

Dear Alumni and Friends,

Biology has seen much growth and change as we've welcomed new faces and have bid a fond farewell to others. Our undergraduate majors in Biology, Biomedical Sciences, and Neuroscience continue to grow in popularity. We welcomed **Dr. Dan Summers** and celebrated the promotions of **Drs. Josep Comeron** and **Anna Malkova** to full professor. We said goodbye to the talented **Dr. Brenda Grewe (Leicht)**, who retired this year. We are grateful for Dr. Grewe's dedication and untold contributions and wish her a happy and restful retirement. With the generous support of the Roy J. Carver Charitable Trust, we added data management resources to our imaging facility that will accelerate research. We also deeply appreciate the support from the DSHB for grants, fellowships, and the graduate student retreat.

The roots of our department reach all the way back to 1855. There have been many changes and mergers since its beginning as the Natural History Department and depending on your graduation date, it was Botany, Zoology, Biological Sciences, or now Biology. In 2020, we will mark our 165th Anniversary! Technological advances have spurred several revolutions in science. Imagine a professor of 1855 visiting the department today and seeing the ease with which students working in our laboratories can identify, explain, and alter the genotypes and phenotypes of many organisms! Though much has changed, one thing will always remain the same — our commitment to excellence in research and education. As we look forward to 2020, we are proud of our history, excited for our future, and grateful that you are part of it!

Sincerely,

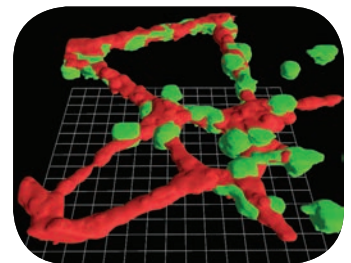
Diane C. Slusarski, Ph.D., Professor and Chair, Department of Biology



Developmental Studies Hybridoma Bank

The DSHB, created by the National Institutes of Health (NIH), is housed in the Department of Biology and has been directed by **Dr. David Soll**, Carver Professor of Biology, since 1996. The DSHB, which is completely self-funded, continues to thrive and grow with over 60,000 samples distributed worldwide this year. In 2019, the DSHB was also able to contribute funds for four new Department of Biology graduate students, a DSHB graduate student, a postdoctoral researcher in a Biology professor's research lab, the research support of one faculty member, the Graduate Student Retreat, and six DSHB Faculty Scholar Awards to humanities professors in the College of Liberal Arts and Sciences.

The DSHB banks and distributes both hybridomas and the monoclonal antibodies (mAbs) they produce. It is the sole noncommercial distributor of mAbs for a National Cancer Institute proteomics project, an NIH Common Fund initiative, the Muscular Dystrophy Association, and the European Molecular Biology Organization. mAbs are used in all aspects of biological research and represent close to 50% of anticancer drugs. This year the DSHB launched a program to develop a DSHB Atlas, providing collaborative awards of \$25,000 to each of seven scientific groups worldwide to help in this endeavor. The research arm of the DSHB also continued to expand its program to identify new cancer targets for antitumorigenic mAbs in the DSHB collection of over 5000 hybridomas, perhaps the largest noncommercial source of characterized mAbs in the world. The identified mAbs represent potential anticancer drugs. For more information about the DSHB, visit dshb.biology.uiowa.edu.



A new test model developed by the DSHB shows breast tumor cells (red) adhering to blood vessels (green), a step in cancer metastasis. New mAbs that block this process have already been generated by the DSHB.

New Faculty

Dan Summers, an Assistant Professor in the Department of Biology at the University of Iowa (UI), seeks to find treatments for individuals affected by neurodegenerative diseases.

Our nervous system controls every aspect of how we perceive and react to the world around us. To accomplish this incredible task, neurons establish connections throughout the human body, extending long projections called axons that can reach over a meter in length. In isolation from the neuronal cell body, axons are highly autonomous and carry out many basic biological functions such as protein synthesis, transport, and degradation. The neurons in our body are post-mitotic so axons must survive and function for our entire lifetime. Due to this incredible burden, axon degeneration is a prominent event in many neurodegenerative disorders of the peripheral and central nervous systems.

