WEBVTT

00:00:00.000 --> 00:00:02.106 OK, why don't we get started?

00:00:02.110 --> 00:00:04.048 We have a pretty full agenda

00:00:04.048 --> 00:00:06.089 and and people will join love.

00:00:06.090 --> 00:00:06.970 Thank you all for coming.

00:00:06.970 --> 00:00:08.104 I'm Roy herbst.

00:00:08.104 --> 00:00:09.994 Cue from medical oncology and

00:00:09.994 --> 00:00:12.207 of all the jobs I do here.

00:00:12.210 --> 00:00:14.926 I think my greatest honor is to

00:00:14.930 --> 00:00:16.590 organize the Calabrese lecture each

00:00:16.590 --> 00:00:18.849 year and you'll hear why the Paul

00:00:18.849 --> 00:00:21.017 Calabrese was a mentor and friend to me.

00:00:21.020 --> 00:00:23.428 And it's great to have his family together.

00:00:23.430 --> 00:00:25.138 I just wish we could have all

00:00:25.138 --> 00:00:26.430 been together here in person,

NOTE Confidence: 0.905433071666667

00:00:26.430 --> 00:00:28.326 but it's great to be here.

NOTE Confidence: 0.905433071666667

00:00:28.330 --> 00:00:31.216 You know, virtually and to have.

NOTE Confidence: 0.905433071666667

00:00:31.220 --> 00:00:33.173 A discussion you know at the 50th

NOTE Confidence: 0.905433071666667

00:00:33.173 --> 00:00:35.140 anniversary of the National Cancer Act,

NOTE Confidence: 0.905433071666667

00:00:35.140 --> 00:00:36.088 and as you'll see,

NOTE Confidence: 0.905433071666667

00:00:36.088 --> 00:00:38.030 Yale had so much to do with it.

NOTE Confidence: 0.905433071666667

00:00:38.030 --> 00:00:38.718 Paul, Vince,

NOTE Confidence: 0.905433071666667

00:00:38.718 --> 00:00:40.438 and we're gonna hear from

NOTE Confidence: 0.905433071666667

00:00:40.438 --> 00:00:42.025 the NCI director as we start.

NOTE Confidence: 0.905433071666667

00:00:42.025 --> 00:00:43.135 I'm gonna turn it over to

NOTE Confidence: 0.905433071666667

00:00:43.135 --> 00:00:44.480 our current interim director.

NOTE Confidence: 0.905433071666667

00:00:44.480 --> 00:00:46.468 You know who je to make a

NOTE Confidence: 0.905433071666667

00:00:46.468 --> 00:00:47.320 few welcoming remarks?

NOTE Confidence: 0.905433071666667

00:00:47.320 --> 00:00:47.890 Anita,

NOTE Confidence: 0.6410059725

00:00:48.460 --> 00:00:49.270 thank you Roy.

NOTE Confidence: 0.6410059725

00:00:49.270 --> 00:00:50.638 And good afternoon everybody.

NOTE Confidence: 0.6410059725

00:00:50.640 --> 00:00:52.000 Welcome to Cancer Center,

NOTE Confidence: 0.6410059725

00:00:52.000 --> 00:00:53.878 grand rounds and I want to

NOTE Confidence: 0.6410059725

00:00:53.880 --> 00:00:55.240 thank the Calabrese family

NOTE Confidence: 0.6410059725

00:00:55.240 --> 00:00:56.770 for joining us today and

NOTE Confidence: 0.917608628

00:00:57.620 --> 00:00:59.488 also that we look forward to having

NOTE Confidence: 0.917608628

00:00:59.488 --> 00:01:01.330 you back here in person hopefully

NOTE Confidence: 0.749269535

00:01:01.340 --> 00:01:04.639 soon. In New Haven in and share this day

NOTE Confidence: 0.749269535

00:01:04.640 --> 00:01:07.060 with you want to especially thank Doctor

NOTE Confidence: 0.749269535

00:01:07.060 --> 00:01:08.910 Sharpless for taking time out of his busy

NOTE Confidence: 0.9413005825

00:01:08.920 --> 00:01:10.400 schedule to present this

NOTE Confidence: 0.9413005825

00:01:10.400 --> 00:01:12.510 year's annual lectureship and

NOTE Confidence: 0.867994332857143

00:01:12.520 --> 00:01:14.515 share his insights on the National Cancer

NOTE Confidence: 0.867994332857143

00:01:14.530 --> 00:01:16.760 Institute priorities and reflections.

NOTE Confidence: 0.923902025

00:01:16.760 --> 00:01:17.988 As we also celebrate

NOTE Confidence: 0.93170071

00:01:18.000 --> 00:01:20.450 50 years of the National Cancer Act

NOTE Confidence: 0.93170071

00:01:20.450 --> 00:01:22.830 and Roy, thank you always for all your

NOTE Confidence: 0.93170071

00:01:22.830 --> 00:01:24.648 thoughtful leadership of the annual

NOTE Confidence: 0.84350948

00:01:24.660 --> 00:01:27.270 Calabrisi Lectureship, which gives us an

NOTE Confidence: 0.935187152

00:01:27.280 --> 00:01:28.900 opportunity to pause and remember

NOTE Confidence: 0.8488669125

00:01:28.910 --> 00:01:30.140 the impact of one of the

NOTE Confidence: 0.8488669125

00:01:30.140 --> 00:01:31.470 great leaders and influencers

NOTE Confidence: 0.885320668

00:01:31.480 --> 00:01:32.644 in Cancer Research.

NOTE Confidence: 0.885320668

00:01:32.644 --> 00:01:35.020 In care and with that. Roy

NOTE Confidence: 0.85774068

00:01:35.030 --> 00:01:35.909 please, I'm going

NOTE Confidence: 0.888098893333333

00:01:35.920 --> 00:01:36.736 to hand it back to you.

NOTE Confidence: 0.8364968392

00:01:37.090 --> 00:01:37.882 Thanks, you know, Renee,

NOTE Confidence: 0.8364968392

00:01:37.882 --> 00:01:39.332 if you could put up that first

NOTE Confidence: 0.8364968392

00:01:39.332 --> 00:01:40.830 slide I I'm going to introduce Vince

NOTE Confidence: 0.8364968392

00:01:40.830 --> 00:01:42.198 Devita now and I just will start.

NOTE Confidence: 0.8364968392

00:01:42.200 --> 00:01:44.076 I just want to show one slide

NOTE Confidence: 0.8364968392

00:01:44.076 --> 00:01:46.173 that I think says it all.

NOTE Confidence: 0.8364968392

00:01:46.173 --> 00:01:48.328 So you know you know.

NOTE Confidence: 0.8364968392

00:01:48.330 --> 00:01:50.698 So there you see events that that picture

NOTE Confidence: 0.8364968392

00:01:50.698 --> 00:01:52.752 is probably right outside of Ned's office.

NOTE Confidence: 0.8364968392

00:01:52.752 --> 00:01:54.760 I think you probably passed it on his

NOTE Confidence: 0.8364968392

00:01:54.816 --> 00:01:58.996 way today and Vince can tell us if he wants.

NOTE Confidence: 0.8364968392

00:01:59.000 --> 00:02:00.050 That represents and then we.

NOTE Confidence: 0.8364968392

00:02:00.050 --> 00:02:01.527 Of course, you see Vince with a

NOTE Confidence: 0.8364968392

00:02:01.527 --> 00:02:02.900 former president and I always ask you,

NOTE Confidence: 0.8364968392

00:02:02.900 --> 00:02:03.294 Vince, what?

NOTE Confidence: 0.8364968392

00:02:03.294 --> 00:02:04.870 What did he tell you that made you

NOTE Confidence: 0.8364968392

00:02:04.913 --> 00:02:06.376 laugh but will take the slide down?

NOTE Confidence: 0.8364968392

00:02:06.380 --> 00:02:08.364 And I'd like Vince to give us just

NOTE Confidence: 0.8364968392

00:02:08.364 --> 00:02:09.975 a couple minutes perspective given

NOTE Confidence: 0.8364968392

00:02:09.975 --> 00:02:12.439 that he was there when it happened.

NOTE Confidence: 0.8364968392

00:02:12.440 --> 00:02:13.499 Yeah, well actually

NOTE Confidence: 0.875825124545455

00:02:13.510 --> 00:02:14.475 it was. I said something

NOTE Confidence: 0.875825124545455

00:02:14.475 --> 00:02:15.740 to him that made him laugh.

NOTE Confidence: 0.875825124545455

00:02:15.740 --> 00:02:18.631 He was not easy to make laugh and

NOTE Confidence: 0.875825124545455

00:02:18.631 --> 00:02:20.318 people always ask him what was it.

NOTE Confidence: 0.875825124545455

00:02:20.320 --> 00:02:21.850 You said I haven't the

NOTE Confidence: 0.875825124545455

00:02:21.850 --> 00:02:23.380 foggiest notion what I said,

NOTE Confidence: 0.875825124545455

00:02:23.380 --> 00:02:24.728 but whatever it was,

NOTE Confidence: 0.875825124545455

00:02:24.728 --> 00:02:26.413 it seemed to be funny.

NOTE Confidence: 0.875825124545455

00:02:26.420 --> 00:02:27.835 Riots would say two things

NOTE Confidence: 0.875825124545455

00:02:27.835 --> 00:02:29.759 about the early days of the NCI.

NOTE Confidence: 0.875825124545455

00:02:29.760 --> 00:02:32.328 I had sort of an advance look at

NOTE Confidence: 0.875825124545455

00:02:32.328 --> 00:02:34.698 the Cancer Act because I was taking

NOTE Confidence: 0.875825124545455

00:02:34.698 --> 00:02:37.003 care of the the guy who wrote

NOTE Confidence: 0.875825124545455

00:02:37.003 --> 00:02:39.574 it at the time and so he gave me

NOTE Confidence: 0.875825124545455

00:02:39.574 --> 00:02:40.978 insights into what was going on.

00:02:40.980 --> 00:02:42.849 I like most people in my age.

00:02:42.850 --> 00:02:44.560 I didn't care for the idea,

00:02:44.560 --> 00:02:46.780 but I grew to like it as as time went

00:02:46.840 --> 00:02:49.360 on and I became director of the Institute.

00:02:49.360 --> 00:02:51.832 I like to remind people that the mandate

00:02:51.832 --> 00:02:54.816 of the Cancer Act was to support research.

00:02:54.820 --> 00:02:56.494 The application of the results of

00:02:56.494 --> 00:02:58.160 research to reduce the incidence,

00:02:58.160 --> 00:03:00.720 morbidity and mortality from cancer.

00:03:00.720 --> 00:03:02.448 So that was on our mind as we

00:03:02.448 --> 00:03:04.149 started to spend the money and we

00:03:04.149 --> 00:03:06.120 did pretty well in the first decade.

00:03:06.120 --> 00:03:09.606 85% of the money went into basic

00:03:09.606 --> 00:03:11.700 research and we had two problems.

00:03:11.700 --> 00:03:13.275 I think Med would like to have.

00:03:13.280 --> 00:03:15.320 Now there were problems for us.

NOTE Confidence: 0.875825124545455

00:03:15.320 --> 00:03:17.198 We couldn't spend all the money.

NOTE Confidence: 0.875825124545455

00:03:17.200 --> 00:03:18.754 It's very hard when you weren't

NOTE Confidence: 0.875825124545455

00:03:18.754 --> 00:03:19.790 staffed up to spend.

NOTE Confidence: 0.875825124545455

00:03:19.790 --> 00:03:21.834 $100 million and you have to keep

NOTE Confidence: 0.875825124545455

00:03:21.834 --> 00:03:23.998 in mind that the NIH doesn't have

NOTE Confidence: 0.875825124545455

00:03:23.998 --> 00:03:25.828 what we call no year money.

NOTE Confidence: 0.875825124545455

00:03:25.830 --> 00:03:27.650 You get money allocated in a given.

NOTE Confidence: 0.875825124545455

00:03:27.650 --> 00:03:28.890 You have to spend it,

NOTE Confidence: 0.875825124545455

00:03:28.890 --> 00:03:30.304 but you have to give it back.

NOTE Confidence: 0.875825124545455

00:03:30.310 --> 00:03:33.106 Giving it back was politically untenable,

NOTE Confidence: 0.875825124545455

00:03:33.110 --> 00:03:34.958 so we had to figure out how to

NOTE Confidence: 0.875825124545455

00:03:34.958 --> 00:03:36.536 spend it resorted to contracts,

NOTE Confidence: 0.875825124545455

00:03:36.536 --> 00:03:38.768 because we could do that faster,

NOTE Confidence: 0.875825124545455

00:03:38.770 --> 00:03:41.506 which is a very controversial decision.

NOTE Confidence: 0.875825124545455

00:03:41.510 --> 00:03:42.980 The other the other problem we

NOTE Confidence: 0.875825124545455

00:03:42.980 --> 00:03:44.470 had was the grant paylines.

NOTE Confidence: 0.875825124545455

00:03:44.470 --> 00:03:46.760 They were consistently around 50%,

NOTE Confidence: 0.875825124545455

00:03:46.760 --> 00:03:49.396 but we were funding 50% of approved.

NOTE Confidence: 0.875825124545455

00:03:49.396 --> 00:03:51.036 Applications and there were people

NOTE Confidence: 0.875825124545455

00:03:51.036 --> 00:03:53.266 who said my goodness that's higher

NOTE Confidence: 0.875825124545455

00:03:53.266 --> 00:03:54.738 than we've ever seen.

NOTE Confidence: 0.875825124545455

00:03:54.740 --> 00:03:55.840 It turns out, of course,

NOTE Confidence: 0.875825124545455

00:03:55.840 --> 00:03:58.696 50% essentially approving 100% of all

NOTE Confidence: 0.875825124545455

00:03:58.696 --> 00:04:01.820 grants that had a fundable paceline.

NOTE Confidence: 0.875825124545455

00:04:01.820 --> 00:04:03.938 Most grants are are not rejected,

NOTE Confidence: 0.875825124545455

00:04:03.940 --> 00:04:06.253 it just given a score that you wouldn't fund.

NOTE Confidence: 0.875825124545455

00:04:06.260 --> 00:04:08.848 So when you fund all 50% of

NOTE Confidence: 0.875825124545455

00:04:08.848 --> 00:04:09.586 approved application,

NOTE Confidence: 0.875825124545455

00:04:09.586 --> 00:04:12.159 and every grant up to score 250

NOTE Confidence: 0.875825124545455

00:04:12.159 --> 00:04:14.175 so it was funded in those days,

NOTE Confidence: 0.875825124545455

00:04:14.180 --> 00:04:16.189 so that those are the House here

NOTE Confidence: 0.875825124545455

00:04:16.189 --> 00:04:18.358 on days for submitting a grant.

NOTE Confidence: 0.875825124545455

00:04:18.360 --> 00:04:19.860 We also did the same thing.

NOTE Confidence: 0.875825124545455

00:04:19.860 --> 00:04:21.480 Any applications that we,

NOTE Confidence: 0.875825124545455

00:04:21.480 --> 00:04:23.100 the clinical trials program,

NOTE Confidence: 0.875825124545455

00:04:23.100 --> 00:04:25.898 went from $9 million to $110

NOTE Confidence: 0.875825124545455

00:04:25.898 --> 00:04:27.650 million in six years,

NOTE Confidence: 0.875825124545455

00:04:27.650 --> 00:04:30.548 and the cancer centers went from 3 to 15,

NOTE Confidence: 0.875825124545455

00:04:30.550 --> 00:04:32.475 so that that was the application side.

NOTE Confidence: 0.875825124545455

00:04:32.480 --> 00:04:35.060 The application side was controversial.

NOTE Confidence: 0.875825124545455

00:04:35.060 --> 00:04:36.128 The NIH novice,

NOTE Confidence: 0.875825124545455

00:04:36.128 --> 00:04:38.264 or itself as applying research and

NOTE Confidence: 0.875825124545455

00:04:38.264 --> 00:04:40.536 the Cancer Act changed all that.

NOTE Confidence: 0.875825124545455

00:04:40.540 --> 00:04:42.308 How have we done?

NOTE Confidence: 0.875825124545455

00:04:42.308 --> 00:04:42.750 Well,

NOTE Confidence: 0.875825124545455

00:04:42.750 --> 00:04:44.214 you know we decreased.

NOTE Confidence: 0.875825124545455

00:04:44.214 --> 00:04:46.044 Incidents began to decrease in

NOTE Confidence: 0.875825124545455

00:04:46.044 --> 00:04:48.030 1990 and morbidity has been fat,

NOTE Confidence: 0.875825124545455

00:04:48.030 --> 00:04:51.580 vastly diminished in both surgery,

NOTE Confidence: 0.875825124545455

00:04:51.580 --> 00:04:54.310 radiation therapy and systemic therapies,

NOTE Confidence: 0.875825124545455

00:04:54.310 --> 00:04:56.110 and mortality has been coming

NOTE Confidence: 0.875825124545455

00:04:56.110 --> 00:04:57.770 down steadily since 1991,

NOTE Confidence: 0.875825124545455

00:04:57.770 --> 00:05:00.319 so the mandate I think

NOTE Confidence: 0.885754532

00:05:00.320 --> 00:05:02.804 has been followed over a time period that was

NOTE Confidence: 0.885754532

00:05:02.804 --> 00:05:05.009 perhaps longer than most people anticipated.

NOTE Confidence: 0.885754532

00:05:05.010 --> 00:05:07.306 I think it's fitting to celebrate the

NOTE Confidence: 0.885754532

00:05:07.306 --> 00:05:09.122 50th anniversary at the Calibri Selectah,

NOTE Confidence: 0.885754532

00:05:09.122 --> 00:05:11.125 though, because Paul was very heavily

NOTE Confidence: 0.885754532

00:05:11.125 --> 00:05:13.838 invested in the in the war on cancer.

NOTE Confidence: 0.885754532

00:05:13.840 --> 00:05:16.400 And he served as advisers to two presidents.

NOTE Confidence: 0.885754532

00:05:16.400 --> 00:05:19.893 It was appointed the chairman of the

NOTE Confidence: 0.885754532

00:05:19.893 --> 00:05:22.828 National Cancer Advisory Board by one

NOTE Confidence: 0.885754532

00:05:22.828 --> 00:05:25.080 president and the President and a member

NOTE Confidence: 0.885754532

00:05:25.080 --> 00:05:27.660 of the President's Cancer Panel by another.

NOTE Confidence: 0.885754532

00:05:27.660 --> 00:05:29.710 Both presidents were different and

NOTE Confidence: 0.885754532

00:05:29.710 --> 00:05:31.760 they were from different parties,

NOTE Confidence: 0.885754532

00:05:31.760 --> 00:05:33.900 emphasizing polls. Diplomatic skills.

NOTE Confidence: 0.885754532

00:05:33.900 --> 00:05:36.575 When I came to Yale,

NOTE Confidence: 0.885754532

00:05:36.580 --> 00:05:38.692 he readily he was very invested

NOTE Confidence: 0.885754532

00:05:38.692 --> 00:05:41.199 in Yale and Yale Cancer Center,

NOTE Confidence: 0.885754532

00:05:41.200 --> 00:05:42.873 and he and he agreed to become

NOTE Confidence: 0.885754532

00:05:42.873 --> 00:05:44.480 the chair of our scientific.

NOTE Confidence: 0.885754532

00:05:44.480 --> 00:05:47.016 Advisory Board and then he was

NOTE Confidence: 0.885754532

00:05:47.016 --> 00:05:49.110 chair of the overall Advisory Board

NOTE Confidence: 0.885754532

00:05:49.180 --> 00:05:51.436 and then because he suggested it,

NOTE Confidence: 0.885754532

00:05:51.440 --> 00:05:53.224 he decided it would be good if he

NOTE Confidence: 0.885754532

00:05:53.224 --> 00:05:55.161 was chair of both at the same time

12

NOTE Confidence: 0.885754532

00:05:55.161 --> 00:05:56.699 because he could have an annual

NOTE Confidence: 0.885754532

00:05:56.699 --> 00:05:58.289 dinner with both boards and and

NOTE Confidence: 0.885754532

00:05:58.289 --> 00:06:00.300 show each other what we were doing.

NOTE Confidence: 0.885754532

00:06:00.300 --> 00:06:01.940 It was typical of Paul to do that.

NOTE Confidence: 0.885754532

00:06:01.940 --> 00:06:04.400 He said he was a good garius and it was

NOTE Confidence: 0.885754532

00:06:04.467 --> 00:06:06.923 just a wonderful thing to work for him.

NOTE Confidence: 0.885754532

00:06:06.930 --> 00:06:10.444 I first met him in 1965 when I

NOTE Confidence: 0.885754532

00:06:10.444 --> 00:06:12.684 was actually working with his

NOTE Confidence: 0.885754532

00:06:12.684 --> 00:06:14.860 father Massimo over at the VA.

NOTE Confidence: 0.885754532

00:06:14.860 --> 00:06:16.960 Last night was the head of Cardiology,

NOTE Confidence: 0.885754532

00:06:16.960 --> 00:06:18.808 so I I go back a long way

NOTE Confidence: 0.885754532

00:06:18.808 --> 00:06:20.499 with the Calabrisi family.

NOTE Confidence: 0.885754532

00:06:20.500 --> 00:06:21.940 Paul was a Renaissance man and

NOTE Confidence: 0.885754532

00:06:21.940 --> 00:06:23.369 the real pleasure to know him.

NOTE Confidence: 0.885754532

00:06:23.370 --> 00:06:28.614 I miss him often and so I'm happy

NOTE Confidence: 0.885754532

13

00:06:28.614 --> 00:06:30.830 to do this and I'm happy to welcome

NOTE Confidence: 0.885754532

00:06:30.898 --> 00:06:32.610 you Ned to give the Calabrese

NOTE Confidence: 0.885754532

00:06:32.610 --> 00:06:34.933 lecture I must just say one thing

NOTE Confidence: 0.885754532

00:06:34.933 --> 00:06:36.949 about your title of your talk.

NOTE Confidence: 0.885754532

00:06:36.950 --> 00:06:40.190 It's an intriguing title modifying cancer

NOTE Confidence: 0.885754532

00:06:40.190 --> 00:06:42.590 as we know it suggests that you have

NOTE Confidence: 0.885754532

00:06:42.590 --> 00:06:44.889 another dimension in bind for evaluating.

NOTE Confidence: 0.885754532

00:06:44.890 --> 00:06:46.003 Outcomes and cancer.

NOTE Confidence: 0.885754532

00:06:46.003 --> 00:06:48.229 I look forward to seeing you

NOTE Confidence: 0.885754532

00:06:48.229 --> 00:06:50.060 unfold this in your lecture.

NOTE Confidence: 0.885754532

00:06:50.060 --> 00:06:50.600 Thank you.

NOTE Confidence: 0.853819951

00:06:51.580 --> 00:06:52.280 Thanks Vincent,

NOTE Confidence: 0.853819951

00:06:52.280 --> 00:06:55.080 and for our fellows from 1:00 to 1:30.

NOTE Confidence: 0.853819951

00:06:55.080 --> 00:06:57.040 Vince and Ned and the fellows and

NOTE Confidence: 0.853819951

00:06:57.040 --> 00:06:58.492 the fellowship leaders were gonna

NOTE Confidence: 0.853819951

00:06:58.492 --> 00:07:00.178 have a little just informal lunch.

NOTE Confidence: 0.853819951

00:07:00.180 --> 00:07:01.662 You know, virtually just to sort

NOTE Confidence: 0.853819951

00:07:01.662 --> 00:07:03.461 of have the fellows have a chance

NOTE Confidence: 0.853819951

00:07:03.461 --> 00:07:04.973 to get some mentorship from the

NOTE Confidence: 0.853819951

00:07:04.973 --> 00:07:07.306 leaders in the field from the NCI.

NOTE Confidence: 0.853819951

00:07:07.310 --> 00:07:10.173 OK, let's let's get on to the talk.

NOTE Confidence: 0.853819951

00:07:10.173 --> 00:07:12.714 I'm sure net is ready to go.

NOTE Confidence: 0.853819951

00:07:12.720 --> 00:07:15.216 So welcome as I said, you know,

NOTE Confidence: 0.853819951

00:07:15.216 --> 00:07:17.004 I'm really so happy to invite

NOTE Confidence: 0.853819951

00:07:17.004 --> 00:07:18.440 the family online today.

NOTE Confidence: 0.853819951

00:07:18.440 --> 00:07:20.140 The Calabrese family and

NOTE Confidence: 0.853819951

00:07:20.140 --> 00:07:21.840 I'm especially honored that.

NOTE Confidence: 0.853819951

00:07:21.840 --> 00:07:22.596 You are here with us today.

NOTE Confidence: 0.853819951

00:07:22.600 --> 00:07:25.768 Net a year this year is Calabrese lecturer

NOTE Confidence: 0.853819951

00:07:25.770 --> 00:07:27.138 Paul Calabrese is often referred to

NOTE Confidence: 0.853819951

00:07:27.138 --> 00:07:29.076 and if we could go to the first slide,

NOTE Confidence: 0.853819951

15

00:07:29.080 --> 00:07:30.552 Renee as the father,

NOTE Confidence: 0.853819951

00:07:30.552 --> 00:07:32.760 please as the father of oncology.

NOTE Confidence: 0.853819951

00:07:32.760 --> 00:07:35.325 And as influence here at

NOTE Confidence: 0.853819951

00:07:35.325 --> 00:07:37.377 Yale Cancer Center remains.

NOTE Confidence: 0.853819951

00:07:37.380 --> 00:07:40.068 A former faculty member at Yusko of Medicine,

NOTE Confidence: 0.853819951

00:07:40.070 --> 00:07:41.940 he was an internationally recognized

NOTE Confidence: 0.853819951

00:07:41.940 --> 00:07:43.436 authority on the pharmacology

NOTE Confidence: 0.853819951

00:07:43.436 --> 00:07:44.898 of anti cancer agents.

NOTE Confidence: 0.853819951

00:07:44.900 --> 00:07:46.140 Doctor Calabrese serves as director

NOTE Confidence: 0.853819951

00:07:46.140 --> 00:07:47.650 of yet Cancer Centers Advisory Board.

NOTE Confidence: 0.853819951

00:07:47.650 --> 00:07:49.882 Is he just heard?

NOTE Confidence: 0.853819951

00:07:49.882 --> 00:07:52.454 Until 2003 and a personal note,

NOTE Confidence: 0.853819951

00:07:52.454 --> 00:07:54.930 I had the good fortune to meet Paul.

NOTE Confidence: 0.853819951

00:07:54.930 --> 00:07:55.899 It says 30,

NOTE Confidence: 0.853819951

00:07:55.899 --> 00:07:57.514 but it's actually almost 40

NOTE Confidence: 0.853819951

00:07:57.514 --> 00:07:58.829 years ago as a son.

NOTE Confidence: 0.853819951

00:07:58.830 --> 00:07:59.292 Peter wasn't.

NOTE Confidence: 0.853819951

00:07:59.292 --> 00:08:00.678 I guess these are the same

NOTE Confidence: 0.853819951

00:08:00.678 --> 00:08:02.095 notes we used ten years ago

NOTE Confidence: 0.853819951

00:08:02.095 --> 00:08:03.772 when I started doing this was my

NOTE Confidence: 0.853819951

00:08:03.772 --> 00:08:05.107 freshman roommate here at Yale.

NOTE Confidence: 0.853819951

00:08:05.110 --> 00:08:06.070 Over the years.

NOTE Confidence: 0.853819951

00:08:06.070 --> 00:08:07.350 Paul was an advisor,

NOTE Confidence: 0.853819951

00:08:07.350 --> 00:08:08.690 mentor and friend to me,

NOTE Confidence: 0.853819951

00:08:08.690 --> 00:08:10.040 and it's very meaningful to me

NOTE Confidence: 0.853819951

00:08:10.040 --> 00:08:11.891 that I now hold the job that he

NOTE Confidence: 0.853819951

00:08:11.891 --> 00:08:13.487 once held and it's not doesn't go

NOTE Confidence: 0.853819951

00:08:13.487 --> 00:08:15.047 unnoticed to me that in Room 2 away

NOTE Confidence: 0.853819951

00:08:15.047 --> 00:08:17.182 I kind of silly during a difficult

NOTE Confidence: 0.853819951

00:08:17.182 --> 00:08:19.040 meeting or a challenging question.

