26:41.419 won't be directly
NOTE Confidence: 0.9668492

00:26:41.775 --> 00:26:42.815 relevant to the US,
NOTE Confidence: 0.9379244

00:26:43.295 --> 00:26:44.655 population or US health care
NOTE Confidence: 0.9379244

00:26:44.655 --> 00:26:47.135 system. But, again, Ambarish Pandey

NOTE Confidence: 0.9379244

00:26:47.135 --> 00:26:48.175 and Java Butler are doing

NOTE Confidence: 0.9379244

00:26:48.175 --> 00:26:49.135 a trial now at the

NOTE Confidence: 0.9379244

00:26:49.135 --> 00:26:50.895 US. Use they're just starting

NOTE Confidence: 0.9379244

00:26:50.895 --> 00:26:52.095 that at the moment. So,

NOTE Confidence: 0.9379244

00:26:52.095 --> 00:26:53.575 hopefully, the days of subcut

NOTE Confidence: 0.9379244

00:26:53.775 --> 00:26:55.215 of IV fuzamide with all

NOTE Confidence: 0.9379244

00:26:55.215 --> 00:26:56.494 big pumps in hospital are

NOTE Confidence: 0.9379244

00:26:56.494 --> 00:26:58.109 gone, and people can go

NOTE Confidence: 0.9379244

00:26:58.109 --> 00:26:59.710 home. Or even before they

NOTE Confidence: 0.9379244

00:26:59.710 --> 00:27:00.990 before they come in, if

NOTE Confidence: 0.9379244

00:27:00.990 --> 00:27:02.030 if people spot them in

NOTE Confidence: 0.9379244

00:27:02.030 --> 00:27:03.230 the community, they can have

NOTE Confidence: 0.9379244

00:27:03.230 --> 00:27:04.109 them put on before they

NOTE Confidence: 0.9379244

00:27:04.109 --> 00:27:05.310 end up in hospital or

NOTE Confidence: 0.9379244

00:27:05.310 --> 00:27:06.430 for palliative care use as

NOTE Confidence: 0.9379244

00:27:06.430 --> 00:27:07.950 well. So I'm enthusiastic about
NOTE Confidence: 0.9379244

00:27:07.950 --> 00:27:08.450 that.
NOTE Confidence: 0.94610447

00:27:09.310 --> 00:27:10.750 So, again, another jump. I
NOTE Confidence: 0.94610447

00:27:10.750 --> 00:27:11.895 hope I'm not jumping around
NOTE Confidence: 0.94610447

00:27:11.895 --> 00:27:12.935 too much, but just another
NOTE Confidence: 0.94610447

00:27:12.935 --> 00:27:14.375 big jump to another area
NOTE Confidence: 0.94610447

00:27:14.375 --> 00:27:15.675 which we're doing an academic
NOTE Confidence: 0.94610447

00:27:15.734 --> 00:27:16.535 trial on,
NOTE Confidence: 0.9766389

00:27:16.935 --> 00:27:18.775 led from Glasgow. This is
NOTE Confidence: 0.9766389

00:27:18.775 --> 00:27:20.295 about the early diagnosis of
NOTE Confidence: 0.9766389

00:27:20.295 --> 00:27:21.415 heart failure. So it's really
NOTE Confidence: 0.9766389

00:27:21.415 --> 00:27:21.915 frustrating
NOTE Confidence: 0.9848065

00:27:22.295 --> 00:27:23.415 when you meet people in
NOTE Confidence: 0.9848065

00:27:23.415 --> 00:27:23.915 hospital.
NOTE Confidence: 0.94009215

00:27:24.330 --> 00:27:25.289 Normally, if you talk to
NOTE Confidence: 0.94009215

00:27:25.289 --> 00:27:26.409 them, they've had symptoms for

NOTE Confidence: 0.94009215
00:27:26.409 --> 00:27:27.850 ages. They've seen their primary
NOTE Confidence: 0.94009215
00:27:27.850 --> 00:27:29.450 care physician. And people only
NOTE Confidence: 0.94009215
00:27:29.450 --> 00:27:30.890 diagnose heart failure faced with
NOTE Confidence: 0.94009215
00:27:30.890 --> 00:27:32.090 lots of ankle swelling, lots
NOTE Confidence: 0.94009215
00:27:32.090 --> 00:27:33.529 of crackles, so towards the
NOTE Confidence: 0.94009215
00:27:33.529 --> 00:27:34.730 end stage of disease. So
NOTE Confidence: 0.94009215
00:27:34.730 --> 00:27:36.625 early diagnosis, I think, is
NOTE Confidence: 0.94009215
00:27:36.625 --> 00:27:37.265 one of the keys to
NOTE Confidence: 0.94009215
00:27:37.265 --> 00:27:38.865 heart failure. And we've kinda
NOTE Confidence: 0.94009215
00:27:38.865 --> 00:27:39.905 got the tools these days.
NOTE Confidence: 0.94009215
00:27:39.905 --> 00:27:41.184 There's been big improvements in
NOTE Confidence: 0.94009215
00:27:41.184 --> 00:27:42.385 point of care, n terminal
NOTE Confidence: 0.94009215
00:27:42.385 --> 00:27:42.885 proBNP,
NOTE Confidence: 0.96194935
00:27:43.505 --> 00:27:46.065 and artificial intelligence echo in
NOTE Confidence: 0.96194935
00:27:46.065 --> 00:27:47.585 terms of both AI to
NOTE Confidence: 0.96194935

00:27:47.585 --> 00:27:49.585 guide acquisition and also the
NOTE Confidence: 0.96194935

00:27:49.585 --> 00:27:50.085 reporting.
NOTE Confidence: 0.98666096

00:27:50.460 --> 00:27:52.460 So this is fascinating. So,
NOTE Confidence: 0.98666096

00:27:52.460 --> 00:27:53.659 basically, we had an idea
NOTE Confidence: 0.98666096

00:27:53.659 --> 00:27:54.399 for a trial,
NOTE Confidence: 0.94688237

00:27:54.859 --> 00:27:56.299 which we're, again, we're running
NOTE Confidence: 0.94688237

00:27:56.299 --> 00:27:57.820 from Glasgow, and we're so
NOTE Confidence: 0.94688237

00:27:57.820 --> 00:27:59.419 we're doing this trial. Again,
NOTE Confidence: 0.94688237

00:27:59.419 --> 00:28:00.539 Erica and myself were talking
NOTE Confidence: 0.94688237

00:28:00.539 --> 00:28:01.820 yesterday about the balance between
NOTE Confidence: 0.94688237

00:28:01.820 --> 00:28:03.500 the industry trials and academic
NOTE Confidence: 0.94688237

00:28:03.500 --> 00:28:05.085 trials. So this is funded
NOTE Confidence: 0.94688237

00:28:05.085 --> 00:28:06.285 by AstraZeneca, but they've got
NOTE Confidence: 0.94688237

00:28:06.285 --> 00:28:07.085 nothing to do with it.
NOTE Confidence: 0.94688237

00:28:07.085 --> 00:28:07.885 So they give us the
NOTE Confidence: 0.94688237

00:28:07.885 --> 00:28:09.325 money, and we run the

NOTE Confidence: 0.94688237

00:28:09.325 --> 00:28:10.685 trial, all aspects of the

NOTE Confidence: 0.94688237

00:28:10.685 --> 00:28:12.765 trial, from the academic team

NOTE Confidence: 0.94688237

00:28:12.765 --> 00:28:13.885 in Glasgow. They do they

NOTE Confidence: 0.94688237

00:28:13.885 --> 00:28:15.505 know nothing about what's happening.

NOTE Confidence: 0.94688237

00:28:15.645 --> 00:28:17.005 They've got no no rule

NOTE Confidence: 0.94688237

00:28:17.005 --> 00:28:18.045 in the mechanics of the

NOTE Confidence: 0.94688237

00:28:18.045 --> 00:28:18.545 trial.

NOTE Confidence: 0.9272225

00:28:19.250 --> 00:28:21.170 So with with the countries

NOTE Confidence: 0.9272225

00:28:21.170 --> 00:28:22.369 we're using, we're trying to

NOTE Confidence: 0.9272225

00:28:22.369 --> 00:28:23.890 develop networks of people that

NOTE Confidence: 0.9272225

00:28:23.890 --> 00:28:24.770 want to work with us

NOTE Confidence: 0.9272225

00:28:24.770 --> 00:28:25.570 in the same kind of

NOTE Confidence: 0.9272225

00:28:25.570 --> 00:28:26.609 way to answer a clinically

NOTE Confidence: 0.9272225

00:28:26.609 --> 00:28:27.590 relevant question.

NOTE Confidence: 0.9320577

00:28:28.050 --> 00:28:29.250 So we've got people in

NOTE Confidence: 0.9320577

00:28:29.250 --> 00:28:30.710 Denmark, and they are fantastic
NOTE Confidence: 0.9320577

00:28:30.770 --> 00:28:31.970 people in Denmark. They've done
NOTE Confidence: 0.9320577

00:28:31.970 --> 00:28:33.494 all the MI trials, the
NOTE Confidence: 0.9320577

00:28:33.494 --> 00:28:35.095 ICD trials, lots of fantastic
NOTE Confidence: 0.9320577

00:28:35.095 --> 00:28:36.695 trials, and Eric and myself
NOTE Confidence: 0.9320577

00:28:36.695 --> 00:28:37.415 have worked with some of
NOTE Confidence: 0.9320577

00:28:37.415 --> 00:28:38.295 the key people there at
NOTE Confidence: 0.9320577

00:28:38.295 --> 00:28:39.335 large COVID over the years,
NOTE Confidence: 0.9320577

00:28:39.335 --> 00:28:40.455 so Lars is involved in
NOTE Confidence: 0.9320577

00:28:40.455 --> 00:28:40.955 this.
NOTE Confidence: 0.86851126

00:28:42.135 --> 00:28:44.055 We're also people in Sweden
NOTE Confidence: 0.86851126

00:28:44.055 --> 00:28:44.715 as well,
NOTE Confidence: 0.92979956

00:28:45.570 --> 00:28:47.649 and and, Canada. We've got
NOTE Confidence: 0.92979956

00:28:47.649 --> 00:28:49.110 Cleveland in America,
NOTE Confidence: 0.99692416

00:28:49.730 --> 00:28:51.350 and Scotland as well.
NOTE Confidence: 0.9978175

00:28:51.809 --> 00:28:53.590 So what we're doing internationally

NOTE Confidence: 0.9661117

00:28:53.970 --> 00:28:55.090 is we are doing this

NOTE Confidence: 0.9661117

00:28:55.090 --> 00:28:56.870 trial where we're randomizing people

NOTE Confidence: 0.9661117

00:28:57.010 --> 00:28:58.515 identified in primary care,

NOTE Confidence: 0.91837746

00:28:59.075 --> 00:29:01.075 to either to pay identify

NOTE Confidence: 0.91837746

00:29:01.075 --> 00:29:01.955 in primary care with two

NOTE Confidence: 0.91837746

00:29:01.955 --> 00:29:03.415 risk factors for heart failure.

NOTE Confidence: 0.91837746

00:29:03.475 --> 00:29:04.595 We then get we then

NOTE Confidence: 0.91837746

00:29:04.595 --> 00:29:06.035 randomize them to either coming

NOTE Confidence: 0.91837746

00:29:06.035 --> 00:29:07.335 up for NT proBNP,

NOTE Confidence: 0.94075316

00:29:07.875 --> 00:29:09.315 and if NT proBNP is

NOTE Confidence: 0.94075316

00:29:09.315 --> 00:29:10.515 above one two five and

NOTE Confidence: 0.94075316

00:29:10.515 --> 00:29:12.615 AI echo or usual care.

NOTE Confidence: 0.94075316

00:29:12.835 --> 00:29:13.770 So the way we're doing

NOTE Confidence: 0.94075316

00:29:13.770 --> 00:29:15.070 this varies internationally.

NOTE Confidence: 0.9516403

00:29:15.530 --> 00:29:17.690 So in Denmark, medical students

NOTE Confidence: 0.9516403

00:29:17.690 --> 00:29:19.210 are doing the NT Pro
NOTE Confidence: 0.9516403

00:29:19.210 --> 00:29:20.650 BNP and the echo. So
NOTE Confidence: 0.9516403

00:29:20.650 --> 00:29:21.850 people have not trained at
NOTE Confidence: 0.9516403

00:29:21.850 --> 00:29:23.310 all before. They do twenty
NOTE Confidence: 0.9516403

00:29:23.450 --> 00:29:24.570 training echoes, and then they
NOTE Confidence: 0.9516403

00:29:24.570 --> 00:29:26.430 do the the screening the
NOTE Confidence: 0.9516403

00:29:26.490 --> 00:29:27.770 the AI echo in terms
NOTE Confidence: 0.9516403

00:29:27.770 --> 00:29:29.605 of acquisition and reporting.
NOTE Confidence: 0.9891591

00:29:30.385 --> 00:29:31.925 In Sweden, it's nurses.
NOTE Confidence: 0.9134798

00:29:32.545 --> 00:29:34.065 In Scotland, we've got experts
NOTE Confidence: 0.9134798

00:29:34.065 --> 00:29:35.505 doing it as well. So
NOTE Confidence: 0.9134798

00:29:35.505 --> 00:29:37.025 we've got different models and
NOTE Confidence: 0.9134798

00:29:37.025 --> 00:29:38.465 different ways of identifying from
NOTE Confidence: 0.9134798

00:29:38.465 --> 00:29:39.745 the registries in Scotland. We've
NOTE Confidence: 0.9134798

00:29:39.745 --> 00:29:40.965 got diabetes registry.
NOTE Confidence: 0.9541677

00:29:41.920 --> 00:29:43.780 In Sweden, a social media

NOTE Confidence: 0.9541677

00:29:43.840 --> 00:29:45.600 campaign. So every country, we

NOTE Confidence: 0.9541677

00:29:45.680 --> 00:29:46.720 we're doing different, but we're

NOTE Confidence: 0.9541677

00:29:46.720 --> 00:29:48.240 harvesting the data into Scotland.

NOTE Confidence: 0.9541677

00:29:48.240 --> 00:29:49.600 So stand alone trials in

NOTE Confidence: 0.9541677

00:29:49.600 --> 00:29:51.220 each country, harvesting the data

NOTE Confidence: 0.9541677

00:29:51.360 --> 00:29:51.860 into,

NOTE Confidence: 0.957342

00:29:52.160 --> 00:29:53.200 Scotland to look at the

NOTE Confidence: 0.957342

00:29:53.200 --> 00:29:54.180 overall effects.

NOTE Confidence: 0.9276022

00:29:54.904 --> 00:29:56.745 Primary endpoint is incredibly simple,

NOTE Confidence: 0.9276022

00:29:56.745 --> 00:29:57.705 just how much heart failure

NOTE Confidence: 0.9276022

00:29:57.705 --> 00:29:58.745 you find at six months,

NOTE Confidence: 0.9276022

00:29:58.745 --> 00:29:59.705 and you can see there,

NOTE Confidence: 0.9276022

00:29:59.945 --> 00:30:01.705 treatment of heart failure, secondary

NOTE Confidence: 0.9276022

00:30:01.705 --> 00:30:02.205 endpoint.

