Joe Jez Becomes the New Biology Chair

On July 1st, 2018, Dr. Joseph Jez took over the role of Biology Department Chair, previously held by Dr. Kathryn Miller. They each have a few words to say to the Biology Department Faculty and Staff:

“To start, many thanks to Kathy for serving as chair for the past 10 years. Her dedication to making Biology a better place for everyone has been a constant during her time. As she passes the torch and starts her sabbatical, please join me in wishing her the best! I look forward to tackling new challenges and learning more about Biology and Washington University. This department has been a wonderful home for my 10 years here and I am excited about the new chapter in that story.” —Joe Jez

“To be chair of the biology department for the last 10 years has been a challenging and rewarding experience. It’s a job I never sought or imagined I would enjoy. Yet, it has turned out to be interesting, in many ways enjoyable, and an on-going growth experience! I have learned so much about so many aspects of the university, the department, the wider world of higher education, teaching and learning, and many different areas of research. It has been a special pleasure to work with all the young faculty we have hired. It’s very exciting to see how wonderfully successful all our new faculty have been over these years. Now, I am very happy to move on to a new stage of my career when I can do whatever I want with my time! I know I leave this job in good hands—Joe will be an outstanding shepherd for the department to help it continue on its trajectory of excellence. To every member of the department: Thanks for all the help you have given me and patience you have had with my mistakes over the years. Together, we have continually made this a better and better place to work and thrive. I am proud of the collegial, strong, and vibrant department we all continue to foster that provides a rich and supportive environment for success in our teaching and research missions.” —Kathy Miller

The Biology faculty and staff wish Kathy well on her future endeavors and warmly welcome Joe as he takes on the role of the chair!
Dr. Jonathan Losos grew up in St. Louis, MO, where his love of science and lizards began at an early age. Inspired by an episode of Leave it to Beaver about a pet alligator, Jonathan begged his parents for a pet caiman, a smaller species of crocodilian, at age 11. He wound up with not one, but two caimans. The fascinating creatures spurred his interest in herpetology, which led him to a lifelong career in the study of behavioral and evolutionary ecology of Anolis lizards.

Jonathan spent his undergrad years at Harvard University followed by University of California-Berkeley, where he was housemates with now fellow Wash U Professor Allan Larson. Both received their PhDs in the Zoology program there. Jonathan moved on to University of California-Davis to complete his postdoc work in the lab of Tom Schoener where he began evolution experiments in nature. Schoener introduced lizards to 14 tiny islands in the Bahamas, where he intended to watch them go extinct, but instead and surprisingly they all survived. Jonathan thought this unintended outcome was an evolution experiment worth investigating, which showed how lizards bearing different characteristics were able to adapt to the environment in one way or another. He uses this approach to this day, now on Abaco Island in the Bahamas, where he conducts research every May. He studies Anolis lizards, a rich and diverse group of over 400 species that hail from the Caribbean Islands, Central and South America, and the Southeastern US.

Jonathan had his first appointment at Wash U as an assistant professor from 1992 to 2006, then joined the faculty at Harvard from 2006-2017. He is excited to be back at Wash U, where he has the opportunity to be part of a new and special partnership between Wash U, Missouri Botanical Garden and the St. Louis Zoo to create a new academic center dedicated to advancing the study of biodiversity. The Living Earth Collaborative will foster studies of all disciplines including behavior, ecology, evolution and conservation efforts. He is currently working on the challenge of getting his lab set up along with the Living Earth Collaborative and continuing his own research on lizard ecology and evolution in the field in the Bahamas.

He will be teaching Bio 1811: First-Year Opportunity: Research and Conservation in Zoos and Botanical Gardens in fall 2018. This new course will explore the work of MOBOT and STL Zoo through field trips designed to educate and excite freshman students about getting involved. A new summer internship program, also a result of the Living Earth Collaborative, offers paid internships for undergrads at MOBOT and STL Zoo. Applications will be reviewed every spring.

In his free time, Jonathan enjoys hiking, observing animals, playing ice hockey and spending time with his new kitten. To learn more about Jonathan Losos’ research, visit https://lososlab.oeb.harvard.edu/.

Learn more about the Living Earth Collaborative here: https://source.wustl.edu/2017/09/international-research-power-houses-join-forces-advance-study-life-earth/.

The Living Earth Collaborative has just announced its first seed grants which are awarded for partnerships between Wash U and other institutions. Biology faculty recipients include Rachel Penczykowski’s partnership exploring “Quantifying Effects of Parasites on Ecosystem Nutrient Cycling,” Ken Olsen’s collaboration on “Below-Ground Perspectives on Biodiversity: Root systems, Comparative Genomics, and Domestication of North American Grapevines,” Scott Mangan’s collaboration on “Conserving Rare Plant Species through Ecological Restoration in Missouri Woodlands,” and Jonathan Myers’ partnership on “A Synthesis of Patterns and Mechanisms of Diversity and Forest Change in the Andes: A Global Biodiversity Hotspot.”

See this article for more detailed information about these projects and the people involved: https://livingearthcollaborative.wustl.edu/call-for-proposals/grants-funded-spring-2018/.
FACULTY AND STAFF HONORS AND AWARDS

Three faculty elected to National Academy of Sciences

Three scientists at Washington University in St. Louis are among the 84 new members and 21 foreign associates elected May 1 to the National Academy of Sciences (NAS) in recognition of their distinguished and continuing achievements in original research.

Election to the academy is considered one of the highest honors accorded a U.S. scientist or engineer.

Washington University’s new academy members are all in the Department of Biology in Arts & Sciences. They are Sarah C.R. Elgin, the Viktor Hamburger Professor of Arts & Sciences; Jonathan B. Losos, the William H. Danforth Distinguished University Professor; and Richard D. Vierstra, the George and Charmaine Mallinckrodt Professor of Biology.

With these three new members, Washington University now has had 56 faculty members elected to the prestigious academy.

“I am delighted to congratulate Sally, Jonathan and Richard upon their election to the National Academy of Sciences. This important recognition adds to the excellent reputation of the Department of Biology and signals the high quality of our faculty working at the forefront of important areas of research,” said Chancellor Mark S. Wrighton.

“I am thrilled at this news and extend my warmest congratulations to Sally, Jonathan and Rick for this well-deserved recognition,” said Barbara A. Schaal, dean of the faculty of Arts & Sciences and the Mary-Dell Chilton Distinguished Professor. “An extraordinary result like this in one year shows the depth of talent within the Department of Biology.” Schaal has been a member of NAS since 1999, and she served as NAS vice president for eight years. —By Talia Ogliore, read more in The Source

Jonathan Myers and Hani Zaher receive tenure

Congratulations to Jonathan Myers and Hani Zaher who both received promotions with tenure and are now Associate Professors of Biology in Arts & Sciences.

To learn more about their research, visit http://www.myersecologylab.com/ and http://pages.wustl.edu/zaher

Ram Dixit named new co-director of the Plant and Microbial Biosciences, joins a legacy of innovative graduate programming

Ram Dixit, PhD, associate professor in the Department of Biology and associate director of education for the Center for Engineering MechanoBiology (CEMB), has been named co-director of the Plant and Microbial Biosciences (PMB) graduate program at Washington University in St. Louis.

Dixit is replacing Joe Jez, professor of biology, who will serve as the chair of the Department of Biology. Together, with Biology Professor Petra Levin, Joe Jez served as co-director of the PMB graduate program since 2013. Levin continues in her role as co-director. Dixit and Levin represent the plant and microbial arms of the PMB program, respectively.

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PMB is one of twelve graduate programs that comprise the Division of Biology and Biomedical Sciences. PMB replaced the Plant Biology graduate program after a review led by Professor of Biology Barbara Kunkel revealed the strengths and weaknesses of the program.

“The Plant Biology program was unsustainable,” said Levin. It suffered from two major problems. First, some of the faculty members in the program were not studying plants. They were studying photosynthetic bacteria or primarily using plants as model systems to study processes fundamental to all organisms.

Second, while the Molecular Microbiology and Microbial Pathogenesis (MMMP) graduate program intended to capture all students interested in microbiology, in reality it was primarily drawing students interested in microbial pathogenesis, resulting in few, if any, MMMP students joining bacteriology labs such as those in the Department of Biology.

In 2013, PMB was created under the leadership of Levin and Jez after Bob Kranz, professor of biology, suggested a combined program in plant and microbial biosciences. Faced with a challenge of teaching students about two very different systems, plants and microbes, the program took a unique approach. “We are not teaching students to be plant biologists or microbiologists, but to be critical thinkers, good communicators, and independent scientists under the umbrella of plant and microbial biology,” said Levin.

Levin and Jez revamped the coursework. They added a core class that teaches students critical thinking and analysis using the primary literature. The course is designed to train students to read, think, and write.

Thus was born the new program’s core philosophy: by any model necessary. PMB’s goal is to train independent scientists rather than teach students how to work with plants or microbes.

The broad approach to graduate education at the core of PMB’s philosophy is what attracted Dixit to PMB in the first place. “We train our students to do any type of science. We want to give them the tools so that whether they go into industry, academia or government, they will benefit from what they learned in graduate school,” said Dixit.

