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Transcript

AMY GOODMAN: One of the major themes that's been raised in the Occupy movements across the country and the world is the increasing power of large corporations over more and more aspects of our lives. Well, today we're going to look at the issue of the corporate control of life itself.

Our guest, medical ethicist Harriet Washington. She has just published a book that examines the extent to which what she calls the medical-industrial complex has come to control human life. In the past 30 years, more than 40,000 patents have been granted on genes alone. More patents are pending. Washington argues that the biotechnology and pharmaceutical companies patenting these genes are more concerned with profit than with the health or medical needs of patients.

Harriet Washington's new book is called *Deadly Monopolies: The Shocking Corporate Takeover of Life Itself—And the Consequences for Your Health and Our Medical Future*. She is also the author of *Medical Apartheid: The Dark History of Medical Experimentation on Black Americans from Colonial Times to the Present*.

Harry Washington, welcome back to *Democracy Now!*

HARRIET WASHINGTON: Thank you so much, Amy.

AMY GOODMAN: It's good to have you with us.

HARRIET WASHINGTON: Very good to be here again.

AMY GOODMAN: Why did you take on this book?

HARRIET WASHINGTON: I was really disturbed not only by the displacement of the traditional, more altruistic values of medical research, but also by the lack of transparency with which corporations have managed to co-opt not only research itself, but also the generation of new cures and the pricing of drugs.

AMY GOODMAN: You wrote *Medical Apartheid* before this. How did *Deadly Monopolies* come out of your previous research?

HARRIET WASHINGTON: Interestingly enough, it didn't come out of it. I was always concerned both about medical research with African Americans and medical research with unconsenting Americans and duplicitous research, and couldn't combine them all in one huge monster book, so after I did *Medical Apartheid*, I turned my attention to the issues that affect all of us, not just African Americans.

AMY GOODMAN: Talk about the story of John Moore.

HARRIET WASHINGTON: John Moore, an iconic story. He developed hairy-cell leukemia, and he was told by his doctor, Dr. David Golde, that he needed surgery to save his life, which he underwent. His 22-pound spleen was taken out, and after that, Golde summoned Moore periodically, all the way from Alaska to L.A., for periodic tests. And Golde would do samples of his blood, his semen.

AMY GOODMAN: Golde, his doctor.

HARRIET WASHINGTON: Right, right, his doctor. And this was all in order to make sure there was no recurrence of the cancer. So Moore was told. Actually, without Moore's knowledge, Golde had taken a patent out on Moore's spleen and the tissues emanating from it, and with that patent, had designed a huge laboratory, with the backing of Sandoz Corporation. And he was actually—

AMY GOODMAN: Sandoz, a pharmaceutical company.

HARRIET WASHINGTON: Exactly. So he was actually planning to market the products of John Moore's body, and John Moore was none the wiser, until he finally consulted a lawyer, who found the patent and found the laboratory.

AMY GOODMAN: Who was Golde?

HARRIET WASHINGTON: Hmm?

AMY GOODMAN: Who was the doctor?

HARRIET WASHINGTON: Oh, the doctor was a blood specialist in L.A.

AMY GOODMAN: So he owns the patent to John Moore's cells?

HARRIET WASHINGTON: He and the university, jointly, held the patent. And with that patent, they had a contract with Sandoz worth $3 million. But John Moore never knew of it.

AMY GOODMAN: How did he learn of it? How did he even seek out whether there was a patent on his own body?

HARRIET WASHINGTON: Golde became belatedly cautious and was pressuring Moore to sign an additional, you know, consent form to give Golde total control over Moore's discarded, worthless tissues. And Moore was a bit wary. He went to a lawyer, who immediately found the patent and discovered what had been done and that the tissues were not at all worthless, of course.

AMY GOODMAN: What role does the university play in this?

HARRIET WASHINGTON: The university is essentially the patent holder, very often, and it often sells and licenses those patents to private corporations, as this university was going to do to Sandoz. So the university stands to make a great deal of money by selling and licensing patents emanating from our bodies and emanating from molecules that were developed with tax dollars, our tax dollars.

AMY GOODMAN: Talk about these relationships between universities and private corporations.

