

2019

Chemistry

The Integrated Science Building
The new home of chemistry



KU THE UNIVERSITY OF
KANSAS

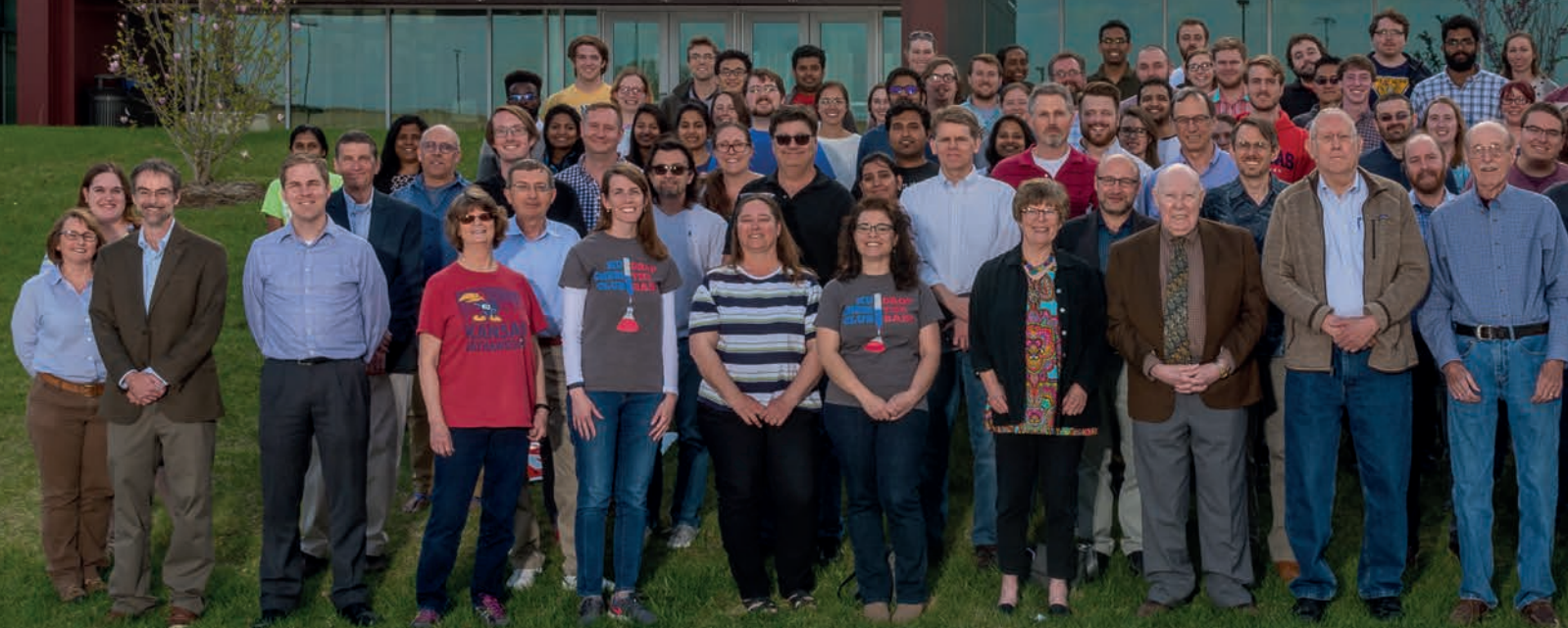


Twitter: @KUChemistry



Facebook: KU Chemistry – The University of
Kansas Chemistry Department

KU
DEPARTMENT
OF CHEMISTRY
College of Liberal Arts
& Sciences
APRIL 26, 2019





LinkedIn: University of Kansas Department
of Chemistry



Instagram: @chemistry_ku

Chemistry website: chem.ku.edu

Update your information: chem.ku.edu/alumni_friends/alumni

Donate to chemistry: chem.ku.edu/alumni_friends/giving



In this issue...

- 4 Chair's message
Meet the team
- 5 Please welcome Dr. Meredith Hartley
Two majors win big
Retirees get time off for great behavior
- 6 Dr. Ueda receives honorary degree
A message from our graduate students
- 7 Degrees and honors in 2019
- 8 The Integrated Science Building (ISB)
Goodbye to Malott Hall
- 10 Alumni help celebrate ISB opening
- 11 Learning in Africa
Meet our alumni board
- 12 How to support Chemistry at KU



A MESSAGE FROM THE CHAIR

Greetings from Chemistry at KU! We hope this newsletter finds you happy and well. After hearing from alumni that they missed our newsletters, we are pleased to reintroduce them here with our inaugural edition. We are very excited to reconnect with you and share highlights from the department. It has been an exciting and eventful time since our last edition. The Chemistry Department bid a fond farewell to Malott Hall and moved into a new, 280,000 square foot state-of-the-art research and teaching facility. This year, familiar faces in chemistry have deservedly retired and new faculty and staff have joined the chemistry family. Finally, our students continue to excel at all levels and move on to exciting new adventures. These are some of the stories that are highlighted in the current edition of the newsletter.

