Seed IP

Eric A. Harwood, Ph.D.

PARTNER

EDUCATION

University of Washington
School of Law
J.D. 2009

University of Washington
Organic Chemistry
Ph.D. 1999

University of Washington
Organic Chemistry
M.S. 1997

University of California, Davis
Chemistry
B.S. 1993

INDUSTRIES

Biotechnology
Chemistry
Medical Devices
Pharmaceuticals

PRACTICES

Patent
Strategic Counseling

BAR ADMISSIONS

Washington
United States Patent and Trademark Office

BACKGROUND

Eric Harwood is the Chair of Seed's Chemistry and Biotechnology Group. His practice focuses on chemical, pharmaceutical, and life science patent prosecution, strategy, and diligence matters. Eric earned a B.S. in Chemistry from the University of California at Davis (summa cum laude), and M.S. and Ph.D. degrees in Organic Chemistry from the University of Washington in Seattle. He received a J.D. from the University of Washington School of Law, where he now serves as an Adjunct Professor.

HONORS AND AWARDS

- Listed in *The Best Lawyers in America*®, 2022-2026
- *The Best Lawyers in America*® Lawyer of the Year Award– Biotechnology and Life Sciences Practice, 2025
- Selected to *Washington Super Lawyers*®, 2012

EXPERIENCE

Eric advises clients in patent matters in a wide variety of chemical industries, including early-stage drug candidates and FDA-approved products, nanostructured composite materials, heterogeneous catalysts and electroplated materials. He has successfully prosecuted Orange Book listed patents and assists clients in licensing and acquisition matters valued in the hundreds of millions of dollars in the pharmaceutical, material science, and petrochemical industries. Eric especially enjoys understanding his client's business objectives and then applying his expertise and experience in both patent law and chemistry to ensure those objectives are met. Prior to his career in law, Eric spent eight years working as both a medicinal and process chemist at small and multi-national pharmaceutical companies, where he designed and synthesized antibacterial, antiviral and kinase inhibitor drug candidates.

AFFILIATIONS

Eric is a member of the Washington State Bar and is registered to practice before the U.S. Patent and Trademark Office. He is a faculty member of the University of Washington School of Law where he teaches the Law School's course on patent application preparation and prosecution. Eric is a member of the Washington State Patent Law Association, the American Chemical Society, and Life Science Washington. He volunteers for the local Juvenile Diabetes Research Foundation (JDRF), and is passionate about finding a cure and better treatments for those living with Type 1 diabetes.

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SELECTED PUBLICATIONS

Zhu, S., Harwood, E., Cai, S., Shang, X., Galvin, G., Jin, L., Yeung, A., Diaz, B., Zheng, M., Ryckman, D., "The Chemical Development of CHIR-258" *Chimia* 60:584-592, 2006.

Edfeldt, F.N.B.; Harwood, E.A.; Sigurdsson, S.Th.; Hopkins, P.B.; Reid, B.R. "Solution Structure of a Nitrous Acid Induced DNA Interstrand Cross-Link" *Nuc. Acid. Res.* 32:2785-2794, 2004.

Edfeldt, F.N.B.; Harwood, E.A.; Sigurdsson, S.Th.; Hopkins, P.B.; Reid, B.R. "Sequence Context Effect on the Structure of Nitrous Acid Induced DNA Interstrand Cross-Links" *Nuc. Acid. Res.* 32:2795-2801, 2004.

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Okonogi, T.M.; Alley, S.C.; Harwood, E.A.; Hopkins, P.B.; Robinson, B.H. "Phosphate Backbone Neutralization Increases Duplex DNA Flexibility: A Model for Protein Binding" *Proc. Nat. Acad. Sci.* 99:4156-4160, 2002.

Harwood, E.A.; Sigurdsson, S.Th.; Hopkins, P.B. "Chemical Synthesis of Cross-Link Lesions Found in Nitrous Acid Treated DNA: A General Method for the Preparation of N2-Substituted 2'-Deoxyguanosines" *J. Org. Chem.* 65:2959-2964, 2000.

Harwood, E.A.; Sigurdsson, S.Th.; Edfelt, N.B.F.; Reid, B.R.; Hopkins, P.B. "Chemical Synthesis and Preliminary Structural Characterization of a Nitrous Acid Interstrand Cross-Linked Duplex DNA" *J. Am. Chem. Soc.* 121:5081-5082, 1999.

Kim, C.U.; McGee, L.R.; Krawczyk, S.H.; Harwood, E.A.; Harada, Y.; Swaminathan, S.; Bischofberger, N.; Chen, M.S.; Cherrington, J.M.; Xiang, S.F.; Griffen, L.; Cundy, K.C.; Lee, A.; Yu, B.; Gulnik, S.; Erickson, J.W. "New Series of Potent, Orally Bioavailable, Non-Peptidic Cyclic Sulfones as HIV-1 Protease Inhibitors" *J. Med. Chem.* 39:3431-3434, 1996.

Casalnuovo, J.C.; Scott, R.W.; Harwood, E.A.; Schore, N.E. "First Example of Reversal of Normal Stereoselectivity in the Intramolecular Pauson-Khand Reaction" *Tetrahedron Lett.* 35:1153-1156, 1994.

PATENTS

Cai, S.; Chou, J.; Harwood, E.; Heise, C.; Machajewski, T.; Ryckman, D.; Shang, X.; Wiesmann, M.; Zhu, S. Inhibition of FGFR3 and Treatment of Mulitple Myeloma. U.S. Pub., No. US2005/261307.

Cai, S.; Chou, J.; Harwood, E.; Heise, C.; Machajewski, T.; Ryckman, D.; Shang, X.; Wiesmann, M.; Zhu, S. Preparation of Benzimidazole Quinolinones for Inhibiting FGFR3 and Treating Multiple Myeloma. PCT Pub. No., WO/2005/047244.

Cai, S.; Chou, J.; Harwood, E.; Ryckman, D.; Shang, X.; Zhu, S.; Machajewski, T. Process for Preparation of Benzimidazolylquinolones by Reaction of Aminobenzonitriles with Benzimidazolylacetates. PCT Pub. No., WO/2005/046590.

Cai, S.; Chou, J.; Harwood, E.; Machajewski, T.; Ryckman, D.; Shang, X.; Zhu, S. Preparation of Benzimidazole Quinolinones and Lactate Salts thereof for Inhibiting Vascular Endothelial Growth Factor Receptor Tyrosine Kinase. PCT Pub. No., WO/2005/046589.

Andersen, N.; Bowman, J.; Erwin, A.; Harwood, E.; Kline, T.; Mdluli, K.; Ng, S.; Pfister, K.; Shawar, R.; Wagman, A. Preparation of Amino Acid Derivatives as Antibacterial Agents. PCT Pub. No., WO/2004/062601.

Machajewski, T.; Hannah, A.; Harwood, E.; Haroldsen, P.; Heise, C.; Samara, E.; Shang, X.; Vora, J.; Zhu, S. Methods of Treating Cancer with a Methylpiperazinyl Benzimidazolyl Quinolinone and Related Methods. PCT Pub. No., WO/2004/043389.