# **Chemistry** at Colorado State University

College of Natural Sciences, Fall 2016

## Letter from the Chair

Greetings from Fort Collins on a beautiful fall day. The fall 2016 semester is well underway at CSU and with it comes another year of records and changes within the chemistry department. This year's enrollment at the University reached record levels. Our incoming freshmen class is not only the largest in history but also the most diverse. In chemistry, this has translated to a growth in enrollment in both our majors as well as non-majors taking chemistry classes. To address this growth, we continue to add new faculty, including Justin Sambur and Anna Allen. Justin comes to us from Cornell but received his Ph.D. from CSU working with Bruce Parkinson. His research focuses on understanding fundamental processes surrounding photoelectrochemistry. Anna has been teaching for the last two years as a temporary instructor in our organic chemistry program and we are fortunate that she has joined us as a full-time member of our teaching faculty.

Our faculty continue to excel in their roles as teachers, mentors, and researchers. This may best be highlighted by the awarding to Amber Krummel and Jamie Neilson of DOE Early Career awards and associated funding. These prestigious awards are given to the most promising young researchers in energy related sciences and mark the first two such awards given to any faculty member in any department while in residence at CSU.

In addition to the growth of our faculty, progress continues on the new Chemistry Research Building. The main concrete structure is finished and work crews are actively completing the complex mechanical systems as well as sealing up the outside before the winter weather arrives. If you get a chance, please stop by and take a look. It will be an impressive building!

Finally, I want to take a moment to mention the upcoming Stille Symposium in honor of Dr. Gary Maciel on Oct. 29. Gary was a long time member of and important contributor to the chemistry department. His loss has been felt by friends, colleagues, and alumni. The symposium is just one small opportunity to honor Gary's contributions to the department and to science in general. We hope you can attend.

Sincerely,

Charles S. Henry



Sketches for the new Biology Building and Chemistry Research Building—set to open fall 2017.



Upcoming Events Oct. 28: CSU Chem Club Halloween! Oct. 29:

Stille Science Symposium in tribute to Gary Maciel

Dec. 16:

Graduate Commencement

Dec. 17:

Undergraduate Commencement

Dec. 19:

Elliot Bernstein, ACS Seminar



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STATE YOUR PURPOSE

## **Upcoming Events**

Colorado State

## SAVE THE DATE OCTOBER 29, 2016



The 2016 John K. and Dolores Stille Science Symposium **DEVELOPMENT AND APPLICATION OF** NMR FOR OUR WORLD Stille Symposium in Tribute to Gary Maciel

> **Colorado State University** Fort Collins, Colorado





#### Speakers include:

- Joseph Ackerman (Washington University in St. Louis)
- Adriaan Bax (National Institutes of Health)
- Ann McDermott (Columbia University)
- Robert Tycko (National Institutes of Health)

### 2016 Colorado ACS Awardee Presentation

Elliot Bernstein has been awarded the 2016 Colorado Section Research Award from the Colorado Section of the American Chemical Society (COACS).

This award is the highest honor that the Colorado American Chemical Society Section can bestow on any chemist and is awarded in celebration of the cumulative accomplishments that Professor Bernstein has acquired over his entire career. For more information, please visit our website.

EUV Laser Photoelectron Spectroscopy of Mass Selected Neutral Clusters and Molecules

Monday, December 19 11:00 a.m.—2:30 p.m. Lory Student Center, **Grey Rock Room** 

**Elliot Bernstein Colorado State University** 



## Stille Symposium in tribute to Gary Maciel set for Oct 29

The 8th Stille Symposium will be held at Colorado State University on October 29, 2016. Four world-renowned scientists will give plenary lectures on the development and application of NMR in our world. The symposium will also feature a poster session and reception.

The 2016 Stille Symposium honors the late John K. Stille, an internationally recognized scientist, who pioneered research in synthetic, polymer and organometallic chemistry and held the title of University Distinguished Professor at Colorado State University. Gary Maciel was an influential scientist who made numerous original, significant and innovative contributions to the NMR field. His impact on people was equally broad, deep and pervasive. He passed away in 2014.

Click here to find out more and RSVP.