On behalf of the Department, I would also like to use this space to express our gratitude to Prof. Brian Laird, who stepped down as Department Chair at the end of June. Brian deftly navigated the Department through challenging times at the University and selflessly extended his term to help facilitate the move into the Integrated Science Building. His leadership and campaigning on behalf

of chemistry set a high bar that I will work hard to meet.

Going forward, we will continue to expand our efforts to attract top students and faculty to KU and raise the profile of the Department. As part of this, we are expanding our communications effort to reach out and inform alumni and friends of Department news and opportunities to help support our initiatives. We are very keen for this to be a two-way street and encourage you to contact us with updated information about you and any feedback you might have about the Department, our direction, or efforts underway. The previous pages provide helpful links or you are always welcome to email myself or members of our team using the information below. The Chemistry Department has always felt like a family and we want your help in shaping our future. We look forward to reconnecting with you. ROCK CHALK JAYHAWK KU!



Robert C. Dunn
Professor and Chair
rdunn@ku.edu

Our Team



Prof. David Benson
Director of Undergraduate Studies
drb@ku.edu



Prof. Jon Tunge
Director of Graduate Studies
tunge@ku.edu



Elizabeth Coleman
Executive Program Associate
elizabethm@ku.edu



Emily Matteson
Business Manager
emily.matteson@ku.edu



Betsy Carlson
Program Administrator
betsy.carlson@ku.edu



Elaine Knight
Administrative Specialist
eknight@ku.edu



Erin Kelley-Garrison
Undergraduate Studies Advisor
ekelley2@ku.edu



Megan Belaire
Graduate Studies Advisor
mbelaire@ku.edu

Welcome Dr. Meredith Hartley

Dr. Meredith Hartley will be joining the Chemistry Department as an Assistant Professor in January 2020. Her laboratory will investigate the connections between brain lipids



and neurological disease with the goal of developing novel therapeutic strategies. She was born and raised in Kansas City, Missouri. Her father was a KU alum and she developed an early love of the Jayhawks and Kansas City sports teams. Meredith graduated magna cum laude from Dartmouth College with a degree in biophysical chemistry and earned her Ph.D.

from the Massachusetts Institute of Technology working with Prof. Barbara Imperiali. Following graduate school, Dr. Hartley moved to Oregon Health & Science University (OHSU) where she carried out her postdoctoral research with Professor Thomas Scanlan. After living on both coasts, she is eager to return to the Midwest with her husband, Jeremiah Pyle, and their 3-year old son, Nathaniel. We are very excited that Meredith and her family will be joining us.

Winners!



Fellow chemistry majors Eleanor Stewart-Jones and Tyler Nguyen have accomplished something rarely seen. This spring, both were named as 2019 Barry M. Goldwater Scholars. They were among 496 students selected nationwide to receive this prestigious award, which was established in 1986 to recognize outstanding students in mathematics, engineering,

and the natural sciences. What makes this truly amazing, however, is that both were also named 2019 Astronaut Scholars! This highly selective program awards 50 scholarships to the brightest and most creative students in STEM fields from 36 participating universities. Congratulations to both Eleanor and Tyler on this truly exceptional achievement.

Simply The Best



Every once in a while someone unique crosses our path in life and leaves a lasting impression. This was certainly true of Susan Teague, Jan Akers and Beverly Johnson, who recently retired from the Chemistry Department. Together they gave us everything and to that we say thank you. With over 83 years

of combined service and dedication, the Chemistry Department sincerely misses these truly great co-workers. People like Susan, Jan, and Bev are: "hard to find, difficult to part with, but impossible to forget".

-Elaine Knight

Jan Akers

Jan started in the office of a faculty member before moving into the Chemistry main office. She transitioned to Strong Hall with the introduction of shared service centers where she remained our go-to person for travel reimbursement and ordering. Her attention to detail and people skills left us with amazing experiences, both professionally and personally. While we miss her, we are glad she is now enjoying retirement with family - both human and equine.

