Letter from the Chair

Greetings from Michigan Pharmacology! We have had yet another very successful year in our Department. I am excited to update you on our recent accomplishments and our plans for the future.

Please join us in welcoming two outstanding new faculty members to our Department. I am excited to update you on our successful year in our Department. I am excited to update you on our successful year in our Department.

Dr. Matthew Brody was appointed Assistant Professor in the Department of Pharmacology with ties to the Royal Comprehensive Cancer Center. As the year comes to a close and we take stock of the things we value, I ask you to reflect on the impact that your Michigan appointment, education, or training has had on your life and career. Please consider making or renewing a tax-deductible gift to one or both of our department funds to help continue our mission to provide national leadership in pharmacology research and training.

The Pharmacology Fellowships Fund: My goal is to endow doctoral education in pharmacology by providing tuition and stipend support to all Ph.D. students in our department who are not awarded a training grant slot or an individual fellowship following their first year of Program in Biomedical Sciences (PIBS). I need an additional year of support as senior students following training grant support. This funding mechanism will give students the freedom to work in any lab in the department that interests them, instead of being limited to only labs with sufficient funding and will be a particularly important factor in the success of our young faculty who are working toward promotion and tenure.

Edward F. Domino Research Center: My goal is to make the Edward F. Domino Research Center sustainable beyond its initial start-up funds by creating a new endowment. Please consider supporting this critical new research initiative aimed at solving the national crisis of opiate misuse and addiction.

Thank you for considering a gift in support of Michigan Pharmacology. I love hearing from our alumni and I encourage you to share your ideas with me as we continue to move our department forward.

Go Blue!

With kind regards,

Lori L. Isom, Ph.D.
Maurice H. Seevers Professor and Chair of Pharmacology

What Snaps Your Socks - A Tribute to Dr. Raymond (Ray) W. Ruddon

by John S. Lazo and Alan F. Lau

We are very sad to announce that our mentor and dear friend, Raymond (Ray) W. Ruddon, MD, PhD, passed away on April 28, 2019 in Ann Arbor, MI. At the time he was professor emeritus of pharmacology at the University of Michigan Medical School. Ray was a rare scientist who held significant successful positions in academia, industry, and government. From 1964 until 1976 he was on the faculty in pharmacology at the University of Michigan. Until 1981, Ray served on the staff of the National Cancer Institute and then returned to Michigan to chair the Department of Pharmacology. Ray served as director of the Eppley Cancer Center, University of Nebraska, from 1990-1997, then was named corporate vice president for science and technology at Johnson & Johnson. He returned to Michigan in 2004 as professor of pharmacology and senior associate dean for research and graduate studies in the medical school. Ray was an ASPECT member for 51 years and authored more than 100 scientific papers and five books, including the widely used oncology text, Cancer Biology. This exceptionally diverse scientific career reflects Ray’s willingness to explore everything with a curious spirit. Ray was principled, down to earth, and possessed a keen sense of humor. These were qualities we were blessed to experience and emulate as his graduate students.

Ray and his beloved wife, Lynne, adopted us as family. We remember wonderful days at their summer “cottage” on Portage Lake, sailing, grilling, and enjoying each other’s company. In addition to his remarkable scientific accomplishments, Ray was an avid classical music lover, book collector, and loyal University of Michigan Wolverines fan. He also was a poet, publishing four volumes of poetry. To paraphrase Edwin Land of Polaroid fame, Ray thought we should all strive to be at the interface of science and art.

Last October, we visited Ray after the death of Lynne, a marriage that spanned 56 years. It was a remarkable event for us, stimulating many wonderful memories about how much he had influenced us and so many other individuals. And, it was particularly touching to realize that Ray loved and appreciated us. Ray had this gift of making you feel as if you could do anything. He was full of stories and aphorisms. When someone would ask him what they should study, Ray would almost instantly say “Whatever snaps your socks.” This usually forced the bewildered questioner to walk off and rethink the question. That was Ray’s way of getting you to probe your motivation deeply. To be successful and happy, Ray believed one needed curiosity, passion, imagination, serendipity, love of poetry, history, music, and literature, along with at least one great love in your life. We encourage you to visit the University of Michigan Faculty Memori Project (https://www.lib.umich.edu/faculty-memori/faculty/ raymond-w-ruddon) and view his many contributions.

