

WEBVTT

NOTE duration:"01:02:35.5300000"

NOTE recognizability:0.866

NOTE language:en-us

NOTE Confidence: 0.360826

00:00:00.000 --> 00:00:05.369 Like. Well, good afternoon everyone,

NOTE Confidence: 0.9759952333333333

00:00:05.370 --> 00:00:07.526 and thank you for joining us at

NOTE Confidence: 0.9759952333333333

00:00:07.526 --> 00:00:09.346 a Cancer Center grand rounds.

NOTE Confidence: 0.9759952333333333

00:00:09.350 --> 00:00:14.050 This is the annual Kingsbury Lecture ship.

NOTE Confidence: 0.9759952333333333

00:00:14.050 --> 00:00:16.170 In honor of breast cancer,

NOTE Confidence: 0.9759952333333333

00:00:16.170 --> 00:00:18.430 I have the profound privilege today

NOTE Confidence: 0.9759952333333333

00:00:18.430 --> 00:00:20.680 to introduce Doctor Lisa Newman.

NOTE Confidence: 0.9759952333333333

00:00:20.680 --> 00:00:23.010 She is a surgical oncologist and someone

NOTE Confidence: 0.9759952333333333

00:00:23.010 --> 00:00:27.310 that I have been in for much of my career.

NOTE Confidence: 0.9759952333333333

00:00:27.310 --> 00:00:30.124 She has a clinical and research practice

NOTE Confidence: 0.9759952333333333

00:00:30.124 --> 00:00:32.610 dedicated to breast cancer management.

NOTE Confidence: 0.9759952333333333

00:00:32.610 --> 00:00:34.682 Her formal title is chief of the

NOTE Confidence: 0.9759952333333333

00:00:34.682 --> 00:00:37.266 section of Breast Surgery at New York

NOTE Confidence: 0.9759952333333333

00:00:37.266 --> 00:00:39.306 Presbyterian Weill Cornell Medical Center,  
NOTE Confidence: 0.9759952333333333

00:00:39.310 --> 00:00:42.187 and she leads a multidisciplinary breast  
NOTE Confidence: 0.9759952333333333

00:00:42.187 --> 00:00:44.686 program at the David H Koch Center,  
NOTE Confidence: 0.9759952333333333

00:00:44.690 --> 00:00:47.430 also at New York Presbyterian.  
NOTE Confidence: 0.9759952333333333

00:00:47.430 --> 00:00:50.223 Doctor Newman is the new and founding  
NOTE Confidence: 0.9759952333333333

00:00:50.223 --> 00:00:52.834 medical director for the International Center  
NOTE Confidence: 0.9759952333333333

00:00:52.834 --> 00:00:55.963 for the Study of Breast Cancer Subtypes.  
NOTE Confidence: 0.9759952333333333

00:00:55.970 --> 00:00:57.805 And this was recently headquartered  
NOTE Confidence: 0.9759952333333333

00:00:57.805 --> 00:01:00.184 at Wild Cornell as part of  
NOTE Confidence: 0.9759952333333333

00:01:00.184 --> 00:01:01.630 Doctor Newman's recruitment,  
NOTE Confidence: 0.9759952333333333

00:01:01.630 --> 00:01:03.978 she obtained her undergraduate  
NOTE Confidence: 0.9759952333333333

00:01:03.978 --> 00:01:06.913 education at Harvard University and  
NOTE Confidence: 0.9759952333333333

00:01:06.913 --> 00:01:09.450 attended medical school completing  
NOTE Confidence: 0.9759952333333333

00:01:09.450 --> 00:01:11.743 and general surgery residency at  
NOTE Confidence: 0.9759952333333333

00:01:11.743 --> 00:01:14.598 the State University of New York  
NOTE Confidence: 0.9759952333333333

00:01:14.598 --> 00:01:16.583 Downtown Medical Center in Brooklyn.

NOTE Confidence: 0.9759952333333333

00:01:16.590 --> 00:01:18.828 She went on to pursue fellowship

NOTE Confidence: 0.9759952333333333

00:01:18.828 --> 00:01:21.031 training and surgical oncology at the

NOTE Confidence: 0.9759952333333333

00:01:21.031 --> 00:01:22.981 MD Anderson Cancer Center and joined

NOTE Confidence: 0.9759952333333333

00:01:22.981 --> 00:01:25.166 the faculty there as an assistant

NOTE Confidence: 0.9759952333333333

00:01:25.166 --> 00:01:27.368 professor before going back to Michigan.

NOTE Confidence: 0.9759952333333333

00:01:27.370 --> 00:01:29.855 Doctor Newman has really been a trailblazer

NOTE Confidence: 0.9759952333333333

00:01:29.855 --> 00:01:32.730 in both her research and clinical care.

NOTE Confidence: 0.9759952333333333

00:01:32.730 --> 00:01:35.052 This is focused on ethnicity related

NOTE Confidence: 0.9759952333333333

00:01:35.052 --> 00:01:37.377 variation of breast cancer risk and

NOTE Confidence: 0.9759952333333333

00:01:37.377 --> 00:01:39.513 outcome and the evaluation and management

NOTE Confidence: 0.9759952333333333

00:01:39.513 --> 00:01:42.029 of high risk patients including

NOTE Confidence: 0.9759952333333333

00:01:42.029 --> 00:01:44.345 applications for neoadjuvant chemotherapy.

NOTE Confidence: 0.9759952333333333

00:01:44.350 --> 00:01:47.096 She has a very robust research program

NOTE Confidence: 0.9759952333333333

00:01:47.096 --> 00:01:49.083 and disparities in breast cancer

NOTE Confidence: 0.9759952333333333

00:01:49.083 --> 00:01:51.195 risk and outcomes and has really

NOTE Confidence: 0.9759952333333333

00:01:51.195 --> 00:01:53.688 been lifted up as a national leader.  
NOTE Confidence: 0.9759952333333333

00:01:53.690 --> 00:01:56.970 In this space, I think on a personal note,  
NOTE Confidence: 0.9759952333333333

00:01:56.970 --> 00:02:00.194 she is known as a generous and kind  
NOTE Confidence: 0.9759952333333333

00:02:00.194 --> 00:02:02.928 and gifted mentor and clinician.  
NOTE Confidence: 0.9759952333333333

00:02:02.930 --> 00:02:05.065 And she shared a story with me  
NOTE Confidence: 0.9759952333333333

00:02:05.065 --> 00:02:06.840 earlier today about her willingness  
NOTE Confidence: 0.9759952333333333

00:02:06.840 --> 00:02:09.723 to give time in the ICU during COVID  
NOTE Confidence: 0.9759952333333333

00:02:09.723 --> 00:02:11.858 to call families to update them  
NOTE Confidence: 0.9759952333333333

00:02:11.858 --> 00:02:13.406 about their loved ones.  
NOTE Confidence: 0.9759952333333333

00:02:13.410 --> 00:02:15.198 And I think this anecdote is  
NOTE Confidence: 0.9759952333333333

00:02:15.198 --> 00:02:17.090 a testament to her character.  
NOTE Confidence: 0.9759952333333333

00:02:17.090 --> 00:02:19.298 So we are very excited to hear from  
NOTE Confidence: 0.9759952333333333

00:02:19.298 --> 00:02:21.148 Doctor Newman today about oncologic,  
NOTE Confidence: 0.9759952333333333

00:02:21.150 --> 00:02:23.690 anthropology, anthropology.  
NOTE Confidence: 0.9759952333333333

00:02:23.690 --> 00:02:24.798 Breast cancer disparities,  
NOTE Confidence: 0.9759952333333333

00:02:24.798 --> 00:02:26.630 triple negative breast cancer

NOTE Confidence: 0.975995233333333

00:02:26.630 --> 00:02:28.940 and African ancestry welcome.

NOTE Confidence: 0.8508865655

00:02:35.830 --> 00:02:38.593 So it's a huge, huge honor to be talking

NOTE Confidence: 0.8508865655

00:02:38.593 --> 00:02:42.115 to all of you at such an incredible

NOTE Confidence: 0.8508865655

00:02:42.115 --> 00:02:43.462 esteemed academic powerhouses,

NOTE Confidence: 0.8508865655

00:02:43.470 --> 00:02:44.994 the Yale Cancer Center.

NOTE Confidence: 0.8508865655

00:02:44.994 --> 00:02:48.212 And I first have to express my very

NOTE Confidence: 0.8508865655

00:02:48.212 --> 00:02:50.249 deep appreciation to Eric, who,

NOTE Confidence: 0.8508865655

00:02:50.249 --> 00:02:52.283 because you have such an incredible

NOTE Confidence: 0.8508865655

00:02:52.283 --> 00:02:54.230 leader of your Cancer Center,

NOTE Confidence: 0.8508865655

00:02:54.230 --> 00:02:56.379 somebody who is a force of nature

NOTE Confidence: 0.8508865655

00:02:56.379 --> 00:02:59.229 in and of himself and has been a

NOTE Confidence: 0.8508865655

00:02:59.229 --> 00:03:01.546 leader in the breast oncology world

NOTE Confidence: 0.8508865655

00:03:01.546 --> 00:03:04.241 for so many reasons and across so

NOTE Confidence: 0.8508865655

00:03:04.241 --> 00:03:06.346 many different types of research.

NOTE Confidence: 0.8508865655

00:03:06.346 --> 00:03:08.998 But because of his deep dedication

NOTE Confidence: 0.8508865655

00:03:08.998 --> 00:03:11.649 to HealthEquity and disparity,  
NOTE Confidence: 0.8508865655

00:03:11.650 --> 00:03:14.449 simply because of who he is and his nature,  
NOTE Confidence: 0.8508865655

00:03:14.450 --> 00:03:17.362 it's been a large part to accredit  
NOTE Confidence: 0.8508865655

00:03:17.362 --> 00:03:18.610 to him that.  
NOTE Confidence: 0.8508865655

00:03:18.610 --> 00:03:20.425 Disparities research is a field  
NOTE Confidence: 0.8508865655

00:03:20.425 --> 00:03:22.830 of study in and of itself.  
NOTE Confidence: 0.8508865655

00:03:22.830 --> 00:03:25.546 And so young minds like Rachel and  
NOTE Confidence: 0.8508865655

00:03:25.546 --> 00:03:28.429 Elios have been able to do wonderful,  
NOTE Confidence: 0.8508865655

00:03:28.430 --> 00:03:30.978 very, very exciting work in this area  
NOTE Confidence: 0.8508865655

00:03:30.978 --> 00:03:33.687 because it was made possible by Eric.  
NOTE Confidence: 0.8508865655

00:03:33.690 --> 00:03:35.580 I really appreciate how you've stood  
NOTE Confidence: 0.8508865655

00:03:35.580 --> 00:03:38.389 by all of us overtime and made this,  
NOTE Confidence: 0.8508865655

00:03:38.390 --> 00:03:41.126 this, this field of research possible.  
NOTE Confidence: 0.8508865655

00:03:41.130 --> 00:03:43.911 So I am over the next few minutes going  
NOTE Confidence: 0.8508865655

00:03:43.911 --> 00:03:46.773 to talk to you about my work and what  
NOTE Confidence: 0.8508865655

00:03:46.773 --> 00:03:49.608 my team calls oncologic anthropology.

NOTE Confidence: 0.8508865655

00:03:49.610 --> 00:03:52.118 Which is basically the intersection of

NOTE Confidence: 0.8508865655

00:03:52.118 --> 00:03:54.649 research trying to understand how African

NOTE Confidence: 0.8508865655

00:03:54.649 --> 00:03:57.013 ancestry in and of itself predisposes

NOTE Confidence: 0.8508865655

00:03:57.013 --> 00:03:59.220 individuals to some of the high risk,

NOTE Confidence: 0.8508865655

00:03:59.220 --> 00:04:01.828 biologically more aggressive cancers

NOTE Confidence: 0.8508865655

00:04:01.828 --> 00:04:05.740 such as triple negative breast cancer.

NOTE Confidence: 0.8508865655

00:04:05.740 --> 00:04:06.181 Now,

NOTE Confidence: 0.8508865655

00:04:06.181 --> 00:04:08.386 the World Health Organization defines

NOTE Confidence: 0.8508865655

00:04:08.386 --> 00:04:10.879 social determinants of health as the

NOTE Confidence: 0.8508865655

00:04:10.879 --> 00:04:12.853 conditions in which people are born,

NOTE Confidence: 0.8508865655

00:04:12.860 --> 00:04:14.128 grow, live, work, age,

NOTE Confidence: 0.8508865655

00:04:14.128 --> 00:04:16.521 and a broader set of forces that

NOTE Confidence: 0.8508865655

00:04:16.521 --> 00:04:18.197 shape daily life conditions.

NOTE Confidence: 0.8508865655

00:04:18.200 --> 00:04:20.972 And nobody would dispute the fact

NOTE Confidence: 0.8508865655

00:04:20.972 --> 00:04:24.123 that poverty is clearly going to be

NOTE Confidence: 0.8508865655

00:04:24.123 --> 00:04:26.553 a determinant of a poorer health,  
NOTE Confidence: 0.8508865655

00:04:26.560 --> 00:04:28.595 since the unequal dispute distribution  
NOTE Confidence: 0.8508865655

00:04:28.595 --> 00:04:31.143 of wealth in this country leaves  
NOTE Confidence: 0.8508865655

00:04:31.143 --> 00:04:32.478 communities of color,  
NOTE Confidence: 0.8508865655

00:04:32.480 --> 00:04:34.080 such as African Americans and  
NOTE Confidence: 0.8508865655

00:04:34.080 --> 00:04:35.360 the Hispanic Latin next.  
NOTE Confidence: 0.8508865655

00:04:35.360 --> 00:04:39.007 Community with the higher rates of poverty,  
NOTE Confidence: 0.8508865655

00:04:39.010 --> 00:04:41.224 it's not surprising that to these  
NOTE Confidence: 0.8508865655

00:04:41.224 --> 00:04:44.759 issues will go hand in hand with other  
NOTE Confidence: 0.8508865655

00:04:44.759 --> 00:04:46.743 metrics of socioeconomic disadvantage,  
NOTE Confidence: 0.8508865655

00:04:46.750 --> 00:04:50.446 such as being uninsured and being unemployed.  
NOTE Confidence: 0.8508865655

00:04:50.450 --> 00:04:53.545 And then these socioeconomic disadvantages  
NOTE Confidence: 0.8508865655

00:04:53.545 --> 00:04:57.350 have a downstream effect on health.  
NOTE Confidence: 0.8508865655

00:04:57.350 --> 00:04:58.910 And so communities of color,  
NOTE Confidence: 0.8508865655

00:04:58.910 --> 00:05:01.262 such as African Americans and the  
NOTE Confidence: 0.8508865655

00:05:01.262 --> 00:05:03.330 Latinx community also have higher



NOTE Confidence: 0.8508865655

00:05:03.330 --> 00:05:05.904 prevalence of metrics of poorer health,

NOTE Confidence: 0.8508865655

00:05:05.910 --> 00:05:08.274 including being obese and

NOTE Confidence: 0.8508865655

00:05:08.274 --> 00:05:10.047 poorly controlled hypertension.

NOTE Confidence: 0.8508865655

00:05:10.050 --> 00:05:12.024 And then most recently we saw how

NOTE Confidence: 0.8508865655

00:05:12.024 --> 00:05:14.293 this played out in terms of the

NOTE Confidence: 0.8508865655

00:05:14.293 --> 00:05:15.649 consequences of COVID severity.

NOTE Confidence: 0.92901948

00:05:18.040 --> 00:05:21.490 However, the very unique history of

NOTE Confidence: 0.92901948

00:05:21.490 --> 00:05:24.239 individuals with African ancestry in

NOTE Confidence: 0.92901948

00:05:24.239 --> 00:05:27.103 this country has led to a very stark

NOTE Confidence: 0.92901948

00:05:27.103 --> 00:05:29.952 and quite large magnitude disparity

NOTE Confidence: 0.92901948

00:05:29.952 --> 00:05:32.952 in health outcomes for African

NOTE Confidence: 0.92901948

00:05:32.952 --> 00:05:35.100 Americans compared to white Americans.

NOTE Confidence: 0.92901948

00:05:35.100 --> 00:05:37.256 And of course, this dates back

NOTE Confidence: 0.92901948

00:05:37.256 --> 00:05:38.916 to the era of slavery,

NOTE Confidence: 0.92901948

00:05:38.920 --> 00:05:42.700 when African ancestry individuals had

NOTE Confidence: 0.92901948

00:05:42.700 --> 00:05:45.082 no autonomy over their own healthcare

NOTE Confidence: 0.92901948

00:05:45.082 --> 00:05:47.739 or their healthcare of their families.

NOTE Confidence: 0.92901948

00:05:47.740 --> 00:05:49.490 But even though slavery was

NOTE Confidence: 0.92901948

00:05:49.490 --> 00:05:51.623 abolished more than 150 years ago,

NOTE Confidence: 0.92901948

00:05:51.623 --> 00:05:53.428 the consequence is the legacy

NOTE Confidence: 0.92901948

00:05:53.428 --> 00:05:55.239 of it stays with us.

NOTE Confidence: 0.92901948

00:05:55.240 --> 00:05:57.424 Over several decades that

NOTE Confidence: 0.92901948

00:05:57.424 --> 00:06:00.154 followed the abolition of slavery,

NOTE Confidence: 0.92901948

00:06:00.160 --> 00:06:01.326 discriminatory banking

NOTE Confidence: 0.92901948

00:06:01.326 --> 00:06:03.658 practices such as redlining,

NOTE Confidence: 0.92901948

00:06:03.660 --> 00:06:05.676 permitted the banking industry.

NOTE Confidence: 0.92901948

00:06:05.676 --> 00:06:08.196 To essentially leave many generations

NOTE Confidence: 0.92901948

00:06:08.196 --> 00:06:11.255 of African American families trapped in

NOTE Confidence: 0.92901948

00:06:11.255 --> 00:06:14.195 neighborhoods where they could not own

NOTE Confidence: 0.92901948

00:06:14.195 --> 00:06:16.890 their own businesses or their own homes.

NOTE Confidence: 0.92901948

00:06:16.890 --> 00:06:19.610 And this led to them living over many

NOTE Confidence: 0.92901948

00:06:19.610 --> 00:06:21.534 generations and communities featuring

NOTE Confidence: 0.92901948

00:06:21.534 --> 00:06:23.886 more impoverished school systems,

NOTE Confidence: 0.92901948

00:06:23.890 --> 00:06:26.767 which ends up leaving them with fewer

NOTE Confidence: 0.92901948

00:06:26.767 --> 00:06:28.690 professional and educational prospects.

NOTE Confidence: 0.92901948

00:06:28.690 --> 00:06:31.936 And today we see these communities.

NOTE Confidence: 0.92901948

00:06:31.940 --> 00:06:34.070 Continuing to be characterized by

NOTE Confidence: 0.92901948

00:06:34.070 --> 00:06:36.200 other features that affect health,

NOTE Confidence: 0.92901948

00:06:36.200 --> 00:06:39.440 such as food deserts.

NOTE Confidence: 0.92901948

00:06:39.440 --> 00:06:42.680 Less available healthcare resources.

NOTE Confidence: 0.849424319583333

00:06:45.330 --> 00:06:47.840 And the mere accumulative experiences

NOTE Confidence: 0.849424319583333

00:06:47.840 --> 00:06:50.760 over a lifetime of discrimination and

NOTE Confidence: 0.849424319583333

00:06:50.760 --> 00:06:53.084 racism is now being studied in the

NOTE Confidence: 0.849424319583333

00:06:53.084 --> 00:06:55.950 field of research called Allostatic Rd.

NOTE Confidence: 0.849424319583333

00:06:55.950 --> 00:06:57.984 where we are learning that these

NOTE Confidence: 0.849424319583333

00:06:57.984 --> 00:06:59.729 types of experiences not only

NOTE Confidence: 0.849424319583333

00:06:59.729 --> 00:07:01.667 have an adverse impact on health,  
NOTE Confidence: 0.849424319583333

00:07:01.670 --> 00:07:03.968 but they also seem to impact  
NOTE Confidence: 0.849424319583333

00:07:03.968 --> 00:07:05.500 on inherent cancer burden.  
NOTE Confidence: 0.940095541

00:07:07.850 --> 00:07:09.974 When you look at the specific  
NOTE Confidence: 0.940095541

00:07:09.974 --> 00:07:11.390 problem of breast cancer,  
NOTE Confidence: 0.940095541

00:07:11.390 --> 00:07:13.430 it's not surprising that these  
NOTE Confidence: 0.940095541

00:07:13.430 --> 00:07:15.062 socioeconomic disadvantages that are  
NOTE Confidence: 0.940095541

00:07:15.062 --> 00:07:17.333 so highly prevalent in the African  
NOTE Confidence: 0.940095541

00:07:17.333 --> 00:07:19.538 American community is going to have  
NOTE Confidence: 0.940095541

00:07:19.538 --> 00:07:21.904 an impact on the higher breast cancer  
NOTE Confidence: 0.940095541

00:07:21.904 --> 00:07:24.335 mortality rates that we see in African  
NOTE Confidence: 0.940095541

00:07:24.335 --> 00:07:26.561 Americans played out because of the  
NOTE Confidence: 0.940095541

00:07:26.561 --> 00:07:28.149 advanced stage distribution that  
NOTE Confidence: 0.940095541

00:07:28.149 --> 00:07:30.973 we see for breast cancer related to  
NOTE Confidence: 0.940095541

00:07:30.973 --> 00:07:33.277 impaired access to a breast cancer  
NOTE Confidence: 0.940095541

00:07:33.277 --> 00:07:37.040 diagnosis and proper treatment.

NOTE Confidence: 0.940095541

00:07:37.040 --> 00:07:40.946 So this very close correlation between

NOTE Confidence: 0.940095541

00:07:40.946 --> 00:07:43.550 socioeconomic disadvantage and African

NOTE Confidence: 0.940095541

00:07:43.639 --> 00:07:46.554 American identity leads many people

NOTE Confidence: 0.940095541

00:07:46.554 --> 00:07:49.469 to question whether racial ethnic

NOTE Confidence: 0.940095541

00:07:49.562 --> 00:07:53.195 identity has any biologic relevance at all,

NOTE Confidence: 0.940095541

00:07:53.200 --> 00:07:57.310 or is it purely and simply

NOTE Confidence: 0.940095541

00:07:57.310 --> 00:07:59.365 a sociopolitical construct?

NOTE Confidence: 0.940095541

00:07:59.370 --> 00:08:02.681 Well, the answer of course is that

NOTE Confidence: 0.940095541

00:08:02.681 --> 00:08:05.087 both defining components of racial

NOTE Confidence: 0.940095541

00:08:05.087 --> 00:08:07.332 identity are present and they

NOTE Confidence: 0.940095541

00:08:07.332 --> 00:08:09.570 are not mutually exclusive.

NOTE Confidence: 0.940095541

00:08:09.570 --> 00:08:11.873 How we self identify as well as

NOTE Confidence: 0.940095541

00:08:11.873 --> 00:08:13.946 how society labels us will very

NOTE Confidence: 0.940095541

00:08:13.946 --> 00:08:15.968 definitely impact on how we live,

NOTE Confidence: 0.940095541

00:08:15.970 --> 00:08:17.394 on where we live,

NOTE Confidence: 0.940095541

00:08:17.394 --> 00:08:19.530 and on how we access healthcare.

NOTE Confidence: 0.940095541

00:08:19.530 --> 00:08:19.982 However,

NOTE Confidence: 0.940095541

00:08:19.982 --> 00:08:22.694 there are also features of racial

NOTE Confidence: 0.940095541

00:08:22.694 --> 00:08:25.103 identity that are very closely

NOTE Confidence: 0.940095541

00:08:25.103 --> 00:08:27.548 linked to our ancestral heritage

NOTE Confidence: 0.940095541

00:08:27.548 --> 00:08:29.700 and these ancestral genetic.

