WEBVTT

00:00:00.000 --> 00:00:02.485 Support for Yale Cancer Answers

NOTE Confidence: 0.85685986

00:00:02.485 --> 00:00:04.970 comes from AstraZeneca, dedicated

NOTE Confidence: 0.85685986

00:00:05.047 --> 00:00:07.417 to advancing options and providing

NOTE Confidence: 0.85685986

00:00:07.417 --> 00:00:10.400 hope for people living with cancer.

NOTE Confidence: 0.85685986

00:00:10.400 --> 00:00:14.220 More information at astrazeneca-us.com.

NOTE Confidence: 0.85685986

00:00:14.220 --> 00:00:15.672 Welcome to Yale Cancer

NOTE Confidence: 0.85685986

00:00:15.672 --> 00:00:17.124 Answers with your host,

NOTE Confidence: 0.85685986

00:00:17.130 --> 00:00:19.638 Doctor Anees Chagpar. Yale Cancer Answers

NOTE Confidence: 0.85685986

00:00:19.638 --> 00:00:21.736 features the latest information on

NOTE Confidence: 0.85685986

00:00:21.736 --> 00:00:23.932 cancer care by welcoming oncologists and

NOTE Confidence: 0.85685986

00:00:23.932 --> 00:00:26.272 specialists who are on the forefront of

NOTE Confidence: 0.85685986

00:00:26.272 --> 00:00:28.403 the battle to fight cancer. This week,

NOTE Confidence: 0.85685986

00:00:28.403 --> 00:00:30.168 it's a conversation about lung

NOTE Confidence: 0.85685986

00:00:30.168 --> 00:00:32.060 cancer with Doctor Roy Herbst.

NOTE Confidence: 0.85685986

00:00:32.060 --> 00:00:32.786 Doctor Herbst is

NOTE Confidence: 0.85685986

00:00:32.786 --> 00:00:34.238 Ensign Professor of Medicine

NOTE Confidence: 0.85685986

00:00:34.238 --> 00:00:35.327 and medical Oncology,

NOTE Confidence: 0.85685986

00:00:35.330 --> 00:00:37.150 an professor of pharmacology at

NOTE Confidence: 0.85685986

00:00:37.150 --> 00:00:38.970 the Yale School of Medicine,

NOTE Confidence: 0.85685986

00:00:38.970 --> 00:00:41.838 where Doctor Chagpar is a

NOTE Confidence: 0.85685986

00:00:41.838 --> 00:00:43.750 professor of surgical oncology.

00:00:44.090 --> 00:00:46.674 Maybe we can start off by talking

NOTE Confidence: 0.88338166

00:00:46.674 --> 00:00:48.714 a little bit about the Epidemiology

NOTE Confidence: 0.88338166

00:00:48.714 --> 00:00:51.160 of lung cancer, is it still

NOTE Confidence: 0.88338166

00:00:51.160 --> 00:00:52.930 one of the leading

NOTE Confidence: 0.88338166

00:00:52.930 --> 00:00:54.571 cancers and the leading

NOTE Confidence: 0.88338166

00:00:54.571 --> 00:00:56.556 cause of cancer related death?

NOTE Confidence: 0.82722974

00:00:57.460 --> 00:00:59.320 Lung cancer still is

NOTE Confidence: 0.82722974

00:00:59.320 --> 00:01:01.973 unfortunately the number one cause of cancer

NOTE Confidence: 0.82722974

00:01:01.973 --> 00:01:04.159 death worldwide with maybe 1.6, 1.7

NOTE Confidence: 0.82722974

00:01:04.160 --> 00:01:06.386 deaths a year by incidence.

NOTE Confidence: 0.82722974

00:01:06.390 --> 00:01:09.008 It's not the number one cancer diagnosed

NOTE Confidence: 0.82722974

00:01:09.008 --> 00:01:11.598 more breast cancer is diagnosed in women,

NOTE Confidence: 0.82722974

00:01:11.600 --> 00:01:13.460 and prostate cancer in men,

NOTE Confidence: 0.82722974

00:01:13.460 --> 00:01:16.444 but by death, it certainly is the major

NOTE Confidence: 0.82722974

00:01:16.444 --> 00:01:18.986 killer because it tends to present in

NOTE Confidence: 0.82722974

00:01:18.986 --> 00:01:21.270 a metastatic way, already having spread.

NOTE Confidence: 0.82722974

00:01:21.270 --> 00:01:23.734 But you know, we're making great inroads

NOTE Confidence: 0.82722974

00:01:23.734 --> 00:01:26.415 now with early screening for lung cancer

NOTE Confidence: 0.82722974

00:01:26.415 --> 00:01:28.755 and hopefully will find it earlier.

NOTE Confidence: 0.82722974

00:01:28.760 --> 00:01:30.938 And we have seen improvements in

NOTE Confidence: 0.82722974

00:01:30.938 --> 00:01:32.850 survival but there is still work to do.

NOTE Confidence: 0.8599249

00:01:32.850 --> 00:01:35.721 I wanted to start off there and

NOTE Confidence: 0.8599249

00:01:35.721 --> 00:01:38.198 certainly will get into some of the recent

NOTE Confidence: 0.8599249

00:01:38.198 --> 00:01:40.698 advances in screening and treatment.

NOTE Confidence: 0.8599249

00:01:40.700 --> 00:01:43.300 But you know, lung cancer used to be

NOTE Confidence: 0.8599249

00:01:43.300 --> 00:01:46.462 the number one cancer, and we saw that

NOTE Confidence: 0.8599249

00:01:46.462 --> 00:01:48.970 breast cancer and prostate cancer kind

NOTE Confidence: 0.8599249

00:01:49.048 --> 00:01:51.676 of pulled ahead several years ago.

NOTE Confidence: 0.8599249

00:01:51.680 --> 00:01:54.424 And in part, I think that that was

NOTE Confidence: 0.8599249

00:01:54.424 --> 00:01:56.853 related to some advances that were

NOTE Confidence: 0.8599249

00:01:56.853 --> 00:01:59.337 made in terms of lung cancer.

NOTE Confidence: 0.8599249

00:01:59.340 --> 00:02:00.108 Primary prevention.

NOTE Confidence: 0.8599249

00:02:00.108 --> 00:02:01.260 In other words,

NOTE Confidence: 0.8599249

00:02:01.260 --> 00:02:03.934 not getting lung cancer to begin with.

NOTE Confidence: 0.8599249

00:02:03.940 --> 00:02:06.509 Do you want to kind of talk

NOTE Confidence: 0.8599249

00:02:06.509 --> 00:02:08.150 about some of that?

NOTE Confidence: 0.8599249

00:02:08.150 --> 00:02:09.678 Particularly where it

NOTE Confidence: 0.8599249

00:02:09.678 --> 00:02:11.206 pertains to smoking cessation?

NOTE Confidence: 0.8338106

00:02:12.020 --> 00:02:14.748 Right, the best way to

NOTE Confidence: 0.8338106

00:02:14.748 --> 00:02:17.636 treat lung cancer still is to prevent it,

NOTE Confidence: 0.8338106

00:02:17.640 --> 00:02:19.345 and certainly even though there

NOTE Confidence: 0.8338106

00:02:19.345 --> 00:02:21.830 is a very real group of patients

NOTE Confidence: 0.8338106

00:02:21.830 --> 00:02:23.948 with a non smoking lung cancer,

NOTE Confidence: 0.8338106

00:02:23.950 --> 00:02:26.930 as many as 15% or more of patients in the

NOTE Confidence: 0.8338106

00:02:27.008 --> 00:02:29.920 United States about double that in Asia,

NOTE Confidence: 0.8338106

00:02:29.920 --> 00:02:32.504 still smoking is one of the primary

NOTE Confidence: 0.8338106

00:02:32.504 --> 00:02:34.837 reasons for causation and lung cancer.

NOTE Confidence: 0.8338106

00:02:34.840 --> 00:02:37.094 So major efforts have been underway over

NOTE Confidence: 0.8338106

00:02:37.094 --> 00:02:39.977 the last 50-60 years in the United States

NOTE Confidence: 0.8338106

00:02:39.977 --> 00:02:42.310 since the initial Surgeon General's report

NOTE Confidence: 0.8338106

00:02:42.310 --> 00:02:45.256 to stem the tide of smoking.

NOTE Confidence: 0.8338106

00:02:45.256 --> 00:02:47.826 We've gone down from 50% of Americans

NOTE Confidence: 0.8338106

00:02:47.826 --> 00:02:50.034 smoking, perhaps to less than 20%,

NOTE Confidence: 0.8338106

00:02:50.040 --> 00:02:51.472 maybe 18% or so,

NOTE Confidence: 0.8338106

00:02:51.472 --> 00:02:52.904 differing among different groups

NOTE Confidence: 0.8338106

00:02:52.904 --> 00:02:54.090 in different states,

NOTE Confidence: 0.8338106

00:02:54.090 --> 00:02:56.286 but we still need to do better.

NOTE Confidence: 0.8338106

00:02:56.290 --> 00:02:59.323 But smoking clearly is a cause and now we

NOTE Confidence: 0.8338106

00:02:59.323 --> 00:03:02.180 worry as we've really worked on smoking

NOTE Confidence: 0.8338106

00:03:02.180 --> 00:03:04.015 both with education and

NOTE Confidence: 0.8338106

00:03:04.015 --> 00:03:05.483 with medications, with counseling.

NOTE Confidence: 0.8338106

00:03:05.490 --> 00:03:07.898 Now we see this big surge in E-

NOTE Confidence: 0.8338106

00:03:07.898 --> 00:03:10.354 cigarette use and we worry and I'm

NOTE Confidence: 0.8338106

00:03:10.354 --> 00:03:12.134 very involved with the American

NOTE Confidence: 0.8338106

00:03:12.206 --> 00:03:14.661 Association of Cancer Research, actually.

NOTE Confidence: 0.8338106

00:03:14.661 --> 00:03:16.978 The task force on tobacco control.

NOTE Confidence: 0.8338106

00:03:16.980 --> 00:03:18.730 We're actually looking very carefully

NOTE Confidence: 0.8338106

00:03:18.730 --> 00:03:20.810 at E-cigarettes because we worry

NOTE Confidence: 0.8338106

00:03:20.810 --> 00:03:22.994 that these are being used now by

NOTE Confidence: 0.8338106

00:03:22.994 --> 00:03:24.747 children and young adults

NOTE Confidence: 0.8338106

00:03:24.750 --> 00:03:26.310 and they're filled with nicotine,

NOTE Confidence: 0.8338106

00:03:26.310 --> 00:03:27.865 and nicotine is the addictive

NOTE Confidence: 0.8338106

00:03:27.865 --> 00:03:29.109 substance in cigarettes,

NOTE Confidence: 0.8338106

00:03:29.110 --> 00:03:31.280 so people are getting addicted to nicotine.

NOTE Confidence: 0.8338106

00:03:31.280 --> 00:03:33.135 And then they go to what's

NOTE Confidence: 0.8338106

00:03:33.135 --> 00:03:35.314 called dual use and start to use

NOTE Confidence: 0.8338106

00:03:35.314 --> 00:03:36.642 combustible cigarettes, the

NOTE Confidence: 0.8338106

00:03:36.642 --> 00:03:38.440 type we're most familiar with.

NOTE Confidence: 0.8338106

00:03:38.440 --> 00:03:40.138 And then of course

NOTE Confidence: 0.8338106

00:03:40.138 --> 00:03:42.170 the story is all too familiar,

NOTE Confidence: 0.8338106

00:03:42.170 --> 00:03:44.655 and this is important

NOTE Confidence: 0.8338106

00:03:44.655 --> 00:03:47.850 to tell you here in New Haven where we live

NOTE Confidence: 0.8338106

00:03:47.850 --> 00:03:50.454 the rates are probably a

NOTE Confidence: 0.8338106

00:03:50.454 --> 00:03:52.766 bit higher than the national average

NOTE Confidence: 0.8338106

00:03:52.766 --> 00:03:55.830 and we're doing a lot of work

NOTE Confidence: 0.8338106

00:03:55.830 --> 00:03:57.730 with community programs

NOTE Confidence: 0.8338106

00:03:57.730 --> 00:04:00.682 as part of our long funded research

NOTE Confidence: 0.8338106

00:04:00.682 --> 00:04:03.048 through the National Cancer Institute,

NOTE Confidence: 0.8338106

00:04:03.050 --> 00:04:05.591 we just completed a large trial when

NOTE Confidence: 0.8338106

00:04:05.591 --> 00:04:07.609 patients came into the hospital,

NOTE Confidence: 0.8338106

00:04:07.610 --> 00:04:09.890 some with problems, some for screening.

