FRED FRIENDLY SEMINARS, INC.
OUR GENES/OUR CHOICES
PROGRAM 3: GENES ON TRIAL
TRT 56:46
MODERATOR: CHARLES OGLETREE

INTRO TO PANEL

ROBERT KRULWICH

01:01:05;23 I'm Robert Krulwich, ABC News, and this is Eric Lander, he's a professor at MIT and at the Whitehead Institute, a pioneer in genetics

01:01:12;20 And I want to – I want to begin with an unfortunate image. I want you to imagine that……instead of being a fairly gorgeously coiffed individual…

ERIC LANDER:
(Laughs.)

ROBERT KRULWICH:

01:01:23;23 I want you to close your eyes and think of yourself…

01:01:25;09 ***…as a very bald man (Animation in..)***

ERIC LANDER:

01:01:29;12 ***Bald.***

ROBERT KRULWICH:

01:01:29;27 ***Not just bald, but you had an early onset bald. You were bald – bald as a baby***

ERIC LANDER:

01;01:34;03 ***Bald as a baby?***

01:01:35;01 ***ROBERT KRULWICH:***
And not only bald as a baby, but you had a bald grandparent and several bald uncles. And if you look up your family tree, there's baldness all the way back. So you get the idea. (Animation out..)

01:01:43;22 **ERIC LANDER:**
I-- I got this picture.

01:01:44;21 **ROBERT KRULWICH:**
Now, what I'm wondering is-- 'cause this is gonna come up in this show. Why when a scientist is hunting for, for example, the reason why human beings are bald…why is it an advantage to the scientist to find a family of bald people and hang with them?

01:02:02;04 **ERIC LANDER:**

Well, what a scientist really wants to do is to find a family with some bald people and some hairy people.

ROBERT KRULWICH:
Right…

01:02:07:29 ***ERIC LANDER: (Animation in..)***
Because baldness will be caused by a gene that has two different forms. One of which causes baldness, one of which causes hairiness.

What a scientist can then do is look at the DNA and see where form number one went to the baldies. And form number two of that same gene went to the hairies. That way we have a pretty good guess that that must be the gene for baldness. (Animation out..)

01:02:31;22 **ERIC LANDER (Cont.):**
If you're right for the Lander family, you might have a cause of baldness that applies to the whole population. And so what a scientist does is tries to discover a gene in one family or a small group of families or an isolated population. And then takes it out and sees how general it is.

01:02:48:05 **ROBERT KRULWICH:**
So when you're hunting for a gene families are a short cut. They help scientists narrow the search. Now, knowing that we are ready to consider some of the more surprising and fascinating problems that arise which means we are ready for Professor Charles Ogletree of the Harvard Law School and his Fred Friendly Seminar panelists._ Video Out: 01:03:03;15 Audio Out: 01:03:05:15

PANEL START

01:03:05;16 **[LOWER THIRD: Videotaped February 24, 2002]**

CHARLES OGLETREE:
01:03:07;20 It's Sunday night. And, Stanley, you and your wife Karen are having dinner. And you've invited some family members: both Pat and Dean, who are related to you, and you've invited Karen's sibling, Stephen.

01:03:29;15 During the course of the night the conversation becomes serious because you're discussing the issue of alcoholism. On both sides of your family, Stanley and Karen's, you've had some tragic circumstances with alcoholism in the past. And you are particularly concerned – Karen – because you have a 21-year-old son, Joseph, and you're worried where Joseph might be going, given the family's history.

01:03:54;17 Now, Dean – who is a family member – is also a scientist. And he's involved in trying to identify a gene associated with those who are prone to become alcoholics. And he wants to talk to the family about possibly participating in the research he's doing at State University. Dean?

DEAN HAMER:
01:04:15;28 Well, you know there's a lot of evidence now that alcoholism isn't something that's just be – people get because they're lazy or because they saw too many

advertisements, but something that's deeper inside of 'em.

01:04:30;06 And aagh– there's been a lot of problems in your family. And I noticed your kid at Christmas was drinking champagne, nine o'clock in the morning, opening the presents. And, you know, it's Christmas and everything —
[LOWER THIRD: Dean H Hamer/Geneticist/national Inst of Health]

STANLEY CROUCH:
01:04:40;11 Again? (LAUGHTER)

DEAN HAMER:
01:04:41;07 Yeah, again, exactly. It's something that doesn't have to happen. There's lots of people that might have a tendency to drink that don't drink.

01:04:49;19 And we're beginning to find out something about that in the laboratory, actually by studying people's DNA molecules. And I'm just wondering – I don't wanna pressure you at all – but if your family might be interested in being in a study like that, to learn something more about where alcohol comes from; and also, more importantly, what can be done about it.

STANLEY CROUCH:
01:05:08;15 If you isolate this, what good does it do? I mean, does that mean that in the future people will not be susceptible to this problem?

01:05:17;24 I mean, for instance, James Joyce was an alcoholic. Ernest Hemingway was an alcoholic. What little we know about Shakespeare, he liked to get a nip every now and then. So we have extraordinary people. Now the question I'm raising is: does science allow us to know what quality of person is going to arrive even if the person has that problem? Because I don't particularly believe that what makes human beings important is determined by whether or not they have a certain liability.
[LOWER THIRD: Stanley Crouch/Columnist/New York Daily News]

KAREN ROTHENBERG:
01:05:57;20 Stanley, come on now. I don't like the fact that you drink so much. And I just – I'm curious because I'm worried about our son. Let's say you do this study and you find out that our – family or groups of families have these predispositions, I'm worried he's gonna drink more, cause now he's gonna have an excuse. And he's just gonna say, "See, I'm not a bad guy. *You* did it, Mom and Dad, both of you did it to us." **[LOWER THIRD: Karen H Rothenberg/Dean/University of MD School of Law]**

DEAN HAMER:
01:06:23;09 The way I would hope it's gonna benefit is that this type of research will help to develop some aids or some drugs that will help people that wanna stop drinking, and to do so more effectively.

01:06:35;15 Remember, I smoked for 30 years. I couldn't stop. It's really addictive. I was only finally able to stop because I used those pills, they— they worked really well. And if it came to that, I would hope that a drug would be available to people that – they use alcohol. It's not right now.

CHARLES OGLETREE:

01;06:50;24 Stephen, are you convinced of your brother's argument here? Do you want the family to participate, to help your nephew?

STEPHEN BREYER:

01:06:54;24 Well, you mean, I'd find out. I'd find out whether I have the gene…

DEAN HAMER:

01:06:57;26 No, you wouldn't.

STEPHEN BREYER:

01:06:59;12 Well, then it's just like any other kind of research. If I – if I wouldn't find out I'm not gonna benefit or not benefit. So it's no hurt – harm.

01:07:06;12 I'd rather like to find out. Frankly I've looked at members of this family and I've suspected this for a long time. (LAUGHTER) I mean I've stayed away from the stuff myself, but – but I – I think I – I'd stay away even more if it were there.

01:07:20;00 I'd like to – I'd like to know. I'd like to know because then I'd know how to behave. So I think it would be helpful. **[LOWER THIRD: Stephen Breyer/Justice/US Supreme Court]**

STANLEY CROUCH:

01:07:27;00 What if you do this research and you find out that only *five* percent of the people who have real problems with alcohol have it as a result of a – of a genetic pre – predisposition? It'll be a bunch of money wasted, I say.

DEAN HAMER:

01:07:40;23 I don't think it would be money wasted for the five percent of people that it does help. And we're not trying to solve alcoholism for everybody, we're not trying to get, you know, predict who's gonna get it or not. We're just trying to understand it better so that maybe we can help it better. In the same way that – we have antibiotics for infectious diseases now, why can't we have drugs for something like alcoholism? It's a physical disease.