HARRIET WASHINGTON: They're very close. In fact, now, I believe, very often, universities have come to look like arms of corporations. They've adopted their models. They've adopted their culture. Now it is the patent, not the patient, that's at the center of medical research. And it's profit and patent that is motivating decisions that universities make, just as always dictated the behavior of corporations.

AMY GOODMAN: Harriet Washington, you have a chapter in your book called "A Traffic in Tissues."

HARRIET WASHINGTON: Mm-hmm.

AMY GOODMAN: You were just talking about John Moore's tissues. Talk further, in a global way, about this.

HARRIET WASHINGTON: Well, John Moore—what happened to John Moore happened because his tissues were unusually valuable. But today, all of us, with normal tissues, are in danger of having the same fate, because large volumes of normal tissues are also valuable. And now, when we go into surgery in many hospitals, we're forced to sign—no, we're asked to sign consent forms, yielding control of our tissues to a private corporation.

AMY GOODMAN: What is that corporation?

HARRIET WASHINGTON: Ardais Corporation is a major one. If you go to—

AMY GOODMAN: Say it again.

HARRIET WASHINGTON: Ardais, A-R-D-A-I-S. If you go to Harvard University hospitals, Duke University hospitals, that's who ends up with your tissues.

AMY GOODMAN: And what do they do with them?

HARRIET WASHINGTON: And many patients don't know that. Well, they're very valuable. They can use them to make new drugs, to test new drugs. They have a great deal of value, especially many, many tissues for which they've paid a very low or nominal fee.

AMY GOODMAN: Talk more about this traffic in tissues, where your tissues can end up.

HARRIET WASHINGTON: A variety of places. They can end up in laboratories that are testing drugs. They can end up in laboratories that are basically looking for medically important molecules. If they find that tissues secrete a certain cytokine, for example, they can sort of farm them out. Large volumes of these tissues are extraordinarily valuable in almost sphere of medicine and medical research. And they are being taken from us, very often—well, usually, without our knowledge.

AMY GOODMAN: Can you talk about the Bayh-Dole Act?

HARRIET WASHINGTON: Yeah, the Bayh-Dole Act was passed in 1980. Birch Bayh and Bob Dole jointly decided to, you know, write a bill that would allow universities for the first time to legally license and sell the products of research to private corporations. That's where all this paradigm shift actually began, in 1980, with the Bayh-Dole Act.

AMY GOODMAN: And talk about the significance, the effect of this, why you see this as a turning point.

HARRIET WASHINGTON: This is why universities can actually sell products of their research to private corporations. They were banned from doing that beforehand. Also in 1980, the *Chakrabarty* case allowed living things to be patented. So taking—these two things, taken together, totally transformed medical research.

AMY GOODMAN: Explain that case.

HARRIET WASHINGTON: That case was by Ananda Chakrabarty, was a scientist who wanted to—

AMY GOODMAN: And where was he based?

HARRIET WASHINGTON: He was based at General Electric in Syracuse. He wanted to find a way to turn—create oil-eating bacteria. And he did a lot of innovation, a lot of engineering, and he finally came up with them. So when he applied for a patent, he was first rejected. They said, "It's a living thing. We can't patent it. It's a product of nature." But eventually, Supreme Court decided, yes, you can. And that ruling was taken very widely—very widely—to say that living things can be patented. And so, now, every day, we have things like genes that are patented because of the *Chakrabarty* decision in 1980.

AMY GOODMAN: Talk about the famous story of Henrietta Lacks. I say "famous," but I daresay most people in this country have probably never heard of her.

HARRIET WASHINGTON: Right. Well, luckily, fortunately, more people know of her now than they had in the mid-'90s, when I first learned of her. She was a 31-year-old Baltimore housewife, an African-American housewife, who developed uterine cancer and went to Johns Hopkins for treatment. There, she encountered George Gey, who was a physician who was bent on creating cell lines and

was looking for a very long-lived cell line. A cell line is a community of cells. It is very, very useful for medical research. On it, you can safely test many medications and procedures, instead of using a human being. So, he was looking for cells that would live a long time, but the cells would die very quickly, totally. They took cells from Henrietta Lacks, and they never died. They continued to divide.

AMY GOODMAN: Now, explain again who Henrietta was.