Dixit is a firm believer in training and empowering independent scientists with the skills to cross disciplines throughout their scientific careers. Under the CEMB, he is working with colleagues at the Center’s prime institution, the University of Pennsylvania, to develop programming that not only trains the next generation of scientists in mechanobiology, but also teaches them to consider principles that cross kingdoms, i.e. animal and plant cell commonalities. His leadership role with CEMB and now his new position as co-director of PMB emphasizes this commitment. “For students interested in interdisciplinary research, PMB and CEMB share that philosophy,” said Dixit.

Dixit previously served on the PMB admissions committee, most recently as chair. He has also been involved in teaching modules for required graduate courses, playing a role in recruitment, and planning retreats. “PMB is my primary graduate program, so I have been involved in it since the beginning,” said Dixit.

Now as he transitions into his new role, Dixit wants to make sure that the students have access to all the resources and help that they need, including mental health resources and strong mentorship. “I view the co-directors as student advocates. The student’s mentor is their research guide. So we are the student advocates,” said Dixit. —By Marta Wegorzewska and Patience Graybill
FACULTY AND STAFF HONORS AND AWARDS cont’d—

Haswell elected council delegate for AAAS—By Talia Ogliore, The Source

Elizabeth S. Haswell, associate professor of biology in Arts & Sciences at Washington University in St. Louis, has been elected as a council delegate for biological sciences for the American Association for the Advancement of Science (AAAS). Her term began Feb. 20.

AAAS, the world’s largest general scientific society, is an international nonprofit dedicated to advancing science, engineering and innovation for the benefit of all. Learn more about Haswell’s research and the secret lives of plants in the Arts & Sciences podcast “Hold That Thought.”

Fred Inglis of Strassmann/Queller Lab will be an Assistant Professor at UMSL

Fredrik Inglis joined the [Strassmann/Queller] group after previously working as a postdoc at the ETH Zurich with Martin Ackermann, where amongst other things he studied how cooperative interactions between bacteria evolve. He received both his undergraduate and graduate degrees from the University of Oxford, specifically researching the ecology and evolution of bacterial toxin production with Angus Buckling. He is primarily interested in evolution cooperative interactions between microbes but struggles to completely ignore his interests in bacteriocins and plasmids. Soon he will be an Assistant Professor at University of MO-St Louis.

Bio Students Awarded NSF Fellowships

Two DBBS graduate students - Maria Sorkin (Nusinow lab, Plant & Microbial Biosciences Program) and Kari Miller (First-year, Plant & Microbial Biosciences Program), current undergraduate Alison Greenlaw (Zaher lab), and past undergraduate Greg Harrison (former Kunkel lab and current Molecular Microbiology student in the Stallings lab) received NSF Fellowships that provide three-years of annual support for graduate studies.

BIOLOGY COMMUNITY

Faculty Retirements: Sally Elgin, Ralph Quatrano, Memory Elvin-Lewis

Sally Elgin is shifting to Professor Emerita on July 1, but she had so much fun here she can’t quite let go yet. Her lab remains open for the 2018-2019 academic year, and she will be working part time as a Research Scientist to finish up some experiments and write papers. Sally will be in her office ca. one week per month, and is happy to connect on any issues of interest (July 13-20, August 23-31, Sept 31 – Oct 7, etc.).

Memory Elvin-Lewis, pictured here with her husband Walter Lewis, also of Wash U Biology, is an authority on the use of plants in folk dental practices. In South America she has conducted medicinal plant inventories among indigenous populations in Peru, and was part of the International Cooperative Biodiversity Groups (ICBG) Peru project. She also led a team to evaluate hepatitis remedies used among populations in the Upper Peruvian Amazon, and is currently expanding this by analyzing the conceptual similarities and potential therapeutic value of herbal hepatitis remedies worldwide.

Dr. Elvin-Lewis has also explored the value of phytomedicines for tuberculosis and cancer and the adverse effects of herbal remedies. In addition, she has conducted research on the value of combining diverse data bases to understand the therapeutic basis of plant derived remedies, including omics strategies, legal and ethical aspects of bioprospecting among indigenous people, and how benefit sharing might be achieved.

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Ralph Quatrano has served in several administrative positions at Washington University over the last 18 years, the most recent (2010-2015) as Dean of School of Engineering & Applied Science. Since receiving his Ph.D. in Biology from Yale University, he served on the faculties at Oregon State University and the University of North Carolina in Chapel Hill. He is internationally known for his plant science research, and widely recognized for his significant and continued contributions to the life sciences (>170 publications). Most recently his research has focused on using genomics and systems approaches to the study of drought tolerance in plants. He was elected a fellow of the American Association for the Advancement of Science and the American Society of Plant Biologists. He is an Advisory Board Trustee, a Fellow, and recipient of the 2015 Science Leadership Award from the Academy of Science of St. Louis. For five years he was editor-in-chief of The Plant Cell, the premier journal of plant biology, and served for eight years as a member of the Board of Reviewing Editors of Science.

“On July 1, 1998, I became the Spencer T. Olin Professor and Chairman of Biology Department. On June 30, 2018, I retired from that position, exactly 20 years to the day later but remain as the Spencer T. Olin Emeritus Professor and Emeritus Dean.

During the first 10 years at WUSTL I was Chairman of Biology, I had an active lab, directed a 10-year research program with Monsanto and oversaw an expansion of our space to include all of McDonnell Hall, part of Wilson Hall, and did major renovation of several research labs, the plant growth chamber area and building the Teaching and Learning Center. The most important feature in my mind, was to connect all spaces in our Department, including the new faculty lounge and central mail room. I was involved with hiring 15 faculty members, 10 of whom are here and tenured.

Following my tenure as Chairman, I was Interim Dean of Arts and Sciences for one year followed by five years as Dean of Engineering and Applied Sciences. I was on sabbatical in 2015-16 and then on a two-year, half-time phased retirement working with the Provost on Innovation and Entrepreneurism (I/E), including Interim Director of the Skandalaris Center.

Lee Anne and I will remain in St. Louis during our retirements, with her dedicating her time with various social/community activities and groups, while I will concentrate on the I/E community at WUSTL and in the St. Louis region, presently consulting as a Venture Partner with Lewis and Clark Ventures (https://lewisandclarkventures.com).

All present, past and future members of Biology, please keep us in mind and do not hesitate to contact us and update us on your activities. ENJOY LIFE!” —Ralph (and Lee Anne) Quatrano

Gar Allen gave the Annual Michael Mizell Lecture on Public Science

Gar Allen gave the Annual Michael Mizell Lecture on Public Science at the Marine Biological Laboratory (MBL) in Woods Hole, on May 18. The topic was: "Strange Bedfellows? Eugenics and the Environmental Conservation Movement in Early Twentieth-Century America." Michael Mizell was a public historian (a historian who writes and documents, with the help of members of the public) at the University of New Orleans. Mizell was a leader in the application of digital technology in the service of public history. At the time of his death, Mizell was working on a project regarding a leper colony located in the early twentieth-century on Penikese Island off the coast of Woods Hole. This island had been the site of Louis Agassiz’s Anderson School of Science in the early 1870s, a forerunner of the MBL. Mizell's project was being carried out in conjunction with the "MBL History Project." —Gar Allen

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Staff Retirements: Ruth Lewis and Barney Moss

Ruth Lewis, biology librarian since Sept. 1985, is retiring August 2. She ushered library collections and services through some changes:

• The rise of the internet for biologists, a class she taught in U College in 1995-1998,
• From all paper journals to almost entirely online journals,
• From paper “databases,” like Index Medicus, Current Contents, and Science Citation Index, to all online databases like PubMed, Web of Science, Scopus, and of course Google,
• The closure of the Biology Library in August 2009,
• New ideas and mandates for authors in science, such as, for open access, public access, open peer review, preprints, reproducibility, ORCiD, alternative metrics.

Ruth says: I truly treasure my time working with biology faculty, staff and students. You’ll probably still see me on campus from time to time, so please say hi. I’m planning to stay in St. Louis although we have some interesting trips planned too. I expect the next biology librarian will do things differently than I did, but they will certainly come with energy for new projects and skills I don’t have. I still remember hearing about how great Mrs. Betty Galyon (my predecessor) was for years after my arrival. While it was nice to hear how loved she was, I encourage you to enjoy the change and be sure to let the new biology subject librarian know what you need from the libraries now! I will miss you. There is no information yet on who will be the biology library contact in future. I’ll blog when I know. Many services will continue to be available from the library website including:

- Ask Us: https://library.wustl.edu/ask-us/
- Interlibrary Loan: https://library.wustl.edu/services/ill/
- Recommend a book for purchase: http://library.wustl.edu/services/forms/bookorder/
- Recommend a journal for purchase or cancellation: https://library.wustl.edu/services/forms/journalorder/
- Subject Librarians: https://library.wustl.edu/research-instruction/subjectlibrarians/ —Ruth Lewis

Barney Moss, Purchasing/Receiving Assistant for the Biology Stock Room, retired in March of 2018. The Stock Room hosted a retirement party for Barney, who worked here for over 15 years. Excerpt below from the invitation by Gerry Rohde:

“BARNEY’S STOCKROOM TENURE OF OVER FIFTEEN YEARS HAS SERVED US very well and he will be missed. I personally feel like I am getting my second divorce.

