

TERESA M. ALLOY, PhD

OBJECTIVE AND BACKGROUND

I am a biochemist with a passion for education and scientific writing. Demonstrating flexibility in teaching across multiple disciplines and utilizing several teaching modes I seek an adjunct position – with possibility of pursuing a permanent teaching position. Background summary:

- College Teaching Background in:
 - General Chemistry I and II – Lecture and Laboratory
 - Introductory Chemistry for Health Professionals – Lecture and Laboratory
 - General, Organic, and Biochemistry – Laboratory
 - General Biology – Lecture and Laboratory
 - Nutrition
- Modes of Teaching:
 - Face-to-Face Lecture
 - Asynchronous Online
 - Synchronous Online
 - Hybrid face-to-face/Asynchronous
- Develop, teach and oversee the following high school and junior high courses:
 - Physics
 - Chemistry
 - Biology
 - Physical Science
 - Life Science
 - Earth Science
- Develop, write and distribute to high school students and teachers, laboratory kits and laboratory protocols with a unified theme and in compliance with student safety concerns.
- Extensive experience in writing clinical research protocols in industry as well as experimental protocols for use in colleges and high schools.
- Submission of grant proposals and FDA submissions.
- Ensured that teams work within OSHA guidelines and company policies in order to provide a safe laboratory environment despite work with infectious agents and dangerous goods
- Proven record of leading teams to prepare products in R&D through clinical trials, FDA submissions and market entry in time-sensitive environments.
- Coordinate and manage a team of high school science teachers to develop and improve existing science courses.

EXPERIENCE

University of Nebraska, Omaha

August, 2018 to Present UNO Omaha, NE

- Teach 400-level Biochemistry Course
- Approved to teach graduate students
- Course includes supervision of 6-week independent research study by student teams, followed by poster presentations to faculty members of neighboring medical school

CIMS, LLC; Owner

July 2015 to Present CIMS, LLC Bellevue, NE

- Design and write laboratory manuals for high school students in Biology, Chemistry and Physics
- Provide laboratory guide manuals for teachers of Biology, Chemistry and Physics

Chair of Science Courses; Teacher of Sciences

August 2011 to Present Queen of Heaven Academy Online at www.queenofheavenacademy.org

- Coordinate and manage the team of Junior High and High School teachers to develop and improve the existing science courses
- Develop, write and distribute to students and teachers Laboratory Kits and Laboratory Protocols with a unified theme and in compliance with student safety in the areas of Biology, Chemistry and Physics
- Developed and taught courses for Life Science, Earth Science, Biology and Physical Science

College Adjunct Faculty Positions

January 2004 to Present College of St. Mary's Omaha, NE

- Currently teaching General, Organic, Biochemical Chemistry with lab
- Courses geared toward health professionals, especially Nurses
- General Chemistry I and II Lecture and Lab for Summer 2009 course

January 2007 to present Western Iowa CC Sioux City, IA

- Currently teaching online Anatomy & Physiology I and II with lab, fully online course
- Previous Formats: face-to-face, e-Hybrid, video-conferencing and fully online science courses

August 2007 to December 2009 Morningside College Faculty Sioux City, IA

- Taught General Chemistry I and II lab only for Fall, Spring and Summer Courses
- Taught General/Organic/Biochemistry Lab for Fall and Spring Courses
- Course geared toward Nursing and Pre-Medical Students

January 2004 to June 2016 Iowa Western Community College Council Bluffs, IA

- Taught recurring semesters of *General, Organic, Biochemical Chemistry* with lab
- Taught *Nutrition, Anatomy & Physiology I and II* with lab
- Courses geared toward health professionals, especially Dental Hygienists

August 1980 to June 1982 Faculty Owensboro Catholic High School Owensboro, KY

- Instructor for advanced-level sophomore biology
- Developed and taught biology laboratory

Industry Experience

Research Leadership Positions

August 1992– July 1999 Abbot Laboratories Abbott Park, IL

R&D Project Manager for Hepatitis/Retrovirus Sector

- Lead team to develop a new Hepatitis A biochemical immunoassay, through discovery, research and development, clinical trials, data analysis, FDA submission and market entry in an aggressive timeline and time-sensitive environment
- Resolution of product deficiencies or problems in timely manner throughout R&D and market delivery

- Ensured that the team was working within OSHA guidelines and company policies in order to provide a safe laboratory environment despite work with infectious agents and dangerous goods.
- Coordinated disparate groups in company to ensure product delivery; including Marketing, Clinical Research, Warehouse, and Production
- Prepared written and oral reports of data to multiple levels of management
- Managed project from R&D phase to market entry.
- Supervised team of technicians.

