

138 Aubrey
Quakertown, PA 18951

Ella Suet-Hing Clement

(267) 490-5174
eclement@wcu.edu

EDUCATION

- 2005 Ph.D. Chemistry, Virginia Polytechnic Institute and State University (Virginia Tech); Thesis title: "Rational design and synthesis of potential psychotropic drugs"; Advisor: Professor Paul R. Carlier.
- 1999 M.S. Chemistry, Hong Kong University of Science and Technology (HKUST); Thesis title: "Design and synthesis of novel acetylcholinesterase inhibitors"; Advisor: Professor Paul R. Carlier.
- 1997 B.S. Chemistry, HKUST.

RESEARCH AND TEACHING EXPERIENCE

- 2010-present Adjunct Chemistry Instructor, Western Carolina University
- Developed materials for freshman chemistry classes
 - Taught both face-to-face and online freshman chemistry classes
 - Prepared video lectures for online students
 - Created content for delivering instructional materials and facilitating student learning using Blackboard Learning Management System.
- 2000-2005 Graduate assistant, Virginia Tech.
- Designed and synthesized a directed library of non-zwitterionic GABA_A receptor (GABA_AR) analogs.
 - Assayed the activities of GABA_AR agonists and antagonists with radioisotopes such as ³⁶Cl⁻ and ³H.
 - Investigated and implemented the enantiospecific syntheses of benzodiazepine derivatives.
 - Characterized the performance of these benzodiazepine derivatives with computational studies.
 - Determined the enantiopurity of these benzodiazepine derivatives with HPLC.
- 2002-2003 Head graduate teaching assistant
- Designed lecture materials for use in the organic chemistry laboratory.
 - Coordinated teaching assistants' schedules.
- 2000-2005 Graduate teaching assistant
- Taught general chemistry and organic chemistry laboratory classes.
- 1999-2000 Research Assistant, HKUST.
- Synthesized GABA_AR ligands and other CNS-active drug candidates.
- 1997-1999 Graduate assistant, HKUST.
- Developed a directed library of novel acetylcholinesterase inhibitors.

Classes Taught

CHEM 101: Chemistry in Society (online)

CHEM 132: Survey of Chemistry I (online)

CHEM 133: Survey of Chemistry II (both online and face-to-face (summer II 2010-2012))

SKILLS

Language skills: Fluent in English, Mandarin and Cantonese

Computer skills: MS Word, Excel, PowerPoint and Blackboard Learning Management System

Technical skills: Experienced with 1D & 2D NMR, HPLC, IR and chromatographic separation techniques.

TEACHING AWARD

- 2003 Graduate Teaching Assistant Award
- Award received for excellence in teaching organic chemistry laboratory as a graduate teaching assistant.

ORAL PRESENTATIONS

“Synthesis and Evaluation of New GABA Amides: Further Study of Tether-length Dependence and Discovery of six new competitive GABA_AR Antagonists.” 56th Southeast Regional Meeting of the American Chemical Society, Research Triangle Park, NC, November 2004,

“Discovery of non-zwitterionic GABA(A) agonists and a superagonist.” 224th ACS National Meeting, Boston, MA, August 2002

PUBLICATIONS (note my maiden name is Chow)

1. Clement, J. A.; Clement, E. S. H. The medicinal chemistry of genus *Aralia*. *Curr. Top. Med. Chem.* **2014**, *14*(24), 2783-2801
2. Bloomquist, Jeffrey R.; Boina, Dhana Raj; Chow, Ella; Carlier, Paul R.; Reina, Matias; Gonzalez-Coloma, Azucena. Mode of action of the plant-derived silphinenes on insect and mammalian GABA_A receptor/chloride channel complex. *Pesticide Biochemistry and Physiology* **2008**, *91*(1), 17-23.
3. Li Chaoying; Carlier Paul R; Ren Hong; Kan Kelvin K W; Hui Kwokmin; Wang Hong; Li Wenming; Li Zhiwang; Xiong Keming; Clement Ella Chow; Xue Hong; Liu Xiangou; Li Mingtao; Pang Yuanping; Han Yifan Alkylene tether-length dependent gamma-aminobutyric acid type A receptor competitive antagonism by tacrine dimers. *Neuropharmacology* **2007**, *52*(2), 436-43.

4. Clement, Ella C.; Carlier, Paul R. A simple route to tetrahydro-1,4-benzodiazepin-3-ones bearing diverse N1, N4, and C10 functionalization. *Tetrahedron Letters* **2005**, 46(21), 3633-3635.
5. Carlier, P. R.; Chow, E. S.-H.; Barlow, R. L.; Bloomquist, J. R. Discovery of non-Zwitterionic GABA_A receptor full agonists and a superagonist. *Bioorg. Med. Chem. Letters* **2002**, 12, 1985-1988.
6. Carlier, P.R.; Chow, E.S.-H.; Han, Y.; Liu, J.; El Yazal, J.; Pang, Y.-P. Heterodimeric Tacrine-Based Acetylcholinesterase Inhibitors: Investigating Ligand-Peripheral Site Interactions. *J. Med. Chem.* **1999**, 42, 4225-4231.
7. Han, Y. F.; Li, C. P.-L.; Chow, E.; Wang, H.; Pang, Y.-P.; Carlier, P. R. Dual-site binding of bivalent 4-aminopyridine- and 4-aminoquinoline-based AChE inhibitors: contribution of the hydrophobic alkylene tether to monomer and dimer affinities. *Bioorg. Med. Chem.* **1999**, 7, 2569-2575.
8. Carlier, P. R.; Han, Y.; Chow, E. S.-H.; Li, C. P.-L.; Wang, H.; Lieu, T. X.; Wong, H. S.; Pang, Y.-P.. Evaluation of short-tether bis-THA acetylcholinesterase inhibitors. A further test of the dual binding site hypothesis. *Bioorg. Med. Chem.* **1999**, 7, 351-357.