NOTE Confidence: 0.8338106

00:04:09.890 --> 00:04:12.752 We tried to use new methods to help them

NOTE Confidence: 0.8338106

00:04:12.752 --> 00:04:15.587 to stop smoking, new messaging tools,

NOTE Confidence: 0.8338106

00:04:15.590 --> 00:04:18.355 so that's still such an important part

NOTE Confidence: 0.8338106

00:04:18.360 --> 00:04:21.006 of this field to not smoke also we have

NOTE Confidence: 0.8338106

00:04:21.006 --> 00:04:23.546 to worry about other risk factors.

NOTE Confidence: 0.8338106

00:04:23.550 --> 00:04:24.570 Asbestos,

NOTE Confidence: 0.8338106

00:04:24.570 --> 00:04:26.610 radon gas is something we all

NOTE Confidence: 0.8338106

00:04:26.610 --> 00:04:27.699 think about here

NOTE Confidence: 0.8338106

00:04:27.700 --> 00:04:28.654 living in Connecticut,

NOTE Confidence: 0.8338106

00:04:28.654 --> 00:04:31.322 all these things can be a risk

NOTE Confidence: 0.8338106

00:04:31.322 --> 00:04:33.578 factor for future development of this

NOTE Confidence: 0.85348016

00:04:33.580 --> 00:04:36.630 disease. So I want to pick up on a couple

NOTE Confidence: 0.85348016

00:04:36.711 --> 00:04:39.469 of things that you said just quickly.

NOTE Confidence: 0.85348016

00:04:39.470 --> 00:04:41.626 So the first was your study looking

NOTE Confidence: 0.85348016

00:04:41.626 --> 00:04:43.962 at new messaging techniques.

NOTE Confidence: 0.85348016

00:04:47.078 --> 00:04:50.230 Roughly 20% of the population smoke

NOTE Confidence: 0.85348016

00:04:50.230 --> 00:04:52.918 and for many of them it is

NOTE Confidence: 0.85348016

00:04:52.918 --> 00:04:54.610 very difficult to quit.

NOTE Confidence: 0.85348016

00:04:54.610 --> 00:04:57.786 There are all kinds of things out there.

NOTE Confidence: 0.85348016

00:04:57.790 --> 00:04:58.586 There's quitlines,

NOTE Confidence: 0.85348016

00:04:58.586 --> 00:05:00.178 there's patches, there's gum,

NOTE Confidence: 0.85348016

00:05:00.180 --> 00:05:01.386 there's behavioral modification.

NOTE Confidence: 0.85348016

00:05:01.386 --> 00:05:02.994 Some people even advocate

NOTE Confidence: 0.85348016

00:05:02.994 --> 00:05:04.960 paying people to quit smoking,

NOTE Confidence: 0.85348016

00:05:04.960 --> 00:05:07.576 and some people are even suggesting

NOTE Confidence: 0.85348016

00:05:07.576 --> 00:05:10.687 that E cigarettes can be used as a

NOTE Confidence: 0.85348016

00:05:10.687 --> 00:05:13.310 bridge to help people to quit smoking.

NOTE Confidence: 0.85348016

00:05:13.310 --> 00:05:15.698 So for our listeners out there,

NOTE Confidence: 0.85348016

00:05:15.700 --> 00:05:18.640 the 20% who may be smoking

NOTE Confidence: 0.85348016

00:05:18.640 --> 00:05:20.789 as they listen to this,

NOTE Confidence: 0.85348016

00:05:20.790 --> 00:05:22.806 what's the best way to quit and

NOTE Confidence: 0.85348016

00:05:22.810 --> 00:05:24.260 where can they get help?

NOTE Confidence: 0.8290709

00:05:24.260 --> 00:05:25.416 Well, first of all,

NOTE Confidence: 0.8290709

00:05:25.416 --> 00:05:27.150 I would definitely ask for help.

NOTE Confidence: 0.8290709

00:05:27.150 --> 00:05:28.590 That could be your physician.

NOTE Confidence: 0.8290709

00:05:28.590 --> 00:05:30.330 That could be a nurse practitioner.

NOTE Confidence: 0.8290709

00:05:30.330 --> 00:05:31.770 Just whoever you see for

NOTE Confidence: 0.8290709

00:05:31.770 --> 00:05:32.922 your regular health checks.

NOTE Confidence: 0.8290709

00:05:32.930 --> 00:05:34.370 Some of these quit lines

NOTE Confidence: 0.8290709

00:05:34.370 --> 00:05:35.522 can be extremely helpful,

NOTE Confidence: 0.8290709

00:05:35.530 --> 00:05:37.060 and there are a number of

NOTE Confidence: 0.8290709

00:05:37.060 --> 00:05:38.710 ways to work on quitting,

NOTE Confidence: 0.8290709

00:05:38.710 --> 00:05:40.426 and now this is an addiction

NOTE Confidence: 0.8290709

00:05:40.426 --> 00:05:42.180 and it is hard to quit,

NOTE Confidence: 0.8290709

00:05:42.180 --> 00:05:43.625 especially if you've been using

NOTE Confidence: 0.8290709

00:05:43.625 --> 00:05:45.070 cigarettes for a long time.

NOTE Confidence: 0.8290709

00:05:45.070 --> 00:05:47.086 The nicotine is really hard to beat,

NOTE Confidence: 0.8290709

00:05:47.090 --> 00:05:49.510 so there are a couple of ways to do it

NOTE Confidence: 0.8290709

00:05:49.579 --> 00:05:51.937 here in our smoking cessation clinic,

NOTE Confidence: 0.8290709

00:05:51.940 --> 00:05:53.560 they will assess each person

NOTE Confidence: 0.8290709

00:05:53.560 --> 00:05:54.856 on an individual basis.

NOTE Confidence: 0.8290709

00:05:54.860 --> 00:05:56.756 There are certainly ways to substitute

NOTE Confidence: 0.8290709

00:05:56.756 --> 00:05:58.729 for the nicotine other than a

NOTE Confidence: 0.8290709

00:05:58.729 --> 00:06:00.359 combustible cigarette that you smoke.

00:06:02.310 --> 00:06:04.578 There are certain medications that can help,

NOTE Confidence: 0.8290709

00:06:04.580 --> 00:06:05.872 but then of course,

NOTE Confidence: 0.8290709

00:06:05.872 --> 00:06:07.164 behavioral modification and counseling,

NOTE Confidence: 0.8290709

00:06:07.170 --> 00:06:10.077 which I think is so important here at Yale,

NOTE Confidence: 0.8290709

00:06:10.080 --> 00:06:12.397 where we have an amazing center of

NOTE Confidence: 0.8290709

00:06:12.397 --> 00:06:13.760 emotional intelligence and there

NOTE Confidence: 0.8290709

00:06:13.760 --> 00:06:15.614 have been studies done to show

NOTE Confidence: 0.8290709

00:06:15.614 --> 00:06:17.243 that different types of messaging

NOTE Confidence: 0.8290709

00:06:17.243 --> 00:06:19.157 can be more effective than others.

NOTE Confidence: 0.8290709

00:06:19.160 --> 00:06:19.968 For example,

NOTE Confidence: 0.8290709

00:06:19.968 --> 00:06:22.392 many of you have seen

NOTE Confidence: 0.8290709

00:06:22.392 --> 00:06:23.200 cigarette cartoons.

NOTE Confidence: 0.8290709

00:06:23.200 --> 00:06:25.146 Not so much in the United States,

NOTE Confidence: 0.8290709

00:06:25.150 --> 00:06:26.776 but around the world where there

NOTE Confidence: 0.8290709

00:06:26.776 --> 00:06:28.467 are these horrible images of people

NOTE Confidence: 0.8290709

00:06:28.467 --> 00:06:29.867 and the consequences of smoking.

NOTE Confidence: 0.8290709

00:06:29.870 --> 00:06:31.538 Those are very negative type messages,

NOTE Confidence: 0.8290709

00:06:31.540 --> 00:06:32.925 but they're intended to scare

NOTE Confidence: 0.8290709

00:06:32.925 --> 00:06:34.033 people from not smoking.

NOTE Confidence: 0.8290709

00:06:34.040 --> 00:06:35.828 There's been some thought that more

NOTE Confidence: 0.8290709

00:06:35.828 --> 00:06:37.829 gain framed messaging where you

NOTE Confidence: 0.8290709

00:06:37.829 --> 00:06:39.593 might show well if you don't smoke,

NOTE Confidence: 0.8290709

00:06:39.600 --> 00:06:41.546 you'll feel better if you don't smoke,

NOTE Confidence: 0.8290709

00:06:41.550 --> 00:06:42.940 your skin will look better.

NOTE Confidence: 0.8290709

00:06:42.940 --> 00:06:45.156 That could be another way of doing it.

NOTE Confidence: 0.8290709

00:06:45.160 --> 00:06:46.545 We're testing some of those

NOTE Confidence: 0.8290709

00:06:46.545 --> 00:06:47.653 new methods here at Yale.

00:06:47.938 --> 00:06:49.328 The other thing we've done

NOTE Confidence: 0.8290709

00:06:49.328 --> 00:06:50.440 is a biofeedback approach,

NOTE Confidence: 0.8290709

00:06:50.440 --> 00:06:52.610 so we actually have an infrared

NOTE Confidence: 0.8290709

00:06:52.610 --> 00:06:54.290 device that can measure carotenoids

NOTE Confidence: 0.8290709

00:06:54.290 --> 00:06:56.928 in the skin and the health of the

NOTE Confidence: 0.8290709

00:06:56.928 --> 00:06:59.021 skin which we know actually can

NOTE Confidence: 0.8290709

00:06:59.086 --> 00:07:00.886 get somewhat destroyed with tobacco

NOTE Confidence: 0.8290709

00:07:00.886 --> 00:07:03.308 use and we actually are using that

NOTE Confidence: 0.8290709

00:07:03.308 --> 00:07:05.162 sort of biofeedback with patients to

NOTE Confidence: 0.8290709

00:07:05.162 --> 00:07:07.730 try to maintain them from using tobacco.

NOTE Confidence: 0.8290709

00:07:07.730 --> 00:07:10.366 So we've been working very hard on this.

NOTE Confidence: 0.8290709

00:07:10.366 --> 00:07:12.214 Lisa Fucito leads this effort now

NOTE Confidence: 0.8290709

00:07:12.214 --> 00:07:14.532 in our clinic and we're trying to

NOTE Confidence: 0.8290709

00:07:14.532 --> 00:07:16.800 serve as many patients as possible.

NOTE Confidence: 0.8290709

00:07:16.800 --> 00:07:18.144 And by the way,

NOTE Confidence: 0.8290709

00:07:18.144 --> 00:07:19.824 it's not just lung cancer.

NOTE Confidence: 0.8290709

00:07:19.830 --> 00:07:21.615 About 20 different cancers that

NOTE Confidence: 0.8290709

00:07:21.615 --> 00:07:23.043 all can trace their

NOTE Confidence: 0.8290709

00:07:23.050 --> 00:07:24.802 origin back to smoking and

NOTE Confidence: 0.8290709

00:07:24.802 --> 00:07:26.758 we are really trying to work on this.

NOTE Confidence: 0.8290709

00:07:26.760 --> 00:07:28.185 It's something that's now as

NOTE Confidence: 0.8290709

00:07:28.185 --> 00:07:29.610 part of our medical record.

