

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

---

**BEFORE THE PATENT TRIAL AND APPEAL BOARD**

---

**PRAXAIR DISTRIBUTION, INC.**

**Petitioner**

**v.**

**INO THERAPEUTICS, INC. d/b/a IKARIA, INC.**

**Patent Owner**

**PETITION FOR *INTER PARTES* REVIEW OF U.S. PATENT NO. 8,846,112  
PURSUANT TO §§ 35 U.S.C. 311-319 AND 37 C.F.R. § 42**

**Mail Stop PATENT BOARD**  
Patent Trial and Appeal Board  
United States Patent and Trademark Office  
PO Box 1450  
Alexandria, Virginia 22313-1450

## Table of Contents

I.	INTRODUCTION .....	1
II.	OVERVIEW OF THE '112 PATENT .....	1
A.	Summary of the '112 Patent.....	1
B.	Summary of the Prosecution History of the '112 Patent .....	2
III.	BACKGROUND OF THE TECHNOLOGY .....	4
IV.	GROUNDS FOR STANDING (37 C.F.R. § 42.104(a)).....	6
V.	PAYMENT OF FEES (37 C.F.R. § 42.103) .....	6
VI.	MANDATORY NOTICES (37 C.F.R. § 42.8).....	6
A.	Real Parties-In-Interest.....	6
B.	Related Matters.....	7
C.	Lead and Backup Counsel (37 C.F.R. § 42.8(b)(3)) and Service Information (37 C.F.R. § 42.8(b)(4)) .....	7
VII.	PERSON OF SKILL IN THE ART AND STATE OF THE ART .....	7
VIII.	CLAIM CONSTRUCTION .....	8
IX.	STATEMENTS OF THE PRECISE RELIEF REQUESTED AND THE REASONS THEREFORE (37 C.F.R. § 42.22(a) and 42.104(b)) .....	8
A.	Ground 1: Claims 1-19 Are Unpatentable Under 35 U.S.C. § 103(a) As Obvious Over <i>Bernasconi</i> in View of <i>INOMAX label</i> , <i>Loh</i> , and <i>Goyal</i> .....	11
1.	Overview of the Prior Art .....	11
2.	Motivation to Combine .....	14
3.	Independent Claims 1, 7, 12 and 14.....	19
(a)	Part (a) of Independent Claims 1, 7, 12 and 14.....	19
(i)	Part (a) of Independent Claims 1 and 7.....	19

Petition for *Inter Partes* Review of U.S. Patent No. 8,846,112

(ii)	Part (a) of Independent Claim 12 .....	19
(iii)	Part (a) of Independent Claim 14 .....	19
(b)	Part (b) of Independent Claims 1, 7, 12 and 14.....	20
(i)	Part (b) of Independent Claims 1 and 7 .....	20
(ii)	Part (b) of Independent Claims 12 and 14 .....	21
(c)	Part (c) of Independent Claims 1, 7, 12 and 14.....	21
(d)	Part (d) of Independent Claims 1, 7, 12 and 14.....	21
(i)	Part (d) of Independent Claims 1, 12 and 14 .....	21
(ii)	Part (d) of Independent Claim 7 .....	24
4.	Dependent Claims 2-6, 8-11, 13, 15-19.....	25
(a)	Dependent Claims 2, 5, 6, 13 and 15.....	25
(b)	Dependent Claim 8 .....	27
(c)	Dependent Claims 3, 9, 16 and 18.....	28
(i)	Dependent Claim 3.....	28
1.	Part (a) of Dependent Claim 3.....	29
2.	Part (b) of Dependent Claim 3.....	30
3.	Part (c) of Dependent Claim 3.....	30
4.	Parts (d) and (3) of Dependent Claim 3 .....	31
(ii)	Dependent Claims 16 and 18 .....	31
(iii)	Dependent Claim 9.....	33
1.	Part (a) of Dependent Claim 9.....	33
2.	Part (b) of Dependent Claim 9.....	34
3.	Part (c) of Dependent Claim 9.....	34