AS WE ARE LOOKING FOR HIS REPLACEMENT, LET’S REMEMBER MISTER MOSS’S CONTINUOUS BEHIND-THE-SCENES OVERSIGHT OF SATIATING OUR DEPARTMENT’S NEVER-ENDING APPETITE FOR DRY ICE, COMpressed gases, LIQUID NITROGEN, & REGULATED MEDICAL WASTE REMOVAL, AMONG OTHERS, AS WELL AS HIS DETAILED ATTENTION TO HIS MORE VISIBLE DAILY RECEIVING & DISTRIBUTION DUTIES OF LABORATORY SUPPLIES, PROCURED BY JAN & KELLY, AND TOTALING MORE THAN ONE MILLION DOLLARS ANNUALLY.

FINALLY, IT IS WORTH NOTING THAT HE HAS PROVIDED COMFORT AND GOOD VIBES TO OVER ONE THOUSAND DIFFERENT CUSTOMERS OVER THE YEARS BY WAY OF HIS CONSISTENTLY MODEST & PLEASANT DEMEANOR, WHICH EACH OF YOU CAN WITNESS FOR THE LAST TIME IN TWO WEEKS ON THE 16TH.” —GERRY ROHDE

Barney says: I had a very good run in my 15 and a half years in Biology. Though I’m enjoying retirement, I do miss a lot of the people and hope to see some of you when I visit.

*On a personal note, I would like to mention that a few weeks after his retirement, on the day Gerry passed away, Barney showed up to work no less than one hour after finding out about his death and just started working. Seeing his face on that day was a flood of warmth and comfort and he helped all of us through a difficult time, what a guy! —Erin Gerrity
Biology Staff Spotlight: Benjamin Abts

Benjamin Abts is the Lab Prep Specialist for the Biology Department which entails making sure the teaching labs have everything they need to run smoothly. He earned his Masters of Science in Biology at UMSL, graduating in December 2016. During grad school he worked as a Teaching Assistant and researched information use and cognitive ecology.

Ben’s primary responsibilities include performing lab prep for various biology lab classes and managing the teaching lab spaces. If you need to schedule a lab room on the first floor of Rebstock Hall or borrow a piece of equipment such as a microscope or other imaging device, electrophoreses apparatus or spectrophotometer, Ben is the person to contact. He has knowledge of all available equipment and knows if the teaching labs have the right equipment for certain types of experiments. Teaching labs take priority when it comes to use of rooms and equipment but biology faculty and staff may also use them whenever possible.

In addition to this, Ben is the first point of contact for autoclaves, providing service when they break down and regular maintenance. He is also knowledgeable about biohazard and glass disposal guidelines and can answer questions and provide assistance when necessary. Labs that require glass washing services can call Ben who will make arrangements with Kathy Upton to wash and dry your glassware.

Ben is from the St. Louis area, where he appreciates the amount of culture and the wealth of great restaurants. Ben is a car-free person, active in the St. Louis cycling community, who bikes to work daily and also helps the Wash U sustainability office with organizing "bike buddy" group commutes from Gravois/Tower Grove Park to campus during Active Transportation Months (April and October). He is also listed as a contact who is always available for questions about bike commuting. Ben enjoys hiking, cycling, seeing live music and spending time with his dog Zoey.

Biology Faculty and Staff Obituaries

John Majors, emeritus professor of biochemistry, molecular biophysics

John E. Majors, PhD, professor emeritus of biochemistry and molecular biophysics at Washington University School of Medicine in St. Louis, died Jan. 10, 2018, of a heart attack. He was 69.

Majors was known for key contributions to the field of molecular biology, particularly work involving the expression of genes in yeast and viruses. He worked with a team led by Harold E. Varmus, MD, and J. Michael Bishop, MD, whose research revealing how viruses can cause cancer was honored with the Nobel Prize in Physiology or Medicine in 1989.

“John was an invaluable researcher, teacher, collaborator and colleague,” said John A. Cooper, MD, PhD, professor and head of the Department of Biochemistry and Molecular Biophysics. “He will be remembered for his gentle and thoughtful nature, along with his deep understanding and keen insights on a wide range of scientific topics.”

According to colleagues, Majors was deeply committed to mentorship and training, putting students at the center of his work. He served on the doctoral thesis committees of more than 100 graduate students in the university’s Division of Biology & Biomedical Sciences (DBBS). In 2013, he was one of 10 DBBS faculty named to “The One Hundred Club,” honoring this achievement. Many of his former trainees have gone on to become leaders in their fields.

“John will be remembered with respect and deep affection,” said Varmus, who also directed the National Institutes of Health (NIH) from 1993 to 1999 and the National Cancer Institute from 2010 to 2015. “He led or contributed to a number of projects that established the still-current picture of how a retrovirus manages the molecular acrobatics essential for its growth cycle. Equally lasting was the deep impres-
sion he made on all of us who worked with him — a remarkably kind and considerate person, with wide knowledge, a firm commitment to science and an unflappable demeanor.” Majors earned a bachelor’s degree in physics from the University of Washington in 1970 and a doctoral degree in biophysics from Harvard University in 1977. He continued his training as a postdoctoral fellow in Varmus’ lab — then at the University of California, San Francisco — contributing to the discoveries that would later earn Varmus and Bishop the Nobel Prize. After joining the faculty of Washington University in 1983, Majors continued his work studying retroviruses, how they replicate and how their DNA can interfere with mammalian genetics and lead to cancer.

Majors served on the steering committees of the biochemistry and molecular genetics graduate programs. After his retirement in 2011, he continued teaching regularly for the university’s Department of Biology.

Majors is survived by his sisters, Anne Chick and Jane Sutherland, and their families. —The Record

Owen J. Sexton, professor emeritus of biology

In the 1960s, his turtle egg studies were instrumental in identifying the effects of runoff pollutants on wildlife breeding and population dynamics. During The Great Mississippi and Missouri Rivers Flood of 1993, Sexton provided expertise in population ecology to help manage the devastation to local wildlife. He was a founding member of the Missouri Prairie Foundation.

Sexton served as director of Tyson Research Center from 1996-99. In June 2010, the center hosted a tribute to Sexton attended by many of his former students. At the event, Sexton said, “I started running around in the woods when I was 5, and I’ve never stopped. I’ve never seen any reason to stop.”

A summer 1971 Washington Magazine feature article, “Twentieth Century Walden,” said that Sexton took the lead in bringing students from all backgrounds to Tyson — including not only those specializing in ecology and biology, but also those whose interest in science was strictly an avocation. “The reaction of students reared in the city when they get out and see animals is really spectacular,” Sexton said.

He was born in Philadelphia in 1926 and grew up in Merchantville, N.J. He enlisted in the Army during World War II, where he served in northern Italy. After the war, he earned his undergraduate degree from Oberlin College in 1951 and his PhD at the University of Michigan in 1956.

Sexton was a professor at Washington University from 1956 to 1998 and a key advocate for the purchase of the 2,000-acre Tyson Research Center property in 1963.

A wildlife biologist and ecologist, Sexton studied ecosystems throughout Central and Latin America and other parts of the world, including Missouri and the Midwest. His research interests included amphibians, reptiles and the endangered collared lizard in the state’s glades and prairies.
transferred to the biology department in 1997. He wrote a safety spotlight for the biology newsletter and served as the department liaison with the university’s Environmental Health & Safety department.

“Gerry was a unique individual who touched everyone’s lives in the department,” said Kathryn Miller, professor and chair of biology. “In his role, he helped to make sure that everyone had what they needed to do their research. He oversaw the flow of purchase orders, receiving, and stockroom supplies for 33 faculty members and their laboratory groups. The job suited him very well, and he always had a joke or a smile when you visited the stockroom.”

“Gerry was a visible and vibrant presence, and he will be sorely missed,” she said.

Rohde also was known around campus and across the area as the evening host of St. Louis Public Radio, KWMU FM 90.7, where he had worked in various on-air capacities since 1985. For more than 20 years, Rohde had managed programming weeknights from 7-11 p.m.

Rohde was raised in Bremen, Germany, and first came to the United States as a high school exchange student in 1978. He returned in 1983 to pursue a bachelor’s degree in German and in mathematics at the University of Missouri-St. Louis, and he had lived in St. Louis since then.

Rohde is survived by his sister, Geena Eaton of Overland, Mo. —By Talia Ogliore, the Source


You can also find St. Louis Public Radio’s Tribute article here: http://news.stlpublicradio.org/post/gerry-rohde-tribute-staff-and-listeners-share-memories#stream/0

Biology Department and STL Public Radio co-workers, along with other friends and family gathered to celebrate his life on May 31st. The event was filled with laughter and people enjoying Gerry’s favorite music, bbq and craft beer. He will never be forgotten! ☼

Seena Kohl, Webster University professor and wife of Danny Kohl

Webster University professor Seena Kohl, wife of Wash U professor Danny Kohl, passed away on June 16, 2018. A pioneering feminist anthropologist and Webster University professor of 40 years, Seena Kohl helped found the university’s women’s studies program in 1976.

By then she had defied the sexist expectations held by many of her peers and earned her doctoral degree, traveling across the U.S. to conduct research, all while raising four children.

“She was unlike anybody I’d ever met before,” said St. Louis labor attorney Mary Anne Sedey, whom Ms. Kohl tutored at Webster from 1965 to 1969.

“She was a person who combined marriage and family and a career in a way that to women of my generation was brand new. And she encouraged us to follow her. We knew she believed in feminism and the women’s movement, but she really lived it.”