# CSU CHEMISTRY **DEPARTMENT'S** HALLOWEEN SHOW

FREE FAMILY-FRIENDLY FUN FOR KIDS AND ADULTS OF ALL AGES! **JOIN US IN COSTUME!** 

**OCTOBER 28TH** 530-730 PM

> BUGS SLIME REPTILES SCIENCE

## **CSU CHEMISTRY BUILDING LOBBY**



For more information visit: http://csuhalloweenshow.wix.com/mysite

# Honors and Accomplishments

#### Prieto Battery receives investment from Stanley Ventures

Prieto Battery, an advanced 3-D lithium ion battery technology company spun out of Colorado State University, has announced a strategic investment from Stanley Ventures, the newly formed venture arm of Stanley Black & Decker. Stanley Black & Decker is a world-leading provider of tools and storage, commercial electronic security and engineered fastening systems.

"This investment from Stanley Black & Decker is an important step toward bringing Prieto Battery's innovative technology to market," said Amy Prieto, CEO, CSO and co-founder of Prieto Battery, and an associate professor in CSU's Department of Chemistry. "Securing strategic partnerships has been a focus for us, both as a way to capitalize our company and as a way to define the markets where our battery technology can demonstrate a competitive advantage."

Larry Harper, vice president of Stanley Ventures, said: "The goal of this collaborative relationship between Stanley Black & Decker and Prieto is to bring their innovative technology to market through our world-class brands and industry leading products."

Full article available at <u>SOURCE</u>.

#### DOE honors chemist Amber Krummel with early career award

For her work capturing snapshots of the very small, **Amber Krummel** has received a very large reward: a \$750,000, five-year <u>Early Career Award from</u> the U.S. Department of Energy.



Krummel is one of 49 early-career scientists across the country (including colleague Jamie Neilson) to receive this distinction in 2016.

<u>Her lab</u> uses lasers and highly sensitive infrared (IR) measurements to understand how the microscopic affects the macro world. In particular, they are investigating molecular

events that impact biological, geochemical and materials systems, such as how the acidic surface of rock might alter the flow of water or oil around through it. The lab also develops technology, including microfluidic devices and new mid-infrared laser systems, to better capture snapshots of these small-scale events – helping us understand how they impact large-scale dynamics.

Krummel's DOE project is called "2D IR Microscopy – Technology for Visualizing Chemical Dynamics in Heterogeneous Environments." Her hope is to develop better imaging capabilities, especially in very short timeframes. To do that, she will use mid-infrared laser technology developed in her lab to drive the development of a new type of microscope, making it possible to connect these molecular-sized events to observations made at human (or at least millimeter-length) scales.

Read more at SOURCE.

#### Neilson receives DOE early career award

Jamie Neilson, assistant professor in the College of Natural Sciences' Department of Chemistry, has received a five-year, \$750,000 research award from the Department of Energy.

The DOE's Office of Science has selected Neilson, <u>along with 48 other scientists</u> from across the nation, to receive research funding

through its <u>Early Career Research</u> <u>Program</u>. Now in its seventh year, the program is designed to bolster the nation's scientific workforce by providing support to exceptional young scientists.

Neilson is a solid-state chemist who seeks to understand and control the formation of materials, along with their structures and properties – materials by design.



His DOE project, "Informed Materials Design Principles from Local Structures and Dynamics in Hybrid Organic -Inorganic Perovskite Halides," was selected by the Office of Basic Energy Sciences.

According to Neilson's project proposal, hybrid inorganic-organic perovskite halides have the potential to revolutionize functional semiconducting materials for energy-conversion technologies. However, new materials design principles are needed for precisely tailored, energy-relevant properties, and that's where he will focus his work.

"I am very excited about this research, and I am excited to continue collaborations with scientists at DOE national laboratories and user facilities to understand these paradigm-shifting materials," Neilson said.

Read more at SOURCE.



# Honors and Accomplishments

### Gray and Rappé publish chemistry text for use in upcoming chemistry course



**Chemistry Instructor Terry M. Gray and chemistry Professor Anthony K. Rappé** have written and published the electronic textbook, *Molecules of Life with a Chemistry Bootcamp.* The eBook is available through <u>Apple iBooks</u> and <u>Amazon Kindle</u> book store. The book was used this summer in the online professional development course which was an outreach component of the CCLEAR grant from NSF/EPA. It is also being used in Chemistry 103 – Chemistry in Context (chemistry for non-science majors) at CSU. The text is an introduction to chemistry, especially molecular structure, through the eyes of carbohydrates, fats and oils, proteins, and nucleic acids. Starting with atoms,

students learn chemistry on an as-needed basis so that by the end of the book they can understand a basic discussion on enzyme activity and drug design. Natural and synthetic polymers are also discussed.

