

Curriculum Vitae

Jonathan M. Meyers

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Education

Indiana University – Bloomington, Indiana

Ph.D. Biological Chemistry

Graduated: 09/2012

Dept. of Chemistry, Laboratory of Prof. Richard DiMarchi,

(01/2006 - present)

- Developed a synthetic methodology for the total synthesis of insulin and insulin-like peptides that improved over existing schemes by forming Insulin's three disulfide bonds in two steps and increased the total yield by more than five-fold.
- Determined SAR on the C-domain region of an insulin/IGF-1 hybrid peptide. The work resulted in potent single chain analogs that were subsequently patented and licensed to Merck research labs.
- Produced biosynthetic and synthetic insulin analogs to study the role of the C-terminal end of the insulin receptor's alpha subunit, and resulted in peptides with more than ten-fold greater selectivity for the insulin receptor than native insulin.

University of West Georgia -- Carrollton, Georgia

B.S. Chemistry with ACS certification

Graduated: 12/2004

Dept. of Chemistry, Office of Prof. Lucille Garmon

(01/2003 - 12/2004)

- Developed a robust rubric that successfully correlated incoming freshmen's high school grade point average, SAT or ACT score and high school transcript to predict success in general chemistry courses at the University of West Georgia. Rubric was presented to the chemistry department for consideration for implementation when the department added remediation courses.

Teaching Experience

Associate Professor, Columbus State University, Columbus, GA

(08/2014 – Present)

Fall 2014

CHEM 3141: Biochemistry 1 (3 credits, 45 students)

CHEM 3345: Biochemistry Lab (1 credit, 24 students)

CHEM 1211L: Principles of Chemistry 1 Lab (1 credit, 2 sections, 24 students each)

Lecturer, Coastal Carolina University, Conway, SC**(08/2013 – 05/2013)**

Spring 2014

CHEM112: General Chemistry 2 (3 credits)

- New Course Preparation
- Taught introductory general chemistry courses.
- Prepared and administered exams and quizzes.
- Maintained weekly office hours.
- Used McGraw-Hill ConnectPlus® content management system.

CHEM111: General Chemistry I (3 credits)

- Taught introductory general chemistry courses.
- Prepared and administered exams and quizzes.
- Maintained weekly office hours.
- Used McGraw-Hill ConnectPlus® content management system.

CHEM111L: General Chemistry 1 Laboratory (1 credit)

- Taught three lab sections per week (22 students each)
- Contributed revisions to the general chemistry lab manual.
- Coordinated with other instructors to organize weekly labs, a common midterm, and a common final.

CHEM112L: General Chemistry 2 Laboratory (1 credit, Spring 2013) (Three Sections)

- Taught three lab sections per week (22 students each)
- Contributed revisions to the general chemistry lab manual.
- Coordinated with other instructors to organize weekly labs, a common midterm, and a common final.

Fall 2013

CHEM111: General Chemistry I (3 credits, Fall 2013) (Two Sections)

- New course preparation.
- Taught introductory general chemistry courses.
- Prepared and administered exams and quizzes.
- Maintained weekly office hours.
- Used McGraw-Hill ConnectPlus® content management system.

CHEM111L: General Chemistry Laboratory (1 credit, Fall 2013) (Three Sections)

- Taught three lab sections per week (22 students each)
- Contributed revisions to the general chemistry lab manual.
- Coordinated with other instructors to organize weekly labs, a common midterm, and a common final.

Associate Instructor, Indiana University, Bloomington, IN**(09/2005 - 05/2008)**

C118: Principles of Chemistry and Biochemistry II (5 credits, Fall 2005)

- Led multiple weekly recitation sections for 30-45 students each, held weekly office hours.
- Independently prepared and graded weekly quizzes.
- Maintained weekly office hours.
- Graded short answer portions of lecture exams.

C483: Biological Chemistry (3 credits, Spring 2006)

- Led two weekly recitation sections for 30 students each, and held weekly office hours.
- Assisted in exam preparation by suggesting questions and proofreading for clarity and content.

