
CASE COMMENTARY: INVENTING NATURE IN “ASSOCIATION FOR MOLECULAR PATHOLOGY V MYRIAD GENETICS”

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Introduction

The decision of the United States Supreme Court in “*Association for Molecular Pathology v Myriad Genetics (2013) 569 US 576*”¹ marks a paradigmatic moment in intellectual property jurisprudence, not merely for its outcome but for its philosophical audacity. The Court’s categorical declaration that “a naturally occurring DNA segment is a product of nature and not patent eligible merely because it has been isolated”² seems, at first glance, to champion the boundaries of human creativity against the encroachment of corporate monopolisation. Yet, beneath this rhetorical understanding of nature’s autonomy lies a doctrinal ambiguity: *where does nature end and human invention begin?*

The “*Myriad*” judgment is not simply a matter of patent eligibility; it interrogates the ontology of invention itself. In attempting to disentangle discovery from creation, the Court reenacted the ancient legal dilemma between natural right and artificial law —the law of what exists and the law of what is made. However, in choosing to deify nature and discredit the inventive act of isolation, the judgment risks reducing innovation to metaphysics.

The Court’s Reasoning

Justice Thomas, writing for a unanimous bench, reaffirmed that “laws of nature, natural phenomena, and abstract ideas” are not patentable under “35 U.S.C. Section 101”³. The Court created a distinction between genomic DNA (gDNA), which merely exists in nature, and complementary DNA (cDNA), which, being synthetically produced, is patent eligible.⁴ This reasoning, while doctrinally anchored in “*Diamond v Chakrabarty (1980) 447 US 303*”⁵,

¹ *Association for Molecular Pathology v Myriad Genetics Inc* 569 US 576 (2013).

² *Ibid* 580.

³ 35 USC § 101 (2012).

⁴ *Myriad* (n. 1) 590.

⁵ *Diamond v Chakrabarty* 447 US 303 (1980).

represents a selective and, arguably, philosophically inconsistent application of precedent.

The “*Chakrabarty*” decision had allowed the patenting of a genetically modified bacterium on the premise that “the hand of man” transformed a natural organism into something “markedly different”.⁶ Yet in “*Myriad*”, even though isolation required human ingenuity, the Court insisted that the gene itself “was not created,” thereby conflating the object of discovery with the process of innovation. The “product of nature” doctrine thus operates as an aesthetic judgment impersonating as legal reasoning, sanctifying the natural while delegitimising the artificial.

The Court’s formalism reduces the richly intervened biochemical process to a metaphoric “uncovering” of nature.⁷ The Court thereby treats isolation as a passive act of retrieval rather than a creative one.

Discovery versus Invention

At the heart of the case lies an epistemological crisis that extends beyond patent law. The Court’s insistence that isolated DNA “exists in nature”⁸ betrays a simplistic understanding of scientific practice. The act of isolating DNA is “not merely finding but defining a molecular entity through human intervention.”⁹ To isolate a gene is to render visible what was conceptually non-existent; it is a process of intellectual construction, not passive observation. *Myriad*’s patents were not about raw molecules but about information, and the Court’s focus on molecule structure ignores the informational core of genomic innovation.¹⁰

This misunderstanding resonates with the deeper philosophical conflict within intellectual property law: the distinction between *discovery* (the unveiling of what exists) and *invention* (the creation of what could exist)¹¹. The Court’s bifurcation of the two overlooks their interdependence. The scientist, much like the artist, interprets, not merely identifies, nature’s text. By denying inventiveness to the act of isolation, “*Myriad*” overlooks the scientist’s

⁶ Ibid 310.

⁷ Lara Cartwright-Smith, “Patenting genes: what does *Association for Molecular Pathology v Myriad Genetics* mean for genetic testing and research?” *Public Health Rep* (2014) 129(3) 289, PMCID: PMC3982540

⁸ *Myriad* (n. 1) 590.

⁹ Christopher M Holman, “The Impact of Human Gene Patents on Innovation and Access: A Survey of Human Gene Patent Litigation” (2008) 76 *UMKC L Rev* 295.

¹⁰ AM Bakshi, “Gene patents at the Supreme Court: *Association for Molecular Pathology v Myriad Genetics*” *J Law Biosci* (2014) 1(2) 183, PMCID: PMC5033540

¹¹ Michael Polanyi, *Personal Knowledge: Towards a Post-Critical Philosophy* (Routledge, 1958).

creative role and reinforces an outdated and simplistic view of science.

Doctrinal Analysis

The Court's reliance on "Section 101 of the Patent Act" illustrates a judicial discomfort with the ontological fluidity of modern biotechnological invention. The "markedly different characteristics" test from "*Chakrabarty*"¹² is reinterpreted in "*Myriad*" as a requirement of structural transformation, neglecting the informational or functional novelty inherent in genetic isolation. This narrow reading reduces invention to morphology, failing to recognise that the value of DNA rests in its informational content, a category that draws the line between material and abstract.

The *Myriad* patents "did not claim life forms but information encoded in biological sequence."¹³ The Court's materialist fixation thus produces a paradox: while cDNA, a laboratory artefact, is patentable, the informational logic that animates both gDNA and cDNA remains unprotected. This distinction privileges form over function, creating a doctrinal inconsistency that undermines the coherence of patent jurisprudence in the genomic age. The decision's formalism becomes even more questionable in light of empirical shifts. *Myriad* Genetics shifted strategies, reducing gene patent filings and investing more in trade secrets and data exclusivity.¹⁴ The practical logic is clear: when doctrine excludes substance, industrial actors migrate to format.