Susan Teague

Susan spent over 40 years in the Department of Chemistry at various positions before retiring as the business manager for the department. As business manager, Susan oversaw all financial, operational and safety responsibilities in the department and excelled by treating others with respect, appreciation and kindness. Susan and Ric are now busy touring the US in their new RV. She is greatly missed and we wish her happy travels in her well-deserved retirement.

Beverly Johnson

Bev worked in the department office and processed all the graduate and postdoctoral appointments. She was the first to point out what was going right and the first to help out when things went wrong. Everything about Bev was sincere and honest and her caring nature was evident in all aspects of her life. She single-handedly kept the post-it note industry afloat and our post-it note to her is: "You can never retire from being great".

Honoring Dr. Ueda



Dr. Teruhisa Ueda, former postdoctoral researcher

with Distinguished Professors Ted Kuwana and Ralph Adams, received an honorary doctoral degree from the University of Kansas at the 147th Commencement on May 19, 2019. Dr. Ueda is the President and CEO of Shimadzu Corp., a leading supplier of analyti-

cal instrumentation based in Kyoto, Japan. The Depart-

ment of Chemistry hosted Dr. Ueda and his guests for a tour and luncheon at the new Integrated Science Building (ISB) on Saturday, May 18. Several Emeritus Professors, including Ted Kuwana and his daughter Ellen, Marlin and Nancy Harmony, George Wilson, and



Rich Givens, attended the luncheon. The subsequent tour of ISB included visits to research laboratories, active-learning classrooms, and undergraduate laboratory facilities, which house instrumentation generously subsidized by Shimadzu. Congratulations to Dr. Ueda!



Upper Left: Dr. Ueda and Prof. Ted Kuwana; Left: (L to R) Profs. Steve Soper, Ted Kuwana, Sue Lunte, George Wilson, Marlin and Nancy Harmony, and Rich Givens with Dr. Ueda; Top: Dr. Ueda at the commencement ceremony.

A Message From Our GSO

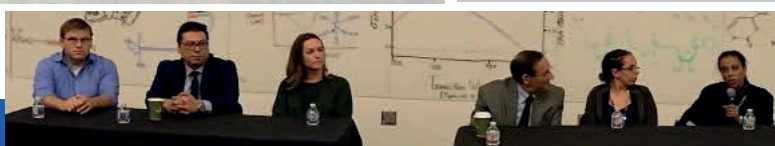
It has been a big year for the chemistry graduate student organization (GSO)! In July 2018, we became a registered student organization and we made it our mission to (1) facilitate communication between graduate students and the chemistry department, (2) promote professional development for chemistry graduate students, and (3) build social ties

within the department while advocating for science within our community. A key initial focus has been enhancing professional development opportunities in our department. In the past year, we have provided free professional headshots to graduate students, hosted our first Lunch & Learn with a scientific professional, put on a CV and cover letter workshop, and collaborated with a number of STEM GSOs to facilitate a weekly

satellite event with KUMC's ASCEND professional development series. We concluded the 2018-2019 school year by organizing a KU Chemistry Alumni Career Panel to coincide with the ISB Alumni Event. We are also beginning a new partnership with the Lawrence Boys and Girls Club to start implementing regular scientific outreach between our students and their program. We are excited to see where the next year takes us!



Lower Left: GSO leadership, (L to R) Josh Sanders, Zeke Piskulich, Galina Bulgakova, Kelci Schilly, Chelsea Comadoll; Top: Trivia night fundraiser for GSO; Bottom: Panel discussion during the Alumni event.



Email: kuchemgso@gmail.com

Instagram: @chemgso

Facebook: @ChemGSOatKU (<https://www.facebook.com/ChemGSOatKU/>)

Astronaut Scholars

Emily Boyd 2018 - 2019
Joseph Loomis 2018 - 2019
Tyler Nguyen 2019 - 2020
Eleanor Stewart-Jones 2019 - 2020

Goldwater Scholars

Tyler Nguyen 2019
Eleanor Stewart-Jones 2019

Beckman Scholars

Angelica Lang - 2019
Jonah Stiel - 2019

Degrees (Spring, 2019)

Emily Boyd, B.S.
Patrick Connelly (12/18), B.S.
Donald Corcoran Jr., B.S.
Fangjun (Todd) Dai, B.S.
Cara Davis, B.S.
Hung Nguyen Do, B.S.
Mary Duncan, B.S.
Claudia Garcia Sanchez, B.A.
Carl Heroneme, B.S.
Shaohuan Hu, B.S.
Shannon D. Jones, B.S.
Patrick Justen, B.S.
Shaun Kelsey, B.S.
Sydney Paige Kubica, B.A.
Hannah Larson, B.S.
John League, B.A.
Joseph Loomis, B.S.
Sydney Lovrien, B.S.
William Moore, B.S.
Zachary Pearson, B.S.
Tyler Schimming, B.S.
Daniel Villarreal Acha, B.A.
Jack Weiner, B.A.