Molecules of Life with a Chemistry Bootcamp is a "prequel" to the previously published *Energy:* 

What the World Needs Now (2013-2016), which covers thermochemistry basics with a discussion of fossil fuels, nuclear energy, renewal energy, power plants, global energy use, and CO<sub>2</sub>/global warming. The *Energy* eBook is also available at the <u>iBooks</u> and <u>Kindle</u> stores. A third volume on sustainability with case studies on chemistry and the environment is in preparation.



## Alumni News

Bernadette A. Hernandez-Sanchez (Ph.D. 2004, Fisher & Dorhout groups)



Bernie was recently selected for a Hispanic Engineer National Achievement Awards Conference (HENAAC) award. She was formally recognized at the Great Minds in STEM (GMiS)/ HENAAC conference in Anaheim, CA, on Oct. 7. Bernie currently works in the Advanced Materials Lab at Sandia National Laboratories.

#### Faculty honored by Grad Student Council for advising & mentorship

Congratulations to **professors Rick Finke** and **Chuck Henry**, who received **Honorable Mentions** from **CSU's Graduate Student Council (GSC)**, for their extraordinary contributions to graduate advising and



mentoring. The Graduate Advising and Mentorship Award celebrates exceptional faculty advisors who continually dedicate their time, energy, and wisdom to CSU graduate students.



The GSC congratulates the award recipients and expresses gratitude to all faculty advisors dedicated to enriching the experience of graduate students at CSU.

#### Bernstein receives Fulbright Specialist Fellowship

**Elliot Bernstein** was awarded a **Fulbright Special Fellowship** to perform research at the Indian Institute for Science in early 2017.

The Fulbright Specialist Program (FSP) promotes linkages between U.S. scholars and professionals and their counterparts at host institutions overseas. The focus of the FSP is educational capacity building and the development of longer-term educational relationships. The program awards grants to qualified U.S. faculty and professionals, in select disciplines, to engage in short-term collaborative two to six-week projects at eligible institutions worldwide.



## **Chemistry Research Building**



In early August, faculty, staff, and students from the Department of Chemistry and the College of Natural Sciences were part of a celebratory lunch at the construction site of the new building, which is set to open by fall 2017. The event, put on by Haselden Construction, was a thank-you to workers and other partners, including RLH Engineering and architects Hord Coplan Macht, for all their work thus far.



Haselden CEO Byron Haselden and College of Natural Sciences Dean Jan Nerger celebrated the Chemistry Research Building milestone. Credit: John Eisele/CSU Photography

"We in the college like to say that 'discovery begins here,'" said College of Natural Sciences Dean Jan Nerger, who addressed the crowd and thanked the workers as well as the state of Colorado, which provided substantial funding for the project. "What we mean by that is *here*, in this building. The discovery that is going to take place in this building will be remarkable." Attendees commemorated the event by adding their names to an interior wall of the building. Also on display was a fly-through video rendering of the new building.

View the video and read more at SOURCE.



## **Student Awards**

Each year, our undergraduate and graduate students win countless awards and are recognized for their research in chemistry. We'd like to say **"Congratulations"** in recognition of all your hard work and dedication to the field of chemistry.

#### Virgnia Bruce (McNaughton group)

Bruce was awarded one of the 1st Annual WCC Merck Research awards. As part of the award, Bruce recently gave a seminar entitled "Resurfaced polcationic nanobodies: a potentially general scaffold for intracellularly targeted protein discovery" at the ACS meeting in Philiadelphia, PA.





Congratulations to Diane Aceveda (McNaughton group) and Eric Lopez (Van Orden group), recipients of the 2016 NSF Bridge to the Doctorate Fellowship.

This program supports 12 graduate students pursuing studies in one of the STEM programs at CSU through

stipends, cost-of-education allowances, travel support for professional development, meetings and workshops, and assistantship support after the two year programs.