NOTE Confidence: 0.8290709

00:07:29.610 --> 00:07:30.746 Everyone's asked the question

NOTE Confidence: 0.8290709

00:07:30.746 --> 00:07:31.598 about tobacco use.

NOTE Confidence: 0.8290709

00:07:31.600 --> 00:07:33.595 And primary prevention is just so important,

NOTE Confidence: 0.8290709

00:07:33.600 --> 00:07:35.532 but even if someone has smoked

NOTE Confidence: 0.8290709

00:07:35.532 --> 00:07:37.283 and many people have and they

NOTE Confidence: 0.8290709

00:07:37.283 --> 00:07:38.723 stopped they are still at risk

NOTE Confidence: 0.8290709

00:07:38.730 --> 00:07:40.458 of developing lung

NOTE Confidence: 0.8290709

00:07:40.458 --> 00:07:42.278 cancer and this is where screening

NOTE Confidence: 0.8290709

00:07:42.278 --> 00:07:44.378 comes in and the idea

NOTE Confidence: 0.8290709

00:07:44.378 --> 00:07:46.515 that you can do a low dose CAT

NOTE Confidence: 0.8290709

00:07:46.515 --> 00:07:48.060 scan to screen for lung cancer.

NOTE Confidence: 0.8290709

00:07:48.060 --> 00:07:49.880 And I'm very proud to say that

NOTE Confidence: 0.8290709

00:07:49.938 --> 00:07:51.598 even during this very difficult

NOTE Confidence: 0.8290709

00:07:51.598 --> 00:07:53.258 year with covid and clinics

NOTE Confidence: 0.8290709

00:07:53.260 --> 00:07:54.244 closed or moved,

NOTE Confidence: 0.8290709

00:07:54.244 --> 00:07:56.212 we've actually had a very strong

NOTE Confidence: 0.8290709

00:07:56.212 --> 00:07:58.028 year number wise in the

NOTE Confidence: 0.8290709

00:07:58.028 --> 00:07:59.453 number of patients in the

NOTE Confidence: 0.83123416

00:07:59.520 --> 00:08:01.040 area that we've screened.

00:08:05.570 --> 00:08:07.026 So screening patients and

NOTE Confidence: 0.83123416

00:08:07.026 --> 00:08:08.846 finding cancers early in people

NOTE Confidence: 0.83123416

00:08:08.846 --> 00:08:10.760 at high risk is also a very

NOTE Confidence: 0.83123416

00:08:10.760 --> 00:08:12.380 important tool that we're using.

00:08:13.596 --> 00:08:16.163 I think the last question

NOTE Confidence: 0.83123416

00:08:16.163 --> 00:08:18.529 before we move on from smoking

NOTE Confidence: 0.83123416

00:08:18.530 --> 00:08:20.474 cessation is I wanted to get

NOTE Confidence: 0.83123416

00:08:20.474 --> 00:08:21.770 your thoughts on taxation.

NOTE Confidence: 0.83123416

00:08:21.770 --> 00:08:23.410 So certainly in

NOTE Confidence: 0.83123416

00:08:23.410 --> 00:08:25.870 some parts of the world they've

NOTE Confidence: 0.83123416

00:08:25.957 --> 00:08:28.417 found that making

NOTE Confidence: 0.83123416

00:08:28.417 --> 00:08:31.189 it hurt in people's pocketbooks

NOTE Confidence: 0.83123416

00:08:31.189 --> 00:08:34.327 is often a deterrent to smoking.

NOTE Confidence: 0.83123416

00:08:34.330 --> 00:08:37.550 Where do you come down on that?

NOTE Confidence: 0.83123416

00:08:37.550 --> 00:08:39.665 Do you advocate that governments

NOTE Confidence: 0.83123416

00:08:39.665 --> 00:08:42.363 should put stiff taxes on cigarette

NOTE Confidence: 0.83123416

00:08:42.363 --> 00:08:45.369 purchases to make that less appealing?

NOTE Confidence: 0.8476964

00:08:46.400 --> 00:08:47.604 Well, that a

NOTE Confidence: 0.8476964

00:08:47.604 --> 00:08:49.412 tough one. You know,

NOTE Confidence: 0.8476964

00:08:49.412 --> 00:08:50.917 different states do different things.

NOTE Confidence: 0.8476964

00:08:50.920 --> 00:08:53.216 I still remember once being in a drug

NOTE Confidence: 0.8476964

00:08:53.216 --> 00:08:55.225 store in New York City and someone

NOTE Confidence: 0.8476964

00:08:55.225 --> 00:08:57.540 came in for a pack of cigarettes.

NOTE Confidence: 0.8476964

00:08:57.540 --> 00:08:59.836 And it could cost up to $15-20

NOTE Confidence: 0.8476964

00:08:59.836 --> 00:09:02.049 with some of the different taxes and

00:09:04.160 --> 00:09:06.519 I think people will find the cigarettes

NOTE Confidence: 0.8476964

00:09:06.519 --> 00:09:09.169 elsewhere.

NOTE Confidence: 0.8476964

00:09:09.169 --> 00:09:11.150 I think it's a useful technique but it would have

NOTE Confidence: 0.8476964

00:09:11.150 --> 00:09:13.187 to be a universal sort of technique.

NOTE Confidence: 0.8476964

00:09:13.190 --> 00:09:14.695 Otherwise people will find

NOTE Confidence: 0.8476964

00:09:14.695 --> 00:09:15.899 ways of getting cigarettes.

NOTE Confidence: 0.8476964

00:09:15.900 --> 00:09:16.905 I'm much more

NOTE Confidence: 0.8476964

00:09:16.905 --> 00:09:18.472 in favor of

NOTE Confidence: 0.8476964

00:09:18.472 --> 00:09:20.158 some of the approaches I mentioned,

NOTE Confidence: 0.8476964

00:09:20.160 --> 00:09:21.570 whether it be counseling, medications.

NOTE Confidence: 0.8476964

00:09:23.530 --> 00:09:25.203 I think that the E cigarettes as

NOTE Confidence: 0.8476964

00:09:25.203 --> 00:09:26.660 a substitute for someone who's

NOTE Confidence: 0.8476964

00:09:26.660 --> 00:09:28.028 tried everything else could

NOTE Confidence: 0.8476964

00:09:28.030 --> 00:09:29.716 work in that way,

NOTE Confidence: 0.8476964

00:09:29.720 --> 00:09:32.530 but it has to be studied in a regulated way.

NOTE Confidence: 0.8476964

00:09:32.530 --> 00:09:34.674 You know there needs to be a clinical

NOTE Confidence: 0.8476964

00:09:34.674 --> 00:09:36.759 trial and we're actually trying to do

NOTE Confidence: 0.8476964

00:09:36.759 --> 00:09:38.988 some of those here right now at Yale,

00:09:39.966 --> 00:09:41.430 especially now with some of the

NOTE Confidence: 0.8476964

00:09:41.481 --> 00:09:42.359 covid regulations.

NOTE Confidence: 0.8476964

00:09:42.360 --> 00:09:44.680 But it would be nice to see if we can

NOTE Confidence: 0.8476964

00:09:44.749 --> 00:09:47.199 use these cigarettes in a measured way.

NOTE Confidence: 0.8476964

00:09:47.200 --> 00:09:48.211 With a prescribed dose,

NOTE Confidence: 0.8476964

00:09:48.211 --> 00:09:50.908 as a tool, but

00:09:51.920 --> 00:09:53.605 there are other forms of

NOTE Confidence: 0.8476964

00:09:53.605 --> 00:09:54.279 nicotine replacement,

NOTE Confidence: 0.8476964

00:09:54.280 --> 00:09:56.255 but clearly stopping people from

NOTE Confidence: 0.8476964

00:09:56.255 --> 00:09:58.230 smoking whatever method is used

00:10:00.150 --> 00:10:01.714 because it's a National emergency

NOTE Confidence: 0.8476964

00:10:01.714 --> 00:10:03.669 despite the fact that it's

NOTE Confidence: 0.8476964

00:10:03.669 --> 00:10:05.777 so much better than it was

NOTE Confidence: 0.8476964

00:10:05.780 --> 00:10:08.400 Really the only good level of

NOTE Confidence: 0.8547546

00:10:08.400 --> 00:10:10.952 tobacco use is none.

NOTE Confidence: 0.8547546

00:10:10.952 --> 00:10:13.640 And you worry also about the E cigarettes

NOTE Confidence: 0.8547546

00:10:13.706 --> 00:10:15.711 being yet another addictive substance

NOTE Confidence: 0.8547546

00:10:15.711 --> 00:10:18.909 and we don't really know long term what

NOTE Confidence: 0.8547546

00:10:18.909 --> 00:10:21.147 the health consequences are of that.

NOTE Confidence: 0.8547546

00:10:21.150 --> 00:10:24.198 The other thing that you mentioned was that

NOTE Confidence: 0.8547546

00:10:24.198 --> 00:10:27.259 there are many lung cancers that happen

NOTE Confidence: 0.8547546

00:10:27.259 --> 00:10:30.140 for reasons outside of cigarette smoking.

NOTE Confidence: 0.8547546

00:10:30.140 --> 00:10:32.798 For example, you mentioned in Asia

NOTE Confidence: 0.8547546

00:10:32.798 --> 00:10:35.466 about 50% of lung cancers are

NOTE Confidence: 0.8547546

00:10:35.466 --> 00:10:37.686 not related to cigarette smoking,

NOTE Confidence: 0.8547546

00:10:37.690 --> 00:10:40.343 and I wonder whether you think

NOTE Confidence: 0.8547546

00:10:40.343 --> 00:10:42.592 that there are some environmental

NOTE Confidence: 0.8547546

00:10:42.592 --> 00:10:45.676 issues that we need to consider.

NOTE Confidence: 0.8547546

00:10:45.680 --> 00:10:49.234 I mean is this part of

NOTE Confidence: 0.8547546

00:10:49.234 --> 00:10:51.469 the pollution that

NOTE Confidence: 0.8547546

00:10:51.469 --> 00:10:53.670 we're seeing in terms of

NOTE Confidence: 0.8304425

00:10:55.820 --> 00:10:58.333 manufacturing and so on that might be

NOTE Confidence: 0.8304425

00:10:58.333 --> 00:11:00.418 greater in some industrialized parts

NOTE Confidence: 0.8304425

00:11:00.418 --> 00:11:03.214 of Asia that promotes lung cancer.

NOTE Confidence: 0.8304425

00:11:03.220 --> 00:11:06.508 Or do we not know why there's these

NOTE Confidence: 0.8304425

00:11:06.508 --> 00:11:08.560 disparities?

NOTE Confidence: 0.8304425

00:11:08.560 --> 00:11:11.092 We're talking about the non smoking lung

NOTE Confidence: 0.8304425

00:11:11.092 --> 00:11:13.699 cancer which initially was due to

NOTE Confidence: 0.8304425

00:11:13.699 --> 00:11:15.809 the epidermal growth factor receptor

NOTE Confidence: 0.8304425

00:11:15.809 --> 00:11:17.897 mutation that was discovered more

NOTE Confidence: 0.8304425

00:11:17.897 --> 00:11:20.889 than 20 years ago and those levels are

NOTE Confidence: 0.8304425

00:11:20.890 --> 00:11:24.178 much higher in Asia than in the US.

NOTE Confidence: 0.8304425

00:11:24.180 --> 00:11:27.558 About double. 30 to 40% versus 15 to 20%.

NOTE Confidence: 0.8304425

00:11:27.558 --> 00:11:29.430 I don't know that it's environment

NOTE Confidence: 0.8304425

00:11:29.499 --> 00:11:31.407 because if someone is born in

NOTE Confidence: 0.8304425

00:11:31.407 --> 00:11:33.410 Asia and moves to Southern California,

NOTE Confidence: 0.8304425

00:11:33.410 --> 00:11:36.443 it seems like they have the same higher risk.