C118: Principles of Chemistry and Biochemistry II (5 credits, Fall 2006)

- Taught 12 laboratories (3 hours each) of 20 students each, and held weekly office hours.
- Grading included weekly pre-lab worksheets, weekly lab reports, and a final lab exam.

C487: Biochemistry Laboratory (2 credits, Spring 2007)

- Assisted in design of, troubleshooting, and validation of senior level lab exercises.
- Independently designed a two-week lab exercise that allowed students to examine DNA “evidence” linked to a “crime scene”. Lab included PCR, bacterial expression, and DNA analysis.
- Graded weekly lab reports, and held weekly office hours.

C121: Elementary Chemistry Laboratory I (2 credits, Fall 2007)

- Led multiple weekly recitation sections for 30-45 students each, held weekly office hours.
- Independently prepared and graded weekly quizzes.
- Maintained weekly office hours.
- Graded short answer portions of lecture exams.

C103: Introduction to Chemical Principles (5 credits, Spring 2008)

- Led multiple weekly recitation sections for 30-45 students each, held weekly office hours.
- Independently prepared and graded weekly quizzes.
- Maintained weekly office hours.
- Graded short answer portions of lecture exams.

Workshop Super Leader, University of West Georgia, Carrollton, GA (08/2002 - 12/2004)

- Worked closely with multiple faculty members each semester to coordinate weekly workshops for supplemental instruction for Principles of Chemistry I, Principles of Chemistry II, and General/Organic/Biochemistry courses.
- Conducted extensive training for new workshop leaders, and monitored their performance via evaluations, student interviews, and observations.
- Recommended leaders for continued employment, promotion, or termination of employment.
- Scheduled and hosted training retreat for new workshop leaders each fall.
- Participated in national training of new faculty who desired to implement the Peer Led Team Learning (PLTL) model at their institution.

Workshop Leader, University of West Georgia, Carrollton, GA (01/2001 - 12/2002)

- Coordinated with the workshop super leader and course instructor to provide supplemental instruction to undergraduate chemistry students based on the PLTL model.
- Led multiple workshops of eight to twelve general chemistry students each on a weekly basis.

Employment History

Lecturer, Coastal Carolina University, Conway, SC (09/2013 – Present)

- See Above

Postdoctoral Associate, Indiana University, Bloomington, IN (09/2012 – 07/2013)

Lab of Dr. Richard DiMarchi

- Responsible for all aspects of design and production of novel single chain insulin analogs with improved pharmacology, including solid phase peptide synthesis, bacterial expression, purification, and analytical and biochemical characterization.

Research Associate, Indiana University, Bloomington, IN (4/2007 – 09/2012)

Lab of Dr. Richard DiMarchi

- See details under graduate education.

Associate Instructor, Indiana University, Bloomington, IN (09/2005 - 04/2007)

- Prepared and led recitation sections in General and Biological Chemistry.
- Prepared and oversaw all aspects of the laboratory sections of General and Biological Chemistry classes
- Independently prepared quizzes, assisted in exam preparation, evaluated and assigned student grades

Workshop Super Leader, University of West Georgia, Carrollton, GA (08/2002 - 12/2004)

- Worked closely with multiple faculty members each semester to coordinate weekly workshops for supplemental instruction.
- Conducted extensive training for new workshop leaders.
- Monitored the performance of each leader via evaluations, student interviews, and observations.
- Recommended leaders for continued employment, promotion, or termination of employment.
- Scheduled and hosted a workshop training retreat each semester.
- Collected data on the effect of workshops on general chemistry education at small liberal arts universities, and presented the results at national conferences.

