



Periodic Times

Wittenberg University Department of Chemistry
Catalyzing Student Success

2018-19 Highlights:

Dan Marous wins teaching award and accepts tenure-track position at Witt.

BMB graduate Katie Winner receives Fulbright award.

Dave Finster named ACS CHAS Fellow.

New HPLC purchased with donor gifts.

Dept. participates in first-year research (FYRA) program

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Volume XII

Academic year 2018-19

Dave Finster Retires

Dave Finster taught his last class on Tuesday, April 30, 2019. Never one to waste precious class time, he continued lecturing on electrochemistry (including his beloved Nernst equation) a few minutes beyond the class period.

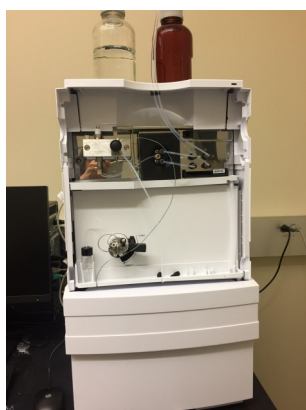
Dave began teaching at Wittenberg in 1981. His 38 years of service are marked by numerous teaching innovations, significant leadership as department chair for eleven years, many contributions to the University including committee service and work as the Chemical Hygiene Officer.

Dave has been especially active in the promotion of effective teaching and chemistry lab safety. He has published and presented on models of learning and led workshops on course design and pedagogy. He has been active in the American Chemical Society, presenting numerous talks at National Meetings, serving on committees, participating in writing several ACS exams, and serving as an editor of the ACS journal *Chemical Health and Safety*. The second edition of his textbook *Laboratory Safety for Chemistry Students* was published in 2016. He received the Omicron Delta Kappa Distinguished Teaching Award for New Faculty in 1984, the Lou Laux Environmental Sustainability Award in 2018 and in 2019 was named a CHAS Fellow by the Chemical Health & Safety Division of the ACS.

In recent years, he has experimented with teaching methods in his courses, implemented green chemistry concepts into the inorganic course, and developed courses on climate change. Dave will continue his involvement in the ACS and safety community.



Department Acquires New Liquid Chromatography Instrument



Funds from our generous donors came to the rescue last fall when repairs were deemed unviable for our 16-year old liquid chromatograph (LC). The department used gift money to purchase a new Agilent LC that includes UV detection and a binary gradient pump. Students in the analytical chemistry course used it for analysis of caffeine in soft drinks in the spring. This summer, it was heavily used by Dr. Dudek's research student who is investigating the oleuropen content in fringe tree leaves.



To contribute to the chemistry department and/or Wittenberg's Annual Fund, send donations to:

The Wittenberg Fund
Wittenberg University,
PO Box 720
Springfield, OH 45504

or go to:
www.wittenberg.edu
Scroll to the bottom to
choose Give to
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Academic Support

Thanks to these recent chemistry department contributors

The department received generous gifts and bequests the past year from the following:

Franta Fund: The late Mrs. Virginia Franta

Glasoe Fund: Dr. Timothy and Mrs. Teri Knilans

Sartoris Fund: Dr. William H. Bunnelle & Ms. Leslie V. Evans
AbbVie Foundation

Chemistry Department Gift Account:

Dr. Warren Bosch & Mrs. Barbara Bosch	Dr. Terrence Pansino &
Dr. Lynn Carlton & Mrs. Betty Lou Carlton	Dr. Elizabeth Prosser
Ms. Linda Crosby & Mr. Bradley Crosby	Ms. Diana Rischling
Dr. Vincent & Mrs. Antoinette Davisson	
Dr. Lydia M. Kisley	
Dr. Thomas Gallo	

Alumni Referral Program—Another Way to Help

Alumni may submit names of prospective students for a Wittenberg Referral Award of \$1,000 per year. Referrals must be submitted before the student applies to Wittenberg. See <https://www.wittenberg.edu/admission/alumni-scholarships>. Students interested in Chemistry may also apply for a Chemistry Special Interest Award, for up to \$2000 per year.

Dan Marous Wins Provost Award for Outstanding Teaching



Dan Marous (class of 2009) has served two years as a Visiting Assistant Professor at Wittenberg, and was recently appointed to a tenure-track position in the department. At the conclusion of his second year, he received the Provost's Award for Outstanding Teaching, recognizing "the highest level of teaching excellence by a visiting or adjunct faculty member at Wittenberg University." This award is based upon nominations from the faculty and selected by the members of the Faculty Development Board.

Department Welcomes Dr. Stephanie Eveland

Stephanie Eveland is our new Visiting Assistant Professor; she is teaching General Chemistry this fall and Inorganic in the spring. She taught at Iowa State University as an instructor in 2018, and completed her Ph.D. there in 2019. She received her B.S. in Chemistry with minors in Math and Engineering from Florida State University.



