MR. ADAMO: Good afternoon. We are the required Patent I panel, and we are going to talk about Section 101, the part of the U.S. Code that everybody loves to hate. I’m Ken Adamo.

Let me introduce our panelists. Hans Sauer is Deputy General Counsel and Vice President of BIO. Manus Cooney is a Partner at American Continental Group. Tom Cotter is the Briggs and Morgan Chair in Law at the University of Minnesota Law School. Kevin Noonan is a Partner at McDonnell Boehnen Hubert & Berghoff. Joshua Sarnoff is a Professor at DePaul University College of Law. Next to him is Alice Martin, a Partner at Barnes & Thornburg.
Nobody has pre-prepared speeches. I’ve gotten some information from everyone about various topics they want to talk about. We are going to bounce around here and have some fun.

We will start with a general overview of the 101 issues. We’re going to talk about the purpose and function of Section 101; why is it in the Patent Act, assuming that anybody even remembers or knows or cares. We’re going to talk about how relevant is the nature of the claimed invention that you are looking at for patent eligibility, if it is at all. Is the United States’ approach — recognizing the rest of the world does not always do things the way we do, thank God — too insular; and how are other countries and jurisdictions handling issues of eligibility, if they even have those issues in their law? Then, last but not least, we will talk about the timelines for cases and how you try 101 issues. What’s the right timeline for fact development? What’s the timeline for claim construction? Do you have to do a claim construction in 101 to get a motion decided? The answer is maybe; it depends upon where you are. We are going to go pretty much in that order.

In the materials that Professor Sarnoff provided us for topics, he talked about the possibility of revisions to Section 101. Everybody knows that Andrei Iancu, the Director of the PTO, will propose some changes to 101 that he seems to believe the PTO can effectuate on its own. There is some muttering about the possibility of a congressional attempt to change 101, although not quite that far forward. So the chances are that something will happen in the Patent Office. Whether it is legal or not remains to be seen.

Professor, in the context of revising or somehow changing how 101 is applied, in the materials you gave me you used a couple of phrases that, frankly, I don’t understand, amongst a lot of things that I don’t understand. You said that if any kind of revision to legislation were achieved, “it shouldn’t ignore the nature of the creative advance reflected by the claim language, and that aesthetic creativity should not be capable of being claimed as a utility patent.” Explain that. Did I just read it backwards?

PROF. SARNOFF: No, that’s right.
MR. ADAMO: Can you explain it?
PROF. SARNOFF: Rather than having you guys say, “Well, that’s just what that idiot professor Sarnoff said,” I’d rather read from what Chief Judge Archer joined by Judge Nies — may they rest in peace, and we miss them — said in the dissent in *Alappat*:


> Through the expedient of putting his music on known structure, can a composer now claim as his invention the structure of a compact disc or player piano roll containing the melody he discovered and obtain a patent therefor? The answer must be no. The composer admittedly has invented or discovered nothing but music. The discovery of music does not become patentable subject matter simply because there is an arbitrary claim to some structure.
And if a claim to a compact disc or piano roll containing a newly discovered song were regarded as a “manufacture” and within Section 101 simply because of the specific physical structure of the compact disc, the “practical effect” would be the granting of a patent for a discovery in music.²

So this is what I’m saying: If we don’t consider the nature of the creative advance that we can claim as a structure, then we are going to create “design patents on steroids” in our utility patent system. Therefore, the legislation really needs to think about reading the claim as a whole — not just according to Diehr³ but also according to Flook,⁴ which said you have to read the claim as a whole, to try to get at the nature of the creative advance that the claim reflects as a whole — in order to decide if this is the right kind of creative thing for which our utility patent system should provide patents.

With that in mind, I am all in favor — and maybe Director Iancu can do a better job than any of the rest of us — of figuring out exactly how to harmonize all of the case law precedents we’ve now seen after Mayo⁵ and Alice.⁶ I wish him great luck.

However, playing chicken with the Federal Circuit or with the Supreme Court by saying, “Here’s what I think it should mean,” issuing lots more patents, and then having the courts take them down is not a good innovation policy.

Here’s the key question. You know that when you have a scientific discovery, that discovery is excluded per se from the patent system if claimed as such. We now have to figure out, when you claim a practical application of that ineligible subject matter: is there enough of some other kind of creativity in the application to make it qualify for a patent? That’s what, and unfortunately inartfully, the Mayo/Alice two-step test⁷ is doing — and, of course, it’s doing it in two steps when you could just do it in one: what’s the nature of the creative advance here and should it be eligible?

If on the face of the patent — this is where we get back to claim construction — the inventor says, for example, “I discovered cell-free fetal DNA, and that’s ineligible because it’s a natural product,” but now the inventor says, “I’m claiming here what you can do with that ineligible discovery: you test to see if it’s there; and, by the way, cell-free fetal DNA has the characteristic of having an exact replica of the chromosomes that you would have had to use amniocentesis

² Dissenting Opinion (on Merits) of Judges Archer and Nies in In re Alappat, Archer, C.J. with whom Nies, J., joins, concurring in part and dissenting in part.
⁶ Alice Corp. v. CLS Bank Int’l., 134 S. Ct. at 2354, 110 USPQ2d at 180 (2014).
⁷ The Alice ruling spelled out Mayo’s determination of patent eligibility as a two-part test: (1) determine whether the claims are directed to a patent-ineligible concept; and (2) determine whether the claim’s elements, considered both individually and as an ordered combination, transform the nature of the claims into a patent-eligible application. See United States Patent and Trademark Office, 2014 Interim Guidance on Patent Subject Matter Eligibility (Interim Eligibility Guidance).
to get in order to perform the analysis for a genetic defect,” of course there is going to be no additional creativity of the kind that we think should be eligible in saying “apply it” by measuring for it, once you know it exists and that it has those properties. So we have to decide what kind of additional creatively is going to make the claimed, practical application eligible, and what is not.

Similarly, if you look at the Mayo case, Mayo was actually a method-of-treatment claim. The applicant just forgot to say the extra words “and adjust the dosage after some unspecified person recognized the correlation that is the basis for the indication,” which recognition was specified in limitations that were in parts of the claim.