NOTE Confidence: 0.90410626

00:30:02.745 --> 00:30:04.904 Interesting exploratory endpoints are death

NOTE Confidence: 0.90410626

00:30:04.904 --> 00:30:05.565 and hospitalization
NOTE Confidence: 0.97425985

00:30:05.865 --> 00:30:06.985 for heart failure, which we're
NOTE Confidence: 0.97425985

00:30:06.985 --> 00:30:08.424 capturing in all these countries
NOTE Confidence: 0.97425985

00:30:08.424 --> 00:30:10.620 from routinely collected data. So,
NOTE Confidence: 0.97425985

00:30:10.620 --> 00:30:12.140 again, data is really important
NOTE Confidence: 0.97425985

00:30:12.140 --> 00:30:12.700 for all of us to
NOTE Confidence: 0.97425985

00:30:12.700 --> 00:30:14.220 use properly. So we're doing
NOTE Confidence: 0.97425985

00:30:14.220 --> 00:30:15.260 more and more trials where
NOTE Confidence: 0.97425985

00:30:15.260 --> 00:30:17.020 we're capturing the endpoints from
NOTE Confidence: 0.97425985

00:30:17.020 --> 00:30:18.320 governmental records.
NOTE Confidence: 0.9997619

00:30:18.700 --> 00:30:20.080 So that's a major challenge.
NOTE Confidence: 0.95694214

00:30:20.700 --> 00:30:22.140 So the Scottish arm of
NOTE Confidence: 0.95694214

00:30:22.140 --> 00:30:23.895 this is finished recruitment, and
NOTE Confidence: 0.95694214

00:30:23.895 --> 00:30:25.015 we're just in the follow-up
NOTE Confidence: 0.95694214

00:30:25.015 --> 00:30:26.135 stage. So we're aiming to
NOTE Confidence: 0.95694214

00:30:26.135 --> 00:30:27.515 present this at the ACC.

NOTE Confidence: 0.9985167

00:30:27.975 --> 00:30:29.355 So this is a diabetes

NOTE Confidence: 0.9142219

00:30:29.735 --> 00:30:31.275 trial in Scotland, so diabetes

NOTE Confidence: 0.9142219

00:30:31.335 --> 00:30:32.635 plus one other risk factor.

NOTE Confidence: 0.9142219

00:30:32.855 --> 00:30:34.395 And, we will,

NOTE Confidence: 0.9996412

00:30:34.775 --> 00:30:35.275 hopefully

NOTE Confidence: 0.68572706

00:30:35.575 --> 00:30:36.075 identify

NOTE Confidence: 0.9485932

00:30:36.455 --> 00:30:37.735 how much heart failure we

NOTE Confidence: 0.9485932

00:30:37.735 --> 00:30:39.480 find. And this is obviously

NOTE Confidence: 0.9485932

00:30:39.480 --> 00:30:40.600 not a blinded trial, and

NOTE Confidence: 0.9485932

00:30:40.600 --> 00:30:41.400 I can tell you we

NOTE Confidence: 0.9485932

00:30:41.400 --> 00:30:42.440 find a a lot of

NOTE Confidence: 0.9485932

00:30:42.440 --> 00:30:43.640 heart failure. So, hopefully, we

NOTE Confidence: 0.9485932

00:30:43.640 --> 00:30:45.180 can blow the world apart.

NOTE Confidence: 0.9485932

00:30:45.320 --> 00:30:46.760 And these diabetes clinics where

NOTE Confidence: 0.9485932

00:30:46.760 --> 00:30:47.480 they look at the eyes

NOTE Confidence: 0.9485932

00:30:47.480 --> 00:30:48.440 and the feet the kidneys
NOTE Confidence: 0.9485932

00:30:48.440 --> 00:30:49.240 and they kinda miss the
NOTE Confidence: 0.9485932

00:30:49.240 --> 00:30:50.360 big pumping thing in the
NOTE Confidence: 0.9485932

00:30:50.360 --> 00:30:52.215 chest, Hopefully, we can, try
NOTE Confidence: 0.9485932

00:30:52.215 --> 00:30:53.175 and get, you know, in
NOTE Confidence: 0.9485932

00:30:53.175 --> 00:30:54.375 the in the diabetes clinics,
NOTE Confidence: 0.9485932

00:30:54.375 --> 00:30:55.975 people focusing on on heart
NOTE Confidence: 0.9485932

00:30:55.975 --> 00:30:57.995 failure and, you know, identifying
NOTE Confidence: 0.9485932

00:30:58.055 --> 00:30:58.555 it.
NOTE Confidence: 0.9739952

00:30:59.175 --> 00:31:01.095 Okay. Another big jump to
NOTE Confidence: 0.9739952

00:31:01.095 --> 00:31:02.295 another area, and,
NOTE Confidence: 0.9685765

00:31:02.695 --> 00:31:04.295 this is where Eric and
NOTE Confidence: 0.9685765

00:31:04.295 --> 00:31:06.075 myself bonded, majorly.
NOTE Confidence: 0.93761235

00:31:06.980 --> 00:31:08.420 And the Stitch and Stitches
NOTE Confidence: 0.93761235

00:31:08.420 --> 00:31:10.260 trial was fascinating from my
NOTE Confidence: 0.93761235

00:31:10.260 --> 00:31:10.900 point of view. So I

NOTE Confidence: 0.93761235

00:31:10.900 --> 00:31:11.860 was a guy in the

NOTE Confidence: 0.93761235

00:31:11.860 --> 00:31:13.800 cath lab, cathing people,

NOTE Confidence: 0.8738451

00:31:14.260 --> 00:31:16.100 looking at terrible convaries, terrible

NOTE Confidence: 0.8738451

00:31:16.100 --> 00:31:17.780 hearts, thinking, wow. If we

NOTE Confidence: 0.8738451

00:31:17.780 --> 00:31:18.280 revascularize

NOTE Confidence: 0.98896515

00:31:18.580 --> 00:31:19.940 these people, we're gonna have

NOTE Confidence: 0.98896515

00:31:19.940 --> 00:31:20.760 massive benefit.

NOTE Confidence: 0.9957797

00:31:21.274 --> 00:31:23.054 So I was sitting innocently

NOTE Confidence: 0.9957797

00:31:23.195 --> 00:31:24.014 in my,

NOTE Confidence: 0.9639693

00:31:24.794 --> 00:31:26.414 small hospital in Glasgow,

NOTE Confidence: 0.98407143

00:31:27.034 --> 00:31:27.434 and,

NOTE Confidence: 0.9532981

00:31:27.835 --> 00:31:30.095 I basically met, Bob Jones,

NOTE Confidence: 0.9532981

00:31:30.154 --> 00:31:31.355 who was a surgeon involved

NOTE Confidence: 0.9532981

00:31:31.355 --> 00:31:32.235 in the trial. And this

NOTE Confidence: 0.9532981

00:31:32.235 --> 00:31:34.095 guy, who was a Duke

NOTE Confidence: 0.9532981

00:31:34.315 --> 00:31:34.815 senior,
NOTE Confidence: 0.9485092

00:31:35.740 --> 00:31:37.500 surgeon, had made the effort
NOTE Confidence: 0.9485092

00:31:37.500 --> 00:31:38.880 to come around the world,
NOTE Confidence: 0.9485092

00:31:38.940 --> 00:31:39.900 talk to people like me,
NOTE Confidence: 0.9485092

00:31:39.900 --> 00:31:40.700 just one to one in
NOTE Confidence: 0.9485092

00:31:40.700 --> 00:31:41.980 a room. I tried to
NOTE Confidence: 0.9485092

00:31:41.980 --> 00:31:42.860 get my colleagues to come.
NOTE Confidence: 0.9485092

00:31:42.860 --> 00:31:43.820 Nobody would even speak to
NOTE Confidence: 0.9485092

00:31:43.820 --> 00:31:44.620 the guy, and I spoke
NOTE Confidence: 0.9485092

00:31:44.620 --> 00:31:45.419 to him. I thought, this
NOTE Confidence: 0.9485092

00:31:45.419 --> 00:31:47.100 guy is amazing. Let's get
NOTE Confidence: 0.9485092

00:31:47.100 --> 00:31:48.779 on board. Then I was,
NOTE Confidence: 0.9485092

00:31:49.020 --> 00:31:50.625 introduced to Eric, who was
NOTE Confidence: 0.9485092

00:31:50.625 --> 00:31:52.565 the powerhouse behind delivering this
NOTE Confidence: 0.85210854

00:31:52.945 --> 00:31:54.485 and really had
NOTE Confidence: 0.90970457

00:31:54.865 --> 00:31:56.385 an incredible experience. We welcomed

NOTE Confidence: 0.90970457
00:31:56.385 --> 00:31:58.725 into this academic research team,
NOTE Confidence: 0.9491413
00:31:59.745 --> 00:32:01.445 and, you know, just the
NOTE Confidence: 0.96739966
00:32:01.825 --> 00:32:02.325 the
NOTE Confidence: 0.9529515
00:32:02.705 --> 00:32:04.940 the experience was so remarkable
NOTE Confidence: 0.9529515
00:32:05.080 --> 00:32:06.600 that around the world, people
NOTE Confidence: 0.9529515
00:32:06.600 --> 00:32:08.279 that just got involved, got
NOTE Confidence: 0.9529515
00:32:08.279 --> 00:32:10.220 stuck in, wherever they were,
NOTE Confidence: 0.9529515
00:32:10.279 --> 00:32:12.059 got brought into this trial,
NOTE Confidence: 0.9529515
00:32:12.120 --> 00:32:13.639 which is answering this a
NOTE Confidence: 0.9529515
00:32:13.639 --> 00:32:15.659 clinical question in an academically
NOTE Confidence: 0.94406766
00:32:15.960 --> 00:32:17.294 led trial. And whenever you
NOTE Confidence: 0.94406766
00:32:17.294 --> 00:32:19.134 see trials, industry trials, I'll
NOTE Confidence: 0.94406766
00:32:19.134 --> 00:32:20.014 show you one later on.
NOTE Confidence: 0.94406766
00:32:20.014 --> 00:32:21.455 We've got I'm I'm basically
NOTE Confidence: 0.94406766
00:32:21.455 --> 00:32:22.975 reading, we've got twelve hundred
NOTE Confidence: 0.94406766

00:32:22.975 --> 00:32:24.735 sites run by industry. These
NOTE Confidence: 0.94406766

00:32:24.735 --> 00:32:26.575 are difficult trials, and this
NOTE Confidence: 0.94406766

00:32:26.575 --> 00:32:28.575 is randomizing to surgery or
NOTE Confidence: 0.94406766

00:32:28.575 --> 00:32:29.475 medical therapy.
NOTE Confidence: 0.9350566

00:32:29.860 --> 00:32:31.139 Imagine how difficult that conversation
NOTE Confidence: 0.9350566

00:32:31.139 --> 00:32:32.419 is with a patient. So
NOTE Confidence: 0.9350566

00:32:32.419 --> 00:32:33.539 we did this trial of
NOTE Confidence: 0.9350566

00:32:33.539 --> 00:32:35.299 really twelve hundred people around
NOTE Confidence: 0.9350566

00:32:35.299 --> 00:32:36.899 the world. And personally, this
NOTE Confidence: 0.9350566

00:32:36.899 --> 00:32:38.659 basically launched VIN to being
NOTE Confidence: 0.9350566

00:32:38.659 --> 00:32:39.940 really involved in research. So
NOTE Confidence: 0.9350566

00:32:39.940 --> 00:32:42.019 I'm gonna thank, the the
NOTE Confidence: 0.9350566

00:32:42.019 --> 00:32:43.785 Stitch team for for that.
NOTE Confidence: 0.9350566

00:32:43.785 --> 00:32:44.685 But anyway, clinically
NOTE Confidence: 0.9723835

00:32:45.225 --> 00:32:46.585 relevant to this is massive.
NOTE Confidence: 0.9723835

00:32:46.585 --> 00:32:48.105 So, these results I'm sure

NOTE Confidence: 0.9723835
00:32:48.105 --> 00:32:49.785 you've seen before, but the
NOTE Confidence: 0.9723835
00:32:49.785 --> 00:32:51.305 surgical arm did worse for
NOTE Confidence: 0.9723835
00:32:51.305 --> 00:32:52.585 the first two years, played
NOTE Confidence: 0.9723835
00:32:52.585 --> 00:32:53.625 the catch up from the
NOTE Confidence: 0.9723835
00:32:53.625 --> 00:32:54.125 ICU
NOTE Confidence: 0.732206
00:32:54.425 --> 00:32:55.645 sternotomy experience,
NOTE Confidence: 0.9218803
00:32:55.945 --> 00:32:57.385 and gradually caught up over
NOTE Confidence: 0.9218803
00:32:57.385 --> 00:32:59.049 the years. So, two years,
NOTE Confidence: 0.9218803
00:32:59.190 --> 00:33:00.410 crossover curves,
NOTE Confidence: 0.98437464
00:33:00.870 --> 00:33:01.690 five year,
NOTE Confidence: 0.9413676
00:33:02.710 --> 00:33:04.390 not a significant benefit. But
NOTE Confidence: 0.9413676
00:33:04.390 --> 00:33:05.770 at ten years, a meaningful
NOTE Confidence: 0.94182885
00:33:06.230 --> 00:33:07.270 lengthening of life by a
NOTE Confidence: 0.94182885
00:33:07.270 --> 00:33:07.990 year and a half. So
NOTE Confidence: 0.94182885
00:33:07.990 --> 00:33:08.950 people gained a year and
NOTE Confidence: 0.94182885

00:33:08.950 --> 00:33:10.309 a half. We did I
NOTE Confidence: 0.94182885

00:33:10.309 --> 00:33:11.750 looked this morning, there was
NOTE Confidence: 0.94182885

00:33:11.750 --> 00:33:13.350 around fifty one papers from
NOTE Confidence: 0.94182885

00:33:13.350 --> 00:33:15.155 this trial, which is pretty
NOTE Confidence: 0.94182885

00:33:15.155 --> 00:33:16.355 remarkable. Not but not just
NOTE Confidence: 0.94182885

00:33:16.355 --> 00:33:17.315 papers for the sake of
NOTE Confidence: 0.94182885

00:33:17.315 --> 00:33:18.934 it, clinically meaningful papers.
NOTE Confidence: 0.95154727

00:33:19.315 --> 00:33:20.755 And I was allowed to
NOTE Confidence: 0.95154727

00:33:20.755 --> 00:33:21.875 read one of the age
NOTE Confidence: 0.95154727

00:33:21.875 --> 00:33:23.475 papers, and the age paper
NOTE Confidence: 0.95154727

00:33:23.475 --> 00:33:24.855 showed that really the benefit
NOTE Confidence: 0.90275705

00:33:25.155 --> 00:33:26.355 is the people aged less
NOTE Confidence: 0.90275705

00:33:26.355 --> 00:33:27.475 than sixty years of age.
NOTE Confidence: 0.90275705

00:33:27.475 --> 00:33:29.530 So really fascinating. We did
NOTE Confidence: 0.90275705

00:33:29.530 --> 00:33:31.050 diabetes paper as well, which
NOTE Confidence: 0.90275705

00:33:31.050 --> 00:33:32.890 is fascinating, showing no difference

NOTE Confidence: 0.90275705

00:33:32.890 --> 00:33:34.090 in the benefit in diabetes

NOTE Confidence: 0.90275705

00:33:34.090 --> 00:33:35.070 and no diabetes.

