**PROF**

**DIVISION OF PROFESSIONAL RELATIONS**

R. Libby and J. Cohen*, Program Chairs*

**SUNDAY MORNING**

**Pennsylvania Convention Center 103A**

**LGBTQ+ Graduate Student & Postdoctoral Scholar Research Symposium**

L. Eytel, T. P. Yoon, *Organizers*

E. J. Schelter, *Presiding*

**8:00**  **1.**Robust RAFT Polymerizations in Enzymatically Deoxygenated Whisky (and Other Water/Alcohol Solvents). **J. Ting**, D.K. Schneiderman, T.M. Reineke, S.J. Rowan, M.V. Tirrell

**8:20**  **2.**Supramolecular nanofibers for the remediation of heavy metal-contaminated drinking water. **T. Christoff-Tempesta**, J. Ortony

**8:40**  **3.**Molecular structure of carboxylate-containing surfactants at the planar vs. curved oil-water interface. **M. Foster**, G.L. Richmond

**9:00**  **4.**Dynamic Metal/ Metal Oxide Interface affects PdAg Reactivity. **T. Egle**, C.R. O'Connor, V. Mehar, M.A. van Spronsen, M. Karatok, M. Salmeron, J.F. Weaver, R.J. Madix, C.M. Friend

**9:20**  **5.**Post-synthetic ligand exchange modulates the absorbance and emission energies of colloidal CdSe quantum dots. **D. Westmoreland**, E.A. Weiss

**9:40**  Intermission.

**9:50**  **6.**Aminoalkylation of Adamantanes Using Visible-Light Photoredox and Hydrogen Atom Transfer (HAT) Dual Catalysis. W.K. Weigel, **H. Dang**, D.B. Martin

**10:10**  **7.**Electrochemical and photocatalytic oxidative coupling of ketones through a silylbisenol ether intermediate. **A. Caravana**, S. Dhanju, R. Reynolds, R.J. Thomson

**10:30**  **8.**Investigation of the role of the 2-azaallyl radical in the reactivity of 2-azaallyl anions: A reactivity, structural, and electrochemical study. **G. Panetti**, M. Gau, P.J. Carroll, B.C. Manor, E.J. Schelter, P.J. Walsh

**10:50**  **9.**Mechanistic and catalytic applications of decarbonylative cross-coupling reactions. **C.A. Malapit**, M. Borrell, M.W. Milbauer, C. Brigham, J.R. Bour, M.S. Sanford

**11:10**  Intermission.

**11:20** **10.**Diverse Organic Transformations Enabled by Electrocatalysis. **S. Lin**

**Starting a Successful Research Program at a PUI**

Sponsored by YCC, Cosponsored by CHED and PROF

**Seaborg Award Symposium in honor of Sue B. Clark Radioanalytical Chemistry**

Sponsored by NUCL, Cosponsored by PROF

**SUNDAY AFTERNOON**

**Pennsylvania Convention Center 103A**

**LGBTQ+ Graduate Student & Postdoctoral Scholar Research Symposium**

L. Eytel, T. P. Yoon, *Organizers*

M. Morris, *Presiding*

**1:00** **11.**Studies toward the total synthesis of atropurpuran and the arcutines. **M.A. Gaviria**, A.M. Armaly, L.C. Alvarez, C. Schindler

**1:20** **12.**Metal-Ligand Cooperation Facilitates Proton Coupled Electron Transfer from Ir. **J.L. Kuo**, K.I. Goldberg

**1:40** **13.**Designing ligands that accelerate oxidative addition of aryl halides at Cu(I) complexes. **I. Blythe**, L. Sharninghausen, M.S. Sanford

**2:00** **14.**Palladium and Gold Catalyzed Aryl Decarboxylative Functionalization Reactions. **R. Daley**, J.J. Topczewski

**2:20** **15.**Development of statistical modeling tools for the analysis of conformationally flexible chiral catalysts. **J. Crawford**, M.S. Sigman

