Patrick A. Jokiel, Ph.D.

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Education

2000-2003	Postdoctoral Research Associate, University of Pennsylvania, Philadelphia, Pennsylvania Sponsors: Professors Ralph Hirschmann and Amos B. Smith, III
1994-2000	<i>Ph.D., Organic Chemistry</i> , University of Vermont Burlington, Vermont, October, 2000 Thesis Advisor: Professor Martin Kuehne.
1989-1994	<i>B.Sc., Chemistry</i> , University of Michigan-Dearborn Dearborn, Michigan, April 1994.

Professional Experience

Bates College, Lewiston, ME

Visiting Assistant Professor, Chemistry (August, 2012 - Present)

- Taught introductory and organic chemistry (lecture and laboratory)
- Created and taught a laboratory-based course on experimental design and execution. Based on the popular television program, "Mythbusters", this course was designed for students not majoring in the life sciences or physical sciences
- Advised a Senior Thesis project (Application of a C-H Activation Aryl Amination Approach to the Synthesis of Carbazole Derived Ureas)
- Advised two independent study research projects
- Advised three internally funded student research projects

The College of New Jersey, Ewing, New Jersey

Adjunct Professor, Chemistry (June, 2010 – July, 2012)

• Taught Introductory Chemistry 1, Organic Chemistry 1 and Organic Chemistry 2 (lecture and laboratory).

Celgene Corporation, Summit, New Jersey

Senior Scientist 1, Process Chemistry (April, 2009 – January, 2010)

- Conducted process development research in support of an early stage development program
- Executed process on scale to meet a key program timeline
- Further optimized process to support delivery of material for clinical studies

Ligand, Inc., Cranbury, New Jersey

Research Investigator (January, 2009 – April, 2009)

• Supported medicinal chemistry efforts in a collaboration with a large pharmaceutical company by preparing multigram quantities of key intermediates

Pharmacopeia Drug Discovery, Inc., Cranbury, New Jersey (May, 2003 – December, 2008)

Principal Scientist (April, 2008 – December, 2008) Senior Scientist (October, 2006 – April, 2008) Research Scientist (March, 2006 – October, 2006) Scientist (May, 2003 – March, 2006)

Process Chemistry:

- Led chemistry team in synthetic route optimization in support of two projects
- Facilitated technology transfer of optimized routes to external API manufacturers
- Managed API manufacturing to support key program deliveries under aggressive timelines

Medicinal chemistry:

- Contributed to the identification and nomination of a development candidate
- Synthesized key lead compounds to support *in vivo* testing during lead optimization
- Synthesized analogs in support of lead optimization efforts using parallel synthesis and scavenging techniques

Academic Research Experience

2012-present Visiting Assistant Professor, Bates College, Lewiston, ME

- Demonstrated the viability of a transition metal-catalyzed C-H amination approach to the synthesis of cyclic urea containing heterocycles. These include carbazoles, 8*H*-purin-8-ones, and benzimidazolones.
- Studied the influence of key reaction parameters such as catalyst, catalyst loading, oxidant, solvent, temperature on reaction performance.
- Demonstrated the viability of a hypervalent iodine-mediated C-H amination approach to the synthesis of cyclic urea containing heterocycles. These include carbazoles and benzimidazolones.
- Ongoing efforts are focused on optimizing recovery of the active transition metal catalyst through reoxidation and elucidating the relationship between substrate structure and reaction performance.

2000-2003 Postdoctoral Research Associate, University of Pennsylvania, Philadelphia, Pennsylvania

- Synthesized a mini-library of compounds for broad-based screening (collaboration with Bristol-MyersSquibb) based on a hybrid β-D-glucose-benzoheterodiazepine molecular scaffold
- Investigated key synthetic challenges associated with the aforementioned scaffold
- Explored the synthesis of ligands for the hNK-1 receptor based on the aforementioned scaffold

1994-2000 Graduate Research Assistant, University of Vermont, Burlington, Vermont

- Synthesized new *Iboga* alkaloid congeners for evaluation as potential anti-addictive agents
- Investigated the application of chiral auxiliaries derived from ferrocene towards the asymmetric Pictet-Spengler reaction of tryptamine as a route to enantiomerically enriched tetrahydrocarbolines
- 1993 Undergraduate Research Assistant, University of Michigan, Dearborn, Michigan
 - Investigated the synthesis of benzocyclobutenes via pericyclic rearrangement