But on April 13, 2018, the Federal Circuit in Vanda said, “Oh, and by the way, if you adjust the dose it’s patent-eligible.” That can’t be right. That’s no creativity at all; it’s just doing what the bad claim drafter in Mayo forgot to add to his claim in the first place. The only advance in Vanda was the actual natural discovery. So either we need to say, “We are going to claim all uncreative applications of excluded subject matter” — which, of course, Europe does, but then they get to the problem of what is a technical effect and what contribution ineligible discoveries can make to that question under their equivalent of Section 103 — or we have an incoherent system, because we then have to say what kind of creativity is going to be included and what kind isn’t, without providing guidance on how to distinguish the two. That is why I say, whatever else we do in this, let’s not allow “super design patents on steroids” issued as utility patents. Does that answer your question?

And of course, as we can sometimes know from the face of the patent, you can get rid of some ineligible claimed applications under Section 101: “Here’s the discovery; here’s the application.” You don’t need any claim construction to know it’s not the kind of creativity that we are going to allow.

MR. ADAMO: Well, that was a mouthful.

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8 See Ariosa Diagnostics, Inc. v. Sequenom, Inc., 788 F.3d 1371, 1377 (Fed. Cir. 2015) (“Further, the process at issue [in Mayo] amounted to ‘nothing significantly more than an instruction to doctors to apply the applicable laws when treating their patients.’... The method at issue here amounts to a general instruction to doctors to apply routine, conventional techniques when seeking to detect cffDNA. Because the method steps were well-understood, conventional and routine, the method of detecting paternally inherited cffDNA is not new and useful. The only subject matter new and useful as of the date of the application was the discovery of the presence of cffDNA in maternal plasma or serum.”)

9 See Mayo Collaborative Servs., 566 U.S. at 74 (“A method of optimizing therapeutic efficacy for treatment of an immune-mediated gastrointestinal disorder, comprising:”).

10 See id. (“‘wherein the level of 6-thioguanine less than about 230 pmol per 8x10^8 red blood cells indicates a need to increase the amount of said drug subsequently administered to said subject and wherein the level of 6-thioguanine greater than about 400 pmol per 8x10^8 red blood cells indicates a need to decrease the amount of said drug subsequently administered to said subject.’”)


12 See European Patent Convention, arts. 52 & 53; Directive 98/44/EC of 6 July 1998 on the legal protection of biotechnological inventions, art. 6, Recitals 20 & 21, O.J. (L 213) 13 (30 July 1998); Guidelines for Examination in the EPO, Pt. C, Ch. IV–4, 2.3.1, 2.3.6 (April 2010).
From my world, though, I have a very simplistic way of thinking about all these issues. This new concept of creativity presents a back issue when there is a jury: who is going to want to take the first crack at coming up with a jury instruction that just says what Josh just said that’s going to be understood by somebody who’s got a high school education? Not me.

Kevin, do you want to give it a shot?

MR. NOONAN: No. See, my problem is I don’t see the word “creativity” in the patent statute. I totally get the philosophical part of what Josh is talking about, and part of me wants to agree with him, but not the part of me that’s a practicing patent lawyer.

I think Ariosa v. Sequenom\(^\text{13}\) was wrongly decided because I think that yes, the existence of something couldn’t be patented by itself, but it gave you the ability once you knew that it was there to do things that had you known it was there in the prior art you could have done easily. But you didn’t, and the fact that you didn’t gives you the ability to make something that didn’t exist in the prior art, a diagnostic test for detecting cell-free fetal DNA that would replace amniocentesis. The utilitarian in me, as opposed to the deontologist in me, says —

MR. ADAMO: That’s really jury-friendly, guys. [Laughter] The jurors are going to say, “I understand it now.”

MR. NOONAN: I’m getting there. I’m distinguishing for this more erudite crowd.

MR. ADAMO: You hear that in Bridgeport all the time, don’t you, when you go out for a beer, “how erudite it is”? English, guys. Come on, English!

MR. NOONAN: I would be happy to argue it to a jury. It’s very simple: “Before this test was developed, if your wife or your daughter had to get amniocentesis, there was a percentage chance — I don’t know what it is — that the baby would die or be harmed or that your daughter or wife would die or be harmed. And guess what? This guy came up with this test that is cheaper and better and doesn’t have that risk. Don’t you think it deserves a patent?” That’s my argument.

It has nothing to do with Josh’s creativity argument, which here may be a great argument, but before a jury I think I’d win on that.

MR. ADAMO: Well, I think that’s probably a somewhat different subject than creativity as such.

I was told, Herr Sauer, that in Germany and in Europe you already do all this stuff. Is he right?

MR. SAUER: Well, we are certainly very creative over there. [Laughter] And we don’t have a problem.

I think you raised a really good point, and that is whenever I talk to colleagues from abroad, for example from Japan — and we like biotech; it’s pretty international; we have a big biotech presence in Europe — they look at our recent 101 jurisprudence and they say: “What are you guys doing? Why is this so difficult for you? It really is not so difficult for us. And, by the way, your law is diverging very significantly from the way we handle these matters in our

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\(^{13}\) Ariosa Diagnostics, Inc. v. Sequenom, Inc., 788 F.3d 1371 (Fed. Cir. 2015).
countries, and we have to explain to our clients in our own countries why we grant patents to American companies in Europe or Japan on inventions that you are not going to be granted patents for when you go and apply in the United States and try to compete on the U.S. market.”

So there is, I think, not just a disparity in patent law but also a disparity that might have implications for trade and for the dissemination of technology and for the flow of investment. That’s something we should keep in mind.

When we look at China — I hate to push the China button, but I always do — the Chinese are explicitly different in this area of the law compared to where we are. China handles, for example, fermentation products or naturally occurring substances that you claim in pharmaceuticals in the form of purified or enriched preparations the same way as they are handled under internationally prevailing standards. If it is properly described, if it is novel and has inventive step, has industrial application, is reproducible, and has a quality technical disclosure, you can get a Chinese patent for that just like you can in Europe. And they are not going to change that.

MR. ADAMO: So he’s sort of right but he’s sort of not right about creativity?