NOTE Confidence: 0.940095541

00:08:29.700 --> 00:08:33.445 Factors will also have an impact on

NOTE Confidence: 0.940095541

00:08:33.445 --> 00:08:36.010 health metrics and on cancer burden.

NOTE Confidence: 0.90780939

00:08:38.210 --> 00:08:39.818 And we've actually known for many

NOTE Confidence: 0.90780939

00:08:39.818 --> 00:08:41.439 decades now that when it comes

NOTE Confidence: 0.90780939

00:08:41.439 --> 00:08:42.933 to a diagnosis of breast cancer,

NOTE Confidence: 0.90780939

00:08:42.940 --> 00:08:45.394 there are indeed other factors aside

NOTE Confidence: 0.90780939

00:08:45.394 --> 00:08:47.487 from socioeconomics that are impacting

NOTE Confidence: 0.90780939

00:08:47.487 --> 00:08:50.189 on the outcome disparities that we see.

NOTE Confidence: 0.90780939

00:08:50.190 --> 00:08:52.014 This slide is now nearly 20 years old

NOTE Confidence: 0.90780939

00:08:52.014 --> 00:08:54.157 and comes from a study that I and some

NOTE Confidence: 0.90780939

00:08:54.157 --> 00:08:55.786 colleagues from the Harvard School of

NOTE Confidence: 0.90780939

00:08:55.786 --> 00:08:57.538 Public Health it conducted where we

NOTE Confidence: 0.90780939

00:08:57.538 --> 00:08:59.774 simply pulled together all of the data

NOTE Confidence: 0.90780939

00:08:59.774 --> 00:09:01.482 in the published literature looking

NOTE Confidence: 0.90780939

00:09:01.482 --> 00:09:03.594 at breast cancer survival rates for

NOTE Confidence: 0.90780939

00:09:03.594 --> 00:09:05.530 black women compared to white women.

NOTE Confidence: 0.90780939

00:09:05.530 --> 00:09:07.346 After accounting for some

NOTE Confidence: 0.90780939

00:09:07.346 --> 00:09:08.708 measure of socioeconomic,

NOTE Confidence: 0.90780939

00:09:08.710 --> 00:09:10.636 and as you see here from the forest plot,

NOTE Confidence: 0.90780939

00:09:10.640 --> 00:09:12.965 the African American breast cancer

NOTE Confidence: 0.90780939

00:09:12.965 --> 00:09:15.290 patients have a statistically significant

NOTE Confidence: 0.90780939

00:09:15.357 --> 00:09:17.434 nearly 30% higher mortality hazard.

NOTE Confidence: 0.90780939

00:09:17.434 --> 00:09:20.974 And again, this is after accounting

NOTE Confidence: 0.90780939

00:09:20.974 --> 00:09:22.897 for socioeconomic status.

NOTE Confidence: 0.90780939

00:09:22.900 --> 00:09:23.253 Furthermore,

NOTE Confidence: 0.90780939

00:09:23.253 --> 00:09:25.371 there are several features of the  
NOTE Confidence: 0.90780939

00:09:25.371 --> 00:09:27.486 breast cancer burden in the African  
NOTE Confidence: 0.90780939

00:09:27.486 --> 00:09:29.146 American community that can't easily  
NOTE Confidence: 0.90780939

00:09:29.146 --> 00:09:30.820 be ascribed to socioeconomics.  
NOTE Confidence: 0.90780939

00:09:30.820 --> 00:09:31.514 For example,  
NOTE Confidence: 0.90780939

00:09:31.514 --> 00:09:33.249 the younger age distribution and  
NOTE Confidence: 0.90780939

00:09:33.249 --> 00:09:35.159 depending on which study you read,  
NOTE Confidence: 0.90780939

00:09:35.160 --> 00:09:37.092 up to 40% of African American  
NOTE Confidence: 0.90780939

00:09:37.092 --> 00:09:38.751 breast cancer patients are diagnosed  
NOTE Confidence: 0.90780939

00:09:38.751 --> 00:09:40.575 younger than the age of 50,  
NOTE Confidence: 0.90780939

00:09:40.580 --> 00:09:43.100 compared to only about 1/5 of white  
NOTE Confidence: 0.90780939

00:09:43.100 --> 00:09:45.126 American breast cancer patients being  
NOTE Confidence: 0.90780939

00:09:45.126 --> 00:09:47.778 diagnosed in this premenopausal age range.  
NOTE Confidence: 0.90780939

00:09:47.780 --> 00:09:48.566 African Americans,  
NOTE Confidence: 0.90780939

00:09:48.566 --> 00:09:51.317 as we will be discussing in this  
NOTE Confidence: 0.90780939

00:09:51.317 --> 00:09:51.710 presentation.



NOTE Confidence: 0.90780939

00:09:51.710 --> 00:09:54.398 We also have a higher risk of the

NOTE Confidence: 0.90780939

00:09:54.398 --> 00:09:55.901 biologically aggressive patterns of

NOTE Confidence: 0.90780939

00:09:55.901 --> 00:09:57.930 breast tumors, the high grade tumors,

NOTE Confidence: 0.90780939

00:09:57.930 --> 00:09:59.190 the hormone receptor negative

NOTE Confidence: 0.90780939

00:09:59.190 --> 00:10:01.089 and the triple negative tumors.

NOTE Confidence: 0.90780939

00:10:01.090 --> 00:10:03.136 We have a higher population based

NOTE Confidence: 0.90780939

00:10:03.136 --> 00:10:04.997 incidence of a primary inflammatory

NOTE Confidence: 0.90780939

00:10:04.997 --> 00:10:07.132 breast cancer and there's also

NOTE Confidence: 0.90780939

00:10:07.132 --> 00:10:09.283 the very poorly understood higher

NOTE Confidence: 0.90780939

00:10:09.283 --> 00:10:11.173 population based incidence of male

NOTE Confidence: 0.90780939

00:10:11.173 --> 00:10:13.874 breast cancer in the African Community,

NOTE Confidence: 0.90780939

00:10:13.874 --> 00:10:15.650 African American community.

NOTE Confidence: 0.90780939

00:10:15.650 --> 00:10:17.386 And so we definitely,

NOTE Confidence: 0.90780939

00:10:17.386 --> 00:10:19.556 definitely need to be exploring

NOTE Confidence: 0.90780939

00:10:19.556 --> 00:10:21.610 tumor biology and genetics.

NOTE Confidence: 0.90780939

00:10:21.610 --> 00:10:24.795 If we're going to try to comprehensively

NOTE Confidence: 0.90780939

00:10:24.795 --> 00:10:26.160 understand disparities and

NOTE Confidence: 0.90780939

00:10:26.234 --> 00:10:27.728 breast cancer outcome.

NOTE Confidence: 0.90780939

00:10:27.730 --> 00:10:28.104 Now,

NOTE Confidence: 0.90780939

00:10:28.104 --> 00:10:30.348 you might assume that looking at

NOTE Confidence: 0.90780939

00:10:30.348 --> 00:10:33.090 clinical trials data would be the near

NOTE Confidence: 0.90780939

00:10:33.090 --> 00:10:35.025 perfect way of disentangling racial,

NOTE Confidence: 0.90780939

00:10:35.030 --> 00:10:35.655 ethnic,

NOTE Confidence: 0.90780939

00:10:35.655 --> 00:10:37.530 identity and socioeconomics

NOTE Confidence: 0.90780939

00:10:37.530 --> 00:10:39.405 from cancer outcomes.

NOTE Confidence: 0.90780939

00:10:39.410 --> 00:10:41.750 And this was the background,

NOTE Confidence: 0.90780939

00:10:41.750 --> 00:10:43.495 the motivation for a really

NOTE Confidence: 0.90780939

00:10:43.495 --> 00:10:45.240 important study that was conducted

NOTE Confidence: 0.90780939

00:10:45.304 --> 00:10:47.296 several years ago by Kathy Albain

NOTE Confidence: 0.90780939

00:10:47.296 --> 00:10:49.056 and colleagues looking at data

NOTE Confidence: 0.90780939

00:10:49.056 --> 00:10:50.886 from the Southwest Oncology group.

NOTE Confidence: 0.90780939

00:10:50.890 --> 00:10:52.358 And in this study,

NOTE Confidence: 0.90780939

00:10:52.358 --> 00:10:55.038 they pulled together the outcomes for a

NOTE Confidence: 0.90780939

00:10:55.038 --> 00:10:57.456 whole variety of adjuvant therapy trials.

NOTE Confidence: 0.90780939

00:10:57.460 --> 00:10:59.170 For different types of cancers

NOTE Confidence: 0.90780939

00:10:59.170 --> 00:11:01.718 and they wanted to see if equal

NOTE Confidence: 0.90780939

00:11:01.718 --> 00:11:04.040 outcomes were achieved in the context

NOTE Confidence: 0.90780939

00:11:04.040 --> 00:11:06.161 of delivering equal care through

NOTE Confidence: 0.90780939

00:11:06.161 --> 00:11:08.296 participation in a clinical trial.

NOTE Confidence: 0.90780939

00:11:08.300 --> 00:11:09.002 Now happily,

NOTE Confidence: 0.90780939

00:11:09.002 --> 00:11:11.459 they did show that for the cancers

NOTE Confidence: 0.90780939

00:11:11.459 --> 00:11:12.899 that they looked at,

NOTE Confidence: 0.90780939

00:11:12.900 --> 00:11:15.310 outcomes did equalize given equal

NOTE Confidence: 0.90780939

00:11:15.310 --> 00:11:17.238 treatments regardless of racial,

NOTE Confidence: 0.90780939

00:11:17.240 --> 00:11:18.128 ethnic identity,

NOTE Confidence: 0.90780939

00:11:18.128 --> 00:11:21.236 except when it came to specific cancers.

NOTE Confidence: 0.90780939

00:11:21.240 --> 00:11:23.184 And for the hormonally driven cancers  
NOTE Confidence: 0.90780939

00:11:23.184 --> 00:11:25.638 such as breast cancer and prostate cancer,  
NOTE Confidence: 0.90780939

00:11:25.640 --> 00:11:28.180 the African-American clinical trial.  
NOTE Confidence: 0.90780939

00:11:28.180 --> 00:11:30.720 Participants continue to have  
NOTE Confidence: 0.90780939

00:11:30.720 --> 00:11:33.100 statistically significant worse outcomes.  
NOTE Confidence: 0.90780939

00:11:33.100 --> 00:11:34.906 So many of us that have dedicated  
NOTE Confidence: 0.90780939

00:11:34.906 --> 00:11:36.869 our careers to disparities research,  
NOTE Confidence: 0.90780939

00:11:36.870 --> 00:11:38.970 we're really excited about Kathy study  
NOTE Confidence: 0.90780939

00:11:38.970 --> 00:11:41.272 because we felt that it was going  
NOTE Confidence: 0.90780939

00:11:41.272 --> 00:11:43.225 to usher in a whole new generation  
NOTE Confidence: 0.90780939

00:11:43.288 --> 00:11:45.218 of young people interested in  
NOTE Confidence: 0.90780939

00:11:45.218 --> 00:11:47.148 studying tumor biology and genetics  
NOTE Confidence: 0.90780939

00:11:47.150 --> 00:11:49.890 and looking at cancer outcomes.  
NOTE Confidence: 0.86922849375

00:11:49.890 --> 00:11:52.914 We were there for a little dismayed  
NOTE Confidence: 0.86922849375

00:11:52.914 --> 00:11:54.391 at thefactthatime.com reviewed her  
NOTE Confidence: 0.86922849375

00:11:54.391 --> 00:11:56.820 study and called it an example of

NOTE Confidence: 0.86922849375  
00:11:56.880 --> 00:11:58.830 racial profiling in medical research.  
NOTE Confidence: 0.86922849375  
00:11:58.830 --> 00:12:01.179 So this we were happy that her study was  
NOTE Confidence: 0.86922849375  
00:12:01.179 --> 00:12:03.202 getting a lot of publicity, of course.  
NOTE Confidence: 0.86922849375  
00:12:03.202 --> 00:12:05.554 But this title was a little dismaying,  
NOTE Confidence: 0.86922849375  
00:12:05.560 --> 00:12:07.468 because of course, racial profiling has  
NOTE Confidence: 0.86922849375  
00:12:07.468 --> 00:12:10.129 a lot of very negative connotations,  
NOTE Confidence: 0.86922849375  
00:12:10.130 --> 00:12:11.246 and appropriately so.  
NOTE Confidence: 0.86922849375  
00:12:11.246 --> 00:12:13.850 When it comes to racial profiling and,  
NOTE Confidence: 0.86922849375  
00:12:13.850 --> 00:12:16.250 for example, the criminal justice system,  
NOTE Confidence: 0.86922849375  
00:12:16.250 --> 00:12:19.547 but when it comes to cancer biology  
NOTE Confidence: 0.86922849375  
00:12:19.547 --> 00:12:21.820 and studying cancer outcomes,  
NOTE Confidence: 0.86922849375  
00:12:21.820 --> 00:12:23.330 racial profiling, if you will,  
NOTE Confidence: 0.86922849375  
00:12:23.330 --> 00:12:25.850 is really just an example of epidemiology.  
NOTE Confidence: 0.86922849375  
00:12:25.850 --> 00:12:27.734 And we absolutely have an obligation  
NOTE Confidence: 0.86922849375  
00:12:27.734 --> 00:12:29.864 to study all of the characteristics  
NOTE Confidence: 0.86922849375

00:12:29.864 --> 00:12:32.699 of our patients when we're trying to  
NOTE Confidence: 0.86922849375

00:12:32.699 --> 00:12:34.825 understand why some cancer patients have  
NOTE Confidence: 0.86922849375

00:12:34.825 --> 00:12:37.468 a better or worse outcome than others.  
NOTE Confidence: 0.86922849375

00:12:37.468 --> 00:12:40.402 And this does include characterizing the  
NOTE Confidence: 0.86922849375

00:12:40.402 --> 00:12:43.279 racial ethnic identity of our patients.  
NOTE Confidence: 0.86922849375

00:12:43.280 --> 00:12:46.058 An example of how important this  
NOTE Confidence: 0.86922849375

00:12:46.058 --> 00:12:47.910 racial characterization of our  
NOTE Confidence: 0.86922849375

00:12:47.986 --> 00:12:50.506 cancer patients is shown on the  
NOTE Confidence: 0.86922849375

00:12:50.506 --> 00:12:53.059 graphic to the left on this slide,  
NOTE Confidence: 0.86922849375

00:12:53.060 --> 00:12:55.184 where we're looking at the most  
NOTE Confidence: 0.86922849375

00:12:55.184 --> 00:12:56.600 basic of epidemiologic statistics,  
NOTE Confidence: 0.86922849375

00:12:56.600 --> 00:12:58.625 population based incidence rates of  
NOTE Confidence: 0.86922849375

00:12:58.625 --> 00:13:00.650 breast cancer and population based  
NOTE Confidence: 0.86922849375

00:13:00.709 --> 00:13:02.589 mortality rates from breast cancer  
NOTE Confidence: 0.86922849375

00:13:02.589 --> 00:13:04.469 over the last several decades.  
NOTE Confidence: 0.86922849375

00:13:04.470 --> 00:13:05.970 As documented by the surveillance,

NOTE Confidence: 0.86922849375

00:13:05.970 --> 00:13:08.270 epidemiology and end results program.

NOTE Confidence: 0.86922849375

00:13:08.270 --> 00:13:10.790 And what we see here is that over time,

NOTE Confidence: 0.86922849375

00:13:10.790 --> 00:13:12.430 incidence rates of breast cancer

NOTE Confidence: 0.86922849375

00:13:12.430 --> 00:13:14.070 historically have been lower for

NOTE Confidence: 0.86922849375

00:13:14.129 --> 00:13:15.947 black women compared to white women.

NOTE Confidence: 0.86922849375

00:13:15.950 --> 00:13:18.505 But the rates typically changed in parallel,

NOTE Confidence: 0.86922849375

00:13:18.510 --> 00:13:20.622 indicating comparable effects of

NOTE Confidence: 0.86922849375

00:13:20.622 --> 00:13:22.206 different environmental factors.

NOTE Confidence: 0.86922849375

00:13:22.210 --> 00:13:23.378 But for mortality rates,

NOTE Confidence: 0.86922849375

00:13:23.378 --> 00:13:25.482 shown by the two curves at the

NOTE Confidence: 0.86922849375

00:13:25.482 --> 00:13:26.630 bottom of this slide,

NOTE Confidence: 0.86922849375

00:13:26.630 --> 00:13:28.286 the mortality rates from breast cancer

NOTE Confidence: 0.86922849375

00:13:28.286 --> 00:13:30.166 were equal for black women and white

NOTE Confidence: 0.86922849375

00:13:30.166 --> 00:13:31.867 women until we reach the early nine,

NOTE Confidence: 0.86922849375

00:13:31.870 --> 00:13:34.570 eight, 1980s and at that point.

NOTE Confidence: 0.86922849375

00:13:34.570 --> 00:13:35.923 Mortality curves separate  
NOTE Confidence: 0.86922849375

00:13:35.923 --> 00:13:37.727 predominantly because of declining  
NOTE Confidence: 0.86922849375

00:13:37.727 --> 00:13:39.859 death rates and white women,  
NOTE Confidence: 0.86922849375

00:13:39.860 --> 00:13:42.856 but largely unchanging rates in black women,  
NOTE Confidence: 0.86922849375

00:13:42.860 --> 00:13:45.758 and this is probably because the advent  
NOTE Confidence: 0.86922849375

00:13:45.758 --> 00:13:48.629 of tamoxifen as our first endocrine  
NOTE Confidence: 0.86922849375

00:13:48.629 --> 00:13:51.214 targeted therapy for breast cancer.  
NOTE Confidence: 0.86922849375

00:13:51.220 --> 00:13:53.285 The effects of tamoxifen become  
NOTE Confidence: 0.86922849375

00:13:53.285 --> 00:13:55.273 apparent by the early 1980s,  
NOTE Confidence: 0.86922849375

00:13:55.273 --> 00:13:57.604 but as shown by the bar graph  
NOTE Confidence: 0.86922849375

00:13:57.604 --> 00:13:59.898 to the right of this slide,  
NOTE Confidence: 0.86922849375

00:13:59.900 --> 00:14:02.965 since African American women have  
NOTE Confidence: 0.86922849375

00:14:02.965 --> 00:14:04.804 significantly lower frequencies.  
NOTE Confidence: 0.86922849375

00:14:04.810 --> 00:14:06.775 Of the estrogen receptor positive  
NOTE Confidence: 0.86922849375

00:14:06.775 --> 00:14:09.289 cancers and higher rates of estrogen  
NOTE Confidence: 0.86922849375

00:14:09.289 --> 00:14:11.197 receptor negative to tumors.



NOTE Confidence: 0.86922849375

00:14:11.200 --> 00:14:13.564 We are just not benefiting from

NOTE Confidence: 0.86922849375

00:14:13.564 --> 00:14:15.607 the advantages of terrific systemic

NOTE Confidence: 0.86922849375

00:14:15.607 --> 00:14:17.971 therapies such as tamoxifen to the

NOTE Confidence: 0.86922849375

00:14:17.971 --> 00:14:20.655 same degree as our sisters from

NOTE Confidence: 0.86922849375

00:14:20.655 --> 00:14:22.559 other racial ethnic backgrounds.

NOTE Confidence: 0.86922849375

00:14:22.560 --> 00:14:25.422 So we basically by the early 1980s are

NOTE Confidence: 0.86922849375

00:14:25.422 --> 00:14:27.528 seeing the unmasking of differences in

NOTE Confidence: 0.86922849375

00:14:27.528 --> 00:14:29.550 tumor biology between African American

NOTE Confidence: 0.86922849375

00:14:29.550 --> 00:14:32.076 and white American breast cancer patients.

NOTE Confidence: 0.86922849375

00:14:32.080 --> 00:14:34.453 So now of course we've gone far

NOTE Confidence: 0.86922849375

00:14:34.453 --> 00:14:35.470 beyond simply characterizing

NOTE Confidence: 0.86922849375

00:14:35.530 --> 00:14:37.590 breast cancer as the dichotomous

NOTE Confidence: 0.86922849375

00:14:37.590 --> 00:14:39.238 hormone receptor positive versus

NOTE Confidence: 0.86922849375

00:14:39.238 --> 00:14:41.129 hormone receptor negative tumors.

NOTE Confidence: 0.86922849375

00:14:41.130 --> 00:14:43.727 And we know that breast cancer isn't

NOTE Confidence: 0.86922849375

00:14:43.727 --> 00:14:45.855 comprised of an entire spectrum  
NOTE Confidence: 0.86922849375

00:14:45.855 --> 00:14:48.210 of intrinsic tumor subtypes with  
NOTE Confidence: 0.86922849375

00:14:48.210 --> 00:14:50.916 the basal subtype being one of  
NOTE Confidence: 0.86922849375

00:14:50.916 --> 00:14:52.544 the more virulent subtypes.  
NOTE Confidence: 0.86922849375

00:14:52.550 --> 00:14:54.923 The the patients that we see everyday  
NOTE Confidence: 0.86922849375

00:14:54.923 --> 00:14:56.847 in clinic are not necessarily  
NOTE Confidence: 0.86922849375

00:14:56.847 --> 00:14:58.942 going to get complete genomic  
NOTE Confidence: 0.86922849375

00:14:58.942 --> 00:15:01.129 profiling done on their tumors.  
NOTE Confidence: 0.86922849375

00:15:01.130 --> 00:15:02.730 So we use immunohistochemistry  
NOTE Confidence: 0.86922849375

00:15:02.730 --> 00:15:04.730 to look at estrogen receptor,  
NOTE Confidence: 0.859376928947368

00:15:04.730 --> 00:15:06.515 progesterone receptor and hormone and  
NOTE Confidence: 0.859376928947368

00:15:06.515 --> 00:15:09.023 her two new expression as a convenient  
NOTE Confidence: 0.859376928947368

00:15:09.023 --> 00:15:11.354 way to have a surrogate for identifying.  
NOTE Confidence: 0.859376928947368

00:15:11.360 --> 00:15:13.976 The most aggressive of these tumors?  
NOTE Confidence: 0.859376928947368

00:15:13.980 --> 00:15:15.940 And the triple negative breast  
NOTE Confidence: 0.859376928947368

00:15:15.940 --> 00:15:18.362 cancers do tend to correlate with

NOTE Confidence: 0.859376928947368  
00:15:18.362 --> 00:15:20.322 identifying a patient that has  
NOTE Confidence: 0.859376928947368  
00:15:20.322 --> 00:15:22.360 an intrinsic basal type tumor.  
NOTE Confidence: 0.859376928947368  
00:15:22.360 --> 00:15:24.220 It's not a perfect correlation,  
NOTE Confidence: 0.859376928947368  
00:15:24.220 --> 00:15:25.660 but it is pretty close.  
NOTE Confidence: 0.859376928947368  
00:15:25.660 --> 00:15:27.774 And as shown by the curves on  
NOTE Confidence: 0.859376928947368  
00:15:27.774 --> 00:15:29.739 the top right of this slide,  
NOTE Confidence: 0.859376928947368  
00:15:29.740 --> 00:15:31.954 women that have the triple negative  
NOTE Confidence: 0.859376928947368  
00:15:31.954 --> 00:15:34.704 breast cancers at every stage of breast  
NOTE Confidence: 0.859376928947368  
00:15:34.704 --> 00:15:36.709 cancer diagnosis have worse outcomes  
NOTE Confidence: 0.859376928947368  
00:15:36.709 --> 00:15:39.390 compared to the women who have the  
NOTE Confidence: 0.859376928947368  
00:15:39.390 --> 00:15:41.205 non triple negative breast cancers.  
NOTE Confidence: 0.859376928947368  
00:15:41.210 --> 00:15:43.306 And we now know from many studies that  
NOTE Confidence: 0.859376928947368  
00:15:43.306 --> 00:15:45.326 have been done that African American  
NOTE Confidence: 0.859376928947368  
00:15:45.326 --> 00:15:47.486 women have higher frequencies of triple  
NOTE Confidence: 0.859376928947368  
00:15:47.544 --> 00:15:49.234 negative breast cancers regardless of  
NOTE Confidence: 0.859376928947368

00:15:49.234 --> 00:15:51.371 the age at which they're diagnosed.  
NOTE Confidence: 0.859376928947368

00:15:51.371 --> 00:15:54.458 And we have higher frequencies of triple  
NOTE Confidence: 0.859376928947368

00:15:54.458 --> 00:15:56.889 negative breast cancer regardless of the  
NOTE Confidence: 0.859376928947368

00:15:56.889 --> 00:15:59.830 stage that the breast cancer is diagnosed.  
NOTE Confidence: 0.859376928947368

00:15:59.830 --> 00:16:01.815 Now there's been an interesting  
NOTE Confidence: 0.859376928947368

00:16:01.815 --> 00:16:04.268 phenomenon over the past couple of  
NOTE Confidence: 0.859376928947368

00:16:04.268 --> 00:16:06.253 decades where the population based  
NOTE Confidence: 0.859376928947368

00:16:06.253 --> 00:16:08.397 incidence rates of breast cancer  
NOTE Confidence: 0.859376928947368

00:16:08.397 --> 00:16:10.333 have been rising disproportionately  
NOTE Confidence: 0.859376928947368

00:16:10.333 --> 00:16:12.269 in African American women.  
NOTE Confidence: 0.859376928947368

00:16:12.270 --> 00:16:15.042 And now over the last ten years or so,  
NOTE Confidence: 0.859376928947368

00:16:15.050 --> 00:16:17.354 breast cancer incidence rates are pretty  
NOTE Confidence: 0.859376928947368

00:16:17.354 --> 00:16:20.350 much equal for black women and white women.  
NOTE Confidence: 0.859376928947368

00:16:20.350 --> 00:16:21.925 But those rising incidence rates  
NOTE Confidence: 0.859376928947368

00:16:21.925 --> 00:16:23.890 of breast cancer in black women,  
NOTE Confidence: 0.859376928947368

00:16:23.890 --> 00:16:26.176 coupled with our higher incidence of

NOTE Confidence: 0.859376928947368

00:16:26.176 --> 00:16:28.434 the triple negative breast cancer has

NOTE Confidence: 0.859376928947368

00:16:28.434 --> 00:16:31.098 resulted in a widening of the mortality gap.

