Introducing our AUTHORS

acs chemical biology

Natasha Thorne

Image courtesy of Denise Philippi.

Current position: National Institutes of Health (NIH) Chemical Genomics Center (NCGC), NIH, Postdoctoral Researcher with Drs. Douglas Auld and James Inglese
Education: University of Massachusetts at Lowell, B.S. in biological science, 2000; Duke University, Ph.D. in molecular genetics with Prof. Hubert Amrein, 2007
Nonscientific interests: Running, cycling, tennis, yoga, language, travel

I'm a postdoctoral fellow at the NCGC, and the foundation of my research is largely translational, ultimately helping to make high throughput screening (HTS) and chemical probe discovery and development accessible to basic researchers. Some of my projects are collaborations with academic laboratories and involve the development and optimization of biological assays for HTS, which we use as a method to identify biologically active chemical probes. Other projects involve evaluating or finding new uses for current and novel technologies used in screening. I am also involved in the larger NCGC-based effort to assess and profile our chemical library for off-target activity and artifacts that influence the outcome of screens. (Read Thorne's article on p 463.)

Stephan C. Schürer

Image courtesy of Sebastian Rosenberg.

Current position: The Scripps Research Institute, Department of Scientific Computing, Group Leader
Education: University of California Berkeley/Humboldt University Berlin, Department of Chemistry, M.S./Diploma in Chemistry with Prof Jonathan A. Ellman, 1996; Technical University Berlin, Department of Chemistry, Ph.D. in organic chemistry with Prof. Siegfried Blechert, 2000
Nonscientific interests: Music, the beach, snowboarding

At the Scripps Research Institute, we have developed an integrated screening and drug discovery informatics infrastructure that is routinely used to process and analyze large data sets from high-throughput screening and drug discovery projects. Our current research is focused on drug discovery cheminformatics, including integration of operational and discovery informatics systems, computational chemistry, modeling, integration of experimental and virtual screening, and computational compound and target profiling. From the perspective of a synthetic chemist, current drug discovery informatics is still challenged to assess synthetic feasibility and to virtually define synthesizable chemical space. This is another research interest of ours, and we believe methods to generate feasible synthetic strategies *in silico* can contribute to the transformation of today's predictive cheminformatics methods from a primarily prioritization approach toward a prospective approach with the potential to generate new ideas and directions in drug discovery programs. (Read Schürer's article on p 486.)

Steven J. Brown

Image courtesy of S. Mlick.

Current position: The Scripps Research Institute, Head Assay Development, Scripps Molecular Screening Center
Education: University of California, Berkeley, B.S. in chemistry, 1983; University of California, Santa Cruz, Ph.D. in chemistry with Pradip Mascharak, 1990; MIT Post-Doctoral Associate with Prof. Stephen Lippard, 1993
Nonscientific interests: Camping, gardening, bicycling, getting out and about

I am interested in contributing to improvements in the success rate of small-molecule discovery projects. Hopefully, one important outcome of this work will be to further the discussion regarding the role of library diversity on validated hit rates. I also am gratified by working on projects that may lead to positive impacts on human health. S1P1 and S1P3 have important roles in innate and adaptive immune responses. The novel, selective probe compounds reported here and developed based upon these scaffolds will be used in experiments designed to better understand the role of these lipid receptors in the normal function and pathologies of the immune system. (Read Brown's article on p 486.)

Heather L. Schultheisz

Image courtesy of Blair Szymczyna.

Current position: The Scripps Research Institute, Department of Molecular Biology, Research Assistant for Prof. James Williamson
Education: University of Rochester, B.S. in chemical engineering, 2003
Nonscientific interests: Running marathons, practicing and teaching anusara yoga, playing piano

Enzymes captivate me. I am constantly reminded of the intricacies and beauty of nature as the basis for my research. In the current work, we describe a robust and flexible *de novo* enzymatic synthesis of purine nucleotides. Enzymes from several different biochemical pathways were combined in one pot. Careful consideration of starting materials, cofactor regeneration, and the driving force provided the foundation for efficient conversion in the cascade of steps. In the future, we hope to expand our enzymatic targets and pathways to synthesize other isotopically labeled nucleotides and biochemicals. (Read Schultheisz's article on p 499 and Point of View on p 460.)

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