STANLEY CROUCH:

01:08:05;16 Yeah, but what about this, can they --

CHARLES OGLETREE:

01:08:06;00 (OVERTALK) …this discussion though, Dean. And you're having a difficult time with your family. What your fam-- family's experiencing is a broader problem. And Nadine, you know something about this family. You know that, in fact, they are from Tracy Island and they immigrated to the United States generations ago. Tell us what these Tracy Islanders are likely to experience in America that makes them a little bit uneasy when someone comes in and starts talking about "let's do some research on your people?" What do you – what's the – what are – what are their experiences?

NADINE STROSSEN:

01:08:39;23 I have to tell you folks, you know, we have – there's a history in this country of looking at people's genes to weed out the supposedly social undesirables. **[LOWER THIRD:Nadine Strossen/President/American Civil Liberties Union]**

01:08:53:26 And if you look at the history, unfortunately, it has targeted disproportionately people who lack political power and who came to this country. Unfortunately, there's a long history of – of racism and forced sterilization en masse of African Americans.

01:09:12;01 So, I think the fact that there's an attempt to find some genetic marker, compounded with the immigration status – is gonna make you kind of targets.

CHARLES OGLETREE:

01:09:22;07 Well, Dr. Collins, you are the president of State University. Let me ask you, why would you focus on these Tracy Islanders, this – very insular and unique community. Is that important for you as a researcher?

FRANCIS COLLINS:

01:09:34;21 First of all, let me explain, as the president of State University, that we have a large program trying to understand hereditary factors and environmental factors in understanding alcoholism. Because it is an enormously important public health problem. Our hospital wards and clinics are full of people with – liver problems and other types of physical consequences of alcohol abuse. And families are broken and destroyed. So we believe this is a serious issue that deserves serious attention. And we know that heredity does play a role. **[LOWER THIRD: Francis S Collins/Director/Nat'l Human Genome Research Institute]**

01:10:03;12 From a geneticists's perspective, the Tracy Islanders are very interesting because they had a very small set of original founders. And so there's less heterogeneity than we'd expect to find in their DNA. Which, simply put, from a scientific perspective, means we have a better chance of finding the answer than if we look at a very outbred group with lots of different genetic contributions coming from lots of places.

01:10:14;10-01:10:24;27 **Web Marker: PBS.org More on genetic research**

CHARLES OGLETREE:

01:10:24;26 Dean, was that what you were trying to say to your family?

DEAN HAMER:

01:10:29;20 That was exactly what I was trying to say. (LAUGHTER) The thing about it is this: You know, we got a problem in this community. We got more of a problem – alcoholism is every place but we got even more of a problem. But I'll tell you one thing. This gene that I told you about that we're looking

at…? It's not just in Tracy Islanders, it's all over the place.

PAT KING:

01:10:48;19 But Tracy Islanders are gonna be known as the alcoholics of the country. And so whenever I go someplace and they say, "Oh, you're a Tracy Islander," they will say, "Oh, we don't wanna hire you." Or they will say, "Oh, you come from that group, that genetically deformed, defective group. You carry this gene for alcoholism." **[LOWER THIRD: Patricia King/Prof of Law, Medicine & Ethics/Georgetown University]**

DEAN HAMER:

01:11:10;08 You don't think already that people don't say that? You don't think already that people don't say, "Oh, Tracy Islanders, they're lazy, they're good for nothing and they drink too much."

PAT KING:

01:11:17;07 And we wanna give them some additional ammunition?

DEAN HAMER:

01:11:19;20 No we wanna say, "Look, this gene is also in everybody.

STANLEY CROUCH:

01:11:23;12 Plus, what about –insurance companies? Once they have actual scientific proof that a specific group of people is inclined to alcoholism, they're gonna pull out the rest of that stuff: "Okay, well, now we're running the risk of insuring them because their alcoholism will lead to kidney problems, to liver problems…" And so we're just either not going to insure them. Or we'll figure out some kind of a dodge that we can sneak on them.

PAT KING:

01:11:52;13 Why don't they look for this gene elsewhere? If it's true that a lot of people out there have this gene, you just find it more in the Tracy Islanders, why don't you go to the people who are not suffering so much, and spend a little more money and look for it there?

FRANCIS COLLINS:

01:12:07;12 Well, we are studying other groups as well. But the fact remains from the perspective of the scientific approach, the likelihood of success is much higher if you focus on a group that has a limited founder pool and that has a relatively high incidence of the condition that you're trying to identify.

01:12:23;15 So the Tracy Islanders are a unique group in that regard. But I must say, I think my good friend here, Dr. Hamer, didn't mention to you that actually before we start this study, we had in mind an extensive community dialogue about whether or not this kind of study is something the Tracy Islanders wanna participate in or not.

We've learned over the last several years that when you focus on a particular population of this sort, whether it's breast cancer or whether it's schizophrenia, or whether it's alcoholism. That there are these serious issues of stigmatization that get raised.

CHARLES OGLETREE:

01:12:53;11 And Dr. Goldman, you're the lead scientist and researcher. Are you gonna approach people individually? Is that gonna be important to your research?

DAVID GOLDMAN:

01:13:00;02 For people with strong community identifications, to respect them, you have to approach the community. And second, you have to acknowledge that other members of the community are influenced by the research that you do on a different individual. **[LOWER THIRD: David Goldman, MD/National Institute on Alcohol Abuse & Alcoholism]**

CHARLES OGLETREE:

01:13:16;19 Chaplain Gracey knows this family. And he is usually the person that someone goes to to get a sense of how do you penetrate the community. You wanna talk to him?

DAVID GOLDMAN:

01:13:26;27 Chaplain, we would like to do a study on your community. And as a first step, we would like – we would like to put together an oversight committee with representative individuals – *leaders* –
from your community to – understand if this sort of research can be acceptable to the community.

01:13:48;00 If the community sees an advantage to it. And to involve the community from the beginning to the end when we develop whatever information that we're going to from the study.

COLIN GRACEY:

01:13:58;12 It's interesting that you come by, because I had a family in the parish that has raised a number of questions to me.

We heard from the university president that he's interested in Tracy Islanders. Well, that's all well and good. And that may be a relevant scientific question. But society may be interested that – you – do the research drawing genes from a broader pool of people. **[LOWER THIRD: Rev Colin Gracey/Northeastern University]**

CHARLES OGLETREE:

01:14:23;00 You wanna help the reverend out?

BARRY MEHLER:

01:14:24;10 It's very difficult for me to even listen to the conversation. This is a multibillion dollar industry in the United States that's trying to convince Americans that alcoholism and other social traits are – are caused by – genetic markers or – or genes. **[Barry Mehler/Director/Inst for the Study of Academic Racism]**

01:14:43;09 You want to know alcoholism? Take a look at homelessness in America. There is *nothing* in anything that you have said so far that has the hint that this would possibly do any good whatsoever. Of course there are genetic correlates to everything. But what we need to do in America is take these *billions* of dollars and see if we can do something about the people who are

sleeping on the streets…not looking for genes and convincing people that victims are to blame for their alcoholism.

CHARLES OGLETREE:

01:15:15;03 Dr. Goldman, Dr. Hamer? Dr. Hamer.

DEAN HAMER:

01:15:16;19 Yeah, but you know what? My nephew isn't homeless. My nephew has got a good job and he's got a real good family and he's got a real good upbringing. And the reason that he's drinking a bottle of champagne on Christmas morning isn't because of homelessness, and it's not because he doesn't have a job. It's because he likes to drink. And he finds it really hard not to drink.