HARRIET WASHINGTON: Henrietta Lacks was a 31-year-old black Baltimore housewife whose cells had an unusual property. They're called "immortal." And they have been living for 60 years now. So, when George Gey found her cells, it was a goldmine for him. It's exactly what he had been looking for. And with her cells, the cell line coming from it, there were numerous medical advances. I spoke with Dr. Victor McKusick of Johns Hopkins before he passed away, and he told me that—when I asked him, "How many advances were these cells responsible for?" he said, "In the aggregate, they're too numerous to count." But one really important advance was the polio vaccine. It could not have been perfected without the HeLa cells. So her cells were—

AMY GOODMAN: HeLa, Henrietta Lacks.

HARRIET WASHINGTON: HeLa, Henrietta Lacks, H-E, yeah. So the—

AMY GOODMAN: H-E-L-A.

HARRIET WASHINGTON: H-E-L-A, right. So cells are immensely important for American medicine. And yet, Henrietta Lacks herself had died without ever knowing her cells had been taken. Her husband had refused permission to take the cells, but Dr. Gey took them anyway. And her children and family had no idea that she was this important benefactor to American medicine. Doctors would descend on her family, the Lacks family, periodically, just as with John Moore, looking for more tissues, for more blood. But they told the family, "We want to make sure that you don't have the same cancer your mother died from" — essentially, the same lie that John Moore had been told. Really, they were using the cells and tissues to make their very important scientific tests. So that was Henrietta Lacks.

AMY GOODMAN: That story was also made famous by Rebecca Skloot, who wrote *The Immortal Life of Henrietta Lacks*.

HARRIET WASHINGTON: Yes, Rebecca is a friend of mine, I'm proud to say. We're in the same writing group. And it's a wonderful book. It's a wonderful thing Rebecca has done, making Henrietta's story known to so many people.

AMY GOODMAN: So, Henrietta Lacks' cell line has been so critical for so much research.

HARRIET WASHINGTON: Yes.

AMY GOODMAN: What about how much money it has made?

HARRIET WASHINGTON: No one wants to talk about that. Typically, when I talked to researchers about that, they said, "Oh, well, it was never bought and sold." But it was. It was bought and sold for like $200 per sample. But it was never patented. Because it wasn't patented, it could be sold for these low fees, nominal fees. But we have to remember that there were thousands, maybe a billion, transactions. So nobody will give an accounting, but it certainly generated a lot of money just from the sale of the cells, and then the advances themselves. Who can put a price on the polio vaccine? So, they are priceless, literally.

AMY GOODMAN: Yet, her family, many members, cannot even afford health insurance.

HARRIET WASHINGTON: Never saw a penny. However, when I talked to her family many times in the '90s, the money did not concern them as much as the fact that they knew that their mother was a medical benefactor and she had never gotten her due. People didn't know about her, didn't know about this.

AMY GOODMAN: Harriet Washington, talk about the price of drugs.

HARRIET WASHINGTON: Well, the pharmaceutical industry doesn't deny that it charges high prices for our drugs. And, of course, it can't deny that: we all know this, although insurance hides the true costs from a lot of us. But what it says is that we have to charge high prices because it costs from $800 million to $2 billion to develop every new drug. So we have to charge high prices to recoup our research and development costs and also to make sure that the money is there for the next development, the next innovation.

Well, it's not true. There are many, many flaws and outright falsehoods feeding this argument. I did a thorough analysis in the book, with the help of really good work by Merrill Goozner, an economist. And basically, what they did was they only looked at not a wide spectrum of our drugs in making this figure. They looked at a very narrow swathe of drugs that are extraordinarily rare and expensive. So, if they had looked a more narrow swathe of drugs, they would come up with a figure like $100 million. As Merrill Goozner said, it's not chump change, but it's not $800 million either, it's not $2 billion. Also, a lot of the innovation is fueled by government support of research. And who pays for government support of research? You and I do with our tax dollars. So, it's almost entirely a fiction.

And this—you know, this claim that drugs cost so much to develop is only a rationale for them being able to charge high prices. The real reason our drugs cost so much is because our government allows these companies to charge what Americans are able and willing to pay to stay alive. It's no accident that the most expensive drugs are for the most serious diseases.