NOTE Confidence: 0.8716758

00:33:35.610 --> 00:33:37.130 People miss don't don't know

NOTE Confidence: 0.8716758

00:33:37.130 --> 00:33:38.090 that. You hear in heart

NOTE Confidence: 0.8716758

00:33:38.090 --> 00:33:39.450 team meetings, people thinking that

NOTE Confidence: 0.8716758

00:33:39.450 --> 00:33:39.945 diabetes

NOTE Confidence: 0.97794884

00:33:40.345 --> 00:33:41.865 people benefit more from surgery.

NOTE Confidence: 0.97794884

00:33:41.865 --> 00:33:42.985 That's not true in heart

NOTE Confidence: 0.97794884

00:33:42.985 --> 00:33:44.184 failure. Anyway, this was a

NOTE Confidence: 0.97794884

00:33:44.184 --> 00:33:45.565 really fantastic experience.

NOTE Confidence: 0.9928868

00:33:46.345 --> 00:33:46.845 So,

NOTE Confidence: 0.9571335

00:33:48.505 --> 00:33:49.865 following on from that, being

NOTE Confidence: 0.9571335

00:33:49.865 --> 00:33:51.304 a stent jockey in the

NOTE Confidence: 0.9571335

00:33:51.304 --> 00:33:52.345 cath lab, I thought, do

NOTE Confidence: 0.9571335

00:33:52.345 --> 00:33:53.804 you know what? Surgery

NOTE Confidence: 0.9424202

00:33:54.390 --> 00:33:55.190 is obviously good in the
NOTE Confidence: 0.9424202

00:33:55.190 --> 00:33:56.150 longer term, but we can
NOTE Confidence: 0.9424202

00:33:56.150 --> 00:33:57.750 do better with PCI because
NOTE Confidence: 0.9424202

00:33:57.750 --> 00:33:58.790 people could they don't have
NOTE Confidence: 0.9424202

00:33:58.790 --> 00:33:59.670 to go have a sort
NOTE Confidence: 0.9424202

00:33:59.670 --> 00:34:01.030 of sternotomy, don't have to
NOTE Confidence: 0.9424202

00:34:01.030 --> 00:34:02.070 go to ICU. We just
NOTE Confidence: 0.9424202

00:34:02.070 --> 00:34:03.910 blast these colonies open. We
NOTE Confidence: 0.9424202

00:34:03.910 --> 00:34:04.950 stick in lots of stents.
NOTE Confidence: 0.9424202

00:34:04.950 --> 00:34:06.470 The the angiographic results are
NOTE Confidence: 0.9424202

00:34:06.470 --> 00:34:06.970 phenomenal.
NOTE Confidence: 0.93281364

00:34:07.350 --> 00:34:08.575 We'll we're gonna blow this
NOTE Confidence: 0.93281364

00:34:08.575 --> 00:34:09.775 out in the park. So
NOTE Confidence: 0.93281364

00:34:09.775 --> 00:34:10.735 we got together in the
NOTE Confidence: 0.93281364

00:34:10.735 --> 00:34:12.415 UK, and Devaka Pereira was
NOTE Confidence: 0.93281364

00:34:12.415 --> 00:34:13.955 the first authorized, last author.

NOTE Confidence: 0.93281364

00:34:14.015 --> 00:34:15.695 We basically designed this trial

NOTE Confidence: 0.93281364

00:34:15.695 --> 00:34:16.415 we thought to be a

NOTE Confidence: 0.93281364

00:34:16.415 --> 00:34:18.415 winner for interventional cardiology. So

NOTE Confidence: 0.93281364

00:34:18.415 --> 00:34:19.555 we got bad coronary's,

NOTE Confidence: 0.95418006

00:34:20.175 --> 00:34:22.094 bad hearts, and mandated viable

NOTE Confidence: 0.95418006

00:34:22.094 --> 00:34:22.594 myocardium.

NOTE Confidence: 0.92247695

00:34:23.160 --> 00:34:24.760 So we randomized people. We

NOTE Confidence: 0.92247695

00:34:24.760 --> 00:34:25.640 steaded the hell out of

NOTE Confidence: 0.92247695

00:34:25.640 --> 00:34:26.839 them. We had great results

NOTE Confidence: 0.92247695

00:34:26.839 --> 00:34:27.719 in the cath labs. We

NOTE Confidence: 0.92247695

00:34:27.719 --> 00:34:29.099 were high fiving.

NOTE Confidence: 0.83371836

00:34:29.480 --> 00:34:30.059 And then,

NOTE Confidence: 0.937155

00:34:30.520 --> 00:34:31.880 Tovac and myself did the

NOTE Confidence: 0.937155

00:34:31.880 --> 00:34:33.559 database lock thing, which was

NOTE Confidence: 0.937155

00:34:33.559 --> 00:34:34.059 absolutely,

NOTE Confidence: 0.94500494

00:34:34.920 --> 00:34:36.920 remarkable, and we basically found

NOTE Confidence: 0.94500494

00:34:36.920 --> 00:34:38.040 that we had absolutely no

NOTE Confidence: 0.94500494

00:34:38.040 --> 00:34:39.375 benefit. So So I left

NOTE Confidence: 0.94500494

00:34:39.375 --> 00:34:41.395 the cath lab and, did

NOTE Confidence: 0.94500494

00:34:41.614 --> 00:34:43.455 trials in other areas. So

NOTE Confidence: 0.94500494

00:34:43.455 --> 00:34:43.855 this is,

NOTE Confidence: 0.9858514

00:34:45.455 --> 00:34:47.535 fascinating, but there's lots here,

NOTE Confidence: 0.9858514

00:34:47.855 --> 00:34:48.515 to go.

NOTE Confidence: 0.93413967

00:34:49.135 --> 00:34:50.495 So basically, there's lots of

NOTE Confidence: 0.93413967

00:34:50.495 --> 00:34:51.715 gaps here. So basically,

NOTE Confidence: 0.94400644

00:34:52.370 --> 00:34:53.250 Stitch is now quite an

NOTE Confidence: 0.94400644

00:34:53.250 --> 00:34:54.290 old trial, so the medical

NOTE Confidence: 0.94400644

00:34:54.290 --> 00:34:55.510 therapy is quite historic.

NOTE Confidence: 0.93856597

00:34:55.890 --> 00:34:57.250 The Stitch was CABG against

NOTE Confidence: 0.93856597

00:34:57.250 --> 00:34:58.950 medical therapy with no PCI

NOTE Confidence: 0.93856597

00:34:59.010 --> 00:35:00.850 arm, revived or not CABG

NOTE Confidence: 0.93856597

00:35:00.850 --> 00:35:01.350 eligible.

NOTE Confidence: 0.93819267

00:35:01.730 --> 00:35:03.010 So that was kind of

NOTE Confidence: 0.93819267

00:35:03.010 --> 00:35:04.210 interesting. They were people from

NOTE Confidence: 0.93819267

00:35:04.210 --> 00:35:05.190 heart failure clinics.

NOTE Confidence: 0.921205

00:35:05.555 --> 00:35:06.595 So the big gap is

NOTE Confidence: 0.921205

00:35:06.595 --> 00:35:07.475 in people, a sort of

NOTE Confidence: 0.921205

00:35:07.475 --> 00:35:08.595 broad group of people with

NOTE Confidence: 0.921205

00:35:08.595 --> 00:35:10.035 low ejection fraction, less than

NOTE Confidence: 0.921205

00:35:10.035 --> 00:35:11.655 forty percent, including NSTEMIs.

NOTE Confidence: 0.9503113

00:35:12.435 --> 00:35:13.875 So we've kind of built

NOTE Confidence: 0.9503113

00:35:13.875 --> 00:35:15.235 on the experience from Stitch

NOTE Confidence: 0.9503113

00:35:15.235 --> 00:35:16.275 and Revive. We've got the

NOTE Confidence: 0.9503113

00:35:16.275 --> 00:35:17.715 teams together. We've merged the

NOTE Confidence: 0.9503113

00:35:17.715 --> 00:35:19.635 datasets. We're producing papers. That's

NOTE Confidence: 0.9503113

00:35:19.635 --> 00:35:20.455 really rewarding.

NOTE Confidence: 0.99293834

00:35:20.810 --> 00:35:21.770 We've now set up a
NOTE Confidence: 0.99293834

00:35:21.770 --> 00:35:23.130 whole bunch of trials now,
NOTE Confidence: 0.9896883

00:35:23.690 --> 00:35:24.510 which are
NOTE Confidence: 0.91765606

00:35:24.810 --> 00:35:26.010 set up in different countries.
NOTE Confidence: 0.91765606

00:35:26.010 --> 00:35:27.050 This is at the UK
NOTE Confidence: 0.91765606

00:35:27.050 --> 00:35:28.969 trial, CABG against PCI and
NOTE Confidence: 0.91765606

00:35:28.969 --> 00:35:30.670 heart failure called BSIS four.
NOTE Confidence: 0.96790403

00:35:31.290 --> 00:35:32.170 You can so all of
NOTE Confidence: 0.96790403

00:35:32.170 --> 00:35:33.530 our countries have got different
NOTE Confidence: 0.96790403

00:35:33.530 --> 00:35:34.969 trials. We're gonna merge the
NOTE Confidence: 0.96790403

00:35:34.969 --> 00:35:35.469 data,
NOTE Confidence: 0.9752627

00:35:35.984 --> 00:35:38.464 into Gothenburg and Sweden. So
NOTE Confidence: 0.9752627

00:35:38.464 --> 00:35:39.344 these are these are the
NOTE Confidence: 0.9752627

00:35:39.344 --> 00:35:40.704 the different trials that are
NOTE Confidence: 0.9752627

00:35:40.704 --> 00:35:41.204 funded.
NOTE Confidence: 0.94434977

00:35:41.585 --> 00:35:43.025 The Canadian trial is gonna

NOTE Confidence: 0.94434977
00:35:43.025 --> 00:35:43.904 involve Yale.
NOTE Confidence: 0.9765846
00:35:44.305 --> 00:35:44.805 There's,
NOTE Confidence: 0.97576356
00:35:45.344 --> 00:35:47.105 the Swedish trials involving South
NOTE Confidence: 0.97576356
00:35:47.105 --> 00:35:48.704 Africa and Egypt. So we've
NOTE Confidence: 0.97576356
00:35:48.704 --> 00:35:49.844 got a kind of international
NOTE Confidence: 0.97576356
00:35:49.984 --> 00:35:50.484 network.
NOTE Confidence: 0.96280545
00:35:50.790 --> 00:35:51.750 We should end up with
NOTE Confidence: 0.96280545
00:35:51.750 --> 00:35:52.870 a lot of people and
NOTE Confidence: 0.96280545
00:35:52.870 --> 00:35:53.690 good data,
NOTE Confidence: 0.97630084
00:35:54.070 --> 00:35:55.910 to understand the role of,
NOTE Confidence: 0.89397925
00:35:56.230 --> 00:35:57.930 PCI against CABG and modern
NOTE Confidence: 0.89397925
00:35:58.070 --> 00:35:58.810 heart failure.
NOTE Confidence: 0.97407186
00:35:59.910 --> 00:36:01.830 So, HFpEF is the next
NOTE Confidence: 0.97407186
00:36:01.830 --> 00:36:02.950 thing. So we did an
NOTE Confidence: 0.97407186
00:36:02.950 --> 00:36:04.630 observational study with our fellows
NOTE Confidence: 0.97407186

00:36:04.630 --> 00:36:06.265 in Glasgow showing that almost
NOTE Confidence: 0.97407186

00:36:06.265 --> 00:36:07.785 everybody with HFpEF has coronary
NOTE Confidence: 0.97407186

00:36:07.785 --> 00:36:09.165 artery disease to some extent,
NOTE Confidence: 0.9942889

00:36:09.625 --> 00:36:11.245 about ninety percent of people.
NOTE Confidence: 0.9942889

00:36:11.385 --> 00:36:12.425 So we're doing now a
NOTE Confidence: 0.9942889

00:36:12.425 --> 00:36:13.325 sham controlled
NOTE Confidence: 0.8938097

00:36:13.705 --> 00:36:14.205 trial,
NOTE Confidence: 0.85611695

00:36:14.585 --> 00:36:16.125 in HFpEF or PCI
NOTE Confidence: 0.9664995

00:36:16.505 --> 00:36:17.864 with a hierarchical endpoint of
NOTE Confidence: 0.9664995

00:36:17.864 --> 00:36:19.465 death, hospitalization for heart failure,
NOTE Confidence: 0.9664995

00:36:19.465 --> 00:36:20.505 and quality of life. So
NOTE Confidence: 0.9664995

00:36:20.505 --> 00:36:22.180 this is the next frontier
NOTE Confidence: 0.9664995

00:36:22.320 --> 00:36:23.300 in the area.
NOTE Confidence: 0.95505184

00:36:24.080 --> 00:36:25.280 I'm gonna stop talking relatively
NOTE Confidence: 0.95505184

00:36:25.280 --> 00:36:25.920 soon because I think I'm
NOTE Confidence: 0.95505184

00:36:25.920 --> 00:36:26.800 in forty five minutes, so

NOTE Confidence: 0.95505184

00:36:26.800 --> 00:36:27.760 I'm gonna talk relatively soon.

NOTE Confidence: 0.95505184

00:36:27.760 --> 00:36:28.800 So just prevention is the

NOTE Confidence: 0.95505184

00:36:28.800 --> 00:36:29.760 next thing. I think most

NOTE Confidence: 0.95505184

00:36:29.760 --> 00:36:30.260 people,

NOTE Confidence: 0.9836658

00:36:30.800 --> 00:36:32.400 understand that preventing heart failure

NOTE Confidence: 0.9836658

00:36:32.400 --> 00:36:33.440 is better than waiting for

NOTE Confidence: 0.9836658

00:36:33.440 --> 00:36:34.720 it to happen. So there's

NOTE Confidence: 0.9836658

00:36:34.720 --> 00:36:36.239 a massive great, area of

NOTE Confidence: 0.9836658

00:36:36.239 --> 00:36:37.220 interest here.

