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Dr. Paul Hollenberg

Dr. Lori Isom

Changes at the Top

Paul Hollenberg steps down and Lori Isom takes over as Interim Chair

At the end of July, after more than 20 years of leading the department, Paul Hollenberg stepped down as Chair. James Woolliscroft, Dean of the Medical School, held a reception in Paul's honor that was attended by faculty from Pharmacology and other departments in the Medical school, office and laboratory staff, students and postdocs - attesting to Paul's positive influence across the whole department and university - as well as many friends and family. Dean Woolliscroft officially thanked Paul for the outstanding job he had done in running the

department and his service to the University that included hard and dedicated work on numerous committees, pointing out that Paul never shirked any of these duties. The Dean also praised Paul's service and recognition in the national arena, mentioning particularly his role as President of the American Society for Pharmacology and Experimental Therapeutics, his election as a Fellow of the American Association for the Advancement of Science and the American Chemical Society as well as the Founders Award from the Division of Chemical Toxicology of the American Chemical Society.

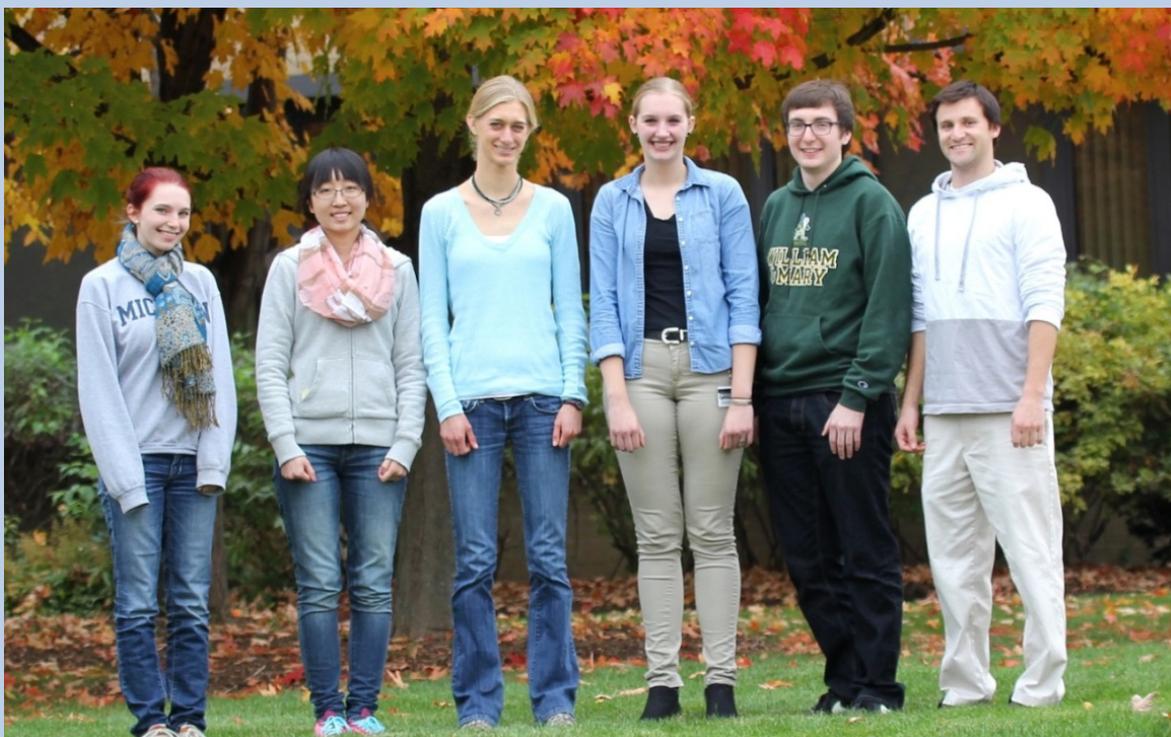
Apparently in the midst of all this work Paul still found time for fishing - a fact that I suspect none of us knew about Paul. There will be more about Paul's Michigan career in our next edition.

Paul is passing on the reins of the department to Lori Isom, chosen by Dean Woolliscroft as interim chair. Prior to this Lori had very successfully run the Medical School's Program in Biomedical Sciences (PIBS) - the umbrella program that recruits our graduate students and offers them flexibility during the first year of graduate studies before they choose and join a department. It is notable that one of Paul's first actions as Chair of Pharmacology was to recruit Lori to Michigan as an Assistant Professor! Lori said a few words echoing the Dean's praise of Paul for his outstanding job as departmental chair. An interview with Lori by one of her graduate

students - Larisa Kruger - is included in this issue of the newsletter.