R&D Project Manager for Clinical Chemistry

- Managed a project team designed to verify 13 assay claims.
- Generated and analyzed data of the 13 products
- Liaison between Abbott Laboratories and Merck, a supplier.
- Identified and resolved critical manufacturing process issues.
- Prepared written reports to multiple levels of management

Senior Clinical Research Associate for Hepatitis/Retrovirus Sector

- Evaluated clinical research sites for suitability for clinical trials, compliance with research protocols, data integrity, research safety and laboratory security
- Determined and coordinated a set of clinical sites for a set of Hepatitis and HIV biochemical assay clinical trials
- Developed the protocols for clinical studies and taught the procedures at the various sites
- Supervised clinical site set up and operation
- Analyzed, reviewed and compiled the data generated at the various clinical sites
- Wrote and submitted the FDA submissions.
- Ensured that the team was working within OSHA guidelines and company policies in order to provide a safe laboratory environment despite work with infectious agents and dangerous goods

Other Experience

1999–2006 Stay at home home-school mother with home business Chicago area, IL

Nutritional and Home Product Business – operational until 2007

- Developed a client base for nutritional supplements.
- Organized and Conducted educational seminars
- Supervised team of educators

1991–1992 University of Illinois at Chicago Chicago, IL

Post-Doctoral Research Associate

- Research on rhodopsin-transducin interactions using spectroscopy, fluorometry and synthetic peptides to probe sites of interaction between rhodopsin and transducin.
- Assessed binding characteristics using fluorescent-labeled peptides

1982–1986 University of Louisville Louisville, KY

***Receptionist and Program Assistant for School of Nursing
Research Technician for Exercise Physiology***

- Developed and maintained budget for Nursing Continuing Education Program
- Assisted in coordination and implementation of Nursing CE courses for Kentucky nurses
- Technician for Adult Fitness and Faculty/Staff Wellness Program
- Performed phlebotomy, hydrostatic weighing, treadmill testing and biochemical assays

Education

1991–1992 University of Illinois at Chicago Chicago, IL

Post-Doctoral Research Associate

- Research on rhodopsin-transducin interactions using spectroscopy, fluorometry and synthetic peptides to probe sites of interaction between rhodopsin and transducin.
- Assessed binding characteristics using fluorescent-labeled peptides.

1986–1991 University of Louisville Louisville, KY

Research Assistant for Department of Biochemistry

- Conducted research on the mechanism of G protein coupling to chemoattractant receptors.
- Thesis entitled: “Disparate Regulation of Common G Proteins by Formyl Peptide and Leukotriene Receptors”.

1975–1980 Western Kentucky University Bowling Green, KY

- B.S., Biology, Minor in Chemistry. Graduated Cum Laude.

1986–1991 University of Louisville Medical School Louisville, KY

- Ph.D. in Biochemistry from the Department of Biochemistry. Graduated with Graduate Dean’s Citation for Academic Excellence

1991–1992 University of Illinois at Chicago Chicago, IL

- Post-Doctoral Research Training in the Department of Physiology/Biophysics

Publications

Alloy, Dr. Theresa. “In Faith: Chemistry Laboratory”, www.catholictexts.com/student-Chemistry/, 2018.

Alloy, Dr. Theresa. “In Faith: Biology Laboratory”, www.catholictexts.com/student-Biology/, 2018.

Alloy, Dr. Theresa. “In Faith: Physics Laboratory”, www.catholictexts.com/student-Chemistry/, 2018.

Dratz, E.A., J.E. Furstenu, C.G. Lambert, D.L. Thireault, H.M. Rarick, T. Schepers, S. Pakhlevaniants and H.E. Hamm. Correction. NMR structure of a receptor-bound G protein peptide. *Nature* 390:424, 1997.

- Krupnick, J.G., V.V. Gurevich, T. Schepers, H.E. Hamm and J.L. Benovic. Arrestin Rhodopsin Interaction. Multi-site binding delineated by peptide inhibition. *J. Biol. Chem.* 269:3226-3233, 1994.
- Dratz, E.A., J.E. Furstenau, C.G. Lambert, D.L. Thireault, H.R. Rarick, T. Schepers, S. Pakhlevanians, and H.E. Hamm. NMR structure of a receptor-bound G protein peptide. *Nature* 363:276-281, 1993.
- Schepers, T.M., McLeish, K.R. Differential cholera-toxin- and pertussis-toxin-catalysed ADP-ribosylation of G-proteins coupled to formyl-peptide and leukotriene B₄ receptors. *The Biochemical Journal* 289(2):469-473, 1993.
- Schepers, T.M., Klein, J.B., Feldhoff, P.M., Dean, W.L., McLeish, K.R. Interferon-gamma induces phosphorylation of multiple small-molecular-weight proteins in U937 cells. *Journal of Interferon Research*, 12(4):289-296, 1992.
- Schepers, T.M., Briery, M.E., McLeish, K.R. Quantitative and qualitative differences in guanine nucleotide binding protein activation by formyl peptide and leukotriene B₄ receptors. *The Journal of Biological Chemistry*, Vol 267, No. 1:159-162, 1991.
- McLeish, K.R., Klein, J.B., Schepers, T.M., Sonnenfeld, G. Modulation of trans-membrane signaling in HL-60 granulocytes by tumor necrosis factor. *Biochemistry Journal*, 279:455-460, 1991.
- Klein, J.B., Payne, V., Schepers, T.M., and McLeish, K.R. Bacterial lipopolysaccharide enhances polymorphonuclear leukocyte function independent of changes in intracellular calcium. *Inflammation* Vol. 14, No. 5:599-611, 1990.
- Klein, J.B., Schepers, T.M., Dean, W.L., Sonnenfeld, G., and McLeish, K.R. Role of intracellular calcium concentration and protein kinase C activation in IFN-gamma stimulation of U937 cells. *The Journal of Immunology*, Vol 144, Issue 11: 4305-4311, 1990.
- Evidence that activation of a common G-protein by receptors for leukotriene B₄ and N-formyl-leucyl-phenylalanine in HL-60 cells occurs by different mechanisms. *Biochemical Journal* 260:427-434, 1989.