01:15:35;10 And I want something to be available for him to get over drinking when he needs to. And he's drunk enough now. And he'll have drunk a lot more in ten years from now that his brain is gonna be a little bit rewired. And it's gonna be really really really tough for him not to take a drink. Because when he doesn't take a drink, he's gonna start trembling. And…

BARRY MEHLER:

01:15:50;20 And this study is going to help?

DEAN HAMER:

01:15:52:20 Yeah, that's what we hope.

BARRY MEHLER:

01:15:53;05 This study is gonna help –

(OVERTALK)

DEAN HAMER:

01:15:54:09 Exactly. That's what we're looking for.

BARRY MEHLER:

01:15:54;21 …gene for alcoholism, and that's gonna help?

DEAN HAMER:

01:15:57;04 We're not looking for *his* gene for alcoholism. We're looking for the biochemical pathway in the brain that makes alcohol so addictive. That makes him tremble when he stops drinking.

CHARLES OGLETREE:

01:16:06;24 Dr. Balaban…what would you say? Dr. Balaban?

EVAN BALABAN:

01:16:08;29 One of the problems I have with this is that I know from history that many immigrant groups, initially when they come here, have very high rates of alcoholism. **[LOWER THIRD: Evan Balaban/Head of Neurosciences Program/City University of New York]**

01:16:21;05 Have high rates of other social problems. And I begin to worry very much that you're choosing this very broad behavior that we know has a big

environmental and social effect. And you're trying to look for a correlation in a population who is newly here, they're trying to get themselves established. So it's really problematic for them.

01:16:44;03 I worry about whether it's not better to look for a similarly – selected group of people with the – an appropriate genetic history…but who is much further removed from a lot of the known social and – immigration instability problems.

STANLEY CROUCH:

01:17:03;18 There's one central problem here – You're gonna tell us that if you find out that this particular group of people has x-factor in their genes that inclines them to that…

01:17:16;14 And everybody's gonna sit up and say "Well, we're so worried about what might happen to them and how they might be stigmatized that we're not gonna immediately call Newsweek, Time Magazine, and everybody else. And be on PBS and every place else. **[LOWER THIRD: Stanley Crouch/ Columnist/New York Daily News]**

01:17:29;22 Talking about, "Yes, and we contacted those people from Tracy Island, and after about three years we discovered that yes, they do in fact have a gene that – we do think, though – exists in the entire population. But at this particular moment, we can say without a doubt that they have this."

01:17:47;15 So we're supposed to trust you all to – to experiment on our family, get this information, and be so interested in us.

FRANCIS COLLINS:

01:17:17:55:26 No.

STANLEY CROUCH:

…that you're not gonna beat everybody else to the press to tell them how great you are.

FRANCIS COLLINS:

You're not supp—

STANLEY CROUCH:

01:17:59;25 I don't believe it.

FRANCIS COLLINS:

01:18:00;09 You're not supposed to trust us.

STANLEY CROUCH:

01:18:03:09 Good.

FRANCIS COLLINS:

01:18:02;26 And in fact, that's the whole reason for this notion of a community consultation, a community engagement. And that's not a one time thing where you decide okay, you're gonna be in the study and then you never hear from the scientists again. That is an ongoing dialogue about the study. And

if, God willing, the study actually discovers something interesting, it is the first step to talk to the community about how shall we make this known.

01:18:24;04 And how does the community wanna be part of the way in which that plays out. And, I might say, all of those good things could still go awry. Because of course, the press does in general, a fairly lousy job—

GWEN IFILL:

01:18:33;28 Wait a second—

FRANCIS COLLINS:

01:18:35;18 Of representing the facts. So don't blame us for that part.

GWEN IFILL:

01:18:38;15 Give us a little —

STANLEY CROUCH:

01:18:39;02 We'll blame both of you. But we're still the ones gonna get it. We're still gonna get it.

GWEN IFILL:

01:18:43;13 Give us some credit in the press for being ahead of this story. Before you've even done this survey, we've already been in the community, we've been trying to get these-. **[LOWER THIRD: Gwen Ifill/Moderator & Managing Editor/Washington Week in Review]**

FRANCIS COLLINS:

01:18:50;24 Stirring people up and getting them upset.

GWEN IFILL:

01:18:52;04 With – stirring people up? No, we're asking them to tell us their stories. Now their story may be, they don't wanna have anything to do with you.

FRANCIS COLLINS:

01:18:57;23 Well, especially after they hear a scary representation of the study from you before we even talk to them.

GWEN IFILL:

01:19:01;20 We're not gonna…Absolutely not. If you would have talked to me in the first place, I could give them an accurate representation of the story. But you're stonewalling me too. And not only that, but once you're —

FRANCIS COLLINS:

01:19;09;15 Wouldn't community would really like that, if I talk to the press before I talk to them?

GWEN IFILL:

01:19:14;21 No, I don't want you necessarily to, but you know what? It's in your interest to make sure I know as much about the study as possible. So I go in in an informed way.

FRANCIS COLLINS:

01:19:22;01 I agree.

GWEN IFILL:

01:19:22;09 Especially if I'm gonna do the story anyway. (LAUGHTER) And then after it comes out, when it's on the cover of my news magazine, I can tell the story of these people in a full way, not as scientific guinea pigs, but actually put a name and a face to it…

01:19:35;12 Serve a public service by sharing with people – who may have these same predispositions in their families, in their communities – the information that you discover. Unless, of course, it turns out to be a crock.

CHARLES OGLETREE:

01:19:45;24 Let me ask you – (LAUGHTER)—

FRANCIS COLLINS:

01:19:48;25 I was okay until the last part.

CHARLES OGLETREE:

01:19:53;24 Aagh..despite all the concerns, ultimately this community decides to participate in the research study. And we've actually just got a-- a release of the results.

01:20:04:10 And it says: there is a variant in a particular gene, the Tracy Islanders that have the gene have twice the risk of being diagnosed as alcoholic as Tracy Islanders who do not have the gene. The study appears to be a significant advance, and a journal article will be published about this gene variant. . **[LOWER THIRD: Charles J Ogletree/Harvard Law School]**

01:20:28;03 So, Dr. Collins, Dr. Goldman, Dr. Hamer, I guess you're pretty pleased with this so far, right?

DEAN HAMER:

01:20:34;20 I actually tried to get the article stopped. Because I felt that it was really important to test the gene variant in other populations first to see if the results held up. **[LOWER THIRD: Dean H Hamer/Geneticist/national Inst of Health]**

CHARLES OGLETREE:

01:20:43;22 Dr. Collins?

FRANCIS COLLINS:

01:20:44;14 I was actually fairly persuaded by my colleague, Dr. Hamer, that it would be much better to have additional information about this finding to put it into context. But of course it was a pretty – interesting story. And people were talking about it in the lab. And somehow, somebody found out about it. And I got called up by a member of the press, and they said "We're going to break this story if you don't tell the world about it," so we had no choice .

CHARLES OGLETREE:

01:21:08;14 Is the press interested in this story?

ALAN McGOWAN:

01:21:09;15 Absolutely.

CHARLES OGLETREE:
Why?

ALAN McGOWAN:
01:21:12;22 Because it involves an isolated group that has had-- been the victim of prejudice. And there's no really visible-- benefit to this community. **[LOWER THIRD: Alan H McGowan/Gene Media Forum]**

CHARLES OGLETREE:
01:21:25;15 How important is it to this university, though, in terms of the media attention. Is that-- important to them?