AMY GOODMAN: Earlier this month, the American Civil Liberties Union announced it would ask the Supreme Court to rule on a patent by Myriad Genetics, a company based in Utah that deals with gene analysis. The longstanding and controversial case has been moving up from the lower courts since 2009, when it was first filed. The case involves patents on two genes that can have mutations linked to breast, ovarian and prostate cancers. I want to play a clip of the CEO of the company who has patented the genes: Peter Meldrum of Myriad Genetics. In a 2010 interview, he explained his position on the ACLU case.

PETER MELDRUM: The ACLU believes very strongly that the U.S. Patent and Trademark Office should not grant patents to

companies like Myriad Genetics on genes. Genes are a product of nature. Myriad didn't invent the gene. We didn't create the gene. But we did discover what the gene did and how you could use that medically to benefit patients. There's a lot of case law, including a U.S. Supreme Court case, that's upheld the patenting of genes. And in fact, the U.S. Patent and Trademark Office has granted over 3,000 gene patents to numerous companies. The ACLU, though, disagrees with that, and so they have filed a lawsuit against Myriad to try to overturn gene patents. Myriad is going to defend that lawsuit very aggressively.

AMY GOODMAN: That's Peter Meldrum, the CEO of Myriad Genetics. In the same interview, he explains the market potential of hereditary breast cancer research.

PETER MELDRUM: There are about 156 million women in the United States. And according to published studies, about four percent of those have an appropriate family history such that they would be at risk for hereditary breast cancer testing. So, that represents about 6.5 million women in the United States. Obviously, it will take us time to penetrate that market, but the BRACAnalysis test, which sells for $3,120, that represents almost a $20 billion market value for that segment. It is a prevalence market; it's not an incidence market. So you have to make an assumption as to how quickly we can penetrate that market. We believe we can penetrate that market in 30 years or under. And so, dividing $20 million by 30 years gives us over a $600 million annual market opportunity for just the BRACAnalysis product alone.

AMY GOODMAN: That's Peter Meldrum, CEO of Myriad Genetics. Explain what Mr. Meldrum is referring to.

HARRIET WASHINGTON: He's talking about the fact that Myriad, a private corporation, holds seven patents on the genes associated with high familial risk of breast cancer. This is exactly the sort of problem that we're facing today. A corporation owns the patent, and what does that mean? It means not only can it do whatever it wants with this gene, it can prevent other people from working with it. In Paris, for example, a French researcher at the Curie Institute found that this particular test, the test of Myriad, actually missed a lot of breast cancers. But that finding could never have been made here in this country, because when other people try to work with these genes, Myriad sends a cease-and-desist letter and tells them, "We have the patent on this. You cannot work with it." So, it's clear that the research into breast cancer treatment is being stymied by this patent. And Myriad is concerned with, as you heard, collecting its $3,000 to $4,000 fees from each woman who gets a BRACAnalysis. I think it's nothing short of criminal.

AMY GOODMAN: Talk further about what this means for medical research in the United States and the privatization, the corporatization of knowledge.

HARRIET WASHINGTON: Right. The ability of a corporation to hold a patent on our gene, the legal rationale for it is that they hold patents on genes that have been purified and isolated, so that they're not the same genes in our body. But they are the same genes in our body. I think this is just a—Judge Sweet, who made a ruling on this, called it a "liar's trick." I call it just semantics.

AMY GOODMAN: Talk about Judge Sweet's role in all of this.

HARRIET WASHINGTON: Well, Judge Sweet, a little over a year ago, invalidated the patents. He said that these patents are not defensible, that you can't patent a product of nature, and they weren't valid. So, for about a year, the patent wasn't in effect, but of course it was reversed on appeal. And so, now Myriad still holds the patent, as many other corporations hold patents on many genes. And the final decision will be made at the Supreme Court. It's going to be going to the Supreme Court, I'm not sure when, but probably not before too long.

AMY GOODMAN: Talk about the drug Makena.

HARRIET WASHINGTON: Makena, it's fascinating. Women who are pregnant and who are at risk for a premature delivery for a long time could go to a compounding pharmacy and get a drug called, cryptically, 17P. 17P is what it was called, only got a number, not a name. It cost $10 to $30, and it was thought to be very effective at preventing the early delivery, which of course is linked to a host of problems with children. Then, under the Orphan Drug Act—that's what I found fascinating—a private corporation, KV Pharmaceuticals, got FDA approval to test it and to patent it. Now, now this—you know—

AMY GOODMAN: Explain what the Orphan Drug Act is.