NOTE Confidence: 0.859376928947368

00:16:31.100 --> 00:16:33.789 And today we see about 40% higher

NOTE Confidence: 0.859376928947368

00:16:33.789 --> 00:16:36.363 breast cancer mortality rates in the

NOTE Confidence: 0.859376928947368

00:16:36.363 --> 00:16:38.134 African American community compared

NOTE Confidence: 0.859376928947368

00:16:38.134 --> 00:16:40.229 to the White American community.

NOTE Confidence: 0.859376928947368

00:16:40.230 --> 00:16:42.750 And it's impossible to have a discussion

NOTE Confidence: 0.859376928947368

00:16:42.750 --> 00:16:44.812 about triple negative breast cancer

NOTE Confidence: 0.859376928947368

00:16:44.812 --> 00:16:46.648 and disparities without making

NOTE Confidence: 0.859376928947368

00:16:46.648 --> 00:16:48.484 some comment regarding mammography

NOTE Confidence: 0.859376928947368

00:16:48.548 --> 00:16:50.060 screening recommendations.

NOTE Confidence: 0.859376928947368

00:16:50.060 --> 00:16:51.950 And as I'm sure all of you are aware,

NOTE Confidence: 0.859376928947368

00:16:51.950 --> 00:16:54.135 the United States Preventive Services

NOTE Confidence: 0.859376928947368

00:16:54.135 --> 00:16:56.844 Task Force has been advocating pretty

NOTE Confidence: 0.859376928947368

00:16:56.844 --> 00:16:59.124 aggressively for average risk American

NOTE Confidence: 0.859376928947368

00:16:59.124 --> 00:17:01.805 women to delay initiation of screening  
NOTE Confidence: 0.859376928947368

00:17:01.805 --> 00:17:04.163 mammography until they reach age 50.  
NOTE Confidence: 0.859376928947368

00:17:04.170 --> 00:17:06.698 Many of us that are dedicating our careers  
NOTE Confidence: 0.859376928947368

00:17:06.698 --> 00:17:08.672 to studying breast cancer disparities  
NOTE Confidence: 0.859376928947368

00:17:08.672 --> 00:17:10.797 are really concerned about this.  
NOTE Confidence: 0.859376928947368

00:17:10.800 --> 00:17:12.088 Broad recommendation,  
NOTE Confidence: 0.859376928947368

00:17:12.088 --> 00:17:15.952 because waiting until age 50 for  
NOTE Confidence: 0.859376928947368

00:17:15.952 --> 00:17:18.239 mammography screening can result in  
NOTE Confidence: 0.859376928947368

00:17:18.239 --> 00:17:20.570 an even worsening of the delays in  
NOTE Confidence: 0.859376928947368

00:17:20.643 --> 00:17:23.559 diagnosing biologically aggressive tumors,  
NOTE Confidence: 0.859376928947368

00:17:23.560 --> 00:17:25.450 such as triple negative breast cancers,  
NOTE Confidence: 0.859376928947368

00:17:25.450 --> 00:17:26.658 in African American women,  
NOTE Confidence: 0.859376928947368

00:17:26.658 --> 00:17:29.219 who are already at higher risk for getting  
NOTE Confidence: 0.859376928947368

00:17:29.219 --> 00:17:31.289 these aggressive tumors at younger ages.  
NOTE Confidence: 0.859376928947368

00:17:31.290 --> 00:17:33.560 And so this screening recommendation  
NOTE Confidence: 0.859376928947368

00:17:33.560 --> 00:17:35.376 will likely worsen the

NOTE Confidence: 0.859376928947368  
00:17:35.376 --> 00:17:37.110 disparities that already exist.  
NOTE Confidence: 0.859376928947368  
00:17:37.110 --> 00:17:37.434 Now,  
NOTE Confidence: 0.859376928947368  
00:17:37.434 --> 00:17:39.054 the critics of screening mammography  
NOTE Confidence: 0.859376928947368  
00:17:39.054 --> 00:17:41.188 are always quick to point out that  
NOTE Confidence: 0.859376928947368  
00:17:41.188 --> 00:17:43.440 mammography is not going to be the be all,  
NOTE Confidence: 0.859376928947368  
00:17:43.440 --> 00:17:45.385 end all answer to addressing  
NOTE Confidence: 0.859376928947368  
00:17:45.385 --> 00:17:47.866 disparities because it it is true  
NOTE Confidence: 0.859376928947368  
00:17:47.866 --> 00:17:50.196 that triple negative breast cancers.  
NOTE Confidence: 0.859376928947368  
00:17:50.200 --> 00:17:52.534 Are more challenging to detect on  
NOTE Confidence: 0.859376928947368  
00:17:52.534 --> 00:17:54.090 screening mammography and they're  
NOTE Confidence: 0.859376928947368  
00:17:54.153 --> 00:17:56.512 more likely to present it as the  
NOTE Confidence: 0.859376928947368  
00:17:56.512 --> 00:17:58.336 palpable interval cancers and women  
NOTE Confidence: 0.859376928947368  
00:17:58.336 --> 00:18:00.221 that are getting their screening  
NOTE Confidence: 0.859376928947368  
00:18:00.221 --> 00:18:01.352 mammograms every year.  
NOTE Confidence: 0.859376928947368  
00:18:01.360 --> 00:18:01.750 However,  
NOTE Confidence: 0.859376928947368

00:18:01.750 --> 00:18:04.480 we do have very strong data showing  
NOTE Confidence: 0.859376928947368

00:18:04.480 --> 00:18:07.032 that early detection of triple negative  
NOTE Confidence: 0.859376928947368

00:18:07.032 --> 00:18:10.440 breast cancer does still make a difference.  
NOTE Confidence: 0.859376928947368

00:18:10.440 --> 00:18:12.624 And an example of those data are shown  
NOTE Confidence: 0.859376928947368

00:18:12.624 --> 00:18:15.571 in the two tables on this slide where  
NOTE Confidence: 0.859376928947368

00:18:15.571 --> 00:18:17.127 investigators from Memorial Sloan  
NOTE Confidence: 0.895282159285714

00:18:17.190 --> 00:18:19.505 Kettering and from the National  
NOTE Confidence: 0.895282159285714

00:18:19.505 --> 00:18:20.894 Comprehensive Cancer Network.  
NOTE Confidence: 0.895282159285714

00:18:20.900 --> 00:18:22.845 Have both demonstrated that triple  
NOTE Confidence: 0.895282159285714

00:18:22.845 --> 00:18:24.790 negative breast cancer when it's  
NOTE Confidence: 0.895282159285714

00:18:24.851 --> 00:18:27.084 diagnosed at a small size no larger  
NOTE Confidence: 0.895282159285714

00:18:27.084 --> 00:18:28.569 than one centimeter in size.  
NOTE Confidence: 0.895282159285714

00:18:28.570 --> 00:18:30.166 And with nodes negative and these  
NOTE Confidence: 0.895282159285714

00:18:30.166 --> 00:18:32.683 are by and large going to be screen  
NOTE Confidence: 0.895282159285714

00:18:32.683 --> 00:18:34.428 detected triple negative breast cancers.  
NOTE Confidence: 0.895282159285714

00:18:34.430 --> 00:18:36.926 These tumors have very good outcomes



NOTE Confidence: 0.895282159285714  
00:18:36.926 --> 00:18:39.175 regardless of whether the patients  
NOTE Confidence: 0.895282159285714  
00:18:39.175 --> 00:18:41.745 receive adjuvant chemotherapy or not.  
NOTE Confidence: 0.895282159285714  
00:18:41.750 --> 00:18:43.436 Now those two studies that I  
NOTE Confidence: 0.895282159285714  
00:18:43.436 --> 00:18:44.950 showed on the previous slide,  
NOTE Confidence: 0.895282159285714  
00:18:44.950 --> 00:18:46.270 we're looking at early detection  
NOTE Confidence: 0.895282159285714  
00:18:46.270 --> 00:18:47.590 of triple negative breast cancer,  
NOTE Confidence: 0.895282159285714  
00:18:47.590 --> 00:18:49.302 but they weren't necessarily  
NOTE Confidence: 0.895282159285714  
00:18:49.302 --> 00:18:50.586 looking at mammography,  
NOTE Confidence: 0.895282159285714  
00:18:50.590 --> 00:18:52.189 screen detected triple  
NOTE Confidence: 0.895282159285714  
00:18:52.189 --> 00:18:53.788 negative breast cancer.  
NOTE Confidence: 0.895282159285714  
00:18:53.790 --> 00:18:56.678 And so to address the question of how  
NOTE Confidence: 0.895282159285714  
00:18:56.678 --> 00:18:58.351 effective screening mammography is  
NOTE Confidence: 0.895282159285714  
00:18:58.351 --> 00:19:00.566 and outcomes in improving outcomes  
NOTE Confidence: 0.895282159285714  
00:19:00.566 --> 00:19:02.849 from triple negative breast cancer.  
NOTE Confidence: 0.895282159285714  
00:19:02.850 --> 00:19:04.998 Our group pulled together the data  
NOTE Confidence: 0.895282159285714

00:19:04.998 --> 00:19:06.873 on triple negative breast cancer  
NOTE Confidence: 0.895282159285714

00:19:06.873 --> 00:19:08.783 patients from the Metropolitan Detroit  
NOTE Confidence: 0.895282159285714

00:19:08.783 --> 00:19:11.157 area and the Henry Ford Healthcare  
NOTE Confidence: 0.895282159285714

00:19:11.157 --> 00:19:13.908 system and the while Cornell New York  
NOTE Confidence: 0.895282159285714

00:19:13.908 --> 00:19:15.816 Presbyterian Hospital network triple  
NOTE Confidence: 0.895282159285714

00:19:15.816 --> 00:19:17.824 negative breast cancer patients.  
NOTE Confidence: 0.895282159285714

00:19:17.830 --> 00:19:19.948 And we looked specifically at outcomes  
NOTE Confidence: 0.895282159285714

00:19:19.948 --> 00:19:22.378 from for these patients if with triple  
NOTE Confidence: 0.895282159285714

00:19:22.378 --> 00:19:24.292 negative tumors based upon whether it  
NOTE Confidence: 0.895282159285714

00:19:24.292 --> 00:19:26.549 was screened detected disease or not.  
NOTE Confidence: 0.895282159285714

00:19:26.550 --> 00:19:28.335 And we looked at a whole bunch  
NOTE Confidence: 0.895282159285714

00:19:28.335 --> 00:19:29.781 of different factors that might  
NOTE Confidence: 0.895282159285714

00:19:29.781 --> 00:19:31.336 also impact on outcomes from  
NOTE Confidence: 0.895282159285714

00:19:31.336 --> 00:19:32.670 triple negative breast cancer.  
NOTE Confidence: 0.895282159285714

00:19:32.670 --> 00:19:34.770 For both the white and the African  
NOTE Confidence: 0.895282159285714

00:19:34.770 --> 00:19:36.439 American triple negative breast cancer,

NOTE Confidence: 0.895282159285714  
00:19:36.440 --> 00:19:38.850 having a mammography screen detected  
NOTE Confidence: 0.895282159285714  
00:19:38.850 --> 00:19:41.260 tumor was the strongest predictor  
NOTE Confidence: 0.895282159285714  
00:19:41.329 --> 00:19:43.063 of a patient that was going  
NOTE Confidence: 0.895282159285714  
00:19:43.063 --> 00:19:44.840 to have a good outcome.  
NOTE Confidence: 0.895282159285714  
00:19:44.840 --> 00:19:47.178 So we do indeed have data that  
NOTE Confidence: 0.895282159285714  
00:19:47.178 --> 00:19:48.639 mammography screening is effective  
NOTE Confidence: 0.895282159285714  
00:19:48.639 --> 00:19:51.009 at early detection of triple negative  
NOTE Confidence: 0.895282159285714  
00:19:51.009 --> 00:19:53.663 breast cancer and it does yield some  
NOTE Confidence: 0.895282159285714  
00:19:53.663 --> 00:19:55.775 benefits in terms of improving outcomes  
NOTE Confidence: 0.895282159285714  
00:19:55.780 --> 00:19:58.408 and that benefit was actually strongest  
NOTE Confidence: 0.895282159285714  
00:19:58.408 --> 00:20:00.640 for the African American women.  
NOTE Confidence: 0.895282159285714  
00:20:00.640 --> 00:20:02.620 We've also been looking at whether  
NOTE Confidence: 0.895282159285714  
00:20:02.620 --> 00:20:05.172 or not there might be some precursor  
NOTE Confidence: 0.895282159285714  
00:20:05.172 --> 00:20:07.117 lesions in benign breast tissue,  
NOTE Confidence: 0.895282159285714  
00:20:07.120 --> 00:20:09.244 identifying women that are at higher  
NOTE Confidence: 0.895282159285714

00:20:09.244 --> 00:20:11.487 risk for getting a triple negative  
NOTE Confidence: 0.895282159285714

00:20:11.487 --> 00:20:14.147 breast cancer and whether or not the  
NOTE Confidence: 0.895282159285714

00:20:14.147 --> 00:20:16.159 benign breast patients who require  
NOTE Confidence: 0.895282159285714

00:20:16.159 --> 00:20:18.511 biopsies will still have a higher  
NOTE Confidence: 0.895282159285714

00:20:18.520 --> 00:20:20.728 rate of triple negative breast cancer.  
NOTE Confidence: 0.895282159285714

00:20:20.730 --> 00:20:23.240 Correlating with racial ethnic identity.  
NOTE Confidence: 0.895282159285714

00:20:23.240 --> 00:20:24.716 As all of you are aware,  
NOTE Confidence: 0.895282159285714

00:20:24.720 --> 00:20:26.813 the number of benign breast pie oopsies  
NOTE Confidence: 0.895282159285714

00:20:26.813 --> 00:20:28.854 that a patient has does correlate with  
NOTE Confidence: 0.895282159285714

00:20:28.854 --> 00:20:31.320 a higher risk of a future breast cancer.  
NOTE Confidence: 0.895282159285714

00:20:31.320 --> 00:20:32.900 Probably because it's identifying  
NOTE Confidence: 0.895282159285714

00:20:32.900 --> 00:20:34.480 hyperproliferative changes in the  
NOTE Confidence: 0.895282159285714

00:20:34.480 --> 00:20:36.662 breast and This is why number of  
NOTE Confidence: 0.895282159285714

00:20:36.662 --> 00:20:38.002 biopsies and so integrated into  
NOTE Confidence: 0.895282159285714

00:20:38.057 --> 00:20:39.575 many of our risk prediction tools  
NOTE Confidence: 0.895282159285714

00:20:39.575 --> 00:20:41.008 such as the Gale model.

NOTE Confidence: 0.895282159285714

00:20:41.008 --> 00:20:43.516 But by and large multiple biopsies

NOTE Confidence: 0.895282159285714

00:20:43.516 --> 00:20:46.868 is a predictor of having an estrogen

NOTE Confidence: 0.895282159285714

00:20:46.868 --> 00:20:48.884 receptor positive breast cancer.

NOTE Confidence: 0.895282159285714

00:20:48.890 --> 00:20:51.368 So we utilize the Henry Ford Health

NOTE Confidence: 0.895282159285714

00:20:51.368 --> 00:20:53.398 system benign breast disease cohort

NOTE Confidence: 0.895282159285714

00:20:53.398 --> 00:20:56.092 to look at whether fibrocystic breast

NOTE Confidence: 0.895282159285714

00:20:56.092 --> 00:20:58.371 biopsies predicted for higher rates

NOTE Confidence: 0.895282159285714

00:20:58.371 --> 00:21:00.556 of triple negative versus hormone

NOTE Confidence: 0.895282159285714

00:21:00.556 --> 00:21:01.430 receptor positive.

NOTE Confidence: 0.895282159285714

00:21:01.430 --> 00:21:03.494 Disease in our black compared to

NOTE Confidence: 0.895282159285714

00:21:03.494 --> 00:21:05.834 white patients and we had a very

NOTE Confidence: 0.895282159285714

00:21:05.834 --> 00:21:07.927 large cohort of more than 6000 women

NOTE Confidence: 0.895282159285714

00:21:07.998 --> 00:21:10.254 who had had benign breast biopsies

NOTE Confidence: 0.895282159285714

00:21:10.254 --> 00:21:12.512 with robust follow-up of more than

NOTE Confidence: 0.895282159285714

00:21:12.512 --> 00:21:15.144 10 years and in as evidence that

NOTE Confidence: 0.895282159285714

00:21:15.144 --> 00:21:17.801 these women were receiving equitable  
NOTE Confidence: 0.895282159285714

00:21:17.801 --> 00:21:19.997 treatment over the years.  
NOTE Confidence: 0.895282159285714

00:21:20.000 --> 00:21:22.364 We actually saw comparable rates of  
NOTE Confidence: 0.895282159285714

00:21:22.364 --> 00:21:23.940 subsequent subsequent breast cancers  
NOTE Confidence: 0.9073601704

00:21:24.004 --> 00:21:25.869 in these women with fibrocystic  
NOTE Confidence: 0.9073601704

00:21:25.869 --> 00:21:27.361 breast changes regardless of  
NOTE Confidence: 0.9073601704

00:21:27.361 --> 00:21:29.159 whether they were black or white.  
NOTE Confidence: 0.9073601704

00:21:29.160 --> 00:21:30.890 And we saw comparable stage  
NOTE Confidence: 0.9073601704

00:21:30.890 --> 00:21:32.620 distribution for the cancers that  
NOTE Confidence: 0.9073601704

00:21:32.678 --> 00:21:34.378 did develop in these patients.  
NOTE Confidence: 0.9073601704

00:21:34.380 --> 00:21:36.948 However, as shown by this curve by the  
NOTE Confidence: 0.9073601704

00:21:36.948 --> 00:21:39.380 curve graphic at the bottom of this slide,  
NOTE Confidence: 0.9073601704

00:21:39.380 --> 00:21:41.080 the African American women with  
NOTE Confidence: 0.9073601704

00:21:41.080 --> 00:21:43.110 benign breast biopsies had about a  
NOTE Confidence: 0.9073601704

00:21:43.110 --> 00:21:44.766 four fold higher risk of getting  
NOTE Confidence: 0.9073601704

00:21:44.766 --> 00:21:46.394 a triple negative breast cancer

NOTE Confidence: 0.9073601704

00:21:46.394 --> 00:21:48.626 compared to the white American breast

NOTE Confidence: 0.9073601704

00:21:48.626 --> 00:21:50.052 fibrocystic change at patients.

NOTE Confidence: 0.9073601704

00:21:50.052 --> 00:21:51.416 And so there does,

NOTE Confidence: 0.9073601704

00:21:51.420 --> 00:21:54.236 at least from our experience seem to be

NOTE Confidence: 0.9073601704

00:21:54.236 --> 00:21:55.841 something inherently different about

NOTE Confidence: 0.9073601704

00:21:55.841 --> 00:21:58.343 the mammary tissue of African American

NOTE Confidence: 0.9073601704

00:21:58.343 --> 00:22:00.754 women increasing the susceptibility for

NOTE Confidence: 0.9073601704

00:22:00.754 --> 00:22:02.770 these biologically aggressive tumors.

NOTE Confidence: 0.9073601704

00:22:02.770 --> 00:22:04.554 Another interesting question to

NOTE Confidence: 0.9073601704

00:22:04.554 --> 00:22:07.230 ask is whether or not outcome

NOTE Confidence: 0.9073601704

00:22:07.307 --> 00:22:09.907 disparities will persist after you

NOTE Confidence: 0.9073601704

00:22:09.907 --> 00:22:11.987 stratify for tumor phenotype.