The shadow of "*Mayo Collaborative Services v. Prometheus Laboratories (2012)*"¹⁵ stayed over "*Myriad*". In "*Mayo*", the Court invalidated method claims that effectively monopolised natural correlations. "*Myriad*" extends the same pre-emption logic, but to material claims: no one may monopolise a natural piece of DNA. Yet, this extension drags policy reasoning into "Section 101". The Court acts as a normative gatekeeper, weighing whether a patent claim would preempt future research. But Section 101 was not designed as a catchall filter for policy; that role belongs to "Section 102" (novelty), "Section 103" (non-obviousness), or statutory limits. By conflating ontological invalidity with overbroad pre-emption, the Court *de facto*

¹² *Chakrabarty* (n. 5) 310.

¹³ Robert Cook-Deegan and Subhashini Chandrasekharan, "Patent Protection and Access to Genetic Tests: Implications for Molecular Diagnostics" (2014) *Genetics in Medicine* 12(4) S271.

¹⁴ Ajay Dara & Pratap Devarapalli, "The Impact of Gene Patent Decision and the Changing IP Strategies of *Myriad* Genetics" (2023) *EIPR* (forthcoming) SSRN https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4503041

¹⁵ *Mayo Collaborative Services v Prometheus Laboratories, Inc.*, 566 US 66 (2012).

legislates under the guise of interpretation.

Political Economy of Genome

From a policy standpoint, “*Myriad*” is both a triumph and a tragedy. On one hand, it dismantles corporate monopolies that had, through aggressive patent enforcement, restricted access to genetic testing for BRCA1 and BRCA2 mutations.¹⁶ On the other hand, it offers no clear alternative for incentivising biotechnological innovation. The Court’s moralistic insistence on nature’s sanctity conveniently ignores the political economy of genomics, where scientific progress depends on both private investment and public research funding.

The aftermath of “*Myriad*” demonstrates this tension vividly. While diagnostic access expanded, private sector investment in certain genetic testing domains declined, reflecting the chilling effect of doctrinal uncertainty.¹⁷ The judgment performs an ironic inversion of its own moral intent: in seeking to liberate the genome from corporate enclosure, it inadvertently jeopardises the innovation infrastructure that sustains it.

Post-Myriad

The “*Myriad*” precedent moved beyond genomics. In an era of AI-generated art, machine-learning algorithms, and synthetic biology, the question of authorship is no longer human-exclusive. The debate on patenting CRISPR technology, seen in “*The Broad Institute, Inc. v The Regents of the University of California*”¹⁸, mirrors “*Myriad*’s” doctrinal ambivalence. CRISPR, much like cDNA, embodies both natural logic and human engineering, yet the legal determination of ownership remains mired in metaphysical debates about originality.

Similarly, the European Patent Office’s decision in “*Plant Genetic Systems v Greenpeace (T356/93)*”¹⁹ underscores the continuing struggle to delineate natural discovery from human modification. The “*Myriad*” doctrine, with its emphasis on purity of nature, risks making innovation law outdated in an age where technology is built on mixing and combining natural

¹⁶ Rebecca Eisenberg, ‘Re-examining the Role of Patents in Appropriating the Value of DNA Sequences’ (2000) 49 *Emory LJ* 783.

¹⁷ Jorge L Contreras, “The False Promise of the *Myriad* Decision” (2014) *Nature Biotechnology* 32(7) 620.

¹⁸ *The Broad Institute, Inc. v The Regents of the University of California* (USPTO Patent Trial and Appeal Board, 2017).

¹⁹ *Plant Genetics Systems v Greenpeace (T356/93)* [1995] EPOR 357 (EPO).

and artificial elements.

Nature as Legal Fiction

The judgment reveals a peculiar irony: in its attempt to restore balance between nature and invention, it ends up constructing “nature” as a legal fiction. The very concept of an “untouched” gene is a construct of legal imagination; there exists no natural state of DNA independent of the interpretative frameworks that render it legible. As one scholar notes, “to speak of nature in the genomic age is already to speak of it through technology.”²⁰

This fiction, however, has real consequences. By illustrating nature’s supposed autonomy, the Court inadvertently empowers those who already control the means of defining it, corporations, research institutions, and state regulators. The rhetoric of non-interference thus masks an ongoing process of epistemic enclosure, where access to genetic information remains governed by proprietary algorithms and databases, if not by patents.

Conclusion

The decision by the Court stands as both a doctrinal corrective and a philosophical regression. It reinscribes the principle that nature, in its unaltered state, is the common heritage of humankind. Yet, in its failure to appreciate the creative dimension of scientific practice, it reverts to a pre-modern conception of knowledge as passive discovery. The future of intellectual property law must transcend this binary by recognising that invention today is not about making new matter but about reconfiguring existing meaning.

In the age of synthetic biology and AI, the line between nature and invention, author and algorithm, is not merely blurred; it is obsolete. The challenge is not to redraw it but to rethink the very premise of what counts as invention. The judgment, for all its moral clarity, leaves us trapped in a juridical nostalgia for a world where nature and artifice were separable. Perhaps it is time for the law to accept that, in the post-genomic era, the two are indistinguishable.

²⁰ Sheila Jasanoff, ‘Life as a Legal Construct: Science and the New Nature’ (2011) 44 *Cornell Intl LJ* 653.