

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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MYLAN PHARMACEUTICALS INC.,  
Petitioner,

v.

ASTRAZENECA AB,  
Patent Owner.

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Case IPR2015-01340  
Patent RE44,186

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**PATENT OWNER ASTRAZENECA AB'S EXHIBIT LIST**  
**(as of September 25, 2015)**

<b>Exhibit</b>	<b>Description</b>
Exhibit 2001	Doreen M. Ashworth et al., <i>4-Cyanothiazolidides as Very Potent, Stable Inhibitors of Dipeptidyl Peptidase IV</i> , 6 BIOORG. & MED. CHEM. LETT. 2745 (1996)
Exhibit 2002	David R. Magnin et al., <i>Synthesis of Novel Potent Dipeptidyl Peptidase IV Inhibitors with Enhanced Chemical Stability: Interplay Between the N-Terminal Amino Acid Alkyl Side Chain and the Cyclopropyl Group of <math>\alpha</math>-Aminoacyl-L-cis-4,5-methanoprolinenitrile-Based Inhibitors</i> , 47 J. MED. CHEM. 2587 (2004)
Exhibit 2003	Jeffrey A. Robl & Lawrence G. Hamann, <i>The Discovery of the Dipeptidyl Peptidase-4 (DPP4) Inhibitor Onglyza™: From Concept to Market</i> , in ACCOUNTS IN DRUG DISCOVERY: CASE STUDIES IN MEDICINAL CHEMISTRY 1 (Joel C. Barrish et al. eds., 2011)
Exhibit 2004	ASTRAZENECA ANNUAL REPORT AND FORM 20-F INFORMATION 2014, available at <a href="http://www.astrazeneca.com/annualreport2014">www.astrazeneca.com/annualreport2014</a>
Exhibit 2005	Jens J. Holst & Carolyn F. Deacon, <i>Inhibition of the Activity of Dipeptidyl-Peptidase IV as a Treatment for Type 2 Diabetes</i> , 47 DIABETES 1663 (1998)
Exhibit 2006	Kathleen Aertgeerts et al., <i>Crystal Structure of Human Dipeptidyl Peptidase IV in Complex with a Decapeptide Reveals Details on Substrate Specificity and Tetrahedral intermediate Formation</i> , 13 PROTEIN SCI. 412 (2004)
Exhibit 2007	K. Augustyns et al., <i>The Unique Properties of Dipeptidyl-Peptidase IV (DPP IV / CD26) and the Therapeutic Potential of DPP IV Inhibitors</i> , 6 CURR. MED. CHEM. 311 (1999)
Exhibit 2008	George R. Flentke et al., <i>Inhibition of Dipeptidyl Aminopeptidase IV (DP-IV) by Xaa-boroProdiptides and Use of These Inhibitors to Examine the Role of DP-IV in T-cell Function</i> , 88 PROC. NAT'L ACAD. SCI. 1556 (1991)

Exhibit	Description
Exhibit 2009	Robert P. Pauly et al., <i>Improved Glucose Tolerance in Rats Treated With the Dipeptidyl Peptidase IV (CD26) Inhibitor Ile-Thiazolidide</i> , 48 METABOLISM 385 (1999)
Exhibit 2010	Hans-U Demuth et al., Abstract, <i>Single Dose Treatment of Diabetic Patients by the DP IV Inhibitor P32/98</i> , 49 DIABETES 413-P (2000)
Exhibit 2011	U.S. Patent No. 5,939,560
Exhibit 2012	Paul Rothenberg et al., Abstract, <i>Treatment with a DPP-IV Inhibitor, NVP-DPP728, Increases Prandial Intact GLP-1 Levels and Reduced Glucose Exposure in Humans</i> , 49 DIABETES 160-OR (2000)
Exhibit 2013	U.S. Patent No. 6,166,063
Exhibit 2014	Ligaya M. Simpkins et al., <i>Potent Non-Nitrile Dipeptidic Dipeptidyl Peptidase IV Inhibitors</i> , 17 BIOORG. & MED. CHEM. LETT. 6476 (2007)
Exhibit 2015	<i>Pioneer and Analogue Drugs</i> , in ANALOGUE-BASED DRUG DISCOVERY III 3 (János Fischer et al. eds., 2013)
Exhibit 2016	Thomas E. Hughes et al., <i>NVP-DPP728: (1-[[[2-[(5-Cyanopyridin-2-yl)amino ]ethyl]amino ]acetyl]-2-cyano-(S)-pyrrolidine ), a Slow-Binding Inhibitor of Dipeptidyl Peptidase IV</i> , 38 BIOCHEM. 11597 (1999)
Exhibit 2017	Coralie Nguyen et al., <i>Specific and Irreversible Cyclopeptide Inhibitors of Dipeptidyl Peptidase IV Activity of the T-Cell Activation Antigen CD26</i> , 41 J. MED. CHEM. 2100 (1998)
Exhibit 2018	Aiyng Wang et al., <i>Potency, Selectivity and Prolonged Binding of Saxagliptin to DPP4: Maintenance of DPP4 Inhibition by Saxagliptin In Vitro and Ex Vivo When Compared to a Rapidly-Dissociating DPP4 Inhibitor</i> , 12 BMC PHARM. 1 (2012)