NOTE Confidence: 0.8304425

00:11:36.450 --> 00:11:38.574 So I think there's something genetic

NOTE Confidence: 0.8304425

00:11:38.574 --> 00:11:41.005 which amazes me with all the

NOTE Confidence: 0.8304425

00:11:41.005 --> 00:11:43.210 tools we have now to sequence

NOTE Confidence: 0.8304425

00:11:43.210 --> 00:11:45.810 genomes and we can sequence

NOTE Confidence: 0.8304425

00:11:45.810 --> 00:11:48.277 dozens and dozens of patients each day.

NOTE Confidence: 0.8304425

00:11:48.280 --> 00:11:50.308 We still have not found what

NOTE Confidence: 0.8304425

00:11:50.308 --> 00:11:51.660 the link there is.

NOTE Confidence: 0.8304425

00:11:51.660 --> 00:11:53.350 What is the genetic factor?

NOTE Confidence: 0.8304425

00:11:53.350 --> 00:11:55.378 It's being looked at quite intensively.

NOTE Confidence: 0.8304425

00:11:55.380 --> 00:11:56.832 It's this cooperation between

NOTE Confidence: 0.8304425

00:11:56.832 --> 00:11:58.284 researchers around the world.

NOTE Confidence: 0.8304425

00:11:58.290 --> 00:12:00.036 But we still don't know exactly

NOTE Confidence: 0.8304425

00:12:00.036 --> 00:12:01.579 why these mutations in epidermal

NOTE Confidence: 0.8304425

00:12:01.579 --> 00:12:03.487 growth factor receptor are so much

NOTE Confidence: 0.8304425

00:12:03.487 --> 00:12:05.418 more common in Asia than the US,

NOTE Confidence: 0.8304425

00:12:05.420 --> 00:12:07.506 but we're looking for it and

NOTE Confidence: 0.8304425

00:12:07.506 --> 00:12:09.563 learning how to treat that type of

NOTE Confidence: 0.8304425

00:12:09.563 --> 00:12:11.660 cancer with oral agents.

NOTE Confidence: 0.8304425

00:12:11.660 --> 00:12:13.140 It's actually been historic.

NOTE Confidence: 0.8304425

00:12:13.140 --> 00:12:14.892 I think that's part of the

NOTE Confidence: 0.8304425

00:12:14.892 --> 00:12:16.410 reason we're seeing

NOTE Confidence: 0.8304425

00:12:16.410 --> 00:12:18.634 a couple percent a year decreases in the

NOTE Confidence: 0.8304425

00:12:18.634 --> 00:12:20.486 death rates from lung cancer because

NOTE Confidence: 0.8304425

00:12:20.486 --> 00:12:22.346 of what we call targeted therapy.

NOTE Confidence: 0.8304425

00:12:22.350 --> 00:12:24.429 But even when those drugs work,

NOTE Confidence: 0.8304425

00:12:24.430 --> 00:12:26.509 as you know, patients will become resistant.

NOTE Confidence: 0.8304425

00:12:26.510 --> 00:12:27.742 That's actually something we're

NOTE Confidence: 0.8304425

00:12:27.742 --> 00:12:29.940 studying very much here in our group. NOTE Confidence: 0.8304425

00:12:30.335 --> 00:12:32.310 Katie Politi and Sarah Goldberg

NOTE Confidence: 0.8304425

00:12:32.310 --> 00:12:34.538 and Mark Lemon actually is one

NOTE Confidence: 0.8304425

00:12:34.538 --> 00:12:36.568 of the projects on our big lung

NOTE Confidence: 0.8304425

00:12:36.570 --> 00:12:38.445 Spore Grant looking

NOTE Confidence: 0.8304425

00:12:38.445 --> 00:12:40.320 at mechanisms of sensitivity and

NOTE Confidence: 0.8304425

00:12:40.386 --> 00:12:42.120 resistance to these drugs so that

NOTE Confidence: 0.8304425

00:12:42.120 --> 00:12:44.120 we can help more patients develop

NOTE Confidence: 0.8304425

00:12:44.120 --> 00:12:45.299 newer and better,

NOTE Confidence: 0.8304425

00:12:45.300 --> 00:12:46.338 more effective and

NOTE Confidence: 0.8416755

00:12:46.340 --> 00:12:48.790 less toxic ways to treat this disease.

NOTE Confidence: 0.8416755

00:12:48.790 --> 00:12:51.574 Yeah, and as

NOTE Confidence: 0.8416755

00:12:51.580 --> 00:12:53.715 we kind of think about lung

NOTE Confidence: 0.8416755

00:12:53.715 --> 00:12:55.983 cancer and the fact that it no

NOTE Confidence: 0.8416755

00:12:55.983 --> 00:12:57.897 longer is the number one cancer

NOTE Confidence: 0.8416755

00:12:57.971 --> 00:13:00.413 in people thanks to reduction in

NOTE Confidence: 0.8416755

00:13:00.413 --> 00:13:02.444 smoking cessation and other things,

NOTE Confidence: 0.8416755

00:13:02.444 --> 00:13:04.808 it still remains the number one

NOTE Confidence: 0.8416755

00:13:04.808 --> 00:13:07.694 killer in terms of being the number

NOTE Confidence: 0.8416755

00:13:07.694 --> 00:13:10.142 one cause of cancer related morbidity

NOTE Confidence: 0.8416755

00:13:10.218 --> 00:13:12.624 and mortality. Has that reduced in

NOTE Confidence: 0.8416755

00:13:12.624 --> 00:13:15.226 recent years thanks to some of the

NOTE Confidence: 0.8416755

00:13:15.226 --> 00:13:17.550 things that we'll be talking about in

NOTE Confidence: 0.8416755

00:13:17.623 --> 00:13:19.758 terms of understanding the genomics

NOTE Confidence: 0.8416755

00:13:19.758 --> 00:13:22.170 and tailored therapy and so on.

NOTE Confidence: 0.8416755

00:13:22.170 --> 00:13:24.438 Are we seeing the needle move?

NOTE Confidence: 0.8569998

00:13:24.440 --> 00:13:27.079 Oh absolutely, and I've seen this myself,

NOTE Confidence: 0.8569998

00:13:27.080 --> 00:13:30.055 so I started working in this field

NOTE Confidence: 0.8569998

00:13:30.055 --> 00:13:33.258 about 20-25 years ago as a young fellow

NOTE Confidence: 0.8569998

00:13:33.260 --> 00:13:35.192 at Dana

NOTE Confidence: 0.8569998

00:13:35.192 --> 00:13:36.480 Farber Cancer Institute actually,

NOTE Confidence: 0.8569998

00:13:36.480 --> 00:13:39.700 and no one even wanted to work in this field.

NOTE Confidence: 0.8569998

00:13:39.700 --> 00:13:41.310 Back then, it was really a death sentence

NOTE Confidence: 0.8569998

00:13:41.310 --> 00:13:43.557 if you had lung cancer,

NOTE Confidence: 0.8569998

00:13:43.560 --> 00:13:45.814 we had surgery and radiation techniques,

NOTE Confidence: 0.8569998

00:13:45.820 --> 00:13:47.746 but if it had spread

NOTE Confidence: 0.8569998

00:13:47.750 --> 00:13:49.038 the chemotherapy was OK,

NOTE Confidence: 0.8569998

00:13:49.038 --> 00:13:50.648 but really didn't do much.

NOTE Confidence: 0.8569998

00:13:50.650 --> 00:13:52.897 And I think over the years

NOTE Confidence: 0.8569998

00:13:52.900 --> 00:13:54.766 we've really taken the five year

NOTE Confidence: 0.8569998

00:13:54.766 --> 00:13:56.440 overall survival for lung cancer,

NOTE Confidence: 0.8569998

00:13:56.440 --> 00:13:59.338 which was in the low teens 10-11%.

NOTE Confidence: 0.8569998

00:13:59.340 --> 00:14:02.242 And now it's as high as 19% or more.

NOTE Confidence: 0.8569998

00:14:02.242 --> 00:14:04.168 Now that's all across all stages,

NOTE Confidence: 0.8569998

00:14:04.170 --> 00:14:05.518 stage 1,2,3 and four.

NOTE Confidence: 0.8569998

00:14:05.518 --> 00:14:07.203 Four being the most advanced,

NOTE Confidence: 0.8569998

00:14:07.210 --> 00:14:08.245 but that's progress.

NOTE Confidence: 0.8569998

00:14:08.245 --> 00:14:10.315 But the real progress that we're

NOTE Confidence: 0.8569998

00:14:10.315 --> 00:14:12.169 seeing is identifying a more

NOTE Confidence: 0.8569998

00:14:12.169 --> 00:14:13.979 personalized approach to this disease

NOTE Confidence: 0.8569998

00:14:13.979 --> 00:14:16.025 and learning how to treat it with

NOTE Confidence: 0.8569998

00:14:16.025 --> 00:14:17.770 some of these new targeted therapies.

NOTE Confidence: 0.8569998

00:14:17.770 --> 00:14:20.080 Learning how to treat it with immunotherapy.

NOTE Confidence: 0.8569998

00:14:20.080 --> 00:14:20.786 And yeah,

NOTE Confidence: 0.8569998

00:14:20.786 --> 00:14:23.257 I've seen

NOTE Confidence: 0.8569998

00:14:23.257 --> 00:14:25.690 patients now in 2021

00:14:26.320 --> 00:14:28.210 who now

00:14:29.980 --> 00:14:32.620 come here to our clinics

NOTE Confidence: 0.8569998

00:14:32.620 --> 00:14:34.008 and they either get standard

NOTE Confidence: 0.8569998

00:14:34.008 --> 00:14:35.743 of care or clinical trials.

NOTE Confidence: 0.8569998

00:14:35.750 --> 00:14:37.345 And a smaller proportion increasing

NOTE Confidence: 0.8569998

00:14:37.345 --> 00:14:38.940 every day are doing better,

NOTE Confidence: 0.8569998

00:14:38.940 --> 00:14:40.535 so there is definitely progress

NOTE Confidence: 0.8569998

00:14:40.535 --> 00:14:42.130 visible progress in this field.

NOTE Confidence: 0.8569998

00:14:42.130 --> 00:14:43.720 And understanding the science,

00:14:46.272 --> 00:14:47.862 what drives the lung cancer,

NOTE Confidence: 0.8569998

00:14:47.870 --> 00:14:49.907 what's causing it to grow and how

NOTE Confidence: 0.8569998

00:14:49.907 --> 00:14:52.338 to treat it in more effective ways.

00:14:52.660 --> 00:14:54.532 We're going to talk all about

NOTE Confidence: 0.84198725

00:14:54.532 --> 00:14:56.803 that right after we take a short

NOTE Confidence: 0.84198725

00:14:56.803 --> 00:14:58.393 break for a medical minute.

NOTE Confidence: 0.84198725

00:14:58.400 --> 00:14:59.990 Please stay tuned to learn

NOTE Confidence: 0.84198725

00:14:59.990 --> 00:15:01.590 more with my guest. Doctor

NOTE Confidence: 0.84198725

00:15:01.590 --> 00:15:03.606 Roy Herbst. Support for Yale Cancer

NOTE Confidence: 0.84198725

00:15:03.606 --> 00:15:05.624 Answers comes from AstraZeneca working

NOTE Confidence: 0.84198725

00:15:05.624 --> 00:15:08.088 to eliminate cancer as a cause of death.

NOTE Confidence: 0.84198725

00:15:08.090 --> 00:15:14.199 Learnmore@astrazeneca-us.com. This

NOTE Confidence: 0.84198725

00:15:14.199 --> 00:15:16.713 is a medical minute about genetic

NOTE Confidence: 0.84198725

00:15:16.713 --> 00:15:19.259 testing which can be useful for

NOTE Confidence: 0.84198725

00:15:19.259 --> 00:15:21.683 people with certain types of cancer

NOTE Confidence: 0.84198725

00:15:21.683 --> 00:15:24.408 that seem to run in their families.

NOTE Confidence: 0.84198725

00:15:24.410 --> 00:15:26.924 Patients that are considered at risk

NOTE Confidence: 0.84198725

00:15:26.924 --> 00:15:29.401 receive genetic counseling and testing so

NOTE Confidence: 0.84198725

00:15:29.401 --> 00:15:31.615 informed medical decisions can be based

NOTE Confidence: 0.84198725

00:15:31.615 --> 00:15:34.228 on their own personal risk assessment.