To better understand neuronal function and identify new therapeutic approaches for neurodegeneration, the Summers Lab studies the neuronal pathways responsible for protein homeostasis. Defects in protein homeostasis underlie many neurological disorders such as Alzheimer's disease, Parkinson's disease, and numerous peripheral neuropathies. Dr. Summers and his team have a particular focus on axon biology to discover how this unique subcellular compartment operates and declines in aging or disease. The Summers Lab uses a combination of biochemistry, live imaging, primary neuron, and animal models to address this problem.

Dr. Summers was attracted to the UI not only because of its excellence in research, but also due to his interest in teaching. In the fall semester, he is a co-instructor for the Cell Biology course and in the spring, Writing in Natural Sciences. Prior to joining the UI Department of Biology, Dr. Summers received his Bachelor of Arts in Biology from St. Mary's College of Maryland and his Ph.D. in Cell and Developmental Biology from the University of North Carolina at Chapel Hill. He then went to Washington University School of Medicine in St. Louis as a postdoctoral research scholar and staff scientist.

Dr. Summers is excited about the vision in the Department of Biology and the opportunity to establish connections as a member of the Iowa Neuroscience Institute, a comprehensive and cross-disciplinary neuroscience center within the Carver College of Medicine at the UI.



Science in

Each year, several Department of Biology faculty, staff, and graduate/undergraduate students organize and/or participate in educating kids and adults in the community about a variety of scientific topics. Below and on page 3 are samples of the many science outreach events and activities during 2019.



Around 20 students in grades 9-10 visited the Department of Biology on July 15, 2019, as part of the Perry Research Scholars Institute (PRSI), a two-week residential academic summer program at the University of Iowa's Belin-Blank Center for Gifted Education and Talent Development. In this program, students learn about different types of research across campus. **Dr. Olga Miakotina**, Instructional Services Specialist, and **Lizzy Kruse**, a Biology undergraduate student, led a session in the Department of Biology on how to design an experiment and facilitated a discussion on the behavior of animals such as hissing cockroaches, *Drosophila* mutants (fruit flies), and rats. The students also toured teaching labs in the Department of Biology.

Retirement

As of May 2019, **Brenda Grewe (formerly Leicht)** retired after a 23-year period of helping to shape the biology curriculum and giving lectures to undergraduate biology students. Dr. Grewe grew up on a farm in West Point, Nebraska. She loved going to school and learning, which was a big reason why she wanted to be a teacher. The time spent on the farm helped mold her interest in biology and genetics. After graduating high school, Dr. Grewe attended Creighton University, where she received her Bachelor of Science in Biology. She went on to receive her Ph.D. in Genetics at Indiana University and her postdoctoral studies were completed at The Ohio State University and Penn State University.



Dr. Grewe joined the Department of Biology at the University of Iowa in 1996 as an Adjunct Assistant Professor for the Developmental Biology course and a Lab Coordinator for Human Biology. She was later promoted to a Lecturer and eventually an Associate Professor of Instruction where she was responsible for teaching the honors section of the introductory biology course (now called Foundations of Biology) along with the Teaching Internship in Biology. During her career, she helped write the lab manual for Foundations of Biology and other student laboratory exercises that were implemented in various biology courses. She has been involved in curriculum development at various levels since joining the Department of Biology, including the design and implementation of investigative labs in Cell Biology, Developmental Biology, Evolution, and Genetics. She also served as a member of the Curriculum Review Committee in the redesign of the department's introductory biology courses. In a recent interview, Dr. Grewe says the most fulfilling part of her job was developing new courses, seeing them implemented in the curriculum, and being appreciated by students who took them. One of her fondest memories at the University of Iowa was when a former honors student invited her to an awards ceremony. The student interactions and work she has done for the Department of Biology helped make her career fulfilling and meaningful.

In recognition of her exemplary performance as a teacher, she received the 2015-16 Collegiate Teaching Award from the UI College of Liberal Arts and Sciences. She has been a member of the American Association for the Advancement of Science since 2010 and was a National Academies Education Fellow in the Life Sciences in 2010-11. Dr. Grewe's next steps are to enjoy some personal time and use her expertise in biology and genetics to explore future opportunities.

the Community

The Iowa City Science Booster Club, led by a team of Biology graduate students (**Alaine Hippee, Joe Jalinsky, Briante Najev, and Anna Ward**), partnered with RaQuishia Harrington, Iowa City Special and Underserved Populations Recreation Supervisor, to offer a one-day summer camp on July 10, 2019. Kids from the Iowa City area participated in activities including extracting DNA from applesauce, modeling how climate change impacts CO₂ release, and a demonstration of geologic time. Participants also received guided tours of research labs in the Department of Biology.