NSF Graduate Fellowships

Zeke Piskulich
Shaun Kelsey

Self Graduate Fellowship

Shaun Kelsey
David Maldonado

Degrees (Spring, 2019)

Jason C. Applegate, Ph.D.
Melissa Denler, Ph.D.
Nathan Erickson, Ph.D.
Shamal Gunawardhana, Ph.D.
Tyler Hageman, Ph.D.
Katie Johnson, M.S.
Vladimir Maslivetc, Ph.D.
Camina Hiranya Mendis, Ph.D.
Aruna Munasinghe, M.S.
Monisola Okeowo, Ph.D.
Christopher J. Otolski, Ph.D.
David Stierwalt, M.S.
Kavisha Ulapane, Ph.D.
Manjula B. Wijesinghe, Ph.D.

Honors

Prof. Marco Caricato - ACS
COMP OpenEye outstanding
junior faculty award.
Prof. Steve Soper - named
fellow of the American Institute
for Medical and Biological
Engineering.
Prof. Sue Lunte - named to
Analytical Scientist's 2019
Power List.

Promotions

Prof. David Weis - promoted to
Full Professor
Prof. Marco Caricato - promoted
to Associate Professor with
tenure

OUR CHANT RISES

By The Numbers

Research Expenditures

In research expenditures, the
Chemistry Department outpaces
peer departments in the college
and regional institutions
(MASUA). Expenditures in
millions.

\$10.2	Univ. of Kansas
\$9.6	Colorado State Univ.
\$7.9	Colorado School Mines
\$7.7	Iowa State Univ.
\$5.4	Univ. of Nebraska
\$4.5	Univ. of Iowa
\$3.8	Kansas State Univ.

Number ONE in the Nation!

The CAREER program is NSF's
most prestigious award for early
career faculty. KU Chemistry
is number one in the nation for
CAREER awards per faculty
member:

1. Univ. of Kansas	0.6
2. Case Western	0.5
3. NYU	0.5
4. Univ. Michigan	0.5
5. 25 Universities tied at	0.4

We are in the top 5 departments
for total CAREERS awarded
(Academic Analytics 2018):

1. Penn State	20
2. Univ. of Michigan	19
3. Ohio St. Univ.	18
4. Univ. of Illinois at Urbana	16
5. Univ. of Kansas	14
5. Univ. of California-Irvine	14
5. Univ. of North Carolina	14
5. Univ. of Notre Dame	14

The Integrated Science Building

the new home of Chemistry

The Integrated Science Building (ISB) is part of a \$350 million dollar Central District development project funded through a public-private partnership. In addition to ISB, the Central District includes a new residence hall, apartment-style student housing, a student union, parking garage, and central utility plant. ISB is the new home of Chemistry and houses our Main Office, all of our teaching laboratories, and most of our individual faculty research laboratories. The Adams Institute for Bioanalytical Chemistry will remain based in the Multidisciplinary Research Building (MRB) on west campus and house several member research labs. ISB has a 330-seat auditorium that hosts departmental seminars and is also available for conferences. The large windows and open spaces of ISB are designed to encourage collaborative research and learning.



1 ISB comprises 280,000 sq. ft. of modern teaching, research, and learning spaces. The facility houses 4 collaborative learning classrooms, 21 teaching laboratories, and approximately 41 research labs. Faculty members from Chemistry, Physics, Medicinal Chemistry, and Molecular Biosciences have their research laboratories located in ISB.

2 The Adams Nanofabrication facility in ISB includes over 4000 sq. ft. of clean room space and state-of-the-art nanofabrication tools. Professional service labs in ISB include NMR, Mass Spectrometry, X-ray Crystallography, and Microscopy. All labs in ISB adopt a flexible design that enables the space to be easily outfitted and reconfigured as needs change.

3 The teaching and learning spaces in ISB encourage active learning and peer-to-peer activities. The large 330-seat lecture hall includes rotating chairs so students can work in groups. Students sit in groups at tables in the other two large lecture rooms. This design facilitates interactions and supports group learning activities.