NOTE Confidence: 0.853819951

00:08:19.040 --> 00:08:21.035 His face right in front of me

NOTE Confidence: 0.853819951

00:08:21.035 --> 00:08:23.149 joining us today are the honorable

NOTE Confidence: 0.853819951

00:08:23.149 --> 00:08:25.129 Guido Calabresi Guido's in Italy.

NOTE Confidence: 0.853819951

00:08:25.130 --> 00:08:27.200 We don't ask the first question,

NOTE Confidence: 0.853819951

00:08:27.200 --> 00:08:28.860 as has been our tradition,

NOTE Confidence: 0.853819951

00:08:28.860 --> 00:08:30.102 so get ready,

NOTE Confidence: 0.853819951

00:08:30.102 --> 00:08:32.172 Guido and of course calls

NOTE Confidence: 0.853819951

00:08:32.172 --> 00:08:34.158 Brother and Judge Janice Max,

NOTE Confidence: 0.853819951

00:08:34.158 --> 00:08:36.088 his daughter and Peter Calabrese

NOTE Confidence: 0.853819951

00:08:36.088 --> 00:08:37.560 and Steven Calabresi,

NOTE Confidence: 0.853819951

00:08:37.560 --> 00:08:38.094 his sons.

NOTE Confidence: 0.853819951

00:08:38.094 --> 00:08:40.230 Thank you all for joining us and for

NOTE Confidence: 0.853819951

00:08:40.292 --> 00:08:42.380 helping to continue your brother and

NOTE Confidence: 0.853819951

00:08:42.380 --> 00:08:44.708 father's legacy here at Yale and Peter.

NOTE Confidence: 0.853819951

00:08:44.710 --> 00:08:45.898 I don't take too much time,

NOTE Confidence: 0.853819951

00:08:45.900 --> 00:08:47.740 but I know we sent a globe to every member

NOTE Confidence: 0.853819951

00:08:47.793 --> 00:08:49.505 of the family and some of the speakers.

NOTE Confidence: 0.853819951

00:08:49.510 --> 00:08:50.518 You should have it,

NOTE Confidence: 0.853819951

00:08:50.518 --> 00:08:52.030 you just want to say one

NOTE Confidence: 0.853819951

00:08:52.088 --> 00:08:53.750 quick word before we move on.

NOTE Confidence: 0.853819951

00:08:53.750 --> 00:08:54.329 Sure, and again,

NOTE Confidence: 0.853819951

00:08:54.329 --> 00:08:55.680 I don't want to delay the lecture,

NOTE Confidence: 0.853819951

00:08:55.680 --> 00:08:57.395 but on behalf of our whole family.

NOTE Confidence: 0.853819951

00:08:57.400 --> 00:08:58.560 Thank you so much Roy.

NOTE Confidence: 0.853819951

00:08:58.560 --> 00:09:00.264 And everyone at Yale and and thank you

NOTE Confidence: 0.853819951

00:09:00.264 --> 00:09:01.658 Doctor Sharpless for giving this lecture.

NOTE Confidence: 0.853819951

00:09:01.660 --> 00:09:04.180 We're very much looking forward to it.

NOTE Confidence: 0.853819951

00:09:04.180 --> 00:09:04.388 OK,

NOTE Confidence: 0.853819951

00:09:04.388 --> 00:09:05.636 and now to introduce net and

NOTE Confidence: 0.853819951

00:09:05.636 --> 00:09:07.357 if we can go to the next slide,

NOTE Confidence: 0.853819951

00:09:07.360 --> 00:09:09.285 we're honored to have Doctor Sharpless here.

NOTE Confidence: 0.853819951

00:09:09.290 --> 00:09:09.672 Today,

NOTE Confidence: 0.853819951

00:09:09.672 --> 00:09:11.964 the director of the National Cancer

NOTE Confidence: 0.853819951

00:09:11.964 --> 00:09:14.038 Institute to honor 50 years of

NOTE Confidence: 0.853819951

00:09:14.038 --> 00:09:16.054 the National Cancer Act for him to

NOTE Confidence: 0.853819951

00:09:16.118 --> 00:09:18.056 share his insights from the NCI

NOTE Confidence: 0.853819951

00:09:18.060 --> 00:09:20.216 prior to his appointment at the NCI.

NOTE Confidence: 0.853819951

00:09:20.220 --> 00:09:21.920 Doctor Sharpless served as a

NOTE Confidence: 0.853819951

00:09:21.920 --> 00:09:23.620 director of the Lineberger Cancer

NOTE Confidence: 0.860069904117647

00:09:23.679 --> 00:09:26.038 Center at the University of North Carolina.

NOTE Confidence: 0.860069904117647

00:09:26.040 --> 00:09:27.930 Doctor Sharma is Sharp was a Morehead

NOTE Confidence: 0.860069904117647

00:09:27.930 --> 00:09:30.209 scholar at UNC Chapel Hill and received

NOTE Confidence: 0.860069904117647

00:09:30.209 --> 00:09:31.974 his undergraduate degree in mathematics

NOTE Confidence: 0.860069904117647

00:09:31.974 --> 00:09:34.275 who went on to pursue his medical degree

NOTE Confidence: 0.860069904117647

00:09:34.275 --> 00:09:36.530 from UNC School of Medicine and completed

NOTE Confidence: 0.860069904117647

00:09:36.530 --> 00:09:38.690 his Internal medicine residency at MGH,

NOTE Confidence: 0.860069904117647

00:09:38.690 --> 00:09:40.614 Massachusetts General and Hematology

NOTE Confidence: 0.860069904117647

00:09:40.614 --> 00:09:43.019 Oncology fellowship at the Dana

NOTE Confidence: 0.860069904117647

00:09:43.019 --> 00:09:44.918 Farber Partners Cancer Care.

NOTE Confidence: 0.860069904117647

00:09:44.920 --> 00:09:46.968 Back of Sharpness is a member of the

NOTE Confidence: 0.860069904117647

00:09:46.968 --> 00:09:48.291 Association of American Physicians

NOTE Confidence: 0.860069904117647

00:09:48.291 --> 00:09:50.553 and the American Society for Clinical

NOTE Confidence: 0.860069904117647

00:09:50.553 --> 00:09:52.717 Investigation and as a Fellow of the

NOTE Confidence: 0.860069904117647

00:09:52.717 --> 00:09:54.290 Academy of the American Association of

NOTE Confidence: 0.860069904117647

00:09:54.290 --> 00:09:56.684 Cancer Research, he has authored more

NOTE Confidence: 0.860069904117647

00:09:56.684 --> 00:09:58.605 than 160 original scientific papers,

NOTE Confidence: 0.860069904117647

00:09:58.605 --> 00:10:00.191 reviews and book chapters,

NOTE Confidence: 0.860069904117647

00:10:00.191 --> 00:10:02.480 and as an inventor on 10 patents,

NOTE Confidence: 0.860069904117647

00:10:02.480 --> 00:10:04.655 he has co-founded two clinical

NOTE Confidence: 0.860069904117647

00:10:04.655 --> 00:10:05.960 stage biotechnology companies,

NOTE Confidence: 0.860069904117647

00:10:05.960 --> 00:10:09.080 G1 Therapeutics and Sapphire Bio net.

NOTE Confidence: 0.860069904117647

00:10:09.080 --> 00:10:10.380 It's really an honor and

NOTE Confidence: 0.860069904117647

00:10:10.380 --> 00:10:11.420 haven't sent this yet,

NOTE Confidence: 0.860069904117647

00:10:11.420 --> 00:10:12.799 but I haven't read the next slide.

NOTE Confidence: 0.860069904117647

00:10:12.800 --> 00:10:13.344 Please Renee,

NOTE Confidence: 0.860069904117647

00:10:13.344 --> 00:10:15.248 I have this lovely plaque that can.

NOTE Confidence: 0.860069904117647

00:10:15.250 --> 00:10:16.595 Go right next to Vince's

NOTE Confidence: 0.860069904117647

00:10:16.595 --> 00:10:17.940 picture there at the NCI.

NOTE Confidence: 0.860069904117647

00:10:17.940 --> 00:10:20.040 Beautiful plaque and for your

NOTE Confidence: 0.860069904117647

00:10:20.040 --> 00:10:21.720 office commemorating that you

NOTE Confidence: 0.860069904117647

00:10:21.720 --> 00:10:23.750 are our pal breezy lecture.

NOTE Confidence: 0.860069904117647

00:10:23.750 --> 00:10:25.316 We're so honored to have you

NOTE Confidence: 0.860069904117647

00:10:25.316 --> 00:10:26.929 and now the floor is yours.

NOTE Confidence: 0.860069904117647

00:10:26.930 --> 00:10:28.330 We look forward to hearing your remarks.

NOTE Confidence: 0.809568014

00:10:29.650 --> 00:10:30.810 Thank you, that kind introduction.

NOTE Confidence: 0.809568014

00:10:30.810 --> 00:10:31.878 It's good to see old friends.

NOTE Confidence: 0.809568014

00:10:31.880 --> 00:10:32.627 At least virtually.

NOTE Confidence: 0.809568014

00:10:32.627 --> 00:10:34.810 I wish I could be there in person.

NOTE Confidence: 0.809568014

00:10:34.810 --> 00:10:36.898 I I love New Haven and and we will

NOTE Confidence: 0.809568014

00:10:36.898 --> 00:10:38.927 have to take a rain check on this.

NOTE Confidence: 0.809568014

00:10:38.930 --> 00:10:40.598 I'm I'm really excited today to

NOTE Confidence: 0.809568014

00:10:40.598 --> 00:10:42.430 do this because for two reasons.

NOTE Confidence: 0.809568014

00:10:42.430 --> 00:10:44.254 One is, it's an opportunity to talk about

NOTE Confidence: 0.809568014

00:10:44.254 --> 00:10:45.858 the National Cancer Act and how important

NOTE Confidence: 0.809568014

00:10:45.858 --> 00:10:47.510 that's been on its 50th anniversary.

NOTE Confidence: 0.809568014

00:10:47.510 --> 00:10:49.230 But also I I think you know it's

NOTE Confidence: 0.809568014

00:10:49.230 --> 00:10:50.801 an opportunity to recognize a real

NOTE Confidence: 0.809568014

00:10:50.801 --> 00:10:51.897 giant among cancer researchers

NOTE Confidence: 0.809568014

00:10:51.897 --> 00:10:53.410 in cancer caregivers and such.

NOTE Confidence: 0.809568014

00:10:53.410 --> 00:10:55.195 An important leader in our

NOTE Confidence: 0.809568014

00:10:55.195 --> 00:10:56.623 field and next slide.

NOTE Confidence: 0.809568014

00:10:56.630 --> 00:10:58.302 As has been said,

NOTE Confidence: 0.809568014

00:10:58.302 --> 00:10:59.556 the Calabrese family.

NOTE Confidence: 0.809568014

00:10:59.560 --> 00:11:01.246 Has a deep connection to Yale,

NOTE Confidence: 0.809568014

00:11:01.250 --> 00:11:03.662 including a pulse father who was

NOTE Confidence: 0.809568014

00:11:03.662 --> 00:11:05.976 a cardiologist untold and his mom

NOTE Confidence: 0.809568014

00:11:05.976 --> 00:11:08.202 had a degree from Yale and we've

NOTE Confidence: 0.809568014

00:11:08.202 --> 00:11:10.538 heard about Judge Calabrese in his

NOTE Confidence: 0.809568014

00:11:10.538 --> 00:11:12.762 imminent work and work with Yale.

NOTE Confidence: 0.809568014

00:11:12.762 --> 00:11:15.018 And we hear about the next generation of

NOTE Confidence: 0.809568014

00:11:15.018 --> 00:11:16.840 calories having these DPL connections.

NOTE Confidence: 0.809568014

00:11:16.840 --> 00:11:18.166 Paul Calabrese also had a deep

NOTE Confidence: 0.809568014

00:11:18.166 --> 00:11:19.460 connection in National Cancer Institute.

NOTE Confidence: 0.809568014

00:11:19.460 --> 00:11:20.980 He was, I think,

NOTE Confidence: 0.809568014

00:11:20.980 --> 00:11:22.690 his career actually began doing

NOTE Confidence: 0.809568014

00:11:22.690 --> 00:11:24.685 field work for the NCI and then

NOTE Confidence: 0.809568014

00:11:24.685 --> 00:11:26.756 serve the NCI in several capacities

NOTE Confidence: 0.809568014

00:11:26.756 --> 00:11:28.903 including as chairman of some of

NOTE Confidence: 0.809568014

00:11:28.903 --> 00:11:30.748 our most important advisory boards.

NOTE Confidence: 0.809568014

00:11:30.750 --> 00:11:32.280 National Cancer Advisory Board and

NOTE Confidence: 0.809568014

00:11:32.280 --> 00:11:34.135 the President's Cancer Panel has been

NOTE Confidence: 0.809568014

00:11:34.135 --> 00:11:37.515 saluted and if the honorable Guido

NOTE Confidence: 0.809568014

00:11:37.515 --> 00:11:39.470 Calabrese I'm told us here today,

NOTE Confidence: 0.809568014

00:11:39.470 --> 00:11:41.126 let me offer a heartfelt recognition

NOTE Confidence: 0.809568014

00:11:41.126 --> 00:11:42.873 to all the Calabrese family for

NOTE Confidence: 0.809568014

00:11:42.873 --> 00:11:44.348 what they've contributed to Yale

NOTE Confidence: 0.809568014

00:11:44.348 --> 00:11:46.258 and and improving what I I believe

NOTE Confidence: 0.809568014

00:11:46.258 --> 00:11:47.226 is the human condition.

NOTE Confidence: 0.809568014

00:11:47.230 --> 00:11:48.211 Through their work.

NOTE Confidence: 0.809568014

00:11:48.211 --> 00:11:49.846 I'm early also pleased that

NOTE Confidence: 0.809568014

00:11:49.846 --> 00:11:50.990 Doctor Devita is here.

NOTE Confidence: 0.809568014

00:11:50.990 --> 00:11:53.423 Vince is a giant in our field and

NOTE Confidence: 0.809568014

00:11:53.423 --> 00:11:54.941 has a direct connection to the

NOTE Confidence: 0.809568014

00:11:54.941 --> 00:11:56.329 what we're talking about today.

NOTE Confidence: 0.809568014

00:11:56.330 --> 00:11:57.790 The National Cancer Act.

NOTE Confidence: 0.809568014

00:11:57.790 --> 00:11:59.851 Vince joined the NCI in 1963

NOTE Confidence: 0.809568014

00:11:59.851 --> 00:12:01.006 and was in CIA director.

NOTE Confidence: 0.809568014

00:12:01.010 --> 00:12:03.124 From 80 to 88 and a doctor,

NOTE Confidence: 0.809568014

00:12:03.130 --> 00:12:04.156 Vida has been a a wealth

NOTE Confidence: 0.809568014

00:12:04.156 --> 00:12:05.010 of good advice to me.

NOTE Confidence: 0.809568014

00:12:05.010 --> 00:12:05.562 In this role,

NOTE Confidence: 0.809568014

00:12:05.562 --> 00:12:07.134 I found his book titled the Death of

NOTE Confidence: 0.809568014

00:12:07.134 --> 00:12:08.580 Cancer Really Interesting Thing to Read.

NOTE Confidence: 0.809568014

00:12:08.580 --> 00:12:10.240 Before I started inside Erector,

NOTE Confidence: 0.809568014

00:12:10.240 --> 00:12:12.442 I recall having a very interesting

NOTE Confidence: 0.809568014

00:12:12.442 --> 00:12:14.530 conversation with Vince about the FDA.

NOTE Confidence: 0.809568014

00:12:14.530 --> 00:12:16.194 Prior to me going to the FDA to

NOTE Confidence: 0.809568014

00:12:16.194 --> 00:12:17.605 be acting Commissioner for seven

NOTE Confidence: 0.809568014

00:12:17.605 --> 00:12:19.489 months and it was really informative

NOTE Confidence: 0.809568014

00:12:19.489 --> 00:12:20.815 to have that perspective in

NOTE Confidence: 0.809568014

00:12:20.815 --> 00:12:23.012 the back of my head as I worked

NOTE Confidence: 0.809568014

00:12:23.012 --> 00:12:24.536 regulating food and drugs.

NOTE Confidence: 0.845768634285714

00:12:26.600 --> 00:12:28.840 So I think it's a fitting memory

NOTE Confidence: 0.845768634285714

00:12:28.840 --> 00:12:31.225 that we're going to talk about the

NOTE Confidence: 0.845768634285714

00:12:31.225 --> 00:12:33.530 National Cancer Act today in given Dr.

NOTE Confidence: 0.845768634285714

00:12:33.530 --> 00:12:35.010 Calabrese his connections to it,

NOTE Confidence: 0.845768634285714

00:12:35.010 --> 00:12:36.510 his contributions to Cancer Research,

NOTE Confidence: 0.845768634285714

00:12:36.510 --> 00:12:37.870 cancer care and the infrastructure,

NOTE Confidence: 0.845768634285714

00:12:37.870 --> 00:12:39.844 so to speak, of our research capabilities

NOTE Confidence: 0.845768634285714

00:12:39.844 --> 00:12:41.829 made him a real giant or field.

NOTE Confidence: 0.845768634285714

00:12:41.830 --> 00:12:42.980 And I'm really talking about

NOTE Confidence: 0.845768634285714

00:12:42.980 --> 00:12:44.218 his work and you know,

NOTE Confidence: 0.845768634285714

00:12:44.218 --> 00:12:45.588 understanding the pharmacology of cancer,

NOTE Confidence: 0.845768634285714

00:12:45.590 --> 00:12:45.992 chemotherapy,

NOTE Confidence: 0.845768634285714

00:12:45.992 --> 00:12:48.404 his work in a combining chemotherapy,

NOTE Confidence: 0.845768634285714

00:12:48.410 --> 00:12:50.320 other other modalities, his leading

NOTE Confidence: 0.845768634285714

00:12:50.320 --> 00:12:52.230 edge research in geriatric medicine.

NOTE Confidence: 0.845768634285714

00:12:52.230 --> 00:12:53.630 I think it's very prescient

NOTE Confidence: 0.845768634285714

00:12:53.630 --> 00:12:54.750 for a cancer researcher.

NOTE Confidence: 0.845768634285714

00:12:54.750 --> 00:12:56.280 His devotion to patient care.

NOTE Confidence: 0.845768634285714

00:12:56.280 --> 00:12:57.588 Which is really empowered

NOTE Confidence: 0.845768634285714

00:12:57.588 --> 00:12:58.569 his research activities,

NOTE Confidence: 0.845768634285714

00:12:58.570 --> 00:13:00.240 his leadership on countless boards,

NOTE Confidence: 0.845768634285714

00:13:00.240 --> 00:13:01.488 committees, institutes, academies,

NOTE Confidence: 0.845768634285714

00:13:01.488 --> 00:13:03.984 societies and various other governing bodies.

NOTE Confidence: 0.845768634285714

00:13:03.990 --> 00:13:05.814 But I think perhaps most importantly

NOTE Confidence: 0.845768634285714

00:13:05.814 --> 00:13:07.348 is invaluable mentorship to a

NOTE Confidence: 0.845768634285714

00:13:07.348 --> 00:13:08.698 real generation of leaders in

NOTE Confidence: 0.845768634285714

00:13:08.698 --> 00:13:10.070 Cancer Research in cancer care,

NOTE Confidence: 0.845768634285714

00:13:10.070 --> 00:13:10.835 including among them.

NOTE Confidence: 0.845768634285714

00:13:10.835 --> 00:13:12.110 One of my old bosses,

NOTE Confidence: 0.845768634285714

00:13:12.110 --> 00:13:15.916 Doctor Bruce Chabner at the MGH at the NCI.

00:13:15.916 --> 00:13:17.376 We honor Dr Calabrese contributions

00:13:17.376 --> 00:13:19.537 with a specific grant in his honor.

00:13:19.540 --> 00:13:21.360 It's the Paul Calabrese Career

00:13:21.360 --> 00:13:22.816 Development Award for clinical

00:13:22.816 --> 00:13:24.585 oncology and these are K12 grants

00:13:24.585 --> 00:13:26.410 that are really designed to prepare.

00:13:26.410 --> 00:13:28.350 Oncologists for a second for

00:13:28.350 --> 00:13:29.514 effective scientific careers,

00:13:29.520 --> 00:13:30.483 and in particular,

00:13:30.483 --> 00:13:32.409 by pairing them with basic scientists.

00:13:32.410 --> 00:13:34.894 And I was actually the Pi of the university,

00:13:34.900 --> 00:13:36.384 North Carolina State Calabrese

00:13:36.384 --> 00:13:37.868 award many years ago,

00:13:37.870 --> 00:13:39.787 and I know how important an award that is

00:13:39.787 --> 00:13:41.710 and it really gets fitting to honor Dr.

00:13:41.710 --> 00:13:44.034 Calabrese with the training award for that,

NOTE Confidence: 0.845768634285714

00:13:44.040 --> 00:13:45.727 that that that stage of someone's career.

NOTE Confidence: 0.845768634285714

00:13:45.730 --> 00:13:47.194 Given his terrific legacy

NOTE Confidence: 0.845768634285714

00:13:47.194 --> 00:13:49.890 of mentorship and training.

NOTE Confidence: 0.845768634285714

00:13:49.890 --> 00:13:52.081 So today I would like to talk

NOTE Confidence: 0.845768634285714

00:13:52.081 --> 00:13:53.809 about the National Cancer Act,

NOTE Confidence: 0.845768634285714

00:13:53.810 --> 00:13:55.664 and you know how that changed

NOTE Confidence: 0.845768634285714

00:13:55.664 --> 00:13:56.900 from the period of.

NOTE Confidence: 0.845768634285714

00:13:56.900 --> 00:13:59.430 Doc Calabrese career to modern

NOTE Confidence: 0.845768634285714

00:13:59.430 --> 00:14:01.431 day and I I think the efforts of

NOTE Confidence: 0.845768634285714

00:14:01.431 --> 00:14:02.705 Paul along with other luminaries

NOTE Confidence: 0.845768634285714

00:14:02.705 --> 00:14:04.160 of the past five decades,

NOTE Confidence: 0.845768634285714

00:14:04.160 --> 00:14:06.302 really drove and made possible the

NOTE Confidence: 0.845768634285714

00:14:06.302 --> 00:14:08.103 tremendous progress we're seeing today

NOTE Confidence: 0.845768634285714

00:14:08.103 --> 00:14:09.975 in cancer care and cancer outcomes.

NOTE Confidence: 0.845768634285714

00:14:09.980 --> 00:14:13.508 Their work really provided.

00:14:13.510 --> 00:14:14.600 This progress in the past,

00:14:14.600 --> 00:14:16.478 but also may possibly these opportunities

00:14:16.478 --> 00:14:18.309 that I believe lie before us,

00:14:18.310 --> 00:14:20.137 and that really will shape the future

00:14:20.137 --> 00:14:21.669 of Cancer Research in cancer care.

00:14:21.670 --> 00:14:22.290 Next slide,

00:14:22.290 --> 00:14:24.150 I think it's hard to overstate

00:14:24.150 --> 00:14:25.619 the importance of the National

00:14:25.619 --> 00:14:26.585 Cancer Act in 1971.

00:14:26.585 --> 00:14:27.810 For those of you who are younger

00:14:27.810 --> 00:14:29.110 who don't know a lot about the NCA,

00:14:29.110 --> 00:14:30.928 it did not create the NCI,

00:14:30.930 --> 00:14:32.450 so the National Cancer suit

00:14:32.450 --> 00:14:33.666 dates back to 1930s,

00:14:33.670 --> 00:14:35.614 but I would argue in many ways the National

00:14:35.614 --> 00:14:37.388 Cancer Act created kind of the modern NCI.

NOTE Confidence: 0.845768634285714

00:14:37.390 --> 00:14:38.776 The thing that we recognize today

NOTE Confidence: 0.845768634285714

00:14:38.776 --> 00:14:40.090 as a National Cancer student,

NOTE Confidence: 0.845768634285714

00:14:40.090 --> 00:14:41.850 it really united patients, doctors,

NOTE Confidence: 0.845768634285714

00:14:41.850 --> 00:14:43.486 scientists, industry and government.

NOTE Confidence: 0.845768634285714

00:14:43.486 --> 00:14:46.970 In a common vision and from my perspective.

NOTE Confidence: 0.845768634285714

00:14:46.970 --> 00:14:48.362 I think the NCA really did

NOTE Confidence: 0.845768634285714

00:14:48.362 --> 00:14:49.660 three important kinds of things.

NOTE Confidence: 0.845768634285714

00:14:49.660 --> 00:14:50.398 So First off.

NOTE Confidence: 0.845768634285714

00:14:50.398 --> 00:14:52.120 We heard from Vince about how it

NOTE Confidence: 0.845768634285714

00:14:52.173 --> 00:14:54.308 provided additional funding for Cancer

NOTE Confidence: 0.845768634285714

00:14:54.308 --> 00:14:56.380 Research, and I'm sure that that.

NOTE Confidence: 0.845768634285714

00:14:56.380 --> 00:14:56.734 Uh,

NOTE Confidence: 0.845768634285714

00:14:56.734 --> 00:14:58.504 extra funding was very important

NOTE Confidence: 0.845768634285714

00:14:58.504 --> 00:14:59.920 to doctor Carl Baker,

NOTE Confidence: 0.845768634285714

00:14:59.920 --> 00:15:01.593 who is director of the NCI at

NOTE Confidence: 0.845768634285714

00:15:01.593 --> 00:15:02.310 the time and

NOTE Confidence: 0.838205834090909

00:15:02.375 --> 00:15:04.423 I I think you know a more support

NOTE Confidence: 0.838205834090909

00:15:04.423 --> 00:15:05.799 for casters are important,

NOTE Confidence: 0.838205834090909

00:15:05.800 --> 00:15:07.156 but I would actually argue that

NOTE Confidence: 0.838205834090909

00:15:07.156 --> 00:15:08.596 the funding was probably the least

NOTE Confidence: 0.838205834090909

00:15:08.596 --> 00:15:10.078 important of the many important things.

NOTE Confidence: 0.838205834090909

00:15:10.080 --> 00:15:12.780 The NCI NCA did it also.

NOTE Confidence: 0.838205834090909

00:15:12.780 --> 00:15:14.740 The second type of activity,

NOTE Confidence: 0.838205834090909

00:15:14.740 --> 00:15:16.168 the National Cancer Act did was

NOTE Confidence: 0.838205834090909

00:15:16.168 --> 00:15:18.564 it gave the NCI a bunch of new new

NOTE Confidence: 0.838205834090909

00:15:18.564 --> 00:15:19.954 authorities and created new critical

NOTE Confidence: 0.838205834090909

00:15:20.013 --> 00:15:21.621 infrastructure that really led to sort

NOTE Confidence: 0.838205834090909

00:15:21.621 --> 00:15:23.406 of some of the modern capabilities

NOTE Confidence: 0.838205834090909

00:15:23.406 --> 00:15:24.818 in National Cancer Institute,

NOTE Confidence: 0.838205834090909

00:15:24.820 --> 00:15:26.536 so it it encouraged the NCI.

NOTE Confidence: 0.838205834090909

00:15:26.540 --> 00:15:28.395 I created a national database of cancer

NOTE Confidence: 0.838205834090909

00:15:28.395 --> 00:15:30.128 statistics which led to the SEER program,

NOTE Confidence: 0.838205834090909

00:15:30.130 --> 00:15:31.876 which is arguably the most important

NOTE Confidence: 0.838205834090909

00:15:31.876 --> 00:15:33.710 set of cancer statistics in the world.

NOTE Confidence: 0.838205834090909

00:15:33.710 --> 00:15:35.618 It really created Frederick National Lab,

NOTE Confidence: 0.838205834090909

00:15:35.620 --> 00:15:37.314 which is a way of doing research.