Several colleges and departments across the University of Iowa campus participated in the Health Sciences Visit Day on June 22, 2019 — a day targeted to high school students with a health sciences interest. Department of Biology Professor, **Dr. Joshua Weiner**, along with graduate and undergraduate students, participated in this event with a sheep brain dissection activity.

Funding Highlights*

Lori Adams, Associate Professor of Instruction in Biology, together with Co-Principal Investigator Jeff Murray (University of Iowa Department of Pediatrics): \$1,148,063 for 3 years from the National Institutes of Health to continue “The University of Iowa’s Initiative for Maximizing Student Development (IMSD): Iowa Biosciences Academy.” Dr. Adams serves as Program Director for the Iowa Biosciences Academy, the UI LSAMP Program, and the Latham Science Engagement Initiative, and is the Biology Honors Program Advisor.



Shoot regeneration in tissue culture improved by treatment with SUPRGrow at 10 weeks, compared to control (inset)

Andrew Forbes and **Maurine Neiman**, both Associate Professors of Biology: \$383,770 for 3 years from the National Science Foundation to establish a Research Experiences for Undergraduates (REU) Site: “Engaging Undergraduates in Interdisciplinary Evolutionary Science.” This grant will support a summer research training program at the University of Iowa for undergraduate students recruited from other universities across the country.

Bernd Fritzsich, Professor of Biology, with fellow Principal Investigator Ebenezer Yamoah (University of Nevada – Reno): \$2,725,601 for 5 years from the National Institutes of Health for “Mechanisms of Growth Factor Responsiveness in the Aging Auditory System.”

Co-Investigator **Erin Irish**, Associate Professor of Biology and Associate Chair for Undergraduate Education, with Principal Investigator Ned Bowden (University of Iowa Department of Chemistry): \$750,000 for 3 years from the National Science Foundation for “Development of SUPRGrow to improve the harvest yields of corn and soybeans.” See image above.

Anna Malkova, Professor of Biology, together with Co-Principal Investigators Maria Spies (University of Iowa Department of Biochemistry) and Pietro Pichierri (Istituto Superiore di Sanità Department of Environment and Primary Prevention): \$2,064,060 for 5 years from the National Institutes of Health for “The role of human RAD52 protein in genome stability.” The goal of this grant is to develop a comprehensive mechanistic understanding of the RAD52 function at the replication fork.

Anna Malkova and **Josep Comeron**, both Professors of Biology: \$408,064 for 2 years from the National Institutes of Health for “Identifying the link between the mode of telomere erosion and alternative telomere lengthening.” This grant supports the research of telomere maintenance in the absence of telomerase.

Maurine Neiman was awarded \$99,999 for 2 years from the National Science Foundation for her collaborative research with Kristi Montooth (University of Nebraska – Lincoln), “Genomic and Functional Tests of Mitochondrial-Nuclear Coevolution.”

Veena Prahlad, Associate Professor of Biology: \$1,659,065 for 5 years from the National Institutes of Health for “Investigating How Intestinal Innate Immunity Confers Neuroprotection Using *C. elegans*.” Dr. Prahlad was also awarded \$90,000 for 4 years from the US–Israel Binational Science Foundation for “Organismal Proteostasis Signaling Networks.”

Diane Slusarski, Departmental Executive Officer and Professor of Biology, along with Co-Investigator **Michael Dailey**, Associate Professor of Biology: \$68,785 from the Roy J. Carver Charitable Trust to upgrade data management resources in the Carver Center for Imaging. Dr. Slusarski, with Principal Investigator Maxence Nachury (University of California – San Francisco), was also awarded \$90,447 from the National Institutes of Health for “Molecular Studies of Primary Cilium Biogenesis,” allowing graduate student Tirthasree Das to serve as visiting scholar in Dr. Nachury’s lab.

*Covers external sources of funds from outside the University of Iowa during Fiscal Year 2019 (July 1, 2018 – June 30, 2019) with a Biology faculty or staff member as the Principal Investigator or Co-Investigator.