We miss Ray dearly. Ray is survived by friend Adella Blain and daughters: Kathryn Therese Ruddon, Jennifer Ruddon Kircher, and Marjorie Ruddon Gurnik. He has six grandchildren: Lindsey and Kristen Kircher, Natalie and Holly Gurnik, Annika and Ian Moore.

Some of Ray’s early philosophical guides are:

1. Praise youth and they will prosper.
2. I never met anyone I didn’t learn something from whether they be auto mechanics, custodians, animal care takers, faculty, students, or administrative staff. So listen up. You need them all to be part of the team and their success depends on you. If they are successful, so will you be.
3. Talk to the “people in the trenches” who are doing the real work, ask them what needs to be done, and do it.
4. Develop a “to do” action list before you start the job, modify it as you go, and develop an annual strategic plan with bench marks, responsibilities for implementation, and deliverables.

This tribute to Dr. Ruddon was originally published in The Pharmacologist (vol. 61, no. 3, p. 184, Sept. 2019) and is reprinted here with permission of The American Society for Pharmacology and Experimental Therapeutics.*
Welcome to our 2019-2020 incoming Master’s students!

- Name: Linwei Wu
  Home Country: China
  Why Michigan Pharmacology?
  Michigan is a good platform to learn and do research. It has many famous scientists and great resources.

- Name: Nannong Hong
  Home Country: China
  Why Michigan Pharmacology?
  It is highly ranked.

- Name: Yanli Li
  Home Country: China
  Why Michigan Pharmacology?
  Nice design of curriculum which combines lectures, seminars and research very well. It is a great university.

- Name: Zhiyuan Bo
  Home Country: China
  Why Michigan Pharmacology?
  I appreciated everything that I read and learned about the pharmacology department at Michigan. Then after I spoke with Dr. Fisher and learned more about the curriculum it seemed like it would be a great fit.

By Julie Philippe

Welcome our new students and faculty to Michigan Pharmacology!

By Julie Philippe

Our Incoming Faculty

Dr. Matthew Brody, PhD
Assistant Professor of Pharmacology

Dr. Courtney received his PhD from the University of Wisconsin-Madison and postdoctoral training at the University of California-San Francisco. In his new lab at UM Pharmacology, his research aims to understand how T-cells sense and respond to antigens, with a larger goal toward novel immunotherapy strategies. Dr. Courtney highlighted flow cytometry as one favorite technique, as it can rapidly analyze thousands to millions of individual cells at a time using many different cellular readouts, thereby acting as a useful output of T-cell signaling. Dr. Courtney is enjoying the tight-knit community embraced at Michigan Pharmacology such as active participation in departmental events by students, post-docs, faculty, and staff. "It has made it much easier to get to know people," he says. Outside of the lab, he plays hockey. Welcome, Dr. Courtney!

Dr. Adam Courtney, PhD
Assistant Professor of Pharmacology

Dr. Brody received his PhD from the University of Wisconsin-Madison and trained as a postdoctoral fellow at Cincinnati Children's Hospital Medical Center. In his own laboratory at UM Pharmacology, Dr. Brody investigates intracellular signal transduction in cardiac pathophysiology. Dr. Brody is interested in understanding how lipid modifications control the localization and activity of important signaling molecules and complexes in cardiomyocytes, in the context of cardiomyopathy and heart failure. Dr. Brody is excited to be part of Michigan Pharmacology. "All the faculty and trainees have been extremely welcoming and have gone out of their way to share reagents, equipment, and offer any help or advice," he says. This has enabled him to get involved in a number of collaborations with other labs in a relatively short period of time. Outside the lab, Dr. Brody enjoys outdoor activities with his wife and son. Welcome, Dr. Brody!
In my opinion, Michigan Pharmacology is already the best Department of Pharmacology in the United States. But it’s important to me that others also see us in this light and look to us for national leadership. It’s easy to say ‘leaders and best’, but what does that phrase mean? Some might respond with metrics, for example, attaining a number one ranking in NIH funding. I agree that success in grant funding might be a long term outcome of scientific and educational excellence, but it does not define our collective vision. If we are to truly become the #1 Department of Pharmacology, what will success look like? Here are my priorities for Michigan Pharmacology as we move forward into 2020:

To develop a diverse, equitable, and inclusive culture: To create a climate that is safe, diverse, and inclusive – a scientific home where individuals from all backgrounds feel valued, welcomed, and appreciated. To be a place where faculty, staff, and trainees enjoy working, learning, and growing together. To be a place where people know that their voices are heard. To be a place that our alumni are proud to call ‘home.’

To maximize our scientific impact: To generate high impact, new knowledge that ranges from discoveries in basic mechanisms to the development of new medicines.

To promote scientific collaboration: To maximize collaborations within our Department as well as across units at the University of Michigan, including our interactions with clinical and translational scientists.

To provide outstanding mentorship: To prioritize, value, and reward exceptional mentorship of trainees and junior faculty to develop the next generation of scientific leaders.

To provide excellent training: To provide cutting-edge, competency-based graduate, undergraduate, and postdoctoral training programs in the pharmacological sciences.

To value professionalism: To require and reward professional conduct by faculty, staff, and trainees.

To provide state-of-the-art research facilities and instrumentation: To continue to renovate, up-date, and improve our infrastructure.

To encourage the professional development of our staff: To provide career development opportunities for our laboratory and administrative staff.

To create a culture of giving: To endow graduate education through a comprehensive philanthropic program that engages individual and corporate donors.

To maximize alumni engagement: To provide platforms for our alumni to offer mentorship, career development, and networking opportunities for trainees, as well as for alumni to provide advice to faculty on ways to improve our training programs.

To engage with Michigan Medicine leadership: The Department of Pharmacology should have high visibility within Michigan Medicine and the greater University. Pharmacology faculty, staff, and trainees should be tapped for leadership positions within Michigan Medicine and recognized for their institutional service.

To provide national scientific leadership: Department of Pharmacology faculty, trainees, and alumni should continue to be elected to scientific leadership positions at the national level.

To develop a diversified funding portfolio: To develop a portfolio of extramural funding that includes governmental funding (NIH, NSF, DOD, etc.) as well as partnership funding with industry and biotech.

To reward innovation: To recognize and reward members of our Department for their successful participation in business development, novel devices, and new therapeutics.

There are all critical goals – and we are well on our way to achieving many of them. I hope you will join me in making this vision a reality.
Dr. Alan V. Smrcka appointed as the inaugural Benedict R. Lucchesi Collegiate Professor in Cardiovascular Pharmacology

By Shuvasesi SenGupta, Ph.D.

With great pleasure, the scientific community at the University of Michigan Medical School witnessed and celebrated inauguration of the Benedict R. Lucchesi Collegiate Professorship and appointment of Alan V. Smrcka, Ph.D., Professor of Pharmacology, as the first Lucchesi Professor on November 4th, 2019. I had the opportunity to talk to Dr. Smrcka and learn more about his journey.

Dr. Alan V. Smrcka: how the journey began:
Dr. Smrcka got interested in protein-protein interactions while pursuing his Ph.D. in Biochemistry at the University of Arizona where he studied plants. During his postdoctoral research, he found his new niche in biochemical pharmacology in the laboratory of Dr. Paul Sternweis at the University of Texas Southwestern Medical Center, making the leap from plant systems to mammals. Even with changing systems, he continued to follow protein-protein interaction studies, with a focus on G-Protein Coupled Receptors (GPCR) and phospholipase C binding. Dr. Smrcka made seminal discoveries in GPCR signaling pathways and phospholipase C activation, which have far-reaching physiological impact. In 1994, he started his own research group at the University of Rochester School of Medicine and Dentistry. As a young faculty, he channeled his scientific curiosity to uncover different signaling components of GPCR pathways, which are key regulators of cardiovascular diseases, inflammatory conditions, and the effect of opioid analgesics. Moving up the academic hierarchy, Dr. Smrcka became a full professor in 2007. In 2011, he was endowed as the Louis C. Lasagna Professor of Experimental Therapeutics.