NOTE Confidence: 0.84198725

00:15:34.230 --> 00:15:36.045 Resources for genetic counseling and

NOTE Confidence: 0.84198725

00:15:36.045 --> 00:15:37.860 testing are available at federally

NOTE Confidence: 0.84198725

00:15:37.914 --> 00:15:39.958 designated comprehensive cancer centers.

NOTE Confidence: 0.84198725

00:15:39.960 --> 00:15:41.592 Interdisciplinary teams include geneticists,

NOTE Confidence: 0.84198725

00:15:41.592 --> 00:15:42.887 genetic counselors, physicians,

NOTE Confidence: 0.84198725

00:15:42.887 --> 00:15:43.841 and nurses

NOTE Confidence: 0.84198725

00:15:43.841 --> 00:15:46.226 who work together to provide

NOTE Confidence: 0.84198725

00:15:46.226 --> 00:15:48.821 risk assessment and steps to prevent

NOTE Confidence: 0.84198725

00:15:48.821 --> 00:15:50.389 the development of cancer.

NOTE Confidence: 0.84198725

00:15:50.390 --> 00:15:52.142 More information is available

NOTE Confidence: 0.84198725

00:15:52.142 --> 00:15:53.018 at yalecancercenter.org.

NOTE Confidence: 0.84198725

00:15:53.020 --> 00:15:55.648 You're listening to Connecticut Public Radio.

NOTE Confidence: 0.8599371

00:15:57.150 --> 00:15:59.556 Welcome back to Yale Cancer Answers.

NOTE Confidence: 0.8599371

00:15:59.560 --> 00:16:02.908 This is doctor Anees Chagpar and I'm

NOTE Confidence: 0.8599371

00:16:02.908 --> 00:16:06.364 joined tonight by my guest Doctor Roy Herbst.

NOTE Confidence: 0.8599371

00:16:06.370 --> 00:16:09.156 We're talking about recent advances in the

NOTE Confidence: 0.8599371

00:16:09.156 --> 00:16:11.990 management of lung cancer patients and Roy,

NOTE Confidence: 0.8599371

00:16:11.990 --> 00:16:14.454 right before the break you were telling

NOTE Confidence: 0.8599371

00:16:14.454 --> 00:16:17.614 us that you have seen visible progress in

NOTE Confidence: 0.8599371

00:16:17.614 --> 00:16:20.410 terms of reducing lung cancer mortality.

NOTE Confidence: 0.8599371

00:16:20.410 --> 00:16:22.816 This remains the number one cancer

NOTE Confidence: 0.8599371

00:16:22.816 --> 00:16:25.664 killer of Americans, both men and women,

NOTE Confidence: 0.8599371

00:16:25.664 --> 00:16:27.719 but we're seeing progress.

NOTE Confidence: 0.8599371

00:16:27.720 --> 00:16:30.443 So there are so many different avenues

NOTE Confidence: 0.8599371

00:16:30.443 --> 00:16:33.810 that we've seen in terms of lung cancer

NOTE Confidence: 0.8599371

00:16:33.810 --> 00:16:36.370 management that have contributed to this.

NOTE Confidence: 0.8599371

00:16:36.370 --> 00:16:39.254 What do you think is the greatest

NOTE Confidence: 0.83056504

00:16:39.260 --> 00:16:42.020 driver?

NOTE Confidence: 0.83056504

00:16:42.020 --> 00:16:44.612 The ACS announced earlier this year a 2% decrease

NOTE Confidence: 0.83056504

00:16:44.612 --> 00:16:47.908 in deaths from lung cancer since 2013.

NOTE Confidence: 0.83056504

00:16:47.910 --> 00:16:49.438 So clearly something's happening.

NOTE Confidence: 0.83056504

00:16:49.438 --> 00:16:52.850 I think part of it is the prevention,

NOTE Confidence: 0.83056504

00:16:52.850 --> 00:16:54.910 either primary prevention by avoiding

NOTE Confidence: 0.83056504

00:16:54.910 --> 00:16:57.529 smoking and other toxins, or the screening.

NOTE Confidence: 0.83056504

00:16:57.529 --> 00:17:00.220 But I have to believe a lot of

NOTE Confidence: 0.83056504

00:17:00.220 --> 00:17:02.332 it's been the therapies that we've

NOTE Confidence: 0.83056504

00:17:02.332 --> 00:17:04.829 seen in the last several years.

NOTE Confidence: 0.83056504

00:17:04.830 --> 00:17:05.871 Understanding the molecular

NOTE Confidence: 0.83056504

00:17:05.871 --> 00:17:07.259 basis of this disease.

00:17:09.690 --> 00:17:11.078 That's not really true.

00:17:12.812 --> 00:17:15.234 Everyone's cancer is a little bit different,

NOTE Confidence: 0.83056504

00:17:15.240 --> 00:17:16.980 caused by a different mechanism,

NOTE Confidence: 0.83056504

00:17:16.980 --> 00:17:18.292 a different genetic background.

NOTE Confidence: 0.83056504

00:17:18.292 --> 00:17:20.689 So now what we're doing is we're

NOTE Confidence: 0.83056504

00:17:20.689 --> 00:17:22.529 taking the patients cancer and we're

NOTE Confidence: 0.83056504

00:17:22.530 --> 00:17:23.568 performing molecular techniques

NOTE Confidence: 0.83056504

00:17:23.568 --> 00:17:24.260 for sequencing.

NOTE Confidence: 0.83056504

00:17:24.260 --> 00:17:27.036 We're looking at what makes it tick now.

NOTE Confidence: 0.83056504

00:17:27.040 --> 00:17:28.960 What is driving that cancer?

NOTE Confidence: 0.83056504

00:17:28.960 --> 00:17:30.913 And now there are about seven or

NOTE Confidence: 0.83056504

00:17:30.913 --> 00:17:32.280 eight different different mutations,

NOTE Confidence: 0.83056504

00:17:32.280 --> 00:17:34.056 different markers that we

NOTE Confidence: 0.83056504

00:17:34.056 --> 00:17:36.208 can then pair with a specific drug.

NOTE Confidence: 0.83056504

00:17:36.210 --> 00:17:37.720 So we're personalizing the therapy,

NOTE Confidence: 0.83056504

00:17:37.720 --> 00:17:38.928 and that's nice

NOTE Confidence: 0.83056504

00:17:38.928 --> 00:17:40.438 because these are oral therapies,

NOTE Confidence: 0.83056504

00:17:40.440 --> 00:17:43.149 that you take by mouth and are

NOTE Confidence: 0.83056504

00:17:43.150 --> 00:17:44.660 much less toxic than the

NOTE Confidence: 0.83056504

00:17:44.660 --> 00:17:46.170 chemotherapy we used to use,

NOTE Confidence: 0.83056504

00:17:46.170 --> 00:17:48.186 and we see the tumors shrink in

NOTE Confidence: 0.83056504

00:17:48.186 --> 00:17:49.799 a large percentage of patients.

NOTE Confidence: 0.83056504

00:17:49.800 --> 00:17:51.310 So many of these started

NOTE Confidence: 0.83056504

00:17:51.310 --> 00:17:52.518 out as clinical trials,

NOTE Confidence: 0.83056504

00:17:52.520 --> 00:17:53.724 and now they're moving

NOTE Confidence: 0.83056504

00:17:53.724 --> 00:17:55.229 forward to standard of care.

NOTE Confidence: 0.83056504

00:17:55.230 --> 00:17:57.646 So I think that's having a great benefit.

NOTE Confidence: 0.83056504

00:17:57.650 --> 00:17:58.866 I've seen it myself.

NOTE Confidence: 0.83056504

00:17:58.866 --> 00:18:00.386 Over the last 15-20 years,

NOTE Confidence: 0.83056504

00:18:00.390 --> 00:18:01.810 certainly within the last decade,

NOTE Confidence: 0.83056504

00:18:01.810 --> 00:18:03.508 many approved drugs in this space,

NOTE Confidence: 0.83056504

00:18:03.510 --> 00:18:05.526 so you really want to make sure

NOTE Confidence: 0.83056504

00:18:05.526 --> 00:18:07.300 that your cancer is analyzed in

NOTE Confidence: 0.83056504

00:18:07.300 --> 00:18:09.274 this way so that you have access

NOTE Confidence: 0.83056504

00:18:09.338 --> 00:18:10.898 to these drugs now.

NOTE Confidence: 0.83056504

00:18:10.900 --> 00:18:11.755 Like everything else,

NOTE Confidence: 0.83056504

00:18:11.755 --> 00:18:13.465 nothing is perfect with time

NOTE Confidence: 0.83056504

00:18:13.465 --> 00:18:15.319 the tumor will get smart and learn

NOTE Confidence: 0.83056504

00:18:15.319 --> 00:18:16.860 how to override these blockages.

NOTE Confidence: 0.83056504

00:18:16.860 --> 00:18:18.570 But that's why we're doing research.

NOTE Confidence: 0.83056504

00:18:18.570 --> 00:18:20.565 All of us that are at different

NOTE Confidence: 0.83056504

00:18:20.565 --> 00:18:22.307 centers to try to figure out

NOTE Confidence: 0.83056504

00:18:22.307 --> 00:18:23.957 one of the next steps and,

NOTE Confidence: 0.83056504

00:18:23.960 --> 00:18:25.948 and we're continuing to raise the bar,

NOTE Confidence: 0.83056504

00:18:25.950 --> 00:18:27.294 but that's certainly been

NOTE Confidence: 0.83056504

00:18:27.294 --> 00:18:28.974 one of the major advances.

NOTE Confidence: 0.83056504

00:18:28.980 --> 00:18:30.560 The second has been immunotherapy,

NOTE Confidence: 0.83056504

00:18:30.560 --> 00:18:32.536 and the idea that we can

NOTE Confidence: 0.83056504

00:18:32.536 --> 00:18:34.489 use the body's own immune system

NOTE Confidence: 0.83056504

00:18:34.489 --> 00:18:36.583 to attack the cancer really began

NOTE Confidence: 0.83056504

00:18:36.651 --> 00:18:38.456 in Melanoma and kidney cancer.

NOTE Confidence: 0.83056504

00:18:38.460 --> 00:18:40.399 But lung cancer being so common,

NOTE Confidence: 0.83056504

00:18:40.399 --> 00:18:42.279 we're seeing just amazing

NOTE Confidence: 0.83056504

00:18:42.279 --> 00:18:44.253 results that we can now actually

NOTE Confidence: 0.83056504

00:18:44.253 --> 00:18:46.290 take a cancer that's already spread

NOTE Confidence: 0.83056504

00:18:46.290 --> 00:18:48.572 throughout the body and we can treat

NOTE Confidence: 0.83056504

00:18:48.572 --> 00:18:50.468 with one of these immunotherapy drugs.

NOTE Confidence: 0.83056504

00:18:50.470 --> 00:18:52.050 And we're doing that now.

NOTE Confidence: 0.83056504

00:18:52.050 --> 00:18:53.630 And when we do that,

NOTE Confidence: 0.83056504

00:18:53.630 --> 00:18:55.526 actually in about 20% of

NOTE Confidence: 0.83056504

00:18:55.526 --> 00:18:56.790 the patients we see

NOTE Confidence: 0.83056504

00:18:56.790 --> 00:18:58.415 amazing results and the rest

NOTE Confidence: 0.83056504

00:18:58.415 --> 00:19:00.040 sometimes we see some

NOTE Confidence: 0.83056504

00:19:00.040 --> 00:19:01.768 activity and others we don't,

NOTE Confidence: 0.83056504

00:19:01.770 --> 00:19:04.380 so we have to do a little bit more,

NOTE Confidence: 0.83056504

00:19:04.380 --> 00:19:06.162 but these are patients who never

NOTE Confidence: 0.83056504

00:19:06.162 --> 00:19:08.233 before would have had any hope of

NOTE Confidence: 0.83056504

00:19:08.233 --> 00:19:10.158 doing well on some of these therapies.