This spring, many students presented their research at CSU's Venture Innovation Symposium.

- Daniel Agocs (Prieto group)
- Max Braun (Prieto group)
- Rachel Feeny (Henry group)
- Miao Hong (Chen group)
- Bella Neufeld (Reynolds group)
- Kathryn Tracy ( Krummel group)
- Janet P. Yapor (Reynolds Group)

**Yapor** was awarded the **Physical Sciences "Best in Show"** at CSU's Ventures Innovation Symposium in April for her presentation.



#### Biodegradable wound-healing dressings

Chronic wounds pose major life threatening complications to patients of all ages, especially to those with underlying health conditions such as cancer or diabetes. We seek to improve the quality of life of these patients by developing materials that induce natural wound-healing processes without causing cell toxicity. These materials have broadspectrum antimicrobial activity and mimic the natural release of nitric oxide during the wound-healing cascade.

## **Chemical Bonds** *Creating Connections with Chem Club and Outreach*

Chemical Bond: Any of several forces by which atoms, molecules, or scientifically minded humans are bound together. These are bonds that hold the universe together, and which inspire connectivity, communication, and discovery every day.

Our purpose as the Chemistry Club and Outreach is to facilitate the formation of these chemical bonds and connections between our members, volunteers, and the students impacted by our outreach program; it is our hope to make chemistry come alive to all involved! We hold bi-weekly member meetings where our members can relax, network with other students and professors, learn some fascinating new demos, and meet other like-minded individuals. The Outreach program facilitates hands on classroom experiences for students from kindergarten to university level in the Fort Collins area, including STEM nights, classroom shows, and residence hall demonstrations. From Ram Welcome and Liquid Nitrogen Ice Cream to the end of the year Department Barbeque, we love getting involved in our CSU community and continuing to develop more of those 'chemical bonds'!





In this 2016-2017 school year, Chemistry Club and Outreach is working to expand and further develop our program in several exciting ways! Resume workshopping, guest seminars, and local workplace visits are now being implemented to help our members gain a better understanding of their field and prepare them for future careers. We have also established a peer mentoring program within the department — matching incoming chemistry majors with upperclassmen — in an effort to smooth out their college transition and foster a sense of community within the department.

If you are like us and are excited for the season, don't miss our upcoming family-friendly Halloween Show on Oct. 28, 5:30-7:30 p.m., right here in the CSU Chemistry Building! It will be a night of freaky fun, exciting experiments, and Halloween spirit that you and your family won't want to miss! You can also find us at the Colorado Science Teacher Conference in Denver on November 18, presenting on "Liquid (fu)N2-Teaching Liquid Nitrogen Demos"! Next year, a group of our students will be attendance at the ACS National meeting in San Francisco in April.

If you are interested in learning more about our programs, want to volunteer, become a member, or are interested in presenting a short seminar about your research or if you have questions please contact us at <a href="mailto:csuchemcluboutreach@gmail.com">csuchemcluboutreach@gmail.com</a>!

**Officer Team:** Lindsey Paricio (Author, Outreach Coordinator), Anne Marie Rauker (Outreach Coordinator), Becks Schiffhauer (President), Luis Fernando (Public Relations), Ben Reynolds (Faculty Advisor)

## Fellowship in South Korea

Air quality is a major public health concern in South Korea. **Ph.D. candidate Michael Link (Farmer group)** was awarded an **East Asia and Pacific Summer Institute fellowship** for U.S. graduate students from the **National Science Foundation**. With this fellowship, Link had an opportunity to travel to South Korea to perform air quality research.

More than three million registered vehicles occupy the megacity of Seoul. There, a group of extremely productive Korean scientists are working to understand South Korea's air quality issues. If you are a Korean scientist attempting to make important scientific contributions to a mostly English-speaking scientific community and keep up with scientific advances, mostly reported in English, research becomes excessively challenging if English is not your first language.

The research Michael performed, under the guidance of research scientist Taehyoung Lee, investigated the extent to which atmospheric oxidation of vehicle exhaust influences the production of fine particle pollution. Michael performed many experiments at the government-run traffic department where he was able to get an inside perspective on how emissions standards are enforced. This opportunity allowed Michael to make useful contributions to their work.