MR. SAUER: I agree with Kevin that I don’t see “creativity” written in the Patent Act. I believe on the ground, among people who do research or who invest in research-driven businesses, the question doesn’t present itself quite that way.

A quick example, if I may. I talk to a lot of investors and CEOs in my job at BIO. A serial entrepreneur told me the following story. He was looking for investment ideas and business opportunities. He was reading in one of the high-ranking science journals a publication from a French research group that was doing studies on snake venom components. Venoms have always been interesting subjects for medicinal research because they are full of fascinating substances. The component of snake venom in this publication was a peptide — so it’s a little protein fragment — that is structurally different from what was known in the prior art, and it was found to have very potent analgesic properties that might be useful as a pain killer or as pain medication.

He contacted the French research group. Sure enough, they had a portfolio of patent applications pending, including in the United States. He arranged for a license. He set up a $15 million deal with investors. He was going to hire four scientists, and they were going to do proof-of-concept studies for breakthrough cancer pain to see if this protein fragment could be developed to a point where a larger company would license it for further clinical development. That is a very typical approach of small biotech companies.

It all looked fine and it all went well, until the applications got stuck in the U.S. Patent Office. The examiner denied the claims to the enriched or purified preparations of the snake venom peptide component, one of several hundred different components in that venom, under the rationale that if you can’t patent the DNA you get from the snake, you cannot patent the peptide that you get from the same snake. To the patent examiner it just made no sense to not allow DNA
patents but to allow patents on naturally occurring peptides that were isolated or purified.

Indeed, the application got stuck and his investors pulled back. They said, “Please come back to us when you have this sorted out because there are many places where we can invest, and we can just put this on hold. There is time.”

Well, for the entrepreneur there was no time. He was very frustrated. He said, “What is the point of this? This natural peptide is no more or less miraculous than one that might have been cooked up by somebody in the lab, that’s manmade. It has wonderful properties. It is expensive to develop. It was expensive to discover. Now, because the patent was denied, there is research that doesn’t get done, there’s investment that doesn’t get made, and a company that doesn’t get formed, for no logical reason whatsoever.”

We say that 101 jurisprudence of this kind is in the national interest and that we get more innovation by keeping these things in the public domain. I can assure you that nobody is spending money on that venom component from the black mamba snake and nobody is developing it into a drug for breakthrough cancer pain.

The question usually is “Why? This doesn’t make sense.” Maybe it makes sense to lawyers, but it doesn’t make sense to people who invest or form companies, it doesn’t even really make sense to scientists, and it doesn’t spur more innovation or investment.

MR. ADAMO: From what I’m hearing from the three of you, I’m not sure that adding the word “creativity” into this equation is going to do much of anything other than give the appellate courts and possibly the Supreme Court something else to turn into Parker v. Flook that we will all go nuts trying to figure out for the next twenty years.

How about we approach it in a different way? Alice Martin, I think you suggested this in some of the information you provided: should patent eligibility criteria vary with the nature of the invention? Let’s talk about the nature of the invention, which is something more familiar to most patent lawyers and most patent offices than talking about the creativity that went into an invention.

MS. MARTIN: It definitely varies with the nature of the invention.

First of all, going into the basics, there is a big difference between the genes, the plants, the diagnostics, and the treatments. They are all treated very differently and some face worse situations than others.

The biggest problem, as we have alluded to here, is nucleotide amino acid sequences. That has bounced all over the place. I should say I do a lot of international patenting around the world mostly on plants, genes in plants, mutations in plants, and uses of plants, but I also do diagnostics. Those of us who are interested in diagnostics know that, first of all, the world is not consistent. I don’t want to go into that right now.

I was just reviewing the Roche Molecular Systems, Inc. v. Cepheid decision that recently came out. This case went back to Myriad, and said, “Well,
these are only sequences in nature.” This case, by the way, has to do with an improved diagnostic test for tuberculosis. It’s faster and easier. It uses primers that identify bacteria that can be treated with a particular drug and it can quickly find out if the person who has those bacteria responds to certain drugs. So it’s similar to the sorts of cases we’ve seen like Mayo.

The problem is that the court said: “You cannot get a patent because, number one, those primer sequences that you have are identical to the genes you are testing for to find out if the bacteria was there.” Well, that’s what a primer is; it’s a little piece of the basic bacteria, or any sequence, that you want to see if it’s there; if it hybridizes, it matches with it, then you say, “The gene is there and therefore we’ll treat the patient.” Ultimately, this writer did not put in evidently what we say you should put in, “then we will go and treat the patient.” It does not go that extra step. That might have saved it.

Basically, the court said: “We hold the primers before us are indistinguishable from the corresponding nucleotide sequences.” Now, this is similar to maternal fetal cells that were floating around in the mother, but nobody ever knew it because they were at a low level.

The method they used to find out if the cells were there is called polymerase chain reaction (PCR), which basically just means you are amplifying what is in there. That’s what they did here in Roche also, they amplified the nucleic acid so they could test with the primers because they are at a low frequency.

The court said: “Well, gee, PCR has been around for a long time [which is true], is routine [which is true], people have already sequenced the bacteria [which these guys could do], but that wouldn’t be enough.” They basically said, “Their patent is ineligible because they have part of the same sequence as in nature.”

Well, as those of you who know a little bit about DNA appreciate, you are probably always going to be able to find somewhere in a natural sequence some match to use for diagnosis. So you are resorting to strategies of claim construction to get these patents through, but it’s by using seriously silly strategies.

Clustered Regularly Interspaced Short Palindromic Repeats (CRISPR), which is another way of moving DNA sequences around, is safer to patent because you are presumably not going to create that same sequence anywhere in nature that you made with the CRISPR method of making mutations.

But people now are not using CRISPR in all inventions using DNA. So the problem is you now are worried that any of the patents you have been issued in the past, or any you are trying to get for diagnosis, are going to have some sequence that is going to match somewhere in the natural genome. I have obtained patents by using some other novel machine or other technique, but it seems like you shouldn’t have to do that, and that introduces a claim limitation.

Another problem is you would hope that these CRISPR-modified sequences would be patent-eligible because you say, “We are not preempting nature.” I don’t know if you want to get into preemption now.