NOTE Confidence: 0.9689792

00:36:37.575 --> 00:36:38.935 Of course, the different,

NOTE Confidence: 0.95236576

00:36:39.415 --> 00:36:40.614 causes of heart failure will

NOTE Confidence: 0.95236576

00:36:40.614 --> 00:36:41.895 lead to different strategies to

NOTE Confidence: 0.95236576

00:36:41.895 --> 00:36:43.655 prevent heart failure. And this

NOTE Confidence: 0.95236576

00:36:43.655 --> 00:36:44.614 is just to say that

NOTE Confidence: 0.95236576

00:36:44.614 --> 00:36:46.214 there are big movements in

NOTE Confidence: 0.95236576

00:36:46.214 --> 00:36:47.515 these areas now. So,
NOTE Confidence: 0.9832204

00:36:48.135 --> 00:36:49.950 the industry are very keen,
NOTE Confidence: 0.9704937

00:36:50.390 --> 00:36:51.989 to get involved here. So
NOTE Confidence: 0.9704937

00:36:51.989 --> 00:36:53.430 these are big trials. These
NOTE Confidence: 0.9704937

00:36:53.430 --> 00:36:55.110 are almost twelve thousand people
NOTE Confidence: 0.9704937

00:36:55.110 --> 00:36:57.670 now using aldosterone synthase inhibitors.
NOTE Confidence: 0.9704937

00:36:57.670 --> 00:36:58.630 I'm sure you all know
NOTE Confidence: 0.9704937

00:36:58.630 --> 00:36:59.910 these new drugs that,
NOTE Confidence: 0.92557424

00:37:00.470 --> 00:37:02.170 MRAs obviously are underused.
NOTE Confidence: 0.89029175

00:37:02.735 --> 00:37:04.975 MRAs actually cause increase or
NOTE Confidence: 0.89029175

00:37:04.975 --> 00:37:06.895 result in increased aldosterone levels,
NOTE Confidence: 0.89029175

00:37:06.895 --> 00:37:08.195 so to inhibit aldosterone
NOTE Confidence: 0.9742079

00:37:08.735 --> 00:37:10.175 at the synthesis level makes
NOTE Confidence: 0.9742079

00:37:10.175 --> 00:37:11.614 more sense. So, again, we're
NOTE Confidence: 0.9742079

00:37:11.614 --> 00:37:12.895 doing these large trials,
NOTE Confidence: 0.96091855

00:37:13.215 --> 00:37:14.655 which these are the kind

NOTE Confidence: 0.96091855

00:37:14.655 --> 00:37:15.614 of trials that are not

NOTE Confidence: 0.96091855

00:37:15.614 --> 00:37:16.975 academic trials like the ones

NOTE Confidence: 0.96091855

00:37:16.975 --> 00:37:18.515 that we're talking about with,

NOTE Confidence: 0.90163493

00:37:19.269 --> 00:37:21.589 with, you know, PCI, CABG,

NOTE Confidence: 0.90163493

00:37:21.589 --> 00:37:22.089 subcutfrozomide,

NOTE Confidence: 0.95995104

00:37:23.190 --> 00:37:24.650 early detection of heart failure.

NOTE Confidence: 0.93287045

00:37:25.029 --> 00:37:26.069 So I'm gonna talk about

NOTE Confidence: 0.93287045

00:37:26.069 --> 00:37:27.430 AF ablation quickly before I

NOTE Confidence: 0.93287045

00:37:27.430 --> 00:37:29.210 stop. So just, AF ablation,

NOTE Confidence: 0.93287045

00:37:29.430 --> 00:37:31.589 fascinating area in heart failure.

NOTE Confidence: 0.93287045

00:37:31.589 --> 00:37:32.630 So AF ablation heart failure,

NOTE Confidence: 0.93287045

00:37:32.630 --> 00:37:33.864 what's the role? When When

NOTE Confidence: 0.93287045

00:37:33.864 --> 00:37:34.985 I was a newly appointed

NOTE Confidence: 0.93287045

00:37:34.985 --> 00:37:36.185 consultant, this paper came out

NOTE Confidence: 0.93287045

00:37:36.185 --> 00:37:37.725 in the England Journal observational

NOTE Confidence: 0.93287045

00:37:37.785 --> 00:37:40.185 study, massive improvement injection fraction.

NOTE Confidence: 0.93287045

00:37:40.185 --> 00:37:41.145 I thought that's the way

NOTE Confidence: 0.93287045

00:37:41.145 --> 00:37:42.505 to go. So, again, we

NOTE Confidence: 0.93287045

00:37:42.505 --> 00:37:43.625 did a this is an

NOTE Confidence: 0.93287045

00:37:43.625 --> 00:37:45.325 academic trial run by Glasgow.

NOTE Confidence: 0.93287045

00:37:45.385 --> 00:37:46.745 No industry involved. We did

NOTE Confidence: 0.93287045

00:37:46.745 --> 00:37:48.525 a small trial, local trial,

NOTE Confidence: 0.93287045

00:37:48.819 --> 00:37:50.579 forty patients, showed us very

NOTE Confidence: 0.93287045

00:37:50.579 --> 00:37:51.079 small

NOTE Confidence: 0.8981094

00:37:51.380 --> 00:37:52.900 improvement injection fraction. This is

NOTE Confidence: 0.8981094

00:37:52.900 --> 00:37:54.420 ran the first randomized trial

NOTE Confidence: 0.8981094

00:37:54.420 --> 00:37:56.020 ever. We couldn't get anybody

NOTE Confidence: 0.8981094

00:37:56.020 --> 00:37:56.900 to publish it. So Hart

NOTE Confidence: 0.8981094

00:37:56.900 --> 00:37:58.739 wouldn't publish it. Jack wouldn't

NOTE Confidence: 0.8981094

00:37:58.739 --> 00:38:00.339 publish it. So we're publishing

NOTE Confidence: 0.8981094

00:38:00.339 --> 00:38:01.059 Hart actually in the end,

NOTE Confidence: 0.8981094
00:38:01.059 --> 00:38:02.099 so nobody would publish this.
NOTE Confidence: 0.8981094
00:38:02.099 --> 00:38:03.059 For some reason, I couldn't
NOTE Confidence: 0.8981094
00:38:03.059 --> 00:38:03.719 get published.
NOTE Confidence: 0.99623847
00:38:04.020 --> 00:38:04.520 So
NOTE Confidence: 0.91269886
00:38:05.244 --> 00:38:06.545 I'll just very briefly,
NOTE Confidence: 0.8807843
00:38:07.244 --> 00:38:08.685 talk about castle a the
NOTE Confidence: 0.8807843
00:38:08.685 --> 00:38:10.125 castle AF. I'm sure you
NOTE Confidence: 0.8807843
00:38:10.125 --> 00:38:11.325 know this trial. This has
NOTE Confidence: 0.8807843
00:38:11.325 --> 00:38:12.545 been incredibly influential.
NOTE Confidence: 0.8631687
00:38:13.484 --> 00:38:14.445 This is this is AF
NOTE Confidence: 0.8631687
00:38:14.445 --> 00:38:16.045 ablation against no AF ablation
NOTE Confidence: 0.8631687
00:38:16.045 --> 00:38:17.405 and heart failure. I just
NOTE Confidence: 0.8631687
00:38:17.405 --> 00:38:18.750 did to I'll just go
NOTE Confidence: 0.8631687
00:38:18.750 --> 00:38:19.790 quite quickly here just to
NOTE Confidence: 0.8631687
00:38:19.790 --> 00:38:21.870 criticize it. Huge treatment effects.
NOTE Confidence: 0.8631687

00:38:21.870 --> 00:38:22.530 So apparently,
NOTE Confidence: 0.8498324
00:38:22.910 --> 00:38:24.430 a forty seven percent reduction
NOTE Confidence: 0.8498324
00:38:24.430 --> 00:38:25.330 of cause mortality.
NOTE Confidence: 0.96456254
00:38:25.630 --> 00:38:26.510 This is only a three
NOTE Confidence: 0.96456254
00:38:26.510 --> 00:38:27.870 hundred and sixty three patient
NOTE Confidence: 0.96456254
00:38:27.870 --> 00:38:29.790 trial. There was twenty percent
NOTE Confidence: 0.96456254
00:38:29.790 --> 00:38:30.290 crossovers,
NOTE Confidence: 0.9586408
00:38:30.670 --> 00:38:32.050 ten percent lost to follow-up.
NOTE Confidence: 0.9586408
00:38:32.190 --> 00:38:32.955 So in terms of heart
NOTE Confidence: 0.9586408
00:38:32.955 --> 00:38:34.155 failure trials, this is a
NOTE Confidence: 0.9586408
00:38:34.155 --> 00:38:36.155 low low caliber evidence and
NOTE Confidence: 0.9586408
00:38:36.155 --> 00:38:37.515 hasn't really impacted the heart
NOTE Confidence: 0.9586408
00:38:37.515 --> 00:38:38.955 failure community, but it has
NOTE Confidence: 0.9586408
00:38:38.955 --> 00:38:40.495 impacted the EP community.
NOTE Confidence: 0.92649525
00:38:40.955 --> 00:38:42.155 So I'll just go this
NOTE Confidence: 0.92649525
00:38:42.155 --> 00:38:43.114 is last slide I'll I'll

NOTE Confidence: 0.92649525

00:38:43.114 --> 00:38:44.395 use. So basically, we've managed

NOTE Confidence: 0.92649525

00:38:44.395 --> 00:38:45.800 to get an academically funded

NOTE Confidence: 0.92649525

00:38:45.800 --> 00:38:47.080 trial, so myself and a

NOTE Confidence: 0.92649525

00:38:47.080 --> 00:38:48.300 guy called Pierre Lambiase,

NOTE Confidence: 0.96921813

00:38:48.600 --> 00:38:50.120 an EP colleague in London

NOTE Confidence: 0.96921813

00:38:50.120 --> 00:38:52.040 are, running this trial. So

NOTE Confidence: 0.96921813

00:38:52.040 --> 00:38:53.800 we're we're randomizing twelve hundred

NOTE Confidence: 0.96921813

00:38:53.800 --> 00:38:54.920 people to AF ablation or

NOTE Confidence: 0.96921813

00:38:54.920 --> 00:38:55.820 no AF ablation,

NOTE Confidence: 0.9800708

00:38:56.280 --> 00:38:58.375 with heart failure. We're also

NOTE Confidence: 0.9800708

00:38:58.375 --> 00:38:59.434 doing this internationally,

NOTE Confidence: 0.95745075

00:38:59.734 --> 00:39:01.414 so we have colleagues in,

NOTE Confidence: 0.95745075

00:39:01.815 --> 00:39:03.255 Denmark doing almost the same

NOTE Confidence: 0.95745075

00:39:03.255 --> 00:39:04.855 trial and Canada almost the

NOTE Confidence: 0.95745075

00:39:04.855 --> 00:39:06.135 same trial and we're now

NOTE Confidence: 0.95745075

00:39:06.135 --> 00:39:08.055 we're harvesting the events together

NOTE Confidence: 0.95745075

00:39:08.055 --> 00:39:08.775 as well so we can

NOTE Confidence: 0.95745075

00:39:08.775 --> 00:39:10.075 pool data at the end.

NOTE Confidence: 0.95745075

00:39:10.299 --> 00:39:11.180 Again, this is back to

NOTE Confidence: 0.95745075

00:39:11.180 --> 00:39:12.380 working with people we like,

NOTE Confidence: 0.95745075

00:39:12.380 --> 00:39:13.739 we know, we trust using

NOTE Confidence: 0.95745075

00:39:13.739 --> 00:39:15.260 routinely collected data as well.

NOTE Confidence: 0.95745075

00:39:15.260 --> 00:39:15.819 So I think at that

NOTE Confidence: 0.95745075

00:39:15.819 --> 00:39:17.099 point, I'll stop rather than,

NOTE Confidence: 0.95745075

00:39:17.420 --> 00:39:18.380 talk more. But so thank

NOTE Confidence: 0.95745075

00:39:18.380 --> 00:39:19.279 you for your attention.

NOTE Confidence: 0.9585214

00:39:27.045 --> 00:39:28.165 So, Mark, that was a

NOTE Confidence: 0.9585214

00:39:28.165 --> 00:39:28.665 wonderful,

NOTE Confidence: 0.7209984

00:39:28.965 --> 00:39:29.625 you know,

NOTE Confidence: 0.9730529

00:39:30.245 --> 00:39:31.765 whirlwind tour of what's coming

NOTE Confidence: 0.9730529

00:39:31.765 --> 00:39:32.645 up, and I think you

NOTE Confidence: 0.9730529

00:39:32.645 --> 00:39:33.525 can see it's a very

NOTE Confidence: 0.9730529

00:39:33.525 --> 00:39:34.645 exciting field, and and I

NOTE Confidence: 0.9730529

00:39:34.645 --> 00:39:35.385 think there's,

NOTE Confidence: 0.9798007

00:39:36.245 --> 00:39:36.810 you know,

NOTE Confidence: 0.952043

00:39:37.290 --> 00:39:38.170 thank you for all your

NOTE Confidence: 0.952043

00:39:38.170 --> 00:39:39.290 leadership in what you're doing

NOTE Confidence: 0.952043

00:39:39.290 --> 00:39:40.410 in this space and pushing

NOTE Confidence: 0.952043

00:39:40.410 --> 00:39:42.090 us forward. I I'll maybe

NOTE Confidence: 0.952043

00:39:42.090 --> 00:39:42.969 I'll start with a a

NOTE Confidence: 0.952043

00:39:42.969 --> 00:39:44.010 first question and and see

NOTE Confidence: 0.952043

00:39:44.010 --> 00:39:45.370 if others have, and we

NOTE Confidence: 0.952043

00:39:45.370 --> 00:39:46.410 have a lot of inflammation

NOTE Confidence: 0.952043

00:39:46.410 --> 00:39:47.370 biologists in the room, so

NOTE Confidence: 0.952043

00:39:47.370 --> 00:39:48.810 I'm curious where where that's

NOTE Confidence: 0.952043

00:39:48.810 --> 00:39:49.370 gonna lead.