NOTE Confidence: 0.9073601704

00:22:11.990 --> 00:22:13.579 And I'm not going to belabor the

NOTE Confidence: 0.9073601704

00:22:13.579 --> 00:22:15.130 data on this very busy slide,

NOTE Confidence: 0.9073601704

00:22:15.130 --> 00:22:17.230 but suffice it to say there are

NOTE Confidence: 0.9073601704

00:22:17.230 --> 00:22:18.928 actually a number of studies  
NOTE Confidence: 0.9073601704

00:22:18.928 --> 00:22:20.396 suggesting that when you.  
NOTE Confidence: 0.9073601704

00:22:20.400 --> 00:22:22.566 Adjust for stage and treatment that  
NOTE Confidence: 0.9073601704

00:22:22.566 --> 00:22:24.502 the outcomes from triple negative  
NOTE Confidence: 0.9073601704

00:22:24.502 --> 00:22:26.210 breast cancer patients might  
NOTE Confidence: 0.9073601704

00:22:26.210 --> 00:22:28.345 actually be fairly comparable for  
NOTE Confidence: 0.9073601704

00:22:28.413 --> 00:22:30.098 black women and white women.  
NOTE Confidence: 0.9073601704

00:22:30.100 --> 00:22:30.482 However,  
NOTE Confidence: 0.9073601704

00:22:30.482 --> 00:22:33.156 there are numerous studies showing that for  
NOTE Confidence: 0.9073601704

00:22:33.156 --> 00:22:35.248 hormone receptor positive breast cancer,  
NOTE Confidence: 0.9073601704

00:22:35.250 --> 00:22:36.417 the disparities persist.  
NOTE Confidence: 0.9073601704

00:22:36.417 --> 00:22:36.806 Now,  
NOTE Confidence: 0.9073601704

00:22:36.806 --> 00:22:39.140 whether or not these disparities and  
NOTE Confidence: 0.9073601704

00:22:39.208 --> 00:22:41.303 outcome in hormone receptor positive  
NOTE Confidence: 0.9073601704

00:22:41.303 --> 00:22:43.398 disease are related to differences  
NOTE Confidence: 0.9073601704

00:22:43.461 --> 00:22:45.759 in tumor biology or difference in



NOTE Confidence: 0.9073601704  
00:22:45.759 --> 00:22:47.291 response to endocrine treatment  
NOTE Confidence: 0.9073601704  
00:22:47.300 --> 00:22:49.140 or just variation in compliance  
NOTE Confidence: 0.9073601704  
00:22:49.140 --> 00:22:51.510 with the several years that we  
NOTE Confidence: 0.9073601704  
00:22:51.510 --> 00:22:53.358 recommend for endocrine therapies,  
NOTE Confidence: 0.9073601704  
00:22:53.360 --> 00:22:55.705 these are all questions that  
NOTE Confidence: 0.9073601704  
00:22:55.705 --> 00:22:58.670 are continue to be under study.  
NOTE Confidence: 0.9073601704  
00:22:58.670 --> 00:23:01.043 But now we are starting to generate  
NOTE Confidence: 0.9073601704  
00:23:01.043 --> 00:23:03.713 some answers to those questions because  
NOTE Confidence: 0.9073601704  
00:23:03.713 --> 00:23:06.343 a brilliant researchers who've been  
NOTE Confidence: 0.9073601704  
00:23:06.343 --> 00:23:08.398 conducting terrific studies about  
NOTE Confidence: 0.9073601704  
00:23:08.398 --> 00:23:10.728 gene expression profiling in women  
NOTE Confidence: 0.9073601704  
00:23:10.728 --> 00:23:12.579 with hormone receptor positive,  
NOTE Confidence: 0.9073601704  
00:23:12.579 --> 00:23:15.273 her two negative breast cancers are  
NOTE Confidence: 0.9073601704  
00:23:15.273 --> 00:23:18.580 now starting to look at their data  
NOTE Confidence: 0.9073601704  
00:23:18.580 --> 00:23:21.406 based upon stratification for race ethnicity.  
NOTE Confidence: 0.9073601704

00:23:21.410 --> 00:23:23.730 The TELERX investigators have recently  
NOTE Confidence: 0.9073601704

00:23:23.730 --> 00:23:26.050 shown that for women undergoing  
NOTE Confidence: 0.9073601704

00:23:26.117 --> 00:23:28.502 Oncotype 21 gene recurrence score  
NOTE Confidence: 0.9073601704

00:23:28.502 --> 00:23:30.887 testing for hormone receptor positive,  
NOTE Confidence: 0.9073601704

00:23:30.890 --> 00:23:33.128 her two negative and no negative  
NOTE Confidence: 0.9073601704

00:23:33.128 --> 00:23:35.168 breast cancers that in women  
NOTE Confidence: 0.9073601704

00:23:35.168 --> 00:23:37.068 with the intermediate scores,  
NOTE Confidence: 0.9073601704

00:23:37.070 --> 00:23:39.680 the African American women have  
NOTE Confidence: 0.9073601704

00:23:39.680 --> 00:23:42.290 notably higher rates of recurrence  
NOTE Confidence: 0.9073601704

00:23:42.370 --> 00:23:44.855 and mortality even after adjusting  
NOTE Confidence: 0.9073601704

00:23:44.855 --> 00:23:49.078 for these intermediate range scores.  
NOTE Confidence: 0.9073601704

00:23:49.080 --> 00:23:51.618 And then very recently the investigators  
NOTE Confidence: 0.9073601704

00:23:51.618 --> 00:23:53.795 for the responder trial reported  
NOTE Confidence: 0.9073601704

00:23:53.795 --> 00:23:56.291 and the San Antonio Breast Cancer  
NOTE Confidence: 0.9073601704

00:23:56.291 --> 00:23:58.404 Symposium that among women looking  
NOTE Confidence: 0.9073601704

00:23:58.404 --> 00:24:00.780 at these 21 gene recurrence scores

NOTE Confidence: 0.9073601704

00:24:00.780 --> 00:24:03.095 and whether or not they predict for

NOTE Confidence: 0.9073601704

00:24:03.095 --> 00:24:04.610 benefit from chemotherapy in the

NOTE Confidence: 0.9073601704

00:24:04.666 --> 00:24:06.934 setting of women with no positive disease.

NOTE Confidence: 0.9073601704

00:24:06.940 --> 00:24:08.875 They similarly showed that the

NOTE Confidence: 0.9073601704

00:24:08.875 --> 00:24:10.810 outcomes for the African American

NOTE Confidence: 0.9073601704

00:24:10.873 --> 00:24:12.469 patients were significantly worse

NOTE Confidence: 0.9073601704

00:24:12.469 --> 00:24:14.464 compared to the outcomes for

NOTE Confidence: 0.9073601704

00:24:14.464 --> 00:24:16.380 the White American patients.

NOTE Confidence: 0.9073601704

00:24:16.380 --> 00:24:18.960 And again this is after stratifying.

NOTE Confidence: 0.9073601704

00:24:18.960 --> 00:24:21.540 For the 21 gene expression score.

NOTE Confidence: 0.902261351

00:24:24.630 --> 00:24:26.530 Many investigators have been looking

NOTE Confidence: 0.902261351

00:24:26.530 --> 00:24:29.077 at data from the Cancer Genome Atlas

NOTE Confidence: 0.902261351

00:24:29.077 --> 00:24:31.405 to try to get take a deeper dive,

NOTE Confidence: 0.902261351

00:24:31.410 --> 00:24:33.595 basically into looking at tumor

NOTE Confidence: 0.902261351

00:24:33.595 --> 00:24:35.780 biology between black women and

NOTE Confidence: 0.902261351

00:24:35.856 --> 00:24:38.006 white women with breast cancer.

NOTE Confidence: 0.902261351

00:24:38.010 --> 00:24:40.747 And I'm summarizing just a few of

NOTE Confidence: 0.902261351

00:24:40.747 --> 00:24:43.293 the studies that have been published

NOTE Confidence: 0.902261351

00:24:43.293 --> 00:24:46.303 utilizing TCG a data on this table.

NOTE Confidence: 0.902261351

00:24:46.310 --> 00:24:48.473 But all of these studies are basically

NOTE Confidence: 0.902261351

00:24:48.473 --> 00:24:50.279 looking at the same group of,

NOTE Confidence: 0.902261351

00:24:50.280 --> 00:24:52.572 you know, more than 700 white

NOTE Confidence: 0.902261351

00:24:52.572 --> 00:24:54.100 American breast cancer patients.

NOTE Confidence: 0.902261351

00:24:54.100 --> 00:24:56.670 And about 170 African American

NOTE Confidence: 0.902261351

00:24:56.670 --> 00:24:59.240 patients that have contributed tumor

NOTE Confidence: 0.902261351

00:24:59.322 --> 00:25:01.778 tissue and clinical information.

NOTE Confidence: 0.902261351

00:25:01.780 --> 00:25:04.144 So it's not surprising that all

NOTE Confidence: 0.902261351

00:25:04.144 --> 00:25:05.720 of these investigators have

NOTE Confidence: 0.902261351

00:25:05.796 --> 00:25:07.668 identified similar patterns.

NOTE Confidence: 0.902261351

00:25:07.670 --> 00:25:09.710 Pam 50 subtyping definitively showing

NOTE Confidence: 0.902261351

00:25:09.710 --> 00:25:11.750 that the African American women

NOTE Confidence: 0.902261351

00:25:11.811 --> 00:25:14.086 not only have higher frequencies

NOTE Confidence: 0.902261351

00:25:14.086 --> 00:25:15.906 of the triple negative

NOTE Confidence: 0.902261351

00:25:15.906 --> 00:25:17.489 immunohistochemically defined phenotype,

NOTE Confidence: 0.902261351

00:25:17.490 --> 00:25:19.710 but we also have higher rates

NOTE Confidence: 0.902261351

00:25:19.710 --> 00:25:21.830 of the intrinsic basal subtype.

NOTE Confidence: 0.902261351

00:25:21.830 --> 00:25:23.960 The African American patients are

NOTE Confidence: 0.902261351

00:25:23.960 --> 00:25:27.002 more likely to have TP 53 mutations

NOTE Confidence: 0.902261351

00:25:27.002 --> 00:25:28.848 and fewer Pi K3CA mutations,

NOTE Confidence: 0.902261351

00:25:28.848 --> 00:25:30.864 which goes along with the higher

NOTE Confidence: 0.902261351

00:25:30.864 --> 00:25:32.744 frequency of triple negative and

NOTE Confidence: 0.902261351

00:25:32.744 --> 00:25:34.594 lower frequency of hormone receptor

NOTE Confidence: 0.902261351

00:25:34.594 --> 00:25:36.399 positive tumors in these patients.

NOTE Confidence: 0.899033555666667

00:25:39.160 --> 00:25:41.446 And the phenomenon of seeing higher

NOTE Confidence: 0.899033555666667

00:25:41.446 --> 00:25:43.491 rates of these biologically aggressive

NOTE Confidence: 0.899033555666667

00:25:43.491 --> 00:25:45.761 estrogen receptor negative and triple

NOTE Confidence: 0.899033555666667

00:25:45.761 --> 00:25:48.046 negative breast cancers in women  
NOTE Confidence: 0.899033555666667

00:25:48.046 --> 00:25:50.071 with African ancestry is actually  
NOTE Confidence: 0.899033555666667

00:25:50.071 --> 00:25:52.602 not something that's unique to the  
NOTE Confidence: 0.899033555666667

00:25:52.602 --> 00:25:54.857 United States and other countries.  
NOTE Confidence: 0.899033555666667

00:25:54.860 --> 00:25:56.339 The UK, Switzerland,  
NOTE Confidence: 0.899033555666667

00:25:56.339 --> 00:25:58.311 Brazil investigators from these  
NOTE Confidence: 0.899033555666667

00:25:58.311 --> 00:26:00.865 countries have also published data  
NOTE Confidence: 0.899033555666667

00:26:00.865 --> 00:26:03.365 showing that their African ancestry  
NOTE Confidence: 0.899033555666667

00:26:03.365 --> 00:26:06.196 breast cancer patients are more likely  
NOTE Confidence: 0.899033555666667

00:26:06.196 --> 00:26:08.710 to have estrogen receptor negative and.  
NOTE Confidence: 0.899033555666667

00:26:08.710 --> 00:26:10.594 Triple negative breast cancers  
NOTE Confidence: 0.899033555666667

00:26:10.594 --> 00:26:12.949 compared to their non African  
NOTE Confidence: 0.899033555666667

00:26:12.949 --> 00:26:15.059 ancestry breast cancer patients.  
NOTE Confidence: 0.899033555666667

00:26:15.060 --> 00:26:16.860 So This is why our group has been  
NOTE Confidence: 0.899033555666667

00:26:16.860 --> 00:26:18.301 very excited about looking at  
NOTE Confidence: 0.899033555666667

00:26:18.301 --> 00:26:19.866 international data and in particular

NOTE Confidence: 0.899033555666667

00:26:19.866 --> 00:26:21.581 looking at the breast cancer burden

NOTE Confidence: 0.899033555666667

00:26:21.581 --> 00:26:23.418 of women on the continent of Africa,

NOTE Confidence: 0.899033555666667

00:26:23.418 --> 00:26:25.920 to try to tease out the answer to the

NOTE Confidence: 0.899033555666667

00:26:25.988 --> 00:26:27.956 question of whether or not African

NOTE Confidence: 0.899033555666667

00:26:27.956 --> 00:26:30.593 ancestry in and of itself is associated

NOTE Confidence: 0.899033555666667

00:26:30.593 --> 00:26:32.698 with some heritable marker predisposing

NOTE Confidence: 0.899033555666667

00:26:32.698 --> 00:26:35.520 to risk for triple negative breast cancers.

NOTE Confidence: 0.899033555666667

00:26:35.520 --> 00:26:38.013 And this I think opens the door not only

NOTE Confidence: 0.899033555666667

00:26:38.013 --> 00:26:40.939 to exciting ways to understand disparities,

NOTE Confidence: 0.899033555666667

00:26:40.940 --> 00:26:43.046 but also a very novel ways

NOTE Confidence: 0.899033555666667

00:26:43.046 --> 00:26:44.810 of trying to understand the.

NOTE Confidence: 0.899033555666667

00:26:44.810 --> 00:26:47.255 Pathogenesis for triple

NOTE Confidence: 0.899033555666667

00:26:47.255 --> 00:26:49.700 negative breast tumors.

NOTE Confidence: 0.899033555666667

00:26:49.700 --> 00:26:52.150 So this is just a snapshot of

NOTE Confidence: 0.899033555666667

00:26:52.150 --> 00:26:55.000 some of our most basic findings.

NOTE Confidence: 0.899033555666667

00:26:55.000 --> 00:26:57.298 Looking at the frequency of triple  
NOTE Confidence: 0.899033555666667

00:26:57.298 --> 00:26:59.820 negative breast cancer in women from  
NOTE Confidence: 0.899033555666667

00:26:59.820 --> 00:27:01.660 Ghana representing Western sub-Saharan  
NOTE Confidence: 0.899033555666667

00:27:01.660 --> 00:27:04.269 Africa compared to the triple net,  
NOTE Confidence: 0.899033555666667

00:27:04.270 --> 00:27:05.788 the frequency of triple negative breast  
NOTE Confidence: 0.899033555666667

00:27:05.788 --> 00:27:07.340 cancers in women from Addis Ababa,  
NOTE Confidence: 0.899033555666667

00:27:07.340 --> 00:27:08.904 Ethiopia, representing East Africa.  
NOTE Confidence: 0.899033555666667

00:27:08.904 --> 00:27:11.250 And we see quite high frequencies  
NOTE Confidence: 0.899033555666667

00:27:11.312 --> 00:27:12.982 of triple negative breast cancers  
NOTE Confidence: 0.899033555666667

00:27:12.982 --> 00:27:14.652 in the economy and women,  
NOTE Confidence: 0.899033555666667

00:27:14.660 --> 00:27:16.935 about half of them are triple negative,  
NOTE Confidence: 0.899033555666667

00:27:16.940 --> 00:27:18.415 but the frequency of triple  
NOTE Confidence: 0.899033555666667

00:27:18.415 --> 00:27:19.300 negative breast cancers.  
NOTE Confidence: 0.899033555666667

00:27:19.300 --> 00:27:21.480 And the Ethiopian women is  
NOTE Confidence: 0.899033555666667

00:27:21.480 --> 00:27:23.538 very low at about 15%,  
NOTE Confidence: 0.899033555666667

00:27:23.538 --> 00:27:26.002 similar to what we see in White American



NOTE Confidence: 0.899033555666667

00:27:26.002 --> 00:27:28.709 and European patients with breast cancer.

NOTE Confidence: 0.899033555666667

00:27:28.710 --> 00:27:30.678 The frequency of triple negative breast

NOTE Confidence: 0.899033555666667

00:27:30.678 --> 00:27:32.314 tumors is intermediate for African

NOTE Confidence: 0.899033555666667

00:27:32.314 --> 00:27:33.679 American women between the rates

NOTE Confidence: 0.899033555666667

00:27:33.679 --> 00:27:35.816 that we see in Guinea and women and

NOTE Confidence: 0.899033555666667

00:27:35.816 --> 00:27:39.350 what we see in white American women.

NOTE Confidence: 0.899033555666667

00:27:39.350 --> 00:27:42.275 Now the American Cancer Society

NOTE Confidence: 0.899033555666667

00:27:42.275 --> 00:27:43.445 brilliant investigator,

NOTE Confidence: 0.899033555666667

00:27:43.450 --> 00:27:46.042 Ahmedin Jamal has to publish data

NOTE Confidence: 0.899033555666667

00:27:46.042 --> 00:27:48.771 that are comparable to what we're

NOTE Confidence: 0.899033555666667

00:27:48.771 --> 00:27:51.543 seeing in our international data set.

NOTE Confidence: 0.899033555666667

00:27:51.550 --> 00:27:53.295 Doctor Jamal has published data

NOTE Confidence: 0.899033555666667

00:27:53.295 --> 00:27:55.040 looking at the frequency of

NOTE Confidence: 0.899033555666667

00:27:55.108 --> 00:27:56.648 ER negative breast tumors,

NOTE Confidence: 0.899033555666667

00:27:56.650 --> 00:27:58.634 which of course are a subset of the

NOTE Confidence: 0.899033555666667

00:27:58.634 --> 00:28:00.518 triple negative breast tumors in white  
NOTE Confidence: 0.899033555666667

00:28:00.518 --> 00:28:01.854 American breast cancer patients,  
NOTE Confidence: 0.899033555666667

00:28:01.860 --> 00:28:03.292 African American breast cancer  
NOTE Confidence: 0.899033555666667

00:28:03.292 --> 00:28:05.836 patients and women born in West Africa  
NOTE Confidence: 0.899033555666667

00:28:05.836 --> 00:28:07.511 but whose cancers were diagnosed  
NOTE Confidence: 0.899033555666667

00:28:07.511 --> 00:28:09.719 and treated in the United States.  
NOTE Confidence: 0.899033555666667

00:28:09.720 --> 00:28:11.533 And women born in East Africa but  
NOTE Confidence: 0.899033555666667

00:28:11.533 --> 00:28:12.932 whose breast cancers were diagnosed  
NOTE Confidence: 0.899033555666667

00:28:12.932 --> 00:28:14.654 and treated in the United States.  
NOTE Confidence: 0.899033555666667

00:28:14.660 --> 00:28:17.456 And similar to our international data,  
NOTE Confidence: 0.899033555666667

00:28:17.460 --> 00:28:19.917 amadeen found that we see the highest  
NOTE Confidence: 0.899033555666667

00:28:19.917 --> 00:28:21.779 frequencies of the ER negative  
NOTE Confidence: 0.899033555666667

00:28:21.779 --> 00:28:23.999 tumors in the African American and  
NOTE Confidence: 0.899033555666667

00:28:23.999 --> 00:28:26.363 West African born patients and the  
NOTE Confidence: 0.899033555666667

00:28:26.363 --> 00:28:28.308 lowest frequencies of ER negative  
NOTE Confidence: 0.899033555666667

00:28:28.308 --> 00:28:31.110 tumors in the White American and

NOTE Confidence: 0.899033555666667  
00:28:31.110 --> 00:28:33.038 East African born patients.  
NOTE Confidence: 0.899033555666667  
00:28:33.040 --> 00:28:35.469 So this is where we've coined the  
NOTE Confidence: 0.899033555666667  
00:28:35.469 --> 00:28:36.958 nomenclature of oncologic anthropology  
NOTE Confidence: 0.899033555666667  
00:28:36.958 --> 00:28:39.274 to try to explain these patterns.  
NOTE Confidence: 0.899033555666667  
00:28:39.280 --> 00:28:40.423 And of course,  
NOTE Confidence: 0.899033555666667  
00:28:40.423 --> 00:28:42.709 as we all recall from grade  
NOTE Confidence: 0.899033555666667  
00:28:42.709 --> 00:28:44.340 school social studies,  
NOTE Confidence: 0.899033555666667  
00:28:44.340 --> 00:28:46.344 the transatlantic slave trade  
NOTE Confidence: 0.899033555666667  
00:28:46.344 --> 00:28:48.849 brought the ancestors of contemporary  
NOTE Confidence: 0.899033555666667  
00:28:48.849 --> 00:28:50.602 western sub-saharan Africans across  
NOTE Confidence: 0.899033555666667  
00:28:50.602 --> 00:28:53.360 the ocean to serve as slaves in  
NOTE Confidence: 0.902930456818182  
00:28:53.431 --> 00:28:55.683 the colonies. And so today,  
NOTE Confidence: 0.902930456818182  
00:28:55.683 --> 00:28:57.527 as contemporary African Americans,  
NOTE Confidence: 0.902930456818182  
00:28:57.530 --> 00:29:00.338 we have quite a bit of shared genetic  
NOTE Confidence: 0.902930456818182  
00:29:00.338 --> 00:29:02.908 ancestry with the contemporary Guineans.  
NOTE Confidence: 0.902930456818182

00:29:02.910 --> 00:29:05.002 Representing Western sub-saharan Africans.

NOTE Confidence: 0.902930456818182

00:29:05.002 --> 00:29:09.230 But the slave trade from East Africa largely

NOTE Confidence: 0.902930456818182

00:29:09.230 --> 00:29:11.770 brought the ancestors of contemporary

NOTE Confidence: 0.902930456818182

00:29:11.770 --> 00:29:14.262 East Africans and Ethiopians further

NOTE Confidence: 0.902930456818182

00:29:14.262 --> 00:29:17.370 eastward to the Mideast and to Asia.

NOTE Confidence: 0.902930456818182

00:29:17.370 --> 00:29:18.580 And so as African Americans,

NOTE Confidence: 0.902930456818182

00:29:18.580 --> 00:29:20.722 we don't have quite so much

NOTE Confidence: 0.902930456818182

00:29:20.722 --> 00:29:22.150 shared ancestry with Ethiopia,

NOTE Confidence: 0.902930456818182

00:29:22.150 --> 00:29:23.426 excuse me, with Ethiopians.

NOTE Confidence: 0.902930456818182

00:29:23.426 --> 00:29:25.777 And so if there is something of

NOTE Confidence: 0.902930456818182

00:29:25.777 --> 00:29:27.632 a heritable nature related to

NOTE Confidence: 0.902930456818182

00:29:27.632 --> 00:29:29.116 African ancestry predisposing to

NOTE Confidence: 0.902930456818182

00:29:29.176 --> 00:29:30.888 triple negative breast cancer,

NOTE Confidence: 0.902930456818182

00:29:30.890 --> 00:29:32.910 it's likely something specifically related.

NOTE Confidence: 0.902930456818182

00:29:32.910 --> 00:29:36.190 Related to Western sub-saharan

NOTE Confidence: 0.902930456818182

00:29:36.190 --> 00:29:38.650 African genetic ancestry.

NOTE Confidence: 0.902930456818182

00:29:38.650 --> 00:29:41.765 So one of our terrific and brilliant

NOTE Confidence: 0.902930456818182

00:29:41.765 --> 00:29:44.489 research partners for my research team,

NOTE Confidence: 0.902930456818182

00:29:44.490 --> 00:29:46.576 the International Center for the Study of

NOTE Confidence: 0.902930456818182

00:29:46.576 --> 00:29:48.547 Breast Cancer Subtypes is Doctor John Carton,

NOTE Confidence: 0.902930456818182

00:29:48.550 --> 00:29:50.730 who runs the Translational Cancer

NOTE Confidence: 0.902930456818182

00:29:50.730 --> 00:29:52.910 Research program out at USC.

NOTE Confidence: 0.902930456818182

00:29:52.910 --> 00:29:55.150 And we've been really trying to work

NOTE Confidence: 0.902930456818182

00:29:55.150 --> 00:29:58.002 quite hard to get more of our colleagues

NOTE Confidence: 0.902930456818182

00:29:58.002 --> 00:30:00.518 in the oncology research world to look

NOTE Confidence: 0.902930456818182

00:30:00.518 --> 00:30:02.709 at the genetics of race and ethnicity

NOTE Confidence: 0.902930456818182

00:30:02.709 --> 00:30:05.446 and to quantify germline ancestral

NOTE Confidence: 0.902930456818182

00:30:05.446 --> 00:30:08.466 genetics with the cancer outcomes.

NOTE Confidence: 0.902930456818182

00:30:08.470 --> 00:30:10.390 As a way of trying to

NOTE Confidence: 0.902930456818182

00:30:10.390 --> 00:30:11.350 understand disparities better.