HARRIET WASHINGTON: The Orphan Drug Act was intended to give incentive to corporations to test and patent and market drugs that—for diseases that affected less than 200,000 people. They normally wouldn't be profitable enough for a company to be interested. But the FDA said, under this act, we'll give you seven years of patent exclusivity so that you can make some money, and also you'll be addressing a need by a minority of Americans. Sounds really great. It is really great, actually, on the surface. But this kind of use, I find really unfortunate.

So KV Pharmaceuticals used that act to patent Makena. Now it sells the exact same drug, 17P, but it doesn't cost $30. It costs $30,000 for a course of the drug. So, it raised the price very high. And it not only—it then went a step further. It sent letters to the compounding pharmacies, warning them they had to stop making the drug, because KV held the patent, and if they kept making the cheap version of the drug, the FDA would shut them down. There was such a hue and cry over this that, several weeks later, maybe even a month later, the FDA stepped in and said, "In this unique circumstance, we are not going to shut down the compounding pharmacies. You can still get a cheap version of the drug." But that's no guarantee. We don't know how long this will last. And it only happened after a month of outcry.

AMY GOODMAN: But explain how it works, where a generic is challenged.

HARRIET WASHINGTON: Well, the generic drug is the same drug. It was available cheaply. When a private company is able to get a patent on that drug and immediately raises the price, it typically can force the generic drug to stop being manufactured, as KV tried to do. Typically, it would be able to do that. And now, American women, who used to be able to afford a whole course of the drug for $400—almost everyone can afford that—now it costs $30,000. And women without insurance might not have access to it. So it can be

—you know, it can be devastating. It can mean giving birth to a child who's got a lifetime of illness, as opposed to a healthy child.

AMY GOODMAN: Harriet Washington, you have a chapter called "Biocolonialism." Explain what you mean.

HARRIET WASHINGTON: Well, I'm talking about the fact that the same colonial mentality that led to the appropriation of the lands and the minerals and jewels and animals of the developing world now leads to the appropriation of their bodies, their tissues and their plants. And we have, for example, private corporations took a patent out on neem, a very ancient Indian drug, used, you know, globally, used widely. And suddenly, an American corporation has a patent on it and, in theory, could stop the Indian healers and villagers and companies from using it. The patent was later invalidated, but it shows a sort of mentality that, you know, the developed world has toward the riches of the developing world.

AMY GOODMAN: Give more specific examples about biocolonialism.

HARRIET WASHINGTON: Well, let's see. There are so many. I would say that one really good example is what happened in Tristan da Cunha. It's an isolated island off the coast of South Africa. And American researchers went there and told them, "We want to —you don't have any healthcare here. You have one doctor. We are going to examine your health situation and see what kind of help we can give you. You have high rates of asthma. We're going to look into that." They gave them some old, antiquated asthma equipment, but they left with biological samples—tissues, blood, etc.—that, when they got back to America, they mined for valuable properties. And also, they were looking for a high prevalence of other diseases. They were looking for a high prevalence of stigmatizing diseases, like schizophrenia. They did the same thing with the Havasupai Indians in the Grand Canyon in this country. So, instead of—you know, they told the people one thing, and with a total lack of transparency, they were looking for medically valuable tissues and body parts, and found them.

AMY GOODMAN: And how do people have any control when their cell line is patented?

HARRIET WASHINGTON: They have no control. They can sue. But the courts have been dismayingly consistent in denying the rights to their own—tissues from their own bodies, genes from their own bodies, to people who sue. Typically, when such a suit takes place, there is a flurry of *amicus curiae* briefs, "friend of the court" briefs, filed by medical institutions, private corporations, pharmaceutical corporations, and they all say to the courts, "If you let this person invalidate our patent, then you're going to be setting medical research behind." And the courts have been very much swayed by that argument.

AMY GOODMAN: Talk about rosy periwinkle.

HARRIET WASHINGTON: Well, that's one of the many, many drugs that was found in the developing world and turned into a medication, for example, against prostate cancer. So, when explorers and naturalists go to the developing world, and the shamans there show them these medicines, the explorers don't tell them, "I'm going to take this medicine back to my country and get a patent on it. And now I have control over it, even among your people, if I choose." And that's exactly what happened with rosy periwinkle and many other drugs.

