

Wender **Fest** **Symposium** — July 1, 2017 — **Stanford University**



Celebrating nearly 45 years of world-class science from the
Wender Laboratory

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Alumni Sponsors: *Neil Badham, Christopher Bi, Katherine Brighty, Christina Barnes Cooley, Karen Dehnert, Stephen Eck, Michael Filosa, Lars Heumann, Thorsten Kirschberg, Paul McGrane, Mark McMills, Wei Meng, Ben Miller, David Smith, David Sperandio, & Katsuhiko Tomooka.*

SCHEDULE OF EVENTS

Breakfast and Registration.....8:00 – 8:45 AM

Opening Remarks.....8:45 – 9:00 AM
Dave Smith, Johnson & Johnson

First Session.....9:00 – 10:00 AM
Chair: Paul Floreancig, University of Pittsburgh



Scott Sieburth

Professor of Chemistry
Temple University

"Déjà vu in Discovery. Forty years of Fortuosity"



Lauren Sirois

Scientist, Small Molecule Process Chemistry
Genentech, Inc.

*"Process Development for the Multi-Kilogram-Scale
Synthesis of an Active Pharmaceutical Ingredient"*

Morning Break & Poster Session.....10:00 – 10:30 AM

Second Session.....10:30 – 12:00 PM
Chair: Blaise Lipka, Morphic Therapeutic



Katsuhiko Tomooka

Professor - Institute for Materials Chemistry &
Engineering
Kyushu University

"Chemistry of Unnatural Chiral Molecules"

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Marc Scanio

Senior Scientist III
AbbVie

"Nicotinic Acetylcholine Receptor (nAChR) Ligands: Pyrazine and Pyridine $\alpha_4\beta_2$ nAChR Ligands and Azaadamantane $\alpha_4\beta_2/\alpha_7$ Dual nAChR Ligands"



Jennifer Love

Professor of Chemistry & Senior Advisor to the Provost on Women Faculty
University of British Columbia

"Developing Catalytic Reactions One Step at a Time"

Lunch & Poster Session.....12:00 – 1:30 PM

Third Session.....1:30 – 3:00 PM

Chair: Ben Miller, University of Rochester



Richard Taylor

Professor of Chemistry & Biochemistry & Acting Director of the Warren Center for Drug Discovery & Development, University of Notre Dame

"Chemical and Biological Oxidative Processing of Putative Biosynthetic Intermediates"



Daryl Staveness

Postdoctoral Researcher, Department of Chemistry
University of Michigan

"Synthesis of 1-Aminonorbornanes via Visible Light Photoredox Catalysis: Applications in Aniline Bioisosterism"



Christina (Barnes) Cooley

Assistant Professor of Chemistry
Trinity University

"Fluorogenic Polymerization Amplification as a New Platform for Disease Detection"

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Afternoon Break & Poster Session.....3:00 – 3:30 PM

Fourth Session.....3:30 – 5:00 PM
Chair: Philippe Panchaud, Actelion Pharmaceuticals



Travis Williams

Associate Professor of Chemistry
University of Southern California
"Sustainability in the Composites Era, a Catalytic Approach"



Cynthia Jesudason

Group Leader, Receptor Occupancy/PET Ligand Development
Eli Lilly & Company
"PET Tracer Discovery & Development"



Mitch Croatt

Associate Professor of Chemistry
University of North Carolina at Greensboro
"New Reactions and Step-Economical Syntheses: Inspiration from Wender Group Members"

Closing Remarks..... 5:00 – 5:15 PM
Dave Smith, Johnson & Johnson

Poster Session & Reception.....5:15 – 6:30 PM

Dinner Banquet at the Faculty Club.....7:00 – 9:00 PM
After Dinner Speaker: John Brauman



John Brauman

J.G. Jackson & C.J. Wood Professor of
Chemistry, Emeritus
Stanford University

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Poster Titles:

Alphabetical by Title; Presenter Underlined

A Label-Free Optical Biosensor for Influenza Virus Serotyping and Evolutionary Analysis