Ms. Kohl died of complications from Alzheimer’s disease in Helena, Mont., at the age of 88. She was preceded in death by her husband Danny Kohl of Wash U in March of 2016. — excerpted from the obituary in STL Post Dispatch ☼
Josh Blodgett, assistant professor of biology, studies bacterial small molecule production. His research program uses interdisciplinary approaches to discover new bioactive molecules, understand how those molecules are made, and engineer microbes to increase their production. He sat down with the Ampersand to talk about how he integrates his industry background into his teaching and research.

What does your lab work on?
We work on Streptomyces bacteria, microbes that make two-thirds of FDA approved anti-infectives. They are ubiquitous in the soil and freakishly endowed with the ability to produce drugs. We want to exploit these bacteria to make new potential drugs. We’re approaching this challenge in many ways. But to contrast our work with prior efforts in the field, we routinely leverage comparative genomics in our discovery work. And we want to understand how bacteria make drug-like compounds. Scientists have known about certain bacterially-produced drugs since the 70s, but we still don’t know how they are made!

How did you get interested in Streptomyces?
I loved microbiology as an undergraduate student. I got interested in it after taking a lab class; in one of the experiments, we plated soil dilutions on petri-dishes. On those plates, the microbes start to interact with each other. You could see the zones of inhibition, clearings around the Streptomyces, where they were inhibiting their neighbor’s growth. I thought it was remarkable.

Are there other microbes that make these kinds of compounds?
There are. But none produce the sheer number or the complexity (the chemical complexity) that comes from Streptomyces and related strains.

If scientists have known about these drugs for years, why do you think more compounds can be found?
Ten years ago, we knew that Streptomyces make 5-6 molecules per strain. But now, because of genomics, we know that many Streptomyces have 30-40 biosynthetic clusters. Each cluster forms a neat concise package of genes that direct the synthesis of these compounds. So, it looks like we have overlooked their capacity to produce these compounds significantly. Genomics has made it possible to discover previously missed drugs leads.

Given your industry background, what is the biggest challenge in drug discovery?
I come from an industry background (2.5 years in industry to help launch a pharmaceutical company) where we were using genomics to discover new drugs. If you want to go to market with different kinds of drugs, you need your bacteria to produce at least 1-10 grams per liter. These molecules are typically made at about ½ mg per liter; not very much. You have to industrialize the producers. Simply knowing the biosynthetic pathway (how the drug is made) won’t get you to 10 grams/liter. But what it can do is suggest simple steps that will take you to multiple milligrams per liter (50-100). That amount is often enough to start asking questions about the potential drug’s efficacy.

Have you discovered any new compounds?
Yes. One of my favorites comes from a Streptomyces strain I isolated from my grandparent’s garden in Connecticut, where I grew up. In 2010, I discovered that it makes a compound called clifednamide, which I named after my grandparents, Cliff and Edna. But unfortunately, this strain was a very poor producer of clifednamide, making it difficult to do experiments to learn about the compound’s activity.

How did you overcome that challenge?
We took multiple approaches. I got the undergraduates in my biotechnology course involved. I challenged them to go outside, grab a shovel full of dirt (the soil came from Tyson Research Center), and isolate new examples of these microorganisms. My BIOL 3493 students engage in series of experiments designed to teach the fundamentals of microbial drug discovery using genomics and traditional methods. This resulted in the isolation of strain KL33 named for Kevin Lou, the undergraduate who found it. Kevin’s strain turned out to be a better clifednamide producer than the original strain I’d found in Connecticut.

We also engineered a better producer. To do this, we figured out the clifednamide biosynthesis pathway – that is – deciphered how clifednamide is made. We learned that

—cont’d next page
**BOTERO LAB NEWS**

Some news from the Botero Lab:

— Dr. Ty Tuff has moved on to a new position in Andy Gonzales’ lab at McGill

— Our paper on “Hindcasting global population densities reveals forces enabling the origin of agriculture” (DOI: 10.1038/s41562-018-0358-8) was recently published in Nature Human Behavior, with an associated comment by Dolores Piperno (National Academy Member, Smithsonian Institution)

— C. Botero was awarded a “Human Development Opportunity Award” from NSF for $150,000 to continue investigating the evolution of avian brains

— C. Botero was also awarded a one-year extension of funding (US$69,111) from the Max Plank Institute for his work on the evolution of human culture.

**BLODGETT LAB NEWS cont’d**

Clifednamide is derived from another molecule, ikarugamycin, known to be effective against a wide-range of pathogens. We again turned to genomics and discovered a beautiful producer of ikarugamycin. Using our knowledge on how clifednamide is made, we inserted a single gene into the ikarugamycin-producing strain to transform it into a productive clifednamide producer. The engineered strain is the highest clifednamide producer discovered thus far.

Now that you can make a lot more clifednamide, what do you want to do next?

Ikarugamycin has activity in a broad array of organisms. It is an anti-ciliate, an anti-microbial, and a plant modulator. It has even been suggested to be anti-inflammatory. Now we have yet another analogue of ikarugamycin that we can create a lot more of. What I would love to do is to take this engineered microorganism or the compound it makes (clifednamides) and ask what happens when we put them in various plant models. Are ikarugamycin and clifednamides similarly effective? Do they help plants, or might they be involved in pathogenesis? You never know what you might find.

**DIXIT LAB NEWS**

The Dixit Lab welcomes several new members to the lab!

Dr. Derrick Dean is spending the summer in the lab as the Clark Way Harrison Visiting Professor from Alabama State University. Natasha Bilkey is a new Plant and Microbial Biosciences graduate student and a William H. Danforth Fellow in Plant Sciences. Alexis Scott is an undergraduate researcher through the Center for Engineering Mechanobiology and Okey Obidike is a WashU undergraduate student researcher.

PI Ram Dixit has been named new co-director of Plant and Microbial Biosciences, see the article on page 4!
The Herzog lab proudly celebrates our most recent graduates: Tanvi Puri (Neuroscience Major, Honors in Biology) is on her way to the Neuroscience Program at Univ. of British Columbia and Matt Tso (PhD in Neuroscience; thesis “Astrocytes regulate daily rhythms in the suprachiasmatic nucleus and behavior”) is on his way to a postdoc at UC-Berkeley.

JEZ LAB NEWS

—Joe Jez is now the new chair of the Biology Department.

—Soon Goo Lee (postdoc) gives a talk at Plant Biology 2018 in Montreal (July 14-18).

—Daniel Berkovich (undergrad) receives an American Society of Plant Biologists Summer Undergraduate Research Fellowship.

—Cynthia Holland (PMB Graduate Student) gave a talk at the 2018 Plant Volatiles Gordon Research Symposium in Barga, Italy. Cynthia also successfully defended her PhD thesis and received an NSF Postdoctoral Research Fellowship to support her upcoming postdoc in the Jander lab at the Boyce Thompson Institute/Cornell University.

BIOLOGY GRANTS

Bruce Carlson has been awarded $700,000 by the National Science Foundation.

Petra Levin has been awarded a $2,000,000 Maximizing Investigators’ Research Award (MIRA) by National Institute of General Medical Sciences.

Yehuda Ben-Shahar has been awarded $770,000 by the National Science Foundation.

Josh Blodgett was awarded a pilot grant from the McDonnell Genome Institute. The grant is for genome sequencing services, specifically, to sequence the genomes of 96 filamentous actinomycetes, important sources of drugs and related molecules.

For the latest news, follow the Wash U Biology Department on Twitter: @WUSTLBio

Or find us on Facebook: Biology Department at Washington University in St Louis, MO
The Restoration of LaBarque Creek

Restoration of LaBarque Creek near the Tyson Research Center has sparked new life in a beleaguered aquatic ecosystem. The Ampersand sat down with Kim Medley and Elizabeth Biro to find out more.

Thirty miles west of WashU’s Danforth campus, adjacent to what was once a kids’ ballpark, signs of life are springing up along a stretch of LaBarque Creek.

The creek, a tributary to the Meramec River, is one of the area’s most pristine aquatic ecosystems, thanks to a relative lack of development within its watershed. In this section of the creek, small fish now linger along its banks and dragonflies hover above native grasses while water bubbles through a hairpin bend in the channel. But the scene here wasn’t always so picturesque. This field used to be muddy and barren, the trees and shrubs whose roots once stabilized the land having been cleared by a previous landowner. The creek bullied its way through the field, scouring away hundreds of tons of soil that had been on track to blanket the streambed and stifle the aquatic ecosystem.

After several attempts were thwarted by extreme flooding, the restoration started in earnest last June. A partnership with The Nature Conservancy – particularly the efforts of Steve Herrington, the Missouri Director of Freshwater Conservation – spurred the project. Herrington, an expert in aquatic conservation who has overseen major restoration projects across the U.S., secured funding from Boeing to cover much of the costs of the restoration. He also led the collaboration with Coastal Hydrology, the engineering firm that designed and constructed the stabilized streambank.

This bioengineering approach – which, in technical terms, is a combination of live brush layering, root wad toe, and channel reshaping – has been used before, but not much in Missouri, Biro said. In most cases, the city or county would instead dump large rocks, sometimes called riprap, along the banks of an eroding stream. Although this method can help stabilize the physical system, it does nothing to restore habitats for the flora and fauna that characterize a healthy aquatic ecosystem. The approach can also require frequent repairs and is prone to structural failure, since it typically does not involve replanting vegetation. Tyson’s strategy will help the creek look and act more naturally, Biro said.

