Like. Well, good afternoon everyone, and thank you for joining us at a Cancer Center grand rounds. This is the annual Kingsbury Lecture ship. In honor of breast cancer, I have the profound privilege today to introduce Doctor Lisa Newman. She is a surgical oncologist and someone that I have been in for much of my career. She has a clinical and research practice dedicated to breast cancer management. Her formal title is chief of the section of Breast Surgery at New York.
Presbyterian Weill Cornell Medical Center, and she leads a multidisciplinary breast program at the David H Koch Center, also at New York Presbyterian. Doctor Newman is the new and founding medical director for the International Center for the Study of Breast Cancer Subtypes. And this was recently headquartered at Wild Cornell as part of Doctor Newman’s recruitment, she obtained her undergraduate education at Harvard University and attended medical school completing and general surgery residency at the State University of New York. Downtown Medical Center in Brooklyn.
She went on to pursue fellowship training and surgical oncology at the MD Anderson Cancer Center and joined the faculty there as an assistant professor before going back to Michigan. Doctor Newman has really been a trailblazer in both her research and clinical care. This is focused on ethnicity related variation of breast cancer risk and outcome and the evaluation and management of high risk patients including applications for neoadjuvant chemotherapy. She has a very robust research program and disparities in breast cancer risk and outcomes and has really...
been lifted up as a national leader.

In this space, I think on a personal note, she is known as a generous and kind and gifted mentor and clinician.

And she shared a story with me earlier today about her willingness to give time in the ICU during COVID to call families to update them about their loved ones. And I think this anecdote is a testament to her character. So we are very excited to hear from Doctor Newman today about oncologic, anthropology, anthropology. Breast cancer disparities, triple negative breast cancer
and African ancestry welcome.

So it’s a huge, huge honor to be talking to all of you at such an incredible esteemed academic powerhouses, the Yale Cancer Center.

And I first have to express my very deep appreciation to Eric, who, because you have such an incredible leader of your Cancer Center, somebody who is a force of nature in and of himself and has been a leader in the breast oncology world for so many reasons and across so many different types of research. But because of his deep dedication
to HealthEquity and disparity,

simply because of who he is and his nature,

it’s been a large part to accredit

to him that.

Disparities research is a field

And so young minds like Rachel and

Elion have been able to do wonderful,

very, very exciting work in this area

because it was made possible by Eric.

I really appreciate how you’ve stood

by all of us overtime and made this,

this field of research possible.

So I am over the next few minutes going

to talk to you about my work and what

my team calls oncologic anthropology.
Which is basically the intersection of research trying to understand how African ancestry in and of itself predisposes individuals to some of the high risk, biologically more aggressive cancers such as triple negative breast cancer. Now, the World Health Organization defines social determinants of health as the conditions in which people are born, grow, live, work, age, and a broader set of forces that shape daily life conditions. And nobody would dispute the fact that poverty is clearly going to be
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
prevalence of metrics of poorer health, including being obese and poorly controlled hypertension. And then most recently we saw how this played out in terms of the consequences of COVID severity. However, the very unique history of individuals with African ancestry in this country has led to a very stark and quite large magnitude disparity in health outcomes for African Americans compared to white Americans. And of course, this dates back to the era of slavery, when African ancestry individuals had
no autonomy over their own healthcare

or their healthcare of their families.

But even though slavery was abolished more than 150 years ago,

the consequence is the legacy of it stays with us.

Over several decades that followed the abolition of slavery,

discriminatory banking practices such as redlining,

permitted the banking industry.

To essentially leave many generations of African American families trapped in neighborhoods where they could not own their own businesses or their own homes.

And this led to them living over many
generations and communities featuring more impoverished school systems, which ends up leaving them with fewer professional and educational prospects. And today we see these communities. Continuing to be characterized by other features that affect health, such as food deserts. Less available healthcare resources. And the mere accumulative experiences over a lifetime of discrimination and racism is now being studied in the field of research called Allostatic Rd. where we are learning that these types of experiences not only
have an adverse impact on health, but they also seem to impact on inherent cancer burden. When you look at the specific problem of breast cancer, it’s not surprising that these socioeconomic disadvantages that are so highly prevalent in the African American community is going to have an impact on the higher breast cancer mortality rates that we see in African Americans played out because of the advanced stage distribution that we see for breast cancer related to impaired access to a breast cancer diagnosis and proper treatment.
So this very close correlation between socioeconomic disadvantage and African American identity leads many people to question whether racial ethnic identity has any biologic relevance at all, or is it purely and simply a sociopolitical construct? Well, the answer of course is that both defining components of racial identity are present and they are not mutually exclusive. How we self identify as well as how society labels us will very definitely impact on how we live, on where we live,
and on how we access healthcare.

However, there are also features of racial identity that are very closely linked to our ancestral heritage.

Factors will also have an impact on health metrics and on cancer burden.