NOTE Confidence: 0.83056504

00:19:10.160 --> 00:19:12.464 And then if that all was not enough,

NOTE Confidence: 0.83056504

00:19:12.470 --> 00:19:13.790 we're taking all these therapies

NOTE Confidence: 0.83056504

00:19:13.790 --> 00:19:15.455 that work in the most advanced

NOTE Confidence: 0.83056504

00:19:15.455 --> 00:19:16.920 stages and we're moving them

NOTE Confidence: 0.83056504

00:19:16.920 --> 00:19:18.540 earlier and earlier in disease.

NOTE Confidence: 0.83056504

00:19:18.540 --> 00:19:20.046 I can tell you one

NOTE Confidence: 0.83056504

00:19:20.046 --> 00:19:21.050 thing that I've seen

NOTE Confidence: 0.867884

00:19:21.107 --> 00:19:22.983 over my career is the best drugs

NOTE Confidence: 0.867884

00:19:22.983 --> 00:19:25.525 work best when they are used in the

NOTE Confidence: 0.867884

00:19:25.525 --> 00:19:27.205 earliest possible stage after surgery,

NOTE Confidence: 0.867884

00:19:27.210 --> 00:19:30.063 when the burden of lung cancer is the lowest.

NOTE Confidence: 0.867884

00:19:30.070 --> 00:19:31.695 So now we're doing what's

NOTE Confidence: 0.867884

00:19:31.695 --> 00:19:32.670 called adjuvent therapy,

NOTE Confidence: 0.867884

00:19:32.670 --> 00:19:34.952 and I was very fortunate to actually

NOTE Confidence: 0.867884

00:19:34.952 --> 00:19:36.570 present last year

NOTE Confidence: 0.867884

00:19:36.570 --> 00:19:38.866 some data where an EGFR inhibitor used

NOTE Confidence: 0.867884

00:19:38.866 --> 00:19:41.401 after surgery had really high impact

NOTE Confidence: 0.867884

00:19:41.401 --> 00:19:43.720 on how patients did after that surgery,

NOTE Confidence: 0.867884

00:19:43.720 --> 00:19:45.670 so the sky is the limit.

NOTE Confidence: 0.867884

00:19:45.670 --> 00:19:47.945 Research in this area is paying off.

NOTE Confidence: 0.867884

00:19:47.950 --> 00:19:49.302 We're seeing tangible benefits,

NOTE Confidence: 0.867884

00:19:49.302 --> 00:19:52.168 but when I could also say and tell you,

NOTE Confidence: 0.867884

00:19:52.170 --> 00:19:53.916 I'm sure many listening to this

NOTE Confidence: 0.867884

00:19:53.916 --> 00:19:55.750 notice from their own experience,

NOTE Confidence: 0.867884

00:19:55.750 --> 00:19:58.018 we still have to do even better,

NOTE Confidence: 0.867884

00:19:58.020 --> 00:20:00.190 and that's why research, science,

NOTE Confidence: 0.867884

00:20:00.190 --> 00:20:01.582 operative work working together

NOTE Confidence: 0.867884

00:20:01.582 --> 00:20:03.670 is going to be so important,

NOTE Confidence: 0.867884

00:20:03.670 --> 00:20:06.110 and that's the type of programs that

NOTE Confidence: 0.8120907

00:20:06.110 --> 00:20:08.186 we lead here at our center.

NOTE Confidence: 0.8120907

00:20:08.190 --> 00:20:10.790 Roy, let's dig into a few things

NOTE Confidence: 0.8120907

00:20:10.790 --> 00:20:13.069 that you talked about.

NOTE Confidence: 0.8120907

00:20:13.070 --> 00:20:14.810 So the first was targeted

NOTE Confidence: 0.8120907

00:20:14.810 --> 00:20:15.986 therapy and Genomics,

NOTE Confidence: 0.8120907

00:20:15.986 --> 00:20:19.195 and we've talked a lot on this show

NOTE Confidence: 0.8120907

00:20:19.195 --> 00:20:21.547 about kind of unpacking that concept

NOTE Confidence: 0.8120907

00:20:21.547 --> 00:20:24.319 in a variety of different cancers.

NOTE Confidence: 0.8120907

00:20:24.320 --> 00:20:27.022 and really trying to figure out what

NOTE Confidence: 0.8120907

00:20:27.022 --> 00:20:30.070 are the main drivers in lung cancer,

NOTE Confidence: 0.8120907

00:20:30.070 --> 00:20:32.530 so are all lung cancers kind

NOTE Confidence: 0.8120907

00:20:32.530 --> 00:20:34.600 of profiled in this way?

NOTE Confidence: 0.8120907

00:20:34.600 --> 00:20:37.246 And are there particular mutations that

NOTE Confidence: 0.8120907

00:20:37.246 --> 00:20:39.938 have druggable targets that you look for?

NOTE Confidence: 0.80851835

00:20:41.070 --> 00:20:42.775 Well, certainly all lung cancers

NOTE Confidence: 0.80851835

00:20:42.775 --> 00:20:44.139 when they've already spread

NOTE Confidence: 0.80851835

00:20:44.139 --> 00:20:46.077 from the lungs are what we

NOTE Confidence: 0.80851835

00:20:46.077 --> 00:20:47.580 call non squamous lung cancers,

NOTE Confidence: 0.80851835

00:20:47.580 --> 00:20:49.130 which the majority should

NOTE Confidence: 0.80851835

00:20:49.130 --> 00:20:50.680 be profiled in this way.

NOTE Confidence: 0.80851835

00:20:50.680 --> 00:20:53.018 And actually it's my belief we actually

NOTE Confidence: 0.80851835

00:20:53.018 --> 00:20:54.710 should probably profile all of them

NOTE Confidence: 0.80851835

00:20:54.710 --> 00:20:56.915 to understand one of the

NOTE Confidence: 0.80851835

00:20:56.915 --> 00:20:58.531 determinants that are causing that

NOTE Confidence: 0.80851835

00:20:58.531 --> 00:21:00.659 cancer to grow because that will allow

NOTE Confidence: 0.80851835

00:21:00.659 --> 00:21:02.769 us to match with the best therapy.

NOTE Confidence: 0.80851835

00:21:02.770 --> 00:21:04.588 Now I'm concerned you know one

NOTE Confidence: 0.80851835

00:21:04.588 --> 00:21:06.723 of the big issues we have is

NOTE Confidence: 0.80851835

00:21:06.723 --> 00:21:08.711 access to care and making sure all

NOTE Confidence: 0.80851835

00:21:08.782 --> 00:21:10.867 patients get this screening done.

NOTE Confidence: 0.80851835

00:21:10.870 --> 00:21:14.090 One thing we're doing a lot

NOTE Confidence: 0.80851835

00:21:14.090 --> 00:21:16.826 of work on is to try to get navigators

NOTE Confidence: 0.80851835

00:21:16.826 --> 00:21:19.898 out to all the different areas of the city

NOTE Confidence: 0.80851835

00:21:19.900 --> 00:21:20.872 to build trust.

00:21:22.188 --> 00:21:24.192 Within Connecticut we want every patient

NOTE Confidence: 0.80851835

00:21:24.192 --> 00:21:26.574 to have access to coming to a center

NOTE Confidence: 0.80851835

00:21:26.574 --> 00:21:28.949 where they can have their tumor profiled.

NOTE Confidence: 0.80851835

00:21:28.950 --> 00:21:29.594 But yes,

NOTE Confidence: 0.80851835

00:21:29.594 --> 00:21:31.204 if you profile the tumor,

NOTE Confidence: 0.80851835

00:21:31.210 --> 00:21:33.142 there's probably as much as a

NOTE Confidence: 0.80851835

00:21:33.142 --> 00:21:34.794 20% chance you'll find something

NOTE Confidence: 0.80851835

00:21:34.794 --> 00:21:36.780 that will allow you to match

NOTE Confidence: 0.80851835

00:21:36.839 --> 00:21:38.639 that patient with an oral drug,

NOTE Confidence: 0.80851835

00:21:38.640 --> 00:21:40.474 which in my opinion is certainly preferable

NOTE Confidence: 0.80851835

00:21:40.474 --> 00:21:42.510 to giving a nonspecific chemotherapy,

NOTE Confidence: 0.80851835

00:21:42.510 --> 00:21:44.430 so that's a huge advance.

NOTE Confidence: 0.80851835

00:21:44.430 --> 00:21:46.460 And we're continuing to find more of

NOTE Confidence: 0.80851835

00:21:46.460 --> 00:21:49.136 these and new combinations that can be used.

NOTE Confidence: 0.80851835

00:21:49.140 --> 00:21:49.768 So yes,

NOTE Confidence: 0.80851835

00:21:49.768 --> 00:21:51.650 that's what we call precision guided

NOTE Confidence: 0.8700885

00:21:51.650 --> 00:21:53.996 therapy and for the patients who

NOTE Confidence: 0.8700885

00:21:53.996 --> 00:21:56.920 don't have one of these mutations,

NOTE Confidence: 0.8700885

00:21:56.920 --> 00:21:58.725 do they get standard chemotherapy

NOTE Confidence: 0.8700885

00:21:58.725 --> 00:22:01.443 and have there been any advances

NOTE Confidence: 0.8700885

00:22:01.443 --> 00:22:03.568 in terms of standard chemotherapy

NOTE Confidence: 0.8700885

00:22:03.570 --> 00:22:05.970 for those people who either don't

NOTE Confidence: 0.8700885

00:22:05.970 --> 00:22:08.729 have a druggable target or who have

NOTE Confidence: 0.8700885

00:22:08.729 --> 00:22:10.996 a druggable target, and who recur?

NOTE Confidence: 0.8700885

00:22:10.996 --> 00:22:12.170 Well, incredibly, the

NOTE Confidence: 0.80644786

00:22:12.170 --> 00:22:13.343 answer is yes.

NOTE Confidence: 0.80644786

00:22:13.343 --> 00:22:15.298 So I mentioned immunotherapy already.

NOTE Confidence: 0.80644786

00:22:15.300 --> 00:22:17.255 So if someone does not

NOTE Confidence: 0.80644786

00:22:17.255 --> 00:22:19.210 have one of those targets,

NOTE Confidence: 0.80644786

00:22:19.210 --> 00:22:21.940 we actually can look for another target,

NOTE Confidence: 0.80644786

00:22:21.940 --> 00:22:23.416 something called PDL1,

NOTE Confidence: 0.80644786

00:22:23.416 --> 00:22:26.153 now PDL1 actually was in part

NOTE Confidence: 0.80644786

00:22:26.153 --> 00:22:27.937 discovered by Lieping Chen, NOTE Confidence: 0.80644786

00:22:27.940 --> 00:22:29.968 a professor here at Yale,

NOTE Confidence: 0.80644786

00:22:29.970 --> 00:22:32.010 and he's one of our collaborators,

NOTE Confidence: 0.80644786

00:22:32.010 --> 00:22:33.700 but we actually can measure

NOTE Confidence: 0.80644786

00:22:33.700 --> 00:22:35.052 PDL one and tumors.

NOTE Confidence: 0.80644786

00:22:35.060 --> 00:22:37.426 And if the level is very high,

NOTE Confidence: 0.80644786

00:22:37.430 --> 00:22:39.120 that tells us that the

NOTE Confidence: 0.80644786

00:22:39.120 --> 00:22:40.472 immunotherapy might work alone.

NOTE Confidence: 0.80644786

00:22:40.480 --> 00:22:42.520 So we give those patients immunotherapy,

NOTE Confidence: 0.80644786

00:22:42.520 --> 00:22:43.872 assuming they don't have

NOTE Confidence: 0.80644786

00:22:43.872 --> 00:22:45.224 some reason we can't.

NOTE Confidence: 0.80644786

00:22:45.230 --> 00:22:47.085 Sometimes you can't reactivate the

NOTE Confidence: 0.80644786

00:22:47.085 --> 00:22:48.940 immune system because someone might

NOTE Confidence: 0.80644786

00:22:48.998 --> 00:22:50.654 already have some bad arthritis or

NOTE Confidence: 0.80644786

00:22:50.654 --> 00:22:52.553 know what we call an autoimmune

NOTE Confidence: 0.80644786

00:22:52.553 --> 00:22:54.037 disease that precludes that.

