

**Dr. Kathryn R. Allen**

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**Grants and Fellowships:**

- Noonan Grant
    - Spring
    - Amy Lehr \$225
    - Matthew Thompson \$225
  - Student Research and Creative Activity Grant
    - October 9<sup>th</sup> 2015
    - Matthew Thompson \$486
    - Amy Lehr: \$500
  - Faculty Grant \$1000
    - October 1<sup>st</sup> 2015: Awarded \$500
  - PRF UNI Grant \$55,000
- This grant was a 4000 word proposal on petroleum-relevant fundamental research. I suggested maleic anhydride-based unsaturated polyester resin orthogonal chemoselective cross-linking.
- October 16<sup>th</sup> 2015
  - Faculty Grant \$1000
    - April 20<sup>th</sup>, 2016: Awarded \$870
  - SCTE Travel fellowship
    - April 22<sup>nd</sup>, 2016: Awarded: \$80

**Conferences Attended as a Faculty Member**

- STEM-UP PA – Teaching Symposium Presentation December 5<sup>th</sup>, 2016
- UMBC CNMS – Judge for Morning and Afternoon session: Responsibilities included judging 5 posters for the morning session and awarding the top two of the division of chemical sciences and judging 4 posters for the afternoon session and awarding the top of the division of chemical sciences. Poster topics ranged from nanoparticles to solar cells. The conference was composed of 272 undergraduate poster presenters. 6 Millersville students attended and presented three posters. Gina G. To won a 2<sup>nd</sup> place poster award.
  - Date: October 3<sup>rd</sup>.
  - Location: University of Maryland, Baltimore County.
  - Students: Amy Lehr and Matthew Thompson attended, but did not present

**Professional Experience**

- Chemistry Department, Millersville University
  - Assistant Professor
  - Courses taught: Organic Chemistry (235), Chemistry 101
  - 2015-present
- Chemistry Department, Millersville University
  - Visiting Assistant Professor
  - Courses taught: Organic Chemistry, General Chemistry Lab
  - 2014-2015
- Science, Technology, Engineering and Mathematics Department, Bucks County Community College
  - Adjunct Faculty Member
  - Courses taught: Chemistry 101, Chemistry for nurses
  - 2013-present
- Department of Chemistry and Biochemistry, Rowan University
  - Adjunct Faculty Member
  - Courses taught: Organic Chemistry II and Lab
  - 2013-present
- Department of Chemistry, University of Southern California
  - Post-Doctoral Research Fellow
  - Advisor: Professor Mark E. Thompson
  - 2011-2012

## Synthesis of organic dyes and their characterization for application in OPV devices

### Service

- March 19<sup>th</sup>, 2016- Science Olympiad event supervisor. I created experiments, drawing from kinetics labs and gas labs and supervised while students performed the experiments. Then myself and a high school teacher volunteer pronounced student placements and reported these to the event coordinators.
- March 17<sup>th</sup>, 2016 – Gaige Dormitory Demonstration for Resident Assistant David Sanchez at which 20 students attended.
  - Demos
    - Liquid Nitrogen Ice Cream
    - Elephant Toothpaste
- 2015 October 5<sup>th</sup>, 2015- South Village Dormitory Demonstration for Resident Assistants Colin Greenawalt and Marisa Macchia at which 23 students attended. This was incredible fun. The student loved the slime the most of all. I explained how the PVA in the glue was being networked by the Borax to become tougher and more durable so the more they played with it, the stronger it would get. We made two batches of ice cream as well and discussed flash freezing.
  - Demos:
    - Carbon Snake
    - Borax Slime
    - Liquid Nitrogen Ice Cream
- Carnival of Majors. 2015 September 23<sup>rd</sup>. 12-2 pm SMC with Maria Schiza. Prepared a student research initiative brochure to distribute. This was meant to showcase the research of the department to let students know one of the most important parts about preparing for life after college – getting hands on independent study in the lab. (pictures available). This event also ended up featuring Dr. Schiza and myself in the Snapper.
- Open House. 2015: September 26<sup>th</sup> and October 10<sup>th</sup>. Displayed NMR room, Organic Chemistry lab and Polymer research lab for visiting Families. See the Research Initiatives brochure comments above as well.
- APSCUF Student/Faculty Committee arranged 86 student postcards to be sent to Honorable Cutler to sway the budget impasse in favor of increasing education budget. Sep. 8-18<sup>th</sup> 2015 SMC. This also involved coordinating 14 volunteers over the two week period and arranging for the purchase of candy and toys to attract students to the table. I worked with Kim Martin in the APSCUF office, sending her a flyer that I made to attract faculty to the volunteer table and to encourage them to advertise to their students about the event. I also personally participated in over 14 hours at the table myself. (see attachment and pictures).
- 2015: Social committee of the department. My position involves collecting money from each department member and hosting a small cupcake party before department meeting for each faculty member's birthday and for major holidays. The purpose was to increase the social atmosphere of the department and give faculty a chance to relax and blow off steam as the stresses of the semester increased. I initiated this committee with my Chair's permission.
- March 21<sup>st</sup>, 2015 – Science Olympiad event supervisor. I created experiments, drawing from (LYMANS EXPERIMENTS) and supervised while students performed the iodine clock and an acid-base reaction under timed conditions. Then myself and a student volunteer pronounced student placements and reported these to the event coordinators. (see attached files)

### Publications

- Whited, Matthew T.; Patel, Niral M.; Roberts, Sean T.; Allen, Kathryn; Djurovich, Peter I.; Bradforth, Stephen E.; Thompson Mark E. Symmetry-breaking intramolecular charge transfer in the excited state of meso-linked BODIPY dyads. *Chemical Communications*, 2012, 48, 284-286.

