UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

ROXANE LABORATORIES., INC., Petitioner

v.

NOVARTIS AG, Patent Owner

Case Not Yet Assigned Patent 9,006,224

DECLARATION OF KENNETH HO-MING YU, M.D., M.SC., IN SUPPORT OF THE PETITION FOR *INTER PARTES* REVIEW OF U.S. PATENT NO. 9,006,224

LARM Find authenticated court documents without watermarks at <u>docketalarm.com</u>.

DOCKET

Δ

TABLE OF CONTENTS

| I. | INTRODUCTION | | |
|------|---|--|----|
| II. | QUALIFICATIONS AND EXPERIENCE | | .3 |
| III. | SUM | MARY OF OPINIONS | .5 |
| IV. | PERS | SON OF ORDINARY SKILL IN THE ART | .6 |
| V. | LEG | AL STANDARDS | .7 |
| VI. | TECHNICAL BACKGROUND AND STATE OF THE ART | | 8 |
| | A. | The Biology Of Pancreatic Neuroendocrine Tumors | 8 |
| | В. | Everolimus As A Treatment For PNET | 9 |
| | C. | The Prior Art Taught That Everolimus Has Enhanced Solubility And Improved Pharmacokinetics Compared To Rapamycin1 | 2 |
| VII. | OPINIONS13 | | |
| | A. | Claims 1 And 2 Of The '224 Patent Are Obvious Over The '541 Publication In View Of Tabernero1 | 3 |
| | B. | Claims 1 And 2 Of The '224 Patent Are Obvious Over von Wichert In View Of Dutcher, The '772 Patent And Tabernero1 | 5 |
| | | | |

I. INTRODUCTION

1. I, Kenneth Ho-ming Yu, M.D., M.Sc., have personal knowledge of the facts set forth in this Declaration and am competent to testify to the same.

I have been retained by counsel for Roxane (Roxane Laboratories,
Inc.) in this proceeding regarding U.S. Patent No. 9,006,224 ("the '224 patent").

3. I hereby offer this Declaration in support of the petition for *inter partes* review of the '224 patent.

4. A list of materials that I have reviewed is attached hereto as Attachment A.

II. QUALIFICATIONS AND EXPERIENCE

5. I have been a licensed medical doctor since 1999 and am board certified in Medical Oncology. I currently serve as an Assistant Attending Physician at Memorial Hospital for Cancer & Allied Diseases in the Department of Medicine, NY, and Assistant Member of Memorial Sloan Kettering Cancer Center, NY. I also serve as an Assistant Professor at Weill Cornell Medical College, NY; Adjunct Assistant Professor at the University of Pennsylvania, Philadelphia; and Clinical Fellow at Cold Spring Harbor Laboratory, Cold Spring Harbor, NY.

6. I graduated from Harvard University, Cambridge in 1995 and completed my M.D. at John Hopkins University, Baltimore in 1999. I completed an M.Sc. qualification at the University of Pennsylvania, Philadelphia in 2009. 7. I was a Medical Intern at the Hospital of the University of Pennsylvania between 1999-2000, before becoming a Medical Resident at the Hospital of the University of Pennsylvania from 2000-2002. I was a Fellow of Hematology and Oncology at the Hospital of the University of Pennsylvania between 2002-2005.

8. I was an Attending Physician at Abramson Cancer Center in the Division of Hematology-Oncology at the Hospital of the University of Pennsylvania between 2005-2010. I am currently an Assistant Attending Physician at Memorial Hospital for Cancer & Allied Diseases at the Department of Medicine in NYC.

9. I hold several other professional memberships. I am currently a member of the American Society of Clinical Oncology. I have previously been a member of the American Association of Cancer Research, the American Gastroenterology Association and the American Society for Mass Spectroscopy.

10. I have been awarded several honors over my career to date. I was designated magna cum laude with highest honors in 1995 at Harvard University. I was also a Research Scholar at the Institute for Translational Medicine and Therapeutics, University of Pennsylvania in 2005, and received the Bernard L. Schwartz Designated Research Award in Pancreatic Cancer, AGA Foundation for Digestive Health and Nutrition in 2006. I hold various editorial responsibilities in several academic journals including, for example, Gastroenterology, Journal of Gastrointestinal Cancer, Pancreatology, Oncogene, Journal of Surgical Oncology and Cancer Chemotherapy and Pharmacology.

12. I have authored more than 40 journal articles, abstracts, and other presented lectures relating primarily to the diagnosis and treatment of pancreatic cancers and other advanced solid tumors.

13. My research has been directed to various facets of pancreatic cancers, including the development of novel therapeutics and biomarkers in pancreatic ductal adenocarcinoma (PDAC). I am also the principal investigator or co-investigator on a number of clinical trials focused on pancreatic cancer and PNET.

14. My complete Curriculum Vitae is attached as Attachment B.

III. SUMMARY OF OPINIONS

15. It is my opinion for the reasons described below that claims 1 and 2 of the '224 patent would have been obvious to a person of ordinary skill in the art in view of the prior art disclosing at least the following: (1) that everolimus is effective against CA20948 pancreatic cell line which is a rat cell line which can be used as a model for pancreatic neuroendocrine tumors; (2) that 10 mg everolimus is safe and effective against advanced solid tumors; (3) that rapamycin inhibits proliferation in BON cells, a cell line established from human PNET; (4) that

DOCKET A L A R M



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.