**2:40** Intermission.

**2:45** **16.**Advanced Functional Polypeptides for Biological and Electronic Applications. **T. Nguyen**, S. Lim, A. Easley, J. Lutkenhaus, K.L. Wooley

**3:05** **17.**Design of an allyl sulfide handle for dynamic control over the biochemical and mechanical properties of hydrogels. **J.C. Grim**, B. Aguado, T. Brown, A. Killaars, K.S. Anseth

**3:25** **18.**Reprogramming an iron(II)- and 2-(oxo)-glutarate-dependent hydroxylase to halogenate aliphatic N-succinyl-L-amino acids. **P. Rivera Pomales**, A.J. Mitchell, A.K. Boal

**3:45** **19.**Chemoenzymatic synthesis of azaphilone derivatives for structure-activity relationship studies.. R.J. Roldan, **J. Pyser**, A. Narayan

**4:05** **20.**Modular SNO-OCT Scaffolds for Multiple, Rapid Bioorthogonal Labeling. **Y. Hu**, A. Mat Lani, J. Roberts, H. Kilgore, R.T. Raines, J.M. Schomaker

**4:25** Intermission.

**4:30** Panel Discussion.

**Chemical Angel Network - Chemists investing in Chemical Companies**

Sponsored by BMGT, Cosponsored by PROF‡, SCC‡ and SCHB‡

**Seaborg Award Symposium in honor of Sue B. Clark**

**Plenary Session: General Radiochemistry**

Sponsored by NUCL, Cosponsored by PROF

**Young Chemists, Big Impact: Diverse Young Chemists in Academia**

Sponsored by YCC, Cosponsored by CHED, CMA, CWD and PROF

**ACS Award for Research at an Undergraduate Institution: Symposium in honor of Kerry Karukstis** Sponsored by COLL, Cosponsored by PROF

**MONDAY MORNING**

**Pennsylvania Convention Center Bridge Over Arch Street - Theater 8**

**Challenges & Opportunities for Inclusive Chemistry Curriculum Design**

S. A. Kennedy, *Organizer*

K. Elkins, *Organizer, Presiding*

S. Kennedy, *Presiding*

**9:25** Introductory Remarks.

**9:30** **21.** Using a Course-based Undergraduate Research Experience(CURE) to introduce to Massively Parallel Sequencing (MPS) in forensic science at Towson University. **C. Zeller**, K. Elkins

**9:50** **22.** Including Course based Undergraduate Research Experiences (CUREs) in advanced forensic science curriculum as an active learning and diverse strategy for student learning. **S. Coticone**, L. Bailey Van Houten

**10:10** **23.**Identifying Small Proteins in an Authentic Research-based Undergraduate Laboratory Class. **M. Hemm**, R. Miranda, V. Anderson

**10:30** Intermission.

**10:45** **24.**An Advanced Organic Laboratory Course as a Barrier-less Introduction to Research. **L.C. Brown**

**11:05** **25.**Introduction of research into a large enrollment organic chemistry lab course. **N.A. Eskew**, C.L. Cruz, N. Holmberg-Douglas, N.P. Onuska, J.B. McManus, I. Mackenzie, B. Hutson, D.A. Nicewicz

**11:25** **26.**Inclusive pedagogy toolkit for chemistry curriculum delivery. **S.A. Kennedy**, M. Winfrey

**11:45** Discussion.

**Gabor A. Somorjai Award for Creative Research in Catalysis: Symposium in honor of David Milstein**

Sponsored by CATL, Cosponsored by D&I and PROF

**Reimagining Diversity & Equity in honor of Robert Lichter**

Sponsored by CMA, Cosponsored by PRES‡ and PROF

**Seaborg Award Symposium in honor of Sue B. Clark**

**Developing Careers and Recognition in Radiochemistry**

Sponsored by NUCL, Cosponsored by PROF

**Diversity, Equity, and Inclusion in Chemistry**

Sponsored by SOCED, Cosponsored by PROF and YCC

**Mental Health & Graduate School**

Sponsored by YCC, Cosponsored by CHED, CMA, CWD, PRES and PROF‡

**MONDAY MORNING (continued)**

**E. V. Murphree Award in Industrial and Engineering Chemistry: “Symposium in honor of Enrique Iglesia**

Sponsored by CATL, Cosponsored by ENFL, I&EC and PROF

**ACS Award for Achievement in Research for the Teaching and Learning of Chemistry: Symposium in honor of Stacey Lowery Bretz**