Faculty & Staff Accomplishments



Lori Adams, Associate Professor of Instruction in the Department of Biology and Director of the Iowa Biosciences Academy, UI LSAMP, and Latham Science Engagement Initiative programs, was the keynote speaker for the University of Iowa's 11th Annual Faculty Women's Symposium on February 8, 2019. The title of Dr. Adams' talk was "Becoming an Effective Mentor."

Chi-Lien Cheng, Professor of Biology, was a keynote speaker at the 7th Asian Symposium of Ferns & Lycophytes at the National Taiwan University in Taipei, Taiwan, October 16-18, 2018. The title of her talk was "Plasticity of apogamy induction in the model fern *Ceratopteris richardii*."



Bernd Fritsch, Professor of Biology, organized the Aging Mind and Brain Initiative (AMBI) Symposium on April 18-19, 2019. The symposium was the final organized meeting (10th Anniversary) of the AMBI and featured presentations of its faculty members including **Veena Prahlad**, Associate Professor of Biology, and the guest presenter, **Mark Mattson** (Ph.D., UI Biology, 1986). The AMBI, under the UI Center on Aging, was directed by Dr. Fritsch and closed in June 2019 as part of the University of Iowa's budget savings strategy. Dr. Fritsch also chaired a Department of Defense (DoD) study section for the second time in his career in January 2019. He previously chaired a DoD study section in January 2018.



Erin Irish, Associate Professor of Biology, participated in the University of Iowa's Faculty Innovators Workshop, a four-week course for UI faculty, staff, and students interested in learning how to translate their research into a device, service, or business. Named a National Science Foundation (NSF) Innovation Corps Site, the University of Iowa established the Faculty Innovators Workshop to help participants develop marketable ideas and accelerate the startup process. Participants also receive a \$2,500 grant to help bring ideas to life. Dr. Irish participated in this program in the fall of 2018.



Maurine Neiman, Associate Professor of Biology, was a guest professor for the summer of 2019 at the University of Innsbruck in western Austria. Dr. Neiman was also a keynote speaker at the International Conference on Polyploidy in Ghent, Belgium, June 11-14, 2019, and was a member of the Organizing Committee. She was also the co-lead organizer of the Theo Murphy International Scientific Meeting, "Pearls of wisdom: synergizing leadership and expertise in molluscan genomics" in Buckinghamshire, UK, September 16-17, 2019. She received a NSF Travel Award to support 13 young scientists (graduate students and postdocs) from around the world to attend this conference. Among the beneficiaries to attend the conference were UI Biology graduate student, **Joseph Jalinsky** (Neiman and Logsdon Labs), and former UI Biology graduate student, **Kyle McElroy** (Neiman Lab).



Years of Service

30 Years

Phil Ecklund - Graduate Program Coordinator

20 Years

Gery Hehman - Manager, Carver Center for Genomics

Nicole Kohler - Administrative Services Coordinator, DSHB

25 Years

Marlys Boote - Academic Services Coordinator

10 Years

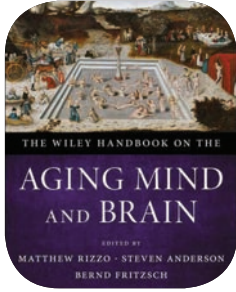
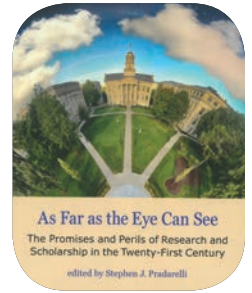
Jennifer Kersigo - Research Associate, Fritsch Lab

Diana Kruse - Program Coordinator, DSHB

Mitch Larsen - Administrative Services Coordinator, DSHB

Featured Publications

Three University of Iowa (UI) Biology professors — **Andrew Forbes**, **Bernd Fritsch**, and **Maurine Neiman** — contributed to the publication of the book, *As Far as the Eye Can See* — “a collection of twenty-five essays by UI researchers and scholars who embody and contribute to the deep commitment and motivation for pursuing answers to urgent questions in the arts, humanities, medicine, engineering, and sciences.”



Bernd Fritsch, Professor of Biology, is an editor of the book, *The Wiley Handbook on the Aging Mind and Brain*, that discusses the critical issues surrounding mind and brain health. It is geared toward improving the recognition, diagnosis, and treatment of many brain-based disorders that occur in older adults and that cause disability and death. The book was published in 2018.