And we’ve actually known for many decades now that when it comes to a diagnosis of breast cancer, there are indeed other factors aside from socioeconomics that are impacting on the outcome disparities that we see. This slide is now nearly 20 years old and comes from a study that I and some
colleagues from the Harvard School of Public Health it conducted where we simply pulled together all of the data looking at breast cancer survival rates for black women compared to white women. After accounting for some measure of socioeconomics, and as you see here from the forest plot, the African American breast cancer patients have a statistically significant nearly 30% higher mortality hazard. And again, this is after accounting for socioeconomic status. Furthermore,
there are several features of the breast cancer burden in the African American community that can’t easily be ascribed to socioeconomics. For example, the younger age distribution and depending on which study you read, up to 40% of African American breast cancer patients are diagnosed younger than the age of 50, compared to only about 1/5 of white American breast cancer patients being diagnosed in this premenopausal age range. as we will be discussing in this presentation.
We also have a higher risk of the biologically aggressive patterns of breast tumors, the high grade tumors, the hormone receptor negative and the triple negative tumors.

We have a higher population based incidence of a primary inflammatory breast cancer and there’s also the very poorly understood higher population based incidence of male breast cancer in the African Community.

And so we definitely, definitely need to be exploring tumor biology and genetics.
If we’re going to try to comprehensively understand disparities and breast cancer outcome, you might assume that looking at clinical trials data would be the near perfect way of disentangling racial, ethnic, identity and socioeconomics from cancer outcomes. And this was the background, the motivation for a really important study that was conducted several years ago by Kathy Albain and colleagues looking at data from the Southwest Oncology group.
And in this study, they pulled together the outcomes for a whole variety of adjuvant therapy trials. For different types of cancers and they wanted to see if equal outcomes were achieved in the context of delivering equal care through participation in a clinical trial. Now happily, they did show that for the cancers they looked at, outcomes did equalize given equal treatments regardless of racial, ethnic identity, except when it came to specific cancers.
And for the hormonally driven cancers such as breast cancer and prostate cancer, the African-American clinical trial.

Participants continue to have statistically significant worse outcomes. So many of us that have dedicated our careers to disparities research, we’re really excited about Kathy study because we felt that it was going to usher in a whole new generation of young people interested in studying tumor biology and genetics and looking at cancer outcomes.

We were there for a little dismayed at thefactthattime.com reviewed her study and called it an example of...
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
of our patients when we're trying to understand why some cancer patients have a better or worse outcome than others. And this does include characterizing the racial ethnic identity of our patients. An example of how important this racial characterization of our cancer patients is is shown on the graphic to the left on this slide, where we're looking at the most basic of epidemiologic statistics, population based incidence rates of breast cancer and population based mortality rates from breast cancer over the last several decades.
And what we see here is that over time, incidence rates of breast cancer historically have been lower for black women compared to white women. But the rates typically changed in parallel, indicating comparable effects of different environmental factors. But for mortality rates, shown by the two curves at the bottom of this slide, the mortality rates from breast cancer were equal for black women and white women until we reach the early 1980s and at that point.
Mortality curves separate predominantly because of declining death rates and white women, but largely unchanging rates in black women, and this is probably because the advent of tamoxifen as our first endocrine targeted therapy for breast cancer. The effects of tamoxifen become apparent by the early 1980s, but as shown by the bar graph, since African American women have significantly lower frequencies of the estrogen receptor positive cancers and higher rates of estrogen receptor negative tumors.
We are just not benefiting from the advantages of terrific systemic therapies such as tamoxifen to the same degree as our sisters from other racial ethnic backgrounds.

So we basically by the early 1980s are seeing the unmasking of differences in tumor biology between African American and white American breast cancer patients. And we know that breast cancer isn’t...
comprised of an entire spectrum of intrinsic tumor subtypes with the basal subtype being one of the more virulent subtypes. The patients that we see everyday in clinic are not necessarily going to get complete genomic profiling done on their tumors. So we use immunohistochemistry to look at estrogen receptor, progesterone receptor and hormone and two new expression as a convenient way to have a surrogate for identifying. The most aggressive of these tumors? And the triple negative breast cancers do tend to correlate with
identifying a patient that has an intrinsic basal type tumor. It’s not a perfect correlation, but it is pretty close. And as shown by the curves on the top right of this slide, women that have the triple negative breast cancers at every stage of breast cancer diagnosis have worse outcomes compared to the women who have the non triple negative breast cancers. And we now know from many studies that African American women have higher frequencies of triple negative breast cancers regardless of...
the age at which they’re diagnosed. And we have higher frequencies of triple negative breast cancer regardless of the stage that the breast cancer is diagnosed. Now there’s been an interesting phenomenon over the past couple of decades where the population based incidence rates of breast cancer have been rising disproportionately in African American women. And now over the last ten years or so, breast cancer incidence rates are pretty much equal for black women and white women. But those rising incidence rates of breast cancer in black women, coupled with our higher incidence of
the triple negative breast cancer has resulted in a widening of the mortality gap. And today we see about 40% higher breast cancer mortality rates in the African American community compared to the White American community. And it’s impossible to have a discussion about triple negative breast cancer and disparities without making some comment regarding mammography screening recommendations. And as I’m sure all of you are aware, the United States Preventive Services Task Force has been advocating pretty aggressively for average risk American
women to delay initiation of screening mammography until they reach age 50. Many of us that are dedicating our careers to studying breast cancer disparities are really concerned about this. Broad recommendation, because waiting until age 50 for mammography screening can result in an even worsening of the delays in diagnosing biologically aggressive tumors, such as triple negative breast cancers, in African American women, who are already at higher risk for getting these aggressive tumors at younger ages. And so this screening recommendation will likely worsen the
disparities that already exist.