NOTE Confidence: 0.98717105

00:39:50.170 --> 00:39:50.489 But,
NOTE Confidence: 0.939358

00:39:51.984 --> 00:39:52.925 you know, with
NOTE Confidence: 0.98401666

00:39:53.385 --> 00:39:53.965 the semaglutamide
NOTE Confidence: 0.98883116

00:39:54.825 --> 00:39:55.645 and tirzepatide
NOTE Confidence: 0.97141194

00:39:55.945 --> 00:39:56.445 story,
NOTE Confidence: 0.97701305

00:39:56.745 --> 00:39:57.785 you know, particularly in the
NOTE Confidence: 0.97701305

00:39:57.785 --> 00:39:59.545 HFpEF population, I'm just curious,
NOTE Confidence: 0.97701305

00:39:59.545 --> 00:40:00.125 you know,
NOTE Confidence: 0.9674651

00:40:01.545 --> 00:40:02.985 we've had a tradition of
NOTE Confidence: 0.9674651

00:40:02.985 --> 00:40:03.485 doing,
NOTE Confidence: 0.9930005

00:40:05.680 --> 00:40:06.880 trials where we actually start
NOTE Confidence: 0.9930005

00:40:06.880 --> 00:40:08.820 removing therapies and
NOTE Confidence: 0.9764574

00:40:09.120 --> 00:40:10.400 evaluate the impact of that
NOTE Confidence: 0.9764574

00:40:10.400 --> 00:40:11.780 therapy. We did that with
NOTE Confidence: 0.9764574

00:40:11.840 --> 00:40:12.340 Digoxin
NOTE Confidence: 0.9580991

00:40:12.719 --> 00:40:13.920 years back, and maybe it's

NOTE Confidence: 0.9580991
00:40:13.920 --> 00:40:14.800 come back to bite us.
NOTE Confidence: 0.9580991
00:40:14.800 --> 00:40:15.540 We'll see.
NOTE Confidence: 0.6117414
00:40:16.400 --> 00:40:16.900 But,
NOTE Confidence: 0.9993187
00:40:17.440 --> 00:40:18.180 I'm curious
NOTE Confidence: 0.9997652
00:40:18.555 --> 00:40:19.295 if you
NOTE Confidence: 0.96662796
00:40:19.675 --> 00:40:21.035 feel if you could tell
NOTE Confidence: 0.96662796
00:40:21.035 --> 00:40:21.835 us where you think the
NOTE Confidence: 0.96662796
00:40:21.835 --> 00:40:23.135 evidence is currently,
NOTE Confidence: 0.94798005
00:40:24.474 --> 00:40:25.594 to guide day to day
NOTE Confidence: 0.94798005
00:40:25.594 --> 00:40:26.655 practice. And,
NOTE Confidence: 0.9768993
00:40:27.355 --> 00:40:29.114 in patients who have heart
NOTE Confidence: 0.9768993
00:40:29.114 --> 00:40:31.035 failure symptoms with preserved LV
NOTE Confidence: 0.9768993
00:40:31.035 --> 00:40:31.535 function,
NOTE Confidence: 0.99494666
00:40:32.170 --> 00:40:33.610 who have had an advantage
NOTE Confidence: 0.99494666
00:40:33.610 --> 00:40:35.290 or benefit from weight loss,
NOTE Confidence: 0.64814425

00:40:36.010 --> 00:40:36.750 on semaglutetirizobide,
NOTE Confidence: 0.99877405

00:40:38.890 --> 00:40:39.950 do we start
NOTE Confidence: 0.7845516

00:40:40.969 --> 00:40:41.469 deescalating
NOTE Confidence: 0.95351636

00:40:41.770 --> 00:40:43.370 therapies in that population? Do
NOTE Confidence: 0.95351636

00:40:43.370 --> 00:40:44.730 we move SGL two inhibition?
NOTE Confidence: 0.95351636

00:40:44.730 --> 00:40:45.690 Do we move our settings
NOTE Confidence: 0.95351636

00:40:45.690 --> 00:40:46.730 out? I'm curious where you
NOTE Confidence: 0.95351636

00:40:46.730 --> 00:40:47.690 think the data is and
NOTE Confidence: 0.95351636

00:40:47.690 --> 00:40:49.225 what you would suggest, and
NOTE Confidence: 0.95351636

00:40:49.225 --> 00:40:50.105 maybe it's an idea for
NOTE Confidence: 0.95351636

00:40:50.105 --> 00:40:51.705 another trial. Yeah. So so
NOTE Confidence: 0.95351636

00:40:51.705 --> 00:40:54.025 there are absolutely no data,
NOTE Confidence: 0.99099785

00:40:54.425 --> 00:40:55.405 about withdrawal.
NOTE Confidence: 0.9681164

00:40:56.585 --> 00:40:57.485 I am
NOTE Confidence: 0.9641757

00:40:57.945 --> 00:41:00.045 uncertain about the whole area,
NOTE Confidence: 0.9641757

00:41:00.339 --> 00:41:01.859 and the strategies to test

NOTE Confidence: 0.9641757
00:41:01.859 --> 00:41:02.819 are also broad as well
NOTE Confidence: 0.9641757
00:41:02.819 --> 00:41:03.619 because you can carry on
NOTE Confidence: 0.9641757
00:41:03.619 --> 00:41:04.839 the same dose of drug
NOTE Confidence: 0.9641757
00:41:04.980 --> 00:41:06.200 where you can go to
NOTE Confidence: 0.9641757
00:41:06.260 --> 00:41:08.020 smaller doses or less frequent
NOTE Confidence: 0.9641757
00:41:08.020 --> 00:41:09.940 doses. So for me, I
NOTE Confidence: 0.9641757
00:41:09.940 --> 00:41:11.300 think that I'm a big
NOTE Confidence: 0.9641757
00:41:11.300 --> 00:41:12.339 trialist as you know. So
NOTE Confidence: 0.9641757
00:41:12.339 --> 00:41:13.219 I I think that just
NOTE Confidence: 0.9641757
00:41:13.219 --> 00:41:14.444 needs addressed in an ongoing
NOTE Confidence: 0.9641757
00:41:14.444 --> 00:41:15.844 trial. What we do know
NOTE Confidence: 0.9641757
00:41:15.844 --> 00:41:16.885 is the only thing we
NOTE Confidence: 0.9641757
00:41:16.885 --> 00:41:18.645 know about withdrawal is from
NOTE Confidence: 0.9641757
00:41:18.645 --> 00:41:20.724 the the STEP trials where
NOTE Confidence: 0.9641757
00:41:20.724 --> 00:41:21.765 if you stop it within
NOTE Confidence: 0.9641757

00:41:21.765 --> 00:41:23.364 a year, almost everybody's back

NOTE Confidence: 0.9641757

00:41:23.364 --> 00:41:24.645 to baseline again. So they

NOTE Confidence: 0.9641757

00:41:24.645 --> 00:41:26.085 gain weight again. So the

NOTE Confidence: 0.9641757

00:41:26.085 --> 00:41:27.445 trajectory is steep as well.

NOTE Confidence: 0.9641757

00:41:27.445 --> 00:41:28.165 So if you stop the

NOTE Confidence: 0.9641757

00:41:28.165 --> 00:41:29.230 drug, people go back to

NOTE Confidence: 0.9641757

00:41:29.230 --> 00:41:30.770 where they were. So

NOTE Confidence: 0.9835693

00:41:31.070 --> 00:41:32.430 my personal opinion is that

NOTE Confidence: 0.9835693

00:41:32.430 --> 00:41:33.730 people who,

NOTE Confidence: 0.94446325

00:41:34.750 --> 00:41:36.109 are are living with overweight

NOTE Confidence: 0.94446325

00:41:36.270 --> 00:41:38.050 obesity have a different endogenous

NOTE Confidence: 0.94446325

00:41:38.190 --> 00:41:39.070 level of these things, and

NOTE Confidence: 0.94446325

00:41:39.070 --> 00:41:40.430 they just need those extra

NOTE Confidence: 0.94446325

00:41:40.430 --> 00:41:42.234 levels to to, behave in

NOTE Confidence: 0.94446325

00:41:42.234 --> 00:41:43.035 the same in the same

NOTE Confidence: 0.94446325

00:41:43.035 --> 00:41:43.915 way as other people do.

NOTE Confidence: 0.94446325
00:41:43.915 --> 00:41:45.515 So I think maintenance will
NOTE Confidence: 0.94446325
00:41:45.515 --> 00:41:46.875 be necessary. I don't think
NOTE Confidence: 0.94446325
00:41:46.875 --> 00:41:48.475 it's realistic to expect people
NOTE Confidence: 0.94446325
00:41:48.475 --> 00:41:49.755 to to keep the weight
NOTE Confidence: 0.94446325
00:41:49.755 --> 00:41:51.195 off, but that's that's a
NOTE Confidence: 0.94446325
00:41:51.195 --> 00:41:53.215 very personal opinion. It's not
NOTE Confidence: 0.94446325
00:41:53.275 --> 00:41:54.255 based on anything.
NOTE Confidence: 0.99729264
00:41:54.750 --> 00:41:55.810 There's lots of discussion
NOTE Confidence: 0.8782692
00:41:56.430 --> 00:41:56.930 about,
NOTE Confidence: 0.9803112
00:41:57.550 --> 00:41:58.590 about how what to do
NOTE Confidence: 0.9803112
00:41:58.590 --> 00:41:59.070 at the end of these
NOTE Confidence: 0.9803112
00:41:59.070 --> 00:41:59.570 trials.
NOTE Confidence: 0.99810326
00:42:00.270 --> 00:42:01.010 There's also,
NOTE Confidence: 0.90743035
00:42:01.469 --> 00:42:03.170 you know, fierce discussion about
NOTE Confidence: 0.90743035
00:42:03.310 --> 00:42:04.910 many, many other issues as
NOTE Confidence: 0.90743035

00:42:04.910 --> 00:42:05.870 well, you know, attached to

NOTE Confidence: 0.90743035

00:42:05.870 --> 00:42:07.090 the whole the whole area.

NOTE Confidence: 0.90743035

00:42:07.150 --> 00:42:08.625 So I think for people

NOTE Confidence: 0.90743035

00:42:08.625 --> 00:42:10.105 in the room, the the

NOTE Confidence: 0.90743035

00:42:10.105 --> 00:42:11.344 the amount of trials in

NOTE Confidence: 0.90743035

00:42:11.344 --> 00:42:12.725 the area we need done,

NOTE Confidence: 0.90743035

00:42:12.785 --> 00:42:13.285 HFREF,

NOTE Confidence: 0.96111387

00:42:13.825 --> 00:42:15.125 improved ejection fraction,

NOTE Confidence: 0.96395844

00:42:16.545 --> 00:42:17.745 again, where to stop in

NOTE Confidence: 0.96395844

00:42:17.745 --> 00:42:18.705 terms of the trials even

NOTE Confidence: 0.96395844

00:42:18.705 --> 00:42:19.425 when you're on the drug

NOTE Confidence: 0.96395844

00:42:19.425 --> 00:42:20.864 because people lose a lot

NOTE Confidence: 0.96395844

00:42:20.864 --> 00:42:21.585 of weight. So do you

NOTE Confidence: 0.96395844

00:42:21.585 --> 00:42:23.105 carry on until their BMI

NOTE Confidence: 0.96395844

00:42:23.105 --> 00:42:24.750 is twenty or twenty four

NOTE Confidence: 0.96395844

00:42:24.750 --> 00:42:25.950 or twenty two? So we're

NOTE Confidence: 0.96395844
00:42:25.950 --> 00:42:27.390 having active debates about that
NOTE Confidence: 0.96395844
00:42:27.390 --> 00:42:28.590 as well. So this is
NOTE Confidence: 0.96395844
00:42:28.590 --> 00:42:29.790 a area for all of
NOTE Confidence: 0.96395844
00:42:29.790 --> 00:42:31.489 us to study, and within
NOTE Confidence: 0.96395844
00:42:31.710 --> 00:42:32.750 five or ten years, we
NOTE Confidence: 0.96395844
00:42:32.750 --> 00:42:33.710 will know it. But we
NOTE Confidence: 0.96395844
00:42:33.710 --> 00:42:34.830 don't know we know nothing
NOTE Confidence: 0.96395844
00:42:34.830 --> 00:42:36.290 about these things, these drugs.
NOTE Confidence: 0.7445049
00:42:39.605 --> 00:42:40.645 A little bit because he's
NOTE Confidence: 0.7445049
00:42:40.645 --> 00:42:42.265 our cardi Metabolic expert,
NOTE Confidence: 0.9664655
00:42:42.964 --> 00:42:44.244 to kinda give us his
NOTE Confidence: 0.9664655
00:42:44.244 --> 00:42:46.244 perspective on on on that
NOTE Confidence: 0.9664655
00:42:46.244 --> 00:42:48.484 construct of de escalation of
NOTE Confidence: 0.9664655
00:42:48.484 --> 00:42:49.444 drugs when you've met a
NOTE Confidence: 0.9664655
00:42:49.444 --> 00:42:51.385 a certain weight loss goal
NOTE Confidence: 0.8977187

00:42:51.925 --> 00:42:52.825 and have cardiovascular
NOTE Confidence: 0.91861796

00:42:54.119 --> 00:42:54.619 problems.
NOTE Confidence: 0.7056856

00:42:56.599 --> 00:42:57.719 Okay. Yeah. Put your they
NOTE Confidence: 0.7056856

00:42:57.719 --> 00:42:59.000 got big time. Big time,
NOTE Confidence: 0.7056856

00:42:59.000 --> 00:42:59.880 man. Say. Well
NOTE Confidence: 0.8384802

00:43:01.400 --> 00:43:02.140 No. I think
NOTE Confidence: 0.9663684

00:43:02.440 --> 00:43:03.480 the the issue with these
NOTE Confidence: 0.9663684

00:43:03.480 --> 00:43:04.760 drugs is how much is
NOTE Confidence: 0.9663684

00:43:04.760 --> 00:43:05.719 weight loss and how much
NOTE Confidence: 0.9663684

00:43:05.719 --> 00:43:07.355 is is direct anti inflammatory
NOTE Confidence: 0.96404475

00:43:07.655 --> 00:43:10.075 and other metabolic effects. And,
NOTE Confidence: 0.98928213

00:43:11.015 --> 00:43:11.755 you know,
NOTE Confidence: 0.9732054

00:43:12.375 --> 00:43:13.415 it would be of interest,
NOTE Confidence: 0.9732054

00:43:13.415 --> 00:43:14.775 I don't think anybody's gonna
NOTE Confidence: 0.9732054

00:43:14.775 --> 00:43:15.915 do it, to take
NOTE Confidence: 0.9995236

00:43:16.215 --> 00:43:17.515 patients who are

NOTE Confidence: 0.85995436
00:43:18.819 --> 00:43:20.739 mildly overweight, I e not
NOTE Confidence: 0.85995436
00:43:20.739 --> 00:43:21.239 obese,
NOTE Confidence: 0.9580971
00:43:21.540 --> 00:43:22.980 and test at low dose
NOTE Confidence: 0.9580971
00:43:22.980 --> 00:43:24.180 where those drugs might have
NOTE Confidence: 0.9580971
00:43:24.180 --> 00:43:26.359 some beneficial biological effects.
NOTE Confidence: 0.9629446
00:43:26.900 --> 00:43:27.460 I don't know if you
NOTE Confidence: 0.9629446
00:43:27.460 --> 00:43:29.400 wanna comment on that. So
NOTE Confidence: 0.9629446
00:43:29.540 --> 00:43:30.980 my personal opinion is that
NOTE Confidence: 0.9629446
00:43:30.980 --> 00:43:32.235 this area is so hot.
NOTE Confidence: 0.9629446
00:43:32.315 --> 00:43:34.235 People will do trials of
NOTE Confidence: 0.9629446
00:43:34.235 --> 00:43:36.415 non obese heart failure populations,
NOTE Confidence: 0.9629446
00:43:36.475 --> 00:43:37.675 but they will follow these
NOTE Confidence: 0.9629446
00:43:37.675 --> 00:43:38.495 trials because,
NOTE Confidence: 0.9409651
00:43:39.595 --> 00:43:40.955 these trials are it's like
NOTE Confidence: 0.9409651
00:43:40.955 --> 00:43:42.395 an open goal. The goalkeeper
NOTE Confidence: 0.9409651

00:43:42.395 --> 00:43:43.595 is not there. These these
NOTE Confidence: 0.9409651

00:43:43.595 --> 00:43:44.795 are, you know, really simple
NOTE Confidence: 0.9409651

00:43:44.795 --> 00:43:45.295 trials.
NOTE Confidence: 0.9541201

00:43:45.595 --> 00:43:46.859 But, you know, the the
NOTE Confidence: 0.9541201

00:43:46.920 --> 00:43:48.280 the gain here is massive.
NOTE Confidence: 0.9541201

00:43:48.280 --> 00:43:49.160 I think most of us
NOTE Confidence: 0.9541201

00:43:49.160 --> 00:43:50.200 are pretty convinced there are
NOTE Confidence: 0.9541201

00:43:50.200 --> 00:43:51.080 benefits to be had. So
NOTE Confidence: 0.9541201

00:43:51.080 --> 00:43:52.040 I don't even think you
NOTE Confidence: 0.9541201

00:43:52.040 --> 00:43:52.700 need overweight.
NOTE Confidence: 0.9695692

00:43:53.000 --> 00:43:53.800 I think we should be
NOTE Confidence: 0.9695692

00:43:53.800 --> 00:43:55.239 testing in people who just
NOTE Confidence: 0.9695692

00:43:55.239 --> 00:43:57.099 are not overweight or obese.
NOTE Confidence: 0.9695692

00:43:57.160 --> 00:43:58.164 That's the only way to
NOTE Confidence: 0.9695692

00:43:58.164 --> 00:43:59.605 to test it. Obviously, there's
NOTE Confidence: 0.9695692

00:43:59.605 --> 00:44:00.884 mechanistic trials you could do,

NOTE Confidence: 0.9695692

00:44:00.884 --> 00:44:02.085 which would be a start,

NOTE Confidence: 0.9695692

00:44:02.085 --> 00:44:03.444 and then there's outcome trials.