17th International ISV Meeting



Dan Eberl, Professor of Biology, organized the 17th International Meeting on Invertebrate Sound and Vibration (ISV 2019), which was held in the University of Iowa Department of Biology on August 8-10, 2019. The meeting focused on acoustic and vibrational communication in insects and also in arachnids, nematodes, and other invertebrate species. Among the speakers from the Department of Biology were Dr. Eberl and Drs. **Kevin Christie**, **Atulya Iyengar**, and **Alan Kay**.



Former Ph.D. Student Receives Renowned Prize



Rajula Elango (Malkova Lab), who earned her Ph.D. in Integrated Biology in the Fall 2017 semester, received the 2019 D.C. Priestestersbach Dissertation Prize in the Biological and Life Sciences category. Dr. Elango’s dissertation research focused on the genetics of DNA repair and recombination. The title of her thesis was “Break-Induced Replication Repair Pathway Promotes Mutagenesis and Genomic Instability in *Saccharomyces cerevisiae*.”

The D.C. Priestestersbach Dissertation Prize, named in honor of the former Graduate College Dean, was established to recognize excellence in doctoral research. Dr. Elango will be recognized at a special reception held in conjunction with the James F. Jakobsen Graduate Research Conference on Saturday, March 28, 2020, at the Iowa Memorial Union on the UI campus. She will be presented with \$2,500, an award certificate, and a copy of Priestestersbach’s book, “The Way It Was.” Dr. Elango conducted her research in the UI Department of Biology under the direction of **Dr. Anna Malkova**. She is currently a postdoctoral research fellow in the lab of Dr. Ralph Scully at Harvard Medical School.

Graduate Student Awards

Department of Biology Summer 2019 Graduate Fellowships

Biology Ph.D. students in good standing with the Department of Biology and Graduate College who have a permanent laboratory affiliation are eligible for the Department of Biology Summer 2019 Graduate Fellowship.

The following Integrated Biology (iBio) Graduate Program Ph.D. students were the recipients of this competitive award for summer 2019.

Melinda (Lindy) Brastrom
Slusarski Lab

David Cooper
Fassler Lab

Benjamin Gansemer
Green Lab

Krishna Madhav Nukala
Manak Lab

Krista Osadchuk
Irish Lab

Christopher Youngstrom
Cheng Lab



Graduate College Fellowships

The following Integrated Biology (iBio) Graduate Program Ph.D. students received these fellowships from the UI Graduate College.

Ballard and Seashore Dissertation Fellowship

Ph.D. students who receive this fellowship benefit from a final semester of protected and supported time to focus on completing their scholarly research activities and the writing of their dissertations.

Sriram Hemachandran
Green Lab, Spring 2019

Kyle McElroy
Neiman Lab, Spring 2019

Joshua Thompson
Phillips Lab, Fall 2019

Post-Comprehensive Research Fellowship

This fellowship program recognizes advanced Ph.D. students with distinguished academic achievement during their early graduate training.

Sepand Bafti
Green Lab, Fall 2019

Richard Bowman
Smolikove Lab, Fall 2019

Benjamin Gansemer
Green Lab, Spring 2019

Kailey Harrell
Smolikove Lab, Spring 2019

David Steffen
Weiner Lab, Spring 2019

Summer 2019 Fellowship

This fellowship program allows advanced Ph.D. students to benefit from protected time to pursue their scholarly research activities and is intended to facilitate completion of the doctoral degree in a timely manner.

Sepand Bafti
Green Lab

Anthony Lilienthal
Manak Lab

Sydney Skuodas
Fassler Lab

David Steffen
Weiner Lab

Biology Undergraduate Scholarships & Awards

The following students received the Department of Biology's scholarships and awards for 2018-19.
For more information on the scholarships, please visit biology.uiowa.edu/undergraduate-program/scholarships-and-awards

Arthur J. and Flora D. Levin Teaching Award (2 recipients)

Claire Carmichael
Major: B.S. in Biology – Genetics and Biotechnology track
Research Advisor: Maurine Neiman

Rebecca Owens
Major: B.A. in Biology

Arthur J. and Flora D. Levin Award for Outstanding Biology or Biomedical Sciences Honors Student

Pooja Patel
Major: B.S. in Biomedical Sciences
Research Advisor: Sarit Smolikove

Avis Cone Undergraduate Research Fellowship

Ian Fefchak-Robinson
Major: B.S. in Biology – Integrative Biology track
Research Advisor: Andrew Forbes

Clifford W. Hesseltine Award in Biology

Jia Zhao
Major: B.A. in Biology
Research Advisor: Bin He

Biology Outreach and Engagement Award

Emily Ruba
Major: B.S. in Biology – Integrative Biology track
Research Advisor: Diane Slusarski

*Lowden Prize in Biology

Marissa Roseman
Major: B.A. in Biology
Research Advisor: Maurine Neiman

*Stevens Phi Beta Kappa Scholarship (2019-20)

Travis Larson
Major: B.S. in Biomedical Sciences

*This scholarship is awarded through the College of Liberal Arts and Sciences.