Moving to U-M Pharmacology: a new exciting beginning:
With the goal of incorporating more ambitious, high-risk projects to his research program, after 22 years at Rochester, the Smrcka lab moved to U-M Pharmacology in 2016. Transitions can be challenging. But with majority of the lab members moving with him, he was able to keep things rolling. Within a short time, the lab established new exciting collaborations with Michigan colleagues. These established high-scale and high-throughput drug screening programs and have lead to the development of safer and more efficient opioid analogues. Dedicated shared resources have enabled advancement of these projects. Although they took time to solidify, Dr. Smrcka is excited about how these risky initiatives are already showing great results.

Smrcka lab: current and future directions:
Currently, the research group is investigating different aspects of GPCR signal transduction pathways in diverse cell types to identify immune cells and cancer cells. Two most exciting discoveries made by his group are: a) using small molecule inhibitors to target G protein γy subunit signaling as an effective therapeutic strategy in mouse models of pain, inflammation, and heart failure; and b) the discovery that phospholipase C activity extends beyond the cell surface with signaling compartmentalization being a regulator in the cardiac and other biological systems. Future plans include testing these significant molecular findings in whole animal models.

Dr. Smrcka: as a mentor:
Dr. Smrcka has mentored many trainees and students over the years; many of them now have outstanding careers in diverse scientific fields. One of his current graduate students described Alan’s mentoring style with following quote by Jim Rohn, “My mentor said, ‘Let’s go do it’, not ‘you go do it’- It’s very powerful when someone says, ‘Let’s!’” Other students highlight Dr. Smrcka as a great mentor include “He makes others excited about science” and “He is always available for science”.

Inspiration: family and mentors:
Dr. Smrcka and his spouse Amanda, a medical flight nurse, live in Ann Arbor. Together, the couple has raised two children, Erin and Joe. He describes his parents as one of the major inspirations in his life. He also recalls his seventh-grade science teacher as an inspiration for him to pursue a career in science.

Being the namesake: it is an honor:
Dr. Smrcka feels deeply honored to receive the Benedict R. Lucchesi Collegiate Professorship. He was happy for the opportunity to meet Dr. Lucchesi’s family, whom he found very welcoming and encouraging. With this new position in cardiovascular pharmacology, he plans on focusing his research program toward addressing bigger questions related to cardiovascular and metabolic phenomena. The ultimate goal is to apply the knowledge from ongoing studies on immune cells and from drug screening for better therapeutic interventions against heart failure.

Benedict R. Lucchesi and the Professorship:
Establishment of the Benedict R. Lucchesi Collegiate Professorship has been possible by a generous contribution from Paul Hoff, M.D., and gifts from the members of the Department of Pharmacology and the University of Michigan Medical School. In the past, the Department of Pharmacology established a Graduate Education Fellowship and Young Scientist Travel Award as a tribute to Dr. Lucchesi’s pioneering work in cardiovascular pharmacology. Establishment of the Lucchesi Professorship and installation of Dr. Alan V. Smrcka as the inaugural endowed professor, once again, rightfully honors Dr. Lucchesi’s life-long contributions as a prolific scientist and a mentor.

Dr. Benedict Lucchesi, M.D., Ph.D., professor emeritus of Pharmacology, obtained his Ph.D. in Pharmacology in 1961 and Medical degree in 1964, both at the University of Michigan. Following his medical training, Dr. Lucchesi was appointed as an instructor in the Department of Pharmacology at the University of Michigan Medical School in 1964. Moving up the academic ladder, Dr. Lucchesi became a professor in 1973. He served as an inspiring mentor to numerous students from undergraduate to postdoctoral levels, many of whom now have an outstanding career in academia and industry. During the course of his distinguished career, Dr. Lucchesi also helped to lead the Upjohn Center for Clinical Pharmacology as the director from 1978-1981 and Michigan Diabetes Research and Training Center as the director of research from 1981-1986. Dr. Lucchesi was a pioneering scientist who made impactful discoveries in cardiovascular pharmacology and transformed the field of heart arrhythmia, coronary thrombosis, and myocardial reperfusion injury. The profound impact of Dr. Lucchesi’s research on pharmacology is further reflected through the extraordinary publication record of over 600 peer-reviewed manuscripts, 50 book-chapters and 5 books, and a number of prestigious awards bestowed upon him over the course of his career.