Malott Hall

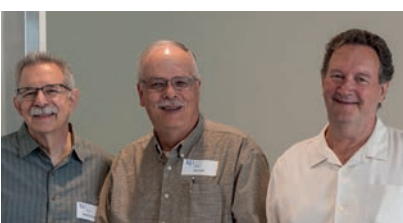
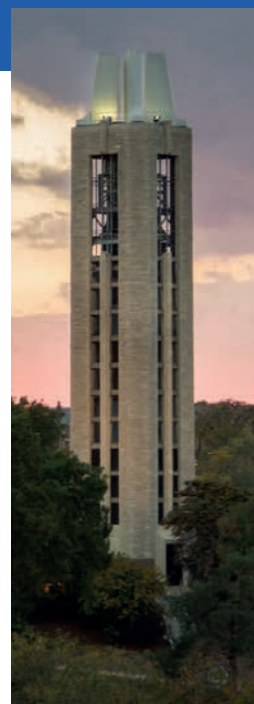


Malott Hall was dedicated in 1954 and named in honor of Deane W. Malott, the 8th Chancellor of KU (1939-1951). At a final cost of \$3.25 million, the seven story facility was built to house Chemistry (88,000 sq. ft.), Physics (55,000 sq. ft.), the School of Pharmacy (22,000 sq. ft.), and the Science Library (9,000 sq. ft.). Previous to Malott Hall, Chemistry was housed in Bailey Hall, which was built in 1900. Bailey Hall was built to address the growth in Chemistry and Pharmacy that made the 1883 old Medical Building, affectionately known as "The Shack", unsuitable. Prof. Ray Brewster (Chair) toured institutions on the east coast, such as MIT, to get ideas for the new building. This resulted in an interior that was "commodious and modern as the money could make it...while the exterior...squatish, plain, and faced with native stone - added nothing at all to campus beauty". Malott Hall is reportedly the last state financed building constructed in Kansas without central air conditioning or the infrastructure to easily add it. However, the Chemistry Department prospered in Malott Hall for over 65 years. We leave behind many fond memories and a home that served us well!

4 The Central District project includes the new 33,000 sq. ft. Frank R. Burge Student Union shown to the right above. The Union includes a central kitchen service and four forum spaces that can be configured separately or combined together to create the largest ballroom space in Lawrence. A large underground tunnel connects the Union with ISB.

5 The central utility plant is adjacent to the parking garage, across the plaza from ISB. The Mezzanine level of the central utility plant has a 45 seat classroom with windows overlooking the utility plant, where engineering students can view the machinery. Energy recovery is used on exhaust airs and the boilers use carbon dioxide capture technology.

Alumni Celebration - May 2019



Top: (L to R) Lisa McElwee-White, Kristin Bowman-James, Alan Jircitano, Dan Sheeran, Cristian Campos; Middle: Dick and Barbara Schowen with former group members. Left: Richard Dalle Molle, Kirk Dietz, Ivan Mefford. Far Right (T) Brian Laird; (M): Bev Johnson, James Blake-more, Susan Teague; (B) Carl Lejuez



The Chemistry Department celebrated our move into the Integrated Science Building (ISB) by hosting one of the largest events in Departmental history. Over 70 alumni and their guests came back to campus to see the new building and reminisce with colleagues, mentors, and friends. On Friday, May 31, guests enjoyed a beautiful reception and dinner at the new Burge Union. We also honored our retiring Business Manager, Susan Teague, who retired after 40 years of service to the Department

of Chemistry.

The following day we had an Alumni Panel Discussion with four KU Chemistry Alumni. Moderated by Dr. Steve Soper, panelists were asked to discuss their experiences at KU, how KU roots helped them overcome professional challenges, and what advice they would offer current KU students. The day concluded with facility wide tours of ISB. While it was sad to say goodbye to former students and colleagues, we were overjoyed at the success of the event.