<b>Exhibit</b>	<b>Description</b>
Exhibit 2019	Defendants Joint Initial Invalidity Contentions Regarding U.S. Patent No. RE44,186
Exhibit 2020	M.A. Nauck et al., <i>Effects of Subcutaneous Glucagon-Like Peptide 1(GLP-1 [7–36 Amide]) in Patients with NIDDM</i> , 39 DIABETOLOGIA 1546 (1996)
Exhibit 2021	Nancy L. Thompson et al., <i>A Fischer Rat Substrain Deficient in Dipeptidyl Peptidase IV Activity Makes Normal Steady-State RNA Levels and an Altered Protein: Use as a Liver-Cell Transplantation Model</i> , 273 J. BIOCHEM. 497 (1991)
Exhibit 2022	Int'l Pub. No. WO 95/15309
Exhibit 2023	U.S. Patent No. 6,011,155
Exhibit 2024	Von R. Hiltmann et al., <i>2-Acylaminopyridin-Derivate mit morphinagonistischer und -antagonistischer Wirksamkeit</i> , 24 ARZNEIM. FORSCH. 584 (1974)
Exhibit 2025	U.S. Patent No. 4,591,598
Exhibit 2026	German Patent Pub. No. 25 21 895 A1
Exhibit 2027	U.S. Patent No. 3,325,478
Exhibit 2028	Stephen Hanessian et al., <i>Probing the Importance of Spatial and Conformational Domains in Captopril Analogs for Angiotensin Converting Enzyme Activity</i> , 8 BIOORG. & MED. CHEM. LETT. 2123 (1998)
Exhibit 2029	Koert Gerzon et al., <i>The Adamantyl Group in Medicinal Agents I. Hypoglycemic N-Arylsulfonyl-N'adamantylureas</i> , 6 J. MED. CHEM. 760 (1963)
Exhibit 2030	F. R. Rubio et al., <i>Urinary Metabolites of Rimantadine in Humans</i> , 16 DRUG METABOLISM & DISPOSITION 773 (1988)

Exhibit	Description
Exhibit 2031	Gunter Fischer et al., <i>The Conformation Around the Peptide Bond Between the P1- And P2-Positions Is Important for Catalytic Activity of Some Proline-Specific Proteases</i> , 742 BBA 452 (1983)
Exhibit 2032	U.S. Patent No. 4,954,158
Exhibit 2033	Masahiro Yoshioka et al., <i>Role of Rat Intestinal Brush-Border Membrane Angiotensin-Converting Enzyme in Dietary Protein Digestion</i> , 253 AM. J. PHYSIOL. G781 (1987)
Exhibit 2034	German Patent Pub. No. 3324263 A1
Exhibit 2035	Stephen Hanessian et al., <i>The Stereocontrolled Synthesis of Enantiopure <math>\alpha</math>-Methano Heterocycles and Constrained Amino Acid Analogs</i> , 37 TETRAHEDRON LETT. 8967 (1996)
Exhibit 2036	Caplus Records for German Patent Pub. No. 3324263 A1
Exhibit 2037	Roberto Pellicciari et al., <i>Synthesis of All Four Diastereoisomers of 4-(Carboxymethyl)proline, a Conformationally Constrained Analogue of 2-Aminoadipic Acid</i> , 1 J. CHEM. SOC. 1251 (1995)
Exhibit 2038	Viacheslav V. Tverezovsky et al., <i>Synthesis of (2S, 3R, 4S)-3,4-Methanoproline and Analogues by Cyclopropylidene Insertion</i> , 53 TETRAHEDRON 14773 (1997)
Exhibit 2039	Frank L. Switzer et al., <i>Synthesis of (4)-2,3-Methanoproline: A Novel Inhibitor of Ethylene Biosynthesis</i> , 45 TETRAHEDRON 6091 (1989)
Exhibit 2040	Alain Hercouet et al., <i>First Asymmetric Synthesis of (-)-(2S, 3R)-Methanoproline</i> , 7 TETRAHEDRON: ASYMMETRY 1267 (1996)

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