Sponsored by CHED, Cosponsored by PROF and WCC

**ACS Award in Colloid Chemistry: Symposium in honor of Molly Stevens**

Sponsored by COLL, Cosponsored by PROF

**ACS Award in Surface Chemistry: Symposium in honor of Teri Odom**

Sponsored by COLL, Cosponsored by PROF

**ACS Award for Research at an Undergraduate Institution: Symposium in honor of Kerry Karukstis** Sponsored by COLL, Cosponsored by PROF

**Becoming a Chemist: Scaffolding Authentic Professional Skill Experiences into the Undergraduate Chemistry and Biochemistry Curricula**

Sponsored by CHED, Cosponsored by PROF and YCC‡

**MONDAY AFTERNOON**

**Pennsylvania Convention Center Bridge Over Arch Street - Theater 8**

**International Opportunities for Collaboration**

L. P. Greenblatt, *Organizer*

L. Greenblatt, *Presiding*

**1:00** Introductory Remarks.

**1:05** **27.**Opportunities for international collaborations: Pharma and academic perspectives - the Moulder Center experiment. **M. Abou Gharbia**

**1:30** **28.**International Collaborations in the Middle East Catalyzed by the Malta Conferences. **Z.M. Lerman**, M.Z. Hoffman

**1:55** **29.**Some international collaboration experiences: 1972 – 2012. **S.A. Katz**

**2:15** **30.**My personal experiences with international collaborations and visits. **L.J. Berliner**

**2:35** **31.**Initiating successful international collaborations during sabbatical. **L.M. Blaney**

**2:55** Intermission.

**3:10** **32.**Conducting research as a Fulbright grantee in Germany. **K.M. Elkins**

**3:30** **33.**International collaborations:Experiences from a US Fulbright Scholar Program. **S. Raje**

**3:50** **34.**Enhancing Your Teaching and Research through International Collaboration. **C.C. Velez**, **D.A. Shipp**, **C.A. Parish**, **L.H. Rickard**, **A. Larsen**

**4:40** Concluding Remarks.

**MONDAY AFTERNOON (continued)**

**Pennsylvania Convention Center - Exhibit Hall A**

**LGBTQ+ Graduate Student & Postdoctoral Scholar Research Symposium Posters**

L. Eytel, T. P. Yoon, *Organizers*

**2:00 - 4:00**

**35.**Wide Range of Tunability in Persistent Micelle Templating. **A. Sarkar**, M. Stefik

**36.**Co-encapsulation of TMZ and Cy5 in EGFR targeted biodegradable nanoparticles for improved TMZ efficacy and glioblastoma theranostics. **R. Schmitt**, S. Mahajan, K. Cwilinski, P.N. Prasad

**37.**Designing bimetallic Fe(III) complexes as T1 MRI contrast agents. **A. Rivera**, J.R. Morrow

**38.**Sticky lipids alter the wettability of lipid-clay films. **B.L. Kessenich**, N. Pokhrel, E. Nakouzi, J.K. Kibue, M. Flury, L. Maibaum, J.D. Yoreo

**39.**Characterization of metal-loaded mimetic melanin by magnetometry. **K.S. Cay**, J.D. Rinehart

**40.**Progress toward development of a more acid stable epothilone for use as an ADC payload. **H. Imlay**, L. Chen, O. John-Fatinikun, A. Fojo, D. Sackett, J.L. Leighton

**41.**Determining the Molecular Target of Biliatresone, a Plant Isoflavenoid That Causes Biliary Atresia. **A.D. Glass**, J.D. Winkler

**42.**Amide Bond Equilibration: Development of a Chemical Strategy to Access Lasso Peptides. **L. Digal**, A. Ghorai, A. Roberts

