

SCIENTIST

Professional Overview

A hardworking scientist with proven experience in research and development, spectroscopy, chromatography and molecular cell biology. A contributor with wide range of skills in drug discovery, design and delivery, research and method development, manufacturing and technical training. Core Qualifications Preclinical Drug Discovery and Delivery Design of imaging biomarkers for non-invasive imaging (Insulinoma) High throughput screening, target validation Lead Optimization through combinatorial synthesis, structural drug design Design drug delivery through chemical formulation and peptide based drug carriers Molecular Biology qPCR, gene reporter assays in vitro ADME assay and enzyme stability tests Mammalian and bacteria cell culture, cell transfection (stable and transient) Organic Synthesis Oligonucleotide and peptide synthesis. Antibody conjugation Multi-step Organic Synthesis. Writing Author, review and edit peer reviewed scientific manuscripts, reports, white papers, technical notes, workflows and SOP Analytical Compound Characterization and Structure Determination using MALDI-TOF, ESI-MS, IR, UV-Vis, CD and NMR HPLC Operation, Maintenance and Troubleshooting Chromatography: Column, Thin-Layer, Affinity, Reverse Phase, Normal Phase, IE and SEC

Education

Ph.D : Chemistry 2010 The University of Texas at Dallas City , State , United States Chemistry

MS : Chemistry 2008 Chemistry

Experience

Scientist 01/2012 to Current Planet Pharma Millburn , NJ

- Works closely with production team to deliver new products and processes in line with Sigma Aldrich products and in accordance with company compliant standards such as ISO9000:2000 and ISO13485 Supports customer accounts by ensuring their products are within defined specification Assists in transfer of newly or improved processes to all Sigma Aldrich sites globally Manages process improvement projects aimed at improving the quality and safety of manufacturing processes.
- This includes utilizing AtTask (on-line process management software), Lean Six Sigma tools and methodology to deliver the projects upon agreed deadlines Process development, and validation in accordance with the required quality management standards Troubleshoots manufacturing issues related to processes or chemistry and/or customer complaints Documents all research on laboratory notebooks using good documentation practices Safety Safety auditor at Sigma Custom Products Utilizes Failure Mode and Effect Analysis while designing projects Technical Training Actively mentors, trains and supervise production team for several months to improve their research and analytical skills, laboratory safety and professional skills in relation to newly developed process Writing Generates technical notes, white papers, workflows and other documents to support marketing and sales activities Author SOP documents for implementation, operation and maintenance of advanced technical equipment and instruments.

Research Scientist 12/2010 to 08/2012 Amazon Rhodes , IA

- Product Development Worked closely with peptide and antibody core laboratory to support the manufacturing processes and ensure uninterrupted running on the laboratory.
- Designed and synthesized potent Quillaja Saponin vaccine adjuvants.
- The compounds required structural modification of natural product (Quillaja Saponin -21).
- Developed new chemistry applications for peptide synthesis and antigen development Designed and synthesized potent Quillaja Saponin vaccine adjuvants.
- The compounds required structural modification of natural product (Quillaja Saponin -21) Utilized various chemical reactions to conjugated lipids and non-natural oligosaccharide to QS-21 Formulated the QS-21 compounds for preclinical testing.

Graduate Research Assistant 08/2007 to 11/2010 Association Of American Medical Colleges Washington , DC

- Under advisor supervision, worked to set up new laboratory, install and maintain laboratory instruments such as HPLC, ABI 433 peptide microwave, freeze dryers, UV-Vis spectrometer.
- Developed and synthesized cyclic glucagon-like peptide-1 and Exendin-4 peptides with constrained conformation.
- In collaboration with UT Southwestern Medical Center and NIH we design the most highly constrained peptides ever reported with potential in type II diabetes therapy and noninvasive imaging of pancreatic beta mass and insulinoma.
- Notable Contributions: Authored and co-authored three manuscripts related to GLP-1 peptides for publication in peer reviewed journals Presented scholarly abstracts and scientific talks in national and regional scientific meetings Supervised and trained over 20 baccalaureate and junior graduate students in their independent research Determined receptor efficacy of GLP-1 mimetics using gene reporter assay Maintained laboratory safety standards, chemical inventories and accurately calibrating equipments Conducted in vitro ADME assay and enzyme stability tests on cyclic GLP-1 peptides Data analysis and presentation using software such as Graph Pad Prism