Now, the critics of screening mammography are always quick to point out that mammography is not going to be the be all, end all answer to addressing disparities because it is true that triple negative breast cancers are more challenging to detect on screening mammography and they're more likely to present as the palpable interval cancers and women that are getting their screening mammograms every year.

However,
we do have very strong data showing that early detection of triple negative breast cancer does still make a difference. And an example of those data are shown in the two tables on this slide where investigators from Memorial Sloan Kettering and from the National Comprehensive Cancer Network. Have both demonstrated that triple negative breast cancer when it’s diagnosed at a small size no larger than one centimeter in size. And with nodes negative and these are by and large going to be screen detected triple negative breast cancers. These tumors have very good outcomes.
Regardless of whether the patients receive adjuvant chemotherapy or not.

Now those two studies that I showed on the previous slide, we're looking at early detection of triple negative breast cancer, but they weren’t necessarily looking at mammography, screen detected triple negative breast cancer. And so to address the question of how effective screening mammography is and outcomes in improving outcomes from triple negative breast cancer. Our group pulled together the data.
on triple negative breast cancer

patients from the Metropolitan Detroit

area and the Henry Ford Healthcare

system and the while Cornell New York

Presbyterian Hospital network triple

negative breast cancer patients.

And we looked specifically at outcomes

from for these patients if with triple

negative tumors based upon whether it

was screened detected disease or not.

And we looked at a whole bunch

of different factors that might

also impact on outcomes from

triple negative breast cancer.

For both the white and the African

American triple negative breast cancer,
00:19:36.440 --> 00:19:38.850 having a mammography screen detected tumor was the strongest predictor of a patient that was going to have a good outcome.

00:19:41.329 --> 00:19:43.063 So we do indeed have data that mammography screening is effective at early detection of triple negative breast cancer and it does yield some benefits in terms of improving outcomes.

00:19:44.840 --> 00:19:47.178 We've also been looking at whether there might be some precursor lesions in benign breast tissue, identifying women that are at higher risk for the African American women.

00:19:51.009 --> 00:19:53.663 We've also been looking at whether or not there might be some precursor lesions in benign breast tissue, identifying women that are at higher risk for the African American women.
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.
But by and large multiple biopsies is a predictor of having an estrogen receptor positive breast cancer. So we utilize the Henry Ford Health system benign breast disease cohort to look at whether fibrocystic breast biopsies predicted for higher rates of triple negative versus hormone receptor positive. Disease in our black compared to white patients and we had a very large cohort of more than 6000 women who had had benign breast biopsies with robust follow-up of more than 10 years and in as evidence that...
these women were receiving equitable
treatment over the years.
We actually saw comparable rates of
subsequent breast cancers
in these women with fibrocystic
changes regardless of
whether they were black or white.
And we saw comparable stage
distribution for the cancers that
did develop in these patients.
However, as shown by this curve by the
cancer graphic at the bottom of this slide,
the African American women with
benign breast biopsies had a
four fold higher risk of getting
a triple negative breast cancer
00:21:46.394 --> 00:21:48.626 compared to the white American breast
00:21:48.626 --> 00:21:50.052 fibrocystic change at patients.
00:21:50.052 --> 00:21:51.416 And so there does,
00:21:51.420 --> 00:21:54.236 at least from our experience seem to be
00:21:54.236 --> 00:21:55.841 something inherently different about
00:21:55.841 --> 00:21:58.343 the mammary tissue of African American
00:21:58.343 --> 00:22:00.754 women increasing the susceptibility for
00:22:00.754 --> 00:22:02.770 these biologically aggressive tumors.
00:22:02.770 --> 00:22:04.554 Another interesting question to
00:22:04.554 --> 00:22:07.230 ask is whether or not outcome
00:22:07.307 --> 00:22:09.907 disparities will persist after you
00:22:09.907 --> 00:22:11.987 stratify for tumor phenotype.
00:22:11.990 --> 00:22:13.579 And I’m not going to belabor the
00:22:13.579 --> 00:22:15.130 data on this very busy slide,
00:22:15.130 --> 00:22:17.230 but suffice it to say there are
actually a number of studies suggesting that when you adjust for stage and treatment that the outcomes from triple negative breast cancer patients might actually be fairly comparable for black women and white women. However, there are numerous studies showing that for hormone receptor positive breast cancer, the disparities persist. Now, whether or not these disparities and outcome in hormone receptor positive disease are related to differences in tumor biology or difference in
response to endocrine treatment or just variation in compliance with the several years that we recommend for endocrine therapies, these are all questions that continue to be under study. But now we are starting to generate some answers to those questions because a brilliant researchers who’ve been conducting terrific studies about gene expression profiling in women with hormone receptor positive, her two negative breast cancers are now starting to look at their data based upon stratification for race ethnicity.
The TELERX investigators have recently shown that for women undergoing Oncotype 21 gene recurrence score testing for hormone receptor positive, her two negative and no negative breast cancers that in women with the intermediate scores, the African American women have notably higher rates of recurrence and mortality even after adjusting for these intermediate range scores. And then very recently the investigators for the responder trial reported and the San Antonio Breast Cancer Symposium that among women looking at these 21 gene recurrence scores.
and whether or not they predict for benefit from chemotherapy in the setting of women with no positive disease. They similarly showed that the outcomes for the African American patients were significantly worse compared to the outcomes for the White American patients. And again this is after stratifying. For the 21 gene expression score. Many investigators have been looking at data from the Cancer Genome Atlas to try to take a deeper dive, basically into looking at tumor biology between black women and...
white women with breast cancer.
And I’m summarizing just a few of the studies that have been published
utilizing TCG a data on this table. But all of these studies are basically looking at the same group of, you know, more than 700 white American breast cancer patients.
So it’s not surprising that all of these investigators have identified similar patterns.
Pam 50 subtyping definitively showing that the African American women
not only have higher frequencies of the triple negative immunohistochemically defined phenotype, but we also have higher rates of the intrinsic basal subtype. The African American patients are more likely to have TP 53 mutations and fewer Pi K3CA mutations, which goes along with the higher frequency of triple negative and lower frequency of hormone receptor positive tumors in these patients. And the phenomenon of seeing higher rates of these biologically aggressive estrogen receptor negative and triple
negative breast cancers in women

