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#### UNITED STATES PATENT AND TRADEMARK OFFICE

#### BEFORE THE PATENT TRIAL AND APPEAL BOARD

# COMPLETE GENOMICS, INC., Petitioner,

v.

ILLUMINA CAMBRIDGE LTD., Patent Owner.

> Case IPR2017-02172 Patent 7,566,537 B2

Before ERICA A. FRANKLIN, ZHENYU YANG, and TIMOTHY G. MAJORS, *Administrative Patent Judges*.

MAJORS, Administrative Patent Judge.

DECISION Denying Petitioner's Request for Rehearing 37 C.F.R. § 42.71(d)

> Columbia Exhibit 2117 Illumina, Inc. v. The Trustees of Columbia University in the City of New York IPR2018-00291, 318, 322, 385 & 797

#### I. INTRODUCTION

Complete Genomics, Inc. ("Petitioner") filed a Petition (Paper 1, "Pet.") to institute *inter partes* review of claims 1–6 and 8 of U.S. Patent No. 7,566,537 B2 ("the '537 patent" (Ex. 1001)). Illumina Cambridge Ltd. ("Patent Owner") filed a Preliminary Response to the Petition. Paper 6 ("Prelim. Resp."). We entered a decision denying institution. Paper 20, ("Decision" or "Dec."). Petitioner filed a request for rehearing of the Decision. Paper 21 ("Req. Reh'g" or "Request"). This paper addresses Petitioner's Request.

In response to a request for rehearing, the panel reviews a decision whether to institute trial for an abuse of discretion. 37 C.F.R. § 42.71(c). "The burden of showing a decision should be modified lies with the party challenging the decision." 37 C.F.R. § 42.71(d). Moreover, the request "must specifically identify all matters the [challenging] party believes the Board misapprehended or overlooked, and the place where each matter was previously addressed in a motion, an opposition, or a reply." *Id*.

As discussed below, we deny the Request because Petitioner does not establish an abuse of discretion.

#### II. DISCUSSION

As we explained at length in the Decision, the claims of the '537 patent have already been the subject of multiple validity challenges, both before the United States Patent Office and the courts. Dec. 8–16. We do not repeat all the details of those proceedings. It bears repeating, however, that in IPR2013-00518, the Board thoroughly considered the patentability of claims 1–6 and 8 of the '537 patent over the teachings in Tsien, Greene & Wuts, and Zavgorodny — the same claims and the same prior art that form

2

the basis of Petitioner's obviousness challenge here.<sup>1</sup> *Id.* at 10–12. In IPR2013-00518, the Board explained in a Final Written Decision that those claims had not been shown to be obvious over Tsien and Zavgorodny, even when Greene & Wuts (and other references) were considered. Ex. 1094, *passim.* The Federal Circuit thereafter unanimously affirmed the Board's conclusion. Dec. 13–14; *Intelligent Bio-Systems, Inc. v. Illumina Cambridge Ltd.*, 821 F.3d 1359 (Fed. Cir. 2016).

Based, in part, on this background, we exercised the discretion that is statutorily granted under 35 U.S.C. § 325(d) and denied the present Petition. Dec. 16–20. Section 325(d) provides, in relevant part, that "[i]n determining whether to institute or order a proceeding . . ., the Director may take into account whether, and reject the petition or request because, the same or substantially the same prior art or arguments previously were presented to the Office." Although we acknowledged that Petitioner was not the same entity that challenged the '537 patent in IPR2013-00518, and that the Petition included some of Petitioner's own arguments and evidence, we were unpersuaded that institution of another trial by the Patent Office of the same claims over the same asserted prior art was warranted. Dec. 17–20.

Petitioner challenges the Board's invocation of § 325(d) to deny the Petition.<sup>2</sup> According to Petitioner, the Petition was "unreasonably denied" and the Board's "discretion was not reasonably exercised." Req. Reh'g 1–2.

<sup>1</sup> Petitioner relies also on Prober to a limited extent in combination with Tsien, Greene & Wuts, Zavgorodny for the challenge to claim 3, which parallels the reliance on Prober in IPR2013-00518. Dec. 8–11, 17. <sup>2</sup> Petitioner did not address the potential for a discretionary denial under either § 314(a) or § 325(d) in its Petition. However, on Petitioner's request, we authorized further briefing on these matters. Paper 11 (Order).

Petitioner contends the Board "unreasonably declined to consider Petitioner's new arguments and evidence that showed why a POSITA would have been motivated to use an azidomethyl protecting group with Tsien's sequencing-by-synthesis-related method." Req. Reh'g 6–9. And Petitioner contends the Board "overlooked Petitioner's argument and evidence that Tsien's methods with an azidomethyl protecting group would have been useful for applications where quantitative deblocking was not required." *Id.* at 10–12.