NOTE Confidence: 0.838205834090909

00:15:37.320 --> 00:15:38.352 The NCI uses it.

NOTE Confidence: 0.838205834090909

00:15:38.352 --> 00:15:39.900 You know it really invigorated and

NOTE Confidence: 0.838205834090909

00:15:39.951 --> 00:15:41.889 provided the framework for the modern

NOTE Confidence: 0.838205834090909

00:15:41.889 --> 00:15:44.148 Cancer Center program that we've heard about.

NOTE Confidence: 0.838205834090909

00:15:44.150 --> 00:15:45.590 It made the NCI director presidential

NOTE Confidence: 0.838205834090909

00:15:45.590 --> 00:15:47.065 appointee did a bunch of other

NOTE Confidence: 0.838205834090909

00:15:47.065 --> 00:15:48.245 things like the President's Cancer

NOTE Confidence: 0.838205834090909

00:15:48.245 --> 00:15:49.770 Panel and dash Cancer Riser Board.

NOTE Confidence: 0.838205834090909

00:15:49.770 --> 00:15:50.910 Things that were really important,

NOTE Confidence: 0.838205834090909

00:15:50.910 --> 00:15:53.003 and I think those authorities and new

NOTE Confidence: 0.838205834090909

00:15:53.003 --> 00:15:54.420 infrastructure were really important.

NOTE Confidence: 0.838205834090909

00:15:54.420 --> 00:15:56.832 Part of the NCA, but maybe the second most.

NOTE Confidence: 0.838205834090909

00:15:56.840 --> 00:15:59.200 Important thing it did and the third thing

NOTE Confidence: 0.838205834090909

00:15:59.200 --> 00:16:00.760 that I believe in National Cancer Act did,

NOTE Confidence: 0.838205834090909

00:16:00.760 --> 00:16:02.445 and arguably the most important

NOTE Confidence: 0.838205834090909

00:16:02.445 --> 00:16:04.410 thing the National Cancer Act did.

NOTE Confidence: 0.838205834090909

00:16:04.410 --> 00:16:06.000 Was it made cancer something that

NOTE Confidence: 0.838205834090909

00:16:06.000 --> 00:16:07.760 we could talk about this society?

NOTE Confidence: 0.838205834090909

00:16:07.760 --> 00:16:10.200 It was it it turned cancer from a

NOTE Confidence: 0.838205834090909

00:16:10.200 --> 00:16:11.935 disease that had stigma associated

NOTE Confidence: 0.838205834090909

00:16:11.935 --> 00:16:14.670 with it and and and and and a diagnosis

NOTE Confidence: 0.838205834090909

00:16:14.670 --> 00:16:16.979 that was sort of HID in the shadows.

NOTE Confidence: 0.838205834090909

00:16:16.980 --> 00:16:18.429 And it brought it out into the

NOTE Confidence: 0.838205834090909

00:16:18.429 --> 00:16:20.670 light and really spurred the modern

NOTE Confidence: 0.838205834090909

00:16:20.670 --> 00:16:22.700 interest we have in Kansas.

NOTE Confidence: 0.838205834090909

00:16:22.700 --> 00:16:23.850 Ability to talk about cancers,

NOTE Confidence: 0.838205834090909

00:16:23.850 --> 00:16:25.350 ability to work on cancer,

NOTE Confidence: 0.838205834090909

00:16:25.350 --> 00:16:27.846 and the modern cancer advocacy meeting.

NOTE Confidence: 0.838205834090909

00:16:27.850 --> 00:16:28.271 Movement,

NOTE Confidence: 0.838205834090909

00:16:28.271 --> 00:16:31.016 which has been so important so it

NOTE Confidence: 0.838205834090909

00:16:31.016 --> 00:16:33.242 was really important to act and it

NOTE Confidence: 0.838205834090909

00:16:33.242 --> 00:16:35.947 did things of terrific significance.

NOTE Confidence: 0.838205834090909

00:16:35.950 --> 00:16:37.282 But as visionary as the National

NOTE Confidence: 0.838205834090909

00:16:37.282 --> 00:16:39.214 Cancer Act was, it was also naive.

NOTE Confidence: 0.838205834090909

00:16:39.214 --> 00:16:40.794 Many of the individuals involved

NOTE Confidence: 0.838205834090909

00:16:40.794 --> 00:16:42.643 at that time thought we'd have

NOTE Confidence: 0.838205834090909

00:16:42.643 --> 00:16:44.640 a cure for cancer very quickly.

NOTE Confidence: 0.838205834090909

00:16:44.640 --> 00:16:46.038 You know, 5 to 10 years.

NOTE Confidence: 0.838205834090909

00:16:46.040 --> 00:16:47.220 I think this was motivated

NOTE Confidence: 0.838205834090909

00:16:47.220 --> 00:16:48.164 by the experience of,

NOTE Confidence: 0.838205834090909

00:16:48.170 --> 00:16:48.770 you know,

00:16:48.770 --> 00:16:50.570 antibiotics and sepsis in the early

00:16:50.570 --> 00:16:51.170 20th century.

00:16:51.170 --> 00:16:52.574 And obviously you know that things

00:16:52.574 --> 00:16:53.510 didn't workout that way.

00:16:53.510 --> 00:16:55.518 Cancer turned out to be a much more

00:16:55.518 --> 00:16:57.930 difficult problem than we understood in 1971,

00:16:57.930 --> 00:17:00.856 but we now have worked for five

00:17:00.856 --> 00:17:04.068 decades to better develop that basic

00:17:04.068 --> 00:17:06.556 science understanding of cancer.

00:17:06.560 --> 00:17:08.541 And and today we are really having

00:17:08.541 --> 00:17:09.803 much better understanding the

00:17:09.803 --> 00:17:11.239 molecular underpinnings of cancer,

00:17:11.240 --> 00:17:13.604 and that better understanding is paying

00:17:13.604 --> 00:17:17.620 huge dividends for patients now next slide.

00:17:17.620 --> 00:17:19.556 So there are lots of ways to look

00:17:19.556 --> 00:17:21.236 at the remarkable progress in

NOTE Confidence: 0.838205834090909

00:17:21.236 --> 00:17:23.498 cancer over the last few decades,

NOTE Confidence: 0.838205834090909

00:17:23.500 --> 00:17:24.952 and some of the various takes

NOTE Confidence: 0.838205834090909

00:17:24.952 --> 00:17:26.230 on that are shown here.

NOTE Confidence: 0.838205834090909

00:17:26.230 --> 00:17:28.814 But I believe that we will look back.

NOTE Confidence: 0.838205834090909

00:17:28.820 --> 00:17:30.440 On this period right now,

NOTE Confidence: 0.838205834090909

00:17:30.440 --> 00:17:33.776 today as a golden age of Cancer Research,

NOTE Confidence: 0.838205834090909

00:17:33.780 --> 00:17:35.232 we really began to take the

NOTE Confidence: 0.838205834090909

00:17:35.232 --> 00:17:36.200 basic science understanding of

NOTE Confidence: 0.900080187142857

00:17:36.242 --> 00:17:37.754 cancer and apply it to human benefit

NOTE Confidence: 0.900080187142857

00:17:37.754 --> 00:17:39.572 and very direct way. And as I said,

NOTE Confidence: 0.900080187142857

00:17:39.572 --> 00:17:41.380 we will think about this error today.

NOTE Confidence: 0.900080187142857

00:17:41.380 --> 00:17:42.962 The way we think about you know

NOTE Confidence: 0.900080187142857

00:17:42.962 --> 00:17:44.304 antibiotics in the early 20th

NOTE Confidence: 0.900080187142857

00:17:44.304 --> 00:17:45.812 century for infectious disease and

NOTE Confidence: 0.900080187142857

00:17:45.812 --> 00:17:47.716 and it doesn't always feel that way.

NOTE Confidence: 0.900080187142857

00:17:47.720 --> 00:17:49.979 I know, I realize that their burden of cancer

NOTE Confidence: 0.900080187142857

00:17:49.979 --> 00:17:51.870 American Society is still very significant,

NOTE Confidence: 0.900080187142857

00:17:51.870 --> 00:17:54.047 but from my perspective where I sit,

NOTE Confidence: 0.900080187142857

00:17:54.050 --> 00:17:57.039 the progress in cancer is really remarkable.

NOTE Confidence: 0.900080187142857

00:17:57.040 --> 00:17:59.368 Here are a few lines of evidence so.

NOTE Confidence: 0.900080187142857

00:17:59.370 --> 00:18:01.506 On the far left here we see this

NOTE Confidence: 0.900080187142857

00:18:01.506 --> 00:18:03.160 decline in cancer mortality.

NOTE Confidence: 0.900080187142857

00:18:03.160 --> 00:18:04.980 This started in the early

NOTE Confidence: 0.900080187142857

00:18:04.980 --> 00:18:06.320 1990s where cancer mortality,

NOTE Confidence: 0.900080187142857

00:18:06.320 --> 00:18:07.995 United States and has declined

NOTE Confidence: 0.900080187142857

00:18:07.995 --> 00:18:09.679 from men and women since then.

NOTE Confidence: 0.900080187142857

00:18:09.680 --> 00:18:10.832 For lots of reasons,

NOTE Confidence: 0.900080187142857

00:18:10.832 --> 00:18:11.696 better cancer screening,

NOTE Confidence: 0.900080187142857

00:18:11.700 --> 00:18:12.408 tobacco control,

NOTE Confidence: 0.900080187142857

00:18:12.408 --> 00:18:14.532 lots of things have conspired together

NOTE Confidence: 0.900080187142857

00:18:14.532 --> 00:18:16.569 to lower cancer mortality rates,

NOTE Confidence: 0.900080187142857

00:18:16.570 --> 00:18:17.372 United States,

NOTE Confidence: 0.900080187142857

00:18:17.372 --> 00:18:19.778 but in recent years this has

NOTE Confidence: 0.900080187142857

00:18:19.778 --> 00:18:21.499 really picked up markedly,

NOTE Confidence: 0.900080187142857

00:18:21.500 --> 00:18:23.268 and I think in in recent years some

NOTE Confidence: 0.900080187142857

00:18:23.268 --> 00:18:25.114 of those massive declines in cancer

NOTE Confidence: 0.900080187142857

00:18:25.114 --> 00:18:27.136 mortality are related to better therapy.

NOTE Confidence: 0.900080187142857

00:18:27.140 --> 00:18:28.196 So, and, for example,

NOTE Confidence: 0.900080187142857

00:18:28.196 --> 00:18:30.160 I've shown statistics here for lung cancer.

NOTE Confidence: 0.900080187142857

00:18:30.160 --> 00:18:31.786 Where a bunch of new therapies

NOTE Confidence: 0.900080187142857

00:18:31.786 --> 00:18:32.870 kinase inhibitors and you

NOTE Confidence: 0.900080187142857

00:18:32.919 --> 00:18:34.419 check one inhibitors radiation,

NOTE Confidence: 0.900080187142857

00:18:34.420 --> 00:18:34.792 federation,

NOTE Confidence: 0.900080187142857

00:18:34.792 --> 00:18:35.164 surgery,

NOTE Confidence: 0.900080187142857

00:18:35.164 --> 00:18:37.768 etc have all led to a remarkable

NOTE Confidence: 0.900080187142857

00:18:37.768 --> 00:18:39.647 decline in cancer mortality on the

NOTE Confidence: 0.900080187142857

00:18:39.647 --> 00:18:43.670 order of 6% from 2013 to 2016 per year.

NOTE Confidence: 0.900080187142857

00:18:43.670 --> 00:18:44.459 So fairly sharp.

NOTE Confidence: 0.900080187142857

00:18:44.459 --> 00:18:46.700 Decline in the most lethal cancer in humans.

NOTE Confidence: 0.900080187142857

00:18:46.700 --> 00:18:48.602 This has been matched by a

NOTE Confidence: 0.900080187142857

00:18:48.602 --> 00:18:50.298 remarkable increase in FDA approvals

NOTE Confidence: 0.900080187142857

00:18:50.298 --> 00:18:52.488 of drugs and devices and other

NOTE Confidence: 0.900080187142857

00:18:52.488 --> 00:18:54.544 medicines for cancer patients who

NOTE Confidence: 0.900080187142857

00:18:54.544 --> 00:18:56.340 markable period of productivity.

NOTE Confidence: 0.900080187142857

00:18:56.340 --> 00:18:57.750 I can remember when I started

NOTE Confidence: 0.900080187142857

00:18:57.750 --> 00:18:59.500 as a fellow in this business,

NOTE Confidence: 0.900080187142857

00:18:59.500 --> 00:19:01.090 you could go a whole decade.

NOTE Confidence: 0.900080187142857

00:19:01.090 --> 00:19:03.052 Not really have amazing new drugs

NOTE Confidence: 0.900080187142857

00:19:03.052 --> 00:19:04.697 approved in cancer care and

NOTE Confidence: 0.900080187142857

00:19:04.697 --> 00:19:06.365 now it's it's a monthly event.

NOTE Confidence: 0.900080187142857

00:19:06.370 --> 00:19:07.602 At the FDA there was a period

NOTE Confidence: 0.900080187142857

00:19:07.602 --> 00:19:09.010 in 2020 and one month where I

NOTE Confidence: 0.900080187142857

00:19:09.010 --> 00:19:10.252 think we had seven lung cancer

NOTE Confidence: 0.900080187142857

00:19:10.296 --> 00:19:11.718 drugs approved in the same month.

NOTE Confidence: 0.900080187142857

00:19:11.720 --> 00:19:14.392 So really and and not be too not

NOTE Confidence: 0.900080187142857

00:19:14.392 --> 00:19:16.452 useful drugs, but really a paradigm,

NOTE Confidence: 0.900080187142857

00:19:16.452 --> 00:19:18.016 changing new therapies and and

NOTE Confidence: 0.900080187142857

00:19:18.016 --> 00:19:19.306 I think there's real scientific

NOTE Confidence: 0.900080187142857

00:19:19.306 --> 00:19:20.869 excitement in in Cancer Research.

NOTE Confidence: 0.900080187142857

00:19:20.870 --> 00:19:21.974 And that's shown down at the

NOTE Confidence: 0.900080187142857

00:19:21.974 --> 00:19:22.526 bottom right here.

NOTE Confidence: 0.900080187142857

00:19:22.530 --> 00:19:24.864 And that's the graph of applications

NOTE Confidence: 0.900080187142857

00:19:24.864 --> 00:19:27.409 to the National Cancer super funding.

NOTE Confidence: 0.900080187142857

00:19:27.410 --> 00:19:29.480 We can see this massive increase

NOTE Confidence: 0.900080187142857

00:19:29.480 --> 00:19:31.730 since 2013 a on nearly 50%.

NOTE Confidence: 0.900080187142857

00:19:31.730 --> 00:19:34.118 Increase over about a seven year

NOTE Confidence: 0.900080187142857

00:19:34.118 --> 00:19:36.447 period and applications for funding the

00:19:36.447 --> 00:19:38.484 NCI and this is a mark that you know.

00:19:38.490 --> 00:19:40.314 People have great new ideas for

00:19:40.314 --> 00:19:42.453 cancer therapy and are coming to our

00:19:42.453 --> 00:19:44.462 field with new proposals and new ways

00:19:44.525 --> 00:19:46.330 of treating cancer that include.

00:19:46.330 --> 00:19:48.445 You know physicists and mathematicians

00:19:48.445 --> 00:19:50.982 and other kinds of biologists and

00:19:50.982 --> 00:19:53.142 working with a new clinical approaches

00:19:53.142 --> 00:19:55.529 and all seeking support from National

00:19:55.529 --> 00:19:57.589 Cancer suit for their research.

00:19:57.590 --> 00:19:59.040 This also creates a problem.

00:19:59.040 --> 00:19:59.506 I'll be.

00:19:59.506 --> 00:20:01.137 I would argue a good problem which

00:20:01.137 --> 00:20:01.980 is tremendous.

00:20:01.980 --> 00:20:03.486 Competition for funding at the NCI.

00:20:03.490 --> 00:20:06.008 So Vince mentioned the 50% success

00:20:06.008 --> 00:20:08.312 rates for grant funding back in his era.

00:20:08.320 --> 00:20:11.094 It was as low as 8% earlier in my

00:20:11.094 --> 00:20:11.988 career at NCI.

00:20:11.990 --> 00:20:14.240 We have now through a fairly

00:20:14.240 --> 00:20:14.990 Herculean measures.

00:20:14.990 --> 00:20:17.110 Gotten it up to 11%, but you can see

00:20:17.110 --> 00:20:18.818 that is still a very low success rate

00:20:18.818 --> 00:20:20.617 for grants at the NCI and something

00:20:20.617 --> 00:20:22.008 we're deeply concerned about because

00:20:22.008 --> 00:20:24.386 that is the pool of grants where the

00:20:24.386 --> 00:20:26.624 really paradigm changing ideas come from.

00:20:26.630 --> 00:20:27.974 The things that really move the

00:20:27.974 --> 00:20:29.299 field for patients so you know,

00:20:29.300 --> 00:20:31.060 in in improving support for,

00:20:31.060 --> 00:20:32.962 investigated, initiated science.

NOTE Confidence: 0.89881918

00:20:32.962 --> 00:20:37.400 Remains a top priority for the NCI.

NOTE Confidence: 0.89881918

00:20:37.400 --> 00:20:39.256 I think many Americans have heard of these.

NOTE Confidence: 0.89881918

00:20:39.260 --> 00:20:40.850 You know, advances and it really

NOTE Confidence: 0.89881918

00:20:40.850 --> 00:20:41.910 take them for granted.

NOTE Confidence: 0.89881918

00:20:41.910 --> 00:20:43.590 It's like computing power,

NOTE Confidence: 0.89881918

00:20:43.590 --> 00:20:44.430 automobile mileage.

NOTE Confidence: 0.89881918

00:20:44.430 --> 00:20:46.198 We just sort of expect these things to

NOTE Confidence: 0.89881918

00:20:46.198 --> 00:20:47.701 get better indefinitely and not realize

NOTE Confidence: 0.89881918

00:20:47.701 --> 00:20:49.490 all the work that went into that.

NOTE Confidence: 0.89881918

00:20:49.490 --> 00:20:51.020 But that was not the case.

NOTE Confidence: 0.89881918

00:20:51.020 --> 00:20:52.340 As I said in 1971,

NOTE Confidence: 0.89881918

00:20:52.340 --> 00:20:54.392 that wasn't even the case in the early 1990s.

NOTE Confidence: 0.89881918

00:20:54.400 --> 00:20:56.710 It's really become a feature, uh,

NOTE Confidence: 0.89881918

00:20:56.710 --> 00:20:58.880 more recently, and that as I said,

NOTE Confidence: 0.89881918

00:20:58.880 --> 00:21:01.082 is really built on the molecular

NOTE Confidence: 0.89881918

00:21:01.082 --> 00:21:02.917 understanding of cancer biology that

NOTE Confidence: 0.89881918

00:21:02.917 --> 00:21:05.024 we've developed in the past 50 years.

NOTE Confidence: 0.89881918

00:21:05.030 --> 00:21:06.780 And now I think we should talk

NOTE Confidence: 0.89881918

00:21:06.780 --> 00:21:08.310 about where we go from here.

NOTE Confidence: 0.89881918

00:21:08.310 --> 00:21:10.794 How we use this progress at the last five

NOTE Confidence: 0.89881918

00:21:10.794 --> 00:21:12.985 decades as a bridge to the to the future.

NOTE Confidence: 0.89881918

00:21:12.990 --> 00:21:14.712 And this next period of bridge building

NOTE Confidence: 0.89881918

00:21:14.712 --> 00:21:16.621 will build on that momentum that we've

NOTE Confidence: 0.89881918

00:21:16.621 --> 00:21:18.295 established over the last 50 years.

NOTE Confidence: 0.89881918

00:21:18.300 --> 00:21:20.988 But it will not just but but.

NOTE Confidence: 0.89881918

00:21:20.988 --> 00:21:22.766 And it's not just this momentum of

NOTE Confidence: 0.89881918

00:21:22.766 --> 00:21:24.274 the fundamental understanding of

NOTE Confidence: 0.89881918

00:21:24.274 --> 00:21:26.498 cancer and this knowledge base that

NOTE Confidence: 0.89881918

00:21:26.498 --> 00:21:27.866 with the keen scientific insights of

NOTE Confidence: 0.89881918

00:21:27.866 --> 00:21:29.529 those on whose shoulders we stand now,

NOTE Confidence: 0.89881918

00:21:29.530 --> 00:21:31.750 people like dark dark Calabrese and

NOTE Confidence: 0.89881918

00:21:31.750 --> 00:21:33.360 Doctor Devita and so for that 3

NOTE Confidence: 0.89881918

00:21:33.360 --> 00:21:34.685 minutes I'd like to talk about how

NOTE Confidence: 0.89881918

00:21:34.685 --> 00:21:35.903 we're going to build that bridge

NOTE Confidence: 0.89881918

00:21:35.903 --> 00:21:36.650 to the future.

NOTE Confidence: 0.89881918

00:21:36.650 --> 00:21:39.638 Building on this progress next slide.

NOTE Confidence: 0.89881918

00:21:39.640 --> 00:21:42.055 So what motivated my talk is titled

NOTE Confidence: 0.89881918

00:21:42.055 --> 00:21:45.082 today is a quote that's been made

NOTE Confidence: 0.89881918

00:21:45.082 --> 00:21:46.994 frequently by the President,

NOTE Confidence: 0.89881918

00:21:47.000 --> 00:21:48.680 Doctor President Biden has said

NOTE Confidence: 0.89881918

00:21:48.680 --> 00:21:50.914 many Times Now that he'd like to

NOTE Confidence: 0.89881918

00:21:50.914 --> 00:21:52.396 end cancer as we know it,

NOTE Confidence: 0.89881918

00:21:52.400 --> 00:21:53.930 and I think Paul Calabrese would

NOTE Confidence: 0.89881918

00:21:53.930 --> 00:21:55.735 be gratified to know that we have

NOTE Confidence: 0.89881918

00:21:55.735 --> 00:21:57.205 this President in the White House

NOTE Confidence: 0.89881918

00:21:57.205 --> 00:21:59.039 with his with an intimate connection

NOTE Confidence: 0.89881918

47

00:21:59.039 --> 00:21:59.960 of Cancer Research.

NOTE Confidence: 0.89881918

00:21:59.960 --> 00:22:01.997 Who knows what our work means for

NOTE Confidence: 0.89881918

00:22:01.997 --> 00:22:02.870 the American Public,

NOTE Confidence: 0.89881918

00:22:02.870 --> 00:22:04.711 President Biden and the First lady have

NOTE Confidence: 0.89881918

00:22:04.711 --> 00:22:07.039 a very strong personal connection to cancer.

NOTE Confidence: 0.89881918

00:22:07.040 --> 00:22:09.762 We are the story of their sons.

NOTE Confidence: 0.89881918

00:22:09.762 --> 00:22:10.545 Definitely Blastoma is

NOTE Confidence: 0.89881918

00:22:10.545 --> 00:22:12.040 well known to all of us,

NOTE Confidence: 0.89881918

00:22:12.040 --> 00:22:13.555 and they're also firm believers

NOTE Confidence: 0.89881918

00:22:13.555 --> 00:22:15.640 in the power of Cancer Research.

NOTE Confidence: 0.89881918

00:22:15.640 --> 00:22:17.422 The tragedy that befell the Biden

NOTE Confidence: 0.89881918

00:22:17.422 --> 00:22:19.368 family led to then Vice President

NOTE Confidence: 0.89881918

00:22:19.368 --> 00:22:21.108 Biden's leadership of the Cancer

NOTE Confidence: 0.89881918

00:22:21.108 --> 00:22:22.790 Moon shot six years ago,

NOTE Confidence: 0.89881918

00:22:22.790 --> 00:22:23.830 and the current administration,

NOTE Confidence: 0.89881918

00:22:23.830 --> 00:22:24.610 as I said,

NOTE Confidence: 0.89881918

00:22:24.610 --> 00:22:26.610 is calling for all of us collectively as

NOTE Confidence: 0.89881918

00:22:26.610 --> 00:22:28.506 a community to end cancer as we know it.

NOTE Confidence: 0.89881918

00:22:28.510 --> 00:22:29.788 We think that this problem is

NOTE Confidence: 0.89881918

00:22:29.788 --> 00:22:31.019 much bigger than just the NCI.

NOTE Confidence: 0.89881918

00:22:31.020 --> 00:22:32.616 The NCI is obviously part of this,

NOTE Confidence: 0.89881918

00:22:32.620 --> 00:22:34.209 but this would require all the powers

NOTE Confidence: 0.89881918

00:22:34.209 --> 00:22:35.819 of both the federal government,

NOTE Confidence: 0.89881918

00:22:35.820 --> 00:22:38.142 but also advocacy and caregivers outside

NOTE Confidence: 0.89881918

00:22:38.142 --> 00:22:40.262 of the federal government in considering.

NOTE Confidence: 0.89881918

00:22:40.262 --> 00:22:41.692 The achievements of the past

NOTE Confidence: 0.89881918

00:22:41.692 --> 00:22:42.550 50 years and

NOTE Confidence: 0.873767863888889

00:22:42.601 --> 00:22:44.753 how to steer the future of Cancer Research.

NOTE Confidence: 0.873767863888889

00:22:44.760 --> 00:22:46.176 We've been thinking this through at the NCI.

NOTE Confidence: 0.873767863888889

00:22:46.180 --> 00:22:47.650 What does it really mean to

NOTE Confidence: 0.873767863888889

00:22:47.650 --> 00:22:49.139 end cancer as we know it?

NOTE Confidence: 0.873767863888889

49

00:22:49.140 --> 00:22:50.472 So you have to think about

NOTE Confidence: 0.873767863888889

00:22:50.472 --> 00:22:52.120 how do we know cancer today?

NOTE Confidence: 0.873767863888889

00:22:52.120 --> 00:22:53.740 What would it mean to change

NOTE Confidence: 0.873767863888889

00:22:53.740 --> 00:22:54.820 that experience of cancer?

NOTE Confidence: 0.873767863888889

00:22:54.820 --> 00:22:56.830 And what would that take?

NOTE Confidence: 0.873767863888889

00:22:56.830 --> 00:22:58.860 First, let me let me be clear.

NOTE Confidence: 0.873767863888889

00:22:58.860 --> 00:23:00.498 There is no mention of eradicating

NOTE Confidence: 0.873767863888889

00:23:00.498 --> 00:23:02.475 all cancer I think based on what

NOTE Confidence: 0.873767863888889

00:23:02.475 --> 00:23:04.125 we know about human biology today,

NOTE Confidence: 0.873767863888889

00:23:04.130 --> 00:23:05.320 we don't believe that's possible.

NOTE Confidence: 0.873767863888889

00:23:05.320 --> 00:23:07.588 The NCI, at least anytime soon.

NOTE Confidence: 0.873767863888889

00:23:07.590 --> 00:23:09.354 But we do think we could dramatically

NOTE Confidence: 0.873767863888889

00:23:09.354 --> 00:23:10.579 change the experience of cancer.

NOTE Confidence: 0.873767863888889

00:23:10.580 --> 00:23:12.350 That is the tragedy of cancer.

NOTE Confidence: 0.873767863888889

00:23:12.350 --> 00:23:14.195 The way the American public

NOTE Confidence: 0.873767863888889

00:23:14.195 --> 00:23:16.600 knows cancer today and to get it.

NOTE Confidence: 0.873767863888889

00:23:16.600 --> 00:23:18.560 This we we we have to be upfront

NOTE Confidence: 0.873767863888889

00:23:18.560 --> 00:23:19.849 about the uncomfortable realities

NOTE Confidence: 0.873767863888889

00:23:19.849 --> 00:23:22.432 about cancer as we know it today.