ALAN McGOWAN:
01:21:29;13 Oh, media attention is very important to the university. It's clear that this is considered to be very good science by the scientific community. It got published in a leading journal. And the controversy surrounding it is very good for the scientific community. And is very good for the – future research prospects for that university and the researchers who did it.

CHARLES OGLETREE:
01:21:49;26 Dr. Collins, this is front page information in this – this community. And—

GWEN IFILL:
01:21:54:26 And it should be pointed out: they called us up and told us about it--

CHARLES OGLETREE:
Finally—

GWEN IFILL:
01:21:58;01 It doesn't just somehow get out there. My phone messages were full of people saying "I got a story."

CHARLES OGLETREE:
01:22:02;22 Well, you got the university researchers here. Have you're interview. Here's a press conference.

GWEN IFILL:
01:22:07;14 So why is this important, Dr. Collins?

FRANCIS COLLINS:
01:22:10;29 We have known for some time that there are hereditary factors that contribute to alcoholism. Let me hasten to say that doesn't mean that alcoholism is hard wired into anybody's DNA. **[LOWER THIRD: Francis S Collins/Director/Nat'l Human Genome Research Inst]**

01:22:22;10 As far as what the data show, it does show that those Tracy Islanders who had a variant in this particular gene, turn out to have about a ten percent incident – incidence of alcoholism. Whereas those who do not, it's about five percent.

01:22:35;22 Now right there, you can see, this is not the cause of alcoholism. This is a

risk factor that doubles the risk in those who have the variant. But there are many other risk factors, and of course the environment is a huge risk factor, as is, of course our own individual choices about whether we decide to start drinking or not. And none of this changes that.

ALAN McGOWAN:

01:22:53;08 So tell me if I'm an individual that – who is diagnosed – with this gene, what should I do?

FRANCIS COLLINS:

01:22:58;00 At the present time, we are not suggesting that anybody have this gene –

ALAN McGOWAN:

01:23:01;21 So there's no benefit to this research?

FRANCIS COLLINS:

01:23:03;11 There is no immediate clinical application of this research.

CHARLES OGLETREE:

01:23:05;28 Wow, is that your lead line, Alan?

ALAN McGOWAN:

01:23:05;29 That's absolutely true. Gene-- gene-- gene discovered no cure.

CHARLES OGLETREE:

01:23:12;01 You know, in our community, we have some television, newspapers aren't very reputable. We have KRAP-TV, they have a reputation for just cutting to the chase. And we have the *DailyTabloid*. What are those journalists going to write about and speak about Alan, when they report the story?

ALAN McGOWAN:

01:23:29;23 Oh, they're gonna say that the gene for alcoholism has been discovered. And – they're going to imply that-- around the corner is a cure. And they're gonna imply that if you get the gene, you're an alcoholic. And by implication, if you don't have the gene, you're not an alcoholic.

CHARLES OGLETREE:

01:23:46;14 I'm wondering, Dr. Collins and Dr. Goldman, what's going on here? Why are people so resistant to what you're trying to do to help this community?

DAVID GOLDMAN:

01:23:53;08 I'm starting to wonder why I got into this in the first place. It's all developing towards a – sort of mushrooming situation where a finding that was relatively modest and a useful – and a useful clue towards the genetics of alcoholism is being greatly magnified. **[LOWER THIRD: David Goldman, MD/National Institute on Alcohol Abuse & Alcoholism]**

FRANCIS COLLINS:

01:24:12;11 Yeah, I agree with my colleague that this is a very disheartening circumstance. The state university aimed, by doing this research, to try to make a contribution to human health. Most of the research people count on to advance human health occurs in universities. We understand the

complexities, we understand what a really small step this is. But for this to be demonized because it touches on a lot of very hot buttons doesn't seem like an appropriately focused representation...

01:24:17:05-01:24:26:23 **Web Marker: PBS.org History of genetics**

CHARLES OGLETREE:

01:24:37:24 Dr. Balaban, and Dr. Mehler?

BARRY MEHLER:

01:24:37:27 All this was predicted…All this was predicted before they went into the study. And if they would get their heads out of their microscope and just take a look around and see what the social circumstances are, you could have predicted that all of this would have come down this way.

FRANCIS COLLINS:

01:24:52;10 And we did predict it, but it's still disheartening. It's unfortunate that crusading views expressed in the fashion that you've been expressing them, tend to muddy the picture even further by implying that the geneticists don't appreciate the environmental contribution. Or the social sensitivities of these issues.

EVAN BALABAN:

01:25:08;03 I think we have a situation — a classic situation that we find a lot of times in science – where well-intentioned people are doing things that go completely crazy.

01:25:18;13 And – in this situation, we scientists, we have conflicting interests. We have responsibilities to communities. We have responsibilities to find the truth – the way things really work. But we also have our own independent careers. There is…a scientist always feels pressure to produce some kind of a result. And – because of these conflicts of interest, we're not the best people, necessarily, to judge when something is ready for publication and when it's not. **[LOWER THIRD: Evan Balaban/Head of Neurosciences Program/City University of New York]**

01:25:49;27 And you know — journalists…how do you advance as a journalist? You advance by reporting on important stories. So if you're a science reporter and you're getting this mass of stuff in, your career's gonna advance if all the things you report on are important. How do you make them important?

CHARLES OGLETREE:

01:26:06;12 This-- this research is very important to me. And my name is Brad Blueblood, you guys know me because I have a syndicated show in town here called, "I'm Always Right." (LAUGHTER)

01:26:19;16 And my views may not be the most representative but I'm very popular And this-- this press conference intrigues me… Because I have finally figured out about Tracy Islanders. What the study tells me is that your problems are not a result of job discrimination, it's not a result of any kind of ethnic bias, it's not a result of poverty or anything else. The problem is *inside* of you. It's not the environment. It's *you*. And that's gonna be the lead in my story

tomorrow. **LOWER THIRD: Charles J Ogeltree/Harvard Law School]**

DAVID GOLDMAN:

01:26:47;07 Well, I think you should back off from that lead. Because – (LAUGHTER), although I know that you're always right . This gene doesn't – account for enough of the alcoholism in Tracy Islanders for you to make that conclusion.

CHARLES OGLETREE:

01:27:01;26 Well, I'm gonna write this story, because I – it sounds great to me. But let's ask the family. Here we are. We've had the press conference, we've had the preliminary research. How do you feel now, Stephen? How do you feel about what you're hearing?

STEPHEN BREYER:

01:27:11;25 It's pretty interesting. I think maybe other members of my family had a better point than I thought. There is a certain risk here that it could – foment prejudice. And – and the risk arises not just out of the study, but it arises out of the way the study is presented. **[LOWER THIRD: Stephen Breyer/Justice/US Supreme Court]**

01:27:32;06 And I'd like the study to be presented. That in fact, what's been discovered, because of our contribution, is that there is a gene that all humanity has. And now, because of – because of what we did, we're helping not just us, we'll help future generations. Whatever their ethnic background, race, religion.

CHARLES OGLETREE:

01:27:54;14 It's messy, but we should go forward—

STEPHEN BREYER:

01:27:56;03 But that doesn't seem to be what's coming out. What seems to be – what's coming out, is the story, is the-- well, I don't know what it is. And the bigger the mess it is, and the bigger it's about how the study was done, and the more confusing it gets… there's only one thing I remember. And that is that Tracy Islanders drink a lot.

01:28:14;05 And my goodness, that's what those who were wise in this family told me at the beginning. And -- I-- I see the point. I'm committed to research, so I might do it anyway. But nonetheless, there's a point here.