The exercise of discretion under § 325(d) involves a balance of interests. For example, as the Board has previously noted, "on the one hand, there are interests in conserving the resources of the Office and granting patent owners repose on issues and prior art that have been considered previously." *Fox Factory, Inc. v. SRAM, LLC,* IPR2016-01876, slip op. at 7 (PTAB Oct. 4, 2017). But "there are the interests of giving petitioners the opportunity to be heard and correcting any errors by the Office in allowing a patent." *Id.* 

We are not persuaded that Petitioner's interests outweigh those of the Patent Office and Patent Owner on this record, which tilt against institution for reasons explained in the Decision.

As discussed above, the Board already addressed whether the same claims would have been obvious over the same asserted prior art raised in this Petition, and concluded unpatentability over that prior art had not been shown. Dec. 10–14. The Federal Circuit agreed. *Id.* Petitioner contends the result would have been different with a "fulsome" record comprising Petitioner's argument and evidence. Req. Reh'g 7–8. But that contention could be made in every follow-on challenge asserting the same prior art so long as some new argument or evidence is also advanced. Petitioner's

4

contention, taken to its end, would limit denial under § 325(d) to true copycat petitions only. The statute, however, is not so limited. Section 325(d) does not require, as a precondition to the exercise of discretion and denial of a petition, a showing that the same or substantially the same arguments were advanced previously before the Office. Quite the opposite, the statute allows the denial of institution where "the same or substantially the same prior art <u>or</u> arguments previously were presented to the Office." 35 U.S.C. § 325(d) (emphasis added). It is undisputed that the same prior art — Tsien, Zavgorodny, and Greene & Wuts — was presented to the Board, and that a full trial was held related to the same prior art Petitioner asserts here. A predicate for invoking § 325(d) was, thus, met.<sup>3</sup> We are not persuaded it was an abuse of discretion or unreasonable, as Petitioner argues, for the Board to do what the statute expressly permits. Nor are we persuaded on this record that retrial on already-considered art is an efficient use of Patent Office or party resources.

Petitioner points to vague "bona fide business interests" in challenging the '537 patent. Req. Reh'g 2. But doubtless, Patent Owner has bona-fide business interests in protecting the '537 patent from serial attack, and, more particularly, not being hailed before the Patent Office yet again to

<sup>&</sup>lt;sup>3</sup> As also noted in the Decision, the Patent Office had each of Tsien, Greene & Wuts, and Zavgorodny before it during the '537 patent's prosecution. Dec. 8–10. The Examiner applied Tsien and Green & Wuts, and an admission that all the protecting groups were known in the art in making a rejection for obviousness. *Id.*; *see also id.* at n.15. And, on that basis, the Examiner rejected claims reciting certain protecting groups (e.g., an allyl group), while allowing claims reciting other protecting groups, in particular the azido group in the claims challenged in the Petition. Dec. 8–10. On balance, the record demonstrates that the challenged claims were vetted adequately over Tsien, Greene & Wuts, and Zavgorodny by the Office.

defend the validity of the same patent claims over the same prior art. Patent Owner's interests in repose weigh heavily here when Patent Owner has already successfully defended the validity of claims 1–6 and 8 of the '537 patent over the same prior art in a full trial before the Board (and in other legal proceedings).<sup>4</sup>

As for Petitioner's assertion that the Board unreasonably declined to consider Petitioner's arguments and evidence allegedly showing that a person of skill in the art would have used an azidomethyl protecting group with Tsien's sequencing methods, we are unpersuaded. Req. Reh'g 6–9. Petitioner criticizes the Board for "summarily reject[ing]" Petitioner's arguments and evidence. Id. at 6-7. As we explained in the Decision, however, the assertion that a skilled person would have been motivated to use an azidomethyl protecting group in Tsien's sequencing methods was already squarely considered — and rejected — by the Board (and the Federal Circuit). Dec. 10–12, 17–19 (explaining the Board's prior findings that azidomethyl protecting groups in the prior art would have been expected to produce *inefficient* deblocking incompatible with Tsien's (and other) sequencing methods); see also id. at 13–14 (noting, inter alia, the Federal Circuit's determination that "the azidomethyl group would have been expected to perform inefficiently in that role [as a protecting group that can be removed to expose a 3'-OH group of a nucleotide].") (citation omitted);

<sup>&</sup>lt;sup>4</sup> As described in the Decision, Patent Owner also obtained a preliminary injunction against various defendants related to infringement of the '537 patent in district court proceedings, where Patent Owner persuaded the court that the defendants' obviousness challenge based on Tsien and Greene & Wuts was "weak" and "unpersuasive." Dec. 14–15; *Illumina, Inc. v. Qiagen, N.V.*, 207 F.Supp.3d 1081, 1088–90 (N.D. Cal. 2016).

*see also* Dec. 19 (rejecting Petitioner's "simple substitution" theory as substantially redundant to the obviousness theory advanced previously).