NOTE Confidence: 0.91807713

00:30:13.920 --> 00:30:16.220 So about five years ago,

NOTE Confidence: 0.91807713

00:30:16.220 --> 00:30:18.831 I was absolutely thrilled to be able  
NOTE Confidence: 0.91807713

00:30:18.831 --> 00:30:21.340 to recruit one of John's mentees,  
NOTE Confidence: 0.91807713

00:30:21.340 --> 00:30:23.678 Melissa Davis, who is a card carrying  
NOTE Confidence: 0.91807713

00:30:23.678 --> 00:30:26.319 PhD geneticist to serve as the scientific  
NOTE Confidence: 0.91807713

00:30:26.319 --> 00:30:28.289 director for our International Center  
NOTE Confidence: 0.91807713

00:30:28.289 --> 00:30:30.937 for the Study of Breast Cancer subtypes.  
NOTE Confidence: 0.91807713

00:30:30.940 --> 00:30:33.936 And our international team for the last  
NOTE Confidence: 0.91807713

00:30:33.936 --> 00:30:37.169 nearly 20 years now has been building  
NOTE Confidence: 0.91807713

00:30:37.169 --> 00:30:39.971 up this biobank biorepository of tumor  
NOTE Confidence: 0.91807713

00:30:40.051 --> 00:30:43.399 specimens for somatic tumor tissue studies.  
NOTE Confidence: 0.91807713

00:30:43.400 --> 00:30:46.060 And saliva specimens as well as blood  
NOTE Confidence: 0.91807713

00:30:46.060 --> 00:30:48.149 specimens suitable for germline genetic  
NOTE Confidence: 0.91807713

00:30:48.149 --> 00:30:50.807 studies from different parts of Africa.  
NOTE Confidence: 0.91807713

00:30:50.810 --> 00:30:52.844 And so it was really exciting  
NOTE Confidence: 0.91807713

00:30:52.844 --> 00:30:55.613 to get Melissa to serve as our  
NOTE Confidence: 0.91807713

00:30:55.613 --> 00:30:57.389 basic science research leader.

NOTE Confidence: 0.91807713

00:30:57.390 --> 00:30:59.542 So that she could use her tools to

NOTE Confidence: 0.91807713

00:30:59.542 --> 00:31:01.778 tease out some of these differences

NOTE Confidence: 0.91807713

00:31:01.778 --> 00:31:03.414 and understanding the genetics

NOTE Confidence: 0.91807713

00:31:03.414 --> 00:31:04.850 of African ancestry.

NOTE Confidence: 0.91807713

00:31:04.850 --> 00:31:06.770 And for most of Melissa's career,

NOTE Confidence: 0.91807713

00:31:06.770 --> 00:31:09.026 she's been a world leading expert

NOTE Confidence: 0.91807713

00:31:09.026 --> 00:31:10.961 in studying a particular gene

NOTE Confidence: 0.91807713

00:31:10.961 --> 00:31:13.502 called the Duffy gene or the Duffy

NOTE Confidence: 0.91807713

00:31:13.502 --> 00:31:15.269 antigen receptor for chemokines.

NOTE Confidence: 0.91807713

00:31:15.270 --> 00:31:17.328 And there's a particular variant of

NOTE Confidence: 0.91807713

00:31:17.328 --> 00:31:20.098 the Duffy gene that is seen almost

NOTE Confidence: 0.91807713

00:31:20.098 --> 00:31:22.313 exclusively in individuals that have

NOTE Confidence: 0.91807713

00:31:22.313 --> 00:31:24.330 Western sub-saharan African ancestry.

NOTE Confidence: 0.91807713

00:31:24.330 --> 00:31:26.695 It's widely called the Duffy

NOTE Confidence: 0.91807713

00:31:26.695 --> 00:31:28.114 now Gene variant.

NOTE Confidence: 0.91807713

00:31:28.120 --> 00:31:31.210 And therefore this Duffy null variant  
NOTE Confidence: 0.91807713

00:31:31.210 --> 00:31:33.986 is an ancestry informative marker  
NOTE Confidence: 0.91807713

00:31:33.986 --> 00:31:36.498 informative of African ancestry.  
NOTE Confidence: 0.91807713

00:31:36.500 --> 00:31:36.911 Now,  
NOTE Confidence: 0.91807713

00:31:36.911 --> 00:31:38.555 Melissa's been studying Duffy  
NOTE Confidence: 0.91807713

00:31:38.555 --> 00:31:41.210 null for most of her career.  
NOTE Confidence: 0.91807713

00:31:41.210 --> 00:31:43.208 Other investigators have kind of happened  
NOTE Confidence: 0.91807713

00:31:43.208 --> 00:31:45.953 a Long Duffy Knoll in the context of  
NOTE Confidence: 0.91807713

00:31:45.953 --> 00:31:47.648 other studies looking at disparities.  
NOTE Confidence: 0.91807713

00:31:47.650 --> 00:31:49.180 And this slide is summarizing  
NOTE Confidence: 0.91807713

00:31:49.180 --> 00:31:51.428 the data from a study that came  
NOTE Confidence: 0.91807713

00:31:51.428 --> 00:31:53.058 out of the Amber Consortium,  
NOTE Confidence: 0.91807713

00:31:53.060 --> 00:31:54.536 a collaborative group of  
NOTE Confidence: 0.91807713

00:31:54.536 --> 00:31:56.012 investigators looking at breast  
NOTE Confidence: 0.91807713

00:31:56.012 --> 00:31:57.588 cancer disparities related to race.  
NOTE Confidence: 0.91807713

00:31:57.590 --> 00:31:59.630 And in this particular publication,



NOTE Confidence: 0.91807713

00:31:59.630 --> 00:32:01.675 the Amber Consortium investigators were

NOTE Confidence: 0.91807713

00:32:01.675 --> 00:32:04.230 looking at levels of different circulating

NOTE Confidence: 0.91807713

00:32:04.230 --> 00:32:06.888 chemokines that might be associated with.

NOTE Confidence: 0.91807713

00:32:06.890 --> 00:32:09.515 Cancer and in particular breast cancer risk.

NOTE Confidence: 0.91807713

00:32:09.520 --> 00:32:11.592 And they wanted to see if the levels

NOTE Confidence: 0.91807713

00:32:11.592 --> 00:32:13.714 of these different keeps US cytokines

NOTE Confidence: 0.91807713

00:32:13.714 --> 00:32:15.644 were different between black women

NOTE Confidence: 0.91807713

00:32:15.644 --> 00:32:17.955 and white women who had not yet

NOTE Confidence: 0.91807713

00:32:17.955 --> 00:32:19.760 been diagnosed with breast cancer.

NOTE Confidence: 0.91807713

00:32:19.760 --> 00:32:23.120 And they did identify a handful

NOTE Confidence: 0.91807713

00:32:23.120 --> 00:32:25.112 of cytokines that differed between

NOTE Confidence: 0.91807713

00:32:25.112 --> 00:32:27.260 the black women and white women.

NOTE Confidence: 0.91807713

00:32:27.260 --> 00:32:29.360 And then when they did genetic analysis,

NOTE Confidence: 0.91807713

00:32:29.360 --> 00:32:31.875 they found that these differences

NOTE Confidence: 0.91807713

00:32:31.875 --> 00:32:34.390 were explained by the presence

NOTE Confidence: 0.91807713

00:32:34.475 --> 00:32:36.600 of the Duffy null genotype.  
NOTE Confidence: 0.91807713

00:32:36.600 --> 00:32:38.832 We've also learned overtime that the  
NOTE Confidence: 0.91807713

00:32:38.832 --> 00:32:41.267 Duffy Null variant is the variant  
NOTE Confidence: 0.91807713

00:32:41.267 --> 00:32:43.452 that's responsible for a phenomenon  
NOTE Confidence: 0.91807713

00:32:43.452 --> 00:32:45.600 called benign ethnic neutropenia,  
NOTE Confidence: 0.91807713

00:32:45.600 --> 00:32:47.352 which is the fact that African  
NOTE Confidence: 0.91807713

00:32:47.352 --> 00:32:49.262 Americans tend to have a lower  
NOTE Confidence: 0.91807713

00:32:49.262 --> 00:32:50.957 circulating white blood cell count.  
NOTE Confidence: 0.91807713

00:32:50.960 --> 00:32:53.246 Which doesn't have any biologic significance,  
NOTE Confidence: 0.91807713

00:32:53.250 --> 00:32:55.254 but it is a numeric pattern  
NOTE Confidence: 0.91807713

00:32:55.254 --> 00:32:56.590 that seemed pretty consistently.  
NOTE Confidence: 0.91807713

00:32:56.590 --> 00:32:58.015 And some investigators are now  
NOTE Confidence: 0.91807713

00:32:58.015 --> 00:32:59.864 looking at whether or not Duffy  
NOTE Confidence: 0.91807713

00:32:59.864 --> 00:33:02.072 null may be implicated in transplant  
NOTE Confidence: 0.91807713

00:33:02.072 --> 00:33:02.808 rejection disparities.  
NOTE Confidence: 0.91807713

00:33:02.810 --> 00:33:04.320 And we are obviously looking

NOTE Confidence: 0.91807713

00:33:04.320 --> 00:33:05.830 at it in breast cancer,

NOTE Confidence: 0.91807713

00:33:05.830 --> 00:33:08.674 others are looking at it in

NOTE Confidence: 0.91807713

00:33:08.674 --> 00:33:10.096 prostate cancer disparities.

NOTE Confidence: 0.91807713

00:33:10.100 --> 00:33:10.562 Unfortunately,

NOTE Confidence: 0.91807713

00:33:10.562 --> 00:33:11.024 however,

NOTE Confidence: 0.91807713

00:33:11.024 --> 00:33:14.258 when you look at the literature globally,

NOTE Confidence: 0.91807713

00:33:14.260 --> 00:33:16.942 there is a huge gap in terms of what

NOTE Confidence: 0.91807713

00:33:16.942 --> 00:33:19.736 we know about how African ancestral

NOTE Confidence: 0.91807713

00:33:19.736 --> 00:33:22.713 genetics impact on cancer risk because

NOTE Confidence: 0.91807713

00:33:22.713 --> 00:33:26.087 so few of the genomic studies have

NOTE Confidence: 0.91807713

00:33:26.087 --> 00:33:28.046 included significant numbers of

NOTE Confidence: 0.91807713

00:33:28.046 --> 00:33:30.018 individuals with African ancestry.

NOTE Confidence: 0.91807713

00:33:30.020 --> 00:33:33.436 And as shown by this study from cell,

NOTE Confidence: 0.912492391333333

00:33:33.440 --> 00:33:36.075 only about 2% of individuals

NOTE Confidence: 0.912492391333333

00:33:36.075 --> 00:33:38.710 contributing to genome wide association

NOTE Confidence: 0.912492391333333

00:33:38.793 --> 00:33:41.428 studies have had African ancestry.  
NOTE Confidence: 0.912492391333333

00:33:41.430 --> 00:33:43.915 So we were really excited to have  
NOTE Confidence: 0.912492391333333

00:33:43.915 --> 00:33:46.144 Melissa work her magic with her  
NOTE Confidence: 0.912492391333333

00:33:46.144 --> 00:33:48.316 genetics skills to apply them to  
NOTE Confidence: 0.912492391333333

00:33:48.316 --> 00:33:50.750 our international biorepository,  
NOTE Confidence: 0.912492391333333

00:33:50.750 --> 00:33:53.515 which again has been amassing  
NOTE Confidence: 0.912492391333333

00:33:53.515 --> 00:33:56.280 specimens for nearly 20 years.  
NOTE Confidence: 0.912492391333333

00:33:56.280 --> 00:33:58.758 So I'm Melissa did a really cool  
NOTE Confidence: 0.912492391333333

00:33:58.758 --> 00:34:01.000 study where she looked at Duffy  
NOTE Confidence: 0.912492391333333

00:34:01.000 --> 00:34:03.576 Null compared to a series of other  
NOTE Confidence: 0.912492391333333

00:34:03.659 --> 00:34:05.909 genetic variants that have been  
NOTE Confidence: 0.912492391333333

00:34:05.909 --> 00:34:08.570 potentially linked to risk of breast  
NOTE Confidence: 0.912492391333333

00:34:08.570 --> 00:34:10.620 cancer and hormone receptor negative,  
NOTE Confidence: 0.912492391333333

00:34:10.620 --> 00:34:12.484 triple negative breast cancer.  
NOTE Confidence: 0.912492391333333

00:34:12.484 --> 00:34:14.814 And in working with this  
NOTE Confidence: 0.912492391333333

00:34:14.814 --> 00:34:16.969 other brilliant researcher,

NOTE Confidence: 0.912492391333333

00:34:16.970 --> 00:34:18.194 our geneticist,

NOTE Confidence: 0.912492391333333

00:34:18.194 --> 00:34:20.642 biostatistician yallah chin from

NOTE Confidence: 0.912492391333333

00:34:20.642 --> 00:34:23.790 the Henry Ford Health system,

NOTE Confidence: 0.912492391333333

00:34:23.790 --> 00:34:26.142 Yalley was able to show that the

NOTE Confidence: 0.912492391333333

00:34:26.142 --> 00:34:28.287 presence of this Duffy Null variant

NOTE Confidence: 0.912492391333333

00:34:28.287 --> 00:34:30.779 was by far and away the strongest

NOTE Confidence: 0.912492391333333

00:34:30.855 --> 00:34:33.150 determinant of having a triple

NOTE Confidence: 0.912492391333333

00:34:33.150 --> 00:34:35.445 negative breast cancer versus having

NOTE Confidence: 0.912492391333333

00:34:35.450 --> 00:34:39.290 a non triple negative breast cancer.

NOTE Confidence: 0.912492391333333

00:34:39.290 --> 00:34:41.814 The phenomenal anthropologist Dr.

NOTE Confidence: 0.912492391333333

00:34:41.814 --> 00:34:46.370 Sarah Tishkoff has shown us very nicely,

NOTE Confidence: 0.912492391333333

00:34:46.370 --> 00:34:48.810 as demonstrated by this graphic,

NOTE Confidence: 0.912492391333333

00:34:48.810 --> 00:34:51.594 that many of the ancestry informative

NOTE Confidence: 0.912492391333333

00:34:51.594 --> 00:34:55.156 markers that we look at aren't markers

NOTE Confidence: 0.912492391333333

00:34:55.156 --> 00:34:58.408 variants that developed randomly over time.

NOTE Confidence: 0.912492391333333

00:34:58.410 --> 00:35:02.232 Many of them actually represent evolutionary  
NOTE Confidence: 0.912492391333333

00:35:02.232 --> 00:35:05.397 selection pressure over our ancestors  
NOTE Confidence: 0.912492391333333

00:35:05.397 --> 00:35:09.037 to to allow our ancestors to survive.  
NOTE Confidence: 0.912492391333333

00:35:09.040 --> 00:35:11.532 Different threats to longevity,  
NOTE Confidence: 0.912492391333333

00:35:11.532 --> 00:35:14.024 threats to life expectancy,  
NOTE Confidence: 0.912492391333333

00:35:14.030 --> 00:35:16.006 related to infectious diseases,  
NOTE Confidence: 0.912492391333333

00:35:16.006 --> 00:35:17.488 related to climate,  
NOTE Confidence: 0.912492391333333

00:35:17.490 --> 00:35:19.578 related to food sources.  
NOTE Confidence: 0.912492391333333

00:35:19.578 --> 00:35:21.144 And then today,  
NOTE Confidence: 0.912492391333333

00:35:21.150 --> 00:35:22.896 when we look at the descendants  
NOTE Confidence: 0.912492391333333

00:35:22.896 --> 00:35:23.769 of those populations,  
NOTE Confidence: 0.912492391333333

00:35:23.770 --> 00:35:25.826 you can you can continue to see many  
NOTE Confidence: 0.912492391333333

00:35:25.826 --> 00:35:28.060 of these ancestry informative markers,  
NOTE Confidence: 0.912492391333333

00:35:28.060 --> 00:35:29.448 regardless of where the  
NOTE Confidence: 0.912492391333333

00:35:29.448 --> 00:35:31.183 descendants reside over the globe.  
NOTE Confidence: 0.874422510384615

00:35:33.910 --> 00:35:36.470 The Duffy Null variant is just one more

NOTE Confidence: 0.874422510384615

00:35:36.470 --> 00:35:39.257 example of such a variant that was acquired

NOTE Confidence: 0.874422510384615

00:35:39.257 --> 00:35:41.754 over the millennia as a consequence

NOTE Confidence: 0.874422510384615

00:35:41.754 --> 00:35:43.846 of evolutionary selection pressure.

NOTE Confidence: 0.874422510384615

00:35:43.850 --> 00:35:46.300 The Duffy Novariant is something

NOTE Confidence: 0.874422510384615

00:35:46.300 --> 00:35:49.365 that became apparent that was adopted

NOTE Confidence: 0.874422510384615

00:35:49.365 --> 00:35:51.425 in Western sub-Saharan Africa

NOTE Confidence: 0.874422510384615

00:35:51.425 --> 00:35:54.168 many many thousands of years ago,

NOTE Confidence: 0.874422510384615

00:35:54.170 --> 00:35:56.498 linked to the need to have

NOTE Confidence: 0.874422510384615

00:35:56.498 --> 00:35:58.050 some resistance to malaria,

NOTE Confidence: 0.874422510384615

00:35:58.050 --> 00:35:59.930 and malaria became endemic in

NOTE Confidence: 0.874422510384615

00:35:59.930 --> 00:36:01.434 Western sub-Saharan Africa because

NOTE Confidence: 0.874422510384615

00:36:01.434 --> 00:36:03.450 of the tropical nature of that.

NOTE Confidence: 0.874422510384615

00:36:03.450 --> 00:36:05.984 With the geography there with the many

NOTE Confidence: 0.874422510384615

00:36:05.984 --> 00:36:08.460 watery areas and low altitude areas

NOTE Confidence: 0.874422510384615

00:36:08.460 --> 00:36:11.094 supporting the lifecycle of the mosquito,

NOTE Confidence: 0.874422510384615

00:36:11.100 --> 00:36:13.824 which of course is the host  
NOTE Confidence: 0.874422510384615

00:36:13.824 --> 00:36:15.640 for the malaria parasites.  
NOTE Confidence: 0.874422510384615

00:36:15.640 --> 00:36:18.573 And there are other examples of variants  
NOTE Confidence: 0.874422510384615

00:36:18.573 --> 00:36:21.206 that were acquired to confer some  
NOTE Confidence: 0.874422510384615

00:36:21.206 --> 00:36:23.804 resistance to malaria that thalassemia is  
NOTE Confidence: 0.874422510384615

00:36:23.804 --> 00:36:27.017 seen in European Mediterranean populations.  
NOTE Confidence: 0.874422510384615

00:36:27.020 --> 00:36:28.060 Sickle cell,  
NOTE Confidence: 0.874422510384615

00:36:28.060 --> 00:36:30.140 the Duffy Null variant,  
NOTE Confidence: 0.874422510384615

00:36:30.140 --> 00:36:33.436 doesn't have quite as many of the adults  
NOTE Confidence: 0.874422510384615

00:36:33.436 --> 00:36:35.780 health consequences as those variants do,  
NOTE Confidence: 0.874422510384615

00:36:35.780 --> 00:36:39.203 and therefore the Duffy null variant is  
NOTE Confidence: 0.874422510384615

00:36:39.203 --> 00:36:42.974 seen in nearly 100% of the descendants  
NOTE Confidence: 0.874422510384615

00:36:42.974 --> 00:36:45.278 of Western sub-saharan Africans.  
NOTE Confidence: 0.874422510384615

00:36:45.280 --> 00:36:47.680 Something occurred about 5-6 thousand  
NOTE Confidence: 0.874422510384615

00:36:47.680 --> 00:36:51.070 years ago called the Band 2 expansion,  
NOTE Confidence: 0.874422510384615

00:36:51.070 --> 00:36:53.130 where Western sub-saharan Africans



NOTE Confidence: 0.874422510384615  
00:36:53.130 --> 00:36:55.190 migrated across the continent  
NOTE Confidence: 0.874422510384615  
00:36:55.190 --> 00:36:57.804 to populate the various areas of  
NOTE Confidence: 0.874422510384615  
00:36:57.804 --> 00:36:59.689 East Africa and South Africa.  
NOTE Confidence: 0.874422510384615  
00:36:59.690 --> 00:37:02.007 And while many of those areas have  
NOTE Confidence: 0.874422510384615  
00:37:02.007 --> 00:37:04.028 more mountainous areas that do not  
NOTE Confidence: 0.874422510384615  
00:37:04.028 --> 00:37:05.628 support the mosquito life cycle,  
NOTE Confidence: 0.874422510384615  
00:37:05.630 --> 00:37:08.024 so they have a different history of  
NOTE Confidence: 0.874422510384615  
00:37:08.024 --> 00:37:10.592 endemic malaria in those parts of the  
NOTE Confidence: 0.874422510384615  
00:37:10.592 --> 00:37:12.800 continent but with the Bantu expansion.  
NOTE Confidence: 0.874422510384615  
00:37:12.800 --> 00:37:14.912 The Duffy Null variant did track  
NOTE Confidence: 0.874422510384615  
00:37:14.912 --> 00:37:17.081 across the continent of Africa and  
NOTE Confidence: 0.874422510384615  
00:37:17.081 --> 00:37:19.157 you see varying degrees of admixture  
NOTE Confidence: 0.874422510384615  
00:37:19.157 --> 00:37:21.674 and the presence of this stuffy null  
NOTE Confidence: 0.874422510384615  
00:37:21.674 --> 00:37:23.957 variant in those reasons of Africa.  
NOTE Confidence: 0.874422510384615  
00:37:23.957 --> 00:37:27.576 Just as with the transatlantic slave trade,  
NOTE Confidence: 0.874422510384615

00:37:27.580 --> 00:37:29.338 the Duffy Null variant came across  
NOTE Confidence: 0.874422510384615

00:37:29.338 --> 00:37:31.539 to the Americas and with the genetic  
NOTE Confidence: 0.874422510384615

00:37:31.539 --> 00:37:33.814 admixture that we see in African Americans,  
NOTE Confidence: 0.874422510384615

00:37:33.820 --> 00:37:36.452 this results in about 2/3 to 3/4 of  
NOTE Confidence: 0.874422510384615

00:37:36.452 --> 00:37:38.198 African Americans expressing that Duffy  
NOTE Confidence: 0.874422510384615

00:37:38.198 --> 00:37:41.010 Null variant and if you overlay a map  
NOTE Confidence: 0.874422510384615

00:37:41.010 --> 00:37:43.140 of the frequency of triple negative.  
NOTE Confidence: 0.874422510384615

00:37:43.140 --> 00:37:44.765 Breast cancer in different parts  
NOTE Confidence: 0.874422510384615

00:37:44.765 --> 00:37:47.345 of the world with a map of the  
NOTE Confidence: 0.874422510384615

00:37:47.345 --> 00:37:48.830 the the Duffy Null variant,  
NOTE Confidence: 0.874422510384615

00:37:48.830 --> 00:37:51.248 there's actually a pretty close correlation,  
NOTE Confidence: 0.874422510384615

00:37:51.250 --> 00:37:52.858 so we've been exploring.  
NOTE Confidence: 0.874422510384615

00:37:52.858 --> 00:37:55.270 Ways to understand how to connect  
NOTE Confidence: 0.874422510384615

00:37:55.346 --> 00:37:57.775 the dots between the stuff we know  
NOTE Confidence: 0.874422510384615

00:37:57.775 --> 00:38:00.515 variant and the risk of having a  
NOTE Confidence: 0.874422510384615

00:38:00.515 --> 00:38:02.143 triple negative breast cancer.

