Can you patent a human gene? The Supreme Court today seemed skeptical, raising questions about the legality of Myriad Genetic’s isolation of the BRCA1 and BRCA2 genes that signal an increased risk of breast and ovarian cancer.

It’s a complex issue. Companies can’t patent abstract ideas, natural phenomena and laws of nature. But an appeals court ruled in favor of Myriad’s patents twice, in fact writing that an isolated DNA molecule is not a purified form of a natural material, but a distinct chemical entity that is obtained by human intervention.

The Justices tried to simplify the argument by making analogies to things like chocolate chip cookies, Amazonian jungle plants and baseball bats.

Justice Sonia Sotomayor said that if someone invented a new way to extract the ingredients of a cookie, a company still wouldn’t be able to patent its ingredients. I can’t imagine getting a patent simply on the basic items of salt, flour and eggs, simply because I’ve created a new use or a new product from those ingredients, she said.

But Justice Elena Kagan worried that if patents on genes are disallowed, companies won’t have the incentive to do the hard work necessary for scientific breakthroughs. Why shouldn’t we worry that Myriad or companies like it will just say, Well, you know, we’re not going to do this work anymore?

“I don’t want to take the spotlight off the eminent Justice Kagan, but I fully concur,” said ACSH’s Dr. Gilbert Ross. “While not focusing on the exact or actual patient costs or Myriad’s development investment, I can venture to say that preventing innovators, even (or especially) in biologicals and biotechnology from making sufficient profit on their work will have a strong chilling effect on R&D in this field. Sure, the DNA in the BRCA genes is just good old DNA from ‘mother nature,’ but without the work of Myriad’s scientists, no one would have ever heard of BRCA1 or 2 tests. Now that would be cheap, but we don’t want to go down that path.”

The post Supreme Court skeptical of Myriad’s gene patents appeared first on Health & Science Dispatch.