Chemistry Department Papers and Conference Presentations, 2018-19

Publications

"One-step Solvent-free Synthesis and Grafting of Diazonium Ions at Glassy Carbon Electrodes" Garrhett G. Via, Chelsea L. Shugart, Sophia L. Melnyk, Stephanie R. Hupman, Kristin K. Cline, *Electroanalysis*, **2018**, 30, 2421-2426.

Presentations

Christina Thompson and Amil G. Anderson, "Free Energy Changes of Glucose Binding to Glucose/Galactose Binding Protein", 17th MERCURY Conference on Computational Chemistry, July 2018, Furman University, Greenville, SC

Caitlyn M. Hum, Justin C. Unternaher, Kristin K. Cline, "Investigation of Carbodiimide Coupling to Grafted Aryl Carboxylates on Glassy Carbon Electrodes", Pittcon, March 20, 2019, Philadelphia, poster.

Jack Snider and Ray Dudek, "Rate of Glyphosate Decay" American Chemical Society Local Meeting, March 2019, University of Dayton, Dayton OH, poster.

Jack Snider and Ray Dudek, "Testing the Adiabatic Flame Model", Biennial Conference on Chemical Education, August 2018, Notre Dame, South Bend, IN, oral.

Mackenzie Freeman, Erin Armitage, and Ray Dudek, "Lead Contamination of Eggshells and Contents", Biennial Conference on Chemical Education, August 2018, Notre Dame, South Bend, IN, poster

Dave Finster, R.H. Hill, Jr., J. Mackellar, "Inserting Green Chemistry Considerations into RAMP", ACS National Meeting, April 2018, Orlando, FL.

Dave Finster, "Combining Safety and Green Chemistry Implementation in an Inorganic Synthesis Project," ACS National Meeting, April 2018, Orlando, FL.

Dave Finster, "Review of Progress and Challenges in Promoting Enhanced Safety Instruction," ACS National Meeting, April 2018, Orlando, FL.

Justin Houseknecht, "Active Learning in Organic Chemistry: Backward Design," Biennial Conference on Chemical Education, South Bend, July 2018, workshop.

Justin Houseknecht, "Active Learning in Organic Chemistry: Collaborative Learning and Classroom Assessment Techniques", Biennial Conference on Chemical Education, South Bend, July 2018. workshop.

Justin Houseknecht, "Specification grading in organic chemistry." Oral presentation, 2019, 5th Ohio PKAL Conference, Dayton, Ohio.

Justin Houseknecht, "Organic chemistry lecture and laboratory with specification grading." Oral presentation, 2018, 256th National Meeting of the American Chemical Society, Boston.

Bachinski, G. J.; White, S.; Houseknecht, J. B. "Effect of the Active Learning in Organic Chemistry workshops on teaching practice." 2018, 25th Biennial Conference on Chemical Education, South Bend.

Samuel, C. D.; Houseknecht, J. B. "Accessing the Gas Phase Reactivity of Cyanide in Nucleophilic Acyl Substitution." Poster presentation, 2018, 17th MERCURY Conference on Computational Chemistry, Greenville, South Carolina.

Alumni Notes

The department was saddened to learn of the recent death of Jessica (Coggins) Westmoreland ('14).

Jennifer (Knapp) Kaiser ('10) recently started as an assistant professor at Georgia Tech (Civil and Environmental Engineering and Earth and Atmospheric Sciences).

Rachel Saylor ('10) accepted a tenure-track position at Oberlin College.

Sarah Watson ('12) is studying law at the University of Cincinnati where she serves as a fellow at the Ohio Innocence Project. She intends to practice civil litigation focusing on intellectual property or employment law.

Rebecca Holmes ('16) accepted a position as Clinical Research Coordinator at The Ohio State University Wexner Medical Center

Faculty and students enjoyed seminar presentations last year by alumni Iris Qiu ('15), Christa Snyder ('11) and Michelle Peace ('91).

The Homecoming 2018 panel included Kelly Spray ('18), Jessica Skogland ('18), Scott Morris ('10), Alissa (Goble) Rauwerdink ('08), Stephanie Smith ('15) and Sophia Melnyk ('16).



Above: 2018 alumni panel photos.

To include your updates in the next department newsletter and/or to send changes in e-mail addresses, write to neelye@wittenberg.edu

Witt Homecoming
October 24-27, 2019

Chemistry & BMB Alumni Panel

Friday, Oct. 25
4-5 p.m.

Barbara Deer Kuss Science Center
room 248

If interested in serving as a panelist, please e-mail Kristin Cline, kcline@wittenberg.edu

All alumni are welcome to attend even if not on the panel!