Additional Undergraduate Awards

The **Fulbright Program** is the flagship international educational exchange program sponsored by the U.S. government. Recipients of Fulbright grants are selected on the basis of academic or professional achievement and demonstrated leadership in their fields. Two students from the Department of Biology were among the 2019 Fulbright Award recipients.

***Claire Carmichael** (Neiman Lab)
Major: B.S. in Biology – Genetics and Biotechnology track
Award: Study/Research Award in Public Health
Destination: Brazil

*Rather than pursue the Fulbright Award, Claire began medical school at the University of Iowa Carver College of Medicine in the fall of 2019.

Jenna McCoy
Major: B.A. in Biology
Award: English Teaching Assistantship Award
Destination: Spain

2019 Iowa Neuroscience Institute (INI) Summer Scholar Award (2 recipients)

Elizabeth ("Lizzy") Kruse (Dailey Lab)
Major: B.S. in Biology – Cell and Developmental track

Madison Merfeld
Major: B.S. in Biology – Neurobiology track

2019 3-Minute Research Story Competition (2nd place)

Rikki Laser
Major: B.S. in Neuroscience

2019 Excellence in Undergraduate Research Award

Rikki Laser
Major: B.S. in Neuroscience

2018-19 Iowa's Male Big Ten Medal of Honor

Matt Nelson (Former Iowa Football Player)
Major: B.A. in Biology

2019 Student Leadership Award

Pooja Patel (Smolikove Lab)
Major: B.S. in Biomedical Sciences

2019-20 ICRU Research Fellowship

Paula Valiño Ramos (Weiner Lab)
Major: B.S. in Neuroscience

2019-20 Robert Noyce Teacher Scholarship

Eva Sileo
Major: B.S. in Biology – Evolution track

Congratulations 2018-19 Graduates!

Integrated Biology (iBio) Graduate Program

Master of Science in Integrated Biology

James Woodell (Neiman Lab), Spring 2019

The following undergraduate students graduated with honors in the major. Students who graduate with honors must fulfill the regular requirements for a Bachelor of Arts (B.A.) or Bachelor of Science (B.S.) degree and maintain a grade point average of at least 3.33 (overall and in the major). Students must also conduct research in the laboratory of a faculty member, write an honors thesis, and give a brief oral presentation of their research findings.

Fall 2018/Spring 2019 Undergraduate Honors Students

Marc Beer (Forbes Lab), B.S. in Biology

Tyler Jackson (Malkova Lab), B.S. in Biology

Alison Kincaide (Lear Lab), B.A. in Biology

Shelley Lee (Dailey Lab), B.S. in Biology

Dacia Lipkea (Forbes Lab), B.S. in Biology

Emily Lyon (Neiman Lab), B.A. in Biology

Riley Madigan (Eberl Lab), B.S. in Biomedical Sciences

Mikaela Mallin (Cornell Lab), B.S. in Biomedical Sciences

Pooja Patel (Smolikove Lab), B.S. in Biomedical Sciences

Kelley Pillar (Logsdon Lab), B.S. in Biology

Nikash Pradhan (Soll Lab), B.S. in Biology

Marija Pritchard (Lear Lab), B.S. in Biology

Ryan Reis (Soll Lab), B.S. in Biomedical Sciences

Emily Ruba (Slusarski Lab), B.S. in Biology

Alumni Spotlight



Originally from Winterset, Iowa, **Chance Sullivan** wasn't sure what direction he wanted to take in life when he came to the UI as a freshman. Growing up on a farm, he initially considered veterinary school. No matter what area he chose to study at Iowa, he felt assured he would have tremendous resources at his disposal and endless opportunities for success. Science was always his favorite subject, so he loaded his schedule with biology courses in his first year. After being a Hospice volunteer and spending a summer with a terminally ill farmer, he realized he was more interested in taking care of the farmer than his herd. His direction in life became more clear — a career in medicine. He later says, "Biology at Iowa prepared me to become a lifelong learner, which is necessary for a career in medicine."

