

NAME

ADDRESS

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WORK ELIGIBILITY: U.S.A. • www.linkedin.com/in/name

OBJECTIVE

Desire full-time employment as a Scientist position in Biotechnology companies specializing in innovative treatments of human disease.

SUMMARY

- Highly adaptable scientist with abilities in myriad of biochemical sciences including high throughput screening, biochemistry, biophysics, molecular biology, and protein chemistry
- Adept on myriad instrumental techniques on different platforms; able to adapt quickly to changing situations
- As a postdoctoral fellow at the University of Pennsylvania, isolated and partially characterized apparent inhibitory chemical probes of factor XIa, factor XIIa, and kallikrein 5, as well as probes inhibiting fibrin polymer formation. RESULT: 16 high throughput screening confirmatory assays submitted on-line to PubChem.
- In addition, gained valuable Biotech/Pharmaceutical business-oriented knowledge and experience through consulting and entrepreneurship classes, seminars, and projects with the Penn Biotech Group.
- During doctoral degree at Temple Medical School, discovered and characterized three-state dimeric unfolding mechanism for wild type and F283L mutant FXI A4 proteins, along with discovering three-dimensional solution phase structures of wild type and C321S mutant FXI A4.

CURRENT RESEARCH POSITION

University of Pennsylvania, Institute of Medicine and Engineering, Philadelphia, PA

2007-Present

Postdoctoral Fellow & HTS Team Leader

Advisor:

Independently developed and carried out HTS research projects and collaborations that led to publication in peer-reviewed journals and online submission of chemical biology data to Pubchem

- Trained and supervised MS level students on projects
- Frequently presented data in oral form for fellow lab members, and national engineering conferences
- Analytical methods: high throughput small molecule chemical library screening with fluorescence and absorbance plate reading in 96, 384 and 1536 well plates, against fibrin polymerization events and substrate cleavage of several serine and cysteine protease targets of interest in cardiovascular and skin pathologies. Fibrin polymerization events monitored by absorbance spectroscopy, dynamic light scattering (DLS), and fluorescence microscopy. Characterization of HTS hits of interest was performed using liquid chromatography-mass spectrometry (LC-MS).
- Took Health Care Entrepreneurship course offered by Wharton School of Business; learned how to prepare a business plan and create valuation in a new biotech company that I helped to start.
- Leadership skills were used to keep fellow team members involved and motivated to produce the final business plan, which is being used at the current time to acquire venture backing.

EDUCATION

Doctor of Philosophy, Biochemistry, 2006

Temple University School of Medicine, Philadelphia, PA

Advisor:

- Dissertation title: “NMR Structural Analysis and Unfolding Studies of the Factor XI A4 Domain as a Model of Factor XI Homodimerization,” cumulative GPA: 3.53
- Used wide variety of molecular biology, structural biology, and enzymological tools to characterize structure and folding function of one component of a blood coagulation enzyme involved in pathological thrombus formation.
- Accomplished a wealth of data that was used to publish a 200+ page doctoral dissertation, along with two publications in the high impact journals the Proceedings of the National Academy of Sciences of the USA and the Journal of Molecular Biology.
- Worked as part of a lab team, and frequently found myself in a position of assuming leadership in order to organize the lab and order commonly needed items such as computers, software, and lab equipment.

- Took responsibility for training others in the lab on specific scientific techniques as well as computer software and maintenance needs
- Analytical methods: fast protein liquid chromatography (FPLC), western blotting, enzyme-linked immunosorbent assay (ELISA), enzymatic inhibition by absorbance spectroscopy, fluorescence spectroscopy, including polarization (FP) and fluorescence resonance energy transfer (FRET), circular dichroism (CD), two and three-dimensional nuclear magnetic resonance (NMR), including hydrogen/deuterium exchange techniques monitored by NMR, matrix-assisted laser desorption/ionization-time of flight-mass spectrometry (MALDI-TOF-MS), analytical ultracentrifugation (AUC), dynamic light scattering (DLS), and small-angle x-ray scattering (SAXS).

Bachelor of Science, Biochemistry, 1996

Seattle University, Seattle, WA

- Senior research project and Independent research projects - published as manuscripts in Undergraduate Research Conference Proceedings
- Senior research project methods: high pressure liquid chromatography (HPLC), cell culture growth of *Paramecium tetraurelia*, and gas chromatography-mass spectrometry (GC-MS)

PUBLICATIONS

- **Name**, Napper A, Diamond SL, "High Throughput Screening for Inhibitors of Coagulation Factor XIa and Factor XIIa Using an Orthogonal Mixture of the NIH MLSCN Library" (Abstract) **2007 BMES and AiChE annual meetings**
- **Name**, Napper A, Diamond SL, **PubChem submissions:** Assay IDs 679, 680, 684, 687, 701, 716, 721, 728, 798, 800, 846, 852, 873, 1046, 1215, 1431 (2007, 2008)
- Samuel D, Cheng H, **Name**, Canutescu A, Nagaswami C, Bu Z, Weisel JW, Walsh PN, Roder H, "Solution Structure of the A4 Domain of Factor XI Sheds Light on the Mechanism of Zymogen Activation," (the Proceedings of the National Academy of Sciences of the USA, Oct 2, 2007, 104 (40): 15693-15698, PDB: 2J8J and 2J8L)
- **Name**, Cheng H, Samuel D, Roder H, Walsh PN, "Dimer Dissociation and Unfolding Mechanism of Coagulation Factor XI Apple 4 Domain: Spectroscopic and Mutational Analysis" (the Journal of Molecular Biology, Mar 23, 2007, 367 (2): 558-573)
- **Name**, Minderhout V, "Uptake of Trans-Fatty Acids Into *Paramecium tetraurelia*," Proceedings of the Tenth Annual Conference on Undergraduate Research, 3 (1996), 1635-39
- **Name**, Wener M, "Acetylcholinesterase Concentration in Amniotic Fluid as an Indicator of Open Neural Tube Defects," Proceedings of the Ninth Annual Conference on Undergraduate Research, 3 (1995), 818-822

WORK EXPERIENCE

University of Pennsylvania, Penn Biotech Group, Philadelphia, PA; 2007

Life Sciences Consultant

Group leader: Jad Salha, CPA, CFA

- Took part in consulting group project during Fall 2007 investigating the client's projected therapeutic areas and submitting deliverables, including feasibility of application of the client's (a local startup biotech company) technology to the given disease model, along with analyses of market research, potential pricing, competitors, and possible strategic partnerships, especially with competitor companies.
- My accomplishments included investigating specific targeted therapeutic area company was interested in, then led group in finishing deliverable and meeting with client to present deliverable and receive feedback.

Seattle Biomedical Research Institute (SBRI), Seattle, WA; 1996 - 1998

Research Technician I

Supervisors: Peter Myler, Ph.D. and Ken Stuart, Ph.D.

- Accomplished production of difficult to sequence DNA clones that were used to attempt to express genes of interest in bacterial hosts, and aligned DNA sequences from a pathological human parasite.
- Independently worked with animal and cell culture models, and results of research were built upon by concurrent and subsequent employees that I helped to train. Also presented data to regional parasitology meeting