

MARY KAY BROWN, M.S

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EXPERIENCE:

Dartmouth College - Thayer School of Engineering, Hanover, NH **7/01 - present**

Laboratory Manager and Research Assistant (This job comprises 50% of my work hours.)

- Managing the laboratories of multiple PI's:
 - Overseeing proper use and disposal of chemicals and hazardous materials.
 - Ensuring compliance of lab and personnel with all mandated safety regulations.
 - Repairing, maintaining and/or scheduling of service for all instrumentation and equipment.
 - Hiring and supervising of lab aids; delegating various lab duties to employees and students.
 - Purchasing for the labs; managing group accounts; negotiating pricing; documenting.
- Proficient in basic molecular biology techniques – PCR, restriction digestion, basic cloning, DNA sequencing, SDS-PAGE, western blotting, dot blotting, Coomassie staining and silver staining, ELISA's and enzyme assays. Growth of bacteria and yeast and induction of protein expression; proficient in mammalian cell culture.
- Member of Thayer's Safety Committee.
- Member of Dartmouth's Institutional Biosafety Committee.

Biotechnology Laboratory Instructor (This job comprises 50% of my work hours.)

- Instructing 20-25 "Introduction to Biotechnology" students each Fall term.
- Instructing 10-15 "Trends in Biotechnology" students every Fall term.
- Instructing 8-10 "Methods in Biotechnology" students every other Spring term.
- Grading and evaluating 7 lab reports and 3 problem sets per fall term in a timely fashion.
- Assisting students as needed both during and outside scheduled lab times.
- Modifying labs; revising and updating lab manual as necessary or requested.
- Ordering necessary supplies and staying within budget each term.
- Developing, maintaining and utilizing a Canvas instructional website.
- Maintaining and upgrading equipment for teaching lab.
- Assisting and advising other instructors/faculty and students in project groups.

Occulo Bio – Lebanon, NH – Startup Consultant **1/18 – 1/19**

Avitide - Lebanon, NH – Startup Consultant **3/13 – 12/15**

Adimab - Lebanon, NH – Startup Consultant **5/08 – 12/17**

Dartmouth College - Dartmouth Medical School **9/93 - 6/01**

Research Assistant A - Department of Pharmacology and Toxicology

- Proficient in a variety of techniques to study the cell cycle, the viability and proliferation of cells as well as levels of protein, RNA, and DNA in cells, mammalian cell culture, PCR, SDS-PAGE, western blotting, agarose gels, flow cytometry, TdT, MTT, and the use of radioisotopes.
- Purchasing lab supplies, maintenance of lab equipment, maintenance of radiation records, and training new personnel in laboratory techniques, lab safety and radiation safety.

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OTHER EXPERIENCE:

Medarex - West Lebanon, NH

8/92 - 8/93

Research Assistant - Operated hollow fiber cell culture systems to produce clinical and research grade antibodies under GMP guidelines; maintained cells lines for production and R&D purposes. Performed QC assays on in-process and final clinical grade product; production and inventory control of research antibody product line; wrote SOP's, TM's, TR's and BR's; updated and edited other GMP documents as needed.

Dartmouth College - Dartmouth Medical School, Hanover, NH

6/88 - 8/92

- Research Assistant B - Dept. of Immunology (7/91 – 8/92)
- Laboratory Technician - Dept. of Pharmacology (9/89 – 8/90)
- Laboratory Technician - Dept. of Medicine (6/88 – 9/89)

EDUCATION:

Master of Science - Biochemistry & Molecular Biology. Albany Medical College, Albany, NY.

Bachelor of Science - Biology. University of Akron, Akron, OH.

PUBLICATIONS AND ABSTRACTS:

- Eastman A, Kohn EA, **Brown MK**, Rathman J, Livingstone M, Blank DH, and Gribble G. A novel indolocarbazole, ICP-1, abrogates DNA damage-induced cell cycle arrest and enhances cytotoxicity: Similarities and differences to the cell cycle checkpoint abrogator UCN-01. *Molecular Cancer Therapeutics*. Vol. 1, 1067-1078, October 2002.
- Kohn EA, Ruth ND, **Brown MK**, Livingstone M, and Eastman A. Abrogation of the S phase DNA damage checkpoint results in S phase progression or premature mitosis depending on the concentration of 7-Hydroxystaurosporine and the kinetics of Cdc25C activation. *Journal of Biological Chemistry*. Vol. 277, No. 29: 26553 -26564, July 19, 2002.
- Tobin SW, **Brown MK**, Douville K, Payne DC, Eastman A, and Arrick BA. Inhibition of transforming growth factor β Signaling in MCF-7 cells results in resistance to tumor necrosis factor alpha: A role for Bcl-2. *Cell Growth and Differentiation*. Vol. 12, 109-117, February 2001.
- Lee SI, **Brown MK**, and Eastman A. Comparison of the efficacy of 7-hydroxystaurosporine (UCN-01) and other staurosporine analogs to abrogate cisplatin-induced cell cycle arrest in human breast cancer cell lines. *Biochemical Pharmacology*. 58(11): 1717-21, Dec. 1, 1999.
- Tobin SW, **Brown MK**, Payne DC, Eastman A, and Arrick BA. Inhibition of TGF- β signaling is associated with resistance to the cytotoxic effect TNF-alpha. *The FASEB Journal*, 1997. (Abstract)
- Bunch RT, **Brown MK**, and Eastman A. Abrogation of cisplatin-induced cell cycle arrest and enhancement of cisplatin induced cytotoxicity by 7-hydroxystaurosporine (UCN-01), a new G2-checkpoint inhibitor. *Proc. Am. Assoc for Cancer Res*. 37:22, 1996. (Abstract)
- Morana S, Wolf CM, Li J, Reynolds JE, **Brown MK**, and Eastman A. The involvement of protein phosphatases in the activation of ICE/CED-3 protease, intracellular acidification, DNA digestion and apoptosis. *J. Biol. Chem*. 271:18263-18271, 1996.