2019 Chemistry and Biochemistry/Molecular Biology Awards

Sartoris Award for Outstanding Senior Chemistry Major: Brad Malott

Outstanding Senior BMB Major: Katherine Winner

Patterson Award for Outstanding Junior Chemistry Major: Katherine Robinson

James T. Gregory Award: Jack Snider

Organic Award: Jillian Poska and Lucas Klever

General Chemistry Award: Rachel Boyette, Rachel Kaiser, Gavin Tay

Chemistry Special Interest Scholarship Awards: Rachel Kaiser, Paul Schmelzer

First Year Research Award in Chemistry: Laura Stauffer

Summer Research 2019

Top: Abbi Vina, Rachel Boyette, Hunter Tichenor, Amor Niksic, Lindsey King;
Middle: Laura Stauffer, Caroline Barth; Bottom: Kayla Cull, Rachel Massey, Amanda Lam, Carly Carafa



Summer Research is funded entirely by earnings from the Virginia Ellis Franta Fund, the Paul Glasoe Fund, and the Mufaro Hove Fund. The Sartoris Fund is used for student travel to present at national conferences.

Name (class year)	Hometown	Major(s)	Summer Project
Caroline Barth ('21)	Hicksville, OH	Chemistry	Investigating the Attachment of Aryl Amines using Solvent-Free Grafting on the Surface of Glassy Carbon Electrodes
Rachel Boyette ('22)	Lakewood, OH	Chemistry	Lead, Chromium, Copper, and Strontium in Avian Eggshells and Egg Yolks
Carly Carafa ('22)	Urbana, OH	Biology	Calculating Relative Affinity of Glucose vs Alloose Binding to the Glucose/Galactose Binding Protein
Kayla Cull ('20)	Hazleton, PA	Data Science Major/ Chemistry Minor	Analyzing Transition States in Gas Phase Nucleophilic Acyl Substitution Self-Displacement Reactions
Lindsey King ('20)	Lancaster, OH	BMB	An Investigation of the Antimicrobial Resistance Activity of E. coli with Essential Oils
Amanda Lam ('22)	Westerville, OH	Chemistry	Relative Affinity of Glucose vs. Mannose Bound to the Glucose-Galactose Binding Protein
Rachel Massey ('21)	Columbus, OH	Biology, Music & Chemistry Minor	Nucleophilic Acyl Substitution Self-Displacement Reaction of Acetyl Cyanide Under Aqueous Conditions using PCM
Amor Niksic ('21)	London, England	BMB	Investigation of Antibiotic Resistance Patterns and Mechanisms in Escherichia Coli
Laura Stauffer ('22)	Upper Sandusky, OH	Chemistry	Preliminary Survey of Microplastics in Buck Creek, Springfield, Ohio.
Hunter Tichenor ('22)	Findlay, OH	BMB & English	Altering Paper-Based Sunlight Exposure Sensors
Abbi Vina ('21)	Columbus, OH	Chemistry/engineering	Concentration of Oleuropein in White Fringetree Samples

Chemistry Class of 2019



Left to right: Jack Snider, Taylor Brown, Bradley Malott, Breanna Donnelly

Chemistry Graduates

Taylor Brown is searching for employment in a crime lab.

Breanna Donnelly is applying to environmental chemistry graduate school programs.

Bradley Malott is searching for employment in the medical field and applying to medical school.

Jack Snider accepted a Scientist 1 position at Hikma Pharmaceuticals in Columbus.



BMB Class of 2019



Back row left to right: Dr. Margaret Goodman & Dr. Amil Anderson
 Middle: Justin Unternaher, Katherine Winner, Marshall Eippert
 Front row, left to right: Emily Jenney, Isabella Wagner, Kyle Dieringer

Biochemistry/Molecular Biology Graduates

Kyle Dieringer is seeking employment.

Marshall Eippert is attending Ohio University Heritage College of Osteopathic Medicine.

Emily Jenney is seeking employment.

Justin Unternaher is serving in the Peace Corps as a HIV/AIDS and Adolescent Health Volunteer in the Kingdom of Lesotho.

Isabella Wagner is seeking employment.

Katherine Winner received a Fulbright U.S. Student Program grant to pursue research at the Institute of Parasitology in České Budějovice, Czech Republic. Her project is “nuclear tRNA export as a quality control of tRNA processing and modification.”



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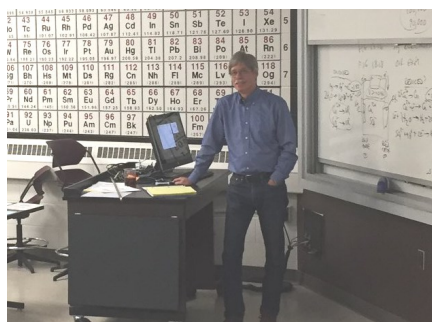
RAMP for Retirement

We **RECOGNIZE** Dave Finster's 38 years of teaching and his many contributions to the Department and University and to the chemistry community as a leader in safety education.

We **ASSESS** Dave's teaching and service to the department as excellent.

We **MINIMIZE** the retirement festivities per Dave's wishes, but hope he understands our deep appreciation nonetheless.

We **PREPARE** to miss having Dave here, but wish him the best in retirement.



Top: RAMP analysis presented to Dave at the Chemistry Department Awards Ceremony.
Above left: Dave finishes his last general chemistry lecture. Above right: Dave is honored as a CHAS fellow at the National ACS meeting.
Below: Trading card of Safety Heroes from a colleague at Princeton.