AMY GOODMAN: Ayahuasca?

HARRIET WASHINGTON: Ah, yeah, yagé is what it's more popularly called. It's this very interesting hallucinogenic herb that's captured the imagination of Americans and Europeans for a very long time. And they have gone to Brazil, and they have had indigenous people show them how to use it. But one U.S. researcher—Loren Miller, I believe his name was—he took a sample back with him and got a patent on it. And with his patent, he informed the people in the developing world that "I now control this." It led to a flurry of court cases, which he eventually won. So you had an American with a patent on yagé, a drug that had been used for centuries by the people of the developing world.

AMY GOODMAN: It's called yagé by the indigenous people of Amazon who revere it, and by William S. Burroughs—

HARRIET WASHINGTON: Yes.

AMY GOODMAN: —and Allen Ginsberg, who immortalized it in *The Yage Letters*.

HARRIET WASHINGTON: And Sting, who also liked it. So, as I said, it captured the imagination of Europeans and Americans for a very long time. And it's, doubtless, very useful as a psychoactive drug. And now, you know—I think the patent that Loren Miller had, the U.S. researcher had, has expired. So, it's no longer controlled by us, but that could change at any moment. And it's going to happen with the next drug.

AMY GOODMAN: Harriet—

HARRIET WASHINGTON: And there's always another yagé.

AMY GOODMAN: Talk about what WTO and TRIPS have to do with this.

HARRIET WASHINGTON: Ah, the World Trade Organization. TRIPS is Trade-Related Intellectual Property, and basically what that did was it forced the people of the developing world, countries like Nigeria, Brazil, Thailand, poor countries with very little medical care—it forces them to recognize the patents of Europe and America. These countries used to get access to pharmaceuticals because India was a source of cheap drugs. India would take European drugs, reverse-engineer them, and then market them cheaply to the developing world, so that people in South Africa and Thailand could also get important life-saving drugs. But TRIPS has made this impossible. Now Indian factories can't do it, because they would be violating the patent, which they're forced to respect.

Fortunately, the people of the developing world, the countries got together, and they went to Doha, Qatar, and had a meeting there, sanctioned by the WTO, and they won one very important conception—one very important concession. That is, they have march-in

rights. March-in rights are those rights given every government to invalidate a corporation's patent. So if you have a company, for example, that has a patent for a life-saving drug, but it won't make that drug, then the government has the right to commandeer it and give it to somebody who will make it cheaply. And that's exactly what Brazil did, and that's exactly what Thailand did. They told American companies, "You're charging too much for your antiretrovirals. We have people with AIDS here who need them. And we are going to take control of your drug and give it to a company here to make it cheaply." Americans were very unhappy about that. The Secretary of Commerce was very angry. We made lots of pronouncements about the theft of intellectual property, which is almost ironic if you think of the history of biocolonialism. But the people in the developing world have stood firm. So I think—I mean, there's a glimmer of hope now, because they are simply refusing to accept these unfair TRIPS restrictions.

AMY GOODMAN: Harriet Washington, talk about Haiti, before we go on to the laboratory of the West. Haiti and Monsanto.

HARRIET WASHINGTON: Right. Haiti, after being devastated, of course, by the earthquake, was already poor. People were already hungry. But hunger became critical. It was a crisis. So Monsanto very generously offered to donate seed. It used the word "donate," and the news accounts used the word "donate," but the interesting thing to me was that, although it was going to donate the seed to the Haitian government, the poor peasant farmers would have to pay for the seed.

AMY GOODMAN: Pay who?

HARRIET WASHINGTON: They would have to pay the government. Haiti was giving—I'm sorry, Monsanto was giving the seed to Haiti. The farmers would have to pay the Haitian government and then receive the seed, at a donate—at a lower price, but still, these are poor people, and it was going to be a burden on them. But still, seed was hard to come by for Haiti, and so the Haitian government was very grateful to get it. The Haitian farmers, though, on the other hand, said that they were going to burn the Monsanto seed. They wanted no part of it. Why? They wanted no part of the seed because they knew what had happened in India and other countries when Monsanto had donated seed. The seed donated by Monsanto was either hybrid seed, which, when planted, might yield a normal crop, but you couldn't take the seed and replant it, which poor peasant farmers needed to be able to do to stay in business.