- Kim, JongBok; Allen, Kathryn; Oh, Soong Ju; Lee, Stephanie; Toney, Michael F.; Kim, Youn Sang; Kagan, Cherie R.; Nuckolls, Colin; Loo, Yueh-Lih. Small-molecule thiophene-C60 dyads as compatibilizers in inverted polymer solar cells. *Chemistry of Materials*, 2010, 22( 20), 5762-5773.
- Reingold, I. David; Butterfield, Anna M.; Daglen, Bevin C.; Walters, Robert S., Jr.; Allen, Kathryn; Scheuring, Susan; Kratz, Katrina; Gembicky, Milan; Baran, Peter. A new tricyclic triketone from tandem condensation reactions. *Tet. Lett.* 2005, 46(22), 3835-3837.

### **Posters/Presentations**

"Improvement of Mechanical Properties of Polylactones through pi-stacking." Amy Lehr, Matthew Thompson, Dr. Kathryn Allen. Poster presentation at 252nd American Chemical Society National Meeting, San Diego, CA, March 2016, CHED 1578.

"Modification of Poly(delta-valerolactone) through Hydrogen Bonding Pendant Groups." Matthew Thompson, Amy Lehr, Dr. Kathryn Allen. Poster presentation at 252nd American Chemical Society National Meeting, San Diego, CA, March 2016, CHED 1585.

STEM-Up PA, "Chemistry Course Collage" December 5<sup>th</sup>, 2015. 25 Minute Presentation

Departmental Seminar, "Carbonaceous Materials: From Carbon nanotubes to Petroleum-based Plastics" November 2, 2015. 50 minutes presentation.

University 103, "Polymers: What are they and why is their research something to be inspired by?" September 24<sup>th</sup>. 20 minute presentation.

WMSC, Role model presentation Tuesday, April 7<sup>th</sup>, 2015. Inspiration for young girls and women to pursue an education and career in a field in sciences. A 30 minute talk on renewable resources. (see attached)

"Intramolecular charge transfer in symmetrical BODIPY dyads". Oral presentation at 243rd American Chemical Society National Meeting, San Diego, CA, March 2012, paper Chem. Comm., 2012, 48, 284.

"Intramolecular charge transfer in symmetrical BODIPY dyads". Oral presentation at 2011 Southern California Inorganic Photochemistry Conference, Catalina, CA, September 2011, paper Chem. Comm., 2012, 48, 284.

"Synthesis of cyclic ketoesters using sequential Michael addition". Poster presentation at 227th American Chemical Society National Meeting, Anaheim, CA, March 2004, paper CHED-971.

"Computer-aided stationary phase design: Accuracy checks". Poster presentation at 225th American Chemical Society National Meeting, New Orleans, LA, March 2003, paper CHED-191.

### **Awards**

- Robertson Faculty Research Release Grant Program 2016
- WiSE Merit Award for Excellence in Postdoctoral Research 2012
- Calvert Ellis Scholarship 2000-2004

### **Professional Development**

- MU advisement Enrichment Series Workshop October 14<sup>th</sup>, 2016
- CAMP IDEA Jan 5-9 2015. A focus on learning skills and techniques to improve your teaching.

- October 11<sup>th</sup>, 2014, STEM-UP PA, a university partnership for the advancement of academic women. A mentoring network core workshop
- 1-day POGIL workshop at BCCC 2014  
Rick Moog explaining how to use POGIL effectively
- Professional Development Course 2014  
Teaching Pedagogy
- Digital Media Literacy Workshop  
Utilizing digital media in coursework 2014
- Research Experience for the Undergraduate (REU) mentor, USC 2011
- Demonstration Leader  
NanoDay in New York, City College, New York, NY 2009
- 2 WISC Girls' Science Day, Columbia University 2005-2009
- Undergraduate research mentor, Columbia University 2008
- Women in Science at Columbia (WISC) Welcoming Committee Co-Chair 2005
- Chemistry Teaching Assistant Training Committee Member, Columbia University 2005
- Teaching Assistant, Columbia University Fall '04, Spring '05/'06
- Laboratory Teaching Assistant, Juniata College 2001–2004

## Education

Columbia University, Graduate School of Arts and Sciences, New York, NY

Advisor: Prof. and Chair Colin Nuckolls

Synthetic modification and application of all-carbon materials and small molecules in FET and OPV devices

o Ph.D. in Chemistry - September 2010

o M.Phil. in Chemistry - February 2010

o M.A. in Chemistry - May 2006

Juniata College, Huntingdon, PA

o B.S. in Chemistry; Philosophy minor - June 2004

NSF Research Experience for Undergraduates (REU) Fellow - Summer 2003

Advisor: Professor I. D. Reingold, Department of Chemistry, Juniata College

Organic chemistry synthesis

Undergraduate Research Assistant - Fall 2002

Advisor: Professor E. von Nagy Felsobuki, Department of Chemistry, The University of Newcastle, NSW, Australia

Use and interpretation of TOF/MS

Undergraduate Research Assistant - Summer '01/'02

Advisor: Professor Paul D. Schettler, this work in collaboration with Restek Corporation, Department of Chemistry, Juniata College

Use, maintenance and data collection using GC/FID and GC/MS