NOTE Confidence: 0.80644786

00:22:54.040 --> 00:22:56.428 But for the rest of these, again,

NOTE Confidence: 0.80644786

00:22:56.428 --> 00:22:58.168 unless they have a contraindication,

NOTE Confidence: 0.80644786

00:22:58.170 --> 00:22:59.482 we're giving immunotherapy in

NOTE Confidence: 0.80644786

00:22:59.482 --> 00:23:00.466 combination with chemotherapy.

NOTE Confidence: 0.80644786

00:23:00.470 --> 00:23:02.675 Would have been what I would have

NOTE Confidence: 0.80644786

00:23:02.675 --> 00:23:05.049 guessed would have been such an active

NOTE Confidence: 0.80644786

00:23:05.049 --> 00:23:06.646 therapy, but for whatever reason,

NOTE Confidence: 0.80644786

00:23:06.646 --> 00:23:07.902 when you give chemotherapy

NOTE Confidence: 0.80644786

00:23:07.902 --> 00:23:08.990 and immunotherapy together,

NOTE Confidence: 0.80644786

00:23:08.990 --> 00:23:11.286 you at least have an additive effect,

NOTE Confidence: 0.80644786

00:23:11.290 --> 00:23:12.598 meaning the chemotherapy kills

NOTE Confidence: 0.80644786

00:23:12.598 --> 00:23:14.233 some of the tumor cells,

NOTE Confidence: 0.80644786

00:23:14.240 --> 00:23:15.880 releases some of the proteins

NOTE Confidence: 0.80644786

00:23:15.880 --> 00:23:17.520 that activate the immune system,

NOTE Confidence: 0.80644786

00:23:17.520 --> 00:23:19.218 and then use these drugs that

NOTE Confidence: 0.80644786

00:23:19.218 --> 00:23:21.130 we call a checkpoint

NOTE Confidence: 0.80644786

00:23:21.130 --> 00:23:22.730 inhibitor that unleash the power

NOTE Confidence: 0.80644786

00:23:22.730 --> 00:23:24.722 of the immune system and that's

NOTE Confidence: 0.80644786

00:23:24.722 --> 00:23:26.377 become a standard of therapy.

NOTE Confidence: 0.80644786

00:23:26.380 --> 00:23:28.180 Now I'll tell you that

NOTE Confidence: 0.80644786

00:23:28.180 --> 00:23:29.820 those results are really

NOTE Confidence: 0.80644786

00:23:29.820 --> 00:23:31.802 good and much better than

NOTE Confidence: 0.80644786

00:23:31.802 --> 00:23:33.470 what we've had in the past.

NOTE Confidence: 0.80644786

00:23:33.470 --> 00:23:35.312 But in my opinion we still

NOTE Confidence: 0.80644786

00:23:35.312 --> 00:23:36.890 have to raise the bar,

NOTE Confidence: 0.80644786

00:23:36.890 --> 00:23:39.067 so that's where clinical trials come in,

NOTE Confidence: 0.80644786

00:23:39.070 --> 00:23:41.167 and it would be my my big hope that

NOTE Confidence: 0.80644786

00:23:41.167 --> 00:23:43.564 in that room when a patient and a

NOTE Confidence: 0.80644786

00:23:43.564 --> 00:23:45.305 physician or nurse practitioner or

NOTE Confidence: 0.80644786

00:23:45.305 --> 00:23:47.621 whoever is there are meeting. someone

NOTE Confidence: 0.80644786

00:23:47.621 --> 00:23:49.950 brings up, is there a clinical trial?

NOTE Confidence: 0.80644786

00:23:49.950 --> 00:23:51.505 Is there something new that's

NOTE Confidence: 0.80644786

00:23:51.505 --> 00:23:53.060 looking at a new agent?

NOTE Confidence: 0.80644786

00:23:53.060 --> 00:23:53.993 A new drug,

NOTE Confidence: 0.80644786

00:23:53.993 --> 00:23:56.170 something that might even be more active?

NOTE Confidence: 0.80644786

00:23:56.170 --> 00:23:57.106 And of course,

NOTE Confidence: 0.80644786

00:23:57.106 --> 00:23:57.730 that's investigation,

NOTE Confidence: 0.80644786

00:23:57.730 --> 00:23:59.500 but that's really how we

NOTE Confidence: 0.80644786

00:23:59.500 --> 00:24:02.755 continue to do better and better,

NOTE Confidence: 0.80644786

00:24:02.760 --> 00:24:06.029 and we're inching up the

NOTE Confidence: 0.80644786

00:24:06.029 --> 00:24:08.820 benefits from therapy in lung cancer.

NOTE Confidence: 0.89301807

00:24:11.270 --> 00:24:12.614 So certainly clinical trials.

NOTE Confidence: 0.89301807

00:24:12.614 --> 00:24:15.522 I mean, we've talked on this show a

NOTE Confidence: 0.89301807

00:24:15.522 --> 00:24:17.912 lot about clinical trials and the

NOTE Confidence: 0.89301807

00:24:17.912 --> 00:24:19.982 fact that people who participate

NOTE Confidence: 0.89301807

00:24:19.982 --> 00:24:22.353 in clinical trials tend to do

NOTE Confidence: 0.89301807

00:24:22.353 --> 00:24:24.108 better than people who don't.

NOTE Confidence: 0.89301807

00:24:24.110 --> 00:24:26.749 Are all of the clinical trials in

NOTE Confidence: 0.89301807

00:24:26.749 --> 00:24:29.487 lung cancer now really geared around

NOTE Confidence: 0.89301807

00:24:29.487 --> 00:24:32.027 targeted therapies and immunooncology

NOTE Confidence: 0.89301807

00:24:32.027 --> 00:24:35.322 or are there any clinical trials that

NOTE Confidence: 0.89301807

00:24:35.322 --> 00:24:37.940 are looking at advances in standard

NOTE Confidence: 0.89301807

00:24:37.940 --> 00:24:40.460 chemotherapy for people who may not

NOTE Confidence: 0.89301807

00:24:40.460 --> 00:24:43.329 be eligible for those other therapies?

NOTE Confidence: 0.89301807

00:24:43.330 --> 00:24:46.012 Either because they don't have a

NOTE Confidence: 0.89301807

00:24:46.012 --> 00:24:48.758 target or because they don't have

NOTE Confidence: 0.89301807

00:24:48.758 --> 00:24:51.380 a tumor that's expressing PDL 1.

NOTE Confidence: 0.80675936

00:24:52.060 --> 00:24:53.140 Well, standard chemotherapy

NOTE Confidence: 0.80675936

00:24:53.140 --> 00:24:54.580 clearly has its place,

NOTE Confidence: 0.80675936

00:24:54.580 --> 00:24:56.608 and certainly in earlier stages of

NOTE Confidence: 0.80675936

00:24:56.608 --> 00:24:58.743 disease before the tumors have spread

NOTE Confidence: 0.80675936

00:24:58.743 --> 00:25:00.909 from the lung we're using chemotherapy

NOTE Confidence: 0.80675936

00:25:00.909 --> 00:25:02.860 with radiation therapy, for example,

NOTE Confidence: 0.80675936

00:25:02.860 --> 00:25:05.380 and that can be curative therapy.

NOTE Confidence: 0.80675936

00:25:05.380 --> 00:25:07.540 We often add immunotherapy in afterwards,

NOTE Confidence: 0.80675936

00:25:07.540 --> 00:25:09.450 but I actually personally think

NOTE Confidence: 0.80675936

00:25:09.450 --> 00:25:12.065 we've pretty much come as far

NOTE Confidence: 0.80675936

00:25:12.065 --> 00:25:13.655 as we can with chemotherapy.

NOTE Confidence: 0.80675936

00:25:13.660 --> 00:25:14.680 It's somewhat nonspecific.

NOTE Confidence: 0.80675936

00:25:14.680 --> 00:25:17.620 It can have a number of side effects.

NOTE Confidence: 0.80675936

00:25:17.620 --> 00:25:19.060 However, we're finding new

NOTE Confidence: 0.80675936

00:25:19.060 --> 00:25:20.860 targets like right now,

NOTE Confidence: 0.80675936

00:25:20.860 --> 00:25:23.290 just in the last several months,

NOTE Confidence: 0.80675936

00:25:23.290 --> 00:25:25.985 there's been data on a new target

NOTE Confidence: 0.80675936

00:25:25.985 --> 00:25:27.689 against something called Kras.

NOTE Confidence: 0.80675936

00:25:27.690 --> 00:25:30.259 Now Kras, which is an oncogene,

NOTE Confidence: 0.80675936

00:25:30.260 --> 00:25:32.829 actually first came from a rat model.

00:25:33.955 --> 00:25:35.830 Kras actually is about

NOTE Confidence: 0.80675936

00:25:35.830 --> 00:25:37.980 12 to 20% of lung tumors.

NOTE Confidence: 0.80675936

00:25:37.980 --> 00:25:40.200 The actual variant of this that

NOTE Confidence: 0.80675936

00:25:40.200 --> 00:25:42.391 now has multiple drugs that are

NOTE Confidence: 0.80675936

00:25:42.391 --> 00:25:44.939 out there is what we call G12C.

NOTE Confidence: 0.80675936

00:25:44.940 --> 00:25:46.956 Probably doesn't mean much to a

NOTE Confidence: 0.80675936

00:25:46.956 --> 00:25:49.350 lot of those who are listening,

NOTE Confidence: 0.80675936

00:25:49.350 --> 00:25:51.546 but it's a specific abnormality that

NOTE Confidence: 0.80675936

00:25:51.546 --> 00:25:54.062 occurs in 12% of lung cancer patients.

NOTE Confidence: 0.80675936

00:25:54.062 --> 00:25:55.827 That's a lot of patients.

NOTE Confidence: 0.80675936

00:25:55.830 --> 00:25:56.120 Remember,

NOTE Confidence: 0.80675936

00:25:56.120 --> 00:25:58.150 I told you it's 1.6, 1.7

NOTE Confidence: 0.80675936

00:25:58.150 --> 00:26:00.236 worldwide and there are actually agents now,

NOTE Confidence: 0.80675936

00:26:00.240 --> 00:26:01.062 not approved yet,

NOTE Confidence: 0.80675936

00:26:01.062 --> 00:26:02.706 but that are in clinical trials

NOTE Confidence: 0.80675936

00:26:02.706 --> 00:26:03.968 showing positive results that

NOTE Confidence: 0.80675936

00:26:03.968 --> 00:26:05.528 can make those tumors shrink.

NOTE Confidence: 0.80675936

00:26:05.530 --> 00:26:07.588 So before I pull off some chemotherapy,

NOTE Confidence: 0.80675936

00:26:07.590 --> 00:26:09.406 which by the way we will do and

NOTE Confidence: 0.80675936

00:26:09.406 --> 00:26:11.508 we do need to use and sometimes we

NOTE Confidence: 0.80675936

00:26:11.508 --> 00:26:14.222 even use it as we're waiting for a

NOTE Confidence: 0.80675936

00:26:14.222 --> 00:26:15.818 clinical trial to become available.

NOTE Confidence: 0.80675936

00:26:15.820 --> 00:26:17.506 We are beginning to study and

NOTE Confidence: 0.80675936

00:26:17.506 --> 00:26:19.060 use these Kras drugs,

NOTE Confidence: 0.80675936

00:26:19.060 --> 00:26:20.530 and I think that's going

NOTE Confidence: 0.80675936

00:26:20.530 --> 00:26:22.000 to be the next paradigm.

NOTE Confidence: 0.80675936

00:26:22.000 --> 00:26:23.500 So we've gone from chemotherapy

NOTE Confidence: 0.80675936

00:26:23.500 --> 00:26:24.400 to targeted therapy,

NOTE Confidence: 0.80675936

00:26:24.400 --> 00:26:26.158 to immunotherapy, and now Kras

NOTE Confidence: 0.80675936

00:26:26.160 --> 00:26:27.372 which is another target.