Coastal Hydrology, which primarily operates in the southeastern U.S., is uniquely experienced in this type of restoration, Biro noted, which is one reason Tyson and The Nature Conservancy partnered with the firm. Because this approach has rarely been applied in the Midwest, dozens of ecologists and technicians from nonprofit organizations and federal and state conservation departments ventured to the site to observe the process, hoping to gather insights for future restoration efforts.

Now, a year after the reconstruction of this section of LaBarque Creek, Tyson researchers are beginning to see the fruits of their fixer-upper project.

There is ample evidence that the flood waters have been tamed and the creek is behaving like a healthy waterway: Sand deposits have accumulated on both banks; the surrounding land is no longer an uninviting, muddy field; and trees are taking root along the banks, casting shadows across the clear waters that bubble through the bend. The tree roots that protrude into the creek serve double duty, slowing waterflow to curb sediment loss and creating habitat for fish and other creek dwellers. And the plants that have sprung up not only stabilize the banks, they also provide habitat for insects. —by Crystal Gammon, Excerpted from the Ampersand
Malware, ransomware, scareware and screen lockers are some of the types of attempts to get your personal information or hold your data hostage. It is common enough that you should take steps to minimize your vulnerability to such threats and know what your options are if you do fall victim, and how to make those options available.

The sources of such attacks may be email containing a virus-like payload in the form of a PDF, word document or some other booby-trapped document. Some emails may have links to malicious websites that if visited may result in an attack on your computer. Don’t assume that every attachment or link sent by a coworker or friend is safe. If such an email is not expected, confirm with the sender that it was really a valid message.

Some malicious emails have links that will send you to attack websites that may infect your computer directly through your browser, so use an up-to-date browser. Out-of-date browsers will have many vulnerabilities that that browser updates will fix. Browsers equipped with add-ons such as noscript for Mozilla’s Firefox will also reduce your chances of getting infected.

It cannot be stressed enough that good, regular backups are the single most important thing to have in any computer users’ life.

However, no preventative measures are perfect and you should have a data recovery option to fall back on if the worst happens. For that and other reasons backups are critically important to do on a regular basis. Even without being a victim of a malware attack, failing hard drives will inevitably cause data loss that may not be possible to recover from without a good, recent backup. External hard drives are far cheaper than data recovery services for a dead hard drive that will cost at a minimum a few hundred dollars and may go as high as thousands of dollars. With a good backup in place you can recover from an infected or dead hard drive in a matter of days (or even hours if you have a spare unused hard drive ready to swap with the bad one).

Keep all your computer related purchase documentation somewhere safe. Software reinstallation after a computer problem may require key codes or serial numbers. Software downloads may require a specific account login, one that you’ve probably forgotten if you’ve only used it once. Warranty and computers specification information from your computer’s manufacturer will be useful when hardware fails.

If you do fall victim to an attack, do not call any supposed Microsoft phone phone numbers that mysteriously appears on your screen, don’t download any suggested software that purports to fix your problem. Do not search for or download any software tools from websites that promise to fix the problem you are having. Most such “solutions” are actually malware-like pieces of software that will at a minimum be annoying, if not cause more problems for you.

Those actions will likely result in your personal information being compromised, or worse. Do not attach any external hard drives or flash drives to an infected computer. The safest thing to do is completely power down your computer and contact your IT support staff for help (see Biology IT support contact information below). Leave it turned off until you get real help. Warn your friends and coworkers that your computer has been compromised and to regard any emails or social media communication from you with great suspicion.

If in a panic you did supply suspicious entities personal information like social security numbers, computer passwords, credit card PINS or banking account information there are actions you should take immediately. Assume all private information accessed on the infected computer has been compromised.

From another device change all passwords to any online email, banking, credit card, investment work and social media accounts. Change any passwords for any account you accessed with the infected computer. By telephone contact your banks and credit card companies and talk to a human customer representative about what happened. Assume all private information accessed on the infected computer has been compromised.

If you supplied a hacker with a scanned image of a personal check or your banking account and routing numbers (they are usually printed on personal checks), call your bank immediately and ask them to transfer your money to another account and replace it with a new one if possible (tell them why).

Consider doing a “Credit Freeze” on your personal financial information (see the websites below for an overview).


“If you’re concerned about identity theft, those reported mega-data breaches, or someone gaining

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Stan Braude on Naked Mole Rats from Popular Science article—Google wants to use naked mole rats to conquer death: They’re ugly as sin, but they could help us live longer.

Google wants to use naked mole rats to conquer death: They’re ugly as sin, but they could help us live longer.

Gompertzian Law is hard to spell, but pretty easy to understand: the older a mammal is, the more likely it is to die. That’s just a fact of life—except, apparently, for naked mole rats. A new study from Calico Labs, which has the moonshot goal of unlocking the secrets of aging, found that the bald rodents’ risk of death isn’t necessarily proportionate to its age.

The creepy, hairless critter (which was famously featured as an anthropomorphic, nacho-loving side kick in the cartoon Kim Possible) has an unusually long life span, and a host of characteristics that make it seem relatively invincible. Naked mole rats don’t appear to feel pain the way most mammals do, and only a few individuals out of the hundreds studied are known to have developed cancer. They can also hold their breath for 18 minutes at a time with no apparent side effects whatsoever.

Unfortunately, this doesn’t mean naked mole rats hold the key to immortality. “I hate to burst the bubble,” says Stan Braude, a professor of practice in the biology department at Washington University in St. Louis. Braude, who works with naked mole rats but wasn’t involved in the new study, says that while the animals are likely to die off young in the wild because of predators or other natural factors, the few critters who survive that vulnerable period tend to live a long time. That’s consistent with the longevity that the Calico study found in its lab population. The overall rate of survival in the lab was obviously much higher, however, since natural factors were removed.

But the survival rate and longevity isn’t unique to naked mole rats. Braude gives the example of a tortoise or an oak tree: in the wild, both organisms can have long lifespans, but only if the seedlings or baby tortoises make it past everything that’s trying to eat them. Mice, on the other hand, only live for about three years in the wild or in the lab. It doesn’t seem to matter whether or not they’re in a safe environment; they get old, and as they get older they’re more likely to die.

So why should we care about naked mole rats, as opposed to sea tortoises or 100 year-old giant clams? And why is Alphabet, the parent company of Google, pouring money into researching the rodent at Calico?

It mostly likely has to do with the animal’s telomeres, Braude says. Telomeres are like the cap on a new pen. They protect strands of DNA from damage or decay. But telomeres themselves get damaged over the lifecycle of a cell, as it makes copies of itself. Once the telomere is gone, cells can no longer create new tissue. This highly scientific, molecular process is more commonly known as aging, and it’s something that the billionaire founders of Google (and Amazon and PayPal) would like to put an end to.

“Naked mole rats appear to be able to protect their telomeres,” says Braude. “They can have many more cell cycles, and that’s a really cool trick.” Scientists still don’t know how or why naked mole rats’ cells have this ability, but it is likely the next step in further research.

It could be a result of evolution, Braude hypothesizes. Mice, for example, are always in constant danger, so their biological priority is to reproduce quickly and copiously. That doesn’t leave a lot of room for natural selection to work its magic and select traits that would help them live longer.

Naked mole rats, on the other hand, are relatively safe in the wild once they’ve established a burrowed colony. Predators can’t easily slither into their labyrinthine underground homes, and the mole rats mostly feast on roots and tubers, meaning they hardly ever have to leave the house. The queen mole rat, much like a queen bee, is guarded by a plethora of worker rats. Evolutionarily speaking, that means traits related to longevity could be selected for over traits that allow fast reproduction.

“There’s something special about mole rats,” says Braude. “But you want to make sure you get right what’s special, or you’re not going to be looking in the right places for further relevant, cool biology.” —by Amal Ahmed, Popular Science
INSTITUTE FOR SCHOOL PARTNERSHIP NEWS

Victoria L. May, assistant dean in Arts & Sciences and executive director of the Institute for School Partnership, honored for her work with students

During the University College Recognition Ceremony on May 16, May received University College’s 2018 Dean’s Faculty Award. The honor is presented each year to an outstanding University College faculty member. The award recognizes faculty that excel in connecting with Washington University students, advising and guiding them in many ways. She received a certificate, a financial award and was selected to present the faculty address at the Recognition Ceremony.

In addition to her University College recognition, May was also honored by the School District of University City. At a reception on May 10, she received the school district’s annual PACEsetter Award (Positively Affecting Community Education) for the 2017-18 school year. The award honors individuals and groups who go above and beyond their responsibilities to make a difference for U City students, schools and the district. —Myra Lopez

David Kirk receives 2018 Science Educator Award

The Science Educator Award recognizes a distinguished individual on the basis of outstanding contributions to science education or to the public understanding of science, engineering, or technology. As each category of award now includes a strong education and outreach component, and we have another mechanism for awarding K-12 Teacher Awards, the Educator category is primarily for those in higher education or the corporate sector. This is not a reflection on the excellent work in education, but rather is a verification of the high value of educational endeavors (including mentoring, citizen outreach, STEM advocacy and interdisciplinary efforts) performed by the Award recipients in all categories.