CHARLES OGLETREE:

01:28:28;00 There's more. The same day that this wonderful study is released a 21 year old man in one of the Tracy Island neighborhoods was at a bar and had been drinking quite extensively. And in fact he thought that someone said something to him that was offensive. And, in his anger, went after another man, hit him, knocked him into a window…

01:29:00;21 And the tragedy is that because of the glass, it cut his throat and he died. And the person he killed was Roger Goodfellow, a police officer who was off duty. What is this case, in your point of view as a prosecutor?

VICTORIA TOENSING:

01:29:16;18 It's some kind of a homicide. Probably second degree. **[LOWER THIRD: Victoria Toensing/Attorney]**

CHARLES OGLETREE:

01:29:20;01 Okay, and what does it mean that this 21 year old is likely facing?

VICTORIA TOENSING:

01:29:24;17 Could be life.

CHARLES OGLETREE:

01:29:26;06 Okay, and is this a case that gives you any qualms? He had been drinking, does that help him at all?

VICTORIA TOENSING:

01:29:31;29 Doesn't help him with me.

CHARLES OGLETREE:

01:29:33;18 All right. Why?

VICTORIA TOENSING:

01:29:35;00 Oh…Because he had a free will when he decided to start drinking. And then he has to suffer the consequences of his behavior after that.

CHARLES OGLETREE:

01:29:43;11 Okay, well the 21 year old man, Stanley, is your son, Joseph. And all of the family comes down to see me – I'm down in jail. Miss Toensing, I assume I'm not gonna get out on bail right away, am I?

VICTORIA TOENSING:

01:30:07;04 Are – are you the 21 year old?

CHARLES OGLETREE:

Yes.

VICTORIA TOENSING:

01:30:09;19 Oh, no…of course not.

CHARLES OGLETREE:

01:30:12;03 Dad. Help me.
I don't remember anything. I remember waking up and being told that I've been charged with a crime involving a police officer. And now I'm scared to death.

PAT KING:

01:30:25;20 Well, all I can say is, I'm gonna figure out what the family resources are cause you're going to need the best lawyer we can afford.

KAREN ROTHENBERG:

01:30:31;28 Yeah, we're looking at him across the way –

KAREN ROTHENBERG:

01:30:36;25 As luck would have it. (LAUGHTER)

CHARLES OGLETREE:

01:30:42;06 Mr. Cochran, you're going to first talk to my family before you get a chance to see me, because they're calling you – family want to talk to this lawyer about whether he'll take the case?

KAREN ROTHENBERG:

01:30:53;26 Pro bono? (LAUGHTER) Okay. Well, we have been talking amongst ourselves and as you know, there's been a lot of publicity about this new "alcohol gene," and that they have associated the alcohol gene with us. So we've been thinking about, you know, some ideas. Maybe he's just got some sickness or something that we could use in some sort of defense. **[LOWER THIRD: Karen H Rothenberg/ Dean/University of MD School of Law]**

JOHNNIE COCHRAN:

01:31:23;21 Well, I'll tell you. This is a case that I'd like to take. It's not a question of money. And that's rare. (LAUGHTER) Cause that – that is rare for a lawyer to say. But I'm interested in this case on a number of – areas. **[LOWER THIRD: Johnnie L Cochran, Jr/Defense Attorney]**

01:31:37;23 I think that the – the study that was done shows a proclivity of Tracy Islanders– the affect of alcohol upon him has taken away his free will. And I think we can get experts who will come in and testify to the jury that he really didn't – it was beyond his control after a period of time. I'm going to try to talk to Miss Toensing before and say, "Look, in the interest of justice…"

CHARLES OGLETREE:

01:31:58;11 There she is. Why don't you talk to her now. Because one of the things you have to talk to her about, see if she will agree on bail. Because if not, Justice Breyer has been promoted. He's a trial judge now. (LAUGHTER) And you get to argue bail. But see if you can get an agreement with her…before the judge.

JOHNNIE COCHRAN:

01:32:13;23 As you well know, bail is not to punish, but to ensure the presence of this young man. He's 21 years old. He's from a fine family. He's going to show up for trial. And I think we can even go into the court and say to Judge Breyer, "Look, we've agreed upon a reasonable bail…"

VICTORIA TOENSING:

01:32:29;07 You know, Johnnie, I agree with you. So a million dollars.

JOHNNIE COCHRAN:

01:32:32;10 Well, I think--

VICTORIA TOENSING:

Not a problem.

JOHNNIE COCHRAN:

01:32:33;10 …a million dollars to this young man is like no bail at all. See I want –

VICTORIA TOENSING:

Yeah but you-- okay.

JOHNNIE COCHRAN:

01:32:37;05 I want something reasonable.

VICTORIA TOENSING:

01:32:38;24 But here's my problem. I am elected, as you well know--

JOHNNIE COCHRAN:

01:32:42;13 I appreciate that.

VICTORIA TOENSING:

01:32:42;23 And this community is just *appalled* at the fact that this off-duty policeman was murdered. He was a favorite. He did all the youth programs. It's a very big loss to this whole community.

JOHNNIE COCHRAN:

01:32:54;01 It is.

CHARLES OGLETREE:

01:32:54;15 Judge Breyer are you gonna – you don't have much patience for lawyers I know. (LAUGHTER) So-- what do you want to know about this?

STEPHEN BREYER:

01:33:02:13 Is he gonna run away? **[LOWER THIRD: Stephen Breyer/Justice/US Supreme Court]**

VICTORIA TOENSING:

01:33:04;25 We-- we don't know. He's run away from home a couple of times before. And he came back in two or three days.

STEPHEN BREYER:

01:33:09:25 All right. Is he a danger to the community?

VICTORIA TOENSING:

01:33:13:09 If he--

JOHNNIE COCHRAN:

01:33:13;21 Situational…

VICTORIA TOENSING:

01:33:14;24 You know what Mr. Cochran says, your honor? He says that –

JUSTICE BREYER:

01:33:16;13 I want to hear what you say.

VICTORIA TOENSING:

01:33:19;07 --his defense is going to be…I want to use this against him. (LAUGHTER) Because he says-- his defense is going to be that he has this proclivity to drink. And so now this person who Mr. Cochran is going to say had no control over his situation, had to drink, and therefore got into the trouble that he did, is now to be let loose in the community?
Of course he's a danger--

STEPHEN BREYER:

01:33:40;09 Is there any indication that he'll not drink--

JOHNNIE COCHRAN:

01:33:42;26 Absolutely not. He's in AA your honor. We've got him in AA. He's going to be counseled on a daily basis.

STEPHEN BREYER:

01:33:48;01 …his family will assure that he's off drink until--

JOHNNIE COCHRAN:

01:33:50;23 The entire family is in AA your honor.

STEPHEN BREYER:

01:33:53;03 Yes, well-- (LAUGHTER)

CHARLES OGLETREE:

01:33:58;16 It sounds like you just lost the bail motion. Motion denied. (LAUGHTER) So…one down. Let's see if we can help me out now. I'm glad you've agreed to represent me.

01:34:15:05 And quite frankly, Mr. Cochran I don't remember anything at all, and I can't believe I've done this. And I don't know. I'm just-- I just wonder whether what I'm going through is a result of what in fact my family has been struggling with for generations.

JOHNNIE COCHRAN:

01:34:30;26 I think there's a great likelihood that is. And I think we-- want to avail ourselves of all the recent research.

01:34:36;15 If you had no free will. If you did not know-- if you didn't knowingly become involved in this altercation. Then I think that you-- may not have an absolute defense. But certainly have an defense that would reduce this from-- as the prosecutor wants to make it murder certainly into-- maybe-- some of the lower realms of manslaughter. Perhaps involuntary manslaughter. You did not leave home that evening to go and kill this man. Certainly a bad result obtained. And certainly we understand that and appreciate in this society — the concept of responsibility. But there has to be some knowing responsibility it seems to me. And that's what the law is.