Workshop Leader, University of West Georgia, Carrollton, GA (01/2001 - 12/2004)

- Coordinated with the workshop super leader and course instructor to provide supplemental instruction to undergraduate chemistry students based on the Peer Led Team Learning model.
- Led multiple workshops of eight to twelve general chemistry students on a weekly basis

Assistant to Options Supervisor, Kawasaki Heavy Industries Ltd., Newnan, GA (05/2004 - 06/2005)

- Streamlined parts storage and delivery to the Options department. The increased efficiency led to the transfer of responsibility for the production schedule from the supervisor to assistant supervisor.
- Coordinated production schedule with the assembly line, options, paint, tires, shipping, and receiving departments.
- Substituted for the Tire department supervisor in his absence.
- Substituted for Options department mechanic when needed.
- Successfully completed several special projects for the Plant supervisor. This includes designing and building temporary wheels that prevented a plant shutdown during an industrial tire shortage.

Carpenter, Meyers Construction, Carrollton, GA (06/1995 - 04/2004)

- Started with company as general laborer and advanced to position of lead carpenter.
- Completed residential remodeling jobs of varying size and cost within time constraints and budget.
- Supervised carpentry and general labor crews of between two and five employees.

Honors & Awards

- Associate Instructor Award, 2007, Indiana University
- William L. Lockhart Scholarship, 2003, University of West Georgia
- James A. Wash Scholarship, 2002, University of West Georgia

Relevant Extra-curricular Activities

Youth Minister:

- Organized and led successful youth ministries at three churches over a period of ten years.
- Designed and supervised construction of a custom youth room at one church, and a full size custom youth sanctuary at a second.
- Was responsible for all aspects of ministry budgeting; including fundraising, hiring of contractors, scholarship dispersal, and travel budgets.

Grants

Student Awards

Student: Kameron Griffin (Fall 2014)

Title: Cellular Uptake of Polyphenols in a Bacterial Protein Expression System

Awarded by the Student Research and Creative Endeavors Grants Committee

Submitted Grants

Title: Cellular Uptake of Polyphenols in a Bacterial Protein Expression System
Submitted to the ii-vi Foundation to fund undergraduate research.

Title: Alanine Scanning Mutagenesis of the Peptide Hormone Preptin
Submitted to the Research Corporation for Science Advancement.

Publications, Patents, and Presentations

- Submitted Manuscript: *IGF-1 Analogs with Super Selectivity for the Insulin Receptor*.
- Thesis: A Search for Insulin Superagonism Through Synthesis and Characterization of Insulin/IGF-1 Hybrid Hormones, 2012, Indiana University
- Patent: PCT/US2011/040699, Single-Chain Insulin Agonists Exhibiting High Activity at the Insulin Receptor (Licensed to Merck Research Labs)
- Meyers J., Gelfanov V., DiMarchi R., IGF-1 Analogs with Insulin-like Selectivity for the Insulin Receptor. Poster session presented at: The Third Annual Watanabe Symposium in Biotechnology; September 2012; Bloomington, IN.
- Peptide Therapeutics: Building Biomolecules using a Chemist's Toolbox. Invited Speaker at: Advanced College Project 2010 Fall Workshop, November 2010; Bloomington, IN.
- Kaur Z., Meyers J., Zhao Y., DiMarchi R. Chemical Synthesis of Insulin and Related Analogs. Poster session presented at: Breaking Away. 21st Symposium of the American Peptide Society; June 2009; Bloomington, IN.
- Contributor, Principles of Chemistry I Workshop Workbook, 2003, University of West Georgia
- Contributor, Principles of Chemistry II Workshop Workbook, 2003, University of West Georgia
- Contributor, Principles of Chemistry I Workshop Workbook, 2002, University of West Georgia

- Contributor, Principles of Chemistry II Workshop Workbook, 2002, University of West Georgia
- Contributor, Principles of Chemistry I Workshop Workbook, 2001, University of West Georgia
- Contributor, Principles of Chemistry II Workshop Workbook, 2001, University of West Georgia

Professional References

- **Brett Simpson PhD**
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- **Richard DiMarchi PhD**
Linda & Jack Gill Chair in Biomolecular Sciences
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- **Jonathan A. Karty PhD**
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(Additional references can be provided upon request)