NOTE Confidence: 0.899033555666667

with African ancestry is actually

NOTE Confidence: 0.899033555666667

not something that’s unique to the

NOTE Confidence: 0.899033555666667

United States and other countries.

NOTE Confidence: 0.899033555666667

The UK, Switzerland,

NOTE Confidence: 0.899033555666667

Brazil investigators from these

NOTE Confidence: 0.899033555666667

countries have also published data

NOTE Confidence: 0.899033555666667

showing that their African ancestry

NOTE Confidence: 0.899033555666667

breast cancer patients are more likely

NOTE Confidence: 0.899033555666667

to have estrogen receptor negative and.

NOTE Confidence: 0.899033555666667

Triple negative breast cancers

NOTE Confidence: 0.899033555666667

compared to their non African

NOTE Confidence: 0.899033555666667

ancestry breast cancer patients.

NOTE Confidence: 0.899033555666667

So This is why our group has been

NOTE Confidence: 0.899033555666667

very excited about looking at

NOTE Confidence: 0.899033555666667

international data and in particular
00:26:19.866 --> 00:26:21.581 looking at the breast cancer burden
00:26:21.581 --> 00:26:23.418 of women on the continent of Africa,
00:26:25.988 --> 00:26:27.956 question of whether or not African
00:26:30.593 --> 00:26:32.698 ancestry in and of itself is associated
00:26:32.698 --> 00:26:35.520 with some heritable marker predisposing
00:26:35.520 --> 00:26:38.013 And this I think opens the door not only
00:26:38.013 --> 00:26:40.939 to exciting ways to understand disparities,
00:26:40.940 --> 00:26:43.046 but also a very novel ways
00:26:43.046 --> 00:26:44.810 of trying to understand the.
00:26:44.810 --> 00:26:47.255 Pathogenesis for triple
00:26:47.255 --> 00:26:49.700 negative breast tumors.
00:26:49.700 --> 00:26:52.150 So this is just a snapshot of
00:26:52.150 --> 00:26:55.000 some of our most basic findings.
Looking at the frequency of triple negative breast cancer in women from Ghana representing Western sub-Saharan Africa compared to the triple net, the frequency of triple negative breast cancers in women from Addis Ababa, Ethiopia, representing East Africa. And we see quite high frequencies of triple negative breast cancers in the economy and women, about half of them are triple negative, but the frequency of triple negative breast cancers. And the Ethiopian women is very low at about 15%, similar to what we see in White American.
and European patients with breast cancer.
The frequency of triple negative breast tumors is intermediate for African American women between the rates that we see in Guinea and women and what we see in white American women. Now the American Cancer Society brilliant investigator, Ahmedin Jamal has to publish data that are comparable to what we’re seeing in our international data set. Doctor Jamal has published data looking at the frequency of ER negative breast tumors, which of course are a subset of the
triple negative breast tumors in white American breast cancer patients, African American breast cancer and treated in the United States. And women born in East Africa but whose breast cancers were diagnosed and treated in the United States. And similar to our international data, amadeen found that we see the highest frequencies of the ER negative tumors in the African American and West African born patients and the lowest frequencies of ER negative tumors in the White American and
East African born patients.

So this is where we’ve coined the nomenclature of oncologic anthropology to try to explain these patterns.