NOTE Confidence: 0.873767863888889

00:23:22.440 --> 00:23:24.036 So I mentioned a lot of the

NOTE Confidence: 0.873767863888889

00:23:24.036 --> 00:23:25.624 progress and that progress is very

NOTE Confidence: 0.873767863888889

00:23:25.624 --> 00:23:27.316 exciting and it's been very good.

NOTE Confidence: 0.873767863888889

00:23:27.320 --> 00:23:28.811 But we still have a long way

NOTE Confidence: 0.873767863888889

00:23:28.811 --> 00:23:30.344 to go in the United States,

NOTE Confidence: 0.873767863888889

00:23:30.344 --> 00:23:31.448 600,000 Americans still die

NOTE Confidence: 0.873767863888889

00:23:31.448 --> 00:23:32.499 from cancer each year.

NOTE Confidence: 0.873767863888889

00:23:32.500 --> 00:23:34.060 Cancer is still the leading

NOTE Confidence: 0.873767863888889

00:23:34.060 --> 00:23:35.903 cause of death from children in

NOTE Confidence: 0.873767863888889

00:23:35.903 --> 00:23:37.318 children from death and disease.

NOTE Confidence: 0.873767863888889

00:23:37.320 --> 00:23:38.775 Cancer costs the nation hundreds

NOTE Confidence: 0.873767863888889

00:23:38.775 --> 00:23:40.230 of billions of dollars every

NOTE Confidence: 0.873767863888889

00:23:40.281 --> 00:23:41.566 year in terms of treatment.

NOTE Confidence: 0.873767863888889

00:23:41.570 --> 00:23:42.419 And lost productivity.

NOTE Confidence: 0.873767863888889

00:23:42.419 --> 00:23:44.400 And even when we're able to cure

NOTE Confidence: 0.873767863888889

00:23:44.451 --> 00:23:45.811 patients with cancer too often

NOTE Confidence: 0.873767863888889

00:23:45.811 --> 00:23:47.940 this comes at the cost of severe

NOTE Confidence: 0.873767863888889

00:23:47.940 --> 00:23:49.360 treatments with significant long

NOTE Confidence: 0.873767863888889

00:23:49.360 --> 00:23:51.392 term toxicities and cancer for many

NOTE Confidence: 0.873767863888889

00:23:51.392 --> 00:23:53.228 patients is still a very devastating

NOTE Confidence: 0.873767863888889

00:23:53.228 --> 00:23:55.370 and life changing diagnosis and for

NOTE Confidence: 0.873767863888889

00:23:55.370 --> 00:23:56.945 people with a new diagnosis of cancer,

NOTE Confidence: 0.873767863888889

00:23:56.950 --> 00:23:58.240 you know telling them about all

NOTE Confidence: 0.873767863888889

00:23:58.240 --> 00:23:59.490 this great progress last 50 years.

NOTE Confidence: 0.873767863888889

00:23:59.490 --> 00:24:00.646 That's really small comfort.

NOTE Confidence: 0.873767863888889

00:24:00.646 --> 00:24:02.697 They don't really want to hear from

NOTE Confidence: 0.873767863888889

00:24:02.697 --> 00:24:04.281 the NCI director about the record

NOTE Confidence: 0.873767863888889

00:24:04.281 --> 00:24:06.222 number of grant applications or FDA

00:24:06.222 --> 00:24:07.678 approvals or new infrastructure.

00:24:07.680 --> 00:24:09.696 They really like to see a cures,

00:24:09.700 --> 00:24:11.156 or at least better treatments for their

00:24:11.156 --> 00:24:12.729 cancer that for their for their disease,

00:24:12.730 --> 00:24:14.810 which provides them more time.

00:24:14.810 --> 00:24:16.988 I once treated a woman in her in her

00:24:16.988 --> 00:24:19.045 early 40s for metastatic triple negative

00:24:19.045 --> 00:24:21.826 breast cancer and we tried sort of the

00:24:21.826 --> 00:24:23.746 usual therapies and it wasn't working.

00:24:23.750 --> 00:24:25.780 It wasn't going well and we were

00:24:25.780 --> 00:24:27.094 discussing what therapy to try

00:24:27.094 --> 00:24:28.630 next for her and I did what we

00:24:28.684 --> 00:24:30.448 train our junior oncologist to do.

00:24:30.450 --> 00:24:31.790 I asked her what?

00:24:31.790 --> 00:24:33.800 Her goals were for more therapy.

00:24:33.800 --> 00:24:34.424 You know, I said,

NOTE Confidence: 0.873767863888889

00:24:34.424 --> 00:24:35.789 what do you want to get out of

NOTE Confidence: 0.873767863888889

00:24:35.789 --> 00:24:36.764 this next round of treatment?

NOTE Confidence: 0.873767863888889

00:24:36.770 --> 00:24:37.550 And as I said,

NOTE Confidence: 0.873767863888889

00:24:37.550 --> 00:24:38.720 we this is something we inculcate

NOTE Confidence: 0.873767863888889

00:24:38.765 --> 00:24:39.935 in our medical students and we

NOTE Confidence: 0.873767863888889

00:24:39.935 --> 00:24:41.432 sort of beat this habit into the

NOTE Confidence: 0.873767863888889

00:24:41.432 --> 00:24:42.776 residents and fellows to ask the

NOTE Confidence: 0.873767863888889

00:24:42.776 --> 00:24:44.160 patient what they want from therapy.

NOTE Confidence: 0.873767863888889

00:24:44.160 --> 00:24:45.786 It's an important thing to do,

NOTE Confidence: 0.873767863888889

00:24:45.790 --> 00:24:47.211 but in some ways it's also kind

NOTE Confidence: 0.873767863888889

00:24:47.211 --> 00:24:48.605 of A dumb question, right?

NOTE Confidence: 0.873767863888889

00:24:48.605 --> 00:24:50.600 It's no mystery what our patients want.

NOTE Confidence: 0.873767863888889

00:24:50.600 --> 00:24:51.880 They generally want better

NOTE Confidence: 0.873767863888889

00:24:51.880 --> 00:24:52.840 treatments for cancer.

NOTE Confidence: 0.873767863888889

00:24:52.840 --> 00:24:53.939 They want to cure for their cancer.

NOTE Confidence: 0.873767863888889

00:24:53.940 --> 00:24:55.248 They want their cancer to go

NOTE Confidence: 0.873767863888889

00:24:55.248 --> 00:24:56.400 away and never come back.

NOTE Confidence: 0.873767863888889

00:24:56.400 --> 00:24:57.920 So the goals for therapy

NOTE Confidence: 0.873767863888889

00:24:57.920 --> 00:24:59.136 are usually pretty obvious.

NOTE Confidence: 0.906526711428571

00:24:59.140 --> 00:25:00.664 What we're really doing in this

NOTE Confidence: 0.906526711428571

00:25:00.664 --> 00:25:02.100 period is is trying to get.

NOTE Confidence: 0.906526711428571

00:25:02.100 --> 00:25:04.125 To understand what's possible about

NOTE Confidence: 0.906526711428571

00:25:04.125 --> 00:25:06.150 sort of managing expectations based

NOTE Confidence: 0.906526711428571

00:25:06.209 --> 00:25:08.148 on what we believe we can deliver.

NOTE Confidence: 0.906526711428571

00:25:08.150 --> 00:25:10.370 So this patient told me.

NOTE Confidence: 0.906526711428571

00:25:10.370 --> 00:25:12.266 That she knew she would die of games

NOTE Confidence: 0.906526711428571

00:25:12.266 --> 00:25:14.145 where she knew she had untreatable

NOTE Confidence: 0.906526711428571

00:25:14.145 --> 00:25:15.825 or refractory metastatic disease and

NOTE Confidence: 0.906526711428571

00:25:15.825 --> 00:25:17.865 she had no illusions to being cured,

NOTE Confidence: 0.906526711428571

00:25:17.870 --> 00:25:19.810 but she wanted more time.

NOTE Confidence: 0.906526711428571

00:25:19.810 --> 00:25:21.315 She had three children who were sort

NOTE Confidence: 0.906526711428571

00:25:21.315 --> 00:25:22.649 of middle school age at the time,

NOTE Confidence: 0.906526711428571

00:25:22.650 --> 00:25:24.554 and her goal of hers was to see

NOTE Confidence: 0.906526711428571

00:25:24.554 --> 00:25:25.989 them graduate from high school.

NOTE Confidence: 0.906526711428571

00:25:25.990 --> 00:25:27.194 And that's sort of all she wants.

NOTE Confidence: 0.906526711428571

00:25:27.200 --> 00:25:28.132 A few more years.

NOTE Confidence: 0.906526711428571

00:25:28.132 --> 00:25:29.530 It didn't seem at the time

NOTE Confidence: 0.906526711428571

00:25:29.590 --> 00:25:31.130 like an unreasonable request.

NOTE Confidence: 0.906526711428571

00:25:31.130 --> 00:25:32.285 Given all this progress and

NOTE Confidence: 0.906526711428571

00:25:32.285 --> 00:25:33.440 work we've had in cancer,

NOTE Confidence: 0.906526711428571

00:25:33.440 --> 00:25:34.824 but we couldn't even do that for her.

NOTE Confidence: 0.906526711428571

00:25:34.830 --> 00:25:38.148 She died really about a year later.

NOTE Confidence: 0.906526711428571

00:25:38.150 --> 00:25:40.094 I've argued many times many times

NOTE Confidence: 0.906526711428571

00:25:40.094 --> 00:25:42.542 before that many of us in the

NOTE Confidence: 0.906526711428571

00:25:42.542 --> 00:25:44.347 cancer community have become afraid

NOTE Confidence: 0.906526711428571

00:25:44.347 --> 00:25:46.359 about talking about curing cancer.

NOTE Confidence: 0.906526711428571

00:25:46.360 --> 00:25:47.806 I believe I made this exact

NOTE Confidence: 0.906526711428571

00:25:47.806 --> 00:25:49.100 point at Yale in 2017.

NOTE Confidence: 0.906526711428571

00:25:49.100 --> 00:25:50.816 Soon after I became inside erector.

NOTE Confidence: 0.906526711428571

00:25:50.820 --> 00:25:52.500 I know why using the word cure

NOTE Confidence: 0.906526711428571

00:25:52.500 --> 00:25:53.559 around patients causes so

NOTE Confidence: 0.906526711428571

00:25:53.559 --> 00:25:54.719 many problems for caregivers.

NOTE Confidence: 0.906526711428571

00:25:54.720 --> 00:25:56.856 I understand the the worry about

NOTE Confidence: 0.906526711428571

00:25:56.856 --> 00:25:59.279 providing false hope and empty promises,

NOTE Confidence: 0.906526711428571

00:25:59.280 --> 00:26:00.708 and I know that we have gotten

NOTE Confidence: 0.906526711428571

00:26:00.708 --> 00:26:02.101 into the habit of qualifying our

NOTE Confidence: 0.906526711428571

00:26:02.101 --> 00:26:03.571 language all day long of caveats

NOTE Confidence: 0.906526711428571

00:26:03.571 --> 00:26:05.073 and disclaimers and talking about

NOTE Confidence: 0.906526711428571

00:26:05.073 --> 00:26:06.588 things like disease free survival

NOTE Confidence: 0.906526711428571

00:26:06.588 --> 00:26:08.360 and and remission and and whatever.

NOTE Confidence: 0.906526711428571

00:26:08.360 --> 00:26:10.698 Metrics, sort of in vogue that day,

NOTE Confidence: 0.906526711428571

00:26:10.700 --> 00:26:11.732 but, uh, but patients.

NOTE Confidence: 0.906526711428571

00:26:11.732 --> 00:26:13.596 I think we should be clear still

NOTE Confidence: 0.906526711428571

00:26:13.596 --> 00:26:15.437 want to be cured of their disease.

NOTE Confidence: 0.906526711428571

00:26:15.440 --> 00:26:16.420 And if that's not possible,

NOTE Confidence: 0.906526711428571

00:26:16.420 --> 00:26:18.130 they want their cancer be turned

NOTE Confidence: 0.906526711428571

00:26:18.130 --> 00:26:19.720 into a manageable chronic disease,

NOTE Confidence: 0.906526711428571

00:26:19.720 --> 00:26:20.990 so they'll have more quality

NOTE Confidence: 0.906526711428571

00:26:20.990 --> 00:26:22.260 time with their loved ones.

NOTE Confidence: 0.906526711428571

00:26:22.260 --> 00:26:23.598 And so that's really what we're

NOTE Confidence: 0.906526711428571

00:26:23.598 --> 00:26:24.725 talking about when we say

NOTE Confidence: 0.906526711428571

00:26:24.725 --> 00:26:25.877 ending cancer as we know it,

NOTE Confidence: 0.906526711428571

00:26:25.880 --> 00:26:27.204 or knowing cancer today.

NOTE Confidence: 0.906526711428571

00:26:27.204 --> 00:26:29.750 And that's what the president wants us to do.

NOTE Confidence: 0.906526711428571

00:26:29.750 --> 00:26:31.630 Next slide.

NOTE Confidence: 0.906526711428571

00:26:31.630 --> 00:26:32.662 So National Cancer St.

NOTE Confidence: 0.906526711428571

00:26:32.662 --> 00:26:34.210 We've been thinking a lot about

NOTE Confidence: 0.906526711428571

00:26:34.264 --> 00:26:35.554 what this means to like no

NOTE Confidence: 0.906526711428571

00:26:35.554 --> 00:26:37.088 cancer in some way and and here,

NOTE Confidence: 0.906526711428571

00:26:37.090 --> 00:26:38.674 and one way to think about this as

NOTE Confidence: 0.906526711428571

00:26:38.674 --> 00:26:40.330 things that are true about cancer today.

NOTE Confidence: 0.906526711428571

00:26:40.330 --> 00:26:42.448 These are true statements that we

NOTE Confidence: 0.906526711428571

00:26:42.448 --> 00:26:45.218 would like to make untrue in some way.

NOTE Confidence: 0.906526711428571

00:26:45.220 --> 00:26:46.949 If we could make these things untrue,

NOTE Confidence: 0.906526711428571

00:26:46.950 --> 00:26:48.870 then in doing so we would change cancers.

NOTE Confidence: 0.906526711428571

00:26:48.870 --> 00:26:49.611 We know it.

NOTE Confidence: 0.906526711428571

00:26:49.611 --> 00:26:51.093 So I've spoken at length already

NOTE Confidence: 0.906526711428571

00:26:51.093 --> 00:26:52.406 about cancer mortality that in

NOTE Confidence: 0.906526711428571

00:26:52.406 --> 00:26:54.208 this box here in the lower left

NOTE Confidence: 0.906526711428571

00:26:54.208 --> 00:26:55.606 I gave a lecture last April.

NOTE Confidence: 0.906526711428571

00:26:55.610 --> 00:26:55.887 ACR,

NOTE Confidence: 0.906526711428571

00:26:55.887 --> 00:26:57.826 when I described how I believe a

NOTE Confidence: 0.906526711428571

59

00:26:57.826 --> 00:26:59.404 strong reduction in cancer mortality

NOTE Confidence: 0.906526711428571

00:26:59.404 --> 00:27:01.019 is possible building on momentum

NOTE Confidence: 0.906526711428571

00:27:01.019 --> 00:27:02.796 we've seen in the last 30 years.

NOTE Confidence: 0.906526711428571

00:27:02.800 --> 00:27:05.222 I talked about the things that we

NOTE Confidence: 0.906526711428571

00:27:05.222 --> 00:27:07.798 could do to try and cut cancer,

NOTE Confidence: 0.906526711428571

00:27:07.800 --> 00:27:10.075 age adjusted mortality in half

NOTE Confidence: 0.906526711428571

00:27:10.075 --> 00:27:12.242 from its peak in 1992.

NOTE Confidence: 0.906526711428571

00:27:12.242 --> 00:27:15.880 You know half of that in the next few years,

NOTE Confidence: 0.906526711428571

00:27:15.880 --> 00:27:17.266 and some approaches that one could take

NOTE Confidence: 0.906526711428571

00:27:17.266 --> 00:27:19.097 to try and get there quickly as possible.

NOTE Confidence: 0.906526711428571

00:27:19.100 --> 00:27:20.436 And so you if you think about that,

NOTE Confidence: 0.906526711428571

00:27:20.440 --> 00:27:22.552 those are things that would really

NOTE Confidence: 0.906526711428571

00:27:22.552 --> 00:27:23.960 drive down aygestin mortality

NOTE Confidence: 0.880770045454545

00:27:24.019 --> 00:27:26.196 quickly, and you can say this is really the

NOTE Confidence: 0.880770045454545

00:27:26.196 --> 00:27:27.790 ultimate measure of our progress of cancer,

NOTE Confidence: 0.880770045454545

00:27:27.790 --> 00:27:29.758 is how many people are dying in cancer.

00:27:29.760 --> 00:27:31.974 But yeah, there is a lot more to the

00:27:31.974 --> 00:27:33.847 experience of cancer than just mortality.

00:27:33.850 --> 00:27:35.540 And today I wanted to focus on some of those

00:27:35.586 --> 00:27:37.084 other topics that we talked less about,

00:27:37.090 --> 00:27:39.078 and so a few of those statements

00:27:39.078 --> 00:27:40.926 are shown here. So, for example,

00:27:40.926 --> 00:27:43.810 we have two few ways to prevent cancer.

00:27:43.810 --> 00:27:46.834 Many treatments are so toxic that they're

00:27:46.834 --> 00:27:49.509 intolerable and cause lifelong morbidity.

00:27:49.510 --> 00:27:51.090 Too many patients are stymied,

00:27:51.090 --> 00:27:52.578 stymied by the complicated

00:27:52.578 --> 00:27:54.810 logistics of cancer care and and,

00:27:54.810 --> 00:27:56.736 and and and, and create these

00:27:56.736 --> 00:27:58.520 disparities because of access to care.

00:27:58.520 --> 00:28:00.338 And I know we can all think of other

00:28:00.338 --> 00:28:01.747 statements that are true about cancer.

NOTE Confidence: 0.880770045454545

00:28:01.750 --> 00:28:03.320 Things that we'd like to

NOTE Confidence: 0.880770045454545

00:28:03.320 --> 00:28:04.576 make untrue about cancer.

NOTE Confidence: 0.880770045454545

00:28:04.580 --> 00:28:06.676 I believe it's with our power deliver on

NOTE Confidence: 0.880770045454545

00:28:06.676 --> 00:28:08.560 the president's call to action to confront

NOTE Confidence: 0.880770045454545

00:28:08.560 --> 00:28:10.529 the current reality of cancer and raveling.

NOTE Confidence: 0.880770045454545

00:28:10.530 --> 00:28:12.318 To take today's in many ways,

NOTE Confidence: 0.880770045454545

00:28:12.320 --> 00:28:15.407 sad reality and realize a better future.

NOTE Confidence: 0.880770045454545

00:28:15.410 --> 00:28:16.070 In the months ahead,

NOTE Confidence: 0.880770045454545

00:28:16.070 --> 00:28:18.048 I want all of us to catch you to consider the

NOTE Confidence: 0.880770045454545

00:28:18.048 --> 00:28:19.910 steps we can take to solve these problems,

NOTE Confidence: 0.880770045454545

00:28:19.910 --> 00:28:21.632 as we've solved many other related

NOTE Confidence: 0.880770045454545

00:28:21.632 --> 00:28:23.489 problems over the past five decades.

NOTE Confidence: 0.880770045454545

00:28:23.490 --> 00:28:24.660 I don't really have time to

NOTE Confidence: 0.880770045454545

00:28:24.660 --> 00:28:25.840 develop delve into all of these,

NOTE Confidence: 0.880770045454545

00:28:25.840 --> 00:28:27.370 so I thought I'd pick a few to talk about,

NOTE Confidence: 0.880770045454545

00:28:27.370 --> 00:28:30.060 and the ones that I boxed here are the areas

NOTE Confidence: 0.880770045454545

00:28:30.131 --> 00:28:32.827 where I'd like to focus some examples today.

NOTE Confidence: 0.880770045454545

00:28:32.830 --> 00:28:33.296 As mentioned,

NOTE Confidence: 0.880770045454545

00:28:33.296 --> 00:28:34.927 we've already talked about mortality a bit,

NOTE Confidence: 0.880770045454545

00:28:34.930 --> 00:28:37.546 so I thought I'd take on.

NOTE Confidence: 0.880770045454545

00:28:37.550 --> 00:28:40.010 Early detection and screening,

NOTE Confidence: 0.880770045454545

00:28:40.010 --> 00:28:41.916 health inequities and

NOTE Confidence: 0.880770045454545

00:28:41.916 --> 00:28:44.620 refractory and rare cancers.

NOTE Confidence: 0.880770045454545

00:28:44.620 --> 00:28:45.310 Next slide.

NOTE Confidence: 0.896929131666667

00:28:47.430 --> 00:28:49.314 So in 1971, cancer screening and

NOTE Confidence: 0.896929131666667

00:28:49.314 --> 00:28:51.309 detection was really in its infancy,

NOTE Confidence: 0.896929131666667

00:28:51.310 --> 00:28:53.235 but we know now know that screening

NOTE Confidence: 0.896929131666667

00:28:53.235 --> 00:28:54.740 and early detection are really

NOTE Confidence: 0.896929131666667

00:28:54.740 --> 00:28:56.315 powerful tools for improving cancer

NOTE Confidence: 0.896929131666667

00:28:56.315 --> 00:28:57.910 outcomes in both individuals,

NOTE Confidence: 0.896929131666667

00:28:57.910 --> 00:29:00.550 but also at the population level.

NOTE Confidence: 0.896929131666667

00:29:00.550 --> 00:29:02.518 It's clear that development of effective

NOTE Confidence: 0.896929131666667

00:29:02.518 --> 00:29:04.590 screening approaches has been transformative,

NOTE Confidence: 0.896929131666667

00:29:04.590 --> 00:29:05.964 but we think things are really

NOTE Confidence: 0.896929131666667

00:29:05.964 --> 00:29:07.210 early in this field still,

NOTE Confidence: 0.896929131666667

00:29:07.210 --> 00:29:09.190 and believe screening and detection could

NOTE Confidence: 0.896929131666667

00:29:09.190 --> 00:29:11.822 be even more impactful than they are today.

NOTE Confidence: 0.896929131666667

00:29:11.822 --> 00:29:13.790 So now we have effective screening

NOTE Confidence: 0.896929131666667

00:29:13.857 --> 00:29:15.647 tools for for cervical cancer,

NOTE Confidence: 0.896929131666667

00:29:15.650 --> 00:29:17.334 breast cancer, colorectal cancer,

NOTE Confidence: 0.896929131666667

00:29:17.334 --> 00:29:18.597 and lung cancer.

NOTE Confidence: 0.896929131666667

00:29:18.600 --> 00:29:19.878 And even though they're uptake is

NOTE Confidence: 0.896929131666667

00:29:19.878 --> 00:29:21.527 not as good as we would like it,

NOTE Confidence: 0.896929131666667

00:29:21.530 --> 00:29:23.258 specially by the way for lung

NOTE Confidence: 0.896929131666667

00:29:23.258 --> 00:29:24.450 cancer screening modalities for

NOTE Confidence: 0.896929131666667

00:29:24.450 --> 00:29:26.250 these diseases have had a dramatic

NOTE Confidence: 0.896929131666667

00:29:26.250 --> 00:29:27.650 impact on US cancer mortality.

NOTE Confidence: 0.896929131666667

00:29:27.650 --> 00:29:29.792 Already I spoke with someone recently

NOTE Confidence: 0.896929131666667

00:29:29.792 --> 00:29:32.032 who had been described had been

NOTE Confidence: 0.896929131666667

00:29:32.032 --> 00:29:33.907 diagnosed recently with early stage

NOTE Confidence: 0.896929131666667

00:29:33.907 --> 00:29:35.959 breast cancer with screen detected

NOTE Confidence: 0.896929131666667

00:29:35.959 --> 00:29:38.124 breast cancer found in mammography,

NOTE Confidence: 0.896929131666667

00:29:38.130 --> 00:29:39.762 and she described to me what

NOTE Confidence: 0.896929131666667

00:29:39.762 --> 00:29:40.850 an inconvenience this was,

NOTE Confidence: 0.896929131666667

00:29:40.850 --> 00:29:42.768 how it had been a little frightening

NOTE Confidence: 0.896929131666667

00:29:42.768 --> 00:29:43.316 at first,

NOTE Confidence: 0.896929131666667

00:29:43.320 --> 00:29:44.936 but then it just had become more of

NOTE Confidence: 0.896929131666667

00:29:44.936 --> 00:29:46.652 a hassle she'd had sort of a minimal

NOTE Confidence: 0.896929131666667

00:29:46.652 --> 00:29:48.600 surgery at a brief course of radiotherapy.

NOTE Confidence: 0.896929131666667

00:29:48.600 --> 00:29:50.700 And was told that she would

NOTE Confidence: 0.896929131666667

00:29:50.700 --> 00:29:52.100 enjoy an excellent prognosis.

NOTE Confidence: 0.896929131666667

00:29:52.100 --> 00:29:53.920 And that's really the kind of experience

NOTE Confidence: 0.896929131666667

00:29:53.920 --> 00:29:56.240 we want to see for more types of cancer.

NOTE Confidence: 0.896929131666667

00:29:56.240 --> 00:29:56.736 I mean,

NOTE Confidence: 0.896929131666667

00:29:56.736 --> 00:29:57.976 Can you imagine anyone in

NOTE Confidence: 0.896929131666667

00:29:57.980 --> 00:29:59.320 1971 talking about you know,

NOTE Confidence: 0.896929131666667

00:29:59.320 --> 00:30:01.294 a diagnosis like that being an inconvenience?

NOTE Confidence: 0.896929131666667

00:30:01.300 --> 00:30:04.076 You know now that's a problem that is,

NOTE Confidence: 0.896929131666667

00:30:04.080 --> 00:30:05.688 in some ways a good problem,

NOTE Confidence: 0.896929131666667

00:30:05.690 --> 00:30:07.484 but even after many advances in

NOTE Confidence: 0.896929131666667

00:30:07.484 --> 00:30:08.680 detecting and treating cancer,

NOTE Confidence: 0.896929131666667

00:30:08.680 --> 00:30:10.759 being couple reality is that we still

NOTE Confidence: 0.896929131666667

00:30:10.759 --> 00:30:12.534 lack effective ways to detect many

NOTE Confidence: 0.896929131666667

00:30:12.534 --> 00:30:14.190 types of cancer before they spread

NOTE Confidence: 0.896929131666667

00:30:14.190 --> 00:30:16.138 and become more difficult to treat.

NOTE Confidence: 0.896929131666667

00:30:16.140 --> 00:30:16.968 And the cancer types,

NOTE Confidence: 0.896929131666667

00:30:16.968 --> 00:30:18.210 with some of the worst outcomes,

00:30:18.210 --> 00:30:19.885 frankly, are those where the

00:30:19.885 --> 00:30:21.560 disease can only be detected,

00:30:21.560 --> 00:30:22.540 typically when it's too

00:30:22.540 --> 00:30:23.520 late to treat effectively.

00:30:23.520 --> 00:30:24.508 Think you know pancreatic

00:30:24.508 --> 00:30:25.496 cancer in glass Dome,

00:30:25.500 --> 00:30:26.570 etc.

00:30:26.570 --> 00:30:28.710 Next slide.

00:30:28.710 --> 00:30:30.798 One cancer is an area where the National

00:30:30.798 --> 00:30:32.777 Cancer suit works should be highlighted.

00:30:32.780 --> 00:30:34.614 It's had an important impact on early

00:30:34.614 --> 00:30:36.179 cancer screening and early detection.

00:30:36.180 --> 00:30:37.863 I think this group will be aware of the

00:30:37.863 --> 00:30:39.177 national lung cancer screening trial,

00:30:39.180 --> 00:30:40.909 which was a landmark study led by

00:30:40.909 --> 00:30:43.014 the NCI that show that CT scanning

NOTE Confidence: 0.896929131666667

00:30:43.014 --> 00:30:44.649 could reduce mortality from lung

NOTE Confidence: 0.896929131666667

00:30:44.649 --> 00:30:46.037 cancer in specific populations

NOTE Confidence: 0.896929131666667

00:30:46.037 --> 00:30:48.368 related to age and history of smoking.