Research Funding

*June, 2014 – July, 2014	INBRE Student Summer Fellowship, "Application of Transition Metal- Catalyzed C-H Amination to the Synthesis of Benzimidazolones" Hoffman Student Research Fellowship, "Application of Hypervalent Iodine Mediated C-H Amination to the Synthesis of Benzimidazoles
May, 2013 – Feb., 2014	Bates Faculty Development Fund, "Investigation of a Urea-Directed C-H Activation Strategy towards the Synthesis of Functionalized Benzimidazolone Derivatives"
April, 2013 – Feb., 2013	INBRE Undergraduate Research Assistant Fellowship
Oct., 2012 – Jul., 2013	Bates Faculty Development Fund, "Investigation of a Urea-Directed C-H Activation Strategy towards the Synthesis of Functionalized 8-H Purinone Derivatives"

Service

2013-2014 (Bates College)

- Coordinated student tutoring program for the Chemistry Department
- Served as academic advisor to Bates students

Honors and Affiliations

2007	Accomplishment Award, Pharmacopeia, Inc., January 12 (for contributions enabling the
	timely IND filing in support of Pharmacopeia's DARA program)
2006	Accomplishment Award, Pharmacopeia, Inc., June 30 (for contributing to the delivery of
	a lead compound in the Organon alliance)
2000-2001	Boehringer-Ingelheim Postdoctoral Fellowship, University of Pennsylvania
1999-present	Member, American Chemical Society
1997	Award for Excellence as a Graduate Teaching Fellow, University of Vermont Chemistry
	Department and Graduate College.

Patents

- 1. Letourneau, Jeffrey; Chan, Jui-Hsiang; Jokiel, Patrick; Ohlmeyer, Michael; Neagu, Irina; Riviello, Christopher; Morphy, John Richard; Napier; Susan Elizabeth; Ho, Koc-Kan. 2-(1-Oxo-1H-isoquinolin-2-yl)acetamide Derivatives. U.S. Patent 7,906,504, March 15, 2011.
- Letourneau; Jeffrey; Jokiel; Patrick; Napier, Susan Elizabeth; Ho, Koc-Kan; Ohlmeyer, Michael; McArthur, Duncan Robert; Jeremiah, Fiona; Ratcliffe, Paul David; Schulz, Jurgen. Quinazolinone and Isoquinolinone Acetamide Derivatives. U.S. Patent 7,820,649, October 26, 2010.
- Letourneau, Jeffrey; Riviello, Christopher; Ho, Koc-Kan; Chan, Jui-Hsiang; Ohlmeyer, Michael; Jokiel, Patrick; Neagu, Irina; Morphy, John Richard; Napier, Susan Elizabeth. 2-(4-Oxo-4Hquinazolin-3-yl)acetamides and Their Use as Vasopressin V3 Antagonists. U.S. Patent 7,807,686, October 5, 2010.
- 4. Harris, Roy L.; Sapienza, John; Shevlin, Graziella; Papa, Patrick; Lee, Branden Gingsee; Packard, Garrick; Zhao, Jingjing; Jokiel, Patrick Anthony; Mortensen, Deborah; Riggs, Jennifer; Gamboa, Juan Antonio; Beauchamps, Maria Georges; Kreilein, Matthew Michael; Kothare, Mohit Atul; Perrin-Ninkovic, Sophie; Pye, Philip; Leong, William Wei-Hwa; Elsner, Jan. Methods of Synthesis and Purification of Heteroaryl Compounds. US Patent Application 2011/0137028, filed October 25, 2010.

Publications

- Letourneau, J.J.; Jokiel, P.A.; Olson, J.; Riviello, C.M.; Ho, K-K.; McAleer, L.; Yang, J.; Swanson, R.N.; Baker, J.; Cowley, P.; Edwards, D.; Ward, N.; Ohlmeyer, M.H.J.; Webb, M.L. Identification and Hit-to-Lead Optimization of a Novel Class of CB1 Antagonists. *Bioorg. Med. Chem. Lett.* 2010, 20, 5449.
- Abrous, L.; Jokiel, P.A.; Friedrich, S.R.; Hynes, J., Jr.; Smith, AB., III; Hirschmann, R. Novel Chimeric Scaffolds to Extend the Exploration of Receptor Space: Hybrid β-D-Glucose-Benzoheterodiazepine Structures for Broad Screening. Effect of Amide Alkylation on the Course of Cyclization Reactions. *Journal of Organic Chemistry* 2004, 69, 280.
- 3. Pace, C.J.; Glick, S.D.; Maissonneuve, I.M.; He, L-W.; Jokiel, P.A.; Kuehne, M.E.; Fleck, M.W. Novel *Iboga* Alkaloid Congeners Block Nicotinic Receptors and Reduce Drug Self-administration. *European Journal of Pharmacology* **2004**, *492*, 159.
- Kuehne, M.E.; He, L.; Jokiel, P.A.; Pace, C.J.; Fleck, M.W.; Maisonneuve, I.M.; Glick, S.D.; Bidlack, J.M. Synthesis and Biological Evaluation of 18-Methoxycoronaridine Congeners. Potential Antiaddiction Agents. *Journal of Medicinal Chemistry* 2003, 46, 2716.