His awards and accomplishments during his undergraduate years include: President of Medicus Pre-Medical Society (2013-14), UI Homecoming King (2013), UI President's List (Spring 2012), graduating with High Distinction (3.94 GPA), and numerous others. After completing his bachelor's degree (May 2014) and prior to entering medical school, Dr. Sullivan embarked on a cross-country motorcycle trip that covered approximately 16,000 miles of backroads and 33 states over a period of 14 weeks. "The experience was invaluable to my personal growth, further enabling me to connect with patients across a wide range of upbringings and cultural backgrounds."

Dr. Sullivan started medical school at the UI Carver College of Medicine in August of 2015 and completed his M.D. in May 2019. "The people I met, both in undergrad and medical school, are some of the best people in the world." He credits Associate Professor of Biology, **Dr. Bryan Phillips**, for teaching him the fundamentals of life science in an introductory biology course during his freshman year. He later spent his senior year in Dr. Phillips' lab where he learned the essentials of research — "skills that have been vital to my journey through medical school and my career as a physician," says Dr. Sullivan. Currently, he is a resident physician at the University of Vermont Medical Center's Department of Emergency Medicine and is engaged to a medical school classmate, Hailee Reist.

Exploring Careers in Life Sciences Event

A record number of students and organizations attended the “Exploring Careers in Life Sciences” networking event held on September 12, 2019, in the Iowa Memorial Union. More than 30 representatives from various organizations related to the life sciences and over 100 students came together at this annual event designed to provide networking opportunities to students with an interest in internships, research and volunteer work, full-time positions, or graduate/medical school. The UI Department of Biology and the Pomerantz Career Center organized the event. Anyone working for an organization with an interest in participating in this event in the future is encouraged to contact Steve Kehoe (biology@uiowa.edu, 319-335-1050) in the UI Department of Biology.



Training Faculty and Students Across Campus

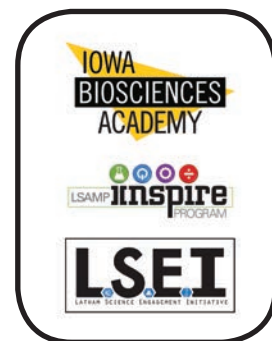
Lori Adams, Associate Professor of Instruction in the Department of Biology, directs several initiatives and programs that provide training and support for hundreds of faculty and students in STEM fields across campus. All programs are administered in the UI Department of Biology.

In 2019, Dr. Adams received a 3-year, \$1,148,063 grant from the National Institutes of Health (NIH) to continue funding the Iowa Biosciences Academy (IBA) program, which has provided financial and academic support since 1999 to underrepresented students with an interest in pursuing a Ph.D. in the biosciences. Directed by Dr. Adams, IBA provides students with mentored undergraduate research experiences, offers student development coursework and career counseling, and student travel support to present research. **Brinda Shetty** serves as the Associate Director. Joining the IBA staff in 2019 were **Dr. Jeff Murray** (UI Department of Pediatrics), Co-Principal Investigator; **Laura Kowalski-Bliss**, Administrative Services Coordinator; and **Chelsey Gates**, Graduate Research Assistant.

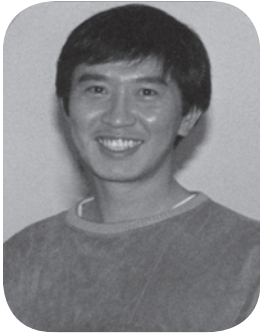
Dr. Adams also serves as the campus Co-Director of the UI LSAMP Program, which is part of an alliance among 16 two-year and four-year colleges and universities in Iowa, Illinois, and Nebraska, working together to attract underrepresented minority students into STEM fields. The program is funded by the National Science Foundation (NSF) and is currently in its eighth year of operation.

Since 2014, Dr. Adams has also served as the Executive Director of the Latham Science Engagement Initiative, a program established through the generous donation from Drs. Robert and Sue Latham. Latham Fellows develop real-world skills as they plan and implement science outreach projects. Dr. Adams, along with Associate Director Brinda Shetty, provide Fellows with training in science communication, strategic planning, and project management. Students present their individual and group projects at an annual showcase event in the spring. Through the implementation of their projects, Fellows have reached thousands of community members and partners. Alumni include NSF GRFP recipients, Goldwater Scholars, and Fulbright Scholars.