NOTE Confidence: 0.896929131666667

00:30:48.370 --> 00:30:50.158 This result was confirmed by a

NOTE Confidence: 0.896929131666667

00:30:50.158 --> 00:30:51.724 similar European trial and asked

NOTE Confidence: 0.896929131666667

00:30:51.724 --> 00:30:53.638 low dose CT screening is really

NOTE Confidence: 0.896929131666667

00:30:53.638 --> 00:30:55.236 considered the standard of care

NOTE Confidence: 0.896929131666667

00:30:55.236 --> 00:30:56.994 for patients of certain age with

NOTE Confidence: 0.896929131666667

00:30:56.994 --> 00:30:58.378 certain history tobacco use.

NOTE Confidence: 0.896929131666667

00:30:58.378 --> 00:31:00.772 As an effective means of reducing

NOTE Confidence: 0.896929131666667

00:31:00.772 --> 00:31:02.330 lung cancer mortality,

NOTE Confidence: 0.896929131666667

00:31:02.330 --> 00:31:04.562 and this is an example of how we can

NOTE Confidence: 0.896929131666667

00:31:04.562 --> 00:31:06.397 rigorously test an approach and move

NOTE Confidence: 0.896929131666667

00:31:06.397 --> 00:31:08.296 it into broad community practice and

NOTE Confidence: 0.896929131666667

00:31:08.296 --> 00:31:10.466 then refine it further through their study.

NOTE Confidence: 0.896929131666667

00:31:10.470 --> 00:31:12.228 This is really also an important

NOTE Confidence: 0.896929131666667

00:31:12.228 --> 00:31:13.833 illustration of some very critical

NOTE Confidence: 0.896929131666667

00:31:13.833 --> 00:31:15.728 nuances related to cancer screening.

NOTE Confidence: 0.896929131666667

00:31:15.730 --> 00:31:16.135 So,

NOTE Confidence: 0.896929131666667

00:31:16.135 --> 00:31:16.945 for example,

NOTE Confidence: 0.896929131666667

00:31:16.945 --> 00:31:18.565 the screening guidelines that

NOTE Confidence: 0.896929131666667

00:31:18.565 --> 00:31:20.518 were finally established in 2013

NOTE Confidence: 0.896929131666667

00:31:20.518 --> 00:31:22.203 by the United States Preventive

NOTE Confidence: 0.896929131666667

00:31:22.203 --> 00:31:23.214 Services Task Force

NOTE Confidence: 0.946117155333333

00:31:23.272 --> 00:31:25.182 USPSTF excluded large numbers of

NOTE Confidence: 0.946117155333333

00:31:25.182 --> 00:31:26.710 patients from screening because

NOTE Confidence: 0.946117155333333

00:31:26.710 --> 00:31:28.588 of the cut offs that were chosen

NOTE Confidence: 0.946117155333333

00:31:28.588 --> 00:31:29.580 in this particularly applied.

NOTE Confidence: 0.946117155333333

00:31:29.580 --> 00:31:32.010 To women and African American individuals

NOTE Confidence: 0.946117155333333

00:31:32.010 --> 00:31:34.340 who had lower smoking histories,

NOTE Confidence: 0.946117155333333

00:31:34.340 --> 00:31:36.070 not not as many Packers.

NOTE Confidence: 0.946117155333333

00:31:36.070 --> 00:31:37.355 And these individuals hadn't hadn't

NOTE Confidence: 0.946117155333333

00:31:37.355 --> 00:31:39.070 smoked enough to make the cut offs,

NOTE Confidence: 0.946117155333333

00:31:39.070 --> 00:31:40.600 but they nonetheless faced a higher

NOTE Confidence: 0.946117155333333

00:31:40.600 --> 00:31:42.240 risk of dying from lung cancer.

NOTE Confidence: 0.946117155333333

00:31:42.240 --> 00:31:44.256 So the NCI sought to address this issue

NOTE Confidence: 0.946117155333333

00:31:44.256 --> 00:31:45.757 by performing a modeling in arsis.

NOTE Confidence: 0.946117155333333

00:31:45.760 --> 00:31:46.470 Net network,

NOTE Confidence: 0.946117155333333

00:31:46.470 --> 00:31:48.245 and we concluded that screening

NOTE Confidence: 0.946117155333333

00:31:48.245 --> 00:31:50.008 guidelines should be amended to

NOTE Confidence: 0.946117155333333

00:31:50.008 --> 00:31:51.940 protect patients with even a more

NOTE Confidence: 0.946117155333333

00:31:51.940 --> 00:31:53.460 modest history of tobacco use,

NOTE Confidence: 0.946117155333333

00:31:53.460 --> 00:31:54.460 and based on that work,

NOTE Confidence: 0.946117155333333

00:31:54.460 --> 00:31:56.728 the latest revision of the USPSTF guidelines

NOTE Confidence: 0.946117155333333

00:31:56.728 --> 00:31:59.108 for lung cancer lowered those thresholds.

NOTE Confidence: 0.946117155333333

00:31:59.110 --> 00:32:00.734 A change that is a particular benefit that.

NOTE Confidence: 0.946117155333333

00:32:00.740 --> 00:32:03.020 Female African American smokers that are

NOTE Confidence: 0.946117155333333

00:32:03.020 --> 00:32:05.449 now eligible for screening a side note,

NOTE Confidence: 0.946117155333333

00:32:05.449 --> 00:32:07.984 by the way, similar recent USPSTF change

NOTE Confidence: 0.946117155333333

00:32:07.984 --> 00:32:10.014 was made to colorectal screening,

NOTE Confidence: 0.946117155333333

00:32:10.020 --> 00:32:11.742 colonoscopy and colorectal

NOTE Confidence: 0.946117155333333

00:32:11.742 --> 00:32:12.890 screening guidelines.

NOTE Confidence: 0.946117155333333

00:32:12.890 --> 00:32:15.529 Also based on NCI sponsored cisnet modeling.

NOTE Confidence: 0.946117155333333

00:32:15.530 --> 00:32:18.154 So the main problem right now with lung

NOTE Confidence: 0.946117155333333

00:32:18.154 --> 00:32:20.390 cancer today is vastly underutilized.

NOTE Confidence: 0.946117155333333

00:32:20.390 --> 00:32:22.328 For reasons that I do not

NOTE Confidence: 0.946117155333333

00:32:22.328 --> 00:32:22.974 completely understand,

NOTE Confidence: 0.946117155333333

00:32:22.980 --> 00:32:24.600 we've modeled what a more robust

NOTE Confidence: 0.946117155333333

00:32:24.600 --> 00:32:26.540 uptake of lung cancer screening could.

NOTE Confidence: 0.946117155333333

00:32:26.540 --> 00:32:28.164 It could mean in terms of overall

NOTE Confidence: 0.946117155333333

00:32:28.164 --> 00:32:29.240 cancer salary, United States,

NOTE Confidence: 0.946117155333333

00:32:29.240 --> 00:32:30.765 and it's a real opportunity.

NOTE Confidence: 0.946117155333333

00:32:30.770 --> 00:32:32.751 And the NCI funding mini opera mini

NOTE Confidence: 0.946117155333333

00:32:32.751 --> 00:32:35.469 studies in this sort of this field of

NOTE Confidence: 0.946117155333333

00:32:35.469 --> 00:32:36.913 dissemination and implementation science

NOTE Confidence: 0.946117155333333

00:32:36.913 --> 00:32:39.313 to understand why an effective screen

NOTE Confidence: 0.946117155333333

00:32:39.313 --> 00:32:41.288 modality is so vastly underutilized.

NOTE Confidence: 0.946117155333333

00:32:41.290 --> 00:32:43.082 But I think the story of lung cancer

NOTE Confidence: 0.946117155333333

00:32:43.082 --> 00:32:44.386 screening shows how the NCI can

NOTE Confidence: 0.946117155333333

00:32:44.386 --> 00:32:45.598 play a really important role in

NOTE Confidence: 0.946117155333333

00:32:45.649 --> 00:32:47.157 developing the preliminary science,

NOTE Confidence: 0.946117155333333

00:32:47.160 --> 00:32:48.850 disseminating that greater and then

NOTE Confidence: 0.946117155333333

00:32:48.850 --> 00:32:49.864 refining these recommendations.

NOTE Confidence: 0.946117155333333

00:32:49.870 --> 00:32:51.790 All for public health benefit.

NOTE Confidence: 0.946117155333333

00:32:51.790 --> 00:32:53.569 A next slide.

NOTE Confidence: 0.946117155333333

00:32:53.570 --> 00:32:55.484 So broader adoption of proven methodologies

NOTE Confidence: 0.946117155333333

00:32:55.484 --> 00:32:57.310 like history will be important,

NOTE Confidence: 0.946117155333333

00:32:57.310 --> 00:32:58.638 but they're also exciting.

NOTE Confidence: 0.946117155333333

00:32:58.638 --> 00:33:00.630 New technologies for early cancer detection.

NOTE Confidence: 0.946117155333333

00:33:00.630 --> 00:33:03.717 One particular approach are these so called

NOTE Confidence: 0.946117155333333

00:33:03.717 --> 00:33:06.970 multi cancer early detection tests or embeds.

NOTE Confidence: 0.946117155333333

00:33:06.970 --> 00:33:08.797 The idea here is a single test,

NOTE Confidence: 0.946117155333333

00:33:08.800 --> 00:33:11.376 usually a blood test done on otherwise

NOTE Confidence: 0.946117155333333

00:33:11.376 --> 00:33:13.868 healthy individuals at some regular interval.

NOTE Confidence: 0.946117155333333

00:33:13.870 --> 00:33:15.605 Think yearly to diagnose several

NOTE Confidence: 0.946117155333333

00:33:15.605 --> 00:33:17.707 cancers at once by detecting features

NOTE Confidence: 0.946117155333333

00:33:17.707 --> 00:33:19.849 of the cancer in a single analyte.

NOTE Confidence: 0.946117155333333

00:33:19.850 --> 00:33:20.762 They two of blood,

NOTE Confidence: 0.946117155333333

00:33:20.762 --> 00:33:22.130 and there are really many many

NOTE Confidence: 0.946117155333333

00:33:22.183 --> 00:33:23.068 approaches to this.

NOTE Confidence: 0.946117155333333

00:33:23.070 --> 00:33:23.940 There's DNA methylation.

NOTE Confidence: 0.946117155333333

00:33:23.940 --> 00:33:25.100 Their cell free DNA,

NOTE Confidence: 0.946117155333333

00:33:25.100 --> 00:33:26.360 there's exosomes etc etc.

NOTE Confidence: 0.946117155333333

00:33:26.360 --> 00:33:28.708 I I believe this concept holds great

NOTE Confidence: 0.946117155333333

00:33:28.708 --> 00:33:30.284 promise and these technologies

NOTE Confidence: 0.946117155333333

00:33:30.284 --> 00:33:32.254 are evolving rapidly and entering

NOTE Confidence: 0.946117155333333

00:33:32.318 --> 00:33:34.076 large scale clinical testing as we

NOTE Confidence: 0.946117155333333

00:33:34.076 --> 00:33:35.964 speak and I think these approaches

NOTE Confidence: 0.946117155333333

00:33:35.964 --> 00:33:37.392 could potentially reduce cancer

NOTE Confidence: 0.946117155333333

00:33:37.392 --> 00:33:39.150 mortality at the population level,

NOTE Confidence: 0.946117155333333

00:33:39.150 --> 00:33:41.299 but they have to be rigorously evaluated

NOTE Confidence: 0.946117155333333

00:33:41.299 --> 00:33:43.488 in a timely manner as I think this

NOTE Confidence: 0.946117155333333

00:33:43.488 --> 00:33:44.548 group is where cancer screenings

NOTE Confidence: 0.946117155333333

00:33:44.548 --> 00:33:46.007 are treated business because there's

NOTE Confidence: 0.946117155333333

00:33:46.007 --> 00:33:47.512 always this worry about overdiagnosis

NOTE Confidence: 0.946117155333333

00:33:47.512 --> 00:33:49.308 and overtreatment and the ability to

NOTE Confidence: 0.946117155333333

00:33:49.308 --> 00:33:50.753 harm patients through cancer screening

NOTE Confidence: 0.946117155333333

00:33:50.760 --> 00:33:53.015 and so evaluating these technologies

NOTE Confidence: 0.946117155333333

00:33:53.015 --> 00:33:54.819 will be challenging parenthetically.

NOTE Confidence: 0.946117155333333

00:33:54.820 --> 00:33:56.094 For those of you been following around.

NOTE Confidence: 0.946117155333333

00:33:56.100 --> 00:33:58.680 Following news in the in in in in DC we

NOTE Confidence: 0.946117155333333

00:33:58.752 --> 00:34:01.664 have heard about this new entity called RBH,

NOTE Confidence: 0.946117155333333

00:34:01.670 --> 00:34:03.287 which at this point is still a

NOTE Confidence: 0.946117155333333

00:34:03.287 --> 00:34:04.729 proposal of being taken up by

NOTE Confidence: 0.946117155333333

00:34:04.729 --> 00:34:06.346 Congress to create a new agency akin

NOTE Confidence: 0.863520218333333

00:34:06.402 --> 00:34:08.092 to DARPA and DARPA. The Defense

NOTE Confidence: 0.863520218333333

00:34:08.092 --> 00:34:09.636 Advanced Research Projects Agency.

NOTE Confidence: 0.863520218333333

00:34:09.640 --> 00:34:11.608 So our pH would be the Advanced Research

NOTE Confidence: 0.863520218333333

00:34:11.608 --> 00:34:12.971 Projects Agency for health and this

NOTE Confidence: 0.863520218333333

00:34:12.971 --> 00:34:14.580 would be within the NCI but with

NOTE Confidence: 0.863520218333333

00:34:14.580 --> 00:34:15.864 different structures and authorities

NOTE Confidence: 0.863520218333333

00:34:15.864 --> 00:34:17.469 to enable the rapid development

NOTE Confidence: 0.863520218333333

00:34:17.470 --> 00:34:19.210 of high risk high reward projects.

NOTE Confidence: 0.863520218333333

00:34:19.210 --> 00:34:21.191 And I, I believe in others have

NOTE Confidence: 0.863520218333333

00:34:21.191 --> 00:34:23.332 also stated that our page might be

NOTE Confidence: 0.863520218333333

00:34:23.332 --> 00:34:24.867 a good instrument for evaluating

NOTE Confidence: 0.863520218333333

00:34:24.867 --> 00:34:26.710 a new technology like this.

NOTE Confidence: 0.863520218333333

00:34:26.710 --> 00:34:28.432 As there is this very pressing need

NOTE Confidence: 0.863520218333333

00:34:28.432 --> 00:34:29.524 to evaluate these technologies

NOTE Confidence: 0.863520218333333

00:34:29.524 --> 00:34:33.120 as soon as possible, next slide.

NOTE Confidence: 0.863520218333333

00:34:33.120 --> 00:34:34.933 Let me turn to another major problem

NOTE Confidence: 0.863520218333333

00:34:34.933 --> 00:34:36.699 that we have failed to adequately

NOTE Confidence: 0.863520218333333

00:34:36.699 --> 00:34:38.565 address and that that is cancer.

NOTE Confidence: 0.863520218333333

00:34:38.570 --> 00:34:40.094 Health disparities and inequity

NOTE Confidence: 0.863520218333333

00:34:40.094 --> 00:34:41.999 in health and cancer care,

NOTE Confidence: 0.863520218333333

00:34:42.000 --> 00:34:43.446 and this is a whole constellation

NOTE Confidence: 0.863520218333333

00:34:43.446 --> 00:34:44.410 of issues that Dr.

NOTE Confidence: 0.863520218333333

00:34:44.410 --> 00:34:46.010 Disparities in outcome for

NOTE Confidence: 0.863520218333333

00:34:46.010 --> 00:34:47.610 outcomes for our patients.

NOTE Confidence: 0.863520218333333

00:34:47.610 --> 00:34:49.575 We face important disparities in

NOTE Confidence: 0.863520218333333

00:34:49.575 --> 00:34:51.147 cancer diagnosis and treatment,

NOTE Confidence: 0.863520218333333

00:34:51.150 --> 00:34:52.066 trial access,

NOTE Confidence: 0.863520218333333

00:34:52.066 --> 00:34:55.272 and any outcome based on race region.

NOTE Confidence: 0.863520218333333

00:34:55.280 --> 00:34:56.572 Access to care associated

NOTE Confidence: 0.863520218333333

00:34:56.572 --> 00:34:58.187 with status and other things.

NOTE Confidence: 0.863520218333333

00:34:58.190 --> 00:34:59.288 In other words,

NOTE Confidence: 0.863520218333333

00:34:59.288 --> 00:35:00.752 different demographic groups are

NOTE Confidence: 0.863520218333333

00:35:00.752 --> 00:35:02.192 affected differently by the health

NOTE Confidence: 0.863520218333333

00:35:02.192 --> 00:35:03.362 challenges they face and the

NOTE Confidence: 0.863520218333333

00:35:03.362 --> 00:35:04.510 circumstances in which they face.

NOTE Confidence: 0.863520218333333

00:35:04.510 --> 00:35:06.418 They think about the challenges that

NOTE Confidence: 0.863520218333333

00:35:06.418 --> 00:35:08.751 many people with cancer face and how

NOTE Confidence: 0.863520218333333

00:35:08.751 --> 00:35:10.087 their specific circumstances impact

NOTE Confidence: 0.863520218333333

00:35:10.087 --> 00:35:12.049 their care and their experience.

NOTE Confidence: 0.863520218333333

00:35:12.050 --> 00:35:14.006 So Sherry Davis is a patient.

00:35:14.010 --> 00:35:15.282 The NCI knows you need cancer

00:35:15.282 --> 00:35:15.918 treatment in Florida,

00:35:15.920 --> 00:35:18.424 but couldn't find a Doctor Who take Medicaid.

00:35:18.430 --> 00:35:20.614 That was closer than three counties away.

00:35:20.620 --> 00:35:21.442 And another patient,

00:35:21.442 --> 00:35:21.990 Barbara Ingalsbe,

00:35:21.990 --> 00:35:24.645 drove 100 miles every weekday

00:35:24.645 --> 00:35:26.238 for radiation treatment.

00:35:26.240 --> 00:35:28.106 And several states away we had

00:35:28.106 --> 00:35:30.047 Albert Callaway who had a neck

00:35:30.047 --> 00:35:31.949 tumor that grew and grew because

00:35:31.949 --> 00:35:33.646 this individual was uninsured and

00:35:33.646 --> 00:35:35.650 was overwhelmed by the process of

00:35:35.650 --> 00:35:38.054 trying to figure out how he fit

00:35:38.054 --> 00:35:40.020 within the health care system.

NOTE Confidence: 0.863520218333333

00:35:40.020 --> 00:35:41.530 These are three real patients,

NOTE Confidence: 0.863520218333333

00:35:41.530 --> 00:35:42.930 and it's clear that experiences like this.

NOTE Confidence: 0.863520218333333

00:35:42.930 --> 00:35:45.486 United States are entirely too common.

NOTE Confidence: 0.863520218333333

00:35:45.490 --> 00:35:47.248 While we've made great progress for

NOTE Confidence: 0.863520218333333

00:35:47.248 --> 00:35:48.710 overall in Cancer Research care,

NOTE Confidence: 0.863520218333333

00:35:48.710 --> 00:35:50.700 these benefits have not reached

NOTE Confidence: 0.863520218333333

00:35:50.700 --> 00:35:51.894 all people equally.

NOTE Confidence: 0.863520218333333

00:35:51.900 --> 00:35:53.657 So the NCIS long sought to address

NOTE Confidence: 0.863520218333333

00:35:53.657 --> 00:35:55.134 cancer authorities and we were working

NOTE Confidence: 0.863520218333333

00:35:55.134 --> 00:35:56.709 in this area even before that term.

NOTE Confidence: 0.863520218333333

00:35:56.710 --> 00:35:58.230 Health care disparities really

NOTE Confidence: 0.863520218333333

00:35:58.230 --> 00:35:59.750 was available in research,

NOTE Confidence: 0.863520218333333

00:35:59.750 --> 00:36:01.304 but of course recent events and I'm

NOTE Confidence: 0.863520218333333

00:36:01.304 --> 00:36:02.767 talking about the death of George

NOTE Confidence: 0.863520218333333

00:36:02.767 --> 00:36:03.771 Floyd and the disproportionate

NOTE Confidence: 0.863520218333333

00:36:03.771 --> 00:36:05.429 impact of the pandemic on the

NOTE Confidence: 0.863520218333333

00:36:05.429 --> 00:36:06.287 poor and disenfranchised.

NOTE Confidence: 0.863520218333333

00:36:06.290 --> 00:36:07.350 These recent events have

NOTE Confidence: 0.863520218333333

00:36:07.350 --> 00:36:08.410 injected and rightfully so.

NOTE Confidence: 0.863520218333333

00:36:08.410 --> 00:36:09.770 I believe a new focus.

NOTE Confidence: 0.863520218333333

00:36:09.770 --> 00:36:11.460 Passion and commitment to addressing

NOTE Confidence: 0.863520218333333

00:36:11.460 --> 00:36:13.150 disparities in the entire NIH,

NOTE Confidence: 0.863520218333333

00:36:13.150 --> 00:36:14.242 including the NCI.

NOTE Confidence: 0.863520218333333

00:36:14.242 --> 00:36:16.066 That said, these problems are very

NOTE Confidence: 0.863520218333333

00:36:16.066 --> 00:36:17.710 hard if their answers were easy.

NOTE Confidence: 0.863520218333333

00:36:17.710 --> 00:36:19.220 We have solved by now.

NOTE Confidence: 0.863520218333333

00:36:19.220 --> 00:36:21.090 Next slide.

NOTE Confidence: 0.863520218333333

00:36:21.090 --> 00:36:22.685 Cervical cancer is an interesting

NOTE Confidence: 0.863520218333333

00:36:22.685 --> 00:36:24.280 example of the complexity of

NOTE Confidence: 0.863520218333333

00:36:24.339 --> 00:36:25.680 cancer health disparities.

NOTE Confidence: 0.863520218333333

00:36:25.680 --> 00:36:27.325 So here is a graph showing the

NOTE Confidence: 0.863520218333333

00:36:27.325 --> 00:36:28.919 incidence of this disease overtime,

NOTE Confidence: 0.863520218333333

00:36:28.920 --> 00:36:31.349 and it shows a very positive trend.

NOTE Confidence: 0.863520218333333

00:36:31.350 --> 00:36:33.070 There's been this remarkable decline

NOTE Confidence: 0.863520218333333

00:36:33.070 --> 00:36:35.121 in cervical cancer incidence in the

NOTE Confidence: 0.863520218333333

00:36:35.121 --> 00:36:37.067 United States over the last few decades,

NOTE Confidence: 0.863520218333333

00:36:37.070 --> 00:36:38.635 and we have completely eliminated

NOTE Confidence: 0.863520218333333

00:36:38.635 --> 00:36:39.887 the difference in incidents.

NOTE Confidence: 0.863520218333333

00:36:39.890 --> 00:36:41.948 Between African American and white women,

NOTE Confidence: 0.863520218333333

00:36:41.950 --> 00:36:44.253 and this is good news and it

NOTE Confidence: 0.863520218333333

00:36:44.253 --> 00:36:45.648 reflects increased screening for

NOTE Confidence: 0.863520218333333

00:36:45.648 --> 00:36:47.724 cervical cancer as well as an

NOTE Confidence: 0.863520218333333

00:36:47.724 --> 00:36:48.762 effective HPV vaccination.

NOTE Confidence: 0.896179222666667

00:36:48.770 --> 00:36:49.995 And while we should celebrate

NOTE Confidence: 0.896179222666667

00:36:49.995 --> 00:36:51.584 this progress with regard to this

NOTE Confidence: 0.896179222666667

00:36:51.584 --> 00:36:52.836 important health care disparity,

NOTE Confidence: 0.896179222666667

00:36:52.840 --> 00:36:54.400 we should also note that at

NOTE Confidence: 0.896179222666667

00:36:54.400 --> 00:36:56.569 the same time that a very large

NOTE Confidence: 0.896179222666667

00:36:56.569 --> 00:36:57.993 difference in mortality from

NOTE Confidence: 0.896179222666667

00:36:57.993 --> 00:36:59.860 cervical cancer still exists today.

NOTE Confidence: 0.896179222666667

00:36:59.860 --> 00:37:01.463 So even today, black women in EU

NOTE Confidence: 0.896179222666667

00:37:01.463 --> 00:37:03.481 S or more than 50% likely to die

NOTE Confidence: 0.896179222666667

00:37:03.481 --> 00:37:05.143 of this disease than white women.

NOTE Confidence: 0.896179222666667

00:37:05.150 --> 00:37:06.438 So first I think is a scientist.

NOTE Confidence: 0.896179222666667

00:37:06.440 --> 00:37:08.057 You have to admit this is interesting.

NOTE Confidence: 0.896179222666667

00:37:08.060 --> 00:37:10.174 How can we have so much progress

NOTE Confidence: 0.896179222666667

00:37:10.174 --> 00:37:11.700 against incidents and mortality?

NOTE Confidence: 0.896179222666667

00:37:11.700 --> 00:37:13.180 And why is this cancer so much more

NOTE Confidence: 0.896179222666667

00:37:13.180 --> 00:37:14.420 lethal in black women and white

NOTE Confidence: 0.896179222666667

00:37:14.420 --> 00:37:15.944 women and white can invoke a lot

NOTE Confidence: 0.896179222666667

00:37:15.944 --> 00:37:17.426 of explanations for this could be

NOTE Confidence: 0.896179222666667

00:37:17.426 --> 00:37:19.019 differences in biology or differences in

NOTE Confidence: 0.896179222666667

00:37:19.019 --> 00:37:21.000 risk factors or differences access to care.

NOTE Confidence: 0.896179222666667

00:37:21.000 --> 00:37:23.076 Structural racism in the healthcare system.

NOTE Confidence: 0.896179222666667

00:37:23.080 --> 00:37:24.655 All of these explanations have

NOTE Confidence: 0.896179222666667

00:37:24.655 --> 00:37:26.740 plausibility and in cancer helps parities.

NOTE Confidence: 0.896179222666667

00:37:26.740 --> 00:37:27.428 Let me tell you,

NOTE Confidence: 0.896179222666667

00:37:27.428 --> 00:37:28.460 it's generally not one of these.

NOTE Confidence: 0.896179222666667

00:37:28.460 --> 00:37:29.825 It's going to be a combination of.

NOTE Confidence: 0.896179222666667

00:37:29.830 --> 00:37:32.110 Multiple things creating these disparities,

NOTE Confidence: 0.896179222666667

00:37:32.110 --> 00:37:33.998 but it's really the business of the National

NOTE Confidence: 0.896179222666667

00:37:33.998 --> 00:37:35.249 Cancer Institute to figure this out.

NOTE Confidence: 0.896179222666667

00:37:35.250 --> 00:37:37.130 We should support the research

NOTE Confidence: 0.896179222666667

00:37:37.130 --> 00:37:38.885 that would indentify the causes

NOTE Confidence: 0.896179222666667

00:37:38.885 --> 00:37:40.289 of these disparities and,

NOTE Confidence: 0.896179222666667

00:37:40.290 --> 00:37:42.274 and that's really the key to address to

NOTE Confidence: 0.896179222666667

00:37:42.274 --> 00:37:45.229 fixing these problems and next slide.

NOTE Confidence: 0.896179222666667

00:37:45.230 --> 00:37:46.712 Race and ethnicity are two features

NOTE Confidence: 0.896179222666667

00:37:46.712 --> 00:37:48.230 of society that drive healthcare,

NOTE Confidence: 0.896179222666667

00:37:48.230 --> 00:37:49.022 cancel disparities.

NOTE Confidence: 0.896179222666667

00:37:49.022 --> 00:37:51.002 But there are many other

NOTE Confidence: 0.896179222666667

00:37:51.002 --> 00:37:51.794 important contributors.