Benjamin Miller, Hanyuan Zhang, Carole Henry Dunand, Aitor Nogales, Luis Martinez-Sobrido, Patrick Wilson
University of Rochester

A Potent Vancomycin-GR-MoTr Conjugate for the Treatment of Gram-positive ESKAPE Pathogens

Melanie Huttner, Xiaoyu Zang, Alex Antonoplis, Lynette Cegelski, Paul Wender
Stanford University

Bioorthogonal Decaging of Aryl Azides for Prodrug Activation and Chemical Biology

Alan B. Gamble, Siddharth S. Matikonda, Jessica M. Fairhall, Franzisca Fiedler, Suchaya Sanhajariya, Robert Tucker, Sarah Hook, Anna Garden
University of Otago, NZ

Charge-Altering Releasable Transporters (CARTs) for the Delivery and Release of Messenger RNA in Living Animals

Colin McKinlay, Jessica Vargas, Timothy Blake, Jonathan Hardy, Masamitsu Kanada, Christopher Contag, Paul Wender, Robert Waymouth
Stanford University

Closing the Loop on a C₁ Fuel Cycle

Travis Williams
University of Southern California

Computer Modeling to Evaluate Variation in Cesarean Delivery Rates

J. Jeffry Howbert, Alice Marshall, Ellen Kauffman, Vivienne Souter
University of Washington

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Poster Titles (continued):

Alphabetical by Title; Presenter Underlined

Design and Synthesis of Photoactivatable Morpholinos for Probing Vertebrate Development and Neurological Function

Timothy M. Dore, Matthew J. O'Connor, Lindsey L. Johnston, Rebecca E. Ball, A. Tyler Page, Davide Deodato, James D.

Lauderdale

New York University Abu Dhabi

Development of Biomarkers for Sepiapterin Reductase Inhibition and the Correlation with in vivo Analgesic Effect in Pre-Clinical Models of Peripheral Neuropathy

Mark Tebbe, Steven Zicha, Annika Malmberg, Ray Hurst, Kevin Pojasek, Gerhard Koenig

Quartet Medicine

Discovery of Imidazopyridines as CXCR4 Antagonists: Med Chem Efforts towards pre-CANs Chris Bi

Pfizer, Inc.

Efficient Long Term Manufacturing Synthesis of GDC-0853: A Reversible Bruton's Tyrosine Kinase Inhibitor

Francis Gosselin

Genentech

From Organism to Target - Bioactive Discovery Research in the Wessjohann Labs

Ludger Wessjohann

Leibniz Institute of Plant Biochemistry

Kermit Was Wrong...It IS Easy Being Green

Stacey Brenner-Moyer

Rutgers University

Poster Titles (continued):

Alphabetical by Title; Presenter Underlined

Natural Products as Inspiration for Agrochemicals

Brian A. Loy, Kevin Meyer, Beth Lorsbach, Vid Hegde
Dow AgroSciences, LLC

Photoactivation of Biologically Important Amines, Phenols, & Catechols for Studying Neurobiology

Timothy M. Dore
New York University Abu Dhabi

Selective Heteroatom Transfer Reactions Enabled by Organocatalysis

Michael Hilinski, Logan A. Combee, Robert M. B. Dyer, Philip
L. Hahn, Shea L. Johnson, Conor J. Pierce, Balaram Raya,
William G. Shuler, Daoyong Wang
University of Virginia

Synthesis of Fused Polycyclic Ethers

Frank McDonald
Emory University

Synthesis of Highly Active PKC Modulators

Akira Shimizu, Clayton Hardman, Stephen Ho, Matt Jeffreys,
Jack Sloane, Matt Stevens, Ryan Quiroz, Steven Ryckbosch,
Paul Wender
Stanford University

Total Synthesis of (-)-Leuconoxine and Novel Indolophanes via Witkop Photocyclization

Magnus Pfaffenbach, Tanja Gaich
University of Konstanz

Poster Titles (continued):

