

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

BeOne Medicines USA, Inc. and BeOne Medicines Ltd.,
Petitioners,

v.

Pharmacyclics LLC
Patent Owner.

PGR2024-00009
U.S. Patent No. 11,672,803

AUTHORIZED RESPONSE TO DIRECTOR REVIEW REQUEST

PO requested Director Review, alleging that the Board: (1) applied the wrong written-description standard and (2) “ignore[ed] factual differences from written description caselaw.” Paper 53 (“Req.”) at 7–8, 11. Both arguments defy controlling precedent and the Board opinion that PO grossly mischaracterizes.

I. The Board Applied The Correct Legal Standard And Properly Focused On The Z’ Scaffold.

The challenged claims are directed to the use of a very large genus of compounds to treat CLL and SLL, wherein two parts of the compounds are fixed (the “phenoxyphenyl” and the “linker-warhead”) and one part is variable (the “Z’ scaffold”), and wherein the compounds must meet functional limitations, including irreversibly (covalently) binding BTK. Req. 3–4; Paper 51 (“FWD”) at 29–31. PO contends that the Board applied the wrong legal standard for written description, because it allegedly failed to analyze the claim as “an integrated whole rather than as a collection of independent limitations,” and improperly focused its analysis on the Z’ scaffold recited in the claims. Req. 2, 6, 8–9.

The Board committed no legal error. It applied the exact standard PO requests, expressly considering written description of the claim “as a whole.” FWD 31. And it acknowledged that the two fixed components of the claims are important to binding BTK. FWD 22–23, 31, 36–37; Paper 9 at 25. The Board merely found—*as PO conceded* during trial, *e.g.*, EX1110 48:6–49:17; EX2010 ¶218; Paper 23 at 52, but now attempts to walk away from, *e.g.*, Req. 1—that the two fixed

components alone are insufficient and the Z' scaffold is *also* critical to binding BTK. FWD 22–23, 36–39. Accordingly, the Board correctly considered whether the specification would allow a POSA to recognize which Z' scaffolds, when combined with the fixed components, would form complete compounds that meet the functional limitation of irreversibly inhibiting BTK. FWD 31, 34–38 (explaining that “the Specification does not explain which of those embodiments—besides ibrutinib’s E7 scaffold—would result in irreversibly binding the Cys 481 residue of the hinge region when paired with the fixed structural features of the claims”); *see also, e.g., Idenix Pharms. LLC v. Gilead Scis. Inc.*, 941 F.3d 1149, 1154–55, 1163–65 (Fed. Cir. 2019) (genus not described where the claim fixed multiple structures in the molecule but permitted variation at one position).

Applying the correct legal framework, the Board relied on overwhelming evidence to find that the specification does not allow the POSA to recognize which compounds with the two fixed components, across the full breadth of recited Z' scaffolds, irreversibly bind BTK. FWD 32–42. Rather than identifying legal error, PO’s Request simply revisits factual issues already considered and rejected by the Board. But even as a factual challenge, PO identifies no error.

First, despite the specification’s disclosure of only one Z' scaffold that irreversibly binds BTK (ibrutinib’s specific biaryl structure), PO contends that there is support for the broad class of at least millions of Z' scaffolds claimed because the

kinase active site is highly conserved, and the POSA would combine the specification's disclosure with Z' scaffolds from non-BTK prior art kinase inhibitors, and from those "would have known the structures for forming hydrogen bonds." Req. 5, 9–10. That assertion is both legally insufficient and factually unsupported by the record. As the Board explained, "a mere wish or plan for obtaining the claimed invention is not adequate written description." FWD 41; *see also Rivera v. ITC*, 857 F.3d 1315, 1322 (Fed. Cir. 2017) ("The knowledge of ordinary artisans may . . . not [be used] to teach limitations that are not in the specification, even if those limitations would be rendered obvious by the disclosure in the specification."). Moreover, even were it proper to look to non-BTK art, there is no evidence in the record that *any* non-biaryl Z' scaffold from a pre-priority kinase inhibitor would bind BTK. *See* Paper 29 at 8–9 & n.4; Paper 46 at slides 69–82; Paper 47 at 25:15–32:21, 84:15–19, 102:23–103:10 (PO counsel unable to identify any such structure).

Second, unable to retreat to the prior art, PO ironically resorts to Petitioner's post-priority invention of zanubrutinib to demonstrate the feasibility of diverse Z' scaffolds—belying its repeated implications that zanubrutinib is a copy of ibrutinib. *Compare* Req. 10–11, *with id.* at 2, 15. As the Board found, zanubrutinib is not a copy of ibrutinib, as it contains a non-biaryl Z' scaffold (among other differences, including the types of exocyclic hydrogen-bonding substituents). FWD 10, 24–28,

36, 44. And the patent “does not describe any BTKI resembling” zanubrutinib, FWD 34, which was first disclosed in 2015, long after the 2011 filing date.