NOTE Confidence: 0.896179222666667

00:37:51.800 --> 00:37:52.175 Increasingly,

NOTE Confidence: 0.896179222666667

00:37:52.175 --> 00:37:53.675 we're appreciating that cancer

NOTE Confidence: 0.896179222666667

00:37:53.675 --> 00:37:55.550 outcomes are driven by geography,

NOTE Confidence: 0.896179222666667

00:37:55.550 --> 00:37:57.566 which we think is related to access.

NOTE Confidence: 0.896179222666667

00:37:57.570 --> 00:37:58.056 For example,

NOTE Confidence: 0.896179222666667

00:37:58.056 --> 00:37:59.757 we know that people live in rural

NOTE Confidence: 0.896179222666667

00:37:59.757 --> 00:38:01.142 communities have worse cancer outcomes

NOTE Confidence: 0.896179222666667

00:38:01.142 --> 00:38:02.385 regardless of race, ethnicity,

NOTE Confidence: 0.896179222666667

00:38:02.385 --> 00:38:04.875 cancer incidence and mortality overall or

NOTE Confidence: 0.896179222666667

00:38:04.875 --> 00:38:07.530 higher in rural areas than urban ones.

NOTE Confidence: 0.896179222666667

00:38:07.530 --> 00:38:08.466 This is not always been true

NOTE Confidence: 0.896179222666667

00:38:08.466 --> 00:38:09.090 in the United States.

NOTE Confidence: 0.896179222666667

00:38:09.090 --> 00:38:10.398 In the early 1990s,

NOTE Confidence: 0.896179222666667

00:38:10.398 --> 00:38:11.706 rural patients did better

NOTE Confidence: 0.896179222666667

00:38:11.706 --> 00:38:12.950 than urban patients,

NOTE Confidence: 0.896179222666667

00:38:12.950 --> 00:38:14.546 but that that trend is reversed

NOTE Confidence: 0.896179222666667

00:38:14.546 --> 00:38:15.610 and the disparity between.

NOTE Confidence: 0.896179222666667

00:38:15.610 --> 00:38:17.398 Her in urban and rural patients

NOTE Confidence: 0.896179222666667

00:38:17.398 --> 00:38:18.590 gets worse every year.

NOTE Confidence: 0.896179222666667

00:38:18.590 --> 00:38:19.678 This observation holds true

NOTE Confidence: 0.896179222666667

00:38:19.678 --> 00:38:20.494 for cancer overall,

NOTE Confidence: 0.896179222666667

00:38:20.500 --> 00:38:22.010 but particularly for cervical cancer,

NOTE Confidence: 0.896179222666667

00:38:22.010 --> 00:38:23.582 colorectal cancer, kidney cancer,

NOTE Confidence: 0.896179222666667

00:38:23.582 --> 00:38:24.368 lung cancer,

NOTE Confidence: 0.896179222666667

00:38:24.370 --> 00:38:26.338 Melanoma and oropharyngeal cancers.

NOTE Confidence: 0.896179222666667

00:38:26.338 --> 00:38:27.814 Along these lines,

NOTE Confidence: 0.896179222666667

00:38:27.820 --> 00:38:29.524 a recent study from NCI grantees

NOTE Confidence: 0.896179222666667

00:38:29.524 --> 00:38:31.004 published this month revealed that

NOTE Confidence: 0.896179222666667

00:38:31.004 --> 00:38:32.786 women residing in urban areas were

NOTE Confidence: 0.896179222666667

00:38:32.786 --> 00:38:34.372 significantly more likely to get

NOTE Confidence: 0.896179222666667

00:38:34.372 --> 00:38:35.652 the recommended colorectal cancer

NOTE Confidence: 0.896179222666667

00:38:35.652 --> 00:38:37.308 screening compared with women in

NOTE Confidence: 0.896179222666667

00:38:37.308 --> 00:38:39.516 rural states. Areas of 11 states.

NOTE Confidence: 0.896179222666667

00:38:39.520 --> 00:38:39.815 However,

NOTE Confidence: 0.896179222666667

00:38:39.815 --> 00:38:41.585 both groups had similar rates of

NOTE Confidence: 0.896179222666667

00:38:41.585 --> 00:38:43.132 adherence to breast cancer screenings

NOTE Confidence: 0.896179222666667

00:38:43.132 --> 00:38:44.950 for showing how complex this is.

NOTE Confidence: 0.896179222666667

00:38:44.950 --> 00:38:46.974 So you sort of get a different effect

NOTE Confidence: 0.896179222666667

00:38:46.974 --> 00:38:48.764 of reality on colorectal cancer

NOTE Confidence: 0.896179222666667

00:38:48.764 --> 00:38:50.809 screening versus breast cancer screening.

NOTE Confidence: 0.896179222666667

00:38:50.810 --> 00:38:51.814 That is,

NOTE Confidence: 0.896179222666667

00:38:51.814 --> 00:38:53.320 colonoscopy versus mammography,

NOTE Confidence: 0.896179222666667

00:38:53.320 --> 00:38:55.360 but perhaps the most important thing

NOTE Confidence: 0.896179222666667

00:38:55.360 --> 00:38:57.690 to realize about health spirit research.

NOTE Confidence: 0.896179222666667

00:38:57.690 --> 00:38:59.692 Is really the need to stop solely

NOTE Confidence: 0.896179222666667

00:38:59.692 --> 00:39:02.640 focusing on a single feature of these

NOTE Confidence: 0.896179222666667

00:39:02.640 --> 00:39:04.155 complex heterogeneous populations.

NOTE Confidence: 0.896179222666667

00:39:04.160 --> 00:39:05.532 So shown here is is a beginning

NOTE Confidence: 0.896179222666667

00:39:05.532 --> 00:39:07.156 to try and get a handle on this.

NOTE Confidence: 0.896179222666667

00:39:07.160 --> 00:39:09.830 This is the topic of persistent

NOTE Confidence: 0.896179222666667

00:39:09.830 --> 00:39:12.189 poverty which is defined as 20%

NOTE Confidence: 0.896179222666667

00:39:12.189 --> 00:39:14.223 of the population living below the

NOTE Confidence: 0.896179222666667

00:39:14.223 --> 00:39:16.226 poverty threshold for decades and we

NOTE Confidence: 0.896179222666667

00:39:16.226 --> 00:39:17.804 note that the outcomes of patients

NOTE Confidence: 0.896179222666667

00:39:17.804 --> 00:39:19.608 living in areas of persistent poverty

NOTE Confidence: 0.896179222666667

00:39:19.608 --> 00:39:21.438 are worse than patients who are

NOTE Confidence: 0.944881975

00:39:21.490 --> 00:39:23.005 living in areas that are

NOTE Confidence: 0.944881975

00:39:23.005 --> 00:39:23.914 merely currently poor.

NOTE Confidence: 0.944881975

00:39:23.920 --> 00:39:25.400 That is their socio economically

NOTE Confidence: 0.944881975

00:39:25.400 --> 00:39:27.174 the same today. But one is that

NOTE Confidence: 0.944881975

00:39:27.174 --> 00:39:28.058 structural poverty going back.

NOTE Confidence: 0.944881975

00:39:28.060 --> 00:39:30.526 Decades and that population does worse,

NOTE Confidence: 0.944881975

00:39:30.530 --> 00:39:34.508 so no social economic status alone.

NOTE Confidence: 0.944881975

00:39:34.510 --> 00:39:36.337 Can't really capture what's going on here,

NOTE Confidence: 0.944881975

00:39:36.340 --> 00:39:38.415 and we need more sophisticated

NOTE Confidence: 0.944881975

00:39:38.415 --> 00:39:40.075 approaches to understand this

NOTE Confidence: 0.944881975

00:39:40.075 --> 00:39:42.220 interaction between morality and poverty,

NOTE Confidence: 0.944881975

00:39:42.220 --> 00:39:43.366 particularly through time.

NOTE Confidence: 0.944881975

00:39:43.366 --> 00:39:45.690 We have other examples, for example,

NOTE Confidence: 0.944881975

00:39:45.690 --> 00:39:48.060 the example of American Indians were

NOTE Confidence: 0.944881975

00:39:48.060 --> 00:39:50.519 overall cancer outcomes are not that bad.

NOTE Confidence: 0.944881975

00:39:50.520 --> 00:39:52.739 But in in certain the interaction with

NOTE Confidence: 0.944881975

00:39:52.739 --> 00:39:55.279 poverty in that population is particularly

NOTE Confidence: 0.944881975

00:39:55.280 --> 00:39:58.444 adverse and we see these terrible pockets.

NOTE Confidence: 0.944881975

00:39:58.450 --> 00:40:00.196 Of very poor outcomes in the

NOTE Confidence: 0.944881975

00:40:00.196 --> 00:40:01.069 American Indian population,

NOTE Confidence: 0.944881975

00:40:01.070 --> 00:40:01.528 for example.

NOTE Confidence: 0.944881975

00:40:01.528 --> 00:40:03.131 So we have lots of data now

NOTE Confidence: 0.944881975

00:40:03.131 --> 00:40:04.715 showing these sort of non-linear

NOTE Confidence: 0.944881975

00:40:04.715 --> 00:40:06.015 enter interactions between like

NOTE Confidence: 0.944881975

00:40:06.015 --> 00:40:07.886 things like race and ethnicity and

NOTE Confidence: 0.944881975

00:40:07.886 --> 00:40:09.346 genetics and poverty in reality.

NOTE Confidence: 0.944881975

00:40:09.350 --> 00:40:11.010 And these interactions can produce

NOTE Confidence: 0.944881975

00:40:11.010 --> 00:40:12.338 some really counter intuitive

NOTE Confidence: 0.944881975

00:40:12.338 --> 00:40:13.826 effects and so really we think the

NOTE Confidence: 0.944881975

00:40:13.826 --> 00:40:15.188 NCI a key for cancel disparities

NOTE Confidence: 0.944881975

00:40:15.188 --> 00:40:17.190 is to stop sort of single variable

NOTE Confidence: 0.944881975

00:40:17.190 --> 00:40:19.170 analysis and start working on these

NOTE Confidence: 0.944881975

00:40:19.170 --> 00:40:20.860 populations in their totality with

NOTE Confidence: 0.944881975

00:40:20.920 --> 00:40:23.989 all their complexity our next slide.

NOTE Confidence: 0.944881975

00:40:23.990 --> 00:40:25.814 As mentioned a NCIS been interested

NOTE Confidence: 0.944881975

00:40:25.814 --> 00:40:27.864 in the topic of health disparities

NOTE Confidence: 0.944881975

00:40:27.864 --> 00:40:30.186 in minority health for some time.

NOTE Confidence: 0.944881975

00:40:30.190 --> 00:40:31.905 This shows a trend in our funding

NOTE Confidence: 0.944881975

00:40:31.905 --> 00:40:33.430 in the for these topics.

NOTE Confidence: 0.944881975

00:40:33.430 --> 00:40:35.010 Dating back to 2010,

NOTE Confidence: 0.944881975

00:40:35.010 --> 00:40:37.858 the NCI has had a significant spin

NOTE Confidence: 0.944881975

00:40:37.858 --> 00:40:40.228 in this area for over decades,

NOTE Confidence: 0.944881975

00:40:40.230 --> 00:40:42.358 but you can see that as sharply

NOTE Confidence: 0.944881975

00:40:42.358 --> 00:40:44.289 increased in the last few years.

NOTE Confidence: 0.944881975

00:40:44.290 --> 00:40:45.568 Although this is a large investment

NOTE Confidence: 0.944881975

00:40:45.568 --> 00:40:46.800 in this area of science,

NOTE Confidence: 0.944881975

00:40:46.800 --> 00:40:48.550 we believe it is very important to

NOTE Confidence: 0.944881975

00:40:48.550 --> 00:40:49.551 continuously monitor this portfolio

NOTE Confidence: 0.944881975

00:40:49.551 --> 00:40:50.951 and we think it's fair to ask

NOTE Confidence: 0.944881975

00:40:50.951 --> 00:40:52.320 if we're spending on the right.

NOTE Confidence: 0.944881975

00:40:52.320 --> 00:40:53.760 Topics were asking the right

NOTE Confidence: 0.944881975

00:40:53.760 --> 00:40:54.912 questions on the field.

NOTE Confidence: 0.944881975

00:40:54.920 --> 00:40:56.278 For the field and should we be

NOTE Confidence: 0.944881975

00:40:56.278 --> 00:40:57.499 even spending more in these areas?

NOTE Confidence: 0.944881975

00:40:57.500 --> 00:41:00.020 We also know that Cancer Research workforce,

NOTE Confidence: 0.944881975

00:41:00.020 --> 00:41:01.940 the scientists and doctors that do

NOTE Confidence: 0.944881975

00:41:01.940 --> 00:41:03.604 the cancer science that workforce

NOTE Confidence: 0.944881975

00:41:03.604 --> 00:41:05.204 does not reflect the population

NOTE Confidence: 0.944881975

00:41:05.204 --> 00:41:06.880 of the people we serve.

NOTE Confidence: 0.944881975

00:41:06.880 --> 00:41:08.335 And we've really redoubled our

NOTE Confidence: 0.944881975

00:41:08.335 --> 00:41:09.790 efforts to make headway against

NOTE Confidence: 0.944881975

00:41:09.845 --> 00:41:11.560 the problem of under representation

NOTE Confidence: 0.944881975

00:41:11.560 --> 00:41:13.275 within the Cancer Research workforce.

NOTE Confidence: 0.944881975

00:41:13.280 --> 00:41:15.194 We all share responsibility to change

NOTE Confidence: 0.944881975

00:41:15.194 --> 00:41:17.733 this in whatever way we can and bake

NOTE Confidence: 0.944881975

00:41:17.733 --> 00:41:19.243 HealthEquity into sort of everything

NOTE Confidence: 0.944881975

00:41:19.243 --> 00:41:21.413 we do and how we that's how we help.

NOTE Confidence: 0.944881975

00:41:21.420 --> 00:41:22.420 We believe an important

NOTE Confidence: 0.944881975

00:41:22.420 --> 00:41:23.420 key to ending cancers.

NOTE Confidence: 0.944881975

00:41:23.420 --> 00:41:25.196 You know it, the president's goal.

NOTE Confidence: 0.944881975

00:41:25.200 --> 00:41:27.230 Next slide.

NOTE Confidence: 0.944881975

00:41:27.230 --> 00:41:28.778 Given the lack of diversity in

NOTE Confidence: 0.944881975

00:41:28.778 --> 00:41:29.810 the Cancer Research workforce,

NOTE Confidence: 0.944881975

00:41:29.810 --> 00:41:31.238 I am excited about several efforts

NOTE Confidence: 0.944881975

00:41:31.238 --> 00:41:33.239 from the NCI to address this problem,

NOTE Confidence: 0.944881975

00:41:33.240 --> 00:41:34.752 so one that is reasonably well

NOTE Confidence: 0.944881975

00:41:34.752 --> 00:41:36.629 known as the NCI Secure program.

NOTE Confidence: 0.944881975

00:41:36.630 --> 00:41:38.255 This is the continuing umbrella

NOTE Confidence: 0.944881975

00:41:38.255 --> 00:41:39.230 of research experiences.

NOTE Confidence: 0.944881975

00:41:39.230 --> 00:41:40.330 This program is a pipeline

NOTE Confidence: 0.944881975

00:41:40.330 --> 00:41:41.210 program if you will.

NOTE Confidence: 0.944881975

00:41:41.210 --> 00:41:42.608 That starts sort of in middle

NOTE Confidence: 0.944881975

00:41:42.608 --> 00:41:43.540 school or high school,

NOTE Confidence: 0.944881975

00:41:43.540 --> 00:41:45.478 and it provides support for individuals

NOTE Confidence: 0.944881975

00:41:45.478 --> 00:41:48.329 all the way to the junior faculty level.

NOTE Confidence: 0.944881975

00:41:48.330 --> 00:41:49.970 It has thousands of alumni,

NOTE Confidence: 0.944881975

00:41:49.970 --> 00:41:51.989 some of the most famous researchers

NOTE Confidence: 0.944881975

00:41:51.989 --> 00:41:52.547 and cancer.

NOTE Confidence: 0.944881975

00:41:52.547 --> 00:41:54.221 Going today are alumni of the

NOTE Confidence: 0.944881975

00:41:54.221 --> 00:41:56.020 of the Cure program and really

NOTE Confidence: 0.944881975

00:41:56.020 --> 00:41:57.490 change trains them for success.

NOTE Confidence: 0.944881975

00:41:57.490 --> 00:41:59.840 And it is the idea that a pipeline is a

NOTE Confidence: 0.914852324736842

00:41:59.903 --> 00:42:02.033 way to address the lack of

NOTE Confidence: 0.914852324736842

00:42:02.033 --> 00:42:03.098 representation in science.

NOTE Confidence: 0.914852324736842

93

00:42:03.100 --> 00:42:04.516 Another effort that is different that

NOTE Confidence: 0.914852324736842

00:42:04.516 --> 00:42:05.950 is really exciting is shown here.

NOTE Confidence: 0.914852324736842

00:42:05.950 --> 00:42:07.348 And this is the first initiative.

NOTE Confidence: 0.914852324736842

00:42:07.350 --> 00:42:09.732 So first stands for the faculty

NOTE Confidence: 0.914852324736842

00:42:09.732 --> 00:42:10.923 institutional recruitment for

NOTE Confidence: 0.914852324736842

00:42:10.923 --> 00:42:12.190 sustainable transformation.

NOTE Confidence: 0.914852324736842

00:42:12.190 --> 00:42:14.416 This is a common fund initiative,

NOTE Confidence: 0.914852324736842

00:42:14.420 --> 00:42:16.765 meaning it's led the money to support.

NOTE Confidence: 0.914852324736842

00:42:16.770 --> 00:42:18.000 This comes from the NIH,

NOTE Confidence: 0.914852324736842

00:42:18.000 --> 00:42:20.184 but is led by the NCI working in

NOTE Confidence: 0.914852324736842

00:42:20.184 --> 00:42:21.501 collaboration with the National

NOTE Confidence: 0.914852324736842

00:42:21.501 --> 00:42:22.933 Institute on Minority Health

NOTE Confidence: 0.914852324736842

00:42:22.933 --> 00:42:24.640 and Health Disparities in IHD.

NOTE Confidence: 0.914852324736842

00:42:24.640 --> 00:42:26.440 The purpose of the first cohort

NOTE Confidence: 0.914852324736842

00:42:26.440 --> 00:42:28.180 is to transform the culture.

NOTE Confidence: 0.914852324736842

00:42:28.180 --> 00:42:30.050 At NIH funded external institutions

00:42:30.050 --> 00:42:31.920 by building a self reinforcing

00:42:31.983 --> 00:42:34.253 community of scientists committed to

00:42:34.253 --> 00:42:36.069 diversity and inclusive excellence.

00:42:36.070 --> 00:42:37.684 The rationale here is that a

00:42:37.684 --> 00:42:39.180 cohort model of faculty hiring,

00:42:39.180 --> 00:42:39.639 sponsorship,

00:42:39.639 --> 00:42:42.393 and mentoring will lead to really

00:42:42.393 --> 00:42:44.325 sustained support professional development

00:42:44.325 --> 00:42:46.795 embedded within an institution that's

00:42:46.795 --> 00:42:48.771 committed to workforce diversity.

00:42:48.780 --> 00:42:51.060 Here is the sort of first set of award E.

00:42:51.060 --> 00:42:52.620 There are two more rounds of this coming.

00:42:52.620 --> 00:42:53.224 In fact,

00:42:53.224 --> 00:42:55.640 the next round of grants is due soon.

00:42:55.640 --> 00:42:57.460 You see it as a coordinating center

00:42:57.460 --> 00:42:59.040 at Morehouse and then six Ortiz.

NOTE Confidence: 0.914852324736842

00:42:59.040 --> 00:43:00.340 And it's an experiment in

NOTE Confidence: 0.914852324736842

00:43:00.340 --> 00:43:01.120 this cohort approach,

NOTE Confidence: 0.914852324736842

00:43:01.120 --> 00:43:03.132 which will include significant

NOTE Confidence: 0.914852324736842

00:43:03.132 --> 00:43:04.138 data collection.

NOTE Confidence: 0.914852324736842

00:43:04.140 --> 00:43:05.950 To see if the scientists,

NOTE Confidence: 0.914852324736842

00:43:05.950 --> 00:43:08.620 the faculty trained through first,

NOTE Confidence: 0.914852324736842

00:43:08.620 --> 00:43:11.100 will benefit from this program,

NOTE Confidence: 0.914852324736842

00:43:11.100 --> 00:43:12.932 and so so you see the NCIS invested

NOTE Confidence: 0.914852324736842

00:43:12.932 --> 00:43:15.225 in the cohort approach with first and

NOTE Confidence: 0.914852324736842

00:43:15.225 --> 00:43:17.378 with the pipeline approach through cure

NOTE Confidence: 0.914852324736842

00:43:17.378 --> 00:43:19.632 and we are really trying to consider

NOTE Confidence: 0.914852324736842

00:43:19.632 --> 00:43:21.872 whatever approach might work best in

NOTE Confidence: 0.914852324736842

00:43:21.872 --> 00:43:23.862 terms of developing faculty diversity.

NOTE Confidence: 0.914852324736842

00:43:23.870 --> 00:43:25.650 Next slide.

NOTE Confidence: 0.914852324736842

00:43:25.650 --> 00:43:26.986 Let me also talk a little bit about

NOTE Confidence: 0.914852324736842

00:43:26.986 --> 00:43:28.232 rare and difficult to treat cancers

NOTE Confidence: 0.914852324736842

00:43:28.232 --> 00:43:29.534 just as our advances in Cancer

NOTE Confidence: 0.914852324736842

00:43:29.574 --> 00:43:31.248 Research have not benefited all populations.

NOTE Confidence: 0.914852324736842

00:43:31.250 --> 00:43:32.909 Our progress has not been even across

NOTE Confidence: 0.914852324736842

00:43:32.909 --> 00:43:34.230 all cancers types you see here.

NOTE Confidence: 0.914852324736842

00:43:34.230 --> 00:43:35.020 Senator McCain,

NOTE Confidence: 0.914852324736842

00:43:35.020 --> 00:43:36.600 who died of Blastoma,

NOTE Confidence: 0.914852324736842

00:43:36.600 --> 00:43:37.464 Ruth Bader Ginsburg,

NOTE Confidence: 0.914852324736842

00:43:37.464 --> 00:43:38.904 who died of pancreatic cancer.

NOTE Confidence: 0.914852324736842

00:43:38.910 --> 00:43:40.092 Chadwick Boseman,

NOTE Confidence: 0.914852324736842

00:43:40.092 --> 00:43:44.229 who died of early onset colorectal cancer.

NOTE Confidence: 0.914852324736842

00:43:44.230 --> 00:43:45.508 We are seeing an alarming rise

NOTE Confidence: 0.914852324736842

00:43:45.508 --> 00:43:47.002 in the rate of colorectal cancer

NOTE Confidence: 0.914852324736842

00:43:47.002 --> 00:43:48.778 and lung pain in young patients.

NOTE Confidence: 0.914852324736842

00:43:48.780 --> 00:43:50.478 For reasons that are not clear,

NOTE Confidence: 0.914852324736842

00:43:50.480 --> 00:43:52.636 the five year survival rate for glioblastoma,

NOTE Confidence: 0.914852324736842

00:43:52.640 --> 00:43:54.305 that which affected Senator McCain

NOTE Confidence: 0.914852324736842

00:43:54.305 --> 00:43:56.420 is less than 7% pancreatic cancer.

NOTE Confidence: 0.914852324736842

00:43:56.420 --> 00:43:58.318 It's less than 11% so.

NOTE Confidence: 0.914852324736842

00:43:58.318 --> 00:43:59.670 But among these stories,

NOTE Confidence: 0.914852324736842

00:43:59.670 --> 00:44:01.494 you also see in the upper left corner.

NOTE Confidence: 0.914852324736842

00:44:01.500 --> 00:44:03.408 Here, a little girl named Brianna,

NOTE Confidence: 0.914852324736842

00:44:03.410 --> 00:44:05.650 who had infantile fibrosarcoma,

NOTE Confidence: 0.914852324736842

00:44:05.650 --> 00:44:08.660 which was here to forward terrible disease,

NOTE Confidence: 0.914852324736842

00:44:08.660 --> 00:44:10.496 but she was treated with Larry

NOTE Confidence: 0.914852324736842

00:44:10.496 --> 00:44:12.629 Trek net eight REC inhibitor that

NOTE Confidence: 0.914852324736842

00:44:12.629 --> 00:44:14.729 allowed her to avoid amputation.

NOTE Confidence: 0.914852324736842

00:44:14.730 --> 00:44:17.258 So hers is a success story in a

NOTE Confidence: 0.914852324736842

00:44:17.258 --> 00:44:19.198 rare cancer that speaks to the

NOTE Confidence: 0.914852324736842

00:44:19.198 --> 00:44:21.160 long arc of basic science discovery

NOTE Confidence: 0.914852324736842

00:44:21.228 --> 00:44:23.108 to successful clinical advance,

NOTE Confidence: 0.914852324736842

00:44:23.110 --> 00:44:24.055 the story of Trek inhibitors

NOTE Confidence: 0.914852324736842

00:44:24.055 --> 00:44:25.000 for those of you know,

NOTE Confidence: 0.914852324736842

00:44:25.000 --> 00:44:27.168 it begins really at the NCI at Frederick

NOTE Confidence: 0.914852324736842

00:44:27.168 --> 00:44:28.687 National Lab back in the 1980s,

NOTE Confidence: 0.914852324736842

00:44:28.690 --> 00:44:30.902 when Mariano Barba said working as a

NOTE Confidence: 0.914852324736842

00:44:30.902 --> 00:44:32.451 contractor was hunting for oncogenes

NOTE Confidence: 0.914852324736842

00:44:32.451 --> 00:44:34.362 and he found one called on Cody,

NOTE Confidence: 0.914852324736842

00:44:34.370 --> 00:44:35.710 which was later turned out,

NOTE Confidence: 0.914852324736842

00:44:35.710 --> 00:44:38.230 shown to be the first fusion known in

NOTE Confidence: 0.914852324736842

00:44:38.230 --> 00:44:41.028 cancer and involving the trek gene in 2018.

NOTE Confidence: 0.914852324736842

00:44:41.030 --> 00:44:42.062 Layer Trek nib,

NOTE Confidence: 0.914852324736842

00:44:42.062 --> 00:44:44.126 which was used in Rihanna's cancer,

NOTE Confidence: 0.874478053076923

00:44:44.130 --> 00:44:45.366 was the first drug.

NOTE Confidence: 0.874478053076923

00:44:45.366 --> 00:44:47.220 Approved to treat interact few gene

NOTE Confidence: 0.874478053076923

00:44:47.285 --> 00:44:49.294 fusions and it is quite a successful

NOTE Confidence: 0.874478053076923

00:44:49.294 --> 00:44:51.256 drug for those rare patients that

NOTE Confidence: 0.874478053076923

00:44:51.256 --> 00:44:54.390 have those events. Next slide.

NOTE Confidence: 0.874478053076923

00:44:54.390 --> 00:44:56.366 Another nice example is the good dark trial.

NOTE Confidence: 0.874478053076923

00:44:56.370 --> 00:44:59.896 This is the NCI dual anti CD48PD1 blockade

NOTE Confidence: 0.874478053076923

00:44:59.896 --> 00:45:02.227 in rare tumors trial it's the first

NOTE Confidence: 0.874478053076923

00:45:02.227 --> 00:45:04.130 immunotherapy trial focused on rare cancers.

NOTE Confidence: 0.874478053076923

00:45:04.130 --> 00:45:06.181 Here you know dark trial is been

NOTE Confidence: 0.874478053076923

00:45:06.181 --> 00:45:08.589 tried in many different rare cancers.