NOTE Confidence: 0.9695692

00:44:03.444 --> 00:44:04.805 Maybe the mechanistic trials will

NOTE Confidence: 0.9695692

00:44:04.805 --> 00:44:05.924 be a reasonable way reasonable

NOTE Confidence: 0.9695692

00:44:05.924 --> 00:44:07.684 place to start. But, again,

NOTE Confidence: 0.9695692

00:44:07.684 --> 00:44:09.125 these young people in the

NOTE Confidence: 0.9695692

00:44:09.125 --> 00:44:10.565 room, they will definitely live

NOTE Confidence: 0.9695692

00:44:10.565 --> 00:44:12.290 through an era where they

NOTE Confidence: 0.9695692

00:44:12.290 --> 00:44:13.330 see the trials done in

NOTE Confidence: 0.9695692

00:44:13.330 --> 00:44:14.390 non obese populations.

NOTE Confidence: 0.98009944

00:44:14.690 --> 00:44:15.510 That's my,

NOTE Confidence: 0.99643445

00:44:16.130 --> 00:44:16.790 my opinion.

NOTE Confidence: 0.9059393

00:44:18.690 --> 00:44:20.310 That's fine. Next, I guess.

NOTE Confidence: 0.92042506

00:44:24.605 --> 00:44:25.105 Good.

NOTE Confidence: 0.9660092

00:44:26.924 --> 00:44:28.944 Congrats for your impacting

NOTE Confidence: 0.9877936

00:44:29.325 --> 00:44:30.545 in all these areas.
NOTE Confidence: 0.9972446

00:44:31.165 --> 00:44:31.565 So,
NOTE Confidence: 0.997386

00:44:32.045 --> 00:44:33.964 Eric would be disappointed if
NOTE Confidence: 0.997386

00:44:33.964 --> 00:44:35.025 some of the inflammation
NOTE Confidence: 0.9752442

00:44:35.484 --> 00:44:37.565 biologists didn't ask questions here.
NOTE Confidence: 0.9752442

00:44:37.565 --> 00:44:38.065 But,
NOTE Confidence: 0.96299034

00:44:38.765 --> 00:44:39.265 you
NOTE Confidence: 0.98788846

00:44:39.840 --> 00:44:41.680 you know, inflammation is a
NOTE Confidence: 0.98788846

00:44:41.680 --> 00:44:42.880 term that we use, and
NOTE Confidence: 0.98788846

00:44:42.880 --> 00:44:43.700 it can be
NOTE Confidence: 0.97947204

00:44:44.320 --> 00:44:46.160 five hundred different things, if
NOTE Confidence: 0.97947204

00:44:46.160 --> 00:44:47.540 not if not more.
NOTE Confidence: 0.94438994

00:44:48.000 --> 00:44:49.060 You described
NOTE Confidence: 0.90607756

00:44:49.360 --> 00:44:51.540 CANTOS, so anti IL one,
NOTE Confidence: 0.9933974

00:44:51.935 --> 00:44:53.075 anti l six
NOTE Confidence: 0.9434161

00:44:53.375 --> 00:44:53.875 trials,

NOTE Confidence: 0.7368527
00:44:55.295 --> 00:44:57.155 GOP one receptor and,
NOTE Confidence: 0.9373364
00:44:57.695 --> 00:44:59.935 agonist trials, all of which
NOTE Confidence: 0.9373364
00:44:59.935 --> 00:45:01.775 reduce CRP and improve heart
NOTE Confidence: 0.9373364
00:45:01.775 --> 00:45:02.755 failure outcome.
NOTE Confidence: 0.9939587
00:45:03.135 --> 00:45:05.135 And I'm wondering if there's
NOTE Confidence: 0.9939587
00:45:05.135 --> 00:45:05.635 any
NOTE Confidence: 0.9949525
00:45:06.440 --> 00:45:08.280 knowledge or sense of of
NOTE Confidence: 0.9949525
00:45:08.280 --> 00:45:08.780 mechanistic
NOTE Confidence: 0.9857086
00:45:09.640 --> 00:45:10.700 common drivers
NOTE Confidence: 0.99233174
00:45:11.400 --> 00:45:11.900 that
NOTE Confidence: 0.9970014
00:45:12.680 --> 00:45:13.960 each and every one of
NOTE Confidence: 0.9970014
00:45:13.960 --> 00:45:14.460 these
NOTE Confidence: 0.95538205
00:45:15.240 --> 00:45:17.480 drugs or pathways may be,
NOTE Confidence: 0.95538205
00:45:17.480 --> 00:45:19.240 let's say, downstream of so
NOTE Confidence: 0.95538205
00:45:19.240 --> 00:45:21.260 that we could potentially target
NOTE Confidence: 0.9879217

00:45:21.815 --> 00:45:23.275 something farther upstream
NOTE Confidence: 0.98430645

00:45:23.895 --> 00:45:25.495 and make this much a
NOTE Confidence: 0.98430645

00:45:25.495 --> 00:45:27.595 much more effective earlier specific
NOTE Confidence: 0.9300526

00:45:28.055 --> 00:45:29.755 Yeah. Treatment. Yeah. So
NOTE Confidence: 0.97323656

00:45:30.215 --> 00:45:31.255 I think it's it's it
NOTE Confidence: 0.97323656

00:45:31.255 --> 00:45:32.135 is the time to be
NOTE Confidence: 0.97323656

00:45:32.135 --> 00:45:33.575 an information biologist so that
NOTE Confidence: 0.97323656

00:45:33.575 --> 00:45:35.175 your your your skills will
NOTE Confidence: 0.97323656

00:45:35.175 --> 00:45:36.235 be sought after.
NOTE Confidence: 0.9731317

00:45:36.600 --> 00:45:38.120 And there's there are companies
NOTE Confidence: 0.9731317

00:45:38.120 --> 00:45:39.800 now who have got a
NOTE Confidence: 0.9731317

00:45:39.800 --> 00:45:41.480 whole range of anti inflammatory
NOTE Confidence: 0.9731317

00:45:41.480 --> 00:45:42.280 drugs. I'm sure you know
NOTE Confidence: 0.9731317

00:45:42.280 --> 00:45:43.640 this. So there there are
NOTE Confidence: 0.9731317

00:45:43.640 --> 00:45:44.620 companies with
NOTE Confidence: 0.63258874

00:45:44.920 --> 00:45:46.520 NLRP three inhibitors, is there

NOTE Confidence: 0.63258874

00:45:46.520 --> 00:45:47.580 inflammatory inhibitors

NOTE Confidence: 0.90732

00:45:47.960 --> 00:45:50.060 and other inhibitors, other inflammasomes

NOTE Confidence: 0.90732

00:45:50.280 --> 00:45:51.080 and other and lots of

NOTE Confidence: 0.90732

00:45:51.080 --> 00:45:51.580 cytokines.

NOTE Confidence: 0.99936396

00:45:52.185 --> 00:45:52.685 So

NOTE Confidence: 0.9557462

00:45:53.705 --> 00:45:55.305 they they're all very, very

NOTE Confidence: 0.9557462

00:45:55.305 --> 00:45:57.245 quickly moving towards clinical trials.

NOTE Confidence: 0.9557462

00:45:57.465 --> 00:45:59.065 So I'm slightly concerned that

NOTE Confidence: 0.9557462

00:45:59.065 --> 00:46:00.185 we're going ahead of the

NOTE Confidence: 0.9557462

00:46:00.185 --> 00:46:01.305 knowledge and we're trying to

NOTE Confidence: 0.9557462

00:46:01.305 --> 00:46:03.225 just, you know, find a

NOTE Confidence: 0.9557462

00:46:03.225 --> 00:46:05.085 population that benefits. So,

NOTE Confidence: 0.87504834

00:46:05.630 --> 00:46:07.230 the answer is upstream, yes.

NOTE Confidence: 0.87504834

00:46:07.230 --> 00:46:08.670 And the obvious things are

NOTE Confidence: 0.87504834

00:46:08.670 --> 00:46:09.710 are the NRP three and

NOTE Confidence: 0.87504834

00:46:09.710 --> 00:46:11.310 flammisin inhibitors, and that's that's

NOTE Confidence: 0.87504834

00:46:11.310 --> 00:46:11.810 obviously

NOTE Confidence: 0.93534344

00:46:12.430 --> 00:46:13.950 where people are really going.

NOTE Confidence: 0.93534344

00:46:13.950 --> 00:46:14.830 So I think to be

NOTE Confidence: 0.93534344

00:46:14.830 --> 00:46:16.350 honest with you, if those

NOTE Confidence: 0.93534344

00:46:16.350 --> 00:46:17.870 drugs had been more advanced

NOTE Confidence: 0.93534344

00:46:17.870 --> 00:46:19.730 in development before zoltevecimab,

NOTE Confidence: 0.98119086

00:46:20.110 --> 00:46:21.330 that probably would have been

NOTE Confidence: 0.98119086

00:46:21.605 --> 00:46:22.205 a decent,

NOTE Confidence: 0.99674636

00:46:22.645 --> 00:46:23.545 drug to use.

NOTE Confidence: 0.93076247

00:46:24.484 --> 00:46:25.525 So I think we need

NOTE Confidence: 0.93076247

00:46:25.525 --> 00:46:27.125 to do more. Luckily, there's

NOTE Confidence: 0.93076247

00:46:27.125 --> 00:46:28.484 lots of biobanking going on

NOTE Confidence: 0.93076247

00:46:28.484 --> 00:46:29.444 in these trials. So there's

NOTE Confidence: 0.93076247

00:46:29.444 --> 00:46:31.145 these three trials, Novo Nordisk,

NOTE Confidence: 0.91797495

00:46:31.684 --> 00:46:33.849 our biobanking every everything. So

NOTE Confidence: 0.91797495

00:46:33.930 --> 00:46:35.369 and there's plans to analyze

NOTE Confidence: 0.91797495

00:46:35.369 --> 00:46:36.890 everything. So I'm hoping we'll

NOTE Confidence: 0.91797495

00:46:36.890 --> 00:46:38.010 get knowledge out of these.

NOTE Confidence: 0.91797495

00:46:38.010 --> 00:46:38.890 Even if the trials are

NOTE Confidence: 0.91797495

00:46:38.890 --> 00:46:40.170 neutral, we will have knowledge,

NOTE Confidence: 0.91797495

00:46:40.170 --> 00:46:40.810 and then we can move

NOTE Confidence: 0.91797495

00:46:40.810 --> 00:46:41.950 on. And maybe we identify

NOTE Confidence: 0.96472436

00:46:42.250 --> 00:46:43.930 different populations with different things.

NOTE Confidence: 0.96472436

00:46:43.930 --> 00:46:44.430 But,

NOTE Confidence: 0.8960487

00:46:45.210 --> 00:46:46.750 people with your knowledge obviously

NOTE Confidence: 0.8960487

00:46:46.810 --> 00:46:47.744 should get, you know, should

NOTE Confidence: 0.8960487

00:46:47.744 --> 00:46:49.265 be closely involved. I I

NOTE Confidence: 0.8960487

00:46:49.265 --> 00:46:50.305 gotta say Paul Redcar and

NOTE Confidence: 0.8960487

00:46:50.305 --> 00:46:51.904 Peter Libby are pretty pretty

NOTE Confidence: 0.8960487

00:46:51.904 --> 00:46:52.625 good. So,

NOTE Confidence: 0.87461925

00:46:53.424 --> 00:46:55.344 Paul's Paul's tightly involved. But
NOTE Confidence: 0.87461925

00:46:55.344 --> 00:46:56.704 the post MI environment is
NOTE Confidence: 0.87461925

00:46:56.704 --> 00:46:58.305 totally different. You know, the
NOTE Confidence: 0.87461925

00:46:58.305 --> 00:47:00.099 fresh scar, you know, what's
NOTE Confidence: 0.87461925

00:47:00.099 --> 00:47:01.780 happening with inflammatory cells with
NOTE Confidence: 0.87461925

00:47:01.780 --> 00:47:03.300 fresh scars, completely different than
NOTE Confidence: 0.87461925

00:47:03.300 --> 00:47:05.400 a chronic stable Hepa patient,
NOTE Confidence: 0.91740525

00:47:06.020 --> 00:47:07.219 which was different than CKD
NOTE Confidence: 0.91740525

00:47:07.219 --> 00:47:08.020 patients. So I think we're
NOTE Confidence: 0.91740525

00:47:08.020 --> 00:47:09.060 a bit simplistic at the
NOTE Confidence: 0.91740525

00:47:09.060 --> 00:47:10.820 moment, but I I I
NOTE Confidence: 0.91740525

00:47:10.900 --> 00:47:12.839 I'm encouraged by the biobanking,
NOTE Confidence: 0.78570175

00:47:13.175 --> 00:47:14.614 which which should reschedule a
NOTE Confidence: 0.78570175

00:47:14.614 --> 00:47:15.255 lot a lot of light
NOTE Confidence: 0.78570175

00:47:15.255 --> 00:47:16.455 into what we're doing. Yeah.
NOTE Confidence: 0.78570175

00:47:16.455 --> 00:47:17.195 Thank you.

NOTE Confidence: 0.99779284

00:47:21.734 --> 00:47:22.234 Thank

NOTE Confidence: 0.9984725

00:47:25.270 --> 00:47:26.230 you so much for this

NOTE Confidence: 0.9984725

00:47:26.230 --> 00:47:27.210 incredible talk.

NOTE Confidence: 0.9768058

00:47:28.150 --> 00:47:29.510 Really incredible to see all

NOTE Confidence: 0.9768058

00:47:29.510 --> 00:47:30.970 of the trials that have

NOTE Confidence: 0.9768058

00:47:31.270 --> 00:47:32.390 affected the way that we

NOTE Confidence: 0.9768058

00:47:32.390 --> 00:47:34.310 learn cardiology practice now today

NOTE Confidence: 0.9768058

00:47:34.310 --> 00:47:35.450 as cardiology fellows.