And of course, as we all recall from grade school social studies, the transatlantic slave trade brought the ancestors of contemporary western sub-saharan Africans across the ocean to serve as slaves in the colonies. And so today, we have quite a bit of shared genetic ancestry with the contemporary Guineans.
Representing Western sub-Saharan Africans. But the slave trade from East Africa largely brought the ancestors of contemporary East Africans and Ethiopians further eastward to the Middle East and to Asia. And so as African Americans, we don’t have quite so much shared ancestry with Ethiopia. excuse me, with Ethiopians. And so if there is something of a heritable nature related to African ancestry predisposing to triple negative breast cancer, it’s likely something specifically related. Related to Western sub-Saharan African genetic ancestry.
So one of our terrific and brilliant research partners for my research team, the International Center for the Study of Breast Cancer Subtypes is Doctor John Carton, who runs the Translational Cancer Research program out at USC. And we’ve been really trying to work quite hard to get more of our colleagues in the oncology research world to look at the genetics of race and ethnicity and to quantify germline ancestral genetics with the cancer outcomes. As a way of trying to understand disparities better.
I was absolutely thrilled to be able to recruit one of John’s mentees, Melissa Davis, who is a card carrying PhD geneticist to serve as the scientific director for our International Center for the Study of Breast Cancer subtypes. And our international team for the last nearly 20 years now has been building up this biobank biorepository of tumor specimens for somatic tumor tissue studies. And saliva specimens as well as blood specimens suitable for germline genetic studies from different parts of Africa. And so it was really exciting to get Melissa to serve as our basic science research leader.
So that she could use her tools to tease out some of these differences and understanding the genetics of African ancestry. And for most of Melissa’s career, she’s been a world leading expert in studying a particular gene called the Duffy gene or the Duffy antigen receptor for chemokines. And there’s a particular variant of the Duffy gene that is seen almost exclusively in individuals that have Western sub-saharan African ancestry. It’s widely called the Duffy Gene variant.
And therefore this Duffy null variant is an ancestry informative marker informative of African ancestry.

Now, Melissa’s been studying Duffy null for most of her career. Other investigators have kind of happened a Long Duffy Knoll in the context of other studies looking at disparities. And in this particular publication,
the Amber Consortium investigators were looking at levels of different circulating chemokines that might be associated with Cancer and in particular breast cancer risk. And they wanted to see if the levels of these different keeps US cytokines were different between black women and white women who had not yet been diagnosed with breast cancer. And then when they did genetic analysis, they found that these differences were explained by the presence...
of the Duffy null genotype.

We’ve also learned overtime that the Duffy Null variant is the variant that’s responsible for a phenomenon called benign ethnic neutropenia, which is the fact that African Americans tend to have a lower circulating white blood cell count. Which doesn’t have any biologic significance, but it is a numeric pattern that seemed pretty consistently. And some investigators are now looking at whether or not Duffy null may be implicated in transplant rejection disparities. And we are obviously looking...
at it in breast cancer, others are looking at it in prostate cancer disparities. Unfortunately, however, when you look at the literature globally, there is a huge gap in terms of what we know about how African ancestral genetics impact on cancer risk because so few of the genomic studies have included significant numbers of individuals with African ancestry. And as shown by this study from cell, only about 2% of individuals contributing to genome wide association.
studies have had African ancestry. So we were really excited to have Melissa work her magic with her genetics skills to apply them to our international biorepository, which again has been amassing specimens for nearly 20 years. So I'm Melissa did a really cool study where she looked at Duffy Null compared to a series of other genetic variants that have been potentially linked to risk of breast cancer and hormone receptor negative, triple negative breast cancer. And in working with this other brilliant researcher,
our geneticist, biostatistician Yallah Chin from the Henry Ford Health system, Yalley was able to show that the presence of this Duffy Null variant was by far and away the strongest determinant of having a triple negative breast cancer versus having a non triple negative breast cancer. The phenomenal anthropologist Dr. Sarah Tishkoff has shown us very nicely, as demonstrated by this graphic, that many of the ancestry informative markers that we look at aren’t markers that developed randomly over time.
Many of them actually represent evolutionary selection pressure over our ancestors to allow our ancestors to survive.

Different threats to longevity, related to infectious diseases, related to climate, related to food sources.

And then today, when we look at the descendants of those populations, you can continue to see many of these ancestry informative markers, regardless of where the descendants reside over the globe.

The Duffy Null variant is just one more
example of such a variant that was acquired over the millennia as a consequence of evolutionary selection pressure. The Duffy Novariant is something that became apparent that was adopted in Western sub-Saharan Africa many thousands of years ago, linked to the need to have some resistance to malaria, and malaria became endemic in Western sub-Saharan Africa because of the tropical nature of that. With the geography there with the many watery areas and low altitude areas supporting the lifecycle of the mosquito,
which of course is the host

And there are other examples of variants that were acquired to confer some resistance to malaria that thalassemia is seen in European Mediterranean populations. Sickle cell, the Duffy Null variant, doesn’t have quite as many of the adults health consequences as those variants do, and therefore the Duffy null variant is seen in nearly 100% of the descendants of Western sub-saharan Africans. Something occurred about 5-6 thousand years ago called the Band 2 expansion, of Western sub-saharan Africans.
migrated across the continent to populate the various areas of East Africa and South Africa. And while many of those areas have more mountainous areas that do not support the mosquito life cycle, so they have a different history of endemic malaria in those parts of the continent but with the Bantu expansion. The Duffy Null variant did track across the continent of Africa and you see varying degrees of admixture and the presence of this stuffy null variant in those reasons of Africa. Just as with the transatlantic slave trade,
the Duffy Null variant came across to the Americas and with the genetic admixture that we see in African Americans, this results in about 2/3 to 3/4 of African Americans expressing that Duffy Null variant and if you overlay a map of the frequency of triple negative. Breast cancer in different parts of the world with a map of the Duffy Null variant, there’s actually a pretty close correlation, so we’ve been exploring. Ways to understand how to connect the dots between the stuff we know variant and the risk of having a triple negative breast cancer.
The reason why that Duffy Null variant confers some resistance to malaria is because if you possess the Duffy null variant, you do not express the Duffy protein on your red blood cell. And the Duffy protein on the red cell is kind of the entry portal for the malaria parasites to get into the red blood cell and cause the disease. So now what we are learning.