# **Congratulations, 2015-2016 Graduates!**

## **Doctor of Philosophy**

**Michael Barich Patrick Brophy** Eric Bukovsky Karlee Castro **Alex Chapman Tyler Clikeman** William Compel Jeramy Jasmann **Thomas Ni Nicholas White** John Wydallis **Dongmei Zhang** 

Aug 2016, Krummel Aug 2016, Farmer Dec 2015, Strauss Dec 2015, Strauss Aug 2016, McNaughton Dec 2015, Strauss Aug 2016, Ackerson Aug 2016, Borch May 2016, Ackerson Dec 2015, Rovis Aug 2016, Henry May 2016, Barisas





## Masters of Science

**Kristin Arabea** Christine Fukami **Daniel Henderson** Sung Hi Jo Loryn Killpack **Eric Lauzon** Alyssa Main Natthawat Semakul Dec 2015, Rovis Erika Sutor

Aug 2016, Reynolds Dec 2015, Borch Dec 2015, Rappé Dec 2015, Rappé Aug 2016, Neilson/Prieto Dec 2015, Reynolds Aug 2016, Ackerson Dec 2015, Fisher



## **Bachelor of Science**

Roshni Bhuvan	May 2016
Mitchell Bordelon	May 2016*
Geordan Brickey	May 2016*
Kyle Byrne	May 2016*
Lindsi Durrett	May 2016*
Jessica Geisenhoff	May 2016*
Juliette Granger	May 2016
Scott Green	May 2016*
Nikolas Hall	May 2016*
Samantha Hall	May 2016*
Taylor Lucia	May 2016*
David Mast	May 2016*
Christopher Miller	May 2016*
Susannah Miller	May 2016*
Lyudmila Novikova	August 2016
Eduardo Palomares	August 2016
Valentina Pauna	August 2016
Kerrick Rees	May 2016*
Dylan Slizewski	December 2015
Xiao Wu	May 2016*
Brent Wyatt	December 2015*
Zichun Xu	May 2016*
*ACS Certified	





# In the News

Keep in touch with what's happening in the world of chemistry at Colorado State University. SOURCE provides news & events about the greater CSU community. Our chemistry page offers news, seminar, and event information. Bookmark these pages today!

# SOURCE CHEMISTRY

#### Fort Collins kids test air pollution monitors for CSU researchers

In May 2016, 25 students at the Rivendell School in Fort Collins wore some unusual accessories – little black devices that look a bit like old digital cameras.

The accessories are wearable air pollution monitors created by CSU scientists. The fourth- and fifth-graders are helping test the monitors, which could eventually aid asthma sufferers in combating the effects of poor air quality.

The CSU research team is led by John Volckens, associate professor in the Department of Mechanical Engineering, and Chuck Henry, professor and chair in the Department of Chemistry. Supported by the <u>National Institutes of Health</u>, the researchers are seeking to deploy low-cost, wearable air pollution sensor technology. Their goal is to determine the air quality in personal microenvironments (i.e. home, school, transit), to help asthma sufferers and other vulnerable populations get more information on what they're breathing to prevent attacks.



Rivendell students Sarah Lindquist, Daniel Sarmast, Kate Wold, Thomas Rogers, Ian Emme and Oliver Knack.

#### Read more at <u>SOURCE</u>.

### Batteries are beautiful, says chemist and entrepreneur Amy Prieto



Every second of every day, our lives are touched by batteries. In our cars. Our phones. Our homes. We don't think about them – that is, until they don't work. Or in some unfortunate cases, when they burst into flames.

So says **Amy Prieto**, a chemist, materials scientist and entrepreneur who's passionate about making a better, faster, safer, cheaper battery. And she's well on her way to introducing disruptive new technologies to an industry still plagued by issues of performance, reliability and safety.

An associate professor in the College of Natural Sciences' Department of Chemistry, and the founder and scientific head of Fort Collins startup <u>Prieto Battery</u>, Prieto was the featured speaker for the President's Community Lecture Series May 24. Hosted by CSU President Tony Frank, the lectures invite the Fort Collins community to get to know some of CSU's most innovative faculty members.

# CSU experts push for national smoke warning system

Wildfire smoke is not only a view-blocker. It is also a health hazard, especially for children and older adults, and for those of any age with asthma or other lung or heart conditions.