Insofar as Petitioner contends the Board "overlooked the unfairness to Petitioner in having its arguments rejected out-of-hand," Petitioner chose to base its challenge on the same combination of prior art that the Patent Office already considered. Req. Reh'g 7. Having done so, it was Petitioner that risked having its challenge rejected under § 325(d), and we balance the alleged unfairness to Petitioner against the waste of the Office's resources and the unfairness to Patent Owner facing repeated attacks on its patent on the same grounds. As we also noted in the Decision, citing the respective claim charts in the earlier petition and the present challenge, Petitioner relied on the relevant teachings in Tsien, Greene & Wuts, and Zavgorodny in substantially the same way. Dec. 18. Petitioner identifies no error in the Board's or the Federal Circuit's analyses, or any key teachings in these references that were missed in the prior proceedings. At bottom, Petitioner simply contends the earlier decisions were made without a full evidentiary picture — particularly, an adequate understanding of the state of the art, which Petitioner hopes to supplement with its expert's opinions and "secondary references." Req. Reh'g 6-9. That did not, and still does not, provide a compelling reason, on this record, to overlook the marked similarities between the respective petitions or persuade us that denial under § 325(d) was an abuse of discretion.

As a further basis for its rehearing request, Petitioner contends the Board "overlooked Petitioner's argument and evidence that Tsien's methods with an azidomethyl protecting group would have been useful for applications where quantitative deblocking was not required, such as the detection of polymorphisms." Req. Reh'g 10. According to Petitioner, it

7

presented this argument as an "independent reason" for using Tsien's methods with the azidomethyl protecting group as claimed. *Id.* Petitioner contends the Board addressed only "the general nature of Petitioner's arguments" without addressing this argument specifically. *Id.* at 11–12.

For reasons explained below, Petitioner's second basis for the rehearing request fares no better in demonstrating that the Board abused its discretion in denying this Petition under § 325(d).

At the outset, it's worth noting that in the roughly twenty-five pages Petitioner devotes to its analysis on rationales for combining the asserted prior art (Pet. 30–55),<sup>5</sup> Petitioner devotes only a single sentence to addressing specifically the alleged "independent reason" regarding detection of polymorphisms/SNPs. Req. Reh'g 10. That sentence reads: "Moreover, a POSITA would have been motivated to combine Tsien's method with the azidomethyl group for applications that did not require more than a few sequential nucleotide additions, including, for example, improving on the widely-used APEX method for identifying SNPs." Pet. 46.

But assuming *arguendo* that Petitioner properly presented this argument as an independent reason for combining Tsien, Greene & Wuts, and Zavgorodny, and that the Board overlooked it, we disagree that the Decision should be changed. As explained above, new argument is not necessarily a safeguard from denial under § 325(d) where the asserted prior art is unquestionably the same.

<sup>&</sup>lt;sup>5</sup> Petitioner states that entire "[c]rux" of its Petition is the rationale for the motivation to combine, and broadly frames its arguments as "based on at least two rationales: (1) 'teaching, suggestion, or motivation in the prior art' and (2) azidomethyl as a 'simple substitution of one known element for another." Pet. 31–32.

Moreover, the argument itself is substantively unpersuasive. Petitioner argues the ordinarily skilled person "would have been motivated to combine Tsien's method with the azidomethyl group for applications that did not require more than a few sequential nucleotide additions" (Pet. 46), but Petitioner's expert does not go that far. Rather, Dr. Sutherland opines that "[o]ne of ordinary skill would have appreciated that the method of Tsien could be used to detect or characterize these polymorphisms, even without a high deblocking yield." Ex. 1101, ¶ 88;<sup>6</sup> see also id. ¶ 89 ("Tsien's method could have been used to modify the Arrayed Primer Extension (APEX) technique, which was used for the detection of SNPs."). The standard for obviousness, however, is not whether something *could have* been done, but whether the ordinarily skilled person, at the time of the invention, predictably would have done so. See Belden Inc. v. Berk-Tek LLC, 805 F.3d 1064, 1073 (Fed. Cir. 2015). Petitioner also cites no support in Tsien for using its methods in this way. Pet. 46; Ex. 1101, ¶ 88–89. To the contrary, Tsien's SBS methods involve long sequences, and Petitioner's argument appears to us as little more than after-the-fact rationalization to circumvent high efficiency, quantitative deblocking — Tsien's *required* criteria. Dec. 11–13; Ex. 1094, 11–12; Ex. 1003, 20:24–31:3; Intelligent Bio-Systems, 821 F.3d at 1364. With no clear support in Tsien, Petitioner cites the '537 patent itself as describing use of the claimed sequencing methods for detection of polymorphisms/SNP studies. See, e.g., 24 (citing Ex. 1001, 2:7–9). But

<sup>&</sup>lt;sup>6</sup> See Dec. 18–20 (rejecting Petitioner's assertions about what a skilled person "would have appreciated" from the state of the art as contrary to the Board's consideration of the same art and expert testimony on that art in the earlier proceedings).

using the teachings in the patent against its teacher in this way is a hallmark of hindsight.

# III. CONCLUSION

Under these circumstances, and for the reasons explained above, Petitioner has not met its burden in demonstrating that the Board abused its discretion in the Decision. We therefore deny Petitioner's request for rehearing of our decision declining to institute *inter partes* review.

## IV. ORDER

It is

ORDERED that Petitioner's request for rehearing is *denied*.

# **PETITIONER:**

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#### PATENT OWNER:

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