Dr. Kirk has spent a lifetime teaching developmental biology and doing research on the evolutionary origins of multicellular organisms. He is internationally known for his research on Volvox carteri development and evolution, and has co-authored numerous scientific publications on these topics and has authored a book on Volvox for Cambridge University Press. Kirk has a great passion for educating and supporting teachers. In particular, he works to advance K-12 science education by improving the way evolution education is taught in schools. Dr. Kirk devotes his time to making sure evolution is a key part of a sound K-12 science curriculum. Dr. Kirk’s interest in advancing K-12 science education is not limited to evolution. He led the revision of the Science Outreach “hands-on” Modern Genetics program that is now used in many local high schools, and he also served as principal investigator for an NIH grant that funded development of middle-school inquiry-based learning materials in collaboration with the Saint Louis Zoo, the Saint Louis Science Center and the Missouri Botanical Garden. —Academy of Science STL website

Brain power on display at annual WashU Brain Bee

“Sonic hedgehog is important for the development of what part of the nervous system?”

With his answer (spinal cord, also accepted cerebellum) Akhil Kondepudi, a junior at Ladue Horton Watkins High School, clinched the 2018 St. Louis Area Brain Bee. An annual neuroscience competition held at Washington University in St. Louis. —cont’d next page
His top showing was hardly a surprise to many in attendance. Hours earlier he sped through a 51-question multiple-choice test of brain knowledge, finishing it in 13 minutes.

“I really like neuroscience. I am here to win. I came to compete and to have fun,” Akhil said during a pause in activity.

Akhil’s journey to the championship started last year when he took second place. Undeterred, he trained hard reading the Brain Facts book provided by the Society for Neuroscience which runs this international competition, and even went a step farther and read from some textbooks.

“He’s a very special kid,” said Erik Herzog, the event organizer, a professor of biology and a faculty fellow for the university’s Institute for School Partnership. “It’s nice to see him come back and compete again.”

“My heart was beating so fast,” said Akhil’s mother Prasanna Kondepudi of watching her son. “I was sweating, it was really nerve wrecking.”

She said Akhil worked really hard and knew his stuff. She feels this win will boost his confidence.

As the winner, Akhil earned a summer research fellowship at a WashU laboratory and an all-expenses-paid trip to the National Brain Bee in Maryland this March.

Launched in 2010, the St. Louis Area Brain Bee has grown every year. This year, some 40 high school students took the multiple-choice test with 10 moving on to the oral competition. Like a spelling bee, students then take turns answering questions about the brain.

Herzog said this year’s finalists were exceptional. He admits he was concerned he was going to run out of questions.

“We were going way deeper in the questions than we have in the past,” he said. “They went to about 58 questions, and I had about 10 more left.”

Members of Synapse, WashU’s neuroscience club, assisted with the event and guided the high school students through the activities. In addition to The Bee, students also took part in hands-on activities such as holding a human brain, and participated in a neuroscience panel discussion.

One of the panelist was Jasmine Brown, a senior in Arts & Sciences, and a recently named Rhodes Scholar. As a high schooler, she took part in a brain bee and found it really rewarding.

“It was really exciting because it was the first time I was around other students who were interested in neuroscience,” she said. “I was already down the path of neuroscience but it inspired me to get into research.”

Herzog said the competition isn’t about crowning a king or queen but educating participants about the brain, setting a foundation for a possible career in neuroscience, introducing students to a network of people interested in brain studies and engaging them in hands-on science activities.

“I hope I connected them with a community that they’ll want to stay in touch with,” he said. “We want to make this about learning. Most of the day is not about the competition.”

Second place winner Shelei Pan is also a student at Ladue Horton Watkins High School. She was a repeat participant, having taken third place last year. The other top 10 finalists were (in no particular order) Rohith Ryali, Varun Shenoy, Trey Wang, Seunju Lee, Sriya Bondi, Shriya Koneru, Rincon Jagarlamundi and Keerthana Madireddi.

The next St. Louis Area Brain Bee will be in February 2019 with more questions about sonic hedgehog to stimulate teenagers to learn about neuroscience. —By Myra Lopez

UPDATE: Akhil Kondepudi, went on to win the National Brain Bee Championship held in March in Baltimore, Maryland, and will represent the US at the World Brain Bee Championship in Berlin (July 5-9).
THE SUPER-SIZED AND FULLY LOADED SPECIAL EDITION OF SAFETY SPOTLIGHT

a retrospective/tribute to Gerry Rohde by Erin Gerrity with contributions from co-workers and friends of Gerry

This is a collection of photos I took of Gerry over the last nine years for the Safety Spotlight articles he wrote for each issue of Biologue.
Welcome to “Safety Spotlight”.

Thankfully, we have no recent chemical spills or laboratory fires to write about.

Continue to be safe — and remember: “Falling objects can be brutal if you don’t protect your noodle”.

JUST A LITTLE NUTS
WE ARE DISMAYED BY YOUR LACK OF PRESENCE.
WE ARE ANTICIPATING YOUR RETURN WITH UN SPEAKABLE IMPATIENCE.

Anyone who has ever been out of the office has probably received a message similar to this one from Gerry Rohde. It’s still hard to believe that he’s out of the office and will not return, but his unforgettable sense of humor will be with us always. Here are a few stories I collected from Gerry’s co-workers and friends in no particular order.

Gerry and I became fast friends when I first started working at Wash U almost 10 years ago. He gave me my nickname The Double E. He is one of the funniest, smartest and most genuine people I’ve ever known. He is the life of the party, always with a story to tell, a smile and a kind word. We shared a love for old music, absurd humor, crazy costumes, vintage aesthetics, and weird people. Thankfully I saved the hundreds of emails between us over the last decade of jokes, especially puns, silly pictures and favorite songs. He brought so much joy into my workday as I know he did for many others. His ability to remember everyone’s name and something special about them was amazing. Outside of work, he showed up for my family’s annual haunted house on Halloween and my elaborate annual Star Trek parties. He embraced any reason to don a costume :) When I started making candles out of recycled craft beer bottles in 2013, he not only collected bottles for me, but also wanted to learned how to cut them with my saw. When I had cancer a few years ago, he generously offered to cut them for me until I got better but he liked it so much that he continued doing it for me, up to spring of 2018! I always offered to pay him but he would only accept candles as payment. His magnanimous personality and generous spirit touched everyone around him and filled every room to the brim. The hallways in the department of Biology will never be the same. He will be so dearly missed and never forgotten.—Erin Elizabeth Gerrity (EE)

It’s unbelievable how much Gerry connected and affected people in such positive ways in such a short time, in some instances. I just want to keep sharing things about him because of how I’ve realized that he was someone that is truly the most one of a kind person I’ve ever met. And I wonder if he ever would have known how many people were touched by his uniqueness and miss him so much.—Patrick Clark

I did not get to know Gerry as well as many other people in the department, as I did not do much ordering through the stockroom. However, Gerry and I did have two overlapping areas of interest: old cars and KWMU. I had an old Mercedes 220 diesel that I bought shortly after arriving at Wash U in 1968, and drove it for 300,000 miles. Gerry had offered to buy it from me, but I always put him off until I finally decided in 2007 to let it go. He took me to his trusted body shop to have them look at it -- and the verdict was “Gerry, don’t sit in the back seat of that car!” The body had so rusted by that point that Gerry did not want to undertake restoring it, so it became a donation. The other area we shared was through association with KWMU, though at different times. In the period 1978-82 I did a Sunday music program, and that was just a year before Gerry became involved with the station. So, we didn’t overlap but knew some of the people in common and shared a mutual love for NPR and public radio in general. I used to get periodic updates from him, with his usual deadpan humor, which I had finally learned to recognize and appreciate.—Gar Allen

Years ago when our kids were in daycare we bought a new ultralow freezer for the lab. The freezer came in an enormous box that was left on the loading dock after they removed the contents. Ian and I realized that the box would make a great fort for the daycare kids to decorate and play in. The problem was how to get the box from the loading dock over to the med school where the daycare was. Gerry came to the rescue and hauled it over there one afternoon with his iconic ‘Doba’ car and some kind of trailer that I

—cont’d next page
think he had made himself. Needless to say, the kids loved
the box; but the teachers told me that the kids were equally
thrilled to see the box arrive on the trailer of Gerry’s unique
car! —Dianne Duncan

I was doing field work at the Department of Conserva-
tion’s Peck Ranch during Gerry’s entire career in the Biology
Department until 2014, when I suffered from neurological
damage to my left leg. It is a 3 hour drive from the Peck
to St. Louis, and I would frequently have to make the drive
back alone in the evening. As soon as I was in range, I would
turn the car radio to NPR and would soon be rewarded by
hearing Gerry’s melodic voice and unique delivery style.
Although I knew he was in a radio studio, I would picture
him sitting on his throne in the stockroom, surrounded by
his gadgets and toys, speaking directly to me, and this long
drive was no longer so lonely. My leg has now improved,
and the Missouri Department of Conservation has resurrect-
ed my research project at the Peck (with the help of former
WU grad students, who now have their own grad students).
I am once again making those long, solitary drives from the
Peck, but now without the company of Gerry. I truly miss
him. —Alan Templeton

When I first met Gerry, he said that my name sounded
like a news anchor. I saw him on campus once when I was
coming in to work and I saw him and said hello. The recogni-
tion wasn’t immediate (it was close to 8 AM), so I then said
in a newscaster voice. “Hi, Lisa Wells here”. It was so fun to
do a silly voice like that. He smiled and so did I. I literally
went in to work with a smile on my face because of Gerry.
—Lisa Wells

I am so sad that I was not able to be around this last
semester due to leave knowing that I won’t see Gerry any-
more. I did drop in a couple times and he asked about our
travels to China and how Eli was settling in with our family.
If I came up to campus with our other 2 kiddos, he would
always come down and make sure they could get some candy
from the jar. My office is right by the stockroom, so I had
many lovely conversations with Gerry. I remember him
showing up in boots and bell bottoms multiple times. He
would come down the hall and ask if I wanted to try certain
meats he had prepared. He helped me out with countless or-
ders as I got started here at WashU. That reminds me that he
called me Margie the first month or so when I began a few
years ago. I finally had the courage to say my name to him
and I got lectured on why I didn’t tell him sooner. He was so
two me. I will miss him greatly. —Maggie Schlarman

As a graduate student in the biology department, I
bought all my supplies from the stock room, and often had
to send hexane samples on dry ice internationally, to which
Gerry would always grumble jokingly and exclaim “Hexane,
internationally!?!”. I always enjoyed his extreme sarcasm and
the way he would say my name enthusiastically whenever I
came into the stockroom: “K-Sound-RA!” Even though that
is not typically what I go by (I go by Cassie). He was the first
person in the department to learn and remember my name,
and I always enjoyed seeing him around in the stock room
and at departmental happy hours. He will be sorely missed
by me and the other graduate students in the department.
—Cassondra Vernier

Is it possible these are the only
photos I took of Gerry in the nearly
7 years I have known him, at the
end of March? After all, wasn’t he as
flamboyant visibly as he was on the
radio, letting his refined humor show
through even when telling us the
weather in Quincy Illinois?