That's why **A. R. Ravishankara**, professor of chemistry and of atmospheric science, along with several CSU colleagues, have put together a series of workshops on the topic. Their goal is ambitious: the enactment of a national smoke warning system.

Such a system could be a tremendous benefit to the general public. Last summer's wildfires in the Pacific Northwest, for example, burned more than 1.6 million acres and generated smoke that covered as much as a third of the continental U.S. The haze dulled normally blue summer skies here on the Front Range of Colorado – and as far away as Texas and Michigan. It also brought with it harmful particles that can trigger asthma attacks as well as more serious health issues. Massive wildfires like these are only predicted to increase in frequency with climate change.

Read the full article at SOURCE.

# News from the CIF

#### \$10K PANIC NMR Validation Group Scholarship awarded to CSU student Kaylen Obray

The Central Instrument Facility (CIF) would like to announce its collaboration with Practical Applications of NMR in Industry (PANIC) to foster education on NMR Validation. As of September 2016, Kaylen Obray was awarded the "Bruker Scholarship for Excellence in NMR Validation", which is presented by PANIC. This award, in the amount of \$10,000, was created due to the need for qualifying NMR validation methods within industry, specifically to ensure current Good Manufacturing Practice (cGMP) in regards to regulatory bodies. Kaylen and her mentor Claudia Boot will be working side by side with Karolien Denef and Chris Rithner from the CIF and fellow colleagues from PANIC, Bruker NMR, and other people within the field to develop a user friendly website as a source of credible information on NMR validation. NMRvalidation.org is the sister site of PANIC and will display current achievements within NMR validation activities, a quarterly newsletter, information on volunteer opportunities, various surveys and results, literature links, and information regarding the PANIC conference. PANIC will be held in February of 2017, and following the meeting, Kaylen will assist in the coordination of a full day workshop dedicated to discussing NMR validation and how best to move NMR forward as a validated method in cGMP.



## Meet our New Faculty

Justin Sambur grew up on the north shore of Long Island in Huntingon, NY. He attended college at the State University of New York at Binghamton (Go Bearcats), where he earned a B.S. in Chemistry and completed an honors thesis under the direction of Professor David Doetschmann. Justin decided to leave the gloomy weather of

upstate NY and headed out west for graduate school in 2006. He earned a Ph.D. in chemistry from Colorado State University in 2011 under the guidance of Professor Bruce Parkinson.

Following a wonderful experience at CSU, Justin headed back to the east coast to work for Professor Peng Chen in the chemistry department at Cornell University. In 2012, Justin was awarded an NSF American Competitiveness in Chemistry Postdoctoral Fellowship for his proposed research in the area of single-particle photoelectrocatalysis. In August 2016, Justin proudly returned to CSU and started his independent career as an assistant professor in the chemistry department.

At CSU, Justin's research program focuses on developing imaging techniques to study nanomaterials for applications in solar energy conversion and catalysis. The Sambur group will use single-molecule microscopy and spectroscopy methods to understand how the chemical, electronic, and physical properties of individual nanomaterials affect their collective function.



## Young Talent in Colorado and Beyond Symposium

## Chemists gather in Colorado for research, mentoring and celebrations

Getting together to talk about chemistry and careers is always an exciting proposition, especially for young researchers. These topics were the focus of a recent, innovative symposium held at Colorado State University. The two-day symposium, titled "Young Talent in Colorado and Beyond," brought about 100 researchers from Colorado and across the United States together for a robust program of scientific talks, poster sessions, and opportunities for mentoring between generations. The event was supported by the CO Section of the American Chemical Society (COACS) and the Department of Chemistry at CSU; the event was organized by Professor Debbie Crans, graduate student Kelly Hassell, Carlos Olivo of CSU, and Professor James Blakemore of the University of Kansas.

The symposium aimed to provide an interactive environment for young researchers (junior faculty, postdocs, graduate students, and undergraduates), as well as more senior mentors. Additionally, the meeting aimed to cross regional boundaries by involving of researchers from within and outside of Colorado, as well as students at CSU for the summer in the NSF-REU program. The COACS local section also held a lunchtime reception to honor their



senior members and celebrate the anniversary of the 50-year members. This event was followed by an extended poster session, fostering a warm environment where new research findings could be shared with very the distinguished senior chemists from the region!