NOTE Confidence: 0.874422510384615  
00:38:02.150 --> 00:38:04.238 The reason why that Duffy Null  
NOTE Confidence: 0.874422510384615  
00:38:04.238 --> 00:38:05.981 variant confers some resistance to  
NOTE Confidence: 0.874422510384615  
00:38:05.981 --> 00:38:07.703 malaria is because if you possess  
NOTE Confidence: 0.874422510384615  
00:38:07.703 --> 00:38:09.070 the Duffy null variant,  
NOTE Confidence: 0.874422510384615  
00:38:09.070 --> 00:38:10.660 you do not express the Duffy  
NOTE Confidence: 0.874422510384615  
00:38:10.660 --> 00:38:12.389 protein on your red blood cell.  
NOTE Confidence: 0.874422510384615  
00:38:12.390 --> 00:38:14.710 And the Duffy protein on the red blood  
NOTE Confidence: 0.874422510384615  
00:38:14.710 --> 00:38:17.363 cell is kind of the entry portal for  
NOTE Confidence: 0.874422510384615  
00:38:17.363 --> 00:38:19.716 the malaria parasites to get into the  
NOTE Confidence: 0.874422510384615  
00:38:19.716 --> 00:38:21.921 red blood cell and cause the disease.  
NOTE Confidence: 0.874422510384615  
00:38:21.930 --> 00:38:24.066 So now what we are learning.  
NOTE Confidence: 0.874422510384615  
00:38:24.070 --> 00:38:26.314 And the work that's ongoing and  
NOTE Confidence: 0.874422510384615  
00:38:26.314 --> 00:38:29.209 Melissa let slip is seeking to better  
NOTE Confidence: 0.874422510384615  
00:38:29.209 --> 00:38:31.849 understand how this Duffy protein and  
NOTE Confidence: 0.874422510384615  
00:38:31.849 --> 00:38:34.937 lack of the Duffy protein on the red  
NOTE Confidence: 0.874422510384615

00:38:34.937 --> 00:38:37.219 blood cell impacts on circulating chemokines,  
NOTE Confidence: 0.874422510384615

00:38:37.219 --> 00:38:39.184 which would explain the findings  
NOTE Confidence: 0.874422510384615

00:38:39.184 --> 00:38:41.604 of the Amber Consortium that I  
NOTE Confidence: 0.874422510384615

00:38:41.604 --> 00:38:42.780 showed you previously.  
NOTE Confidence: 0.874422510384615

00:38:42.780 --> 00:38:44.838 And how this may have a downstream  
NOTE Confidence: 0.874422510384615

00:38:44.838 --> 00:38:47.231 in fact when the mammary tissue  
NOTE Confidence: 0.874422510384615

00:38:47.231 --> 00:38:48.677 microenvironment and the  
NOTE Confidence: 0.874422510384615

00:38:48.677 --> 00:38:50.605 inflammatory the immune landscape  
NOTE Confidence: 0.8240383148

00:38:50.669 --> 00:38:52.359 of the Mary mammary tissue.  
NOTE Confidence: 0.8240383148

00:38:52.360 --> 00:38:54.144 Which can then have an impact on the  
NOTE Confidence: 0.8240383148

00:38:54.144 --> 00:38:55.987 types of breast tumors that develop.  
NOTE Confidence: 0.871899942

00:38:58.870 --> 00:39:01.586 Melissa has also been doing work with  
NOTE Confidence: 0.871899942

00:39:01.586 --> 00:39:04.098 the Cancer Genome Atlas looking at  
NOTE Confidence: 0.871899942

00:39:04.098 --> 00:39:06.218 tumor tissue expression presence of  
NOTE Confidence: 0.871899942

00:39:06.218 --> 00:39:09.338 the the Duffy protein and you see as  
NOTE Confidence: 0.871899942

00:39:09.338 --> 00:39:11.464 you would predict lower levels of

NOTE Confidence: 0.871899942

00:39:11.464 --> 00:39:13.753 Duffy protein in the breast tumors of

NOTE Confidence: 0.871899942

00:39:13.753 --> 00:39:15.686 African American compared to white

NOTE Confidence: 0.871899942

00:39:15.686 --> 00:39:18.002 women contributing specimens to TCG A.

NOTE Confidence: 0.871899942

00:39:18.010 --> 00:39:21.074 And the lower presence of a Duffy tends

NOTE Confidence: 0.871899942

00:39:21.074 --> 00:39:23.594 to correlate with worse prognosis

NOTE Confidence: 0.871899942

00:39:23.594 --> 00:39:25.826 across the different phenotypes.

NOTE Confidence: 0.871899942

00:39:25.830 --> 00:39:27.622 So this phenotype agnostic.

NOTE Confidence: 0.871899942

00:39:27.622 --> 00:39:30.856 If you will affect on tumor tissue

NOTE Confidence: 0.871899942

00:39:30.856 --> 00:39:33.640 tumor outcome may be what's explaining

NOTE Confidence: 0.871899942

00:39:33.640 --> 00:39:37.152 what we see in looking at the the

NOTE Confidence: 0.871899942

00:39:37.152 --> 00:39:39.503 the impact of race ethnicity on

NOTE Confidence: 0.871899942

00:39:39.503 --> 00:39:41.694 outcomes in women with that have ER

NOTE Confidence: 0.871899942

00:39:41.694 --> 00:39:43.659 positive disease as we saw from the

NOTE Confidence: 0.871899942

00:39:43.659 --> 00:39:45.340 tailor X and the responder trial.

NOTE Confidence: 0.949547916

00:39:47.890 --> 00:39:49.870 Many people are doing very,

NOTE Confidence: 0.949547916

00:39:49.870 --> 00:39:52.558 very exciting work seeking to subtype  
NOTE Confidence: 0.949547916

00:39:52.558 --> 00:39:54.990 the triple negative breast cancers,  
NOTE Confidence: 0.949547916

00:39:54.990 --> 00:39:57.518 and a lot of this work was pioneered  
NOTE Confidence: 0.949547916

00:39:57.518 --> 00:40:00.010 by the Vanderbilt Group identifying  
NOTE Confidence: 0.949547916

00:40:00.010 --> 00:40:02.985 about 6 different intrinsic triple  
NOTE Confidence: 0.949547916

00:40:02.985 --> 00:40:04.990 negative subtypes initially.  
NOTE Confidence: 0.949547916

00:40:04.990 --> 00:40:06.794 However, the publicly available  
NOTE Confidence: 0.949547916

00:40:06.794 --> 00:40:09.500 datasets that contribute to to the  
NOTE Confidence: 0.949547916

00:40:09.570 --> 00:40:12.030 definition of those different triple  
NOTE Confidence: 0.949547916

00:40:12.030 --> 00:40:14.490 negative subtypes largely came from  
NOTE Confidence: 0.949547916

00:40:14.559 --> 00:40:17.766 communities that had very few, if any.  
NOTE Confidence: 0.949547916

00:40:17.766 --> 00:40:19.500 African ancestry individuals.  
NOTE Confidence: 0.949547916

00:40:19.500 --> 00:40:21.691 So we really don't know if those  
NOTE Confidence: 0.949547916

00:40:21.691 --> 00:40:23.493 triple negative breast tumor subtypes  
NOTE Confidence: 0.949547916

00:40:23.493 --> 00:40:25.488 are applicable to the African  
NOTE Confidence: 0.949547916

00:40:25.488 --> 00:40:27.464 ancestry populations that have a

NOTE Confidence: 0.949547916

00:40:27.464 --> 00:40:29.259 higher inherent risk of developing

NOTE Confidence: 0.949547916

00:40:29.259 --> 00:40:32.350 these triple negative subtypes.

NOTE Confidence: 0.949547916

00:40:32.350 --> 00:40:33.950 In working with Clayton Yates,

NOTE Confidence: 0.949547916

00:40:33.950 --> 00:40:37.010 who used to be at Tuskegee and and now

NOTE Confidence: 0.949547916

00:40:37.010 --> 00:40:40.287 he's recently relocated to Johns Hopkins,

NOTE Confidence: 0.949547916

00:40:40.290 --> 00:40:42.576 Clayton has also been utilizing data

NOTE Confidence: 0.949547916

00:40:42.576 --> 00:40:44.527 from our international buyer repository

NOTE Confidence: 0.949547916

00:40:44.527 --> 00:40:47.110 and has identified the fact that the

NOTE Confidence: 0.949547916

00:40:47.110 --> 00:40:48.911 triple negative breast tumors of

NOTE Confidence: 0.949547916

00:40:48.911 --> 00:40:50.915 African American women does seem to

NOTE Confidence: 0.949547916

00:40:50.915 --> 00:40:52.802 have different signatures compared to

NOTE Confidence: 0.949547916

00:40:52.802 --> 00:40:55.570 what we see in white American women.

NOTE Confidence: 0.759665074285714

00:40:59.250 --> 00:41:03.387 We're also utilizing data from TCG a

NOTE Confidence: 0.759665074285714

00:41:03.390 --> 00:41:06.060 Melissa's been looking at the impact

NOTE Confidence: 0.759665074285714

00:41:06.060 --> 00:41:08.485 of tumor infiltrating tumor associated

NOTE Confidence: 0.759665074285714

00:41:08.485 --> 00:41:11.325 lymphocytes on breast cancer outcomes.  
NOTE Confidence: 0.759665074285714

00:41:11.330 --> 00:41:14.312 And we typically think of these  
NOTE Confidence: 0.759665074285714

00:41:14.312 --> 00:41:16.300 tumor infiltrating lymphocytes as  
NOTE Confidence: 0.759665074285714

00:41:16.379 --> 00:41:18.747 a favorable prognostic feature.  
NOTE Confidence: 0.759665074285714

00:41:18.750 --> 00:41:21.182 But in this is these are unpublished data  
NOTE Confidence: 0.759665074285714

00:41:21.182 --> 00:41:23.527 and these preliminary data from TCG a,  
NOTE Confidence: 0.759665074285714

00:41:23.530 --> 00:41:25.525 the relationship seems to be  
NOTE Confidence: 0.759665074285714

00:41:25.525 --> 00:41:27.520 flipped for African American women  
NOTE Confidence: 0.759665074285714

00:41:27.583 --> 00:41:29.227 with the higher frequency.  
NOTE Confidence: 0.759665074285714

00:41:29.230 --> 00:41:31.400 Of tumor associated lymphocytes seems  
NOTE Confidence: 0.759665074285714

00:41:31.400 --> 00:41:34.180 to be an adverse prognostic feature.  
NOTE Confidence: 0.815447774545455

00:41:36.710 --> 00:41:39.155 Data correlating with these findings  
NOTE Confidence: 0.815447774545455

00:41:39.155 --> 00:41:42.550 from TCG A have been published,  
NOTE Confidence: 0.815447774545455

00:41:42.550 --> 00:41:45.728 again by members of the Amber Consortium.  
NOTE Confidence: 0.815447774545455

00:41:45.730 --> 00:41:48.250 This comes from a study published by  
NOTE Confidence: 0.815447774545455

00:41:48.250 --> 00:41:50.596 Christine Andersoni and her group where



NOTE Confidence: 0.815447774545455

00:41:50.596 --> 00:41:53.008 they looked at the tumor microenvironment

NOTE Confidence: 0.815447774545455

00:41:53.008 --> 00:41:55.420 signature of breast cancers from African

NOTE Confidence: 0.815447774545455

00:41:55.420 --> 00:41:57.370 American and white American women.

NOTE Confidence: 0.815447774545455

00:41:57.370 --> 00:42:00.492 And while they did show that African

NOTE Confidence: 0.815447774545455

00:42:00.492 --> 00:42:03.915 American women tended to have a more

NOTE Confidence: 0.815447774545455

00:42:03.915 --> 00:42:05.915 robust tumor infiltrating lymphocyte.

NOTE Confidence: 0.815447774545455

00:42:05.920 --> 00:42:07.632 Content to their tumors,

NOTE Confidence: 0.815447774545455

00:42:07.632 --> 00:42:09.772 the lymphocytes of the African

NOTE Confidence: 0.815447774545455

00:42:09.772 --> 00:42:12.048 American women were more likely to

NOTE Confidence: 0.815447774545455

00:42:12.048 --> 00:42:14.560 have this T cell exhaustion signature,

NOTE Confidence: 0.815447774545455

00:42:14.560 --> 00:42:15.764 as they called it.

NOTE Confidence: 0.815447774545455

00:42:15.764 --> 00:42:17.570 And so their function was different

NOTE Confidence: 0.815447774545455

00:42:17.627 --> 00:42:20.077 compared to what we see in the what she saw,

NOTE Confidence: 0.815447774545455

00:42:20.080 --> 00:42:21.956 what they saw in the white American

NOTE Confidence: 0.815447774545455

00:42:21.956 --> 00:42:23.170 women with breast cancer.

NOTE Confidence: 0.872870970666667

00:42:25.970 --> 00:42:28.301 And this was an intriguing study that  
NOTE Confidence: 0.872870970666667

00:42:28.301 --> 00:42:31.071 was published in Cell just a few years  
NOTE Confidence: 0.872870970666667

00:42:31.071 --> 00:42:32.771 ago where some investigators were  
NOTE Confidence: 0.872870970666667

00:42:32.833 --> 00:42:35.203 looking at immune cells that were  
NOTE Confidence: 0.872870970666667

00:42:35.203 --> 00:42:37.182 basically primed with specific pathogens,  
NOTE Confidence: 0.872870970666667

00:42:37.182 --> 00:42:39.142 infectious agents and then looking  
NOTE Confidence: 0.872870970666667

00:42:39.142 --> 00:42:41.608 at the response of these immune  
NOTE Confidence: 0.872870970666667

00:42:41.608 --> 00:42:44.104 cells from patients that were African  
NOTE Confidence: 0.872870970666667

00:42:44.104 --> 00:42:46.110 American compared to white American.  
NOTE Confidence: 0.872870970666667

00:42:46.110 --> 00:42:48.528 And they saw very distinct and  
NOTE Confidence: 0.872870970666667

00:42:48.528 --> 00:42:50.981 different responses in terms of the  
NOTE Confidence: 0.872870970666667

00:42:50.981 --> 00:42:53.285 immune activity of these immune cells.  
NOTE Confidence: 0.872870970666667

00:42:53.290 --> 00:42:56.678 When they're linked to different pathogens.  
NOTE Confidence: 0.872870970666667

00:42:56.678 --> 00:43:00.067 So you can only imagine that if the  
NOTE Confidence: 0.872870970666667

00:43:00.067 --> 00:43:02.317 immune cells of African ancestry  
NOTE Confidence: 0.872870970666667

00:43:02.317 --> 00:43:04.193 individuals are responding differently

NOTE Confidence: 0.872870970666667

00:43:04.193 --> 00:43:06.443 to infectious diseases compared to

NOTE Confidence: 0.872870970666667

00:43:06.443 --> 00:43:09.034 the immune cells of white individuals,

NOTE Confidence: 0.872870970666667

00:43:09.034 --> 00:43:11.386 there could easily be differences in

NOTE Confidence: 0.872870970666667

00:43:11.386 --> 00:43:13.765 the way these immune cells function

NOTE Confidence: 0.872870970666667

00:43:13.765 --> 00:43:15.670 in terms of cancer biology.

NOTE Confidence: 0.877931432333333

00:43:20.100 --> 00:43:22.428 So Melissa has been continuing to

NOTE Confidence: 0.877931432333333

00:43:22.428 --> 00:43:24.426 utilize our international data set

NOTE Confidence: 0.877931432333333

00:43:24.426 --> 00:43:26.306 in conducting other studies looking

NOTE Confidence: 0.877931432333333

00:43:26.306 --> 00:43:28.534 at the triple negative breast cancer

NOTE Confidence: 0.877931432333333

00:43:28.534 --> 00:43:30.830 risk alleles and I'm going to go

NOTE Confidence: 0.877931432333333

00:43:30.830 --> 00:43:32.740 through these next few slides quickly.

NOTE Confidence: 0.877931432333333

00:43:32.740 --> 00:43:34.120 In the interest of time,

NOTE Confidence: 0.877931432333333

00:43:34.120 --> 00:43:36.005 we've also been working with

NOTE Confidence: 0.877931432333333

00:43:36.005 --> 00:43:37.890 investigators from the University of

NOTE Confidence: 0.877931432333333

00:43:37.955 --> 00:43:40.015 Michigan been creating PDX models

NOTE Confidence: 0.877931432333333

00:43:40.015 --> 00:43:42.075 based upon our International Studies.  
NOTE Confidence: 0.877931432333333

00:43:42.080 --> 00:43:43.598 And then very recently a couple  
NOTE Confidence: 0.877931432333333

00:43:43.598 --> 00:43:44.357 of months ago,  
NOTE Confidence: 0.877931432333333

00:43:44.360 --> 00:43:47.118 we were really excited about our work  
NOTE Confidence: 0.877931432333333

00:43:47.118 --> 00:43:50.008 with triple negative breast cancer subtyping.  
NOTE Confidence: 0.877931432333333

00:43:50.010 --> 00:43:52.481 Which was the cover article for cancer  
NOTE Confidence: 0.877931432333333

00:43:52.481 --> 00:43:54.470 discovery a couple of months ago.  
NOTE Confidence: 0.877931432333333

00:43:54.470 --> 00:43:56.174 So to us that was like being on  
NOTE Confidence: 0.877931432333333

00:43:56.174 --> 00:43:57.860 the cover of our vogue magazines.  
NOTE Confidence: 0.877931432333333

00:43:57.860 --> 00:43:58.931 We were very,  
NOTE Confidence: 0.877931432333333

00:43:58.931 --> 00:44:01.430 very thrilled about this and we were  
NOTE Confidence: 0.877931432333333

00:44:01.509 --> 00:44:04.260 able to show that looking at genetic  
NOTE Confidence: 0.877931432333333

00:44:04.260 --> 00:44:06.639 ancestry does have independent meaning  
NOTE Confidence: 0.877931432333333

00:44:06.639 --> 00:44:09.449 compared to self reported ancestry.  
NOTE Confidence: 0.877931432333333

00:44:09.450 --> 00:44:11.760 And there were several 100 genes  
NOTE Confidence: 0.877931432333333

00:44:11.760 --> 00:44:13.679 linked to genetic African ancestry

NOTE Confidence: 0.877931432333333

00:44:13.679 --> 00:44:16.487 that you don't see if you look only at

NOTE Confidence: 0.877931432333333

00:44:16.554 --> 00:44:19.009 self reported racial ethnic identity.

NOTE Confidence: 0.874518983076923

00:44:26.090 --> 00:44:28.386 And this is another slide that came

NOTE Confidence: 0.874518983076923

00:44:28.386 --> 00:44:29.899 from that particular publication

NOTE Confidence: 0.874518983076923

00:44:29.899 --> 00:44:32.214 where we're just demonstrating the

NOTE Confidence: 0.874518983076923

00:44:32.214 --> 00:44:34.066 genetic admixture of populations

NOTE Confidence: 0.874518983076923

00:44:34.132 --> 00:44:36.010 in different parts of the world,

NOTE Confidence: 0.874518983076923

00:44:36.010 --> 00:44:38.350 specifically looking at Ghanian patients,

NOTE Confidence: 0.874518983076923

00:44:38.350 --> 00:44:39.973 African American patients,

NOTE Confidence: 0.874518983076923

00:44:39.973 --> 00:44:42.137 Ethiopian patients and European

NOTE Confidence: 0.874518983076923

00:44:42.137 --> 00:44:44.430 ancestry white American patients.

NOTE Confidence: 0.874518983076923

00:44:44.430 --> 00:44:46.902 And it's an example of how much more

NOTE Confidence: 0.874518983076923

00:44:46.902 --> 00:44:49.229 you can learn about genetics of

NOTE Confidence: 0.874518983076923

00:44:49.229 --> 00:44:51.677 disease by drilling down into the.

NOTE Confidence: 0.874518983076923

00:44:51.680 --> 00:44:52.876 Genetic ancestry.

NOTE Confidence: 0.874518983076923

00:44:52.876 --> 00:44:55.866 And African Americans have tremendous,  
NOTE Confidence: 0.874518983076923

00:44:55.870 --> 00:44:57.919 tremendous genetic admixture  
NOTE Confidence: 0.874518983076923

00:44:57.919 --> 00:45:00.651 compared to either Africans  
NOTE Confidence: 0.874518983076923

00:45:00.651 --> 00:45:03.410 or European ancestry people.  
NOTE Confidence: 0.874518983076923

00:45:03.410 --> 00:45:06.130 Individuals and you can't rely  
NOTE Confidence: 0.874518983076923

00:45:06.130 --> 00:45:08.306 upon self reported ancestry.  
NOTE Confidence: 0.874518983076923

00:45:08.310 --> 00:45:11.050 There are three individuals in  
NOTE Confidence: 0.874518983076923

00:45:11.050 --> 00:45:13.242 the European ancestry group.  
NOTE Confidence: 0.874518983076923

00:45:13.250 --> 00:45:14.860 These are individuals who self  
NOTE Confidence: 0.874518983076923

00:45:14.860 --> 00:45:16.148 reported as being white,  
NOTE Confidence: 0.874518983076923

00:45:16.150 --> 00:45:18.586 but they have between 30 and 80%  
NOTE Confidence: 0.874518983076923

00:45:18.590 --> 00:45:20.450 of African genetic ancestry.  
NOTE Confidence: 0.874518983076923

00:45:20.450 --> 00:45:23.660 So you definitely misinformation if you rely.  
NOTE Confidence: 0.874518983076923

00:45:23.660 --> 00:45:26.435 Exclusively upon self reported racial  
NOTE Confidence: 0.874518983076923

00:45:26.435 --> 00:45:29.302 ethnic identity and there are other  
NOTE Confidence: 0.874518983076923

00:45:29.302 --> 00:45:31.492 examples of how genetic ancestry

NOTE Confidence: 0.874518983076923

00:45:31.492 --> 00:45:33.970 might be correlated with health.

NOTE Confidence: 0.874518983076923

00:45:33.970 --> 00:45:36.328 April lipoprotein One is an African

NOTE Confidence: 0.874518983076923

00:45:36.328 --> 00:45:38.300 ancestry variant that has been

NOTE Confidence: 0.874518983076923

00:45:38.300 --> 00:45:40.310 linked to severity of kidney disease

NOTE Confidence: 0.874518983076923

00:45:40.310 --> 00:45:42.772 and we all know that end stage

NOTE Confidence: 0.874518983076923

00:45:42.772 --> 00:45:44.512 renal disease is more prevalent

NOTE Confidence: 0.874518983076923

00:45:44.512 --> 00:45:46.920 in the African American community.

NOTE Confidence: 0.874518983076923

00:45:46.920 --> 00:45:49.495 This particular variant is actually

NOTE Confidence: 0.874518983076923

00:45:49.495 --> 00:45:52.396 a variant that was acquired to

NOTE Confidence: 0.874518983076923

00:45:52.396 --> 00:45:54.706 develop resistance to the African

NOTE Confidence: 0.874518983076923

00:45:54.789 --> 00:45:56.730 sleeping sickness disease.

NOTE Confidence: 0.874518983076923

00:45:56.730 --> 00:45:57.190 Also,

NOTE Confidence: 0.874518983076923

00:45:57.190 --> 00:45:59.950 our wonderful colleague out in California,

NOTE Confidence: 0.874518983076923

00:45:59.950 --> 00:46:02.020 Lauder Fairman has been doing

NOTE Confidence: 0.874518983076923

00:46:02.020 --> 00:46:03.676 similar work looking at.

NOTE Confidence: 0.874518983076923

00:46:03.680 --> 00:46:06.452 Latin X individuals and Lauda has

NOTE Confidence: 0.874518983076923

00:46:06.452 --> 00:46:08.885 demonstrated that extent of genetic

NOTE Confidence: 0.874518983076923

00:46:08.885 --> 00:46:10.913 Native American ancestry reduces

NOTE Confidence: 0.874518983076923

00:46:10.913 --> 00:46:14.060 the risk of getting breast cancer.