And the work that’s ongoing and Melissa let slip is seeking to better understand how this Duffy protein and lack of the Duffy protein on the red
blood cell impacts on circulating chemokines, which would explain the findings of the Amber Consortium that I showed you previously. And how this may have a downstream in fact when the mammary tissue microenvironment and the inflammatory immune landscape of the mammary tissue. Which can then have an impact on the types of breast tumors that develop. Melissa has also been doing work with the Cancer Genome Atlas looking at tumor tissue expression presence of the Duffy protein and you see as you would predict lower levels of
Duffy protein in the breast tumors of African American compared to white women contributing specimens to TCG A. And the lower presence of a Duffy tends to correlate with worse prognosis across the different phenotypes. So this phenotype agnostic. If you will affect on tumor tissue tumor outcome may be what’s explaining what we see in looking at the the impact of race ethnicity on outcomes in women with that have ER positive disease as we saw from the tailor X and the responder trial. Many people are doing very,
very exciting work seeking to subtype

the triple negative breast cancers,

and a lot of this work was pioneered

by the Vanderbilt Group identifying

about 6 different intrinsic triple

negative subtypes initially.

However, the publicly available

datasets that contribute to the

definition of those different triple

negative subtypes largely came from

communities that had very few, if any.

African ancestry individuals.

So we really don’t know if those

are applicable to the African

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 --> 00:40:55.570 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
lymphocytes on breast cancer outcomes. And we typically think of these tumor infiltrating lymphocytes as a favorable prognostic feature. But in this is these are unpublished data and these preliminary data from TCG a, the relationship seems to be flipped for African American women with the higher frequency. Of tumor associated lymphocytes seems to be an adverse prognostic feature. Data correlating with these findings from TCG A have been published, again by members of the Amber Consortium. This comes from a study published by Christine Andersoni and her group where
they looked at the tumor microenvironment signature of breast cancers from African American and white American women. And while they did show that African American women tended to have a more robust tumor infiltrating lymphocyte. Content to their tumors, the lymphocytes of the African American women were more likely to have this T cell exhaustion signature, as they called it. And so their function was different compared to what we see in the what she saw, what they saw in the white American women with breast cancer.
And this was an intriguing study that was published in Cell just a few years ago where some investigators were looking at immune cells that were basically primed with specific pathogens, looking at the response of these immune cells from patients that were African American compared to white American. And they saw very distinct and different responses in terms of the immune activity of these immune cells. When they’re linked to different pathogens. So you can only imagine that if the immune cells of African ancestry individuals are responding differently.
to infectious diseases compared to the immune cells of white individuals, there could easily be differences in the way these immune cells function in terms of cancer biology. So Melissa has been continuing to utilize our international data set in conducting other studies looking at the triple negative breast cancer risk alleles and I’m going to go through these next few slides quickly. In the interest of time, we’ve also been working with investigators from the University of Michigan been creating PDX models.
based upon our International Studies.

And then very recently a couple of months ago,

we were really excited about our work with triple negative breast cancer subtyping.

So to us that was like being on the cover of our vogue magazines.

We were very thrilled about this and we were able to show that looking at genetic ancestry does have independent meaning compared to self reported ancestry.

And there were several 100 genes linked to genetic African ancestry.
that you don’t see if you look only at self reported racial ethnic identity.

