# Michael Molstad

400 Billings Ave. Prairie du Sac, WI 53578

Home: (608) 370-6141 Email: michael\_molstad@hotmail.com

**EDUCATION and CERTIFICATIONS**

07/09 73 Early Adolescence to Adolescence (age 10-21) 605 Biology/Life Science, State of WI

06/09 Post Baccalaureate Teaching Certification Program, Concordia University, Madison, WI

12/01 M.S. in Computer Science, Cleveland State University, Cleveland, OH

05/99 M.S. in Molecular Virology, Case Western Reserve University, Cleveland, OH

12/95 B.S. in Cellular Biology, University of Wisconsin-Oshkosh, Oshkosh, WI

**SCIENCE WORK HISTORY**

08/09 – present **Science Teacher**, Random Lake High School, Random Lake WI

Currently, I am teaching Biology, Biotechnology, and Environmental Science at Random Lake High School. My students range from freshmen to seniors.

01/09-06/09 **Biology Student Teacher,** Lodi High School, Lodi WI

I student taught Biology I at Lodi High School. Unlike most student teachers, I took full responsibility for all teaching and preparation from the first day of the 3rd quarter and continued for the entire nine weeks.

08/02-06/04 **Research Assistant/Research Associate,** Oregon Health & Science University, Portland OR

I conducted a study of follicular lymphoma transformation. During this time, I took on a high school summer student to teach her various lab techniques.

06/96-05/99 **Research Fellow**, Cleveland Clinic Foundation, Cleveland, OH

I investigated the mechanisms by which adenovirus inhibits host interferon responses.

06/95-12/95 **Undergraduate Researcher**, University of Wisconsin-Oshkosh, Oshkosh, WI

I investigated the mechanism by which Feline Leukemia Virus induces apoptosis in 3201 T cells.

**ABSTRACTS and PUBLICATIONS**

Guang Fan, Michael Molstad, Rita M Braziel, Melissa Standley, James Huang, William Rodgers, and Srinivasa Nagalla **Proteomic Profiling of Mature CD10 B-cell Lymphomas.** Am. J. Clinical Pathology 2005 Dec; 124(6): 920-9

Michael Molstad, James Huang, Rita Braziel, William Rodgers, Srinivasa Nagalla, Guang Fan: **Identification of Proteins Involved in the Transformation of Follicular Lymphoma.** United States and Canadian Academy of Pathology 2004. Modern Pathology. Vol. 17 (1). P261A

Guang Fan, Michael Molstad, James Huang, Rita Braziel, William Rodgers, Srinivasa Nagalla **Protein profiling of follicular lymphoma and Burkitt's lymphoma using SELDI protein-chip technology** American Society of Hematology 45th annual meeting, San Diego CA, December 2003**,** Poster [3307**]**

**RESEARCH PROJECTS**

**Transformation of Follicular Lymphoma**:

I conducted experiments to identify proteins involved in follicular lymphoma transformation as well as biomarkers that could be used to predicted transformation. Utilizing both 2D gel electrophoresis and surface enhanced laser desorption ionization (SELDI) mass spectrometry, I compared the proteomes of low grade and high grade follicular lymphoma. This study has lead to the identification of several candidate proteins.

**The role of Adenovirus E1a protein in inhibiting interferon  signaling**

As a graduate student at CWRU, I tested a series of E1a deletion mutants in order to map the domain of the E1a protein that is responsible for inhibiting interferon  signaling I also investigated the mechanism by which E1a inhibits interferon  signaling by examining the possible binding of E1a with p48, a transcription factor required for interferon  induced gene expression.

**Apoptosis induced by FeLv-Faids**:

As an undergraduate at UW-Oshkosh, I received a grant to study the mechanism by which Feline Leukemia Virus induces apoptosis in 3201 T cells. My research focused on the role of nitric oxide synthase (iNOS) and PARP in the apoptosis process. I demonstrated that PARP was cleaved in apoptotic cells indicating it may be a player in the process. Using a series of nitric oxide synthase inhibitors, I also tested the involvement of iNOS in FeLv induced T cell apoptosis.

**LABORATORY SKILLS**

SELDI Mass Spectrometry 2D gel electrophoresis Tissue culture

Immunofluorescence microscopy Immunoprecipitation Northern blotting

Yeast two hybrid screening Electrophoresis Southern blotting

Transient transfection assays Molecular Cloning Western blotting

*in vitro* transcription & translation RNAase protection assays EMSA

**COMPUTER SKILLS**

Computer languages: C/C++, Java, Visual Basic, SQL, and COBOL

Skills: JSP, HTML, XML, and Java Script

Integrated Development Environments: MS Visual Studio, Forte, and Borland C++

Platforms: Windows XP/2000/NT/95/98/ME and Unix/Linux

Applications: Microsoft Office (Access), Photoshop, Canvas, ImageQuant, GeneRunner, PDQuest, GeneMaths, Sequest