Dr. Lucchesi and his spouse Diana have raised a loving family of five children and nine grandchildren, and the couple still lives here in Ann Arbor. Tom Lucchesi, the oldest son of Dr. Lucchesi, describes his father with three traits; ‘intellectual curiosity, passion and commitment to do the right thing’, traits that are quintessential to become a true scientist.

Scientists for Outreach on Addiction Research: SOAR

By Alexandra Bouza

Approximately two years ago, a group made up primarily of Department of Pharmacology graduate students and faculty identified a problem and a common goal to help resolve it. Differences in thinking and working in groups ranging from scientists and trainees to enforcement and social workers were all working diligently to help those afflicted by addiction and drug use, but those disciplines were not communicating with each other about the vital information they had obtained through their own work. Subsequently, this information was not disseminated to the public. From the identification of this issue and a passion to mitigate it, Scientists for Outreach on Addiction Research (SOAR) was created. SOAR aims to raise awareness and accessibility of information about addiction, drug use, and mental health to the general public. This goal is achieved through hosting open forum panel discussions, primarily at the Ann Arbor District Library, for the general public. Hosted panel discussions are highly interdisciplinary with representatives from the scientific, clinical, law enforcement, social work, and rehabilitation professions. These discussions are current topics of discussion, some of which have focused on addiction in general, cannabinoids, and Narcan administration, to be discussed by professionals with different backgrounds and experiences, providing a more wholistic view of the challenges and considerations when working with those dealing with addiction, drug use, or their mental health. Since the inception of SOAR in January 2018, the group has expanded to include not only other graduate students with the medical school, but postdoctoral fellows, faculty, and undergraduate students. While many of those involved are in STEM disciplines, SOAR is open to anyone with a heart for community engagement, ending stigmatism around these topics, and raising awareness and accessibility of information regarding addiction, drug use, and mental health.

If you would like to get involved with SOAR, their member meetings occur every third Monday of the month from 4:00-5:00pm in Medical Science Building II (room 2813), most of which are open to the public. For more information, contact current SOAR president, Josh Lott (jolott@umich.edu) or visit https://sites.google.com/umich.edu/ssoar/michigan/
Faculty Honors

Dr. Arun Anantharam, Dr. Carrie Ferrario, Dr. Emily Jutkiewicz
Promotion with Tenure

Dr. Matt Brody
2018 BCVS Louis N. and Arnold M. Katz Young Investigators award

Dr. Chris Canman
Endowment for Basic Sciences (EBS) Teaching Award

Dr. Mark Cohen
2019 University of Michigan Faculty Achievement Award

Dr. Carrie Ferrario
2020 Henry Russel Award from the University of Michigan, 2019 Alan Epstein Achievement Award

Dr. Paul Jenkins
2019 University of Michigan Faculty Teaching Award

Dr. Paula Goforth
Young Investigators award

Dr. Matt Brody
Promotion with Tenure

Ferrario, Dr. Emily Jutkiewicz
2019-2020 Department Photo!