NOTE Confidence: 0.874478053076923

00:45:08.590 --> 00:45:10.048 Here are the results in angiosarcoma

NOTE Confidence: 0.874478053076923

00:45:10.048 --> 00:45:12.224 where you can see a patient with a quite

NOTE Confidence: 0.874478053076923

00:45:12.224 --> 00:45:13.829 bad tumor involving the face and nose.

NOTE Confidence: 0.874478053076923

00:45:13.830 --> 00:45:16.062 With this very nice response to

NOTE Confidence: 0.874478053076923

00:45:16.062 --> 00:45:18.310 combine the immuno oncology approaches.

NOTE Confidence: 0.874478053076923

00:45:18.310 --> 00:45:20.506 These results are impressive and encouraging.

NOTE Confidence: 0.874478053076923

00:45:20.510 --> 00:45:22.544 You can see in about 1/4 of the patients

NOTE Confidence: 0.874478053076923

00:45:22.544 --> 00:45:24.596 there are these very impressive responses.

00:45:24.600 --> 00:45:26.220 With some patients having their

00:45:26.220 --> 00:45:27.516 cancers go away entirely,

00:45:27.520 --> 00:45:30.976 this is a remarkable for a number of ways.

00:45:30.980 --> 00:45:35.481 For reasons we a subtype of angiosarcoma

00:45:35.481 --> 00:45:37.486 been identified earlier through the

00:45:37.486 --> 00:45:40.058 count Me in initiative that included a,

00:45:40.060 --> 00:45:42.172 you know about 25% of patients that had

00:45:42.172 --> 00:45:44.090 high tumor mutational burden and would

00:45:44.090 --> 00:45:46.620 therefore be a candidate for immuno oncology.

00:45:46.620 --> 00:45:49.076 And then this trial happens almost within a

00:45:49.076 --> 00:45:51.886 year to confirm activity in some patients.

00:45:51.890 --> 00:45:53.780 A dart is an important platform.

00:45:53.780 --> 00:45:55.095 It is not as I said, slowly.

00:45:55.095 --> 00:45:56.870 Restricted to angels or comma?

00:45:56.870 --> 00:45:58.355 It's looking at other rare

00:45:58.355 --> 00:45:59.246 subtypes of cancer.

NOTE Confidence: 0.874478053076923

00:45:59.250 --> 00:46:00.845 53 cohorts in all, including

NOTE Confidence: 0.874478053076923

00:46:00.845 --> 00:46:03.170 cancers of the ovary and intestines,

NOTE Confidence: 0.874478053076923

00:46:03.170 --> 00:46:04.465 and lung and sinus is just rare.

NOTE Confidence: 0.874478053076923

00:46:04.470 --> 00:46:04.853 Cancers,

NOTE Confidence: 0.874478053076923

00:46:04.853 --> 00:46:06.768 wherever they may be found,

NOTE Confidence: 0.874478053076923

00:46:06.770 --> 00:46:09.128 and we think that this is the kind of

NOTE Confidence: 0.874478053076923

00:46:09.128 --> 00:46:11.024 approach that really has to be taken

NOTE Confidence: 0.874478053076923

00:46:11.024 --> 00:46:13.331 for these kinds of rare cancers on

NOTE Confidence: 0.874478053076923

00:46:13.331 --> 00:46:15.326 imitable to traditional clinical trials.

NOTE Confidence: 0.874478053076923

00:46:15.330 --> 00:46:16.454 Next slide.

NOTE Confidence: 0.874478053076923

00:46:16.454 --> 00:46:18.140 The match trial?

NOTE Confidence: 0.874478053076923

00:46:18.140 --> 00:46:18.718 Uh,

NOTE Confidence: 0.874478053076923

00:46:18.718 --> 00:46:21.030 employees this basket approach

NOTE Confidence: 0.874478053076923

00:46:21.030 --> 00:46:21.927 when match started.

NOTE Confidence: 0.874478053076923

00:46:21.927 --> 00:46:24.020 The idea was to sequence patients with

NOTE Confidence: 0.874478053076923

00:46:24.075 --> 00:46:25.869 refractory cancer and then allocate them

NOTE Confidence: 0.874478053076923

00:46:25.869 --> 00:46:28.410 to therapy in one of the 40 treatment arms.

NOTE Confidence: 0.874478053076923

00:46:28.410 --> 00:46:30.530 Based on the molecular genetics of the tumor.

NOTE Confidence: 0.874478053076923

00:46:30.530 --> 00:46:31.742 And when we started,

NOTE Confidence: 0.874478053076923

00:46:31.742 --> 00:46:33.998 we thought this might appeal to some

NOTE Confidence: 0.874478053076923

00:46:33.998 --> 00:46:36.248 patients with rare and uncommon cancers.

NOTE Confidence: 0.874478053076923

00:46:36.250 --> 00:46:38.470 But in fact the trial really

NOTE Confidence: 0.874478053076923

00:46:38.470 --> 00:46:39.950 exceeded our initial expectations,

NOTE Confidence: 0.874478053076923

00:46:39.950 --> 00:46:41.834 with about 60% of those enrolled

NOTE Confidence: 0.874478053076923

00:46:41.834 --> 00:46:43.846 on match having cancers other than

NOTE Confidence: 0.874478053076923

00:46:43.846 --> 00:46:45.586 colon rectal breast, non small,

NOTE Confidence: 0.874478053076923

00:46:45.586 --> 00:46:46.978 cell, lung or prostate.

NOTE Confidence: 0.874478053076923

00:46:46.980 --> 00:46:48.880 So it really is preferentially

NOTE Confidence: 0.874478053076923

00:46:48.880 --> 00:46:50.780 enrolled patients from this sort

NOTE Confidence: 0.874478053076923

00:46:50.848 --> 00:46:52.538 of less common cancer types,

NOTE Confidence: 0.874478053076923

00:46:52.540 --> 00:46:55.020 and it turned out to be a great rare cancer.

NOTE Confidence: 0.874478053076923

00:46:55.020 --> 00:46:57.120 A framework match,

NOTE Confidence: 0.874478053076923

00:46:57.120 --> 00:46:58.520 for example,

NOTE Confidence: 0.874478053076923

00:46:58.520 --> 00:47:00.740 is shown promising results in treating

NOTE Confidence: 0.874478053076923

00:47:00.740 --> 00:47:02.643 her two amplified salivary gland

NOTE Confidence: 0.874478053076923

00:47:02.643 --> 00:47:04.827 tumors are rare cancer subtype and

NOTE Confidence: 0.874478053076923

00:47:04.827 --> 00:47:06.550 treating these patients with T DM1

NOTE Confidence: 0.874478053076923

00:47:06.550 --> 00:47:08.566 producing significant shrinkage,

NOTE Confidence: 0.874478053076923

00:47:08.566 --> 00:47:09.910 significant responses,

NOTE Confidence: 0.874478053076923

00:47:09.910 --> 00:47:11.700 every fraction of patients matches.

NOTE Confidence: 0.874478053076923

00:47:11.700 --> 00:47:13.194 Also remarkable is one of the

NOTE Confidence: 0.874478053076923

00:47:13.194 --> 00:47:14.190 fastest enrolling clinical trials

NOTE Confidence: 0.874478053076923

00:47:14.232 --> 00:47:15.258 that were done at the NCI.

NOTE Confidence: 0.874478053076923

00:47:15.260 --> 00:47:17.486 Enroll patients 1100 sites in 6000.

NOTE Confidence: 0.874478053076923

00:47:17.490 --> 00:47:19.170 Patients in just a few years,

NOTE Confidence: 0.874478053076923

00:47:19.170 --> 00:47:20.978 and so I think things like match and

NOTE Confidence: 0.874478053076923

00:47:20.978 --> 00:47:22.610 dark really established this basket.

NOTE Confidence: 0.874478053076923

00:47:22.610 --> 00:47:24.290 Trial approaches being quite

NOTE Confidence: 0.874478053076923

00:47:24.290 --> 00:47:27.020 successful and next slide.

NOTE Confidence: 0.874478053076923

00:47:27.020 --> 00:47:29.239 Childhood cancer is is a collectively rare,

NOTE Confidence: 0.874478053076923

00:47:29.240 --> 00:47:30.416 comprising approximately 1 three

NOTE Confidence: 0.874478053076923

00:47:30.416 --> 00:47:31.592 percent of cancers diagnosed

NOTE Confidence: 0.874478053076923

00:47:31.592 --> 00:47:32.839 in the United States.

NOTE Confidence: 0.874478053076923

00:47:32.840 --> 00:47:34.288 But this rarity is,

NOTE Confidence: 0.874478053076923

00:47:34.288 --> 00:47:35.374 as I said,

NOTE Confidence: 0.910386045

00:47:35.380 --> 00:47:37.000 no comfort to anyone who's watched

NOTE Confidence: 0.910386045

00:47:37.000 --> 00:47:38.412 the child suffer from cancer

NOTE Confidence: 0.910386045

00:47:38.412 --> 00:47:39.817 to treat and it's treatment,

NOTE Confidence: 0.910386045

00:47:39.820 --> 00:47:42.165 and it makes our quest to end

NOTE Confidence: 0.910386045

00:47:42.165 --> 00:47:43.170 childhood cancer challenging.

NOTE Confidence: 0.910386045

00:47:43.170 --> 00:47:44.864 There just isn't enough data in any

NOTE Confidence: 0.910386045

00:47:44.864 --> 00:47:47.414 sort of 1 tumor type to really do some

NOTE Confidence: 0.910386045

00:47:47.414 --> 00:47:49.300 of the traditional problem we think of,

NOTE Confidence: 0.910386045

00:47:49.300 --> 00:47:50.458 and so one effort is trying

NOTE Confidence: 0.910386045

00:47:50.458 --> 00:47:51.230 to address this problem.

NOTE Confidence: 0.910386045

00:47:51.230 --> 00:47:53.078 Is the childhood cancer data initiative.

NOTE Confidence: 0.910386045

00:47:53.080 --> 00:47:54.613 This is a 10 year effort that's

NOTE Confidence: 0.910386045

00:47:54.613 --> 00:47:55.600 it's really just begun.

NOTE Confidence: 0.910386045

00:47:55.600 --> 00:47:57.130 Its in its second year.

NOTE Confidence: 0.910386045

00:47:57.130 --> 00:47:59.377 And the idea here is to trying

NOTE Confidence: 0.910386045

00:47:59.377 --> 00:48:00.957 to radically aggregate data from

NOTE Confidence: 0.910386045

00:48:00.957 --> 00:48:02.799 children with cancer to make them

NOTE Confidence: 0.910386045

00:48:02.799 --> 00:48:04.090 maximally informative for research

NOTE Confidence: 0.910386045

00:48:04.090 --> 00:48:05.690 and for improved clinical care.

NOTE Confidence: 0.910386045

00:48:05.690 --> 00:48:08.306 Two important parts of the CCDR shown here,

NOTE Confidence: 0.910386045

00:48:08.310 --> 00:48:09.786 the childhood molecular

NOTE Confidence: 0.910386045

00:48:09.786 --> 00:48:10.770 characterization protocol,

NOTE Confidence: 0.910386045

00:48:10.770 --> 00:48:12.320 which would sort of establish

NOTE Confidence: 0.910386045

00:48:12.320 --> 00:48:13.870 a floor of molecular analysis

NOTE Confidence: 0.910386045

00:48:13.925 --> 00:48:15.869 available to every child with cancer,

NOTE Confidence: 0.910386045

00:48:15.870 --> 00:48:17.844 United States and then a national

NOTE Confidence: 0.910386045

00:48:17.844 --> 00:48:19.160 childhood cancer registry shown

NOTE Confidence: 0.910386045

00:48:19.212 --> 00:48:20.848 on the right which would try and

NOTE Confidence: 0.910386045

00:48:20.848 --> 00:48:22.390 learn from every trial that would

NOTE Confidence: 0.910386045

00:48:22.439 --> 00:48:23.666 get some data through integration

NOTE Confidence: 0.910386045

00:48:23.666 --> 00:48:25.454 of registry data and various other

NOTE Confidence: 0.910386045

00:48:25.454 --> 00:48:27.139 sorts of datasets that we have.

NOTE Confidence: 0.910386045

00:48:27.140 --> 00:48:28.940 To try and get an idea of what happens,

NOTE Confidence: 0.910386045

00:48:28.940 --> 00:48:30.542 we experience of cancer is for

NOTE Confidence: 0.910386045

00:48:30.542 --> 00:48:32.058 alter with cancer, United States,

NOTE Confidence: 0.910386045

00:48:32.058 --> 00:48:34.536 and we think these are really important

NOTE Confidence: 0.910386045

00:48:34.536 --> 00:48:36.894 efforts to try and do better in childhood.

NOTE Confidence: 0.910386045

00:48:36.900 --> 00:48:37.306 Cancer,

NOTE Confidence: 0.910386045

00:48:37.306 --> 00:48:39.336 a collection of rare diseases.

NOTE Confidence: 0.910386045

00:48:39.340 --> 00:48:40.130 Next slide.

NOTE Confidence: 0.938634814

00:48:42.300 --> 00:48:44.729 So having discussed some of the challenges

NOTE Confidence: 0.938634814

00:48:44.729 --> 00:48:47.047 we face cancer as we know it today,

NOTE Confidence: 0.938634814

00:48:47.050 --> 00:48:49.090 the reality is that we still need more

NOTE Confidence: 0.938634814

00:48:49.090 --> 00:48:51.100 progress for the group to early detection,

NOTE Confidence: 0.938634814

00:48:51.100 --> 00:48:53.150 disparities, and advances in in

NOTE Confidence: 0.938634814

00:48:53.150 --> 00:48:55.830 rare and difficult to treat cancers.

NOTE Confidence: 0.938634814

00:48:55.830 --> 00:48:57.126 There are some questions to the

NOTE Confidence: 0.938634814

00:48:57.126 --> 00:48:58.264 slide that are equally important

NOTE Confidence: 0.938634814

00:48:58.264 --> 00:48:59.668 that I haven't touched on that,

NOTE Confidence: 0.938634814

00:48:59.670 --> 00:49:01.260 and I haven't touched on today,

NOTE Confidence: 0.938634814

00:49:01.260 --> 00:49:02.250 but really I think they they

NOTE Confidence: 0.938634814

00:49:02.250 --> 00:49:03.527 sort of spur us to think about

NOTE Confidence: 0.938634814

00:49:03.527 --> 00:49:04.679 what the future will look like.

00:49:04.680 --> 00:49:06.140 What are we working toward?

00:49:06.140 --> 00:49:07.050 If we're building a bridge

00:49:07.050 --> 00:49:07.960 to the future of cancer,

00:49:07.960 --> 00:49:09.816 what's on the other side of that bridge?

00:49:09.820 --> 00:49:11.180 A world where these statements

00:49:11.180 --> 00:49:12.268 are no longer true?

00:49:12.270 --> 00:49:14.106 Where we will have changed cancer

00:49:14.106 --> 00:49:16.660 as we know it and I I think that

00:49:16.660 --> 00:49:17.990 future is within our reach.

00:49:17.990 --> 00:49:19.768 Let's focus on a future where all

00:49:19.768 --> 00:49:21.517 people with cancer have the support

00:49:21.517 --> 00:49:23.377 resources needed to navigate their care.

00:49:23.380 --> 00:49:25.109 Let's build a reality in which your

00:49:25.109 --> 00:49:26.998 location or your race or your education

00:49:26.998 --> 00:49:29.080 doesn't predict the outcome of your disease.

00:49:29.080 --> 00:49:31.246 And let's take what we've learned

NOTE Confidence: 0.938634814

00:49:31.246 --> 00:49:33.360 and and create tests they did.

NOTE Confidence: 0.938634814

00:49:33.360 --> 00:49:35.600 If I cancer its earliest stages and let's

NOTE Confidence: 0.938634814

00:49:35.600 --> 00:49:37.907 ensure that once these cancers are detected,

NOTE Confidence: 0.938634814

00:49:37.910 --> 00:49:39.210 each cancer can be treated,

NOTE Confidence: 0.938634814

00:49:39.210 --> 00:49:39.904 treated effectively,

NOTE Confidence: 0.938634814

00:49:39.904 --> 00:49:43.120 and how we're going to do that next slide.

NOTE Confidence: 0.938634814

00:49:43.120 --> 00:49:44.728 This is what the NCI thinks will take

NOTE Confidence: 0.938634814

00:49:44.728 --> 00:49:46.606 what it will take over this next period.

NOTE Confidence: 0.938634814

00:49:46.610 --> 00:49:47.960 You know we've had this 50 years of progress.

NOTE Confidence: 0.938634814

00:49:47.960 --> 00:49:49.376 Now we need to build on that 50

NOTE Confidence: 0.938634814

00:49:49.376 --> 00:49:51.138 years of progress to advance health

NOTE Confidence: 0.938634814

00:49:51.138 --> 00:49:52.482 equity to personalized cancer

NOTE Confidence: 0.938634814

00:49:52.482 --> 00:49:54.449 care to embrace new technologies,

NOTE Confidence: 0.938634814

00:49:54.450 --> 00:49:56.465 innovations to inspire the next

NOTE Confidence: 0.938634814

00:49:56.465 --> 00:49:58.077 generation of cancer researchers,

00:49:58.080 --> 00:49:59.586 and to prepare for the challenges

00:49:59.586 --> 00:50:00.339 of the future.

00:50:00.340 --> 00:50:02.188 This is a set of guideposts

00:50:02.188 --> 00:50:03.798 the foundations on which will

00:50:03.798 --> 00:50:05.676 build this bridge to the future.

00:50:05.680 --> 00:50:07.264 I would argue that we need to look at

00:50:07.264 --> 00:50:09.198 all our work through a lens of HealthEquity.

00:50:09.200 --> 00:50:11.288 We need to ask to what extent might this

00:50:11.288 --> 00:50:13.089 study reinforce existing inequities?

00:50:13.090 --> 00:50:15.435 Or might reflect hidden biases and you

00:50:15.435 --> 00:50:17.886 can clearly see how these guideposts

00:50:17.886 --> 00:50:19.730 are interwoven and overlapping,

00:50:19.730 --> 00:50:21.470 and building the next generation

00:50:21.470 --> 00:50:23.703 of diverse researchers as part of

00:50:23.703 --> 00:50:25.427 embracing innovation and creativity.

00:50:25.430 --> 00:50:26.158 Next slide.

NOTE Confidence: 0.938634814

00:50:26.158 --> 00:50:28.706 Today in our age of rapid progress

NOTE Confidence: 0.938634814

00:50:28.706 --> 00:50:31.399 and technical and medical advances,

NOTE Confidence: 0.938634814

00:50:31.400 --> 00:50:33.052 it may be easy to discount the

NOTE Confidence: 0.938634814

00:50:33.052 --> 00:50:34.798 importance of the National Cancer Act.

NOTE Confidence: 0.938634814

00:50:34.800 --> 00:50:37.824 But as 1776 was our nation's history

NOTE Confidence: 0.938634814

00:50:37.824 --> 00:50:40.228 and 1969 was the Apollo program that

NOTE Confidence: 0.938634814

00:50:40.228 --> 00:50:42.690 put humans on the moon, so 1971,

NOTE Confidence: 0.938634814

00:50:42.690 --> 00:50:44.940 really I began marks the modern

NOTE Confidence: 0.938634814

00:50:44.940 --> 00:50:47.050 era of Cancer Research.

NOTE Confidence: 0.938634814

00:50:47.050 --> 00:50:47.846 Maybe this comparison strikes

NOTE Confidence: 0.938634814

00:50:47.846 --> 00:50:49.380 you as a little bit over the top,

NOTE Confidence: 0.938634814

00:50:49.380 --> 00:50:51.196 but I do not believe that is so

NOTE Confidence: 0.938634814

00:50:51.196 --> 00:50:52.876 ending cancer as we know it will be

NOTE Confidence: 0.938634814

00:50:52.876 --> 00:50:54.503 a bigger deal for community were as

NOTE Confidence: 0.938634814

00:50:54.503 --> 00:50:56.337 big a deal for humanity as landing

NOTE Confidence: 0.938634814

00:50:56.340 --> 00:50:57.884 someone on the moon.

NOTE Confidence: 0.938634814

00:50:57.884 --> 00:50:58.486 In 1971,

NOTE Confidence: 0.938634814

00:50:58.486 --> 00:50:59.998 is really what got it started and

NOTE Confidence: 0.938634814

00:50:59.998 --> 00:51:01.370 that's why that aniverse dissenters

NOTE Confidence: 0.938634814

00:51:01.370 --> 00:51:02.258 is so important.

NOTE Confidence: 0.938634814

00:51:02.260 --> 00:51:03.908 It was signed into law at a time

NOTE Confidence: 0.938634814

00:51:03.908 --> 00:51:05.455 of great need for those people

NOTE Confidence: 0.938634814

00:51:05.455 --> 00:51:06.800 who feared cancer so much.

NOTE Confidence: 0.866047696666667

00:51:06.800 --> 00:51:08.872 Which of the time was basically everyone

NOTE Confidence: 0.866047696666667

00:51:08.872 --> 00:51:11.396 the NCA first 50 years was the work of

NOTE Confidence: 0.866047696666667

00:51:11.396 --> 00:51:13.394 people like Mary Lasker and optimistic

NOTE Confidence: 0.866047696666667

00:51:13.394 --> 00:51:15.170 politicians and pioneering ecologist

NOTE Confidence: 0.866047696666667

00:51:15.170 --> 00:51:17.582 researchers were visionary as I said,

NOTE Confidence: 0.866047696666667

00:51:17.582 --> 00:51:19.409 but also naive. As I said,

NOTE Confidence: 0.866047696666667

00:51:19.409 --> 00:51:21.460 the optimism induced by the legal mandate

NOTE Confidence: 0.866047696666667

00:51:21.525 --> 00:51:23.415 and strong infrastructure was soon

NOTE Confidence: 0.866047696666667

00:51:23.415 --> 00:51:25.684 tempered by the realization that its

NOTE Confidence: 0.866047696666667

00:51:25.684 --> 00:51:27.903 objective was going to be so challenging.

NOTE Confidence: 0.866047696666667

00:51:27.910 --> 00:51:30.126 The years ahead will be sharper and focused

NOTE Confidence: 0.866047696666667

00:51:30.126 --> 00:51:31.920 different in tone and more practical,

NOTE Confidence: 0.866047696666667

00:51:31.920 --> 00:51:34.104 more cognizant of the size and timelines

NOTE Confidence: 0.866047696666667

00:51:34.104 --> 00:51:36.284 of these challenges, and more based on

NOTE Confidence: 0.866047696666667

00:51:36.284 --> 00:51:37.528 the foundational molecular biology,

NOTE Confidence: 0.866047696666667

00:51:37.530 --> 00:51:38.871 biological understanding cancer

NOTE Confidence: 0.866047696666667

00:51:38.871 --> 00:51:41.106 over the past five decades.

NOTE Confidence: 0.866047696666667

00:51:41.110 --> 00:51:42.520 Many of this is declared.

NOTE Confidence: 0.866047696666667

00:51:42.520 --> 00:51:43.676 This time is different,

NOTE Confidence: 0.866047696666667

00:51:43.676 --> 00:51:45.410 but they weren't wrong and that's

NOTE Confidence: 0.866047696666667

00:51:45.465 --> 00:51:47.138 what's brought us so far to date.

NOTE Confidence: 0.866047696666667

00:51:47.140 --> 00:51:48.855 Each time we try this is different.

NOTE Confidence: 0.866047696666667

00:51:48.860 --> 00:51:50.252 It was, reportedly Heraclitus,

00:51:50.252 --> 00:51:52.340 who observed that no one ever

00:51:52.399 --> 00:51:54.139 steps in the same river twice.

00:51:54.140 --> 00:51:55.886 The river changes and Cancer Research.

00:51:55.890 --> 00:51:57.146 We had passed thresholds

00:51:57.146 --> 00:51:58.363 as compared with 1971.

00:51:58.363 --> 00:51:59.728 We now have a molecular

00:51:59.728 --> 00:52:00.820 understanding of these diseases,

00:52:00.820 --> 00:52:01.840 and we're ready to take

00:52:01.840 --> 00:52:02.860 a crack at this again.

00:52:02.860 --> 00:52:04.500 I I've been trying to make this point

00:52:04.500 --> 00:52:06.558 in it for awhile now and I I found it

00:52:06.558 --> 00:52:07.829 actually a really good analogy that

00:52:07.829 --> 00:52:09.864 I like a lot in an excellent book on

00:52:09.864 --> 00:52:11.472 the history of the National Cancer

00:52:11.480 --> 00:52:13.958 Act by Abby Glucan and Charlie Fuchs,

00:52:13.960 --> 00:52:14.983 both of Yale.

NOTE Confidence: 0.866047696666667

00:52:14.983 --> 00:52:17.029 Entitled a new deal for cancer,

NOTE Confidence: 0.866047696666667

00:52:17.030 --> 00:52:18.854 it makes a point that I've long believed.

NOTE Confidence: 0.866047696666667

00:52:18.860 --> 00:52:20.820 It points out that the optimism for

NOTE Confidence: 0.866047696666667

00:52:20.820 --> 00:52:23.169 so many of the players held for the

NOTE Confidence: 0.866047696666667

00:52:23.169 --> 00:52:24.820 rapid cure in 1971, for example,

NOTE Confidence: 0.866047696666667

00:52:24.820 --> 00:52:26.640 Sidney Farber said he thought a cure

NOTE Confidence: 0.866047696666667

00:52:26.692 --> 00:52:28.425 for cancer could be achieved by 1976.

NOTE Confidence: 0.866047696666667

00:52:28.425 --> 00:52:29.750 But as the book notes,

NOTE Confidence: 0.866047696666667

00:52:29.750 --> 00:52:31.395 the foundational understands if cancer

NOTE Confidence: 0.866047696666667

00:52:31.395 --> 00:52:33.296 hadn't really been grasped in 1971,

NOTE Confidence: 0.866047696666667

00:52:33.296 --> 00:52:34.832 and so there's this quote from

NOTE Confidence: 0.866047696666667

00:52:34.832 --> 00:52:35.344 Sol Spiegelman,

NOTE Confidence: 0.866047696666667

00:52:35.350 --> 00:52:36.835 who is director of Columbia's

NOTE Confidence: 0.866047696666667

00:52:36.835 --> 00:52:38.023 Institute for Cancer Research,

NOTE Confidence: 0.866047696666667

00:52:38.030 --> 00:52:38.854 that I really like,

NOTE Confidence: 0.866047696666667

00:52:38.854 --> 00:52:40.510 which says an all out effort at this

NOTE Confidence: 0.866047696666667

00:52:40.510 --> 00:52:42.250 time would be like trying to land a moon,

NOTE Confidence: 0.866047696666667

00:52:42.250 --> 00:52:44.176 a man on the moon without

NOTE Confidence: 0.866047696666667

00:52:44.176 --> 00:52:46.050 knowing Newtons laws of gravity.

NOTE Confidence: 0.866047696666667

00:52:46.050 --> 00:52:48.210 50 years Now later we know what we

NOTE Confidence: 0.866047696666667

00:52:48.210 --> 00:52:49.710 don't know, and that's what's changed,

NOTE Confidence: 0.866047696666667

00:52:49.710 --> 00:52:51.380 and we know how we're going to

NOTE Confidence: 0.866047696666667

00:52:51.380 --> 00:52:52.448 end cancer as we know it,

NOTE Confidence: 0.866047696666667

00:52:52.450 --> 00:52:54.590 when before we really didn't

NOTE Confidence: 0.866047696666667

00:52:54.590 --> 00:52:56.302 know that next slide.