Paul was, as always, very humble and generous in his response, thanking everyone for their support over the years and the Dean and Lori for their kind remarks. He specifically recognized the role played in his career by his PhD mentor Jud Coon (Victor V. Vaughan Distinguished University Professor Emeritus and Professor Emeritus of Biological Chemistry) who was in attendance. However, he reserved special thanks for his family especially his wife Emily for her constant support and encouragement, saying he could not have done any of this without her. Finally, Paul pointed out that he has not even thought of retirement - but is looking forward to spending more time in the lab and thinking about science. He has much still to contribute.

Welcome to the First Year PIBS students who are considering joining Pharmacology



From left:
Brittany Clawson, Jiuling Yang, Nicole Michmerhuizen, Amanda Bolles, Evan Schram, Andrew Nelson

Graduate student Larisa Kruger sits down with Lori Isom



Larisa is a 5th year student in Lori Isom's lab

Congratulations on your appointment as Interim Chair of Pharmacology! What are you most excited about in your new position?

I'm really excited about being able to build something new. Paul has done an incredible job for the last twenty years, but it's great to have this opportunity to re-energize the department, re-involve people, invigorate, build & strengthen community. We are increasing our number of social events, changing the format of the retreat and the colloquium, having our drug discovery boot camp, making the career day an annual event. What I'm truly enthusiastic about is bringing new people into the department and being able to mentor them to be successful faculty.

We've had quite a few faculty candidate seminars lately. How many new faculty is the department looking for and what are you hoping to bring to the department with the new faculty?

The dean and I agreed to fill three faculty slots. We're going to have a mixture of established and newer faculty. The more established faculty will be very successful, with many ROIs and a long list of publications. These faculty have trained graduate students so they can really hit the ground running. But at the same time, I'd like to bring in new assistant professors that will reinvigorate our young people.

I attended a student meeting with the Chair a few weeks ago - what changes are you planning based on the student feedback you got?

I love students. I focused on students officially for 6 years as PIBS director, and I found that if you need to solve a [graduate education] problem, you go to the students to get the best ideas. We as faculty can sit around and ponder and then I go to the students and in the first 5 minutes, I hear something and say, "Oh! That's what we should do." Our students wanted to change the course requirement for

Physiology. They wanted the opportunity to take Human Genetics and Cell Biology, to enhance their education. And I think we'll go back to "Your choice in science," the PIBS motto.

Our students kept reiterating how important it is to establish the community right off the bat when students first join the department. To make them feel like Michigan Pharmacology is their home, so the more social events that we have and strengthen this community, the better.

On the Pharmacology Graduate Program...

We need to involve students to really make our graduate program attractive, because we're competing with 14 other programs in PIBS. So we want to make Pharmacology a place where students really want to get up in the morning and be here, they feel they are part of the community, and they realize that they are getting the education that makes them the most employable of all the 14 programs. Recently, I've been reassessing the outcomes data for all of the 14 programs and looking where our students are placed, where the employment is, and whether or not we're contributing to the glut of postdocs in the United States that concerns NIH. And what we've learned is that the Michigan Pharmacology department has well above the national average of employment in faculty and industry positions. I'm about to present these data to the Dean and then we're going to publish them through the AAMC (Association of American Medical Colleges).

Is there anything else you'd like to say to the department?

I'd like to thank everybody for their incredible support. Transition is hard, and I know this was thrust upon everybody, but all have been so supportive and everyone has done anything I've asked, so I really appreciate that!

Bob Gussin, distinguished alumnus 2014, with some words of wisdom for students

By Sarah Mikelman



Sarah is a 4th year student in Margaret Gnegy's lab



Bob addressing the department

This year's distinguished alumnus Bob Gussin has had an illustrious career, or as he tells it "I've stumbled through a very interesting career." Bob joined the pharmaceutical industry at a time when such career moves were frowned upon by the academic community. Happily, says Bob, things have changed. Bob's post-Michigan path has taken him through positions at Lederle Laboratories, to the McNeil division at Johnson & Johnson up to Vice President of R&D and Scientific Affairs, and into "retirement" where he now merely runs a publishing company with his wife, writes novels, and owns a vineyard in New Zealand.

Bob Gussin is humble, funny, and full of advice for anyone who wants it. He says his career has been the result of a series of happy accidents that took him from one job to another, higher and higher up the ladder. But to anyone who spends more than a passing moment with Bob, it's clear that there was no accident in his success. Bob Gussin is a fantastic example of how a clever and open mind can create a world of possibilities.