I always thought when we started this battle that preemption was one of the reasons we have 101, and that is turning out not to be true. For example, in Roche there were similar arguments as in amicus briefs I have written, but in
Roche the court said, “Well, the antigen may signal patent-ineligible subject matter … the absence of preemption does not demonstrate patent eligibility.” So there is another knot in that argument. I don’t know if somebody else wants to take up that part.

MR. ADAMO: We’re probably a little bit too deep into the analysis here. There’s probably something a little more basic that we ought to talk about.

Professor Cotter gave me some of his thoughts on this. What should the purpose of Section 101 be; and, I guess more to the point, should there even be a 101? Maybe we ought to start there.

Professor, why don’t you start and then we’ll let everybody comment on whether they think there should be a 101? But the comments are going to be only twenty seconds long. Some of you are getting a little verbose and we’ve got a lot of ground to cover.

PROF. COTTER: Yes, I think there should be a Section 101, but my own view is that it ought to be fairly minimal in scope.

I go back to the fundamental purpose of having patents at all as expressed in the Constitution, “to promote the progress of the useful arts.” Patents are a means to an end. The end is to make all society better off by stimulating new inventions and we should grant patents when the social benefits of granting patents and enforcing patents outweigh the social costs.

One way of thinking about patentable subject matter — and I think this is really what the Supreme Court is trying to get at in these cases — is that with regard to what the Supreme Court calls “building blocks”\(^{16}\) the social costs of protection outweigh the social benefits. I think that’s intuitively appealing when we are talking about laws of nature, like the Law of Gravity, the Law of Relativity, something like that; those things should not be patentable, and nobody really believes that they ought to be.

The question then is: How far do we extend the principle beyond those very obvious examples? Again, my own view is that we ought not to extend it very far, at least not in the absence of evidence that we really need to exclude some particular class of subject matter, because if we don’t, the social consequences are going to be very grave in terms of inhibiting follow-up invention or research.

I don’t think we have that evidence. Are DNA sequences fundamental building blocks in that sense, naturally occurring correlations? I don’t know that they are, and I don’t know how the Supreme Court knows either, in the absence of any evidence that that is the case.

My own view is that there ought to be some limits on subject matter beyond the obvious. I do think that patents only ought to pertain to the technological arts. That would exclude the fine arts that Josh was talking about. I don’t think they should read on mental phenomena; that would be intrusive on individual privacy and autonomy.

Beyond that, I think we ought to be very cautious when excluding things at this very early stage, before the Patent Office or the courts have had the

\(^{16}\) Alice Corp. Pty. Ltd. v. CLS Bank Int’l, 134 S. Ct. 2347, 2355 (2014).
opportunity to conduct what should be a more rigorous, nonobviousness analysis. I think that is pretty much analogous to what they are doing in the European Patent Office and in many other countries. Section 101, or its equivalent elsewhere, is a very minimal hurdle — not meaningless, but minimal — and then have a robust nonobviousness determination down the road.

MR. ADAMO: Mr. Cooney, your body language seems to indicate that what you are hearing sounds good to you. Does it?

MR. COONEY: I think what we are trying to do is to figure out how to make sense of four cases where the Supreme Court didn't provide a lot of guidance as to what they were trying to steer and deliver. We are hearing differing views on how to apply those cases and trying to find that spot between scientific discovery and invention and how to steer that analysis.

Director Iancu is trying to provide examiners with some guidance. Perhaps the PTO is trying to treat 101 as a first step, as a first bar to be overcome, nothing too significant to overcome, and to try to steer and apply these cases in a way that leads to results that are consistent with what he believes the Supreme Court may have intended.

The alternative is what? That is the question for patent lawyers. Either the PTO tries to provide greater clarity and guidance, or we continue down the road of not really knowing and just hoping for the best, or we could turn to the Congress and seek a legislative solution.

What Andrei Iancu and the PTO are doing may well drive us to the courts more quickly, and I don’t know that this would be a bad thing were it to occur. We may get some needed clarity. But leaving it alone and doing nothing strikes me as not in the public’s interest.

MR. ADAMO: Kevin, in the material you provided you had some interesting, possibly radical, suggestions that the problem here is not the language of 101, but the problem is the people who were trying to figure it out and apply it. For example, you suggested that we should think about removing patents from United States Supreme Court jurisdiction — I’m not exactly sure how — and maybe there should be another system that is tied to a different group of jurists. Are you serious about that? Do you think that would solve all this?

MR. NOONAN: It was meant to be provocative.

This is one area of the law that is very practical, in the sense that, as Hans was saying, people invest or they don’t invest. You really only need two Federal Circuit judges and everybody else to decide not to go against them to make law.

Here is an example. Judge Dyk wrote the opinion in Myriad III, In re BRCAI and BRCA2. The fact is that it greatly expanded the scope of both the Mayo and the Myriad decisions because it basically said: “The Supreme Court has spoken and we are forced to do this.” This was before Ariosa v. Sequenom. In fact, for them there was another reason, a procedural reason. It was an appeal of a denial of a motion for a preliminary injunction. They thought they were neutral, and they didn’t join the defendants. I think it was Judge Moore or Judge O’Malley.

17 774 F.3d 755 (2014)
who in a recent decision said, “I think we should go back and look at that because we didn’t have to go that far.”

I think the same thing happened in the Patent Office. We had the Patent Office in the wake of the Myriad decision saying, “Oh well, gunpowder can’t be patentable because it’s only a mixture of potassium nitrate, charcoal, and sulfur.” As somebody said, “Yeah, except when you put them together it goes Boom!”

I think that the reaction to the Mayo and Myriad cases, and to a certain extent Alice, was an overreaction. You teach first-year law students how to distinguish cases. There are many, many ways that every one of these cases that comes down could have been distinguished from what the Supreme Court said. I think the Supreme Court itself is trying to be parsimonious. You can find statements in lots of Supreme Court cases that say, “Well, we don’t want to go too far because we don’t want to prescribe the future.” Justice Breyer himself said, “All I’m trying to do is give you the outside boundaries.”