NOTE Confidence: 0.92943656

00:47:35.830 --> 00:47:36.950 My question is about the

NOTE Confidence: 0.92943656

00:47:36.950 --> 00:47:38.890 revived and stitch trials.

NOTE Confidence: 0.9600187

00:47:39.325 --> 00:47:40.445 What, like, I have kind

NOTE Confidence: 0.9600187

00:47:40.445 --> 00:47:41.565 of perceived as, like, the

NOTE Confidence: 0.9600187

00:47:41.565 --> 00:47:43.745 revived stitch paradox of reperfusion

NOTE Confidence: 0.9600187

00:47:43.885 --> 00:47:45.805 in ischemic cardiomyopathy without symptoms

NOTE Confidence: 0.9600187

00:47:45.805 --> 00:47:46.465 of angina

NOTE Confidence: 0.9887688

00:47:46.925 --> 00:47:48.445 or excluding kind of the
NOTE Confidence: 0.9887688

00:47:48.445 --> 00:47:49.805 anginal symptoms. Do you have
NOTE Confidence: 0.9887688

00:47:49.805 --> 00:47:50.925 any insights as to the
NOTE Confidence: 0.9887688

00:47:50.925 --> 00:47:52.465 explanation of that discrepancy?
NOTE Confidence: 0.97500503

00:47:52.765 --> 00:47:53.960 Is it, you know, instant
NOTE Confidence: 0.97500503

00:47:53.960 --> 00:47:56.140 restenosis that's the predominant explanation,
NOTE Confidence: 0.9823648

00:47:56.920 --> 00:47:58.920 or are there more kind
NOTE Confidence: 0.9823648

00:47:58.920 --> 00:48:00.140 of, technical
NOTE Confidence: 0.96943504

00:48:00.520 --> 00:48:01.880 elements regarding how the trials
NOTE Confidence: 0.96943504

00:48:01.880 --> 00:48:03.079 were conducted that could explain
NOTE Confidence: 0.96943504

00:48:03.079 --> 00:48:03.819 that discrepancy?
NOTE Confidence: 0.90153724

00:48:04.680 --> 00:48:05.500 And, also,
NOTE Confidence: 0.9596254

00:48:07.075 --> 00:48:08.594 the LVEF cutoff. So, like,
NOTE Confidence: 0.9596254

00:48:08.594 --> 00:48:09.555 in the thirty five to
NOTE Confidence: 0.9596254

00:48:09.555 --> 00:48:11.075 fifty percent range, those kinds
NOTE Confidence: 0.9596254

00:48:11.075 --> 00:48:13.094 of, like, nonsevere cardiomyopathy.

NOTE Confidence: 0.9388581

00:48:14.515 --> 00:48:16.594 Yeah. So it there's quite

NOTE Confidence: 0.9388581

00:48:16.594 --> 00:48:17.635 a lot to discuss there.

NOTE Confidence: 0.9388581

00:48:17.635 --> 00:48:18.614 So revived

NOTE Confidence: 0.91564924

00:48:19.270 --> 00:48:20.710 my opinion about revived was

NOTE Confidence: 0.91564924

00:48:20.710 --> 00:48:21.590 we took those people at

NOTE Confidence: 0.91564924

00:48:21.590 --> 00:48:22.950 heart failure clinics. So they

NOTE Confidence: 0.91564924

00:48:22.950 --> 00:48:23.989 weren't cath lab people with

NOTE Confidence: 0.91564924

00:48:23.989 --> 00:48:25.190 low ejection fractions. They were

NOTE Confidence: 0.91564924

00:48:25.190 --> 00:48:26.950 heart failure people came into

NOTE Confidence: 0.91564924

00:48:26.950 --> 00:48:28.150 the to the cath lab.

NOTE Confidence: 0.91564924

00:48:28.150 --> 00:48:29.430 We cath them. They had

NOTE Confidence: 0.91564924

00:48:29.430 --> 00:48:31.350 terrible congeries and terrible hearts.

NOTE Confidence: 0.91564924

00:48:31.350 --> 00:48:32.330 I think it's

NOTE Confidence: 0.9289453

00:48:32.655 --> 00:48:34.495 too late essentially to to

NOTE Confidence: 0.9289453

00:48:34.495 --> 00:48:36.035 think that, you know,

NOTE Confidence: 0.989475

00:48:36.415 --> 00:48:36.915 revascularization
NOTE Confidence: 0.9201508

00:48:37.295 --> 00:48:38.815 of those thick and scarred,
NOTE Confidence: 0.9201508

00:48:38.815 --> 00:48:40.735 horrible hearts, was gonna help.
NOTE Confidence: 0.9201508

00:48:40.735 --> 00:48:42.175 Although they did have mandated
NOTE Confidence: 0.9201508

00:48:42.175 --> 00:48:42.675 viability,
NOTE Confidence: 0.9464118

00:48:43.215 --> 00:48:44.815 but as Eric's drawn us
NOTE Confidence: 0.9464118

00:48:44.815 --> 00:48:46.415 towards what is viability, we
NOTE Confidence: 0.9464118

00:48:46.415 --> 00:48:47.555 do understand viability.
NOTE Confidence: 0.99549365

00:48:48.460 --> 00:48:49.760 The MRI viability
NOTE Confidence: 0.89865434

00:48:50.140 --> 00:48:51.500 data is based on forty
NOTE Confidence: 0.89865434

00:48:51.500 --> 00:48:52.860 one patients and, you know,
NOTE Confidence: 0.89865434

00:48:52.860 --> 00:48:54.219 it's really it's not great,
NOTE Confidence: 0.89865434

00:48:54.219 --> 00:48:55.440 the derivation of validation.
NOTE Confidence: 0.8815471

00:48:55.820 --> 00:48:57.020 Then we put lots of
NOTE Confidence: 0.8815471

00:48:57.020 --> 00:48:57.980 stents in them, so I'm
NOTE Confidence: 0.8815471

00:48:57.980 --> 00:48:59.100 sure that's instead of a

NOTE Confidence: 0.8815471

00:48:59.100 --> 00:49:00.719 stenosis, you know, stent thrombosis

NOTE Confidence: 0.9169414

00:49:01.255 --> 00:49:02.695 probably didn't help either, but

NOTE Confidence: 0.9169414

00:49:02.695 --> 00:49:04.135 whatever. They they I think

NOTE Confidence: 0.9169414

00:49:04.135 --> 00:49:05.255 their disease process is driven

NOTE Confidence: 0.9169414

00:49:05.255 --> 00:49:06.375 by their bad ventricles and

NOTE Confidence: 0.9169414

00:49:06.375 --> 00:49:07.864 those outcomes due to due

NOTE Confidence: 0.9169414

00:49:07.864 --> 00:49:08.594 to the

NOTE Confidence: 0.91135037

00:49:09.094 --> 00:49:10.695 pump dysfunction rather than the

NOTE Confidence: 0.91135037

00:49:10.695 --> 00:49:12.715 coronary perfusion. So that survived

NOTE Confidence: 0.7940884

00:49:13.370 --> 00:49:14.730 Stitch did show benefit, but

NOTE Confidence: 0.7940884

00:49:14.730 --> 00:49:15.850 of course, in Stitch we

NOTE Confidence: 0.7940884

00:49:15.850 --> 00:49:17.950 had CABG, we had upfront,

NOTE Confidence: 0.89010096

00:49:18.890 --> 00:49:21.050 harm, from surgery, but then

NOTE Confidence: 0.89010096

00:49:21.050 --> 00:49:22.250 the the I think ALIMA

NOTE Confidence: 0.89010096

00:49:22.250 --> 00:49:23.690 is still a valuable thing

NOTE Confidence: 0.89010096

00:49:23.690 --> 00:49:24.890 in younger people with heart
NOTE Confidence: 0.89010096

00:49:24.890 --> 00:49:26.010 failure. So there is benefit
NOTE Confidence: 0.89010096

00:49:26.010 --> 00:49:27.370 there. And I'm sure that
NOTE Confidence: 0.89010096

00:49:27.370 --> 00:49:29.205 having a ALIMA perfusing in
NOTE Confidence: 0.89010096

00:49:29.205 --> 00:49:30.725 the front yard protection against
NOTE Confidence: 0.89010096

00:49:30.725 --> 00:49:32.645 future events is probably a
NOTE Confidence: 0.89010096

00:49:32.645 --> 00:49:33.625 good thing. So,
NOTE Confidence: 0.9960012

00:49:34.245 --> 00:49:35.045 you know, I think there's
NOTE Confidence: 0.9960012

00:49:35.045 --> 00:49:36.965 so much to understand about
NOTE Confidence: 0.9960012

00:49:36.965 --> 00:49:37.864 what's driving
NOTE Confidence: 0.8878108

00:49:38.325 --> 00:49:39.605 driving things. The people with
NOTE Confidence: 0.8878108

00:49:39.605 --> 00:49:40.965 higher rejection fractions, I I
NOTE Confidence: 0.8878108

00:49:40.965 --> 00:49:42.165 think is different. And we've
NOTE Confidence: 0.8878108

00:49:42.165 --> 00:49:43.525 intentionally gone up on our
NOTE Confidence: 0.8878108

00:49:43.525 --> 00:49:44.619 new trials to forty percent,
NOTE Confidence: 0.8878108

00:49:44.619 --> 00:49:46.219 so they're not terrible hearts.

NOTE Confidence: 0.8878108
00:49:46.219 --> 00:49:47.420 They're gonna have a bit
NOTE Confidence: 0.8878108
00:49:47.420 --> 00:49:48.719 better. So I think the
NOTE Confidence: 0.89837825
00:49:49.020 --> 00:49:50.700 risk profile or the the
NOTE Confidence: 0.89837825
00:49:50.700 --> 00:49:51.980 the mechanisms will be different
NOTE Confidence: 0.89837825
00:49:51.980 --> 00:49:53.100 than those people with better
NOTE Confidence: 0.89837825
00:49:53.100 --> 00:49:53.600 hearts.
NOTE Confidence: 0.97225624
00:49:53.980 --> 00:49:55.020 So we're kinda hoping to
NOTE Confidence: 0.97225624
00:49:55.020 --> 00:49:55.980 recruit quite a lot of
NOTE Confidence: 0.97225624
00:49:55.980 --> 00:49:56.780 them, and then we can
NOTE Confidence: 0.97225624
00:49:56.780 --> 00:49:57.760 understand what's
NOTE Confidence: 0.87707436
00:49:58.695 --> 00:49:59.835 But there's it's an operation
NOTE Confidence: 0.87707436
00:50:00.135 --> 00:50:01.255 going on. We'll have lots
NOTE Confidence: 0.87707436
00:50:01.255 --> 00:50:02.475 of patients who can
NOTE Confidence: 0.96667534
00:50:02.775 --> 00:50:04.795 do proper analysis of subgroups
NOTE Confidence: 0.96667534
00:50:04.855 --> 00:50:06.215 and and understand them with,
NOTE Confidence: 0.96667534

00:50:06.614 --> 00:50:08.295 with, enough numbers to have
NOTE Confidence: 0.96667534

00:50:08.295 --> 00:50:09.275 meaningful analysis.
NOTE Confidence: 0.9758228

00:50:14.250 --> 00:50:15.370 Thank thank you again.
NOTE Confidence: 0.93518865

00:50:15.850 --> 00:50:17.450 So I have a I
NOTE Confidence: 0.93518865

00:50:17.450 --> 00:50:18.570 have a question on this
NOTE Confidence: 0.93518865

00:50:18.570 --> 00:50:20.510 whole kind of early diagnosis
NOTE Confidence: 0.93518865

00:50:20.730 --> 00:50:22.570 universal screening of kinda heart
NOTE Confidence: 0.93518865

00:50:22.570 --> 00:50:23.470 failure almost.
NOTE Confidence: 0.9387712

00:50:24.605 --> 00:50:25.905 Now that we know
NOTE Confidence: 0.9493876

00:50:26.364 --> 00:50:28.125 essentially that heart failure is
NOTE Confidence: 0.9493876

00:50:28.125 --> 00:50:30.285 actually, like, multiorgan dysfunction and,
NOTE Confidence: 0.9493876

00:50:30.285 --> 00:50:32.045 like, very, like, you know,
NOTE Confidence: 0.9493876

00:50:32.045 --> 00:50:33.265 multipathway dysregulation,
NOTE Confidence: 0.94668734

00:50:33.885 --> 00:50:35.184 and now that we know
NOTE Confidence: 0.94668734

00:50:35.325 --> 00:50:37.085 that there's, in HFpEF, essentially,
NOTE Confidence: 0.94668734

00:50:37.085 --> 00:50:38.305 like, universal adiposity

NOTE Confidence: 0.9927313

00:50:38.605 --> 00:50:40.100 or, like, you know, dysregulation,

NOTE Confidence: 0.9728099

00:50:41.360 --> 00:50:42.820 of, like, adipose tissue.

NOTE Confidence: 0.9748325

00:50:43.120 --> 00:50:44.480 Do you feel like from

NOTE Confidence: 0.9748325

00:50:44.480 --> 00:50:46.320 a early diagnosis perspective, it

NOTE Confidence: 0.9748325

00:50:46.320 --> 00:50:48.080 makes sense to screen those

NOTE Confidence: 0.9748325

00:50:48.080 --> 00:50:49.600 people, people who have a

NOTE Confidence: 0.9748325

00:50:49.600 --> 00:50:51.440 lot of visceral adiposity or

NOTE Confidence: 0.9748325

00:50:51.440 --> 00:50:53.200 fat deposition elsewhere rather than

NOTE Confidence: 0.9748325

00:50:53.200 --> 00:50:54.240 kind of a more universal

NOTE Confidence: 0.9748325

00:50:54.240 --> 00:50:54.980 screening approach?

NOTE Confidence: 0.9103189

00:50:55.385 --> 00:50:57.145 So our approach is not

NOTE Confidence: 0.9103189

00:50:57.145 --> 00:50:58.265 universal as we're we're looking

NOTE Confidence: 0.9103189

00:50:58.265 --> 00:50:59.464 for two risk factors for

NOTE Confidence: 0.9103189

00:50:59.464 --> 00:51:00.665 heart failure before we screen.