CHARLES OGLETREE:

01:35:09;27 Dr. Hamer, you're no longer a member of the family, sorry. (LAUGHTER) But you are an expert and you're one of the key researchers – Mr. Cochran, see if you can persuade him to be a part of this case.

JOHNNIE COCHRAN:

01:35:21;16 Dr. Hamer, I've been retained to represent young Mr. Crouch who is charged with-- a form of homicide. He's a Tracy Islander. I have reason to believe, based upon some studies that he may-- there may be a defense here that I'd like to find out about. And avail myself of.

01:35:36;16 Now with regard to this alcoholic gene, that makes him more likely to— to drink. Right?

DEAN HAMER:

01:35:41;18 Well, this gets kind of complicated. Because what I can say is that for people

on average, it about doubles the probability of having alcoholism. But I can't say exactly whether it made *him* an alcoholic. Or not. It could have been something else. **[LOWER THIRD:.Dean H Hamer/Geneticist/National Inst of Health]**

VICTORIA TOENSING:

01:35:59;16 Sounds like my witness. (LAUGHTER)

DEAN HAMER:

01:36:02;26 Now I'm speaking honestly. We're not in court now.

JOHNNIE COCHRAN:

01:36:05;07 No, and we want you to be honest, obviously. We want you to be honest. But would you say that he's more likely to be an alcoholic by virtue of this variant or this gene? Is that what you're saying?

01:36:08;25-01:3619;25 **Web Marker: PBS.org More on genetics & the law**

DEAN HAMER:

01:36:14;14 People that have the variant of the gene that he has are on average more likely to be alcoholic.

JOHNNIE COCHRAN:

01:36:19;09 All right. Can you assign a percentage to this?

DEAN HAMER:

01:36:24;03 Yeah, about twice as likely. Instead of having a five percent average probability, it's about a ten percent probability.

JOHNNIE COCHRAN:

1:36:29;08 And this is because he's a Tracy Islander, is that right?

DEAN HAMER:

01:36:32;23 Well, we think the same gene does the same thing to other people, but we're not really sure about that yet, the numbers might be different in different communities.

JOHNNIE COCHRAN:

01:36:40;15 Dr. Goldman, would you-- with regard to this variant, would your opinions be any different …?

DAVID GOLDMAN:

01:36:44;00 Johnnie – can I call you Johnnie?

JOHNNIE COCHRAN:

01:36:46;27 You know, please call me Johnnie. (LAUGHTER)

DAVID GOLDMAN:

01:36:49;05 The— the key will not be the genetic variant. The key will be the alcoholism diagnosis. So I think the first thing would be a very careful clinical history. And to go into detail about the — drinking – behaviors of your client. We might add the genetics on top of that. In particular the family history.
[LOWER THIRD: David Goldman, MD/National Institute on Alcohol Abuse & Alcoholism]

JOHNNIE COCHRAN:

01:37:12;19 But are you prepared to testify if-- if I-- prepared to testify for this young man if I can-- satisfy the court-- through the preliminary process this is a-- viable, scientific witness, are you willing to come and do that?

DAVID GOLDMAN

01:37:26;11 Yes, if everything is redone. I mean there has to be--

CHARLES OGLETREE

01:37:29;09 Let's assume that's done.

DAVID GOLDMAN

01:37:31;07 …The genetic testing needs to be done under certain conditions that were not done in the original laboratory testing.

JOHNNIE COCHRAN

All right.

DAVID GOLDMAN

01:37:39;07 Actually, quite deliberately.

CHARLES OGLETREE:

01:37:39;27 Miss Toensing , you know you've got a very sympathetic victim here. And you are worried now about Mr. Cochran – he's going to put this DNA defense in, in effect.

VICTORIA TOENSING

01:37:52;07 Yeah – "if the gene fits, you must acquit." (LAUGHTER)

CHARLES OGLETREE:

01:38:09;18 You've got Judge Breyer, the trial judge here. Now prosecutors have the ability to present evidence. But you also may want to keep some evidence out…this is what we call like a motion *in limine* —

VICTORIA TOENSING

01:38:19;26 Motion *in limine*, yes.

CHARLES OGLETREE:

01:38:21;29 And tell – what does a motion *in limine* mean? What are you trying to do?

VICTORIA TOENSING:

01:38:22;11 It means: "Your honor, I don't want this information before the jury." This "scientific" – quote unquote – evidence, has no acceptance in the scientific community. We have had accepted legal precedent that a person who drinks drank of his own free will. And is responsible for whatever actions take place after that. This is not the time, and these kinds of experiments are not the ones to undo that lengthy precedent.
[LOWER THIRD: Victoria Toensing/Attorney]

JOHNNIE COCHRAN:

01:38:56;12 Your honor this is amazing to me, how many times I've sat in this very court and had the prosecutor-- introduce these new cutting edge things to convict our clients with science. Here we have science now who would bring evidence before this trier of fact that may tend to show, and certainly diminish the criminal responsibility of this 21 year old fine young man. I think we have an absolute right to do that. I think the science has reached that level.

01:39:21;18 The prosecutor doesn't want to have it, because this is not a murder case. And she knows that. This is a case, somewhere, manslaughter or below. Clearly. And so I think this will aid the trier of fact that I'm asking you to allow this in.

01:39:32;23 And just remember judge, all those years when they wanted to put in DNA evidence against our clients and we objected and everything. The court always said, "Well, you know, it's an evolving matter." We didn't all learn about this in law school. But it's a new day your honor.

STEPHEN BREYER:

01:39:45;02 Well, Mr. Cochran, what's the relevance of the DNA testimony?

JOHNNIE COCHRAN:

01:39:49;06 I think it's very relevant your honor. Because I think if this young man had this variant gene, if there was the alcoholism he suffered-- precluded his ability to keep himself from drinking, and he had a greater propensity than anyone else-- double others who didn't have this particular trait, I think it becomes very relevant. It goes to his state of mind your honor.

STEPHEN BREYER:

01:40:08;00 Are you going to say that if these witnesses are right -- and we'll assume they're right -- are you going to say that that means he couldn't have done otherwise?

JOHNNIE COCHRAN:

01:40:16;03 I'm going to say--

STEPHEN BREYER:

01:40:16;20 …with respect to drinking?

JOHNNIE COCHRAN:

01:40:18;08 I think that's a reasonable argument.

STEPHEN BREYER:

01:40:19;06 And are your witnesses going to support you on that?

JOHNNIE COCHRAN:

01:40:21;07 I believe they will, your honor. And …this idea of having a free will…

STEPHEN BREYER:

01:40:23;10 Well, I'd like to have a *voire dire*. I'd like to hear what the witnesses are going to say on that point. Because isn't that the relevant point?

JOHNNIE COCHRAN:

01:40:28;18 I think that-- I think that does kind of crystalize the issues. And I'd like to address and -- and Dr. Collins, with regard to what the court just said. You-- you've had occasion to examine my client. Is there a likelihood that he did not have-- free will in this regard?

FRANCIS COLLINS:

01:40:42;26 This is a moderately weak predisposing factor of intense scientific interest because it may help us understand what to do for this disease. But I would certainly not argue that this particular DNA sequence does anything to

abolish the importance of free will. **[LOWER THIRD: Francis S Collins/Director/Nat'l Human Genome Research Inst]**

01:40:59;20 And let me make one parallel here that I think is really worth thinking about. You and I, and about half the people in this room are predisposed to get in trouble with the law at about a tenfold increased risk than the other half of the people in the room. And that's because we have a Y-chromosome.