In the case of this photo, we had
discussed his hat and that the pig face
didn’t do justice worn backwards. But of course, Gerry was
not going to flip his hat around just for me. He had already
earlier in the day shown me his hat which looked new. A
pocket protector? Bell bottoms? Creatures that jiggled and
made noise, posters on German words, and more.

I felt that Gerry approached the world with a bemused
aspect. More than once invited me to his weekend meat
smoking parties and explained the intricacies of his kind of
smoker, different from the ones I was used to in Texas. We
shared a German heritage, even family from Bremen and
could talk about German things like dachshunds and brat-
wurst. His emails came in caps in a font called Bookman Old
School. As often as not the heading was FROM THE GREEN
DESK.

Gerry cared about us and he cared about public radio. And
old cars, though I only saw them here on the weekends. If
I complemented him on something like his lack of a Ger-
man accent even though he came to the US at an age where
he should have had one, he brushed it off. We all cobble
together existences that make sense to us, but Gerry’s was
more unusual than most. He made my day brighter and I was
always glad to see him, a break from the usual. I miss him!
—Joan Strassmann

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11 years ago on May 30, Gerry and I set out for Laramie, WY to buy the pickup he called the L'il Mule. He'd found it via eBay motors and wanted me to drive out there with him, then he would drive the truck back to STL. The morning we were to leave, I get a text from my daughter saying she's gone into labor with my twin grandsons! I asked her if she wanted me to stay home and be there for her and her husband and their 2 girls. She assured me I should go with Gerry.

I'm driving on I70 west when we hear a strange noise and hear the weatherstripping around my windshield is pulling out and flapping in the wind. We pull over, Gerry gets his toolkit out of the trunk of my Mazda and tries to fix it but he doesn't have any sealer. So we find a nearby town, go to the autoparts store and buy some sealer. Gerry stuffs the weatherstripping back in place and seals it all shut.

On we go, driving about 14 straight hours to get the truck. We get there, he looks it over and checks out some things, then signs the deal and takes possession of the Li'l Mule. Now we're off to find a motel for the night and head back the next day.

For a week or 2 before the trip I urged Gerry to make motel reservations in Laramie. It won't be a problem he says. We'll be fine. So that night we try 3 or 4 motels and they all say the same thing: there are like 5 conventions in town and every hotel/motel is booked. The only thing we could do was start to drive back home until we couldn't stay awake any more. We got well into Nebraska before we found a motel around midnight that wasn't full. We'd driven 17 or more hours and been up for about 19 hours! He admitted getting reservations might have been a good idea!

That's one story of mine. — Dennis Nagy

I first met Gerry when his ex wife was a grad student in Chemistry 30 plus years ago and he was working for a local courier service. During our very first conversation, he mentioned that he grew up in Bremen Germany, the same town my maternal grand parents were from! So we shared many conversations over the years about the “old country”.

After his divorce, we gave Gerry an open invitation to join us on Christmas day when we realized that he had no place to go. He was very well received by our extended family, and joined us for many years always bringing a few 6 packs of craft beer and some of his famous smoked pork tenderloin!

After Gerry purchased the Cordoba, I told him about my favorite do it yourself salvage yard that had some retired taxi cabs that were Chrysler products. He got all excited and wanted to go Saturday afternoon, so we planned to meet at the liquor store across the street and get two 24 ounce beers to sneak in in our tool boxes! When we got to where the cabs were, he was like a kid in a candy store when he realized they were former police cars with high performance options and we had to go back to the office and get two wheel barrows to get everything. One of those items was the infamous taxi sign that we modified to say KWMU on one side and 90.7 on the other. I also purchased a taxi sign to use as garage decor and still have it on display, and think of Gerry and that day and the fun times we had together every time I pass it.

As the Cordoba was going through its metamorphosis from used car to art car, Gerry would show up at the machine shop loading dock about 12:15 and blow his “Dixie” horn signifying that my lunch hour was over and he needed something done. He would always show up with beer as payment! Many lunch hours were spent adding things like running boards, brush guard, cow horns, luggage rack, and a polycarbonate tray I made to his specifications that he screwed to the inside of the roof on the passenger side to hold one box of his favorite Kashi crackers! He named it the “over the head snack pack rack”. We shared so many — cont’d next page
good times together and thousands of beers together it’s difficult to imagine life without him. Under that quirky exterior was an incredibly intelligent, fun loving guy, we miss him.—“Brother Bill” and Karen Nolte

From the now defunct Doba website:

ABOUT THE DOBA

The “DOBA”, as it is affectionately known to many, started its life back during the Carter Administration in 1978, the first model year for the newly redesigned Cordoba, which was introduced by Chrysler in 1975, intended to compete as a more economical mid-size car with the likes of Pontiac’s Grand Prix and Ford’s Thunderbird. Production continued until 1983; however, after the ’78 and ’79 models, the Cordoba was downsized severely, while retaining the basic boxy, straight-line, two-door personal luxury car appeal that designers had in mind from the very beginning.

Through the years, the “DOBA” has had several owners and even spent some time on a couple of used car dealer lots (and a good chunk of time idly during the flood of 1993). My personal affair with the “DOBA” started in April of 1994, as a result of an impending separation from my wife, I needed to switch from sharing her 1980 Ford F-150 pick-up to my very own set of wheels. Back in those days, money was tight, and since I only had 500 dollars to spend, choices were pretty limited. At the time, I remember that we were also considering a 1968 Ford Falcon Station Wagon, but when I first spotted the “DOBA” with its sagging rear axle and rusted-through trunk lid, I knew that I had a pretty good deal coming to me once the seller disclosed the asking price of 150 dollars.

I never intended to keep the “DOBA” for more than a year or two, nor did I anticipate it ever looking like some freaky, pseudo-wanna-be taxi cab. Nonetheless, as time went by, rust spots and holes had to be covered up quickly and cheaply, and several of my good friends, and many others began to show interest

In providing creative input, once they learned that I was not beyond placarding the entire car.

Today, through the evolution of its looks, different themes have undeniably emerged, one of which is the aforementioned Taxi Scenario. Others include styling elements borrowed from the “General” and Boss Hogg’s Cadillac in the “Dukes of Hazzard” television series (which began its first season in the “DOBA’S” birth year - 1978). In addition, some pick-up/tow truck and “R.V” features have been incorporated. Of course, as you can see for yourself, the combination of “everything” makes the “DOBA” what it is: the most recognizable vehicle in Saint Louis. (And, some people have told me the view hurts their eyes)

Recently, with the acquisition of a 1991 GMC Suburban, I actually considered, for a short time, to sell the “DOBA”. However, due to a massive outpouring of concern from the general public, I am now committed to keep the “DOBA” running and on the streets for as long as I possibly can, so that its appearance may, some day, put a smile on your face, too.

—the man behind the doba

Gerry always purposely misspelled my name. I would go to pick up an item I had ordered, and it would never say, “Dan Piatchek” on the post-it. It was always something like “pieziacek” or “Pieshek” or “piakestek”. Whenever I needed the Schnucks card, or some other item that was in the locked cabinet, Gerry would never just put the key in the lock and open it. He would always take the key and hit at the lock with it until it went in. This took maybe 4, 5, or 6 strikes until the key “magically” went in, as if this were some monumental sporting achievement to him. Gerry! —Dan Piatchek

I was very impressed when I saw Gerry was using Python or something similar to organized/find data in Stockroom. He was always very friendly and helpful when I needed any help there. Beyond the stockroom, I still remember very well how cute and lovely the pink pig-hat he wore during the happy gathering held by Strassmann lab. And he looks so great/cool on one of his classic car! —Yanbing Wan

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There will be many stories about how Gerry always lifted spirits with his jokes and gags. I made the stockroom a destination whenever I needed a Gerry-pick-me-up. Instead, here is a different kind of Gerry.

Erik: Hi Gerry, could you help me with a package?
Gerry: They call me Mr. Shipit.
Erik: Ah, Mr. Shipit, could you help me send this?
Gerry: No problem. Any special handling requirements?
Erik: I'd like it to arrive in one piece within two days.
Gerry: Oh, that will require my special handling skills and delivery magic.
Erik: How much will that cost?
Gerry: Oh, Mr. Shipit provides these things for a smile. You cover the insurance.