The program spanned August 3 and 4, and included 18 talks and 41 posters. Multiple poster sessions gave ample time for discussions, and thematic talk sessions spanned topics such as catalysis, environmental chemistry, organic synthesis, and computational chemistry. With the support of COACS, five poster prizes were awarded based on the overall quality of the posters. Students were also provided the opportunity to practice their research 'elevator pitch' with the judges, an activity clearly enjoyed by all taking part. Meals throughout the meeting were served on campus, providing generous time for informal discussions and networking.

The symposium was an exciting venue for young researchers to present their latest results, learn about others' research, and hone important networking and career development skills. One student, having just attended the symposium as his first

scientific conference, remarked that he was excited to get back to the lab to generate more results and excited for the next opportunity to attend a meeting. So onward goes the cycle from novice researcher to greater experience thanks to events such as this!











# **Giving to Chemistry**

#### New Scholarship Opportunities

Nancy E. Levinger Undergraduate Research Fellowship Alumnus Kyle Kung (B.S. 1996) established this fellowship in honor of his professor and mentor, Professor Nancy E. Levinger.

**George Splittgerber Scholarship in Chemistry** This scholarship was established by alumnus Glenn Boutilier (B.S.1974) and his wife Donna to honor longtime CSU chemistry professor, George Splittgerber.

#### Mark P. Sweet Chemistry Scholarship

This scholarship was created in memory of alumnus Mark Sweet (Ph.D. 1989) by his family. This fund benefits students majoring in organic chemistry within the chemistry department in the College of Natural Sciences at Colorado State University.

Please visit our <u>Giving page</u> to learn more about all of the current giving opportunities.



STATE YOUR PURPOSE

Ten Chemistry Scholarships Created by Michael Smith

Ten new full-tuition undergraduate scholarships for the Colorado State University College of Natural Sciences' Department of Chemistry have been created thanks to a generous \$400,000 gift from Michael Smith. The scholarships are part of Smith's larger \$13 million gift to Colorado State.



Michael Smith studied Chemistry at Colorado State in the 1970s, and he is now chairman and CEO of Freeport Liquefied Natural Gas Development. He also holds an Honorary Doctorate of Humane Letters from the University. "We are very proud that Michael Smith has his roots in CSU'S Chemistry Department," said Jan Nerger, Dean of the College of Natural Sciences. "We are grateful to him for paving the way for future scholars who, hopefully, will have the same impact as he has had as an entrepreneur," she said.

The scholarships aim to encourage diversity and build awareness of the value and rewards associated with careers in science and technology. The scholars will have distinguished themselves through their intellectual curiosity and academic abilities as well as in their character and potential for leadership and entrepreneurship.

Read more here.

#### Dr. Robert Williams Chair in Organic Chemistry Endowment



Robert Williams has had an extraordinary research and teaching career at Colorado State University. To honor his work and continue his research legacy, the College of Natural Sciences seeks to establish the <u>Dr. Robert Williams Endowed Chair in Chemistry</u>.

Professor Williams has been dedicated to involving many students in his research through the Williams Research Group, training successive generations of scientists who are making their own marks in bio-organic chemistry and biosynthesis. His students have gone on to careers as scientists at pharmaceutical companies and as educators. "I love watching students become scientists," Dr. Williams has said. "By the time they are done here, they're ready to take on the world, and that's very satisfying."

The Dr. Robert Williams Endowed Chair in Chemistry will allow Colorado State University to recruit to the College of Natural Sciences an established organic chemist or chemical biologist who is an outstanding scholar, gifted teacher and exceptional researcher who has made

significant contributions to his or her field of study. Attracting and retaining top scholars and researchers allows CSU to recruit the best undergraduate and graduate students from Colorado, the nation and the world. A faculty member who is awarded the Dr. Robert Williams Endowed Chair in Chemistry will bring ongoing prestige to the University through research, mentoring, published works and speaking engagements.

Please join us with a gift to support the Dr. Robert Williams Endowed Chair in Chemistry, and continue the legacy of teaching, mentoring, and groundbreaking research conducted by Williams, his colleagues, and his undergraduate, graduate and postdoctoral students.