NOTE Confidence: 0.80675936

00:26:27.372 --> 00:26:29.190 But it's a broad target

NOTE Confidence: 0.80675936

00:26:29.250 --> 00:26:30.278 and it always was

NOTE Confidence: 0.80675936

00:26:30.280 --> 00:26:31.750 the Holy Grail,

NOTE Confidence: 0.80675936

00:26:31.750 --> 00:26:33.586 there's been so many

NOTE Confidence: 0.80675936

00:26:33.586 --> 00:26:35.869 approaches and ways to try to target it.

NOTE Confidence: 0.80675936

00:26:35.870 --> 00:26:37.814 It's a very difficult target for

NOTE Confidence: 0.80675936

00:26:37.814 --> 00:26:40.169 a cancer because I don't want

NOTE Confidence: 0.80675936

00:26:40.169 --> 00:26:42.040 to get into too much detail here,

NOTE Confidence: 0.80675936

00:26:42.040 --> 00:26:44.424 but just to say that the pocket that

NOTE Confidence: 0.80675936

00:26:44.424 --> 00:26:47.130 we have to block with a drug is so

NOTE Confidence: 0.80675936

00:26:47.130 --> 00:26:49.468 narrow that it's very hard to get a

NOTE Confidence: 0.80675936

00:26:49.468 --> 00:26:51.742 drug in there to block that.

NOTE Confidence: 0.80675936

00:26:51.742 --> 00:26:53.212 But scientists and chemists have

NOTE Confidence: 0.80675936

00:26:53.212 --> 00:26:54.828 figured that out. Another example of

NOTE Confidence: 0.80675936

00:26:54.830 --> 00:26:55.898 science drives innovation,

NOTE Confidence: 0.80675936

00:26:55.898 --> 00:26:58.390 science brings new agents to the clinic.

NOTE Confidence: 0.80675936

00:26:58.390 --> 00:27:00.490 Then we test them in the clinic

NOTE Confidence: 0.80675936

00:27:00.490 --> 00:27:02.550 and we test them using samples

NOTE Confidence: 0.80675936

00:27:02.550 --> 00:27:05.091 from patients and a series of

NOTE Confidence: 0.80675936

00:27:05.161 --> 00:27:07.501 very careful studies to bring new

NOTE Confidence: 0.80675936

00:27:07.501 --> 00:27:09.812 new things to standard of care.

NOTE Confidence: 0.80675936

00:27:09.812 --> 00:27:11.667 So amazing progress but

NOTE Confidence: 0.80675936

00:27:11.667 --> 00:27:12.990 more that needs to

NOTE Confidence: 0.856393

00:27:12.990 --> 00:27:15.293 happen. And this brings me

NOTE Confidence: 0.856393

00:27:15.293 --> 00:27:17.967 to the whole area of clinical trials.

NOTE Confidence: 0.856393

00:27:17.970 --> 00:27:20.220 For many patients historically

NOTE Confidence: 0.856393

00:27:20.220 --> 00:27:22.462 they always thought that clinical trials

NOTE Confidence: 0.856393

00:27:22.462 --> 00:27:25.182 were what you tried when there was nothing

NOTE Confidence: 0.856393

00:27:25.190 --> 00:27:27.913 else left when you had exhausted all

NOTE Confidence: 0.856393

00:27:27.913 --> 00:27:30.570 other options when the cancer was metastatic
NOTE Confidence: 0.856393

00:27:30.570 --> 00:27:33.634 and had spread all over the body,

NOTE Confidence: 0.856393

00:27:33.640 --> 00:27:35.555 but you're really talking about

NOTE Confidence: 0.856393

00:27:35.555 --> 00:27:37.858 clinical trials as being

00:27:40.482 --> 00:27:42.588 state of the art medicine and

NOTE Confidence: 0.856393

00:27:42.588 --> 00:27:44.768 that might actually be helpful,

NOTE Confidence: 0.856393

00:27:44.770 --> 00:27:46.978 particularly in patients who are so

NOTE Confidence: 0.856393

00:27:46.978 --> 00:27:49.307 fortunate as to have detected their

NOTE Confidence: 0.856393

00:27:49.307 --> 00:27:52.065 cancer early when it's not metastatic.

NOTE Confidence: 0.856393

00:27:52.070 --> 00:27:55.526 Can you talk a little bit more about that?

NOTE Confidence: 0.874614

00:27:58.880 --> 00:28:02.750 Clinical trials really are

NOTE Confidence: 0.874614

00:28:02.750 --> 00:28:05.742 the best way and in many cases

NOTE Confidence: 0.874614

00:28:05.742 --> 00:28:08.090 to you know, treating cancer,

NOTE Confidence: 0.874614

00:28:08.090 --> 00:28:10.715 especially when you're dealing with

NOTE Confidence: 0.874614

00:28:10.715 --> 00:28:13.814 a situation where you know it is

NOTE Confidence: 0.874614

00:28:13.814 --> 00:28:15.974 incurable and you're not able to

NOTE Confidence: 0.874614

00:28:15.980 --> 00:28:18.255 treat with the standard of care,

NOTE Confidence: 0.874614

00:28:18.260 --> 00:28:20.626 I still remember the example of the

NOTE Confidence: 0.874614

00:28:20.626 --> 00:28:23.130 patient, has to be about 8 years ago,

NOTE Confidence: 0.874614

00:28:23.130 --> 00:28:25.730 we were studying a drug in clinical trial,

NOTE Confidence: 0.874614

00:28:25.730 --> 00:28:27.572 one of these immune checkpoint inhibitors

NOTE Confidence: 0.874614

00:28:27.572 --> 00:28:30.279 and he came in with advanced lung cancer.

NOTE Confidence: 0.874614

00:28:30.280 --> 00:28:32.996 He had already been to see several

NOTE Confidence: 0.874614

00:28:32.996 --> 00:28:34.511 other practitioners around

NOTE Confidence: 0.874614

00:28:34.511 --> 00:28:36.751 the state and we had one slot left

NOTE Confidence: 0.874614

00:28:36.751 --> 00:28:39.150 in this trial and you know we went

NOTE Confidence: 0.874614

00:28:39.150 --> 00:28:41.306 back and forth and he decided to

NOTE Confidence: 0.874614

00:28:41.306 --> 00:28:43.930 go on this study and he went on

NOTE Confidence: 0.874614

00:28:43.930 --> 00:28:46.246 this drug that is now approved and

NOTE Confidence: 0.874614

00:28:46.250 --> 00:28:47.153 did very well.

NOTE Confidence: 0.874614

00:28:47.153 --> 00:28:48.056 Eight years later,

NOTE Confidence: 0.874614

00:28:48.060 --> 00:28:49.866 I still get emails from him.

NOTE Confidence: 0.874614

00:28:49.870 --> 00:28:50.770 He's a photographer.

NOTE Confidence: 0.874614

00:28:50.770 --> 00:28:53.200 He sends me pictures from the wild.

NOTE Confidence: 0.874614

00:28:53.200 --> 00:28:55.006 This is where a clinical trial

NOTE Confidence: 0.874614

00:28:55.006 --> 00:28:56.520 can really pay off now,

NOTE Confidence: 0.874614

00:28:56.520 --> 00:28:58.030 because now many years before

NOTE Confidence: 0.874614

00:28:58.030 --> 00:28:59.238 approval of a drug,

NOTE Confidence: 0.874614

00:28:59.240 --> 00:29:01.291 someone took a chance on this trial

NOTE Confidence: 0.874614

00:29:01.291 --> 00:29:02.836 that the alternative would have

NOTE Confidence: 0.874614

00:29:02.836 --> 00:29:04.366 been standard of care therapy.

NOTE Confidence: 0.874614

00:29:04.370 --> 00:29:05.880 So we're not keeping anything

NOTE Confidence: 0.874614

00:29:05.880 --> 00:29:06.786 from this patient,

NOTE Confidence: 0.874614

00:29:06.790 --> 00:29:08.799 but bring that trial to bear

NOTE Confidence: 0.874614

00:29:08.799 --> 00:29:10.652 on that patient really helped him

NOTE Confidence: 0.874614

00:29:10.652 --> 00:29:12.822 and helped him live a quality life.

NOTE Confidence: 0.874614

00:29:12.830 --> 00:29:14.636 So that's what we hope for.

NOTE Confidence: 0.874614

00:29:14.640 --> 00:29:16.957 That's why clinical trials are so important.

NOTE Confidence: 0.874614

00:29:16.960 --> 00:29:19.208 And now I think, as you're alluding to,

NOTE Confidence: 0.874614

00:29:19.210 --> 00:29:20.550 we're using these clinical trials

NOTE Confidence: 0.874614

00:29:20.550 --> 00:29:22.300 in the earliest stages of disease,

NOTE Confidence: 0.874614

00:29:22.300 --> 00:29:23.986 so I know you're a surgeon,

NOTE Confidence: 0.874614

00:29:23.990 --> 00:29:26.221 so you cut out tumors,

NOTE Confidence: 0.874614

00:29:26.221 --> 00:29:28.760 but still there's a chance it will recur

NOTE Confidence: 0.874614

00:29:28.760 --> 00:29:30.446 even if you've gotten everything out.

NOTE Confidence: 0.874614

00:29:30.450 --> 00:29:33.306 So now what we're doing is we're taking

NOTE Confidence: 0.874614

00:29:33.306 --> 00:29:35.878 these best therapies in lung cancer,

NOTE Confidence: 0.874614

00:29:35.880 --> 00:29:37.610 the immunotherapy that targeted therapy

NOTE Confidence: 0.874614

00:29:37.610 --> 00:29:39.656 when using them after surgery even

NOTE Confidence: 0.874614

00:29:39.656 --> 00:29:41.455 when we see that there's no disease.

NOTE Confidence: 0.874614

00:29:41.460 --> 00:29:43.308 Knowing that these are high risk

NOTE Confidence: 0.874614

00:29:43.308 --> 00:29:44.870 of recurrence and those data,

NOTE Confidence: 0.874614

00:29:44.870 --> 00:29:47.714 some of them are already showing

NOTE Confidence: 0.874614

00:29:47.714 --> 00:29:49.136 positive results so

NOTE Confidence: 0.874614

00:29:49.140 --> 00:29:50.982 the field of research and clinical

NOTE Confidence: 0.874614

00:29:50.982 --> 00:29:53.054 care are one and the bottom line

NOTE Confidence: 0.874614

00:29:53.054 --> 00:29:54.867 is we want to give the best

NOTE Confidence: 0.874614

00:29:54.931 --> 00:29:56.677 care for patients at the best

NOTE Confidence: 0.84297264

00:29:56.680 --> 00:29:58.594 possible time.

NOTE Confidence: 0.84297264

00:29:58.594 --> 00:30:00.269 Dr. Roy Herbst is Ensign Professor of Medicine in Medical Oncology

NOTE Confidence: 0.84297264

00:30:00.270 --> 00:30:02.538 and professor of Pharmacology

NOTE Confidence: 0.84297264

00:30:02.538 --> 00:30:04.849 at the Yale School of Medicine.

NOTE Confidence: 0.84297264

00:30:04.850 --> 00:30:06.382 If you have questions,

NOTE Confidence: 0.84297264

00:30:06.382 --> 00:30:07.914 the address is canceranswers@yale.edu

NOTE Confidence: 0.84297264

00:30:07.914 --> 00:30:10.032 and past editions of the program

NOTE Confidence: 0.84297264

00:30:10.032 --> 00:30:11.964 are available in audio and written

NOTE Confidence: 0.84297264

00:30:12.027 --> 00:30:13.638 form at yalecancercenter.org.

NOTE Confidence: 0.84297264

00:30:13.640 --> 00:30:16.240 We hope you'll join us next week to

NOTE Confidence: 0.84297264

00:30:16.240 --> 00:30:18.782 learn more about the fight against

NOTE Confidence: 0.84297264

00:30:18.782 --> 00:30:21.500 cancer here on Connecticut Public Radio.