But the reaction to it from both the Federal Circuit and the Patent Office originally was “God has spoken and ‘thou shalt not’.” I just think that was an extreme overreaction. There were reasons for it: the fact that the Federal Circuit is populated with far fewer judges like Markey and Rich and Nies, people with real patent experience, and folks who, because of its potpourri jurisdiction, if you will, do not really know much about patent law. So they thought The Supreme Court spoke and therefore we have to go along with it.

And the Patent Office at the time didn’t have a permanent director. I don’t expect lifelong bureaucrats to go out on a limb with this, as maybe Director Iancu is doing.

There is evidence I have that the Supreme Court didn’t mean what people think it meant. I think in the oral argument in Alice one of the litigants said to Justice Breyer, “As you said in Mayo,” and he said, “I don’t think I said that.”

I just don’t think we should treat what the Supreme Court says as holy writ. We should look at the principles — whether it’s creativity, utility, what have you — behind it and then try to make it make sense in the corpus of patent law, which they don’t really care about; whether they know about it or not, they don’t seem to care about it.

And it’s not their thing. Even with all of the patent cases the Court has taken in the last fifteen years, it pales in comparison to the antitrust cases and the criminal cases and all the other cases they hear.

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18 Roche Molecular Sys., Inc. v. Cepheid, 905 F.3d 1363 (Fed. Cir. Oct. 9, 2018).

19 USPTO, Nature-Based Products. “The following examples should be used in conjunction with the 2014 Interim Eligibility Guidance. They replace the examples issued with the March 2014 Procedure For Subject Matter Eligibility Analysis Of Claims Reciting Or Involving Laws Of Nature/Natural Principles, Natural Phenomena, And/Or Natural Products” (gunpowder “illustrates the application of the markedly different characteristics analysis to a nature-based product produced by combining multiple components (claim 1) [is] not markedly different from what exists in nature.”).

20 Onpoint, Supreme Court Justice Stephen Breyer (Sept. 21, 2011).

This is our thing. We should help them come to the right decision.

MR. ADAMO: Good luck with that.

MR. NOONAN: I’m an optimist.

MR. ADAMO: It’s very simple. One thing I’d note is that nobody is saying that the issues of “Why 101?” come from the fact that the people making the decisions are not technically trained, that they don’t understand the difference between a carbon atom and a hydrogen atom — which is good, because we’ve been down that road. We ain’t ever gonna have specialist trial courts or specialist appellate courts from a technical standpoint in this country. It’s just not happening.

There is an interesting comment that you might want to know about. Chief Judge Prost participated in the Eastern District of Texas Bench Bar Conference in October, just two weeks ago. She said that the current docket at the Federal Circuit is now somewhere between 65 and 70 percent of all patent cases, counting the Patent Trial and Appeal Board and the district courts, all with their, as Kevin phrased it, “rats, cats, and dogs” jurisdictions. Kevin, who has been around about as long as I have, remembers that in 1982 someone who has now passed managed to convince Congress that the Federal Circuit was a great idea because five years after the court went into effect people like me were going to be out of business, everybody was going to license things, there were going to be no issues of complexity about the law, etc.

Judge Prost, when asked about this 65-to-70-percent docket being patents, recalled that the “rats, cats, and dogs” jurisdiction was gone into and put in the statute because that’s the price that its major progenitor or champion had to pay to get Congress to give him a specialized court which wasn’t a specialized court.

For those of you who don’t remember this, the Seventh Circuit was very pro-patent in the early 1980s. In fact, the Seventh Circuit and the Seventh Circuit bar were the only people who actually tried to fight Congress off and say that it was not a good idea to have this court; we ought to stick with more along the lines of the Seventh Circuit — which is what the Chief Judge of the Seventh Circuit raised recently.

But here’s what Judge Prost had to say about the 65-to-70-percent docket, which of course makes you more of a specialist if you’re doing one kind of cases. She said, “You know, I don’t mind being a member of a specialized court, but I didn’t plan on being a member of a specialized patent court.” Think about that. She doesn’t mind being in a specialized court, but she does not like the idea of being in a specialized patent court.

MR. NOONAN: Can you ever imagine Judge Rich or Judge Markey saying that?

MR. ADAMO: The answer to that is no. But, of course, Judge Markey wouldn’t say that because he’s the person who had a lot to do with why we have this court.

I am going to let the rest of you talk about whether you think Professor Cotter’s ideas about what 101 should do are right or not. I don’t know that these issues are systemic. I don’t know that you fix any of this by changing who is going to rule on things, are we going to have juries or not — any of that. Kevin, I
know that you suggested it to be provocative, but (1) I don’t know how the hell you do it under the Constitution and (2) you’d never get Congress to pay for it.

MR. NOONAN: That’s true.

MR. ADAMO: And (3) you would get the Chief Judge of a court who’s saying, “I don’t really want to do this for the rest of my life.” I’m not even sure who you’d put on the panel and how to keep them on the panel.

So what else can we do to make this more Euro-friendly, because it sounds like you guys have got this all figured out and we’re the ones who are all crazy?

PROF. SARNOFF: No.

MR. NOONAN: No.

MR. ADAMO: He can answer for himself. You two kibitzers down there had your shot. Now cool it.

PROF. SARNOFF: He had a shot too.

MR. ADAMO: What do you think?

MR. SAUER: What else can we do?

I think we need to go back to what Josh said. I think Josh, and Professor Cotter as well, started out with the right question: Do we have agreement on what we are trying to solve here? Do we have agreement on what the Supreme Court is trying to accomplish? I’ve often noticed when you get fifty well-informed people in a room, they all disagree even on those basic questions.

I think a good place for us to start would be to ask “What is 101 supposed to do?” and “What does the Supreme Court think it wants to do?” That way at least we could be responsive to the Supreme Court.

MR. ADAMO: What purpose does Section 101 serve? Professors Cotter and Sarnoff said: “No progress is possible to fix these 101 problems unless we agree as to what the purpose of 101 is.”

You’ve heard everybody else so far. What can you add to what they have suggested to get clarity of purpose?

PROF. SARNOFF: I would say clearly answer the question how are we going to treat the ineligible subject matter when claimed in an application?