NOTE Confidence: 0.874518983076923

00:46:14.060 --> 00:46:15.584 On the other hand,

NOTE Confidence: 0.874518983076923

00:46:15.584 --> 00:46:17.489 higher extent of European ancestry

NOTE Confidence: 0.874518983076923

00:46:17.489 --> 00:46:20.023 is associated with a higher risk

NOTE Confidence: 0.874518983076923

00:46:20.023 --> 00:46:21.687 of getting breast cancer.

NOTE Confidence: 0.874518983076923

00:46:21.690 --> 00:46:23.342 Other investigators have been

NOTE Confidence: 0.874518983076923

00:46:23.342 --> 00:46:25.820 trying to figure out the germline

NOTE Confidence: 0.874518983076923

00:46:25.889 --> 00:46:27.824 genetic ancestral causes of the

NOTE Confidence: 0.874518983076923

00:46:27.824 --> 00:46:30.251 BRC a founder mutations and have

NOTE Confidence: 0.874518983076923

00:46:30.251 --> 00:46:31.955 been potentially linking some

NOTE Confidence: 0.874518983076923

00:46:31.955 --> 00:46:34.085 of those founding mutations to

NOTE Confidence: 0.874518983076923

00:46:34.090 --> 00:46:37.898 fertility over the millennia.

NOTE Confidence: 0.874518983076923

00:46:37.900 --> 00:46:39.238 So we've of course been very,



NOTE Confidence: 0.874518983076923  
00:46:39.240 --> 00:46:41.165 very excited about our international  
NOTE Confidence: 0.874518983076923  
00:46:41.165 --> 00:46:43.090 group with respect to these  
NOTE Confidence: 0.874518983076923  
00:46:43.154 --> 00:46:44.780 different research avenues.  
NOTE Confidence: 0.874518983076923  
00:46:44.780 --> 00:46:47.186 But it's also been an incredibly  
NOTE Confidence: 0.874518983076923  
00:46:47.186 --> 00:46:48.790 rewarding experience from the  
NOTE Confidence: 0.874518983076923  
00:46:48.860 --> 00:46:50.954 perspective of being able to invest  
NOTE Confidence: 0.874518983076923  
00:46:50.954 --> 00:46:53.634 in the cancer care resources of the  
NOTE Confidence: 0.874518983076923  
00:46:53.634 --> 00:46:55.654 facilities for our partners work.  
NOTE Confidence: 0.874518983076923  
00:46:55.660 --> 00:46:57.526 And our mission statement is to  
NOTE Confidence: 0.874518983076923  
00:46:57.526 --> 00:46:59.178 reduce the global breast cancer  
NOTE Confidence: 0.874518983076923  
00:46:59.178 --> 00:47:00.578 burden through advances in  
NOTE Confidence: 0.874518983076923  
00:47:00.578 --> 00:47:02.844 research and delivery of care to  
NOTE Confidence: 0.874518983076923  
00:47:02.844 --> 00:47:04.218 diverse populations worldwide.  
NOTE Confidence: 0.874518983076923  
00:47:04.220 --> 00:47:06.660 A few examples of how we've been making  
NOTE Confidence: 0.874518983076923  
00:47:06.660 --> 00:47:08.128 those investments are shown here.  
NOTE Confidence: 0.874518983076923

00:47:08.130 --> 00:47:10.110 We've been able to establish  
NOTE Confidence: 0.874518983076923

00:47:10.110 --> 00:47:11.298 immunohistochemistry training programs  
NOTE Confidence: 0.874518983076923

00:47:11.298 --> 00:47:13.606 so that our colleagues can perform  
NOTE Confidence: 0.874518983076923

00:47:13.606 --> 00:47:15.426 their own immunohistochemistry on site  
NOTE Confidence: 0.874518983076923

00:47:15.426 --> 00:47:17.372 and actually characterize the cancers  
NOTE Confidence: 0.874518983076923

00:47:17.372 --> 00:47:19.652 of the patients that they're treating.  
NOTE Confidence: 0.874518983076923

00:47:19.660 --> 00:47:21.128 We've established core needle  
NOTE Confidence: 0.874518983076923

00:47:21.128 --> 00:47:22.963 biopsy training program so that  
NOTE Confidence: 0.874518983076923

00:47:22.963 --> 00:47:25.303 they can make their diagnosis more  
NOTE Confidence: 0.874518983076923

00:47:25.303 --> 00:47:26.835 efficiently and accelerated through  
NOTE Confidence: 0.874518983076923

00:47:26.835 --> 00:47:28.697 the COVID experience is that we've  
NOTE Confidence: 0.874518983076923

00:47:28.697 --> 00:47:31.344 been able to stay in very close  
NOTE Confidence: 0.874518983076923

00:47:31.344 --> 00:47:34.404 contact utilizing zoom meetings and  
NOTE Confidence: 0.874518983076923

00:47:34.404 --> 00:47:37.360 telemedicine tumor board discussions.  
NOTE Confidence: 0.874518983076923

00:47:37.360 --> 00:47:40.027 And now that our program is headquartered  
NOTE Confidence: 0.874518983076923

00:47:40.027 --> 00:47:42.039 at Wild Cornell in New York,

NOTE Confidence: 0.874518983076923

00:47:42.040 --> 00:47:44.581 we are able to align our International

NOTE Confidence: 0.874518983076923

00:47:44.581 --> 00:47:46.463 Studies with the robustly diverse

NOTE Confidence: 0.874518983076923

00:47:46.463 --> 00:47:48.641 population of New York and we

NOTE Confidence: 0.874518983076923

00:47:48.641 --> 00:47:51.113 have our New York based breast

NOTE Confidence: 0.874518983076923

00:47:51.113 --> 00:47:52.793 cancer campuses in Manhattan,

NOTE Confidence: 0.874518983076923

00:47:52.800 --> 00:47:54.552 Brooklyn and Queens,

NOTE Confidence: 0.874518983076923

00:47:54.552 --> 00:47:56.888 which has tremendous diversity

NOTE Confidence: 0.874518983076923

00:47:56.888 --> 00:47:58.640 in those communities.

NOTE Confidence: 0.874518983076923

00:47:58.640 --> 00:48:00.810 And a lot of our work today is being done

NOTE Confidence: 0.888823984736842

00:48:00.872 --> 00:48:02.817 in conjunction with the Englander

NOTE Confidence: 0.888823984736842

00:48:02.817 --> 00:48:04.373 Institute of Precision Medicine.

NOTE Confidence: 0.888823984736842

00:48:04.380 --> 00:48:06.184 Whenever I talk about

NOTE Confidence: 0.888823984736842

00:48:06.184 --> 00:48:07.537 breast cancer disparities,

NOTE Confidence: 0.888823984736842

00:48:07.540 --> 00:48:10.540 I always include these survival rates of 60%,

NOTE Confidence: 0.888823984736842

00:48:10.540 --> 00:48:13.340 forty 3% and 20%, which have absolutely

NOTE Confidence: 0.888823984736842

00:48:13.340 --> 00:48:16.199 nothing to do with cancer outcomes.  
NOTE Confidence: 0.888823984736842

00:48:16.200 --> 00:48:17.270 But these are the survival  
NOTE Confidence: 0.888823984736842

00:48:17.270 --> 00:48:18.340 rates for the first class,  
NOTE Confidence: 0.888823984736842

00:48:18.340 --> 00:48:20.090 second class and 3rd class  
NOTE Confidence: 0.888823984736842

00:48:20.090 --> 00:48:21.840 cabin passengers of the Titanic.  
NOTE Confidence: 0.888823984736842

00:48:21.840 --> 00:48:23.968 And even though my own career in  
NOTE Confidence: 0.888823984736842

00:48:23.968 --> 00:48:25.614 breast Cancer Research and studying  
NOTE Confidence: 0.888823984736842

00:48:25.614 --> 00:48:26.962 disparities has been heavily  
NOTE Confidence: 0.888823984736842

00:48:26.962 --> 00:48:28.980 rooted in trying to understand.  
NOTE Confidence: 0.888823984736842

00:48:28.980 --> 00:48:32.070 Human biology linked to African ancestry.  
NOTE Confidence: 0.888823984736842

00:48:32.070 --> 00:48:34.950 We always have to end just the way  
NOTE Confidence: 0.888823984736842

00:48:34.950 --> 00:48:37.981 we began this discussion with a an  
NOTE Confidence: 0.888823984736842

00:48:37.981 --> 00:48:41.196 expression of the fact that outcome and  
NOTE Confidence: 0.888823984736842

00:48:41.196 --> 00:48:44.367 the ability to survive any threat is  
NOTE Confidence: 0.888823984736842

00:48:44.367 --> 00:48:46.906 going to be related to access to care.  
NOTE Confidence: 0.888823984736842

00:48:46.910 --> 00:48:48.765 And just as the third place cabin

NOTE Confidence: 0.888823984736842  
00:48:48.765 --> 00:48:50.880 passengers of the Titanic did not have  
NOTE Confidence: 0.888823984736842  
00:48:50.880 --> 00:48:52.465 equitable access to the lifeboats,  
NOTE Confidence: 0.888823984736842  
00:48:52.470 --> 00:48:54.482 it unfortunately and tragically  
NOTE Confidence: 0.888823984736842  
00:48:54.482 --> 00:48:57.134 remains true that communities of color,  
NOTE Confidence: 0.888823984736842  
00:48:57.134 --> 00:48:59.594 including African Americans, do not have.  
NOTE Confidence: 0.888823984736842  
00:48:59.594 --> 00:49:01.634 Equal access to cancer care,  
NOTE Confidence: 0.888823984736842  
00:49:01.640 --> 00:49:06.140 screening, research opportunities.  
NOTE Confidence: 0.888823984736842  
00:49:06.140 --> 00:49:08.660 And as stated by Doctor Martin Luther King  
NOTE Confidence: 0.888823984736842  
00:49:08.660 --> 00:49:10.618 Junior, of all the forms of inequality,  
NOTE Confidence: 0.888823984736842  
00:49:10.620 --> 00:49:13.308 injustice and health is the most  
NOTE Confidence: 0.888823984736842  
00:49:13.308 --> 00:49:14.652 shocking and inhumane.  
NOTE Confidence: 0.888823984736842  
00:49:14.660 --> 00:49:17.090 We saw this injustice in the  
NOTE Confidence: 0.888823984736842  
00:49:17.090 --> 00:49:17.900 COVID experience.  
NOTE Confidence: 0.888823984736842  
00:49:17.900 --> 00:49:19.440 And as you guys know,  
NOTE Confidence: 0.888823984736842  
00:49:19.440 --> 00:49:21.570 it's been projected that as a  
NOTE Confidence: 0.888823984736842

00:49:21.570 --> 00:49:23.903 consequence of the COVID shutdown and  
NOTE Confidence: 0.888823984736842

00:49:23.903 --> 00:49:26.429 its downstream impact on Cancer Research  
NOTE Confidence: 0.888823984736842

00:49:26.429 --> 00:49:28.918 and cancer screening and treatment,  
NOTE Confidence: 0.888823984736842

00:49:28.920 --> 00:49:30.990 we're probably going to see an  
NOTE Confidence: 0.888823984736842

00:49:30.990 --> 00:49:33.158 excess of about 10,000 deaths from  
NOTE Confidence: 0.888823984736842

00:49:33.158 --> 00:49:35.306 colorectal and breast cancer in the  
NOTE Confidence: 0.888823984736842

00:49:35.306 --> 00:49:38.500 next 10 years because of the COVID  
NOTE Confidence: 0.888823984736842

00:49:38.500 --> 00:49:40.060 recession was disproportionately  
NOTE Confidence: 0.888823984736842

00:49:40.060 --> 00:49:42.319 severe in communities of color.  
NOTE Confidence: 0.888823984736842

00:49:42.320 --> 00:49:45.218 We really do have to be proactive.  
NOTE Confidence: 0.888823984736842

00:49:45.220 --> 00:49:48.034 In making sure that we protect  
NOTE Confidence: 0.888823984736842

00:49:48.034 --> 00:49:49.441 our disadvantaged communities  
NOTE Confidence: 0.888823984736842

00:49:49.441 --> 00:49:52.238 from experiencing these excess  
NOTE Confidence: 0.888823984736842

00:49:52.238 --> 00:49:53.740 deaths disproportionately,  
NOTE Confidence: 0.888823984736842

00:49:53.740 --> 00:49:55.116 we want to get rid of all of  
NOTE Confidence: 0.888823984736842

00:49:55.116 --> 00:49:56.694 these excess deaths, of course.

NOTE Confidence: 0.888823984736842  
00:49:56.694 --> 00:49:58.482 But unless we support  
NOTE Confidence: 0.888823984736842  
00:49:58.482 --> 00:50:00.270 our safety net hospitals,  
NOTE Confidence: 0.888823984736842  
00:50:00.270 --> 00:50:01.894 which were disproportionately financially  
NOTE Confidence: 0.888823984736842  
00:50:01.894 --> 00:50:04.660 devastated by the costs of COVID care,  
NOTE Confidence: 0.888823984736842  
00:50:04.660 --> 00:50:07.450 unless we protect our advocacy and  
NOTE Confidence: 0.888823984736842  
00:50:07.450 --> 00:50:09.755 philanthropy groups that provide a  
NOTE Confidence: 0.888823984736842  
00:50:09.755 --> 00:50:11.957 lot of our free screening programs,  
NOTE Confidence: 0.888823984736842  
00:50:11.960 --> 00:50:14.504 and unless we really work with  
NOTE Confidence: 0.888823984736842  
00:50:14.504 --> 00:50:15.776 our hospital leadership.  
NOTE Confidence: 0.888823984736842  
00:50:15.780 --> 00:50:18.318 To make sure that they don't  
NOTE Confidence: 0.888823984736842  
00:50:18.318 --> 00:50:19.587 cut navigation programs,  
NOTE Confidence: 0.888823984736842  
00:50:19.590 --> 00:50:20.382 outreach programs,  
NOTE Confidence: 0.888823984736842  
00:50:20.382 --> 00:50:22.362 when they're trying to balance  
NOTE Confidence: 0.888823984736842  
00:50:22.362 --> 00:50:24.561 their budgets in the wake of  
NOTE Confidence: 0.888823984736842  
00:50:24.561 --> 00:50:25.829 the the COVID experience,  
NOTE Confidence: 0.888823984736842

00:50:25.830 --> 00:50:28.014 we're going to have an exacerbation  
NOTE Confidence: 0.888823984736842

00:50:28.014 --> 00:50:30.579 of these types of mortality gaps.  
NOTE Confidence: 0.888823984736842

00:50:30.580 --> 00:50:32.839 But I am an optimist and I do know  
NOTE Confidence: 0.888823984736842

00:50:32.839 --> 00:50:34.932 that by working together we are going  
NOTE Confidence: 0.888823984736842

00:50:34.932 --> 00:50:37.599 to be able to eliminate these these,  
NOTE Confidence: 0.888823984736842

00:50:37.600 --> 00:50:38.336 these disparities.  
NOTE Confidence: 0.888823984736842

00:50:38.336 --> 00:50:40.544 And I look forward to strengthening  
NOTE Confidence: 0.888823984736842

00:50:40.544 --> 00:50:43.089 all of the other partnerships that  
NOTE Confidence: 0.888823984736842

00:50:43.089 --> 00:50:45.264 are already ongoing and bringing  
NOTE Confidence: 0.888823984736842

00:50:45.264 --> 00:50:46.778 researchers from different areas  
NOTE Confidence: 0.888823984736842

00:50:46.778 --> 00:50:49.144 together to to try to conquer these  
NOTE Confidence: 0.888823984736842

00:50:49.150 --> 00:50:52.200 problems from all different angles.  
NOTE Confidence: 0.888823984736842

00:50:52.200 --> 00:50:53.073 And in closing,  
NOTE Confidence: 0.888823984736842

00:50:53.073 --> 00:50:55.599 I just want to thank all of the  
NOTE Confidence: 0.888823984736842

00:50:55.599 --> 00:50:57.664 wonderful teams that have supported  
NOTE Confidence: 0.888823984736842

00:50:57.664 --> 00:50:59.800 our research over the years.



NOTE Confidence: 0.888823984736842  
00:50:59.800 --> 00:51:01.534 And in closing,  
NOTE Confidence: 0.888823984736842  
00:51:01.534 --> 00:51:05.002 I do also want to acknowledge  
NOTE Confidence: 0.888823984736842  
00:51:05.002 --> 00:51:06.616 this phenomenal woman,  
NOTE Confidence: 0.888823984736842  
00:51:06.616 --> 00:51:08.688 my sister Deborah Newman,  
NOTE Confidence: 0.888823984736842  
00:51:08.690 --> 00:51:12.659 who passed away almost a year ago  
NOTE Confidence: 0.888823984736842  
00:51:12.660 --> 00:51:16.130 today from an incredibly aggressive  
NOTE Confidence: 0.888823984736842  
00:51:16.130 --> 00:51:19.600 and virulent inflammatory form of  
NOTE Confidence: 0.888823984736842  
00:51:19.702 --> 00:51:22.718 triple negative breast cancer,  
NOTE Confidence: 0.888823984736842  
00:51:22.720 --> 00:51:25.300 and my sister Debbie,  
NOTE Confidence: 0.888823984736842  
00:51:25.300 --> 00:51:28.920 a Princeton graduate, former US prosecutor.  
NOTE Confidence: 0.888823984736842  
00:51:28.920 --> 00:51:32.280 She's a perfect example of how  
NOTE Confidence: 0.888823984736842  
00:51:32.280 --> 00:51:32.840 socioeconomic  
NOTE Confidence: 0.880449592105263  
00:51:32.932 --> 00:51:35.907 are not the exclusive explanation  
NOTE Confidence: 0.880449592105263  
00:51:35.907 --> 00:51:38.287 for breast cancer disparities.  
NOTE Confidence: 0.880449592105263  
00:51:38.290 --> 00:51:40.837 And so it's an in her memory that I  
NOTE Confidence: 0.880449592105263

00:51:40.837 --> 00:51:43.154 and my research team continue the  
NOTE Confidence: 0.880449592105263

00:51:43.154 --> 00:51:45.839 the work that we've been doing so.  
NOTE Confidence: 0.880449592105263

00:51:45.840 --> 00:51:47.505 I do thank all of you for your time  
NOTE Confidence: 0.880449592105263

00:51:47.505 --> 00:51:48.987 and attention and for inviting  
NOTE Confidence: 0.880449592105263

00:51:48.987 --> 00:51:50.542 me to deliver this presentation.  
NOTE Confidence: 0.9729095

00:52:00.070 --> 00:52:02.670 Thank you so much Doctor Newman  
NOTE Confidence: 0.9729095

00:52:02.670 --> 00:52:04.690 for sharing your extraordinary  
NOTE Confidence: 0.9729095

00:52:04.690 --> 00:52:06.550 research with our group.  
NOTE Confidence: 0.90559693

00:52:06.550 --> 00:52:08.542 I'd be happy to start with any questions  
NOTE Confidence: 0.90559693

00:52:08.542 --> 00:52:10.270 from the audience before we turn  
NOTE Confidence: 0.934497205

00:52:10.280 --> 00:52:11.360 to the zoom chat.  
NOTE Confidence: 0.916564146666667

00:52:13.080 --> 00:52:13.650 Go ahead and.  
NOTE Confidence: 0.77534117

00:52:18.130 --> 00:52:22.170 One point. Really.  
NOTE Confidence: 0.77534117

00:52:22.170 --> 00:52:27.630 Was how the self reporting of race  
NOTE Confidence: 0.77534117

00:52:27.630 --> 00:52:30.470 definitely does not usually capture  
NOTE Confidence: 0.77534117

00:52:30.470 --> 00:52:32.546 release what the person is and

NOTE Confidence: 0.77534117

00:52:32.546 --> 00:52:34.989 that really has me thinking about

NOTE Confidence: 0.77534117

00:52:34.990 --> 00:52:36.862 populations might be able to look

NOTE Confidence: 0.77534117

00:52:36.862 --> 00:52:39.729 at these sort of studies that we are

NOTE Confidence: 0.77534117

00:52:39.729 --> 00:52:41.497 segregating typically but people

NOTE Confidence: 0.77534117

00:52:41.497 --> 00:52:43.792 said decreased sequencing cost and

NOTE Confidence: 0.77534117

00:52:43.792 --> 00:52:46.828 ease of access to that sort of data.

NOTE Confidence: 0.77534117

00:52:46.830 --> 00:52:48.685 Do you and your group's plan on

NOTE Confidence: 0.77534117

00:52:48.685 --> 00:52:50.515 looking at those populations and

NOTE Confidence: 0.77534117

00:52:50.515 --> 00:52:52.467 identifying specific genetic factors.

NOTE Confidence: 0.77534117

00:52:52.470 --> 00:52:53.380 And if you're not ready,

NOTE Confidence: 0.77534117

00:52:53.380 --> 00:52:55.485 you seen whether a specific

NOTE Confidence: 0.77534117

00:52:55.485 --> 00:52:56.748 rates have dominance.

NOTE Confidence: 0.883841121851852

00:53:02.130 --> 00:53:04.362 Thanks so much for the kind comment and

NOTE Confidence: 0.883841121851852

00:53:04.362 --> 00:53:06.685 I totally agree with your points that

NOTE Confidence: 0.883841121851852

00:53:06.685 --> 00:53:08.798 we definitely have an obligation to

NOTE Confidence: 0.883841121851852

00:53:08.798 --> 00:53:10.850 look more closely at genetic admixture.

NOTE Confidence: 0.883841121851852

00:53:10.850 --> 00:53:12.518 And you're right, self reported race.

NOTE Confidence: 0.883841121851852

00:53:12.520 --> 00:53:14.150 I mean it's really primitive.

NOTE Confidence: 0.883841121851852

00:53:14.150 --> 00:53:17.120 And as cancer researchers we've been

NOTE Confidence: 0.883841121851852

00:53:17.120 --> 00:53:21.032 so late to bring the technology of

NOTE Confidence: 0.883841121851852

00:53:21.032 --> 00:53:24.704 quantification of ancestry into our work,

NOTE Confidence: 0.883841121851852

00:53:24.710 --> 00:53:26.350 but the general population has

NOTE Confidence: 0.883841121851852

00:53:26.350 --> 00:53:27.990 been doing this for years.

NOTE Confidence: 0.883841121851852

00:53:27.990 --> 00:53:30.020 I mean millions of people are purchasing

NOTE Confidence: 0.883841121851852

00:53:30.020 --> 00:53:32.097 these products or they've spent in a cup.

NOTE Confidence: 0.883841121851852

00:53:32.100 --> 00:53:34.151 And get back their pie diagram of

NOTE Confidence: 0.883841121851852

00:53:34.151 --> 00:53:35.839 where their ancestors are come from.

NOTE Confidence: 0.883841121851852

00:53:35.840 --> 00:53:38.396 So I mean I think that this type of

NOTE Confidence: 0.883841121851852

00:53:38.396 --> 00:53:40.928 work should be routine in our studies

NOTE Confidence: 0.883841121851852

00:53:40.928 --> 00:53:43.731 because we do have the technology and

NOTE Confidence: 0.883841121851852

00:53:43.731 --> 00:53:46.713 it's so much more precise and meaningful.

NOTE Confidence: 0.883841121851852

00:53:46.720 --> 00:53:49.044 I I agree with you in trying

NOTE Confidence: 0.883841121851852

00:53:49.044 --> 00:53:50.720 to understand cancer outcomes.

NOTE Confidence: 0.883841121851852

00:53:50.720 --> 00:53:53.144 Now we do need to look at self

NOTE Confidence: 0.883841121851852

00:53:53.144 --> 00:53:55.746 reported race as well because a self

NOTE Confidence: 0.883841121851852

00:53:55.746 --> 00:53:57.671 reported identity does have very,

NOTE Confidence: 0.883841121851852

00:53:57.680 --> 00:54:00.170 very important relationships

NOTE Confidence: 0.883841121851852

00:54:00.170 --> 00:54:02.660 to HealthEquity and.