**43.**Antibacterial and antiparasitic activity of novel brominated vinylic fatty acids. **V. Jauregui**, D. Alequin-Torres, N.M. Carballeira

**44.**Rippled β-sheets from sequence mismatched L- and D- amphipathic peptides. **E. Quigley**, D. Raymond, B.L. Nilsson

**45.**Aerobic C–H functionalization of simple arenes promoted by mild Brønsted acid additives. **J. Sampson**, L. Wang, B.P. Carrow

**46.**Mechanism of Polymerization of rac-Lactide by Aluminum Indolide Catalysts. **S. Chiniforoush**, A.M. Luke, A. Peterson, M. Mandal, Y. Popowski, H. Sajjad, C.J. Bouchey, B. Graziano, L.J. Yao, T.M. Reineke, W.B. Tolman, C.J. Cramer, D. Shopov

**47.**1H NMR Spectrum board game: A new active learning tool for undergraduate students. Z. Thammavongsy, **M. Morris**, R.D. Link

**Gabor A. Somorjai Award for Creative Research in Catalysis: Symposium in honor of David Milstein** Sponsored by CATL, Cosponsored by D&I and PROF

**Reimagining Diversity & Equity in honor of Robert Lichter**

Sponsored by CMA, Cosponsored by PRES‡ and PROF

**Seaborg Award Symposium in honor of Sue B. Clark - Interfacial Chemistry**

Sponsored by NUCL, Cosponsored by PROF

**MONDAY AFTERNOON (continued)**

**ACS Award for Encouraging Disadvantaged Students into Careers in the Chemical Sciences: Place-Based Education for Rural and/or Arctic Students 2019 Encouraging Disadvantaged Students Symposium in Honor of Larry Duffy**

Sponsored by CHED, Cosponsored by PROF

**E. V. Murphree Award in Industrial and Engineering Chemistry: “Symposium in honor of Enrique Iglesia**

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**Becoming a Chemist: Scaffolding Authentic Professional Skill Experiences into the Undergraduate Chemistry and Biochemistry Curricula**

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**MONDAY EVENING**

**Pennsylvania Convention Center - Exhibit Hall A**

**Sci-Mix**

**8:00 - 10:00**

**40, 42, 44, 46.** See Monday afternoon Poster Session.

**48**. In silico structure-based drug design of E. coli β-glucuronidase inhibitor, Z-77. S. Powell

**49**. What the PROF Ethics Subdivision can do for you and what you can do for ethics. K. Elkins, G. Ferrence

**TUESDAY MORNING**

**Pennsylvania Convention Center - Terrace Ballroom IV**

**Inclusion in the Chemistry Profession, Is it a Reality?**

Cosponsored by CWD

C. A. Supalo, *Organizer, Presiding*

**9:00** Introductory Remarks.

**9:05** **50.**What is Inclusion in the Chemistry Profession for Chemists with Visual Impairments? **C.A. Supalo**

**9:25** **51.**Science Outreach via University Administrative Fellowship at the Princeton Center for Complex Materials. **M. Hossain**, J. Van Wyck, J. Bhattacharya, D. Steinberg

**9:45** **52.**The Princeton University Materials Academy (PUMA): inclusive informal education via a socio-scientific approach.. **J. Bhattacharya**, D. Steinberg

**10:05** Intermission.

**10:20** **53.**Inclusion and accessibility efforts at the Princeton University MRSEC. **D. Steinberg**

**10:40** **54.**Inclusion Techniques Used to Teach Technology to Rurally Isolated Upward Bound Programs High School Students. **C. Monroe**

**11:00** **55.**“… All that is seen and unseen….” Visual impairments in the modern inorganic research environment. **S.M. Kilyanek**

**11:20** **56.**Culturally-Responsive Teaching: Scientific Argumentation Strategies among Deaf and Hard-of-Hearing Students. **A.D. Ross**, T.E. Pagano