And this is another slide that came from that particular publication where we’re just demonstrating the genetic admixture of populations in different parts of the world, specifically looking at Ghanian patients, African American patients, Ethiopian patients and European ancestry white American patients. And it’s an example of how much more you can learn about genetics of disease by drilling down into the. Genetic ancestry.
And African Americans have tremendous, tremendous genetic admixture compared to either Africans or European ancestry people. Individuals and you can’t rely upon self reported ancestry. There are three individuals in the European ancestry group. These are individuals who self reported as being white, but they have between 30 and 80% of African genetic ancestry. So you definitely misinformation if you rely. Exclusively upon self reported racial ethnic identity and there are other examples of how genetic ancestry
00:45:31.492 --> 00:45:33.970 might be correlated with health.
00:45:33.970 --> 00:45:36.328 April lipoprotein One is an African ancestry variant that has been linked to severity of kidney disease and we all know that end stage renal disease is more prevalent in the African American community.
00:45:38.300 --> 00:45:40.310 00:45:42.772 and we all know that end stage renal disease is more prevalent in the African American community.
00:45:40.310 --> 00:45:42.772 This particular variant is actually a variant that was acquired to develop resistance to the African sleeping sickness disease.
00:45:42.772 --> 00:45:44.512 00:45:46.920 in the African American community.
00:45:44.512 --> 00:45:46.920 Also,
00:45:46.920 --> 00:45:49.495 our wonderful colleague out in California, Lauder Fairman has been doing similar work looking at.
Latin X individuals and Lauda has demonstrated that extent of genetic Native American ancestry reduces the risk of getting breast cancer. On the other hand, higher extent of European ancestry is associated with a higher risk of getting breast cancer. Other investigators have been trying to figure out the germline genetic ancestral causes of the BRCA founder mutations and have been potentially linking some of those founding mutations to fertility over the millennia. So we’ve of course been very,
very excited about our international group with respect to these different research avenues. But it’s also been an incredibly rewarding experience from the perspective of being able to invest in the cancer care resources of the facilities for our partners work. And our mission statement is to reduce the global breast cancer burden through advances in research and delivery of care to diverse populations worldwide. A few examples of how we’ve been making those investments are shown here.
We’ve been able to establish immunohistochemistry training programs so that our colleagues can perform their own immunohistochemistry on site and actually characterize the cancers of the patients that they’re treating. We’ve established core needle biopsy training program so that they can make their diagnosis more efficiently and accelerated through the COVID experience is that we’ve been able to stay in very close contact utilizing zoom meetings and telemedicine tumor board discussions. And now that our program is headquartered at Wild Cornell in New York,
we are able to align our International Studies with the robustly diverse population of New York and we have our New York based breast cancer campuses in Manhattan, Brooklyn and Queens, which has tremendous diversity in those communities. And a lot of our work today is being done in conjunction with the Englander Institute of Precision Medicine. Whenever I talk about breast cancer disparities, I always include these survival rates of 60%, 40%, and 20%, which have absolutely
nothing to do with cancer outcomes.

But these are the survival rates for the first class, second class and 3rd class cabin passengers of the Titanic.

And even though my own career in breast Cancer Research and studying disparities has been heavily rooted in trying to understand.

And just as the third place cabin
passengers of the Titanic did not have equitable access to the lifeboats, it unfortunately and tragically remains true that communities of color, including African Americans, do not have. Equal access to cancer care, screening, research opportunities. And as stated by Doctor Martin Luther King, of all the forms of inequality, injustice and health is the most shocking and inhumane. We saw this injustice in the COVID experience. And as you guys know,
00:49:21.570 --> 00:49:23.903 consequence of the COVID shutdown and
cancer research and screening and treatment,
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.
But unless we support our safety net hospitals, which were disproportionately financially devastated by the costs of COVID care, unless we protect our advocacy and philanthropy groups that provide a lot of our free screening programs, and unless we really work with our hospital leadership. To make sure that they don’t cut navigation programs, outreach programs, when they’re trying to balance their budgets in the wake of the COVID experience,
we're going to have an exacerbation of these types of mortality gaps. But I am an optimist and I do know that by working together we are going to be able to eliminate these disparities.

And I look forward to strengthening all of the other partnerships that are already ongoing and bringing researchers from different areas together to try to conquer these problems from all different angles. And in closing, I just want to thank all of the wonderful teams that have supported our research over the years.
And in closing, I do also want to acknowledge this phenomenal woman, my sister Deborah Newman, who passed away almost a year ago today from an incredibly aggressive and virulent inflammatory form of triple negative breast cancer, a Princeton graduate, former US prosecutor. She’s a perfect example of how socioeconomics are not the exclusive explanation for breast cancer disparities. And so it’s an in her memory that I
and my research team continue the work that we've been doing so.

I do thank all of you for your time and attention and for inviting me to deliver this presentation.

Thank you so much Doctor Newman for sharing your extraordinary research with our group.

I'd be happy to start with any questions from the audience before we turn to the zoom chat.

One point. Really.

Was how the self reporting of race definitely does not usually capture what the person is and
that really has me thinking about populations might be able to look segregating typically but people said decreased sequencing cost and ease of access to that sort of data. Do you and your group’s plan on looking at those populations and identifying specific genetic factors. And if you’re not ready, you seen whether a specific rates have dominance. Thanks so much for the kind comment and I totally agree with your points that we definitely have an obligation to
look more closely at genetic admixture.
And you're right, self reported race.
I mean it's really primitive.
And as cancer researchers we've been so late to bring the technology of
but the general population has been doing this for years.
I mean millions of people are purchasing these products or they've spent in a cup.
And get back their pie diagram of
where their ancestors are come from.
So I mean I think that this type of work should be routine in our studies because we do have the technology and it's so much more precise and meaningful.
I agree with you in trying to understand cancer outcomes. Now we do need to look at self-reported race as well because a self-reported identity does have very important relationships to Health Equity and services that are available to some communities and not available to other communities, but we can’t overlook the genetics components. So that.

Doctor Weiner.