Lastly, the Marcotte reference (and the availability of modeling) does not support adequate written description, for reasons explained by the Board, including that modeling was not predictive of BTK binding (as both parties’ experts agreed). FWD 28, 38–41. In the words of PO’s Request, at most, those tools “would have been helpful and effective in *developing* iBTKIs,” Req. 5, 11 (emphasis added), joining its expert in acknowledging, *sotto voce*, that they cannot show that PO *already possessed* those inhibitors, *see, e.g.*, Ex. 1117, 34:14–35:5.

II. The Board Properly Applied *Idenix*, *PureCircle*, and *UroPep*.

As fully analyzed by the Board, this case is materially similar to *Idenix* and *PureCircle USA Inc. v. SweeGen, Inc.*, 2024 WL 20567 (Fed. Cir. Jan. 2, 2024), and materially different from *Erfindergemeinschaft UroPep GbR v. Eli Lilly & Co.*, 276 F. Supp. 3d 629 (E.D. Tex. 2017), *aff’d* 739 Fed. App’x 643 (Fed. Cir. 2018). FWD 35–36, 41–44. PO’s renewed arguments about those cases do not show legal error.

PO primarily contends that the relevant field looked more like the mature, developed one in *UroPep* than the fields in *Idenix* or *PureCircle*, again highlighting that kinase active sites were known to be conserved. Req. 11–14. But as the Board correctly observed, *UroPep*’s reasoning hinged on the fact that there were *hundreds* of known PDE5 inhibitors. FWD 43; *see also Juno Therapeutics, Inc. v. Kite*

Pharma, Inc., 10 F.4th 1330, 1339 n.3 (Fed. Cir. 2021) (noting the hundreds of known inhibitors in *UroPep* were also identified in the patent “by chemical name and structural drawings”). That is simply not the case here. The only working structure in the patent is ibrutinib (and its isomers), which PO conceded is not representative of the genus, FWD 30, and the Board found that *years later* “by 2021, there were only six known iBTKis with a 5:6 heterocyclic ring system,” FWD 43. And, once more, even were it proper to look beyond known BTK inhibitors due to the conserved active site (as no law permits, much less endorses), PO has identified *no* pre-priority non-biaryl Z’ scaffold that would bind BTK. *See supra* pp. 2–3.

III. Disturbing The Board’s Decision Would Stifle Innovation.

Finally, contrary to PO’s assertions and *ad hominem* attacks, Req. 14–15, the Board’s Decision promotes—not discourages—innovation. As the Board found, “the Challenged Claims ‘merely recite a description of the problem to be solved while claiming all solutions to it and . . . leaving it to the pharmaceutical industry to complete an unfinished invention.’” FWD 42 (quoting *PureCircle*, 2024 WL 20567, at *4). Petitioner solved the problem by inventing zanubrutinib, which has proven superior to PO’s ibrutinib in a head-to-head clinical trial. Paper 2 at 22. The Board’s decision prevents PO from “preempt[ing] the future before it . . . arrived.” *Ariad Pharms., Inc. v. Eli Lilly & Co.*, 598 F.3d 1336, 1353–54 (Fed. Cir. 2010) (en banc). For the foregoing reasons, Director Review should be denied.

Dated: June 6, 2025

Respectfully submitted,

/David I. Berl/

David I. Berl (Reg. No. 72,751)
Kevin Hoagland-Hanson (*pro hac vice*)
WILLIAMS & CONNOLLY LLP
680 Maine Avenue SW
Washington, D.C. 20024
T: 202-434-5000
F: 202-434-5029

CERTIFICATE OF SERVICE

Pursuant to 37 C.F.R. § 42.6(e), the undersigned certifies that on June 6, 2025,
a true and correct copy of the foregoing **Authorized Response to Director Review
Request** was sent via electronic mail, upon the following:

David P. Frazier
Michael A. Morin
Latham & Watkins LLP
555 Eleventh Street, NW, Ste. 1000
Washington, D.C. 20004-1304
Telephone: 202.637.2200
david.frazier@lw.com
michael.morin@lw.com

Brenda L. Danek
Latham & Watkins LLP
330 North Wabash Avenue, Suite 2800
Chicago, IL 60611
Telephone: 312.876.7646
brenda.danek@lw.com
AbbVieBeiGene.LWteam@lw.com

/David I. Berl/

David I. Berl (Reg. No. 72,751)