NOTE Confidence: 0.9103189

00:51:00.665 --> 00:51:01.625 So I may be quite

NOTE Confidence: 0.9103189

00:51:01.625 --> 00:51:03.405 broad about that. So,
NOTE Confidence: 0.9040471

00:51:25.515 --> 00:51:27.275 We're we're running and Sanjeev
NOTE Confidence: 0.9040471

00:51:27.275 --> 00:51:28.955 Shah is doing his heart
NOTE Confidence: 0.9040471

00:51:28.955 --> 00:51:30.635 share registry as well. We've
NOTE Confidence: 0.9040471

00:51:30.635 --> 00:51:31.835 got lots of different HIPAA
NOTE Confidence: 0.9040471

00:51:31.835 --> 00:51:33.035 registries around the world, all
NOTE Confidence: 0.9040471

00:51:33.035 --> 00:51:34.555 linked up, sharing data, and
NOTE Confidence: 0.9040471

00:51:34.555 --> 00:51:35.760 all the same sort of
NOTE Confidence: 0.9040471

00:51:35.920 --> 00:51:37.200 process that that I'm talking
NOTE Confidence: 0.9040471

00:51:37.200 --> 00:51:38.480 about for trials. We're doing
NOTE Confidence: 0.9040471

00:51:38.480 --> 00:51:39.760 that for registries as well.
NOTE Confidence: 0.9040471

00:51:39.760 --> 00:51:40.359 So I think we need
NOTE Confidence: 0.9040471

00:51:40.359 --> 00:51:42.239 to understand HF, so heart
NOTE Confidence: 0.9040471

00:51:42.239 --> 00:51:43.680 failure globally and the risk
NOTE Confidence: 0.9040471

00:51:43.680 --> 00:51:45.200 factors for heart failure. But,
NOTE Confidence: 0.9040471

00:51:45.200 --> 00:51:46.180 you know, Milton's

NOTE Confidence: 0.9632171

00:51:46.800 --> 00:51:48.480 narratives are fantastic, but they

NOTE Confidence: 0.9632171

00:51:49.045 --> 00:51:49.844 I'm not sure it's a

NOTE Confidence: 0.9632171

00:51:49.844 --> 00:51:51.285 whole story. Obesity is important,

NOTE Confidence: 0.9632171

00:51:51.285 --> 00:51:52.245 but there's lots of other

NOTE Confidence: 0.9632171

00:51:52.245 --> 00:51:53.545 things that cause heart failure.

NOTE Confidence: 0.9337688

00:51:54.245 --> 00:51:55.225 So, again,

NOTE Confidence: 0.98278797

00:51:55.685 --> 00:51:56.505 let's look,

NOTE Confidence: 0.8579289

00:51:57.125 --> 00:51:57.625 globally,

NOTE Confidence: 0.94394195

00:51:58.085 --> 00:51:59.125 and I know you're involved

NOTE Confidence: 0.94394195

00:51:59.125 --> 00:52:00.645 with the global, you know,

NOTE Confidence: 0.94394195

00:52:00.645 --> 00:52:02.005 heart failure registries. I think

NOTE Confidence: 0.94394195

00:52:02.005 --> 00:52:03.125 look globally, look at the

NOTE Confidence: 0.94394195

00:52:03.125 --> 00:52:04.165 risk factors, look at the

NOTE Confidence: 0.94394195

00:52:04.165 --> 00:52:05.940 different people to screen. Maybe

NOTE Confidence: 0.94394195

00:52:05.940 --> 00:52:07.619 in America, yeah. Yes. You

NOTE Confidence: 0.94394195

00:52:07.619 --> 00:52:08.739 you screen people that are
NOTE Confidence: 0.94394195

00:52:08.739 --> 00:52:10.340 obese, but in other countries,
NOTE Confidence: 0.94394195

00:52:10.340 --> 00:52:11.380 there's other things which are
NOTE Confidence: 0.94394195

00:52:11.380 --> 00:52:12.680 the major drivers, hypertension.
NOTE Confidence: 0.94847983

00:52:13.619 --> 00:52:15.219 Cardiology is interesting as well,
NOTE Confidence: 0.94847983

00:52:15.219 --> 00:52:16.580 to be honest. That's the
NOTE Confidence: 0.94847983

00:52:16.580 --> 00:52:17.300 other thing is how do
NOTE Confidence: 0.94847983

00:52:17.300 --> 00:52:18.660 you define heart failure? Because
NOTE Confidence: 0.94847983

00:52:18.660 --> 00:52:19.619 what is HFpEF is a
NOTE Confidence: 0.94847983

00:52:19.619 --> 00:52:21.215 big issue because you can
NOTE Confidence: 0.94847983

00:52:21.215 --> 00:52:22.735 define HFF in tons of
NOTE Confidence: 0.94847983

00:52:22.735 --> 00:52:23.935 different ways. I mean, there's,
NOTE Confidence: 0.94847983

00:52:23.935 --> 00:52:25.055 you know, that's why people
NOTE Confidence: 0.94847983

00:52:25.055 --> 00:52:26.755 hate HFF in general medicine
NOTE Confidence: 0.94847983

00:52:26.895 --> 00:52:28.175 or because we've got the
NOTE Confidence: 0.94847983

00:52:28.175 --> 00:52:30.594 different, different definitions, different scores.

NOTE Confidence: 0.98935664

00:52:30.975 --> 00:52:32.655 So there's a massive debate

NOTE Confidence: 0.98935664

00:52:32.655 --> 00:52:33.935 about what HFF is as

NOTE Confidence: 0.98935664

00:52:33.935 --> 00:52:34.435 well.

NOTE Confidence: 0.9640462

00:52:37.079 --> 00:52:38.359 Two more questions, and then

NOTE Confidence: 0.9640462

00:52:38.359 --> 00:52:39.880 I'll maybe cut it off

NOTE Confidence: 0.9640462

00:52:39.880 --> 00:52:41.420 with a comment or two.

NOTE Confidence: 0.9575749

00:52:43.640 --> 00:52:45.180 That's a really wonderful presentation.

NOTE Confidence: 0.9575749

00:52:45.239 --> 00:52:45.980 Thank you.

NOTE Confidence: 0.9912933

00:52:46.359 --> 00:52:48.039 There's emerging evidence that,

NOTE Confidence: 0.9894988

00:52:48.519 --> 00:52:50.344 many of these new antidiabetic

NOTE Confidence: 0.98208344

00:52:50.724 --> 00:52:52.665 medications have antiplatelet effects.

NOTE Confidence: 0.9802444

00:52:53.285 --> 00:52:55.065 And, certainly, it's known that

NOTE Confidence: 0.9802444

00:52:55.125 --> 00:52:57.385 platelets have can release interleukin

NOTE Confidence: 0.9802444

00:52:57.445 --> 00:52:59.045 one b and actually have

NOTE Confidence: 0.9802444

00:52:59.045 --> 00:53:00.265 all the components

NOTE Confidence: 0.98925465

00:53:00.565 --> 00:53:01.705 of the, NLRP
NOTE Confidence: 0.9844062

00:53:02.244 --> 00:53:02.744 inflammasome.
NOTE Confidence: 0.9950552

00:53:03.364 --> 00:53:04.515 And so I wonder
NOTE Confidence: 0.9687273

00:53:04.880 --> 00:53:06.239 what your thoughts are about
NOTE Confidence: 0.9687273

00:53:06.239 --> 00:53:06.739 that.
NOTE Confidence: 0.9269889

00:53:07.040 --> 00:53:08.400 Yeah. So it's it's it's
NOTE Confidence: 0.9269889

00:53:08.400 --> 00:53:09.600 like hearing Paul Richter talking
NOTE Confidence: 0.9269889

00:53:09.600 --> 00:53:10.320 to me. So we have
NOTE Confidence: 0.9269889

00:53:10.320 --> 00:53:11.680 these great conversations because he
NOTE Confidence: 0.9269889

00:53:11.680 --> 00:53:12.719 sees everything from a blood
NOTE Confidence: 0.9269889

00:53:12.719 --> 00:53:14.580 vessel and a antiplatelet perspective
NOTE Confidence: 0.9269889

00:53:14.640 --> 00:53:15.840 and, you know, a blood
NOTE Confidence: 0.9269889

00:53:15.840 --> 00:53:17.040 vessel wall, and I see
NOTE Confidence: 0.9269889

00:53:17.040 --> 00:53:18.320 everything from a heart failure
NOTE Confidence: 0.9269889

00:53:18.320 --> 00:53:19.840 perspective. But, actually, the crossover
NOTE Confidence: 0.9269889

00:53:19.840 --> 00:53:21.355 is massive. As I said,

NOTE Confidence: 0.9269889

00:53:21.355 --> 00:53:22.635 later on, if you look

NOTE Confidence: 0.9269889

00:53:22.635 --> 00:53:23.935 at hep hep people, they're

NOTE Confidence: 0.92475045

00:53:24.315 --> 00:53:26.235 absolutely peppered with vascular disease,

NOTE Confidence: 0.92475045

00:53:26.235 --> 00:53:27.675 with microvascular disease through all

NOTE Confidence: 0.92475045

00:53:27.675 --> 00:53:29.195 their organs and major vascular

NOTE Confidence: 0.92475045

00:53:29.195 --> 00:53:30.315 disease. So I think these

NOTE Confidence: 0.92475045

00:53:30.315 --> 00:53:32.175 are these are very important.

NOTE Confidence: 0.96833545

00:53:32.635 --> 00:53:33.675 If you look at the

NOTE Confidence: 0.96833545

00:53:33.675 --> 00:53:34.795 the reason why people got

NOTE Confidence: 0.96833545

00:53:34.795 --> 00:53:36.690 excited about GLP ones, that

NOTE Confidence: 0.96833545

00:53:36.770 --> 00:53:38.130 was reduction in MI and

NOTE Confidence: 0.96833545

00:53:38.130 --> 00:53:39.730 stroke and cardiovascular death. So

NOTE Confidence: 0.96833545

00:53:39.730 --> 00:53:40.609 I think your point there

NOTE Confidence: 0.96833545

00:53:40.609 --> 00:53:41.750 is very well taken,

NOTE Confidence: 0.9865771

00:53:42.130 --> 00:53:42.630 but,

NOTE Confidence: 0.9337853

00:53:43.650 --> 00:53:44.930 Paul can't think about heart
NOTE Confidence: 0.9337853

00:53:44.930 --> 00:53:45.969 failure because he's a vascular
NOTE Confidence: 0.9337853

00:53:45.969 --> 00:53:46.770 guy. So I kinda joke
NOTE Confidence: 0.9337853

00:53:46.770 --> 00:53:47.730 with him because he thinks
NOTE Confidence: 0.9337853

00:53:47.730 --> 00:53:48.770 Zeus will be positive and
NOTE Confidence: 0.9337853

00:53:48.770 --> 00:53:49.810 I think Hermes will be
NOTE Confidence: 0.9337853

00:53:49.810 --> 00:53:51.445 positive. For me, Hermes is
NOTE Confidence: 0.9337853

00:53:51.445 --> 00:53:53.145 hepep, it's an enriched vascular
NOTE Confidence: 0.9052619

00:53:53.525 --> 00:53:54.984 problem. So if you're right,
NOTE Confidence: 0.79964435

00:53:55.685 --> 00:53:57.625 then then that's even more,
NOTE Confidence: 0.89018387

00:53:58.165 --> 00:53:59.285 reason for our chart to
NOTE Confidence: 0.89018387

00:53:59.285 --> 00:54:00.805 be positive and who knows
NOTE Confidence: 0.89018387

00:54:00.805 --> 00:54:02.244 about his. So I think
NOTE Confidence: 0.89018387

00:54:02.244 --> 00:54:03.525 you're right. The other issue
NOTE Confidence: 0.89018387

00:54:03.525 --> 00:54:04.185 is that
NOTE Confidence: 0.9101941

00:54:04.569 --> 00:54:06.250 the post MI environment, that

NOTE Confidence: 0.9101941
00:54:06.250 --> 00:54:07.609 could that mechanism could be
NOTE Confidence: 0.9101941
00:54:07.609 --> 00:54:09.069 very important post MI.
NOTE Confidence: 0.97364837
00:54:09.369 --> 00:54:10.489 But, again, I'm not sure
NOTE Confidence: 0.97364837
00:54:10.489 --> 00:54:11.849 how that balances with anti
NOTE Confidence: 0.97364837
00:54:11.849 --> 00:54:13.130 inflammatory effects of the healing
NOTE Confidence: 0.97364837
00:54:13.130 --> 00:54:14.329 of the infarct, which I
NOTE Confidence: 0.97364837
00:54:14.329 --> 00:54:15.210 think is an important,
NOTE Confidence: 0.9949059
00:54:15.690 --> 00:54:16.730 thing to try and think
NOTE Confidence: 0.9949059
00:54:16.730 --> 00:54:17.469 of the balance.
NOTE Confidence: 0.97777796
00:54:17.930 --> 00:54:18.989 Great. Thank you.
NOTE Confidence: 0.9479931
00:54:19.505 --> 00:54:21.025 Maybe, one question from Hattie,
NOTE Confidence: 0.9479931
00:54:21.025 --> 00:54:22.245 and then maybe we'll just,
NOTE Confidence: 0.9563351
00:54:23.105 --> 00:54:24.945 comment and finish that. Great.
NOTE Confidence: 0.9563351
00:54:24.945 --> 00:54:25.825 Hi. Thank you. So I'm
NOTE Confidence: 0.9563351
00:54:25.825 --> 00:54:27.025 a basic scientist. I was
NOTE Confidence: 0.9563351

00:54:27.025 --> 00:54:28.405 curious what kind of molecular
NOTE Confidence: 0.9563351

00:54:28.465 --> 00:54:30.065 data are available to collect
NOTE Confidence: 0.9563351

00:54:30.065 --> 00:54:31.825 throughout these patients longitudinally as
NOTE Confidence: 0.9563351

00:54:31.825 --> 00:54:33.650 they're in this clinical trials,
NOTE Confidence: 0.9563351

00:54:33.790 --> 00:54:34.910 especially at the cellular and
NOTE Confidence: 0.9563351

00:54:34.910 --> 00:54:36.670 tissue level, if any? Yeah.
NOTE Confidence: 0.9563351

00:54:36.670 --> 00:54:37.170 So
NOTE Confidence: 0.9752035

00:54:37.469 --> 00:54:38.849 the answer to that is
NOTE Confidence: 0.9879699

00:54:39.230 --> 00:54:41.069 very, very variable across the
NOTE Confidence: 0.9879699

00:54:41.069 --> 00:54:41.569 trials.
NOTE Confidence: 0.96756184

00:54:41.869 --> 00:54:42.989 So most of the trials
NOTE Confidence: 0.96756184

00:54:42.989 --> 00:54:44.750 we're doing are have to
NOTE Confidence: 0.96756184

00:54:44.750 --> 00:54:46.955 be cheap and simple because
NOTE Confidence: 0.96756184

00:54:46.955 --> 00:54:48.955 we're doing international collaborations and
NOTE Confidence: 0.96756184

00:54:48.955 --> 00:54:51.114 essentially collecting body counts and
NOTE Confidence: 0.96756184

00:54:51.114 --> 00:54:51.614 hospitalizations,

NOTE Confidence: 0.9728817

00:54:52.635 --> 00:54:53.835 because that's all we can

NOTE Confidence: 0.9728817

00:54:53.835 --> 00:54:55.614 do. Because we have people

NOTE Confidence: 0.90946436

00:54:55.995 --> 00:54:57.195 if I work with Boringer,

NOTE Confidence: 0.90946436

00:54:57.195 --> 00:54:58.155 they've got, like, you know,

NOTE Confidence: 0.90946436

00:54:58.155 --> 00:54:59.594 twelve hundred sites. But we

NOTE Confidence: 0.90946436

00:54:59.594 --> 00:54:59.880 work