AMY GOODMAN: It's what is known as a Terminator seed?

HARRIET WASHINGTON: Right, exactly, Terminator seed technology. And so—

AMY GOODMAN: Which means it—

HARRIET WASHINGTON: It means that you can't—you can't replant it. You have to—you have to buy seed from Monsanto every single planting year. Then they also—Monsanto also wanted to donate Roundup Ready seed, which the Haitian government refused. And why would it refuse it? Because in India and other countries, a Roundup Ready seed is seed that is resistant to the herbicide Roundup, a very dangerous, poisonous herbicide. And the idea is that instead of having to till the land, you take the seed, you plant it, and then you douse everything in the area with this very toxic, very expensive herbicide, also made by Monsanto—

AMY GOODMAN: Called Roundup.

HARRIET WASHINGTON: Called Roundup. And then—glyphosate—and then only—only the seed will survive. That's in theory. But in reality, first of all, Roundup is so toxic that, in this country, they won't even sell it to individuals, because you need special gear, and they're afraid people will not have the special protective gear. In the developing world, they're not so nice. They sell it to anybody. And in the developing world, water is often hard to come by and very expensive. And yet, this seed does not do well in arid environments. So, the poor farmers now have to buy this very expensive pesticide, they have to buy water. Very quickly, they find themselves in horrible debt.

In India, the debt is so overwhelming that farmers can no longer get loans from the bank. They have to go to money lenders, who will loan them money, but only in exchange for the deed to their farm. And that's why in India there have been hundreds of thousands of suicides of farmers. Suicide is an occupational hazard, and many people blame Monsanto for distributing the seed, which has made a difficult, cut-and-growing economy completely hopeless for these farmers. Haitians knew about this, and the Haitian peasants said, "We don't want that to happen to us."

AMY GOODMAN: So they didn't have to buy the seed, then, from the government.

HARRIET WASHINGTON: No, they didn't have to. However, they still have a quandary in that they don't have another source of seed. I mean, the government has very limited quantities. They have very little money. So, they're still in a bind. But even so, they are wise enough to know they don't want to go down India's road.

AMY GOODMAN: What is the "laboratory of the West"?

HARRIET WASHINGTON: The laboratory of the West is the developing world, and I include not only countries in most of Asia, except for Japan, and in Sub-Saharan Africa, but also parts of Eastern Europe. Wherever you have poor people with no or very little access to healthcare, you have people who are going to be especially vulnerable to exploitation by medical researchers, who will fly in, conduct their research, under standards which are not as high as our standards here, and then fly back out. And the reason why research in the developing world is so attractive to corporations is they can conduct it cheaper and more quickly than here. The *New England Journal of Medicine* noted that one-third of all clinical trials by U.S. researchers are now conducted abroad. And these research studies are conducted much more cheaply, much more quickly, and they're a great boon for U.S. researchers.

But the problem is, the people, the subjects of these studies, are not benefiting from the drugs that are developed. Once a drug is developed and tested and found to be effective, they can't afford it. Not only can't they afford it, but what's interesting, and what I think people pay too little attention to, is the fact that pharmaceutical companies don't even develop medications for the developing world. I think that between—for a very long time, up until—from 1972 to 1997, there were only four new drugs developed against tropical diseases by pharmaceutical companies, of all—like approximately 1,500 drugs, and four for the people of the developing world. They're

not a market at all, I think 5.1 percent of the pharmaceutical company market. So, they are not going to have drugs developed for them, and yet they become the testing ground for drugs that we benefit from. And, of course, they're the testing ground for extremely dangerous drugs, like thalidomide, and often without any transparency, without any warning about the side effects, or any real way to prevent the birth defects that thalidomide causes.

AMY GOODMAN: You talk about tacit and explicit agreements, in pharmaceutical companies, that they won't test medications in the developing world.