—Erik Herzog

Black Cats  Inspired by Gerry—submitted anonymously

- Philosophy is like being in a dark room and looking for a black cat.
- Metaphysics is like being in a dark room and looking for a black cat that isn’t there.
- Theology is like being in a dark room and looking for a black cat that isn’t there, and shouting “I found it!”
- Fundamentalist Religion is like telling all the people looking for the black cat that you found it and if they don’t find the same one, then they will burn in hell.
- Buddhism is like entering the dark room and sitting down quietly until the cat eventually comes and curls up in your lap. After spending time with the cat day after day for many years, you and the cat may eventually go off to explore other rooms together.
- Humanities is like sitting in a dark room, reading everything ever written about black cats and trying to understand what they really represent.
- French Literature is like sitting in a dark room, chain smoking unfiltered cigarettes, and trying to understand what black cats really represent.
- Classics est similis nigrum cattus in camera obscura est quaeritis.
- Psychology is like trying to explain the behavior of black cats in dark rooms based on observations of tabby cats sitting on the couch in front of the fireplace.
- Marketing is like trying to predict the behavior of alley cats catching mice based on observations of tabby cats sitting on the couch in front of the fireplace.
- B-School is like spending four years fingerpainting pictures of black cats all day and drinking all night.
- African and African American Studies is like trying to understand all the reasons why the black cat was relegated to the dark room, and being surrounded by colleagues who insist that they never noticed it was black.
- Women’s Studies is like trying to give equal effort to finding the grey cats, tabby cats and calicos in the dark room.
- Physics is like giving up finding the cat and making a mathematical simulation model of a cat instead.
- Engineering is like building a flashlight so you can just find the damn cat already.
- Quantum Physics is like being in a dark room with the ridiculously expensive flashlight that the engineers made, looking for a black cat, realizing there are more rooms, and trying to follow the cat into them.
- Economics is like assuming you have a flashlight and imagining how a population of black cats would behave.
- PoliSci is like ignoring the elephant in the room while narrowly focusing on the black cat.
- Field Ecology is like sharing stories about all the parasites you caught and all the times you almost died when you were outside on a dark night searching for endangered black cats.
- Archaeology is like trying to figure out what happened to the anthropoids who drew pictures of enormous black cats in dark caves.
- Science is like being in a dark room and looking for the light switch. In theory, the light will allow you to disprove the absence of a black cat.
- Mathematics is like playing with a basket of black kittens in a dark room.
- Computer Science is like playing with a basket of black kittens in a dark room, and getting paid for it!
- Art is like trying to communicate how it feels to be a black cat in a dark room.
- College is like spending 4 years in the next room reading books about black cats and listening to old people talk about black cats until you just don’t care anymore.
- Grad School is like spending 7 years in a dark room looking for a black cat and, in the end, writing 400 pages about the litterbox.
- Law School is like trying to understand all possible implications of allowing (or not allowing) the black cat (hereafter referred to as “the cat”) to leave the room.
- Social Work is like trying to help the black cat cope with the dark until it is ready to come out into the light.
- Nursing is like trying to take care of the black cat based on orders from some MD who can’t be bothered to come into the dark room.
- Teaching is like trying to get dog people to understand the problem with finding black cats in dark rooms.
- Life is like being in a dark room and hoping you have enough money to pay the electric bill. Who has time for cats?

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On a Friday in April 2006 I decided to drive to Memphis, Tennessee to pick up a used telescope from an online seller. It meant a long drive by myself on a Saturday, something I was pondering the Friday before as I was passing through the stockroom about 30 minutes before it closed. Gerry, sitting at his desk, engaged me in one of his usual conversations about something totally inconsequential and the topic of weekend plans came up - he had none - so I spontaneously blurted out, “How about going to Memphis for the weekend?”. His tilted his head, froze for a few seconds in thought, then said, “sure! why not?”.

The next morning he showed up at my house and we departed, starting the 4 hour drive. Along the way we of course listened to jazz & blues, talked about all sorts of related topics like the jazz radio show he did when he first started radio broadcasting. We had similar tastes in music and he was incredibly knowledgeable on the subject. The conversation also wandered into a few serious things and it was really the first time I talked to Gerry long enough to get much past workday pleasantries. He was more thoughtful than you’d think if you only know him through his fondness for toys, trinkets and bad puns - we became really good friends on this road trip.

It was the first time for myself (and I think Gerry too) in Memphis, so upon arrival Saturday afternoon we spent time walking around downtown, rode the trolleys, ate some very good BBQ and washed it down with plenty of beer. Gerry had found some really good places for such things and they did not disappoint. If Gerry recommended a beer or a meat dish - even in a place hundreds of miles away - you knew to take them seriously.

The musical talent we encountered in just about every bar in the Beale Street area was astounding. We would reluctantly leave one bar only go to the next and find another great act to listen to. and repeated the cycle again and again until we finally decided to call it a night, getting back to the hotel well after 3:00am.

Sunday in Memphis we visited Sun Studios on Union avenue, known for being the spot where Elvis Presley recorded. A surprisingly small place, it was difficult to image how it set off a musical revolution. B.B. King, Johnny Cash, Carl Perkins, Roy Orbison, Charlie Rich, Jerry Lee Lewis, Roy Orbison, U2, Def Leppard, Bonnie Raitt, and Ringo Starr all recorded there. But there it was, in a nondescript building that you might mistake for a typical american diner if not for the guitar shaped signage outside. Definitely a place of pilgrimage for someone like Gerry who was so enamored with american music & culture. During the tour Elvis Presley’s very first recording is played - a self-recording he did in August 1953 of “My Happiness” and “That’s When Your Heartaches Begin”. Everyone listened in nearly religious silence as the playback captured a remarkably able vocalist.

We also drove past Elvis’ Graceland mansion, but did not have time to do the tour. We talked about how memorable Memphis was and that we needed to go back and see the Presley home. But, we never did. A regret of mine, for sure.

You can see pics of this trip at: https://photos.app.goo.gl/KQCboNKeqJQeC5sNa — Michael Malolepszy

From the moment I met Gerry in April of 2005, I gained a new moniker. When we were introduced, he immediately said "Double G!" I responded that because of my initials I had been called GiGi at an ad agency where I once worked, and he firmly said "NO - Double G." I grinned at his expression and said "Why?" "Love their ham!" he responded.

Never once did Gerry call me Gayle, in all the years that I knew him. Once he asked me why I never signed my emails or answered my phone as Double G. I told him that I was not sure I felt real comfortable being nicknamed after the back-end of a swine. He just looked at me over his glasses and gave me that trademark Gerry grin.

Gerry’s love of country music was well-known. Soon after we met, he spoke to me about it, and asked what kind of music I liked. I grew up with Rock & Roll, and that is still my favorite genre. But that day the Devil got ahold of me, as it often did when I was with Gerry, and I said “I’m a Daydream Believer” – just to see his reaction. It was rather priceless, to —cont’d next page
say the least. (For all you young people, Daydream Believer is a song by the Monkees, a Pop group from the 1960s.) “Ughhh!!!” Gerry growled. “Pop garbage!!!” “Yes” I said, “Pop, as in POP-U-LAR!!” That sent him on a 10 minute rant about the evils of Pop music. I have to say, it was rather fun to get Gerry going, and the mention of Pop music could dependably send him off on a tangent. Strangely, I could seldom tell whether or not Gerry knew I was playing with him; although I could always tell that Barney knew it. Barney could always be relied upon to chime in with me just to keep Gerry going on his rant of the moment.

Gerry watched me go from a brunette to all white hair over the years. One day, he said to me “What IS going on with your hair?” I looked at him, with his overgrown hair that he had been messing with as usual, and said “What’s up with YOUR hair?” He was totally confounded, and I had to explain that he needed a haircut. After that, every single time he got his hair cut, when I went into the Stock Room he would flip his hand through his hair with exaggerated motions and say “Notice anything Double G?”

This is a photo of the 1978 Cutlass I gave Gerry some years ago. My dad had bought it for me and out of sentimentality I had kept it a lot longer than I should have. When I just couldn’t keep it any longer, I offered it to Gerry as I knew he liked to tinker with big old cars. In spite of its age, it was still one of the fastest things on the highways, and drove like a dream. He ended up taking it, and driving it for a few years. He called it his compact car.

In 2011 I had to retire my old Ford Taurus, and I purchased a 2011 Yaris hatchback. Gerry had to go out to see it, and Barney came along for the viewing. Gerry said he had never gotten a really good look at the engine of a “toy” car like that. I told him that he could look, but no pulling it apart; it was my first brand-new car, after all! I no sooner had popped the hood on the car than Gerry was leaning over the engine and pulling pieces apart. Needless to say, I had a bit of a conniption fit. He was laughing and saying “What are you going on about? I can put it back together – no problem!!” That time, I knew that Gerry was playing with me; and Barney is my witness, I very nearly smacked him. He really had me worried for a little while!

I will really miss Gerry. I miss having him offer me some dark chocolate, or some of his lunch. I miss him offering me a seat – HIS seat – just to watch me try to climb up onto it. I miss seeing him flip his hair for compliments on his latest haircut. I will just miss him. I never met anyone more engaging and fun and generous.—Gayle Geren

—Gayle Geren