Alphabetical by Title; Presenter Underlined

Vault Nanoparticles: Chemical Modifications for Imaging and Enhanced Delivery

Nancy Benner, Xiaoyu Zang, Paul Wender

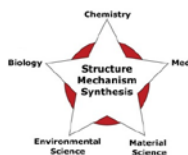
Stanford University

Xcorr Exact p-Values for Mass Spectrometric Identification of Crosslinks in Protein Complexes and the Importance of Hybrid Decoy Databases and Minimal Percolator Feature Sets

J. Jeffrey Howbert, William S. Noble

University of Washington

Notes:



THE WENDER GROUP



The Wender Group began at Harvard University in 1974, with an initial group of 4 students – the legendary Stephen Eck, Mike Eissenstat, Mike Filosa, and John Lechleiter. In 1981 most of the group headed west, when Paul moved to Stanford University. The laboratory thrived, as new graduate students, postdoctoral fellows, visitors and undergraduates joined in a growing number of scientific collaborations, at Stanford and around the world. Over 340 individuals have been trained in the Wender Laboratory. Over the years the group has comprised more than: 120 Graduate Students, 150 Postdocs, 15 Undergrads, 20 Visiting Researchers, and 20 Visiting Scholars. They have come from, and are currently located, all over the globe, including: Australia, Brazil, Canada, China, France, Germany, Israel, Japan, New Zealand, South Korea, Spain, Sweden, Switzerland, United Arab Emirates, the United Kingdom, and Viet Nam, and across the US from Connecticut to Washington to Texas to Stanford's own backyard, Palo Alto, CA.

More than 70 group alumni are in academic positions around the globe and many other alumni are in major positions in the pharmaceutical and biotech industries. Still others have gone on to forge new paths in fields as diverse as science policy, patent law, management consulting, and software development. Some represented companies include: AbbVie, Actelion Pharmaceuticals, Aerie Pharm., Amgen, BASF, Bayer, BioMotiv, Bio-Rad Labs, BluePrint, Boehringer Ingelheim Pharm., Bristol Myers Squibb, Casebia Therapeutics, Concentric Analgesics, Dow, Eli Lilly, Emerald Therapeutics, Exponent, Fujimoto, Genentech, Gilead, GlaxoSmith Kline, Google, Immunscape AB, Japan Tobacco, Johnson & Johnson, McKinsey, Merck, Morphic Therapeutics, NIH, Novartis, Omdana Therapeutics, Oppilan Pharm., Performance Indicator, Pfizer, Quartet Medicine, Roche, Rodan+Fields, Shire, Siemens, Tesaro, WilmerHale, and Vertex. Some represented academic institutions include: Emory, KAIST, Kanazawa, Kyushu, Leibniz Institute of Plant Biochemistry, Michigan State, NYU Abu Dhabi, Ohio State, Rutgers, Temple, Trinity, UC Berkeley, UCLA, USC, Williams College, and the Universities of: British Columbia, Connecticut, Freiburg, Missouri, North Carolina, Notre Dame, Otago, Pittsburgh, Rochester, Strasbourg, Virginia, Washington, and Wisconsin.

Currently, research in the Wender Group addresses unsolved problems in chemistry, synthesis, biology, medicine, and materials science using new computational tools, new reactions, reagents, strategies and design. Leveraging affiliations with the Medical School, Imaging Center, Chemical Biology Program and Molecular Therapeutics Program as well as numerous internal and external collaborations, the lab emphasizes the use of chemistry, design and synthesis to address problems of significance in biology and medicine, including eradication of HIV/AIDS, overcoming resistant cancer, cancer immunotherapy and treating cognitive disorders such as Alzheimer's disease.

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Thank you to all the Event Organizers for their tireless commitment to this event:

Organizing Committee: Dave Smith, Kathi Robbins, & Jacqueline Wender

Program Committee: Jennifer Love & Mitch Croatt

Poster Session Committee: Tim Dore

Photo Committee: Ben Miller

The committee would like to thank the speakers, poster presenters, session chairs, sponsors, volunteers, those that contributed to this program, and all attendees. From near and far, you create the spirit and camaraderie of the Wender Group, which we celebrate through science. The committee would also like to thank Paul Wender, without whom, along with each and every one of you, this event would not have been possible.



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