

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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MILTENYI BIOMEDICINE GmbH and MILTENYI BIOTEC INC.,

Petitioners,

v.

THE TRUSTEES OF THE UNIVERSITY OF PENNSYLVANIA,

Patent Owner.

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Case No.: IPR2022-00853

U.S. Patent No. 9,464,140

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**PETITIONERS' REPLY TO REQUEST FOR REHEARING**

## TABLE OF CONTENTS

	<b>Page</b>
I. Erroneous Interpretation of Law Concerning Reasonable Expectation of Success For Methods of Pharmaceutical Treatment .....	2
II. Irreconcilable Inconsistency With Institution In Related IPR2022-00855 .....	3
III. Erroneous Application of <i>Advanced Bionics</i> .....	4

The Board’s Decision is an outlier: declining to institute on a method of treatment claim when the prior art disclosed a clinical trial using the claimed composition according to the claimed method. This was a situation where “there was little left to do but to confirm that the strategy suggested by the various prior art references would work.” *Genzyme Therapeutic Prod. v. Biomarin Pharm.*, 825 F.3d 1360, 1374 (Fed. Cir. 2016). Patent Owner has failed to point to any Federal Circuit case with similar facts and a finding of non-obviousness.

Patent Owner attempts to characterize the challenged claim as a “new method of treatment.” Resp. at 11. It is not. The reference CART-19 Clinicaltrials.gov taught using the claimed composition (Campana) in a cancer patient population with a dose that practices the challenged claims. Claim 1 requires nothing else, so there is no “new method of treatment” here. Patent Owner did nothing more than report the results of a prior-art clinical trial that practiced the claimed method.

*OSI Pharms. v. Apotex*, 939 F.3d 1375 (Fed. Cir. 2019) does not support a finding of non-obviousness. In *OSI*, there was no disclosure of details for a clinical trial practicing the claimed method. Nor was there in-vitro data suggesting the method claimed: treating non-small cell lung cancer (NSCLC). That is the opposite of the facts here, where the challenged claims broadly cover *all* cancers, and the prior art disclosed successful in-vitro data for leukemia cancer cells.

The Board's Decision is also an outlier in its discretionary denial of Ground 3: denying institution when the reference (Milone) was overcome only because of a claim limitation not found in the challenged claim 1 here. Petitioner's Request for Rehearing identified two decisions holding that Section 325(d) denial was inappropriate in this scenario. Patent Owner has pointed to no contrary case law.

**I. Erroneous Interpretation of Law Concerning Reasonable Expectation of Success For Methods of Pharmaceutical Treatment**

It is undisputed that in *OSI*, there was lack of in-vitro data showing success in *treating the disease that was claimed*. Not so here.

In *OSI*, there was in-vitro efficacy data for erlotinib against certain cancers other than NSCLC. *OSI*, 939 F.3d at 1380. But there was no in-vitro data against NSCLC cancer cells. *Id.* at 1385. The Federal Circuit held, on that basis, there was no reasonable expectation of success for the challenged, narrow claims directed to NSCLC treatment: “[H]ope that a potentially promising drug will treat a *particular* cancer is not enough to create a reasonable expectation of success in a highly unpredictable art such as this.” *Id.*; *id.* at 1384 (noting that “the lack of erlotinib-*NSCLC efficacy data* or other indication of success [was] significant”). Here, claim 1 broadly claims “anti-tumor effect[.]” and is not limited to any particular cancer. And the successful prior-art in-vitro data was for leukemia, Decision at 21, indisputably falling within the scope of claim 1.

The *Genzyme* case, in contrast, is factually on point and controlling for reasons discussed in the Request at pages 5-7 (and previously in the Petition at page 37). In Response, Patent Owner mischaracterizes the “record” in *Genzyme* as showing “no failure—clinical or otherwise.” Resp. at 5. That is not correct. In *Genzyme*, there were decades of failed efforts to treat Pompe disease with enzyme replacement therapy. *Genzyme*, 825 F.3d at 1365 (acknowledging that “research efforts were focused on treating the disease through enzyme replacement therapy” but those “early efforts failed”); *Genzyme*, IPR 2013-00534, Paper 81 at 20 (“The evidence and arguments cited by Patent Owner highlight the difficulties faced in the development of an enzyme replacement therapy for Pompe disease over a period of decades.”).

Despite the failures, the Federal Circuit held that because there was successful in-vitro data and a proposed clinical trial, no patent could be issued for merely reporting the trial results: “there was little left to do but to confirm that the strategy suggested by the various prior art references would work.” *Genzyme*, 825 F.3d at 1374. That is the exact situation here.

## **II. Irreconcilable Inconsistency With Institution in Related IPR2022-00855**

Patent Owner argues that there is no inconsistency with the institution decision in IPR2022-00855 because the Board only found it obvious to “make the compound and put it on a shelf.” Resp. at 12. That is not what the Board found.

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