Publications

Haokao Gao, Gang Niu, Min Yang, Qimeng Quan, Ying Ma, Eunice N. Murage, Jung-Mo Ahn, Dale O. Kiesewetter, and Xiaoyuan Chen, PET of Insulinoma Using 18F-FBEM-EM3106B, a New GLP-1 Analogue. *Mol. Pharmaceuticals*, 2011, 8, 1775-1782. Su-Tang Lo, Eunice Murage, Jung-Mo Ahn and Xiankai Sun, PET imaging of pancreatic α -cell mass changes in a mouse model. *J. Nucl Med* 2011, 52 (Supplement 1): 86. Eunice N. Murage, Guangzu Gao, Alessandro Bisello, and Jung-Mo Ahn, Development of Potent Glucagon-like Peptide-1 Agonist with High Enzyme Stability via Introduction of Multiple Lactam Bridges. *J. Med. Chem.* 2010, 53 17, 6412-6420. Eunice N. Murage, Guangzu Gao, Alessandro Bisello, and Jung-Mo Ahn, Highly constrained glucagon-like peptide-1 with improved biological activity and enzyme stability. *Peptides: Breaking Away*, Proceedings of the 21st American Peptide Symposium. M. Lebl, Ed., American Peptide Society, San Diego, CA, 2009, pp. 144-145. Eunice Murage, Martin Beinborn, and Jung-Mo Ahn, Seeking for Alpha-Helical Propensity in a Receptor-Bound Conformation of Glucagon-Like Peptide-1. *Peptides: Chemistry, Structure and Biology*, Proceedings of the 20th American Peptide Symposium. E. Escher, W. D. Lubell, and S. Del Valle, Eds., Springer, New York, NY, 2009, pp.289-290. Jung-Mo Ahn, Sun-Young Han, Eunice Murage, and Martin

Beinborn, Rational Design of Peptidomimetics for Class B GPCRs: Potent Non-Peptide GLP-1 Receptor Agonists. *Peptides: Chemistry, Structure and Biology*, Proceedings of the 20th American Peptide Symposium. E. Escher, W. D. Lubell, and S. Del Valle, Eds., Springer, New York, NY, 2009, pp.125-126. Eunice N. Murage, Jonathan C. Schroeder, Martin Beinborn, Jung-Mo Ahn, Search for α -helical propensity in the receptor-bound conformation of Glucagon-like Peptide-1, *Bioorganic & Medicinal Chemistry*, 2008, 16, 23, 10106-10112. Presentations and Posters: 22nd American Peptide Society Symposium, San Diego, California (June 22nd -30th 2011) Highly Constrained GLP-1 Analogues as non-invasive PET imaging agents for the assessment of pancreatic beta-cell mass (Poster). 22nd American Peptide Society Symposium, San Diego, California (June 22nd -30th 2011) Solution structure of a GLP-1 receptor peptidomimetic agonist Ac-SH3-GLP-1(22-36) NH₂ (Poster). ABRF 2011, San Antonio Texas (Feb 2011) Application of constrained peptides to various biological process (Poster). 43rd ACS meeting in miniature, (April 17th 2010), Incorporation of lactam bridges on GLP-1 improves the potency and the enzyme stability (Talk). 21st American Peptide Society Symposium, Bloomington Indiana, (June 7 to 12th 2009). Highly Constrained Glucagon-Like Peptide-1 with improved biological activity and enzyme stability (Poster). 13th Annual Chemistry-Biology Symposium, University of Texas at Dallas. (March 26th, 2008) Synthesis of Alpha Helix Stabilized Glucagon-like Peptide-1 Analogs (Talk).

Skills

analytical skills, Data analysis, designing, Product Development, documentation, GLP, HPLC, imaging, ISO, ISO9000, notebooks, notes, marketing, meetings, 2000, Works, microwave, natural, Prism, Process development, process improvement, processes, process management, publication, quality, quality management, reporter, research, Safety, sales, scientific, Sigma, Six Sigma, SOP, specification, supervision, Technical Training, white papers, type II, UV, validation, Author