CHARLES OGLETREE:

01:41:15;05 And what do you mean by Y-chromosome, so we'll be clear to this audience what you're talking about?

FRANCIS COLLINS:

01:41:20;06 So all males have a Y chromosome, we have an X and a Y. All females have two X chromes--

CHARLES OGLETREE:

01:41:25;10 And that influences predisposition?

FRANCIS COLLINS:

01:41:17;03 Well, we don't understand the connection in terms of the biological pathways but the fact remains that males get in trouble with the law a lot more often than females. And yet, that is not used as an argument to say that males are not responsible for their actions. At least I haven't *heard* it used. (LAUGHTER)

JOHNNIE COCHRAN:

01:41:42;06 I want to just ask – if I may – I want to just ask Doctors Goldman and Doctor Hamer whether or not you agree with Doctor Collins in that regard.

DAVID GOLDMAN:

01:41:48;13 Not completely. There was another finding in our study which is that people who have this variant and who drink do tend to be more impulsive and have actual problems with violence. And so it's an interesting thing that although it's-- you could call it a "gene for alcoholism" or a gene that contributes to alcoholism vulnerability but no genes really act in this type of narrow fashion. The brain and the genome--

VICTORIA TOENSING:

01:42:16;05 Well, does that take away their free will?

DAVID GOLDMAN:

01:42:18;19 Are compartmentalized-- well it doesn't take away their free will…

VICTORIA TOENSING :

01:42:19;08 Thank you, no further questions. (LAUGHTER)

JOHNNIE COCHRAN:

01:42:21;11 Would you allow him to finish, counsel?

CHARLES OGLETREE:

01:42:26;08 Let me just move for a second, assuming that we've got that Just as a member of the public, hearing this, is this something the public wants to hear? Needs to hear?

NADINE STROSSEN:

01:42:33;15 I'm very disturbed about this and I would love to have a chance to talk to Mr. Cochran about the potential adverse social consequences, particularly for the Tracy Islanders. And I-- we heard it-- from Victoria Toensing when she said the flip side of the defense of this particular individual is an indictment, so to speak, of not only him but the entire community. **[LOWER THIRD: Nadine Strossen/President/American Civil Liberties Union]**

01:42:59:21 Aha! They are admitting that they have a predisposition, not only to drink, but to become unconscious and to commit violent acts. We know where Brad Blueblood is going to go with that. Why don't we lock them up? You know, we've got one in preventive detention. Why not keep him there and keep the rest of them there?

JOHNNIE COCHRAN:

01:43:17;26 If you're my client, and certainly I would be concerned about the community and the impact – I'm always against stereotypical kind of thinking. But if I have a job to represent my client, do I say, "Hey this is bad for the community," so I let him go off to prison? **[LOWER THIRD: Johnnie L Cochran, Jr/Defense Attorney]**

NADINE STROSSEN:

01:43:30;28 I heard your client actually make that point when he said he had some concerns.

JOHNNIE COCHRAN:

01:43:34;16 So, he may have some concerns, but he's gonna – but when I explain to him if you don't make this argument, this police officer is still dead. And I have

scientists who say there is some likelihood that the justice – judge allows me to do this. It's a legitimate scientific defense. And a trier of fact will have to make that decision.

STEPHEN BREYER:

01:43:51;18 The question that immediately comes to mind that I'd like to ask the witnesses-- or the experts is-- is the following:

01:43:58;12 There are children who have abusive parents. Now, take one of those children and let him grow up to the age of 18. He may commit crimes. In fact, I suspect he's predisposed to do it, a lot of them. Because of that background. And tell that child, "control yourself." It's hard for that child to control himself. Very hard. Now, what I'd like to know is if we have this ten percent probability that your genes are one way or the other Is it any harder for this person to control themself in respect to alcohol than it is for that person who grew up with an abusive family?

01:44:22;25 – 01:44:30;20 **Web Marker: PBS.org More on genes & free will**

FRANCIS COLLINS:

01:44:35;25 Justice, you make an extremely good point. And I think what it means to be human, and what it means to make decisions, and the responsibility for that is not going to be made obsolete by our uncovering the genetic script. And just as you are saying very eloquently, all of us face things where we have to make choices between right and wrong that are difficult. We all carry something in the way of baggage that makes those choices hard. But I can't see why genetics should be put into a special category and considered as an excuse if other social conditions are not.

STEPHEN BREYER:

01:45:11;18 So – so you'll say that in fact, if you have the gene, well, it's tougher not to drink. But you have that choice. We're not going to say you couldn't do otherwise.

FRANCIS COLLINS:

01:45:25;00 Exactly.

STEPHEN BREYER:

01:45:25;12 All right. Well, if it's something like that…we're tough on that. And we expect people to rise to that occasion despite backgrounds that are very, very difficult. So before this— science begins to change something like that, I

think there's a lot ahead of us.

CHARLES OGLETREE:

01:45:43;04 Hmmm. In fact…Joseph is convicted and sentenced to 20 years in prison. But the story doesn't quite end there, because Brad Blueblood comes out with a new book. And his new book, *Bred in the Bones*, concludes that this genetic research tells us about the defects in this family. And in this community.

01:46:05;13 And in fact, it tells us we should stop spending money on all these social welfare programs. It's misguided efforts and it's also a waste of tax dollars.

01:46:14;04 Doctor Goldman, what are you going to do?

DAVID GOLDMAN:

01:46:15;20 He's gonna have to find a better excuse for his racism. Because…

CHARLES OGLETREE:

01:46:20;07 Wait, are you – tell me, are you going to have a press conference of your own?

DAVID GOLDMAN:

01:46:24;28 I think that – I think a letter should be written at the minimum.

CHARLES OGLETREE:

01:46:28;06 Well, talk to your President and talk to your fellow -- did you guys talk – talk to each other. What are you going to do?

DAVID GOLDMAN

01:46:32;19 Let's not let them misuse the study of genetic differences between populations to support this conclusion.

FRANCIS COLLINS:

01:46:42;05 But how are we going to--

DAVID GOLDMAN:

01:46:42;22 When the evidence is counter.

FRANCIS COLLINS:

01:46:42;13 Blueblood there has got his radio show. And his TV show. And his book. Who's going to care if the state university-- writes a letter and says he's

wrong. What are we going to do to get—

DEAN HAMER:

01:46:53;10 Forget about the letter.

BARRY MEHLER:

01:46:54;20 A letter from the university is not going to do anything. We have to get out a counter-message to the kind of publicity that's going on here. And so what we really need to do is put together a panel that would appear on television and would dispute the basic assumptions of this book as soon as possible.
[LOWER THIRD: Barry Mehler/Director/Inst for the Study of Academic Racism]

GWEN IFILL:

01:47:14;10 So now the media is a good thing all of a sudden, huh?

CHARLES OGLETREE:

01:47:16;23 Well, Doctor Collins, you have a three o'clock interview with Gwen Ifill today Miss Ifill, what do you wanna know?

GWEN IFILL:

01:47:22;21 Well, Dr. Collins, it was a lot easier to get this interview with you this time than last time we spoke (LAUGHTER) because all of a sudden you decided that I can be useful to you. So what is it that you have to say to me?
[LOWER THIRD: Gwen Ifill/Moderator & Managing Editor/Washington Week in Review}

FRANCIS COLLINS:

01:47:33;05 Well, I'm here today to express deep concern about this new book by Mr. Blueblood which has taken these scientific discoveries which are still at an early stage of understanding and twisted them in a way that is truly diabolical. Which engages – his own – political views. But it does not really represent science in any meaningful way.