NOTE Confidence: 0.866047696666667

00:52:56.310 --> 00:52:57.725 So whatever progress or whatever

NOTE Confidence: 0.866047696666667

00:52:57.725 --> 00:52:59.401 successes in certain that they will

NOTE Confidence: 0.866047696666667

00:52:59.401 --> 00:53:00.906 be possible only because of the work

NOTE Confidence: 0.866047696666667

00:53:00.906 --> 00:53:02.600 of the last 50 years and it really

NOTE Confidence: 0.866047696666667

00:53:02.600 --> 00:53:04.559 build on the work of individuals like

NOTE Confidence: 0.866047696666667

00:53:04.559 --> 00:53:06.474 Paul Calabrese and the legislation

NOTE Confidence: 0.866047696666667

00:53:06.474 --> 00:53:08.450 that enabled so much of his work,

NOTE Confidence: 0.866047696666667

00:53:08.450 --> 00:53:10.340 I suspect that those of us who

NOTE Confidence: 0.866047696666667

00:53:10.340 --> 00:53:12.616 worked so hard to get President Nixon

NOTE Confidence: 0.866047696666667

00:53:12.616 --> 00:53:14.412 signature in 1971 might have been

NOTE Confidence: 0.866047696666667

00:53:14.412 --> 00:53:16.050 disappointed to know that a half

NOTE Confidence: 0.866047696666667

00:53:16.102 --> 00:53:17.747 century later we're still losing

NOTE Confidence: 0.866047696666667

00:53:17.750 --> 00:53:19.568 600,000 Americans each year to cancer,

NOTE Confidence: 0.866047696666667

00:53:19.570 --> 00:53:21.145 but I hope they would have been.

NOTE Confidence: 0.866047696666667

00:53:21.150 --> 00:53:22.644 They would be gratified to learn

NOTE Confidence: 0.866047696666667

00:53:22.644 --> 00:53:24.127 that despite the fact that the

NOTE Confidence: 0.866047696666667

00:53:24.127 --> 00:53:25.646 problems turned out to be so much

NOTE Confidence: 0.866047696666667

00:53:25.646 --> 00:53:27.298 more complex than we ever imagined.

NOTE Confidence: 0.866047696666667

00:53:27.300 --> 00:53:28.545 The passion, inspiration,

NOTE Confidence: 0.866047696666667

00:53:28.545 --> 00:53:30.205 dedication of the generations

NOTE Confidence: 0.866047696666667

00:53:30.205 --> 00:53:31.450 that followed have

NOTE Confidence: 0.901829379333333

00:53:31.511 --> 00:53:33.696 led to astounding progress nonetheless.

NOTE Confidence: 0.901829379333333

00:53:33.700 --> 00:53:34.798 So thank you for the opportunity

NOTE Confidence: 0.901829379333333

00:53:34.798 --> 00:53:35.953 to speak today and thank you

NOTE Confidence: 0.901829379333333

00:53:35.953 --> 00:53:37.087 for the opportunity back to you.

NOTE Confidence: 0.45965654

00:53:40.950 --> 00:53:42.590 Uh, thanks Dad, that was

NOTE Confidence: 0.45965654

00:53:42.590 --> 00:53:44.190 wonderful and I I think,

NOTE Confidence: 0.818769991764706

00:53:44.190 --> 00:53:46.558 uh, Paul is probably watching from a high

NOTE Confidence: 0.818769991764706

00:53:46.558 --> 00:53:49.328 and I'm very happy to see all the progress.

NOTE Confidence: 0.818769991764706

00:53:49.330 --> 00:53:51.208 It's our tradition at the Calabrese

NOTE Confidence: 0.818769991764706

00:53:51.208 --> 00:53:52.902 lecture to ask his brother

NOTE Confidence: 0.818769991764706

00:53:52.902 --> 00:53:54.685 Guido to ask the first question

NOTE Confidence: 0.818769991764706

00:53:54.685 --> 00:53:56.709 and I see Windows on in Italy.

NOTE Confidence: 0.818769991764706

00:53:56.710 --> 00:53:57.780 Guido, can you hear me?

NOTE Confidence: 0.777302433333333

00:54:01.680 --> 00:54:04.776 Unmute start Finder here I am.

NOTE Confidence: 0.777302433333333

00:54:04.780 --> 00:54:07.419 I'm in Italy and I was delighted.

NOTE Confidence: 0.777302433333333

00:54:07.420 --> 00:54:09.590 Can you see me and can you hear me can?

NOTE Confidence: 0.823719672

00:54:11.920 --> 00:54:15.063 I was delighted with the lecture because

NOTE Confidence: 0.823719672

00:54:15.063 --> 00:54:20.050 50 years ago Paul said to me but the aim.

NOTE Confidence: 0.823719672

00:54:20.050 --> 00:54:24.826 Was realistically not to end cancer,

NOTE Confidence: 0.823719672

00:54:24.830 --> 00:54:28.025 but to get so that a cancer diagnosis was

NOTE Confidence: 0.823719672

00:54:28.025 --> 00:54:31.428 no different from a diagnosis of high

NOTE Confidence: 0.823719672

00:54:31.428 --> 00:54:34.388 blood pressure or of cardiac problems,

NOTE Confidence: 0.823719672

00:54:34.388 --> 00:54:37.902 so that somebody might live for the

NOTE Confidence: 0.823719672

00:54:37.902 --> 00:54:40.734 longest time or shortest of time,

NOTE Confidence: 0.823719672

00:54:40.740 --> 00:54:43.337 but that cancer was not a death

NOTE Confidence: 0.823719672

00:54:43.337 --> 00:54:45.710 sentence but was a life sentence

NOTE Confidence: 0.823719672

00:54:45.710 --> 00:54:48.468 to be dealt with decently and well,

NOTE Confidence: 0.823719672

00:54:48.470 --> 00:54:49.871 and this lecture.

NOTE Confidence: 0.823719672

00:54:49.871 --> 00:54:52.673 Was so much in that line,

NOTE Confidence: 0.823719672

00:54:52.680 --> 00:54:55.214 but it made me smile because that's

NOTE Confidence: 0.823719672

00:54:55.214 --> 00:54:56.820 what Paul was about.

00:54:56.820 --> 00:54:59.946 But there's something else in this

00:54:59.946 --> 00:55:03.081 lecture which really struck me and

00:55:03.081 --> 00:55:05.476 that was the continuing difference

00:55:05.476 --> 00:55:08.880 even when there are diagnosis of it

00:55:08.880 --> 00:55:11.610 at the same time in results among

00:55:11.610 --> 00:55:14.332 people because of race because of

00:55:14.332 --> 00:55:17.534 poverty because of all the things that

00:55:17.534 --> 00:55:20.565 have cursed us in America over so.

00:55:20.570 --> 00:55:23.545 Long and I just wonder how much

00:55:23.545 --> 00:55:26.432 the fact that monies are being

00:55:26.432 --> 00:55:29.456 given to cancer as they should,

00:55:29.460 --> 00:55:32.598 because cancer is such a dramatic

00:55:32.598 --> 00:55:34.606 disease in people's mind.

00:55:34.606 --> 00:55:38.430 How much this can be used not only

00:55:38.530 --> 00:55:41.318 to diminish these differences

00:55:41.318 --> 00:55:43.409 in cancer treatment,

NOTE Confidence: 0.823719672

00:55:43.410 --> 00:55:46.470 but in treatment of diseases generally.

NOTE Confidence: 0.823719672

00:55:46.470 --> 00:55:50.637 That is, using what is needed to make cancer.

NOTE Confidence: 0.823719672

00:55:50.640 --> 00:55:53.830 Treatment more equal to different

NOTE Confidence: 0.823719672

00:55:53.830 --> 00:55:57.610 people based on race and poverty

NOTE Confidence: 0.823719672

00:55:57.610 --> 00:56:00.735 so that all medical treatment

NOTE Confidence: 0.823719672

00:56:00.735 --> 00:56:04.436 becomes more equal in this country.

NOTE Confidence: 0.823719672

00:56:04.440 --> 00:56:04.970 Thank you.

NOTE Confidence: 0.81572545

00:56:06.820 --> 00:56:08.377 Yeah, well, thank you,

NOTE Confidence: 0.81572545

00:56:08.377 --> 00:56:10.220 Judge Calabrese T and it's a very

NOTE Confidence: 0.81572545

00:56:10.220 --> 00:56:12.663 important question and I think a really

NOTE Confidence: 0.81572545

00:56:12.663 --> 00:56:14.559 important point to make is that.

NOTE Confidence: 0.81572545

00:56:14.560 --> 00:56:16.254 You know, addressing the things that Dr.

NOTE Confidence: 0.81572545

00:56:16.260 --> 00:56:17.668 Disparities in health outcomes,

NOTE Confidence: 0.81572545

00:56:17.668 --> 00:56:19.428 United States will not just

NOTE Confidence: 0.81572545

00:56:19.428 --> 00:56:20.940 benefit patients with cancer.

NOTE Confidence: 0.81572545

00:56:20.940 --> 00:56:22.236 They would benefit you know, presumably,

NOTE Confidence: 0.81572545

00:56:22.236 --> 00:56:24.252 and we actually have very strong

NOTE Confidence: 0.81572545

00:56:24.252 --> 00:56:26.070 evidence that they would benefit.

NOTE Confidence: 0.81572545

00:56:26.070 --> 00:56:28.260 You know individuals for lots of

NOTE Confidence: 0.81572545

00:56:28.260 --> 00:56:30.240 diseases and and would improve health

NOTE Confidence: 0.81572545

00:56:30.240 --> 00:56:32.659 in in many ways for the public.

NOTE Confidence: 0.81572545

00:56:32.660 --> 00:56:33.940 So think about something

NOTE Confidence: 0.81572545

00:56:33.940 --> 00:56:34.900 like tobacco control,

NOTE Confidence: 0.81572545

00:56:34.900 --> 00:56:36.835 which is really been quite

NOTE Confidence: 0.81572545

00:56:36.835 --> 00:56:38.383 successful in certain population,

NOTE Confidence: 0.81572545

00:56:38.390 --> 00:56:40.376 United States and not so successful

NOTE Confidence: 0.81572545

00:56:40.376 --> 00:56:42.153 in other populations intend to

NOTE Confidence: 0.81572545

00:56:42.153 --> 00:56:43.721 correlate with continued combustible

NOTE Confidence: 0.81572545

00:56:43.721 --> 00:56:45.289 use of combustible tobacco.

NOTE Confidence: 0.81572545

00:56:45.290 --> 00:56:47.066 Correlate with low socionomic

NOTE Confidence: 0.81572545

00:56:47.066 --> 00:56:49.286 status and and less education.

NOTE Confidence: 0.81572545

00:56:49.290 --> 00:56:51.822 And you know if we could reach those pockets,

NOTE Confidence: 0.81572545

00:56:51.822 --> 00:56:53.838 the benefits of the backer control

NOTE Confidence: 0.81572545

00:56:53.838 --> 00:56:55.619 would be way beyond cancer.

NOTE Confidence: 0.81572545

00:56:55.620 --> 00:56:57.181 They would they would go to many

NOTE Confidence: 0.81572545

00:56:57.181 --> 00:56:58.560 other diseases and general health,

NOTE Confidence: 0.81572545

00:56:58.560 --> 00:57:01.014 so it's it's a really important

NOTE Confidence: 0.81572545

00:57:01.014 --> 00:57:03.430 question and we think that the.

NOTE Confidence: 0.81572545

00:57:03.430 --> 00:57:05.200 And through the last, you know,

NOTE Confidence: 0.81572545

00:57:05.200 --> 00:57:07.265 I'd say 20 years the NCIS become

NOTE Confidence: 0.81572545

00:57:07.265 --> 00:57:09.577 very interested in this topic of

NOTE Confidence: 0.81572545

00:57:09.577 --> 00:57:10.939 dissemination and implementation.

NOTE Confidence: 0.81572545

00:57:10.940 --> 00:57:12.602 Science is like when you know

NOTE Confidence: 0.81572545

00:57:12.602 --> 00:57:13.156 something works.

NOTE Confidence: 0.81572545

00:57:13.160 --> 00:57:16.536 It works just fine at the tertiary cancer.

NOTE Confidence: 0.81572545

00:57:16.540 --> 00:57:16.917 Excellent,

NOTE Confidence: 0.81572545

00:57:16.917 --> 00:57:18.048 outstanding academic hospital,

NOTE Confidence: 0.81572545

00:57:18.048 --> 00:57:19.933 but then it doesn't translate

NOTE Confidence: 0.81572545

00:57:19.933 --> 00:57:21.220 out in the community.

NOTE Confidence: 0.81572545

00:57:21.220 --> 00:57:22.033 What happened there?

NOTE Confidence: 0.81572545

00:57:22.033 --> 00:57:23.659 Why doesn't that work and where

NOTE Confidence: 0.81572545

00:57:23.659 --> 00:57:25.456 is the where do things breakdown?

NOTE Confidence: 0.81572545

00:57:25.460 --> 00:57:27.655 Obviously many of these things

NOTE Confidence: 0.81572545

00:57:27.655 --> 00:57:29.850 are are ascribable to things

NOTE Confidence: 0.81572545

00:57:29.933 --> 00:57:32.019 that we we know a lot about.

NOTE Confidence: 0.81572545

00:57:32.020 --> 00:57:33.364 You know the fractured nature of US.

NOTE Confidence: 0.81572545

00:57:33.370 --> 00:57:34.918 Healthcare, you know,

NOTE Confidence: 0.81572545

00:57:34.918 --> 00:57:36.466 inequities in education.

NOTE Confidence: 0.81572545

00:57:36.470 --> 00:57:37.710 For example, you know states,

NOTE Confidence: 0.81572545

00:57:37.710 --> 00:57:39.313 but I'm also I'm struck by how

NOTE Confidence: 0.81572545

00:57:39.313 --> 00:57:40.558 often a disparities are often

NOTE Confidence: 0.81572545

00:57:40.558 --> 00:57:42.070 driven by things that we didn't

NOTE Confidence: 0.81572545

00:57:42.070 --> 00:57:43.500 appreciate as being so important.

NOTE Confidence: 0.81572545

00:57:43.500 --> 00:57:44.808 You know, for example,

NOTE Confidence: 0.81572545

00:57:44.808 --> 00:57:46.116 a study in in,

NOTE Confidence: 0.81572545

00:57:46.120 --> 00:57:47.216 in in,

NOTE Confidence: 0.81572545

00:57:47.216 --> 00:57:49.609 disparities in ER positive breast

NOTE Confidence: 0.81572545

00:57:49.609 --> 00:57:51.002 cancer by race showed that a large

NOTE Confidence: 0.81572545

00:57:51.002 --> 00:57:52.520 part of this theory was driven by

NOTE Confidence: 0.81572545

00:57:52.520 --> 00:57:54.010 adherence to therapy of the medicine.

NOTE Confidence: 0.81572545

00:57:54.010 --> 00:57:55.501 So it was really the ability to

NOTE Confidence: 0.81572545

00:57:55.501 --> 00:57:56.629 continue taking medicine because of

NOTE Confidence: 0.81572545

00:57:56.629 --> 00:57:57.955 costs of the medicine are presumably

NOTE Confidence: 0.81572545

00:57:57.955 --> 00:57:59.280 the hassle of going the pharmacy.

NOTE Confidence: 0.81572545

00:57:59.280 --> 00:57:59.802 So you know,

NOTE Confidence: 0.81572545

00:57:59.802 --> 00:58:01.293 I think we had lots of reasons in

NOTE Confidence: 0.81572545

00:58:01.293 --> 00:58:02.649 our mind why that disparity existed.

NOTE Confidence: 0.81572545

00:58:02.650 --> 00:58:03.630 But, you know, one of the main.

NOTE Confidence: 0.81572545

00:58:03.630 --> 00:58:05.358 Drivers was really something

NOTE Confidence: 0.81572545

00:58:05.358 --> 00:58:07.086 so narrow and addressable,

NOTE Confidence: 0.81572545

00:58:07.090 --> 00:58:08.938 so that's why I think this this line

NOTE Confidence: 0.81572545

00:58:08.938 --> 00:58:10.560 of research is is really important.

NOTE Confidence: 0.81572545

00:58:10.560 --> 00:58:12.462 Obviously the NCI with its mirror

NOTE Confidence: 0.81572545

00:58:12.462 --> 00:58:15.200 on the order of $7 billion a year

NOTE Confidence: 0.81572545

00:58:15.200 --> 00:58:17.300 budget can't fix care and education.

NOTE Confidence: 0.81572545

00:58:17.300 --> 00:58:19.218 United States those are much bigger problems,

NOTE Confidence: 0.81572545

00:58:19.220 --> 00:58:20.732 but I think we can do the foundational

NOTE Confidence: 0.81572545

00:58:20.732 --> 00:58:21.748 science that explains what's

NOTE Confidence: 0.81572545

00:58:21.748 --> 00:58:22.936 really driving these inequities.

NOTE Confidence: 0.75380367625

00:58:25.110 --> 00:58:27.060 Thanks Dad, as Stephen Calabresi

NOTE Confidence: 0.75380367625

00:58:27.060 --> 00:58:29.250 has a question. Uh, thank you Doctor

NOTE Confidence: 0.8164237

00:58:29.260 --> 00:58:30.820 Sharpless for that presentation.

NOTE Confidence: 0.868725266666667

00:58:30.830 --> 00:58:32.110 It was really wonderful.

NOTE Confidence: 0.868725266666667

00:58:32.110 --> 00:58:34.010 There may be an easy answer

NOTE Confidence: 0.9801921175

00:58:34.020 --> 00:58:36.480 to this question, but I was

NOTE Confidence: 0.9801921175

00:58:36.480 --> 00:58:37.640 curious given the recent

NOTE Confidence: 0.916995568333333

00:58:37.650 --> 00:58:40.840 advances in immunotherapy and treating

NOTE Confidence: 0.916995568333333

00:58:40.840 --> 00:58:43.180 cancer, and given the remarkable

NOTE Confidence: 0.770791058333333

00:58:43.190 --> 00:58:47.150 such success of the MI RNA vaccines,

NOTE Confidence: 0.648883666666667

00:58:47.160 --> 00:58:48.150 that Moderna and

NOTE Confidence: 0.80525668

00:58:48.160 --> 00:58:49.399 Pfizer developed against

NOTE Confidence: 0.88137785

00:58:49.410 --> 00:58:51.280 COVID, is there more work

NOTE Confidence: 0.93715141125

00:58:51.290 --> 00:58:55.946 to be done on vaccination to prevent cancer?

NOTE Confidence: 0.93715141125

00:58:55.950 --> 00:58:58.400 And is that a field that is potentially?

NOTE Confidence: 0.92334985

00:58:59.410 --> 00:59:00.918 Worth looking into in the future.

NOTE Confidence: 0.791518531666667

00:59:02.220 --> 00:59:05.160 Yes no. I think that UM.

NOTE Confidence: 0.791518531666667

00:59:05.160 --> 00:59:07.544 Near the M RNA platform is very exciting

NOTE Confidence: 0.791518531666667

00:59:07.544 --> 00:59:09.032 and particularly for the potential

00:59:09.032 --> 00:59:10.971 of sort of what are called bespoke,

00:59:10.980 --> 00:59:12.804 you know totally personalized

00:59:12.804 --> 00:59:14.408 medicines and certainly an area.

00:59:14.408 --> 00:59:16.610 We've been thinking a lot about Moderna.

00:59:16.610 --> 00:59:17.670 I think you're probably aware

00:59:17.670 --> 00:59:19.100 started out as a cancer company.

00:59:19.100 --> 00:59:20.780 I mean some of their initial products

00:59:20.780 --> 00:59:22.553 were were targeting cancer and and and I

00:59:22.553 --> 00:59:24.069 think pivoted for a variety of reasons.

00:59:24.070 --> 00:59:25.780 Related technology to vaccines but

00:59:25.780 --> 00:59:27.876 still has an interesting cancer and

00:59:27.876 --> 00:59:29.511 it's still supporting a clinical

00:59:29.511 --> 00:59:31.191 trials and cancer patients and

00:59:31.191 --> 00:59:33.788 and so I think that this approach

00:59:33.790 --> 00:59:35.406 makes a lot of sense in the area.

00:59:35.410 --> 00:59:36.502 Of personalized vaccines,

NOTE Confidence: 0.791518531666667

00:59:36.502 --> 00:59:39.050 but maybe maybe other areas as well.

NOTE Confidence: 0.791518531666667

00:59:39.050 --> 00:59:40.910 I can tell you that I I have one concern

NOTE Confidence: 0.791518531666667

00:59:40.960 --> 00:59:43.003 about it that we don't talk about very much,

NOTE Confidence: 0.791518531666667

00:59:43.010 --> 00:59:44.135 but I think we're probably

NOTE Confidence: 0.791518531666667

00:59:44.135 --> 00:59:44.810 talking about more,

NOTE Confidence: 0.791518531666667

00:59:44.810 --> 00:59:45.450 which is that you know,

NOTE Confidence: 0.791518531666667

00:59:45.450 --> 00:59:47.390 having spent time at FDA,

NOTE Confidence: 0.791518531666667

00:59:47.390 --> 00:59:49.250 the regulatory pathway for bespoke

NOTE Confidence: 0.791518531666667

00:59:49.250 --> 00:59:51.340 medicines is entirely unclear to me.

NOTE Confidence: 0.791518531666667

00:59:51.340 --> 00:59:54.348 It is not certain how you would take

NOTE Confidence: 0.791518531666667

00:59:54.350 --> 00:59:56.494 medicine that you intend to use in one

NOTE Confidence: 0.791518531666667

00:59:56.494 --> 00:59:58.524 individual and make that into an FDA

NOTE Confidence: 0.791518531666667

00:59:58.524 --> 00:59:59.964 approved product under current law.

NOTE Confidence: 0.791518531666667

00:59:59.970 --> 01:00:01.860 And I think that and and.

NOTE Confidence: 0.791518531666667

01:00:01.860 --> 01:00:02.374 And frankly,

01:00:02.374 --> 01:00:04.304 I know this is a big turnoff to many

01:00:04.304 --> 01:00:05.718 of the industry partners in this.

01:00:05.720 --> 01:00:07.124 Face who are worried about how

01:00:07.124 --> 01:00:08.839 they would make a viable product.

01:00:08.840 --> 01:00:10.488 Even if you could use it in thousands

01:00:10.488 --> 01:00:11.921 of cancer patients if the product

01:00:11.921 --> 01:00:13.373 is different in each patient is

01:00:13.419 --> 01:00:14.959 different molecule in each patient.

01:00:14.960 --> 01:00:15.266 You know?

01:00:15.266 --> 01:00:16.337 How is that going to work from

01:00:16.337 --> 01:00:16.830 regulatory framework?

01:00:16.830 --> 01:00:17.999 So I think we need some clarity

01:00:17.999 --> 01:00:18.500 on this topic.

01:00:18.500 --> 01:00:21.797 I think the you know the FDA.

01:00:21.800 --> 01:00:23.175 It needs to provide further

01:00:23.175 --> 01:00:24.550 guidance on bespoke products and

NOTE Confidence: 0.791518531666667

01:00:24.602 --> 01:00:26.060 and perhaps we even need legislators

NOTE Confidence: 0.791518531666667

01:00:26.060 --> 01:00:27.680 to write new law in this area,

NOTE Confidence: 0.791518531666667

01:00:27.680 --> 01:00:29.044 but it's really exciting

NOTE Confidence: 0.791518531666667

01:00:29.044 --> 01:00:30.749 and it goes beyond cancer.

NOTE Confidence: 0.791518531666667

01:00:30.750 --> 01:00:31.638 By the way, there are many,

NOTE Confidence: 0.791518531666667

01:00:31.640 --> 01:00:32.681 many rare diseases,

NOTE Confidence: 0.791518531666667

01:00:32.681 --> 01:00:34.069 particularly disease of children,

NOTE Confidence: 0.791518531666667

01:00:34.070 --> 01:00:35.070 where these highly personalized

NOTE Confidence: 0.791518531666667

01:00:35.070 --> 01:00:36.570 medicines could be valuable as well.

NOTE Confidence: 0.791518531666667

01:00:36.570 --> 01:00:38.208 So I think as a society it's really pressing.

NOTE Confidence: 0.791518531666667

01:00:38.210 --> 01:00:38.609 We figure this

NOTE Confidence: 0.835518336666667

01:00:38.620 --> 01:00:41.176 out great. Well, let's say we're at the hour,

NOTE Confidence: 0.835518336666667

01:00:41.180 --> 01:00:42.836 but we have one special guest.

NOTE Confidence: 0.835518336666667

01:00:42.840 --> 01:00:43.560 And before I do that,

NOTE Confidence: 0.835518336666667

01:00:43.560 --> 01:00:44.904 I just want to remind the fellows

NOTE Confidence: 0.835518336666667

01:00:44.904 --> 01:00:46.620 that we have a half an hour virtual

NOTE Confidence: 0.835518336666667

01:00:46.620 --> 01:00:47.710 lunch with Doctor Sharp list.

NOTE Confidence: 0.835518336666667

01:00:47.710 --> 01:00:49.796 So please stay on this very line,

NOTE Confidence: 0.835518336666667

01:00:49.800 --> 01:00:50.920 but I'm really excited.

NOTE Confidence: 0.835518336666667

01:00:50.920 --> 01:00:52.362 Eric Weiner. Are you on?

NOTE Confidence: 0.835518336666667

01:00:52.362 --> 01:00:54.420 So Eric is our new director and

NOTE Confidence: 0.835518336666667

01:00:54.497 --> 01:00:56.482 actually he gave the Calabresi

NOTE Confidence: 0.835518336666667

01:00:56.482 --> 01:00:59.159 lecture about 8-9 years ago and Eric,

NOTE Confidence: 0.835518336666667

01:00:59.160 --> 01:01:01.370 I just love for you to say a few words.

NOTE Confidence: 0.835518336666667

01:01:01.370 --> 01:01:02.398 If you have time.

NOTE Confidence: 0.927667617142857

01:01:06.120 --> 01:01:08.899 I think we we missed our window.

NOTE Confidence: 0.927667617142857

01:01:08.900 --> 01:01:12.420 Well, yeah. That's OK,

NOTE Confidence: 0.927667617142857

01:01:12.420 --> 01:01:14.970 so Eric was a Calabrese lecture.

NOTE Confidence: 0.927667617142857

01:01:14.970 --> 01:01:16.866 Very happy that he was here today and

NOTE Confidence: 0.927667617142857

01:01:16.866 --> 01:01:18.747 he heard that he heard your talk net

NOTE Confidence: 0.927667617142857

133

01:01:18.747 --> 01:01:20.529 and I'm sure you have business with

NOTE Confidence: 0.927667617142857

01:01:20.529 --> 01:01:22.440 him in the not too distant future.

NOTE Confidence: 0.635250172

01:01:22.470 --> 01:01:24.534 Yeah, I know I I, you know I I've

NOTE Confidence: 0.635250172

01:01:24.534 --> 01:01:25.860 known Erica while given the Boston

NOTE Confidence: 0.635250172

01:01:25.909 --> 01:01:27.396 connection and I think what, what,

NOTE Confidence: 0.635250172

01:01:27.396 --> 01:01:29.118 what a great development in turn of

NOTE Confidence: 0.635250172

01:01:29.118 --> 01:01:30.843 events to see him assume a leadership

NOTE Confidence: 0.635250172

01:01:30.843 --> 01:01:33.060 role at Yale and at the NCI we look

NOTE Confidence: 0.635250172

01:01:33.060 --> 01:01:34.840 very forward to working with her right?

NOTE Confidence: 0.917098938571429

01:01:34.850 --> 01:01:36.635 Well listen this has been

NOTE Confidence: 0.917098938571429

01:01:36.635 --> 01:01:37.349 absolutely fantastic.

NOTE Confidence: 0.917098938571429

01:01:37.350 --> 01:01:39.618 We had one of our largest turnouts

NOTE Confidence: 0.917098938571429

01:01:39.618 --> 01:01:41.857 for grand rounds in the virtual era.

NOTE Confidence: 0.917098938571429

01:01:41.860 --> 01:01:43.372 And what we're gonna do now

NOTE Confidence: 0.917098938571429

01:01:43.372 --> 01:01:45.080 is I'm gonna thank you, Ned.

NOTE Confidence: 0.917098938571429

01:01:45.080 --> 01:01:46.760 And thank you Vince.

NOTE Confidence: 0.917098938571429

01:01:46.760 --> 01:01:47.372 And then it's gonna stay on

NOTE Confidence: 0.917098938571429

01:01:47.372 --> 01:01:48.000 with me with the fellows.