Guest Speakers at the Friday Dinner

Prof. Carl Lejuez - Interim Provost and Executive Vice Chancellor
Prof. Joy Ward - Associate Dean
Prof. Richard Schowen - Distinguished Professor Emeritus
Bonnie Lowe - President and CEO
Lawrence Chamber of Commerce

Alumni Panel Discussion

Dr. Don Leedy - Ph.D. 1968
Dr. Sarah Vickery - Ph.D. 2002
Dr. Ben Spry - B.S. 2004
Dr. Katie Mitchell-Koch - Ph.D. 2008
Dr. Steve Soper - Moderator



Top: (left) Marlin and Nancy Harmony; (middle) Rich Givens, Don Williams, and Bob Carlson; (right) Jeff Johnson, Sriram Naganathan, and UmaShanker 'Pop' Sampath. Far Right: Don Leedy





Learning in Africa

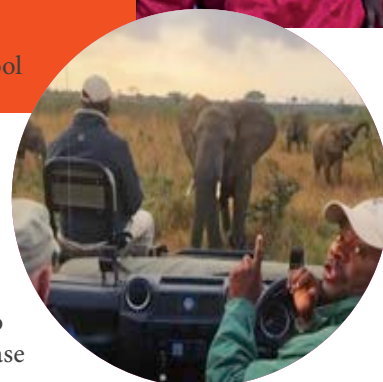
As a celebration of our 50th Wedding Anniversary we decided to take our son and his family to Africa, leaving Europe with its hostels and Eurail passes to them in the future. The result was a love affair with the southern part of this continent, including significant relationships with its people. Three trips to Africa eventually resulted. Our first trip started in Cape Town, a gorgeous city at the southern tip of Africa. Our itinerary included a visit to the township of Gugulethu, an area outside of the city where black citizens live segregated from the minority white population. They often live in plywood shacks with no electricity or running water. Our guide, Laura, lived there, and she introduced us to the pre-school she ran for children 3-6 years of age. We adopted the school, and

our grandkids learned how many school uniforms they could purchase at \$13 each with a Christmas or birthday gift. It took the families of many of the kids a full year to pay for theirs. In 2018, Cape Town became the first major city in the world to face the prospect of running out of potable water. It was necessary for the school to drill a well, and we helped them purchase two roof-top water storage tanks. We continue to be impressed by the people, who find their own solutions and do not rely on government help.

-George Wilson



George S. Wilson,
Distinguished Professor Emeritus



Chemistry Department Alumni Advisory Board



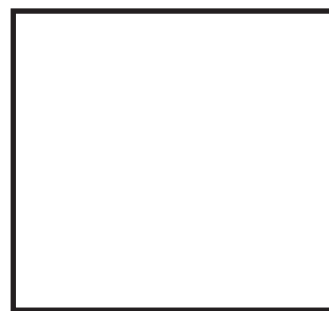
The Chemistry Department is pleased to introduce our Chemistry Department Alumni Advisory Board (CDAAB). The CDAAB held their first meeting during our Alumni Celebration

and will focus on improving our visibility, engaging our alumni network, and improving student recruitment and placement. We are grateful for their service and look forward to their input.

(L to R) CDAAB members Ben Spry, Nancy Winchester, Sriram Naganathan, Lisa McElwee-White, Katie Mitchell-Koch, Ivan Mefford, Doug Neckers, Jeff Johnson, Don Leedy, and Ozzie Wong (not pictured, Dale Boger)



Department of Chemistry
University of Kansas
1140 ISB/CDS1
1567 Irving Hill Road, room 1140
Lawrence, KS 66045



Help Support Chemistry at KU

The Chemistry Department is very fortunate to have a large network of alumni and friends who support our efforts. At the 2019 Chemistry Department Award ceremony, for example, we presented over 75 scholarships and awards to deserving undergraduate and graduate students. The funds associated with these scholarships and awards comes solely from the generosity of donors like you. These generous

gifts also enable us to subsidize student travel to scientific conferences, provide fellowships to attract the best students to our graduate program, and support graduate student and faculty research endeavors.

KU Endowment is the official foundation for raising and managing private funds on behalf of KU and they are passionate about helping us achieve our aspirations. While many university

foundations cover operating costs by charging a fee on gifts, KU Endowment allocates 100% of every gift for the purpose designated by the donor.

If you'd like more information on how you can make a meaningful gift, please contact Dan Simon, Senior Development Director and Team Lead for the College of Liberal Arts & Sciences at 785-832-7378 or dsimon@kuendowment.org.

Give by Mail

Gifts made by check should be payable to:
KU Endowment

and mailed to:
Gift Processing Department
KU Endowment
PO Box 928
Lawrence, KS 66044-0928

Please remember to include a gift card or a note indicating your gift's purpose.

Give On-Line

You can give on-line at:
chem.ku.edu/alumni_friends/giving
-or-
kuendowment.org/givenow

There will be fields that allow you to specify that your gift is to support Chemistry.

Give by Phone

Please call 785-830-7576

You will be asked for your credit card information and your gift's purpose.