HARRIET WASHINGTON: Right, right. I think that came to light—the story of eflornithine, for sleeping sickness, is a really good illustration of that. Eflornithine was found to be effective against sleeping sickness. It was one report in *Science* magazine. And a man who was a doctor caring for Belgian sleeping sickness patients wanted to try it. So he got Paul Schechter of Belgium to give him a sample. He went to Belgium. He went to Sudan. He—sorry, he went to Sudan, and he tested it. And he found it was the best medication ever devised against sleeping sickness. Typically, once you have African sleeping sickness and you slip over into coma, no drug will bring you back. But eflornithine brought people back. And they began calling it the resurrection drug.

So, cheered by this, the person who—the company who held the patent on eflornithine—they were testing it against cancer for Europeans—they decided, "OK, well, let's try marketing it to the developing world. It works so well." But they couldn't make any money, so they quickly stopped. Doctors Without Borders partnered with them, and so, for five years, they provided it free to people in the developing world. But at the end—which is wonderful. I mean, when companies do that, I think that's very laudable. The problem is, it's not done enough, and when it is done, it's usually done for a short period of time. After five years, they withdrew, because they found a new use for eflornithine. Eflornithine is now marketed as Vaniqa. Vaniqa—you might have seen the ads—is a drug for Western women to remove facial hair. So, Western women can afford to pay $50 a month to get rid of their facial hair, but African sufferers of sleeping sickness can't afford the drug to save their lives. And the company has marketed—chosen to market it only for the hair problem. It doesn't market it for sleeping sickness.

AMY GOODMAN: What are, as we begin to wrap up, the living organisms that have been patented so far?

HARRIET WASHINGTON: Well, I think probably the best known is Harvard's OncoMouse. This was a mouse, a breed of what they call "knockout" mice. It was bred with a certain genetic anomaly that guaranteed it would always develop cancer. So it has obvious usefulness in cancer center research. If you want to try your cancer medication, what better boon than a mouse that's always going to get cancer? And Harvard patented it and made a huge amount of money, because of course everyone wanted this mouse. And I think of all the—of all the animals that have been patented, I think that's probably the best example.

AMY GOODMAN: Finally, the issue of poison pills.

HARRIET WASHINGTON: Yes.

AMY GOODMAN: Talk about how patent profits spur the proliferation of questionable drugs.

HARRIET WASHINGTON: Yes, that's—it's really troubling. Probably thalidomide is the best example. And it's a really good example, because the rejection of thalidomide was the FDA's, you know, shining hour. In 1962, Dr. Frances Kelsey looked at thalidomide and decided that the safety tests had not been performed correctly. It was a dangerous drug. Now, Merrell-Richardson, which made the drug, said, "You're crazy. It's not dangerous. It's been used all through Europe. And we're going to sue you, if you don't—if the FDA doesn't approve it."

AMY GOODMAN: And again, explain thalidomide, given to pregnant women—

HARRIET WASHINGTON: Right, of course. I forgot that anyone younger than 45 probably hasn't heard of it. But I grew up, you know, reading the horrible, sad stories of women who took thalidomide for sleeping disorders and anxiety while pregnant and gave birth to children who are horribly deformed, phocomelia. Usually the children were missing their limbs. They had like hands growing out of their shoulder. Very, very sad. The photos were everywhere. Everyone knew about it. And everyone said the same thing: "We can never allow this to happen again." I, and I think most people who read the stories in the '60s, never dreamed that thalidomide could ever come to the market again.

But it has, because now there's money to be made. And what's interesting is that the FDA, this time around, approved it. So now we have thalidomide on the market, and people are using—

AMY GOODMAN: For?

HARRIET WASHINGTON: —using it to treat multiple myeloma cancer and other life-threatening diseases. Now, that's interesting, because in the '50s, it was used against sleeping disorders, a minor problem that has other less toxic treatment. But the cancer treatment really raises the question: is it legitimate to have thalidomide used, because, after all, it treats more serious disease, and after all, we now know how to prevent the side effects? We can have women take two forms of contraception to make sure they don't get pregnant while taking it. And men should take it, as well, because there's some thinking that men may transmit it in their semen.

AMY GOODMAN: We have five seconds.

HARRIET WASHINGTON: So, we can protect ourselves, but the developing world cannot protect themselves. Women in the developing world cannot negotiate contraceptive use, and usually can't afford contraceptives. And that's where it's being tested.

AMY GOODMAN: I want to thank you very much for being with us, Harriet Washington, medical ethicist, author.