OK. So Lisa, thanks for a great
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 --> 00:55:00.385 issue but maybe a doctor issue.
NOTE Confidence: 0.94081753
00:55:00.385 --> 00:55:03.370 But the the other question with the
NOTE Confidence: 0.94081753
00:55:03.370 --> 00:55:05.798 question I have is to what extent
NOTE Confidence: 0.94081753
00:55:05.798 --> 00:55:08.226 do we know whether simple things
NOTE Confidence: 0.94081753
00:55:08.226 --> 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.
Yeah, it well terrific questions.

Now from our biorepository, we definitely see higher frequencies of those weekly positive ER tumors 1 to 9% in the African ancestry patients compared to the white patients. I can’t say that I’ve seen that broadly in publications however, because we usually just talk about your positive or negative using the ASCO CAP guidelines, but in our Database, we do see that. So I do think that it’s a spectrum that’s present. I I think you’re probably right that
there are variations in how endocrine therapies are prescribed and how much attention we pay as healthcare providers to adherence to treatment based upon what our patients look like. I think those are very real issues. I am so excited that people like you, the leaders in the clinical trials are paying attention to this. In looking at these, these gene expression profiles, they’re going to be incredibly powerful in studies to come. The presentation of the body of work that features beautifully. Molecular epidemiology,
clinical functions and what you've highlighted cultural. I think you have devoted a lot of time. If I take the same discussion interest cancer in TCG, I'll tell you there are five patients of African argument. And and that’s the disconnect that I’m always struck with, that I’m always struck with, you know so much that threat that biologic androgenicity matters and clinicians have always been able to people like we’ve been able to answer fundamental questions. Yet my worry is in our passion to
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.

98
Stratified by racial ethnic identity, where it wasn’t necessarily documented in the past, the fact that there’s a very, there’s a lot of momentum to look at the diversity of our workforce and to develop pipeline programs when very little attention was paid for the to little attention was paid for the to this in the past people would remark upon the lack of a workforce diversity, but everybody said well, this is a problem that no group can address overnight and so nobody tried to do anything. To address it, but I think that’s the the COVID experience,
horrific as it was,

the COVID experience with disparities

and COVID outcome hitting us

literally in the face,

coupled with witnessing the

horrific murders of George Floyd,

Brianna Taylor, so many others

in the hands of law enforcement,

all of those events happening.

Together made this an extremely

unique moment in time.

And so I think that the efforts

that we’re seeing now in achieving

HealthEquity are real and I

think that it’s going to make a

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: 0.578174253333333
00:59:14.070 --> 00:59:17.094 Will have no. Problems giving
NOTE Confidence: 0.578174253333333
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
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,
they’re going to make them really hard and so accurately that makes it very hard for people to people happen. And we put so many barriers into look at clinical trials, it’s really hard for people to limited means to come to Cornell or to come to New Haven. So how do we change that because who has the best interest in understanding that patients and yet we make it so complicated. Urge all of us to sort of think about how do we break those barriers to make this, because it’s fundamental. As you said, this was an evolutionary mechanism to survive in Africa, right? Malaria is endemic.
And now we're seeing it makes your hemocyanin inflammatory.

You have this response, but you know, it's the flip side and.

So I think that there's a peace for us as leaders of the field to say what are we making researches too complex and simple things like my background. Probably affects how I respond to the world was evolutionary and written into our DNA work thousands of years, right? And we're trying to fix that. You are so right. Yeah.

And you hit the nail on the head, I think, in talking about how we've
inadvertently created barriers to diverse populations contributing to research.

You know, many studies show that African American cancer patients are at least if not more likely to participate in clinical trials if they’re offered the opportunity to do so. And we’ve created all these barriers where clinicians are less likely to offer them for a whole host of different reasons, implicit biases. Sometimes it’s just.

Incidental Mel with well meaning physicians who are worried that they’re going to alienate their patients if they offer an African American cancer patient an opportunity to participate in a clinical trial.
01:01:30.466 --> 01:01:32.755 patient to clinical trial for fear that
01:01:32.760 --> 01:01:33.966 the patient might think that they're
01:01:33.966 --> 01:01:35.532 being treated like * **** Guinea pig.
01:01:35.532 --> 01:01:37.649 But we have to get over those types
01:01:37.649 --> 01:01:39.857 of things and we have to offer all
01:01:39.857 --> 01:01:41.857 treatment opportunities to all of our
01:01:41.857 --> 01:01:44.456 patients even when it comes to our IRB’s.
01:01:44.456 --> 01:01:46.878 You know we have all these regulations
01:01:46.878 --> 01:01:49.053 that try to protect people against
01:01:49.053 --> 01:01:51.646 coercion and so we don’t want to
01:01:51.646 --> 01:01:53.286 offer a financial incentives.
01:01:53.290 --> 01:01:55.700 Patients for fear of more
01:01:55.700 --> 01:01:57.628 vulnerable patients being coerced.
01:01:57.630 --> 01:02:00.022 But our socioeconomically disadvantaged
01:02:00.022 --> 01:02:03.012 patients need that financial support
in order to take the time off work so that they can come in for the visits.

So.

Such a broad, sweeping problem to try to meaningfully and thoughtfully get rid of some of these barriers that we've inadvertently created and trying to protect our patients against research and justice. The research abuse is, you know, we can't let those come back, but we do also have to be thoughtful and make research easier for our patients.

Thank.