In addition to providing professional development for students, Dr. Adams is recognized as a Master Facilitator with the NIH-funded National Research Mentor Network. Since 2013, Dr. Adams has provided mentor training to over 140 faculty members, graduate students, and postdoctoral researchers in eight colleges at the UI. She is currently the Director of the Iowa Mentoring Academy, which is housed within the Institute for Clinical and Translational Science (ICTS). The ICTS was established in 2007 through a Clinical and Translational Science Award (CTSA) from NIH. The CTSA grant was renewed for a third time in 2018 for \$21 million. Dr. Adams is listed as a Co-Investigator on this grant.



The 9th Raymond Fong Memorial Lecture



Raymond Fong

The Raymond Fong Memorial Lecture honors **Raymond Fong**, a graduate student in the Department of Biological Sciences (now Department of Biology) from 1986 to 1993. Dr. Fong was tragically killed in an automobile accident in July 1993. At the time of his death, he was in the process of writing his thesis, “Reciprocal Interference Between the P_R and P_{RM} Promoters of Bacteriophage Lambda.” Dr. Fong was awarded the Ph.D. posthumously in December 1993. He was a member of Gary Gussin’s lab in the Department of Biological Sciences. Dr. Fong was a significant positive influence on his colleagues through the quality of his research, humanity, and friendship.

On April 5, 2019, Dr. James Eberwine (University of Pennsylvania Perelman School of Medicine) was the keynote speaker for the 9th Raymond Fong Memorial Lecture. The lecture recognizes the important contributions that all graduate students make to the scholarly life of the Department of Biology, the University of Iowa, and the scientific community.

In Remembrance



Kuen Kuen Chan, 79, of Iowa City, Iowa, passed away on February 28, 2019. Kuen was born on July 8, 1939, and grew up in a loving family as the youngest of seven kids in Hong Kong. She attended the Hong Kong New Asia Chinese University and graduated with a degree in Biology in 1964. Her first job was as a biology teacher at a girls school. Kuen married Kai Chiu Chan, D.D.S., in 1966 and moved to Iowa City in January 1967. She spent 31 years as a member of Barbara Stay’s award-winning Entomological research team (study of cockroach and termite reproductive systems) in the University of Iowa Department of Biology. Kuen was preceded in death by her husband and is survived by her daughter, Alisa, and son, David. Kuen Kuen Chan’s full obituary is available on Lensing Funeral & Cremation Service’s website.

Donovan “Phil” Gibson, 72, of Wenatchee, Washington, died on September 7, 2019. Phil joined the Department of Biology in 1993 and managed the Developmental Studies Hybridoma Bank (DSHB) Production Lab from 1999 until his retirement in 2013. He is survived by his wife, Marcy, and sons, Nate, Luke, and Josh, and his dog, Lily.



Carol Becker Lynch, 76, passed away peacefully at her home in Boulder, Colorado, on June 22, 2019. Dr. Lynch received her Ph.D. in Zoology (now Department of Biology) from the University of Iowa in 1971. She is Dean Emerita at the University of Colorado at Boulder, where she was Professor of Ecological and Evolutionary Biology, Fellow of the Institute for Behavioral Genetics, and served as Dean of the Graduate School and Vice Chancellor for Research from 1992 – 2004. She has numerous accolades, including a Research Career Development Award from the National Institutes of Health, and she served as President of the Behavior Genetics Association. She was a Fellow of the American Association for the Advancement of Science, held many research grants, and published extensively on evolutionary and behavioral genetics. She is survived by her husband, Robert (Bob). Dr. Lynch’s full obituary is available on Dignity Memorial’s website.



Department of Biology

143 Biology Building
Iowa City, IA 52242-1324



Celebrating 165 years in 2020!

Private support is critical for our continued success as we seek to support student research, invest in state-of-the-art equipment, fund seminar series and lectureships, and attract and retain outstanding faculty members. To learn how gifts can make a difference, please visit www.givetoiowa.org/biology or contact Jessica Mattes at the UI Center for Advancement (Jessica.Mattes@foriowa.org, 319-467-3533).

We appreciate your support!