NOTE Confidence: 0.883841121851852

00:54:02.660 --> 00:54:04.235 Services that are available to

NOTE Confidence: 0.883841121851852

00:54:04.235 --> 00:54:05.810 some communities and not available

NOTE Confidence: 0.883841121851852

00:54:05.861 --> 00:54:06.878 to other communities,

NOTE Confidence: 0.883841121851852

00:54:06.880 --> 00:54:09.124 but we can't overlook

NOTE Confidence: 0.883841121851852

00:54:09.124 --> 00:54:10.807 the genetics components.

NOTE Confidence: 0.883841121851852

00:54:10.810 --> 00:54:11.130 So that.

NOTE Confidence: 0.73749167

00:54:13.300 --> 00:54:14.110 Doctor Weiner.

NOTE Confidence: 0.94081753

00:54:18.870 --> 00:54:23.090 OK. So Lisa, thanks for a great

NOTE Confidence: 0.94081753

00:54:23.090 --> 00:54:25.859 talk and sorry about your sister  
NOTE Confidence: 0.94081753

00:54:25.859 --> 00:54:28.359 and thanks for sharing that.  
NOTE Confidence: 0.94081753

00:54:28.360 --> 00:54:30.950 I want to go down a little  
NOTE Confidence: 0.94081753

00:54:30.950 --> 00:54:32.970 bit on ERP project.  
NOTE Confidence: 0.94081753

00:54:32.970 --> 00:54:36.879 And of course adherence to therapy,  
NOTE Confidence: 0.94081753

00:54:36.879 --> 00:54:40.274 Fabian issue, not only adherence  
NOTE Confidence: 0.94081753

00:54:40.274 --> 00:54:42.990 but doctors prescribing entering  
NOTE Confidence: 0.94081753

00:54:43.086 --> 00:54:45.522 therapy which isn't really adherence  
NOTE Confidence: 0.94081753

00:54:45.522 --> 00:54:47.944 which you think of as a patient  
NOTE Confidence: 0.94081753

00:54:47.944 --> 00:54:50.990 issue but maybe a doctor issue.  
NOTE Confidence: 0.94081753

00:54:50.990 --> 00:54:54.457 But the the other question with the  
NOTE Confidence: 0.94081753

00:54:54.457 --> 00:54:57.460 question I have is to what extent  
NOTE Confidence: 0.94081753

00:54:57.553 --> 00:55:00.385 do we know whether simple things  
NOTE Confidence: 0.94081753

00:55:00.385 --> 00:55:03.370 like ER expression vary across race?  
NOTE Confidence: 0.94081753

00:55:03.370 --> 00:55:05.798 Or whether monumental air  
NOTE Confidence: 0.94081753

00:55:05.798 --> 00:55:08.226 versus B percentages bearing.

NOTE Confidence: 0.6241993412

00:55:09.020 --> 00:55:12.640 Yeah, it well terrific questions.

NOTE Confidence: 0.6241993412

00:55:12.640 --> 00:55:15.064 Now from our biorepository,

NOTE Confidence: 0.6241993412

00:55:15.064 --> 00:55:18.094 we definitely see higher frequencies

NOTE Confidence: 0.6241993412

00:55:18.094 --> 00:55:21.438 of those weekly positive ER tumors 1

NOTE Confidence: 0.6241993412

00:55:21.438 --> 00:55:24.365 to 9% in the African ancestry patients

NOTE Confidence: 0.6241993412

00:55:24.365 --> 00:55:27.120 compared to the the white patients.

NOTE Confidence: 0.6241993412

00:55:27.120 --> 00:55:30.200 I can't say that I've seen that

NOTE Confidence: 0.6241993412

00:55:30.200 --> 00:55:32.240 broadly in publications however,

NOTE Confidence: 0.6241993412

00:55:32.240 --> 00:55:34.730 because we usually just talk about

NOTE Confidence: 0.6241993412

00:55:34.730 --> 00:55:37.293 your positive or negative using the

NOTE Confidence: 0.6241993412

00:55:37.293 --> 00:55:39.758 ASCO CAP guidelines, but in our.

NOTE Confidence: 0.6241993412

00:55:39.758 --> 00:55:41.788 Database, we do see that.

NOTE Confidence: 0.6241993412

00:55:41.790 --> 00:55:44.352 So I do think that it's a

NOTE Confidence: 0.6241993412

00:55:44.352 --> 00:55:45.450 spectrum that's present.

NOTE Confidence: 0.6241993412

00:55:45.450 --> 00:55:48.201 I I think you're probably right that

NOTE Confidence: 0.6241993412

00:55:48.201 --> 00:55:50.773 there are variations in how endocrine  
NOTE Confidence: 0.6241993412

00:55:50.773 --> 00:55:52.978 therapies are prescribed and how  
NOTE Confidence: 0.6241993412

00:55:52.978 --> 00:55:55.642 much attention we pay as healthcare  
NOTE Confidence: 0.6241993412

00:55:55.642 --> 00:55:57.777 providers to adherence to treatment  
NOTE Confidence: 0.6241993412

00:55:57.777 --> 00:56:00.940 based upon what our patients look like.  
NOTE Confidence: 0.6241993412

00:56:00.940 --> 00:56:03.215 I think those are very real issues.  
NOTE Confidence: 0.6241993412

00:56:03.220 --> 00:56:07.316 I am so excited that people like you,  
NOTE Confidence: 0.6241993412

00:56:07.320 --> 00:56:09.642 the leaders in the clinical trials  
NOTE Confidence: 0.6241993412

00:56:09.642 --> 00:56:11.590 are paying attention to this.  
NOTE Confidence: 0.6241993412

00:56:11.590 --> 00:56:13.380 In looking at these, these,  
NOTE Confidence: 0.6241993412

00:56:13.380 --> 00:56:14.508 these gene expression profiles,  
NOTE Confidence: 0.6241993412

00:56:14.508 --> 00:56:16.200 they're going to be I think,  
NOTE Confidence: 0.6241993412

00:56:16.200 --> 00:56:18.666 incredibly powerful in studies to come.  
NOTE Confidence: 0.67296178

00:56:25.080 --> 00:56:27.430 Presentation of the body of  
NOTE Confidence: 0.67296178

00:56:27.430 --> 00:56:29.310 work that features beautifully.  
NOTE Confidence: 0.67296178

00:56:29.310 --> 00:56:30.962 Molecular epidemiology,



NOTE Confidence: 0.67296178

00:56:30.962 --> 00:56:34.266 clinical functions and what

NOTE Confidence: 0.67296178

00:56:34.266 --> 00:56:36.744 you've highlighted cultural.

NOTE Confidence: 0.67296178

00:56:36.750 --> 00:56:38.766 I think you have devoted a lot of time.

NOTE Confidence: 0.67296178

00:56:38.770 --> 00:56:41.350 If I take the same discussion

NOTE Confidence: 0.67296178

00:56:41.350 --> 00:56:43.070 interest cancer in TCG,

NOTE Confidence: 0.67296178

00:56:43.070 --> 00:56:45.626 I'll tell you there are five

NOTE Confidence: 0.67296178

00:56:45.626 --> 00:56:47.330 patients of African argument.

NOTE Confidence: 0.67296178

00:56:47.330 --> 00:56:48.690 And and that's the disconnect

NOTE Confidence: 0.67296178

00:56:48.690 --> 00:56:50.050 that I'm always struck with,

NOTE Confidence: 0.67296178

00:56:50.050 --> 00:56:53.368 you know so much that threat that

NOTE Confidence: 0.67296178

00:56:53.368 --> 00:56:55.153 biologic androgenicity matters and

NOTE Confidence: 0.67296178

00:56:55.153 --> 00:56:56.968 clinicians have always been able

NOTE Confidence: 0.67296178

00:56:56.968 --> 00:56:59.375 to people like we've been able

NOTE Confidence: 0.67296178

00:56:59.375 --> 00:57:01.155 to answer fundamental questions.

NOTE Confidence: 0.67296178

00:57:01.160 --> 00:57:03.662 Yet my worry is in our passion to and

NOTE Confidence: 0.67296178

00:57:03.662 --> 00:57:05.976 you track the time article right?  
NOTE Confidence: 0.67296178

00:57:05.980 --> 00:57:07.738 And I've seen the same thing,  
NOTE Confidence: 0.67296178

00:57:07.740 --> 00:57:10.498 that in our desire to be equal,  
NOTE Confidence: 0.67296178

00:57:10.500 --> 00:57:14.370 we're perhaps missing on those.  
NOTE Confidence: 0.67296178

00:57:14.370 --> 00:57:16.370 Essential things you pointed out,  
NOTE Confidence: 0.67296178

00:57:16.370 --> 00:57:19.082 how do we teach that Vern  
NOTE Confidence: 0.67296178

00:57:19.082 --> 00:57:19.986 academic organization?  
NOTE Confidence: 0.67296178

00:57:19.990 --> 00:57:22.600 And you have highlighted how clinicians  
NOTE Confidence: 0.67296178

00:57:22.600 --> 00:57:25.170 can interact with basic scientists.  
NOTE Confidence: 0.67296178

00:57:25.170 --> 00:57:28.210 How do we as leaders make sure we're  
NOTE Confidence: 0.67296178

00:57:28.210 --> 00:57:31.097 pointing that out to the next generation?  
NOTE Confidence: 0.67296178

00:57:31.100 --> 00:57:31.930 I  
NOTE Confidence: 0.78965661

00:57:32.240 --> 00:57:35.186 would question and it's something that  
NOTE Confidence: 0.78965661

00:57:35.186 --> 00:57:39.560 we all have to keep working on overtime.  
NOTE Confidence: 0.78965661

00:57:39.560 --> 00:57:45.790 I I again I am very optimistic the fact that.  
NOTE Confidence: 0.78965661

00:57:45.790 --> 00:57:51.050 People are documenting cancer outcomes.

NOTE Confidence: 0.78965661

00:57:51.050 --> 00:57:53.430 Stratified by racial ethnic identity,

NOTE Confidence: 0.78965661

00:57:53.430 --> 00:57:55.378 where it wasn't necessarily

NOTE Confidence: 0.78965661

00:57:55.378 --> 00:57:57.326 documented in the past,

NOTE Confidence: 0.78965661

00:57:57.330 --> 00:57:59.148 the fact that there's a very,

NOTE Confidence: 0.78965661

00:57:59.150 --> 00:58:01.470 there's a lot of momentum to look at

NOTE Confidence: 0.78965661

00:58:01.470 --> 00:58:04.221 the the diversity of our workforce and

NOTE Confidence: 0.78965661

00:58:04.221 --> 00:58:06.723 to develop pipeline programs when very

NOTE Confidence: 0.78965661

00:58:06.723 --> 00:58:08.984 little attention was paid for the to

NOTE Confidence: 0.78965661

00:58:08.984 --> 00:58:11.190 this in the past people would remark

NOTE Confidence: 0.78965661

00:58:11.190 --> 00:58:14.149 upon the lack of a workforce diversity,

NOTE Confidence: 0.78965661

00:58:14.150 --> 00:58:15.346 but everybody said well,

NOTE Confidence: 0.78965661

00:58:15.346 --> 00:58:18.152 this is a problem that no group can address

NOTE Confidence: 0.78965661

00:58:18.152 --> 00:58:20.970 overnight and so nobody tried to do anything.

NOTE Confidence: 0.78965661

00:58:20.970 --> 00:58:21.891 To address it,

NOTE Confidence: 0.78965661

00:58:21.891 --> 00:58:24.830 but I think that's the the COVID experience,

NOTE Confidence: 0.78965661

00:58:24.830 --> 00:58:26.890 horrific as it was,  
NOTE Confidence: 0.78965661

00:58:26.890 --> 00:58:29.465 the COVID experience with disparities  
NOTE Confidence: 0.78965661

00:58:29.465 --> 00:58:32.053 and COVID outcome hitting us  
NOTE Confidence: 0.78965661

00:58:32.053 --> 00:58:34.037 literally in the face,  
NOTE Confidence: 0.78965661

00:58:34.040 --> 00:58:36.020 coupled with witnessing the  
NOTE Confidence: 0.78965661

00:58:36.020 --> 00:58:38.495 horrific murders of George Floyd,  
NOTE Confidence: 0.78965661

00:58:38.500 --> 00:58:39.925 Brianna Taylor, so many others  
NOTE Confidence: 0.78965661

00:58:39.925 --> 00:58:42.100 in the hands of law enforcement,  
NOTE Confidence: 0.78965661

00:58:42.100 --> 00:58:44.790 all of those events happening.  
NOTE Confidence: 0.78965661

00:58:44.790 --> 00:58:46.980 Together made this an extremely  
NOTE Confidence: 0.78965661

00:58:46.980 --> 00:58:48.732 unique moment in time.  
NOTE Confidence: 0.78965661

00:58:48.740 --> 00:58:50.504 And so I think that the efforts  
NOTE Confidence: 0.78965661

00:58:50.504 --> 00:58:52.143 that we're seeing now in achieving  
NOTE Confidence: 0.78965661

00:58:52.143 --> 00:58:53.805 HealthEquity are are real and I  
NOTE Confidence: 0.78965661

00:58:53.805 --> 00:58:55.833 think that it's going to make a  
NOTE Confidence: 0.78965661

00:58:55.833 --> 00:58:56.961 difference and accelerate the

NOTE Confidence: 0.78965661

00:58:56.970 --> 00:59:00.720 pace of disparities research and.

NOTE Confidence: 0.78965661

00:59:00.720 --> 00:59:03.200 Accelerate the pace of trying

NOTE Confidence: 0.78965661

00:59:03.200 --> 00:59:04.688 to achieve HealthEquity.

NOTE Confidence: 0.839884168

00:59:05.990 --> 00:59:07.445 Breast cancer sort of luminaries

NOTE Confidence: 0.839884168

00:59:07.445 --> 00:59:10.055 in the in the room right now in the

NOTE Confidence: 0.839884168

00:59:10.055 --> 00:59:11.438 breast, their breast goes other.

NOTE Confidence: 0.5781742533333333

00:59:14.070 --> 00:59:17.094 Will have no. Problems giving

NOTE Confidence: 0.5781742533333333

00:59:17.094 --> 00:59:18.754 their splits the life opportunity.

NOTE Confidence: 0.570492618

00:59:21.600 --> 00:59:25.560 Ravens. Give patients the audience.

NOTE Confidence: 0.570492618

00:59:25.560 --> 00:59:26.601 People come. Retesting.

NOTE Confidence: 0.570492618

00:59:26.601 --> 00:59:30.121 And Antonio Wolf and a bunch of us wrote an

NOTE Confidence: 0.570492618

00:59:30.121 --> 00:59:32.508 editorial saying that was a horrible idea.

NOTE Confidence: 0.570492618

00:59:32.510 --> 00:59:33.834 That about any guide?

NOTE Confidence: 0.570492618

00:59:33.834 --> 00:59:36.419 So people are willing to give their data

NOTE Confidence: 0.570492618

00:59:36.419 --> 00:59:38.940 yet if they come in for an IRB file,

NOTE Confidence: 0.570492618

00:59:38.940 --> 00:59:40.848 they're going to make them really  
NOTE Confidence: 0.570492618

00:59:40.848 --> 00:59:43.270 hard and so accurately that makes it  
NOTE Confidence: 0.570492618

00:59:43.270 --> 00:59:45.890 very hard for people to people happen.  
NOTE Confidence: 0.570492618

00:59:45.890 --> 00:59:47.330 And we put so many barriers  
NOTE Confidence: 0.570492618

00:59:47.330 --> 00:59:48.690 into look at clinical trials,  
NOTE Confidence: 0.570492618

00:59:48.690 --> 00:59:52.098 it's really hard for people to limited means  
NOTE Confidence: 0.570492618

00:59:52.098 --> 00:59:56.246 to come to Cornell or to come to New Haven.  
NOTE Confidence: 0.570492618

00:59:56.250 --> 00:59:59.396 So how do we change that because who has  
NOTE Confidence: 0.570492618

00:59:59.396 --> 01:00:01.490 the best interest in understanding that  
NOTE Confidence: 0.570492618

01:00:01.490 --> 01:00:05.458 patients and yet we make it so complicated.  
NOTE Confidence: 0.570492618

01:00:05.460 --> 01:00:07.930 Urge all of us to sort of think about how  
NOTE Confidence: 0.570492618

01:00:07.990 --> 01:00:10.398 do we break those barriers to make this,  
NOTE Confidence: 0.570492618

01:00:10.400 --> 01:00:11.429 because it's fundamental.  
NOTE Confidence: 0.570492618

01:00:11.429 --> 01:00:14.924 As you said, this was an evolutionary  
NOTE Confidence: 0.570492618

01:00:14.924 --> 01:00:17.040 mechanism to survive in Africa, right?  
NOTE Confidence: 0.570492618

01:00:17.040 --> 01:00:18.102 Malaria is endemic.

NOTE Confidence: 0.570492618

01:00:18.102 --> 01:00:20.580 And now we're seeing like it makes

NOTE Confidence: 0.570492618

01:00:20.649 --> 01:00:22.877 your hemocyanin your inflammatory.

NOTE Confidence: 0.570492618

01:00:22.880 --> 01:00:23.964 You have this response,

NOTE Confidence: 0.570492618

01:00:23.964 --> 01:00:26.590 but you know, it's the flip side and.

NOTE Confidence: 0.570492618

01:00:26.590 --> 01:00:28.975 So I think that there's a peace for us

NOTE Confidence: 0.570492618

01:00:28.975 --> 01:00:31.537 as as leaders of the field to say what

NOTE Confidence: 0.570492618

01:00:31.537 --> 01:00:34.075 are the are we making researches too

NOTE Confidence: 0.570492618

01:00:34.075 --> 01:00:38.290 complex and simple things like my background.

NOTE Confidence: 0.570492618

01:00:38.290 --> 01:00:41.090 Probably affects how I respond to the

NOTE Confidence: 0.570492618

01:00:41.090 --> 01:00:43.323 world was evolutionary and written into

NOTE Confidence: 0.570492618

01:00:43.323 --> 01:00:45.334 our DNA work thousands of years, right?

NOTE Confidence: 0.570492618

01:00:45.334 --> 01:00:46.900 And we're trying to fix that.

NOTE Confidence: 0.71263777

01:00:48.730 --> 01:00:51.260 You are so right. Yeah.

NOTE Confidence: 0.71263777

01:00:51.260 --> 01:00:52.628 And you hit the nail on the head,

NOTE Confidence: 0.71263777

01:00:52.630 --> 01:00:55.752 I think, in talking about how we've

NOTE Confidence: 0.71263777

01:00:55.752 --> 01:00:58.245 inadvertently created barriers to diverse  
NOTE Confidence: 0.71263777

01:00:58.245 --> 01:01:00.409 populations contributing to research.  
NOTE Confidence: 0.71263777

01:01:00.410 --> 01:01:02.762 You know, many studies show that  
NOTE Confidence: 0.71263777

01:01:02.762 --> 01:01:04.330 African American cancer patients  
NOTE Confidence: 0.71263777

01:01:04.392 --> 01:01:06.752 are at least if not more likely to  
NOTE Confidence: 0.71263777

01:01:06.752 --> 01:01:08.858 participate in clinical trials if they're  
NOTE Confidence: 0.71263777

01:01:08.858 --> 01:01:11.030 offered the opportunity to do so.  
NOTE Confidence: 0.71263777

01:01:11.030 --> 01:01:13.536 And we've created all these barriers where  
NOTE Confidence: 0.71263777

01:01:13.536 --> 01:01:15.832 clinicians are less likely to offer them  
NOTE Confidence: 0.71263777

01:01:15.832 --> 01:01:18.090 for a whole host of different reasons,  
NOTE Confidence: 0.71263777

01:01:18.090 --> 01:01:20.090 implicit biases.  
NOTE Confidence: 0.71263777

01:01:20.090 --> 01:01:23.090 Sometimes it's just.  
NOTE Confidence: 0.71263777

01:01:23.090 --> 01:01:24.750 Incidental Mel with well meaning  
NOTE Confidence: 0.71263777

01:01:24.750 --> 01:01:26.765 physicians who are worried that they're  
NOTE Confidence: 0.71263777

01:01:26.765 --> 01:01:28.541 going to alienate their patients if  
NOTE Confidence: 0.71263777

01:01:28.541 --> 01:01:30.466 they offer an African American cancer



NOTE Confidence: 0.71263777

01:01:30.466 --> 01:01:32.755 patient to clinical trial for fear that

NOTE Confidence: 0.71263777

01:01:32.760 --> 01:01:33.966 the patient might think that they're

NOTE Confidence: 0.71263777

01:01:33.966 --> 01:01:35.532 being treated like \* \*\*\*\* Guinea pig.

NOTE Confidence: 0.71263777

01:01:35.532 --> 01:01:37.649 But we have to get over those types

NOTE Confidence: 0.71263777

01:01:37.649 --> 01:01:39.857 of things and we have to offer all

NOTE Confidence: 0.71263777

01:01:39.857 --> 01:01:41.857 treatment opportunities to all of our

NOTE Confidence: 0.71263777

01:01:41.857 --> 01:01:44.456 patients even when it comes to our IRB's.

NOTE Confidence: 0.71263777

01:01:44.456 --> 01:01:46.878 You know we have all these regulations

NOTE Confidence: 0.71263777

01:01:46.878 --> 01:01:49.053 that try to protect people against

NOTE Confidence: 0.71263777

01:01:49.053 --> 01:01:51.646 coercion and so we don't want to

NOTE Confidence: 0.71263777

01:01:51.646 --> 01:01:53.286 offer a financial incentives.

NOTE Confidence: 0.71263777

01:01:53.290 --> 01:01:55.700 Patients for fear of more

NOTE Confidence: 0.71263777

01:01:55.700 --> 01:01:57.628 vulnerable patients being coerced.

NOTE Confidence: 0.71263777

01:01:57.630 --> 01:02:00.022 But our socioeconomically disadvantaged

NOTE Confidence: 0.71263777

01:02:00.022 --> 01:02:03.012 patients need that financial support

NOTE Confidence: 0.71263777

01:02:03.012 --> 01:02:06.357 in order to take the time off work so  
NOTE Confidence: 0.71263777

01:02:06.357 --> 01:02:09.150 that they can come in for the visits.  
NOTE Confidence: 0.71263777

01:02:09.150 --> 01:02:11.270 So.  
NOTE Confidence: 0.71263777

01:02:11.270 --> 01:02:12.344 Such a broad,  
NOTE Confidence: 0.71263777

01:02:12.344 --> 01:02:14.492 sweeping problem to try to meaningfully  
NOTE Confidence: 0.71263777

01:02:14.492 --> 01:02:17.070 and thoughtfully get rid of some of  
NOTE Confidence: 0.71263777

01:02:17.070 --> 01:02:19.033 these barriers that we've inadvertently  
NOTE Confidence: 0.71263777

01:02:19.033 --> 01:02:21.787 created and trying to protect our  
NOTE Confidence: 0.71263777

01:02:21.787 --> 01:02:23.810 patients against research and justice.  
NOTE Confidence: 0.71263777

01:02:23.810 --> 01:02:25.530 The research abuse is, you know,  
NOTE Confidence: 0.71263777

01:02:25.530 --> 01:02:26.850 we can't let those come back,  
NOTE Confidence: 0.71263777

01:02:26.850 --> 01:02:29.361 but we do also have to be thoughtful and  
NOTE Confidence: 0.71263777

01:02:29.361 --> 01:02:31.748 make research easier for our patients.  
NOTE Confidence: 0.75272113

01:02:35.320 --> 01:02:35.530 Thank.