First, in Europe they don’t do it under 101 but they do it under 103. But in Europe they would say that the discovery of cell-free fetal DNA can’t contribute a technical effect when asking whether the diagnostic is nonobvious because the cell-free fetal DNA is excluded subject matter. That isn’t really much better, quite frankly.

Let me go back to something that Kevin said, which is that we need to reach agreement to get the statute we don’t have. But what the Supreme Court has done is give us the interpretation of the statute we do have.

I don’t want to advocate an armed insurrection, but the Supreme Court is your authoritative interpreter of what the actual statute means. So, the Court didn’t use the word “creativity” — the Justices would have been much clearer if they had — they used the words “directed to an inventive concept,” which means: is there something other than the mere application of the ineligible discovery in a particular context that is creative enough and of the right kind of creativity to be treated as an inventive concept?
All I can say is that takes us back to the original statute. Giles Rich’s coauthor of the 1952 Act, Pasquale J. Federico, then Commissioner of Patents, argued in the Application of Ducci case that there was a creativity threshold. That’s the statute we have. Go read Jeff Lefstin’s great article that shows that the Congress thought about overturning Funk Brothers but they didn’t in fact do that. What Kevin and Hans have said can’t make any sense unless you would overturn Funk Brothers.

MR. NOONAN: I have no problem with that.

PROF. SARNOFF: I understand. But that’s not the statute we have. That’s exactly my point. We’ve got to get agreement on what the new statute we want is. There’s my answer.

MR. NOONAN: Except Funk Brothers was pre-1952 Act, and it has always been taught to me as an obviousness case, not a patent eligibility case.

PROF. SARNOFF: Tell that to the Supreme Court and get them to say that Funk Brothers was not about the “invention in packaging” not being “directed to an inventive concept,” and there is Flook before that. Why won’t the Court just say that Diehr overruled Flook and we’ve now overruled Diehr, and we’re going back to all of the circuit court cases that held they required an inventive concept in the 1950s”? You know, just be honest about what you’re doing and then we can try to get to a new statute.

MR. SAUER: There is a proposed solution on the table. Whether it will work I don’t know. The American Intellectual Property Law Association (AIPLA) and Intellectual Property Owners Association (IPO) have a joint legislative proposal. It’s very frontal. It basically says: We want to take the law back to where it was before, or maybe at the time of, Bilski and undo the subsequent three Supreme Court cases. Tell the courts to try again and see where they would take us by developing an alternative 101 jurisprudence. That may or

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may not work, but at least it’s a clear answer saying: “You know what, Supreme Court, that just didn’t work. Try again.”

The Supreme Court might react to this in any number of ways. There are others who would react to this as well, and those are the people who like the current state of 101. Those exist as well. When I talk to colleagues who operate in other technologies where 101 has had a huge impact, they say: “101 is doing something very important in our area. We don’t know what it is going to do next. But if you go for legislation please keep in mind that 101 has provided a way to wipe out ‘bad’ patents.” In most people’s assessment, the patents that go down under 101 often seem have some kind of defect anyway, such as broad, disembodied claims, using highly functional language, or operating with concepts that strike one as obvious. That often means that the patent would probably have gone down anyway, so nobody cares too much if it went down on 101 grounds instead of Section 112 or for prior art-based reasons. This is an observation that I’ve heard people make.

When I talk to my colleagues in those industries, they say: “If you want to go for a legislative solution, try to find one that will allow us to quickly and reliably, maybe more reliably than today, wipe out bad patents early in litigation, and preserve some of that kind of work that Section 101 is doing for us right now, because if you don’t and if you force us to go back and litigate everything beyond motions for summary judgment and resolve everything on 103 and 112, then that won’t help us. Then it is going to be again very expensive to eliminate invalid patents that are asserted against us, and it is going to invite all the so-called trolls back into the tent.”

I think the ability to address the “bad” patent early in litigation is the answer to finding a compromise. That’s what I think it does. If I’m in high-tech, I don’t care if these bad patents go down under 101 or under some other statutory provision — provided they go down early, cheaply, and reliably distinguish the good patents from the bad ones.

MR. ADAMO: Let’s posit a complication in what you are all saying. Do we have agreement here that 101 often, if not always, raises fact issues? Is everybody in agreement on that?

PROF. SARNOFF: No.

MR. ADAMO: Okay, that’s one.

PROF. SARNOFF: Not always.

PROF. COTTER: Section 101 as it is currently interpreted you mean, not some ideal version of 101?

MR. ADAMO: Yes.

PROF. COTTER: Yes, I would agree with that.

MR. ADAMO: Everything that you are talking about here and any improvement that you can try to work out has got to be jury-friendly. I hate to keep reminding you of this, but it’s got to be jury-friendly. When the America Invents Act was being drafted and everybody was trying to come up with ways to write the damages charge — Kevin, do you remember that? — they were four, five, six pages long. You couldn’t understand them if you were a lawyer, let alone a juror.
So these various concepts that you are coming up with — besides having to be something that doesn’t completely throw all the precedent out, because you’re never going to clean it all out at once, right? — have to be something that you can charge juries with, that they can understand. Too many words are always death on that. It’s got to be short and to the point.

Ms. Martin, do you have an idea?

MS. MARTIN: Yes. I just want to add to this problem. I don’t think there’s anything wrong with the basic 101 statute. If you read this, there’s nothing wrong with this; there’s nothing that’s not defensible.

I think what everybody is ignoring — and I’ve spent a lot of time trying to deal with this — is the public policy. I started practicing in 1989. I was a Cyto-genetics Labs director; I was an inventor, a researcher, a professor at a medical school, just starting to practice law. I was surprised when I heard at that time a lot of public antagonism already against patents — “Why are you getting my genes?” and all of this stuff. I was shocked, and I still find that.

I was talking to Drew Hirshfeld today and he reminded me that the USPTO is responsive to public opinion. They have, as you know, a lot of public meetings. So they are talking to the public.

I know those people in Congress, and that’s why I’m not excited about a legislative switch. Hans and I have worked a lot over there, he more than I. You don’t want to have to depend on what the public is going to tell those legislators to do. They could come out with something really horrible.

