

Valerie Obenchain

EDUCATION

Master of Science in Applied Mathematics, 2007

University of Washington – Seattle, WA

Independent Study Project: Control Theory Applications of Parameter Estimation in HIV/AIDS Models

Master of Science in Organic Chemistry, 1994

University of California at Davis - Davis, CA

Thesis: Synthetic Pathways to 4-Amino-N-Substituted Isothiazolidine 1-Oxides.

Biological Testing of Alpha- and N-Substituted Cyclic Sulfinamides.

Bachelor of Science in Biochemistry, 1992

California Polytechnic State University at San Luis Obispo - San Luis Obispo, CA

EXPERIENCE

Research Analyst/Programmer,

Biostatistics Modeling and Methods and

Center for Statistics and Quantitative Infectious Diseases (CSQUID) and

Vaccine and Infectious Disease Institute (VIDI) , FHCRC - Seattle, WA

2007 to Present

- Analysis and programming support for new statistical methods development
- Code and algorithm optimization for analysis of GWAS data, imputation algorithms
- Creation of R packages and web tool development
- Implementation of various software packages that take different approaches to analyzing functional or under-determined data
- Building and analysis of differential equations and agent-based models
- Investigate methods for nonlinear mixed-effects modeling on systems of differential equations (R, NONMEM, SPK)
- Manuscript research and preparation

Research Assistant, Biostatistics Modeling & Methods/FHCRC - Seattle, WA

2004 to 2007

- Built differential equations models for various analysis
- Performed routine statistical analysis
- Assisted in manuscript research and preparation
- Completed MS independent study project with Dr. Mehran Misbahi in the Aeronautics and Astronautics department at UW and Dr. Sarah Holte at FHCRC

Protocol Specialist, SCHARP, FHCRC – Seattle, WA

2002 to 2004

- Developed case report forms for HIV Vaccine Trials Network (HVTN) protocols
- Developed protocol-specific study materials including Visit Checklists, Study Specific Procedures, and Schedule of Forms
- Oversaw protocol implementation at clinical sites, conducted training, provided support

Data Analyst/Study Manager, WESTAT Inc. - Rockville, MD

1999 to 2002

- Collaborated with network investigators and biostatisticians to analyze data from NIAID- and NICHD-sponsored HIV trials in adolescents (REACH) and women (DATRI)
- Evaluated domestic and international sites for participation in NICHD Pediatric AIDS Clinical Trials Group (PACTG) network trials. Evaluations included assessing the capabilities/capacity of the laboratory, pharmacy, study staff, and clinic facilities.
- Assisted in protocol implementation and the training of domestic and international study staff on regulatory, GCP, GLP, OHRP, ICH and FDA guidelines
- Interfaced between Brazilian and US governments to establish importation procedures for study-related materials
- Manuscript preparation, grant and proposal writing

Medical Writer, Alliance Pharmaceutical Corporation - San Diego, CA

1995 to 1999

- Wrote pharmacology and toxicology portions of clinical and regulatory documents including IND, NDA, IDE, CIB, annual report, and FDA briefing documents
- Wrote and edited pre-clinical development reports
- Project areas included respiratory physiology, cardiology, biochemistry, blood substitute, ultrasound imaging technologies, anti-inflammatory and anti-obesity drugs

Process Chemist, Hybritech Incorporated - San Diego, CA

1994 to 1995

- Characterized raw materials for prostate specific antigen assays and developed methods for protein separation (HPLC, NMR, FTIR, TLC, ELISA)
- Generated standard operating procedures (SOP) and validation reports

SPECIAL SKILLS AND AFFILIATIONS

- Computer experience includes Linux, Windows, R, S+, C, FORTRAN, Matlab, Maple, Mathematica, Perl, PHP, and Bash
- Additional coursework in Advanced Matlab, and Statistical Learning and Data Mining
- Member of the Society of Industrial and Applied Mathematics (SIAM)