

## Natural Sciences Summer 2016 Undergraduate Research Program

### **MENTOR** **Department**

### **Peer-Reviewed Journal Articles Recently Published, Pending Publication, Being Written**

\* indicates previous undergraduate student-researcher

#### Dr Adam C. Glass Chemistry

Glass, A. C.; Caspary, K.\*; Rude, C.\*; Fordice, J.\*; Olefination of 3-phenyl-1H-indene to Benzofulvene; (1E)-1-(3-chlorobenzylidene)-3-phenyl-1H-indene, 2015, ChemSpider Synthetic Pages, Synthetic Page 779, DOI: 10.1039/SP779

Glass, A. C.; Cargill, M.\*; Olefination of 3-phenylindene; Benzofulvene Dimer, 2015, ChemSpider Synthetic Pages, Synthetic Page 778, DOI: 10.1039/SP778

Glass, A. C.; Mayther, M.\*; Nehrenberg, D.\*; Huff, D.\*; Nucleophilic Aromatic Substitution of 5-fluoro-1-indanone, 2014, ChemSpider Synthetic Pages, Synthetic Page 738, DOI: 10.1039/SP738

#### Dr Rosemarie C. Haberle Biology

Crowl, A.A., N. W. Miles, H-H. Wu, C. J. Visger, K. Hansen, T. Ayers, R. Haberle, N. Cellinese. (2016) A global perspective on Campanulaceae: biogeographic, genomic, and floral evolution. Amer.J.Bot. 103 (2): 1 – 13.

L.Zhao, X-W. Jiang, Y-j Zuo; X-I Liu, S-W Chin, R Haberle, D. Potter, Z.-y.Chang, J.Wen. (2016) Multiple events of allopolyploidy in the evolution of the racemose lineages in Prunus (Rosaceae) based on integrated evidence from nuclear and plastid data. PLoS ONE (accepted with minor revision).

Crowl, A.A., E. Mavrodiev, G. Mansion, R.C. Haberle, A. Pistarino, G. Kamari, D.Phitos, T. Borsch, & N. Cellinese. 2014. Phylogeny of Campanuloideae (Campanulaceae) with emphasis on the utility of nuclear pentatricopeptide repeat (PPR) genes. PLoS ONE 9(4): e94199. doi:10.1371/journal.pone.0094199

Chin, S. -W., J. Shaw, R.C. Haberle, J. Wen, & D. Potter. 2014. Diversification of almonds, peach, plums and cherries – molecular systematics and biogeography of Prunus (Rosaceae). Mol. Phyl. Evol. 76: 34-48.

#### Dr Katrina M. Hay & Dr Sean M. O'Neill Physics

- Katrina Hay, "Teaching the Physics of Energy while Traveling by Train," Phys. Teach. 51 (Feb. 2013).
- Matthew Hubbard\* and Katrina Hay, "How Tongue Size and Roughness Affect Lapping," J. Under. Res. Phys. 27 (Mar 2013).
- Katrina Hay, "Physics of Energy: A Sustainability-Themed University Travel Course," (book chapter in) Handbook of Research on Pedagogical Innovations for Sustainable Development (IGI Global, USA, 2014), pp. 442-453.
- Greg Salvesen, Kris Beckwith, Jacob B. Simon, Sean M. O'Neill, Mitchell C. Begelman, "Quantifying energetics and dissipation in magnetohydrodynamic turbulence," Monthly Notices of the Royal Astronomical Society 438, pp. 1355-1376 (Feb 2014).

#### Dr Alex R. Lechler Geosciences

Huntington, KW, and Lechler, AR, 2015, Carbonate clumped isotope thermometry in continental tectonics, Tectonophysics, v. 647-648, p. 1-20.

S. Jasechko, A. Lechler, F. S. R. Pausata, P. J. Fawcett, T. Gleeson, D.I. Cendón, J. Galewsky, A. N. LeGrande, C. Risi, Z. D. Sharp, J. M. Welker, M. Werner, and K. Yoshimura, 2015, Glacial-interglacial shifts in global and regional precipitation  $\delta^{18}\text{O}$ , Climate of the Past Discussions, v. 11, p. 831-872.

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Dr Justin C. Lytle  
Chemistry

Published:

Lytle et al., "Carbon Ductwork with Nanometric Walls and Micron-to-Submicron Inner Diameters" ECS Journal of Solid State Science and Technology, 2013, 2, M3078.

Submitted:

Lytle et al. "A Method to Prepare Carbon Inverse Opal Papers Using Carbon Fiber Sheets as a Framework" (submitted October 2015 to the Journal of Materials Chemistry A...in peer-review). *I have previously submitted a version of this manuscript to the Journal of Materials Chemistry A in 2013 and to Chemistry of Materials in 2013.*

Dr Shannon B. Seidel  
Biology

Peer-reviewed research article:

Seidel, S. B., Reggi, A. L.\*., Schinske, J. N., Burrus, L. W., & Tanner, K. D. (2015). Beyond the Biology: A Systematic Investigation of Noncontent Instructor Talk in an Introductory Biology Course. *CBE-Life Sciences Education*, 14(4), ar43. \*\*\*Note: The second author (Reggi AL) of the above paper was an undergraduate biology student that I directly mentored as a postdoctoral fellow.

Editor-reviewed journal article:

Seidel, S. B., & Tanner, K. D. (2013). "What if students revolt?"—Considering Student Resistance: Origins, Options, and Opportunities for Investigation. *CBE-Life Sciences Education*, 12(4), 586-595. \*\*\*Note: This publication is currently the 8th most-read publication in CBE-Life Science Education over the course of the last year.

Dr Dean A. Waldow  
Chemistry

ACS Nano Published...

Cox, P. A.; Waldow, D. A.; Dupper, T. J.; Jesse, S.; Ginger, D. S. Mapping Nanoscale Variations in Photochemical Damage of Polymer/Fullerene Solar Cells with Dissipation Imaging. *ACS Nano* 2013, 7(11), 10405-10413.

Dr Neal A. Yakelis  
Chemistry

Peterson., G. I.\*; Church, D. C.; Yakelis, N. A.; Boydston, A. J. 1,2-Oxazine Linker as a Thermal Trigger for Self-Immolate Polymers. *Polymer* 2014, 55, 5980-5985

Boydston, A. J.; Yakelis, N. A.; Berenson, R.; Peterson, G. I.\* (Univ. of Washington and Pacific Lutheran University) Thermally-Activated Self-Immolate Materials. 46136.02WO2, patent application filed December 9, 2013

In preparation:

Provisional Patent: Boydston, A. J.; Yakelis, N. A.;