Petition for *Inter Partes* Review of U.S. Patent No. 8,846,112

4.	Part (d) of Dependent Claim 9.....	34
(d)	Dependent Claims 4, 17 and 19.....	35
(i)	Dependent Claim 4.....	35
1.	Parts (a)-(d) of Dependent Claim 4 .....	35
2.	Parts (e) and (f) of Dependent Claim 4 .....	36
3.	Parts (g) and (h) of Dependent Claim 4 .....	37
(ii)	Dependent Claims 17 and 19 .....	38
1.	Parts (a)-(c) of Claims 17 and 19 .....	39
2.	Parts (d) and (e) of Claims 17 and 19.....	39
3.	Parts (f) and (g) of Claims 17 and 19 .....	40
(e)	Dependent Claims 10 and 11.....	41
B.	Ground 2: Independent Claims 1-19 Are Unpatentable Under 35 U.S.C. § 103(a) As Obvious Over <i>Ichinose</i> in View of <i>INOMAX</i> <i>label, Neonatal Group, Loh, and Goyal</i> .....	42
1.	Overview of Prior Art .....	42
2.	Motivation to Combine .....	43
3.	Independent Claims 1, 7, 12 and 14.....	46
(a)	Parts (a)-(c) of Independent Claims 1, 7, 12 and 14.....	46
(b)	Part (d) of Independent Claims 1, 7, 12 and 14.....	47
(i)	Part (d) of Independent Claims 1, 12 and 14 .....	47
(ii)	Part (d) of Independent Claim 7 .....	48
4.	Dependent Claims 2-6, 8-11, 13, 15-19.....	49
(a)	Dependent Claims 2, 5, 6, 13 and 15.....	49
(b)	Dependent Claim 8 .....	50

Petition for *Inter Partes* Review of U.S. Patent No. 8,846,112

(c)	Dependent Claims 3, 9, 16 and 18.....	51
(i)	Dependent Claim 3.....	51
1.	Part (a) of Claim 3 .....	51
2.	Part (b) of Claim 3 .....	51
3.	Part (c) of Claim 3 .....	52
4.	Parts (d) and (e) of Claim 3 .....	52
(ii)	Dependent Claims 16 and 18 .....	53
(iii)	Dependent Claim 9.....	54
1.	Part (a) of Claim 9 .....	54
2.	Part (b) of Claim 9 .....	54
3.	Part (c) of Claim 9 .....	55
4.	Part (d) of Claim 9 .....	55
(d)	Dependent Claims 4, 17 and 19.....	56
(i)	Dependent Claim 4.....	56
1.	Parts (a) through (d) of Claim 4 .....	56
2.	Parts (e) and (f) of Claim 4.....	57
3.	Parts (g) and (h) of Claim 4.....	58
(ii)	Dependent Claims 17 and 19 .....	58
1.	Parts (a) through (c) of Claims 17 and 19 ....	58
2.	Parts (d) and (e) of Claims 17 and 19.....	59
3.	Parts (f) and (g) of Claims 17 and 19 .....	59
(e)	Dependent Claims 10 and 11 .....	59
X.	CONCLUSION.....	60

# Explore Litigation Insights

Docket Alarm provides insights to develop a more informed litigation strategy and the peace of mind of knowing you're on top of things.

## Real-Time Litigation Alerts



Keep your litigation team up-to-date with **real-time alerts** and advanced team management tools built for the enterprise, all while greatly reducing PACER spend.

Our comprehensive service means we can handle Federal, State, and Administrative courts across the country.

## Advanced Docket Research



With over 230 million records, Docket Alarm's cloud-native docket research platform finds what other services can't. Coverage includes Federal, State, plus PTAB, TTAB, ITC and NLRB decisions, all in one place.

Identify arguments that have been successful in the past with full text, pinpoint searching. Link to case law cited within any court document via Fastcase.

## Analytics At Your Fingertips



Learn what happened the last time a particular judge, opposing counsel or company faced cases similar to yours.

Advanced out-of-the-box PTAB and TTAB analytics are always at your fingertips.

## API

Docket Alarm offers a powerful API (application programming interface) to developers that want to integrate case filings into their apps.

## LAW FIRMS

Build custom dashboards for your attorneys and clients with live data direct from the court.

Automate many repetitive legal tasks like conflict checks, document management, and marketing.

## FINANCIAL INSTITUTIONS

Litigation and bankruptcy checks for companies and debtors.

## E-DISCOVERY AND LEGAL VENDORS

Sync your system to PACER to automate legal marketing.