

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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MYLAN PHARMACEUTICALS INC.,  
MSN LABORATORIES PRIVATE LTD.,  
and MSN PHARMACEUTICALS INC.,  
Petitioners,

v.

BAUSCH HEALTH IRELAND LIMITED,  
Patent Owner.

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Case IPR2022-00722<sup>1</sup>  
Patent 7,041,786

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**PETITIONERS' REPLY TO PATENT OWNER RESPONSE**

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<sup>1</sup> IPR2023-00016 has been joined with this proceeding.

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## I. INTRODUCTION

Making and using [Glu<sup>3</sup>]-uroguanylin<sup>2</sup> would have been obvious before the critical date. Bausch's Patent Owner Response (POR) counters with legally- and factually-erroneous arguments. The legally-proper standard does not require proving uroguanylin was the only promising lead compound or Glu<sup>3</sup> was the only obvious substitution. Bausch also fails to show a POSA would have been "led away" from modifying uroguanylin; instead pursuing the toxic potency and pH insensitivity of the pathogenic, heat-stable *E. coli* enterotoxins (STs). Bausch's arguments ignore the literature and skill in the art, misconceive obviousness law, and thus should be rejected.

## II. ARGUMENT

The POR presents no independent arguments against Grounds 2-4 (claims 2-6), instead they stand or fall with claim 1. POR, 67. Claim 1 recites a peptide consisting of amino-acid sequence SEQ ID NO: 20, which is [Glu<sup>3</sup>]-uroguanylin. For claim 1, Bausch first argues a POSA would not have selected uroguanylin as lead compound because enterotoxins were more potent and interconverting topoisomers allegedly made uroguanylin unattractive. POR, i. Bausch next argues a POSA had no reason to substitute Asp<sup>3</sup> with Glu<sup>3</sup>. POR, ii. Bausch last alleges

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<sup>2</sup> Human unless otherwise indicated.

unexpected, superior results counter reasonable expectation of success. POR, iii. Each Bausch argument is wrong.

**A. Bausch’s Arguments Are Legally Erroneous.**

Bausch implies claim 1 recites limitations (e.g., pathogenic potency or no topoisomerism) that are clearly absent. *E.g.*, POR, i-ii, 2, 26, 38 (arguing reasonable expectation of success required re same). Claim 1 merely recites [Glu<sup>3</sup>]-uroguanylin peptide sequence, not any level of potency or topoisomerism. EX1063, ¶¶114-117; EX1060, 20:3-14 (“Claim 1 is for a peptide of the given sequence, and that’s all”), 111:17-112:13, 108:22-110:15 (SEQ ID NO. 20 “just gives you the linear sequence”). Bausch’s arguments are not commensurate with its claims.

Reasonable expectation of success is only required for what is claimed. *Intelligent Bio-Systems v. Illumina Cambridge*, 821 F.3d 1359, 1367 (Fed. Cir. 2016). Yet a POSA could make [Glu<sup>3</sup>]-uroguanylin easily using known methods. *See, e.g.*, Pet., 21-22, EX1002, ¶¶66-67; Pet., 24, EX1002, ¶¶130-31; Pet., 35-36; EX1005, 3:8-45; EX1002, ¶¶130-31. This evidence is unrebutted. EX1060, 130:9-20, 126:10-128:4; EX1063, ¶¶8, 115. Bausch’s reasonable-expectation arguments are wrong.

Bausch improperly requires a POSA to choose a synthetic enterotoxin over a synthetic uroguanylin, arguing a POSA would only maximize potency and

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