And yet, when you talk to the public, in the same breath they say, “We really love personalized medicine.”

“Oh, are you getting this with biomarkers?”

“Yes, hospitals are doing it. Northwestern does it.”

I say, “You know, it’s hard for me to get biomarker patents. Why? Because they are matching sequences in the regular genes.”

So there is a dichotomy here. I think a lot of time needs to be spent educating the public.

I think the plant companies failed when they brought out genetically modified organisms (GMOs). They never explained to people what GMOs are. The public misconception is huge.

And who do you think is talking to the Patent Office? Who do you think they’re listening to? Who do the legislators listen to? They are voters. I’m not talking about the IT group and the biotech group. I’m talking about the average voters, and they are the people who you have to convince. I think this comes from the bottom up.

The situation we had in 1989 wasn’t so bad, we didn’t have this problem, but as this spread around and people are not understanding that what they want out of new technology is not going to come without patents, they are not getting that, and they really think that somehow patents are taking away things that they should have.

MR. ADAMO: Say you want to fight back on that, you want to do a poll, or you want to run numbers. We want to find some way that we can come up with
these proposals and then test them. We can get a focus group and try it on people and see if they follow it.

What metric would you use, what would you test for, to see if your fixes are any better than the problems that everybody seems to be in agreement we already have?

Professor Cotter said it best. The language is fine; the problem is the interpretation of the language. All these problems seem to be coming from how people interpret it, not the language itself.

MR. NOONAN: Actually nine people, nine Justices on the Supreme Court.

MR. SAUER: What they are interpreting is not even in the statute. They are interpreting their own judge-made exclusions. It’s causing drift in the law.

PROF. SARNOFF: Actually, there were interpretations of the meaning of the word “invention” under the statute before the 1952 Act. So, it’s statutory interpretation of the limits of the legislative grant. It’s not common law.

MR. SAUER: I’m sorry, but I have to disagree with that. What statutory interpretation?

PROF. SARNOFF: Of the meaning of “whoever invents or discovers.” It may be, in your opinion, bad interpretation, but it’s still interpretation. And once it’s the interpretation, we then have to deal with it, even if the statute doesn’t use the same terminology.

MR. SAUER: Chakrabarty was a statutory interpretation case.27 There you could really see the Court focused on what Section 101 says. The cases that came after that were saying, “Yes, 101, but we have long held ‘phenomena of nature,’ blah, blah, blah, and now we’re going to interpret that.”

So I have a problem connecting the judge-made exclusions to proper statutory interpretation exercises, and I do think the Supreme Court, in developing the exclusions, has come unmoored from what Congress said in the statute.

MR. ADAMO: That all sounds great. But how do you fix it and how do you trial the fix before you put it into the entire system?

The Patent Office is trying to fix amendments in the Patent Trial and Appeal Board procedure right now.28 They are doing a trial. They are actually going to try it before they change the statute because they’re not sure it’s going to work because of the times.

So if you’re going to talk about some sea change here, interpretation, I don’t know how you do it.

We have a pattern jury charge for 101 issues. You folks are aware that the Federal Circuit is the only circuit of the thirteen appellate circuits that does not. Everybody else has got a pattern charge of one sort or another. We have no Federal Circuit pattern charge that governs any of this stuff, and everybody seems to be in agreement that —

All right, Nick is having a cow. What? I’m wrong?

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AUDIENCE [Nicholas Groombridge, Paul, Weiss, Rifkind, Wharton & Garrison LLP; Immediate Past President, Federal Circuit Bar Association]: The Federal Circuit Bar Association has a pattern instruction that the Federal Circuit is pretty much in favor of. A shameless plug for the FCBA.

MR. ADAMO: Okay. Except, unfortunately, you don’t have anybody who tells federal district judges that they have to use the Federal Circuit Bar Association’s charges. That’s why it’s not a pattern charge.

Judge Essex from ITC?

AUDIENCE [Judge, Theodore Essex, International Trade Commission]: Thank you. I’m a little reluctant to talk to you without being on my bench because here you have free shots, and I’m not sure how this will work.

I have not been in patents as long as you guys. I have a problem. I just want one thing explained to me. The Constitution says “discovery or invention.” The statute says “discovery.”

Take the example of our friend here. I say: “Well, nobody knew this peptide before. Is it useful? Yes, it relieves pain. My God, that seems useful to me.” When did they rip out of the Constitution and the statute the “discovery” portion? And I don’t understand why. Again, if you look at Mayo and you look at some of these other cases, it seems to me here is a way of adjusting medicine to better relieve the patient that we have never seen before. That’s a discovery to me.

So I need someone to tell me why what appears to a person who has not been in patents blatantly obvious and yet appears to have been killed by the Supreme Court, frankly.

MR. ADAMO: Professor Sarnoff, give it a shot.

PROF. SARNOFF: Two very quick answers.

First, you have to go back long before Funk Brothers. Congress actually removed the word “discovery” from the statute, then they added it back. They always said it has to be a significant change of some sort from naturally occurring things. The “naturally occurring things” exclusion came in first in Le Roy and then in O’Reilly v. Morse.

Going back to your question, Ken, we can very easily write jury-friendly instructions. The problem is they reach the wrong results.

Again, AIPLA, the ABA Section on Intellectual Property Law, etc. — fine. You can write even better language that just says, “We want any uncreative or creative application of a scientific or technological discovery to be eligible.” But the way they have written it, I can claim a cheerleading outfit with chevrons in this particular location [pointing to the shoulder]. Now, I’ve made a claim for a “manufacture,” it is “novel,” and the only creativity is either aesthetic (it looks good) or aesthetic functionality (it makes me look thinner). Design patents on steroids!

Don’t do this just because you want a clear jury instruction. Do this because you also want to reach the right results.

And then, when we get back to how much creativity and the advance over the scientific discovery, we are just not going to agree. So there you go, and very quick.

AUDIENCE [Gene Quinn, IPWatchdog]: The more I look at this issue over and over and over again, I am convinced that the Supreme Court is bringing us back to the “flash of creative genius” as the test. That test was intended to be done away with by one line in the 1952 Act, which was the only part of the 1952 Act that was intended to undo the case law: “it’s not negative by how it is created.”