GWEN IFILL:

01:47:57:06 That was about a 25 second sound bite. You know we don't have time for that. Can you-- can you condense it a little bit? (LAUGHTER)

FRANCIS COLLINS:

01:48:03;08 So you understand perhaps my concerns about the press. You want me to take this issue, this issue of such—

GWEN IFILL:

01:48:08;25 Oh, you're gonna turn on me and you want a favor from me now.

FRANCIS COLLINS:

01:48:11;28 And you want me to compress it into a 15 second sound bite.

GWEN IFILL:

01:48:15;25 We don't deal in nuance.

FRANCIS COLLINS

01:48:16;10 I've noticed that actually. (LAUGHTER) So—

CHARLES OGLETREE:

01:48:22;13 Is there a short version or-- or not really?

FRANCIS COLLINS:

--15 second sound bite.

FRANCIS COLLINS:

01:48:25;15 "Mr. Blueblood's book which aims-- to prove that racism is scientific is categorically wrong." Is that short enough?

GWEN IFILL:

01:48:36;05 I can-- I can use that.

STANLEY CROUCH:

01:48:37;23 There is an overriding factor that's come out of this. Now, all the Bluebloods in the world can write bad books, books that twist facts, books that appeal to the worst xenophobic inclinations in the population. Anybody can do that. Our problem is to make sure that the person who gets garbage information can never get that garbage information elevated above where it really is. There has to be some structure in which that can just be defined as garbage. The people who are right – quote, unquote – always have to be ready to fight. Being right's not good enough. You have to be able to go to war against what you think is wrong. **[LOWER THIRD: Stanley Crouch/Columnist/New York Daily News]**

CHARLES OGLETREE:

01:49:25;23 Well, in – in fact, you did go to war against me. And it was somewhat successful, Dr. Collins, your campaign worked. And there's a lot of community sympathy. And my book start to decline in significance.

01:49:37;20 We're now at different time. And in fact you are all now members of the board of trustees of State University. And our esteemed president – Dr. Collins, has invited me as he will occasionally do to invite – up and coming faculty members to come to talk to the trustees.

01:50:00;01 And I have come up with – I think a nice research project that will help us study-- and do some research genetically on issues of impulse control and aggression. And I just thought I'd come to the board of trustees to give you that brief report 'cause I thought you'd be as excited as I am that we have another opportunity for research. Any questions from the trustees?

NADINE STROSSEN:

01:50:23;06 On what population are you planning to do this research?

CHARLES OGLETREE:

01:50:27;06 It's not Tracy Islanders. (LAUGHTER)

NADINE STROSSEN:

01:50:29;24 Is it the whole population? Or are people selected randomly?

CHARLES OGLETREE:
Well, it's very preliminary. But it's just exciting new research. And…

ALAN McGOWAN:
01:50:26;17 I think that it's dangerous research. It sounds to me like you're pushing a hot button, that you're going on a fishing expedition and that you have – little, real scientific-- value to the work therefore. So I'm-- I'm really worried about it. **[LOWER THIRD: Alan H McGowan/Gene Media Forum]**

CHARLES OGLETREE:
01:50:53;07 Dr. Goldman? If, in fact, the science is reliable and of high quality, in principle do you have a problem with--

DAVID GOLDMAN:
01:51:00;23 No.

CHARLES OGLETREE:
…the area?

DAVID GOLDMAN:
01:51:01;28 No.

CHARLES OGLETREE:
12:51:00:12 You don't?

DAVID GOLDMAN:
01:51:02;24 In principle, I don't have the—

CHARLES OGLETREE:
01:51:03;29 Make the argument. Why is it—

DAVID GOLDMAN:
01:51:05;14 Yes, in principle I do not have a problem with going back to a new population of individuals who may have impulsivity and asking the question, "What is the genetics of that?" Understanding that the genetics of that trait is also going to be complicated. That we're not gonna get the magic bullet type answer. We're going to be talking about just an accumulation of puzzle pieces to-- to fit together--

VICTORIA TOENSING:
01:51:29;03 Is there something wrong with impulsiveness? What is-- what's wrong with impulsiveness? I mean--

DAVID GOLDMAN:
01:51:36;19 In fact we need-- we need to understand impulsiveness if we want to understand a whole series of-- of diseases. If we want to understand why certain people use drugs. Why certain people have problems with-- attention deficits.

VICTORIA TOENSING:

01:51:51;06 Or buy a red Cadillac?

DAVID GOLDMAN:

01:51:54;11 Or-- or can't follow a-- physician's instructions to-- to--

EVAN BALABAN:

01:51:57;17 Let me offer a little bit of a guideline here. So – genetics is an incredibly powerful science when you apply it to things where you kind of know what we're studying. When we have a condition that's medically defined like heart disease we have a clearly defined population of things that we're trying to study and learn about. **[LOWER THIRD: Evan Balaban/Head of Neurosciences Program/City University of NewYork]**

01:52:18;15 When we move to something like alcoholism that may be a whole lot more nebulous, at least there is clinical agreement on patterns of behavior that constitute a problem. Now, we have moved into a brand new arena. We are using terms –"impulsiveness," "aggression," – that are very difficult to define in the operational ways that scientists need to define things.

01:52:44;18 I believe that there's something inherent in what it is that you're actually studying that feeds into the question of the quality of the science. Of how good an answer you can hope to get. And there is a line somewhere that I think we have just crossed.

DAVID GOLDMAN:

01:52:59;08 The line that we crossed is that we crossed the line from disease to the so-called "normal range of behavior." That's the line that we crossed."

CHARLES OGLETREE:

01:53:07;07 Dr. Collins, let me ask you this, because the question is: should any of this scientific inquiry be off limits?

FRANCIS COLLINS:

01:53:13;27 I think scientific research has to be responsible. And if research has risks to individuals or to groups those risks have to be very seriously considered. Science also has benefits, tremendous benefits. We've talked a lot about the risks. We haven't talked so much about the benefits. I hope nobody has lost track of them. **[LOWER THIRD: Francis S Collins/Director/Nat'l Human Genome Research Inst]**

01:53:31;03 If we wanna see a better day for medical treatments, for public health, for improving our lot, for reducing suffering, it is this engine of research that will get us there.

CHARLES OGLETREE:

01:53:43;02 And finally, Justice Breyer, talk to me. Tell me what – what you're thinking, what you're feeling about this broader discussion about law and ethics and science? And what should we be focusing on?

STEPHEN BREYER:

01:53:53;09 You come in with a project. Well, if it's a good project that's going to help

possibly save people's lives we oughta do it. Of course, it can get out of hand through misunderstandings and inadequate care to people who are being hurt . But the solution is don't hurt them and cure the misunderstanding. It's not gonna be stop the project.. **[LOWER THIRD: Stephen Breyer/Justice/US Supreme Court]**

01:54:12;24 Gallileo may have been subject to misunderstandings – but the solution wasn't to stop Gallileo. So our idea here is that basically we do go ahead with scientific research when it's going to help people. And that's really a decision for scientists and ethics committees. And not gonna be a decision for the newspapers and it's not going to be a decision for-- for me, for example, as a judge. And how it affects other institutions, that takes time. But in the meantime, the other institutions – and that's what we've been doing right here. Is to try to identify the problem.

01:54:47;27 And to try to get people to talk about it. I-- I learned a lot. I learned a lot in the last-- period of time when we've been talking about this. And-- and I hope other will. And that's the best I can do.

CHARLES OGLETREE:

01:54:59;23 Thank you, Justice Breyer. Please thank our panel for their comments. (APPLAUSE)

01:55:05:12 **END**