**11:40** Concluding remarks.

**Scientific Visualizations & Creative Presentations**

Sponsored by CINF, Cosponsored by CPRC‡ and PROF

**ACS-CEI Award for Incorporation of Sustainability into Chemistry Education**

Sponsored by CHED, Cosponsored by PROF

**E. V. Murphree Award in Industrial and Engineering Chemistry: “Symposium in honor of Enrique Iglesia**

Sponsored by CATL, Cosponsored by ENFL, I&EC and PROF

**George C. Pimentel Award in Chemical Education: Symposium in Honor of Thomas Wenzel**

Sponsored by CHED, Cosponsored by PROF

**ACS Award in Surface Chemistry: Symposium in honor of Teri Odom**

Sponsored by COLL, Cosponsored by PROF

**Great Achievements in ES&T: James J. Morgan Environmental Science & Technology Early Career Award Symposium**

Sponsored by ENVR, Cosponsored by PROF

**TUESDAY AFTERNOON**

**Pennsylvania Convention Center - Terrace Ballroom IV**

**Planning for Retirement**

Cosponsored by SCC and SCHB

E. Meyer, S. S. White, *Organizers*

R. D. Archer, *Organizer, Presiding*

**1:00**  Introductory Remarks.

**1:05** **57.**Retiring gracefully: Managing life after work. **D. Oslin**

**1:30** **58.**Retirement: Financial issues. **E. Meyer**

**1:55** **59.**Deciding to move to a retirement community. **A.M. Wilson**

**2:15** **60.**Retirement Activities to Keep You Breathless – and Happy! **M. Orna**

**2:35** **61.**Skydiving Into retirement:Enjoy the ride and land softly. **W.F. Carroll**

**2:55** **62.**Fascinating facts about retired chemists I learned from editing the Senior Chemists Newsletter. **L.G. Hartshorn**

**3:15** **63.**Tips for success in retirement: Some personal examples. **T.R. Beattie**

**3:35** **64.**Diversity: Key to a happy retirement. **R.D. Archer**

**3:55** **65.**Your experience is too important to be wasted. **A.E. Pavlath**

**4:15** **66.**Activities of a Retired Chemist. **R.A. Yokley**

**4:35** **67.**The Chemical Angel Network-an opportunity to help early stage chemical businesses grow and create jobs for chemists. **S.S. White**, M. Vreeke, J.C. Giordan

**4:55** Concluding Remarks.

**PROF Executive Committee Meeting 3-5 PM**

Philadelphia 201 Hotel – Salon 10

**Henry Hill Award Reception 5-7 PM**

Philadelphia 201 Hotel - Horizons Rooftop Ballroom

**Scientific Visualizations & Creative Presentations**

Sponsored by CINF, Cosponsored by CPRC‡ and PROF

**MEDI Awards Symposium**

Sponsored by MEDI, Cosponsored by PROF

**ACS Award Lectures**

Sponsored by COLL, Cosponsored by PROF

**E. V. Murphree Award in Industrial and Engineering Chemistry: “Symposium in honor of Enrique Iglesia**

Sponsored by CATL, Cosponsored by ENFL, I&EC and PROF

**TUESDAY AFTERNOON**

**ACS Award for Creative Advances in Environmental Science & Technology:**

**Chemicals at the global scale and Award Address**

Sponsored by ENVR, Cosponsored by PROF

**TUESDAY EVENING**

**Excellence in Graduate Polymer Research**

Sponsored by POLY, Cosponsored by PRES, PROF, SOCED and YCC

**WEDNESDAY MORNING**

**ACS Award for Team Innovation: Symposium in Honor of Otto Berbee, Jaap den Doelder, Lori Kardos, Teresa Plumley Karjala, and Joe Ortega**

Sponsored by PMSE, Cosponsored by PROF

**ACS Award for Creative Advances in Environmental Science & Technology**

**Chemcial processes, exposures and effects in the environment**

Sponsored by ENVR, Cosponsored by PROF

**WEDNESDAY AFTERNOON**

**ACS Award for Team Innovation: Symposium in Honor of Otto Berbee, Jaap den Doelder, Lori Kardos, Teresa Plumley Karjala, and Joe Ortega**

Sponsored by PMSE, Cosponsored by PROF