

Sarah C. Hopp

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SKILLS:

Behavioral Assays: Locomotor activity, conditioned avoidance responding, contextual fear conditioning, apomorphine-induced stereotypy, Morris water maze, novel object recognition, prepulse inhibition, catalepsy, y-maze, and rotarod, as well as data analysis for all of these assays (using Excel and Prism).

General Animal Skills: Handling (mice and rats), dosing (IP, SC, PO in rats and mice), and dose calculation. Blood collection: terminal cardiac puncture. Brain collection (mice and rats) and necropsy (rats).

Microscopy: Live cell fluorescent and immunofluorescent fixed tissue microscopy (Cellomics Kinetiscan, confocal, fluorescent widefield, light, and all related image capture softwares); hemacytometer use, sample preparation (live cell staining and immunohistochemistry), image analysis (MATLAB and Imaris).

Other General Laboratory Skills: Maintenance of cell lines (splitting, counting, freezing, thawing, etc), media prep, immunofluorescent staining, serial dilutions, salt weight calculations, and other general laboratory chemistry. Some limited experience with molecular biology techniques (PCR, gel electrophoresis, Western blot, etc).

Computer and Technology Skills: Data analysis (Excel macros, Prism, MATLAB), computer programming (Excel macros, Python, Scheme, Java), Microsoft Office, hardware and software troubleshooting. Power user for Windows and Mac OSX, good with UNIX and Linux (Ubuntu).

PROFESSIONAL EXPERIENCE:

EnVivo Pharmaceuticals

July 2008 - present

Research Assistant – In vivo Pharmacology

Ran behavioral assays independently or as a team for ongoing preclinical screening of compounds.

- Coordinated and ran various assays in animal models of Alzheimer's Disease and Schizophrenia
- Prepared dosing solutions and dosed animals via various routes of administration
- Maintained a record of experiments, performed data analysis, and presented data at team meetings
- Validated several behaviour assays for use in-house and automated assays using computer software
- Assisted in pharmacokinetic studies (blood and brain collection) and necropsies as needed

Novartis Institute for Biomedical Research

June 2007 - September 2007

Research Assistant / Scientific Intern

Examined signaling proteins in tumor sections using immunofluorescent multispectral imaging.

- Used immunofluorescent staining on paraffin-embedded tumor sections on slides
- Captured multispectral fluorescent images of fluorescently labeled slides
- Performed data analysis using Excel and other programs on captured images
- Put together and presented a poster of collected data at the end of the internship program

Whitehead Institute for Biomedical Research

May 2005 - January 2007

Research Assistant in lab of Dr. Paul Matsudaira – Whitehead/MIT Bioimaging

Analyzed cell motility using live cell time lapse fluorescent imaging.

- Prepared live cultured cells for fluorescent staining
- Set up microscopes for image sampling over time and analyzed data produced using Imaris and MATLAB

- Developed a protocol for preventing cell death from photo-toxicity during long-term live cell imaging that allows cell motility to be analyzed over long time periods (12-72 hours)
- Maintained several cell lines, prepared medium, performed dilutions, ordered supplies, and other general lab work.

EDUCATION:

S.B. in Brain and Cognitive Sciences - Massachusetts Institute of Technology (MIT)

POSTERS AND PUBLICATIONS:

Posters

- Characterization of orally administered typical and atypical antipsychotics in mouse models of schizophrenia. S. Hopp, I. Gallager, I. Zaninovic, M. Ahlijanian, K. Rogers, and L. Leventhal. Society for Neuroscience, October 2009.
- Pharmacological characterization of a selective phosphodiesterase 10A inhibitor in mouse models of schizophrenia. L. Leventhal, S. Hopp, I. Gallager, I. Zaninovic, D. Spaulding, D. Costa, S. Nolan, M. Wen, G. Shapiro, R. Chesworth, M. Ahlijanian, A. Ripka, K. Rogers Society for Neuroscience, October 2009.
- In Vitro and in Vivo Characterization of Gamma Secretase Modulators. K. Rogers et al. Society for Neuroscience, October 2009 (Additional acknowledgements for behavioral data).
- Putative gamma secretase modulators lower A β 42 in multiple in vitro and in vivo models. K. Rogers et al. International Conference on Alzheimer's Disease, July 2009 (Additional acknowledgements for behavioral data).
- Statistical analysis of phototoxic effects of fluorescent markers on cell motility. W. Timp, S. Hopp, J. G. Evans, P. Matsudaira. American Society of Cell Biology, December 2005.

AWARDS AND MEMBERSHIPS:

- Distinguished Service Key from Alpha Phi Omega Service Fraternity
- Member of the Society for Neuroscience