New Director of the Neuroscience Graduate Program, Elected to ACAPT

Dr. Les Satin
AAAS Fellow

Dr. Carole Parent
Promotion to Associate Research Scientist

Dr. Alan Smrcka
Benedict R. Lucchesi Collegiate Professor of Cardiovascular Pharmacology

Dr. Kathy Ignatoski
EBS Research Staff Award

Postdoctoral Fellow Honors

Dr. Emily Jutkiewicz
2019 Young Investigator Award for the International Narcotics Research Conference

Dr. Robert Kennedy
ChromSoC Martin Medal 2019

Dr. Luis Lopez-Santiago
Promotion to Associate Research Scientist

Dr. Carole Parent
AAAS Fellow

Dr. Les Satin
New Director of the Neuroscience Graduate Program, Elected to AACP

Dr. Alan Smrcka
Benedict R. Lucchesi Collegiate Professor of Cardiovascular Pharmacology

Dr. Haoming Zhang
Promotion to Research Associate Professor.

Dr. Yanting Zhao
American Epilepsy Society 2018 Grass Young Investigator Award

PhD Student Honors

Pharmacology Colloquium:
Julie Philippe (Jenkins’ Lab), 1st place, Oral Presentations;
Nancy Chandran (Smrcka Lab), tied for 2nd place, Oral Presentations;
Andrea Pesch (Speers/Rae Labs) and Bryan Sears
(Jutkiewicz Lab) tied for 2nd place, Poster presentations

Allie Bouza (Isom Lab)
2019 the Susan Lipschutz Award from Rackham Graduate School

Song Chen (Parent Lab)
2019 Lucchessi Postdoctoral Fellowship Award

Amanda Davis (Osawa Lab)
NIH NHBLI F32 postdoctoral fellowship

Congratulations on making Pharmacology Proud!

Join the Conversation: Out of the Darkness

By Amanda France

Each year, suicide claims more lives than war, murder, and natural disasters, yet mental illness remains a largely taboo topic. The American Foundation for Suicide Prevention (AFSP) is a non-profit organization trying hard to end the stigma surrounding mental health. They are doing this by raising awareness, educating the public, funding scientific research, and providing safe areas for healing for those affected by suicide. AFSP has local chapters in each of the 50 states and is found on many college campuses, including the University of Michigan. Since 2017, the U of M chapter, Out of the Darkness, hosts an annual Walk for the Ann Arbor community, where all are welcome to come together and participate in the walk. At the surface this may seem simple, but it’s much more meaningful and powerful than just walking. These walks raise money for future research aimed to improve intervention and prevent suicide. Out of the Darkness also cultivates an atmosphere of inclusion that shows we are invested in health, not just physical, but mental and emotional health as well. It’s these very walks that aim to help AFSP to reach their goal: to reduce suicide by 20% by 2025. U of M has proudly been #1 in raising funds for the last 3 years.

In addition to funding research, AFSP is starting conversations about mental health and providing education programs to schools around the nation. One way they are doing this is by hosting community events. At our local chapter, Kelsey Kochan, Out of the Darkness Research Chair of Programming, organizes seminars and panel discussions. When putting together panels Kochan puts a lot of effort into providing the community with the best people and information she can. Kochan describes these events as, “bringing the campus community together for panel discussions or seminars meant to educate them on different aspects of mental health. Speakers range from bench scientists, to policy makers or clinicians to provide different perspectives for our audience. The community then has the chance to ask questions about the work being done specifically or even the career paths each speaker has taken.” While hosting these events, Kochan has seen community participation grow from 5 people to 200 people since 2017. “Continuing any sort of discussion on mental health here on campus is working to normalize the discussion and fight the stigma.” For many, including Kochan, Out of the Darkness is more than just an organization. “Out of the Darkness gave me a community to openly talk about my struggles with mental health, learn about resources available to me, and help others who may have dealt with similar struggles. Having a personal connection with suicide, depression, addiction, and other mental health disorders, I found it difficult to reach out without that community. Now I’m able to speak openly and offer my peers resources and a space to share the challenges they face,” Kochan explains. With passionate individuals like Kochan and organizations like Out of the Darkness, together with your help we can break the silence on the discussions around mental health and shine light on a new path leading towards acceptance.
Support Graduate Education at Michigan Pharmacology

Your donations fund learning and training opportunities for our outstanding graduate students, enabling them to advance their knowledge and enhance their skills in basic science research in varied and complex areas of study.

https://victors.us/pharmacologygradfund
https://victors.us/dominoresearchcenter