Bob emphasizes the importance of managerial skills, "which are really life skills," both beyond and within academia: "If you're going to be good you have to run a lab," and the ability to lead and manage is important to running a successful lab. Bob

learned how to work with people as a stockboy at Kroger supermarket, and those skills have stayed with him and played a part in making him the success that he is. "Day to day experience, giving lectures, managing a lab, every experience you have working with people working as a team is an addition to your management skills."

Leadership is another critical skill. "What you want is to develop yourself as a leader ... you have to set an example and you have to appreciate people. Leaders understand that you need to create the best environment, so that talented people are happy and feel like they're contributing."

Bob has encouraging words for Ph.D. students entering the job market. When someone hires a PhD or MD they hire them to "add to their talent pool". A Michigan Ph.D. speaks to the potential a new hire can bring to a company. And remember, "confidence goes a long way in an interview". And finally, "Your potential is incredible. I can't say enough about the contacts and the people you'll meet here at Michigan. In your career you'll have an incredible web of connections from this university." Use it.

His final advice to young scientists, though originally offered as career advice, doubles as life advice: "The world is out there. You can't sit here and even imagine where this career can take you over the years. I would never have expected to be where I am...Go with the flow. Enjoy it. Do it. Be a little flexible. Be a little impulsive. Go for whatever goal you want to go for... you really don't know where you're going to end up."

From Bench to Bedside: Cardiovascular Importance of Vitamin D and Development of A New Therapeutic

Robert U. Simpson

The concept of an involvement of Vitamin D with cardiovascular function began decades ago with my research team's identification of the Vitamin D receptor (VDR) in rat cardiac myocytes. We went on to show that rats maintained on vitamin D-deficient diets have increased ventricular muscle mass, contractile function, systolic blood pressure, renin levels and fibrosis. Thus, we established a connection between vitamin D deficiency and cardiovascular diseases including cardiac hypertrophy, fibrosis, hypertension and hyper-reninism.

As with the vitamin D deficient rat, VDR knockout (VDRKO) mice are hypertensive and their hearts are similarly affected. The cardiac hypertrophic phenotype of the VDRKO mice was associated with changes in Extracellular matrix (ECM) remodeling that is known to contribute to progressive left ventricular remodeling, dilation and heart failure. Similar cardiovascular outcomes were observed in mice lacking CYP27B1, the key enzyme in Vitamin D metabolism to the active hormone Calcitriol. Moreover, Calcitriol treatment of heart failure prone rats reduced heart weight, myocardial collagen levels, left ventricular diameter and cardiac dysfunction but as expected induced hypercalcemia. Thus, our bench level studies demonstrated that the cardiomyocyte VDR has physiological importance for the control of cardiovascular function and health.

Direct evidence that human vitamin D deficiency leads to cardiovascular disease came from patients with end stage renal disease (ESRD). Absence of adequate calcitriol levels in ESRD yields sustained stress on myocardial tissue and leads to cardiac hypertrophy, myocardial fibrosis, and heart failure. Administration of VDR agonists to patients with ESRD resulted in decreased left ventricular hypertrophy along with a decrease in cardiovascular mortality. Recent widespread use of the serum 25-hydroxyvitamin D assay has revealed that

widespread use of the serum 25-hydroxyvitamin D assay has revealed that human vitamin D deficiency is common and has connected human Vitamin D deficiency with diseases such as heart failure, stroke, hypertension, atherosclerosis, auto-immune disease and diabetes. This has led to many cardiovascular disease clinical studies, including our interventional study on-going at the University of Michigan Hospitals.

Currently our efforts are focused on developing a selective VDR agonist [SVDRA] that has high specificity and efficacy to treat cardiovascular and renal disease. We identified CARD-024 as a first-in-kind SVDRA with unique specificity, efficacy and safety. We have completed a Phase-I study for CARD-024 that demonstrated positive outcomes for safety, pharmacokinetics and pharmacodynamics and are now in proof of concept studies with the goal of bringing to the patient a novel cardiovascular therapeutic.

I am confident that future studies will continue the translation of our basic research efforts from the 'bench' to the patient's 'bedside'.

For a more complete report see:
<http://sitemaker.umich.edu/simpson/home>



Robert U. Simpson is Professor of Pharmacology and President of Cardiavent Inc.

INNOVATOR AWARDS

Congratulations to:

Dr. Shaomeng Wang who is the recipient of the University Distinguished Innovator Award for 2014.