We see right now, I think, with the discoveries, if the nine laypersons on the Supreme Court don’t think it’s a meaningful enough discovery, then it’s not patent-eligible. They’ve got the camel’s nose under the tent again, this time not under Section 103 with the “flash of genius.” The flash of genius comes up now under Section 101, and they call it the same thing. It’s the hunt for the “inventive concept.” They didn’t even change the language.

So I don’t know what we could do really. Before this became a big issue under 101, when 103 was starting to go awry, if you remember that, before these three or four cases, I jokingly said, “Maybe we need to amend 103, and the amendment would underline that one sentence in the legislative history, ‘We meant it in 1952.’”

The Supreme Court just doesn’t seem to get it. They are doing their own thing.

PROF. SARNOFF: Finding out that cell-free fetal DNA exists is an act of genius. Using it is not. It’s obvious and easy.

AUDIENCE [Mr. Quinn]: But you can’t use it if you didn’t find it.

MR. ADAMO: You do that again and you’re going out in the hall for a timeout. [Laughter] I ain’t running no cage match here.

PROF. SARNOFF: I’ll see you later [getting up]. I’m done.

MR. ADAMO: Oh, sit down. Get over here. [Professor Sarnoff sat back down.]

Professor Cooney, I have been watching your body language and I pretty much know where you are, but I want everyone to hear you because the audience can’t see you as well as I can.

PROF. COTTER: All I want to say is I’m a law professor too, so I care what the Constitution and the statute and the cases say and all that. But I also don’t want to fetishize it. I mean there’s something that’s just absolutely nuts when we say that this cryptic language from 19th-century cases involving steam engines and stuff like that ought to be our touchstone for determining innovation policy in the 21st century. We’ve got to interpret the statute in light of policy, in light of evidence, and, at least in my view, 101 ought to be fairly minimal in scope so that we don’t exclude a lot of things that we really need to be invented.

MR. ADAMO: Mr. Cooney, what do you think? You’ve been listening to all this, and sometimes you’re giving positive body language and sometimes you look like you’re thinking I’m not sure what these guys are talking about.

MR. COONEY: I think it’s more the latter.
With respect to getting to the consensus approach that Hans spoke about, there needs to be agreement around what the problem is. We need to be able to explain it in plain English with a compelling narrative to congressmen. We don’t have any of that right now.

The narrative that existed and continues to exist is being used and continues to be used by those who put us in this situation — Amazon, Cisco, Google, Intel — I don’t have a problem saying who they are. In fact, just yesterday, the general counsel for one of their trade associations wrote an op-ed suggesting that what Director Iancu is planning with respect to 101 “would only enrich patent trolls at a cost to ground-breaking technologies and the jobs they spawn.”

That is what 101 reform is up against. Those companies — Amazon, Google, Cisco, Oracle, Intel — wield quite a bit of influence in Washington. So I think it’s critical that if we want to solve the 101 problem, if we agree that there is a problem to be solved and want to solve it, that we get very clear on how to do it, and get going on it at some point soon, because these companies at least are signaling they’re not of any mind at this time to fix the problem.

PROF. COTTER: Before we start bashing those companies, they are enormously innovative too. Let’s recognize that. There are two sides to this.

MR. COONEY: They are great companies, but they like the 101 situation as it is. They prefer the status quo. They benefit from it.

MR. ADAMO: Nick, you see a lot of juries in this area grapple with these complexities. Can you come up with a way that one could get to summary judgment without tripping over fact issues vis-à-vis 101? I can’t.

AUDIENCE [Nick Groombridge, Partner, Paul Weiss Rifkind Wharton & Garrison LLP; Immediate Past President, Federal Circuit Bar Association]: Not if “routine or conventional” is really hard to test. When something is “routine or conventional” cannot ever be a question of law. It’s a question of fact. It’s a question of the scientific boots on the ground. That’s part of the problem.

Using 101 for a purpose, however desirable that purpose may be at weeding out cases early, has led us to this place and created yet another tension in the system. Look, we have this “Can something ever be routine or conventional and yet not obvious?” It’s the same inquiry and it can be handled in the same way. If you ask jurists to find/define facts, you have to put it this way.

MR. ADAMO: I mentioned in the beginning that we were going to try to talk a little about claim construction. We’ve been dancing around the jury issue because to me that’s more important.

Every year I participate in a two-day patent seminar at the University of Texas (Austin) School of Law and I write a ridiculously complicated, long, very

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This year’s paper has a section that is entitled “Claim Construction Relating to 35 U.S.C. 101 Motions: Deferral of Motion to Dismiss on 35 U.S.C. 101 Grounds Because Claim Construction Has Not Occurred.” It looks at ten cases that were decided within the last year in East Texas, West Texas, Eastern Virginia, Central District of California, Delaware, and Oregon, and two recent cases that went to a summary judgment on 101 without claim construction.

In view of the recent law, I’m wondering if the system is starting to adjust to this quick-kill capability by saying, “Oh no, you’ve got to do the claim construction; absent that you don’t get the quick kill.” So I’m wondering whether the system is already starting to, if not solve these problems, obviate potential overuse or misuse of this for quick-kill purposes. That’s just my sense of it.

We are going to have to stop, but I’ll take one question from the audience.

AUDIENCE: You have been talking about creating jury instructions. Do juries even read the instructions? Is this really a solution to the problem?

MR. ADAMO: How many of you have ever served on a jury?

[Show of hands]

How many of you at some point or another during your deliberations have at least heard the foreperson read one of the instructions out loud?

[No response]

AUDIENCE: I agree. They ignore the instructions.

MR. ADAMO: One way trial judges avoided hung juries in East Texas, apocryphally, was they wouldn’t give even the jury foreperson a copy of the written charge. That’s one way to obviate it.

I want to check the jury instructions, so I use focus groups and they read the charges. That’s how we check it. I’m told by people who debrief a lot of jury panels that it is very dependent on the foreperson. If the foreperson uses the charge as a guide, people read it. They usually, however, get it read to them. The judge reads it to them, or somebody reads it to them at least at one point or another.

I want to thank everybody. I’m sorry we didn’t have more time.

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