Dr. Wang is the Warner-Lambert/Parke-Davis Professor of Medicine and Professor of Internal Medicine and Pharmacology in the Medical School, and Professor of Medicinal Chemistry in the College of Pharmacy. Dr. Wang is honored for his pioneering work in the field of drug discovery, and his efforts to bring the fruits of this work to the marketplace.

Dr. James Shayman who received the University Technology Transfer Impact Award. Dr. Shayman is honored for developing a treatment for Gaucher disease type 1, a lysosomal storage disease.



James Shayman is Professor of Pharmacology and Internal Medicine.

SAVE THE DATE

Drug Discovery and Development Boot Camp Monday, March 16, 2015



The Department of Pharmacology is organizing a full day program to help researchers navigate the complex route through new drug development. Speakers from U of M and industry will guide you through the process from discovery of a lead molecule through clinical trials and FDA approval. Keynote speaker Rajesh Ranganathan, Ph.D., the Director of the Office of Translational Research at the NINDS, will discuss the role of the NIH in facilitating drug discovery and development. Reserve the day on your calendar for this important event!

Pharmacology Football: Well received After 41 Seasons

By Adam Lauver and William Pratt

More than a dozen students, postdocs and faculty recently took to the fields of Riverside Park in the shadow of the Kellogg Eye Center to participate in an annual fall tradition - Pharmacology football. This year marked the 41st anniversary of the Friday afternoon ritual led by, as always, all-department quarterback William Pratt (a legend in his own time having played all 41 years). Despite venue changes due to ongoing construction and constant threat of Canada goose attack, the game enjoyed its best turn out in recent years. Students and faculty alike enjoy the chance to get outside and appreciate the changing fall colors and fresh air. Graduate student and star wide receiver Nicolas Senese explains, "It's a great way to get outside and interact with people in our department during some of the last nice days of the year." Assistant Professor Carrie Ferrario agrees, "It's nice to be outside relaxing with colleagues, students, and friends." Unlike the falling leaves in autumn, it's clear after 41 years Pharmacology football is here to stay.



News

Alumni News

Namandje Bumpus (2003) is the recipient of the 2014 Tanabe Young Investigator Award from the American College of Clinical Pharmacology. The award recognizes the significant contributions of an investigator who has made unusual strides in research related to clinical pharmacology and whose career shows promise of outstanding achievements at a relatively early stage.

Kevin Hicks (2010) has been appointed as Assistant Professor of Medicine in the Lerner School of Medicine of Case Western Reserve University.

Adam J. Kuszak, (2009) is an American Association for the Advancement of Science Fellow in the NIH's Office of Dietary Supplements.

Jennifer Lamberts (2013) has been appointed as Assistant Professor in the Department of Pharmacology, School of Pharmacy at Ferris State University.

John McNeill (1967) has been presented with a Lifetime Achievement Award by the

Faculty News

Drs. Benedict Lucchesi and Thomas Carey were inducted into the Medical School's League of Research Excellence.

Dr. Margaret Gnegy has been elected as a Counselor for the American Society for Pharmacology and Experimental Therapeutics.

Dr. Paul Hollenberg has been presented with the Founders Award by the Division of Chemical Toxicology of the American Chemical Society for his seminal mechanistic studies of the cytochrome P450 monooxygenases.

Dr. Lori Isom visited the Xingya School of Medicine, South Central University in Changsha, Hunan Province, China representing the Senior Associate Dean for Education and Global Initiatives.

Dr. Robert Kennedy has been named Distinguished University Professor, one of our University's highest honors.

Recent Grants

Christine Canman, Ronald Holz and John Traynor received NIH R01 grants from the National Cancer Institute, National Institute of General Medical Sciences and the National Institute on Drug Abuse respectively.

Carrie Ferrario and Emily Jutkiewicz are the recipients of a 2014 NARSAD Young

International Academy of Cardiovascular Sciences.

Natasha T. Snider (2009) has accepted a position as an Assistant Professor, tenure track, in the Department of Cell Biology and Physiology at the University of North Carolina.

Dr. Leslie Satin was named one of "Best Manuscript Reviewers" by Endocrinology and appointed to the Biophysical Society Publications Committee.

Dr. James A. Shayman received the U-M Technology Transfer Impact Award (see page 6).

Dr. John Tesmer, has been appointed as an Associate Editor of Molecular Pharmacology.

Dr. Shaomeng Wang is the recipient of the Distinguished University Innovator Award for 2014 (see page 6).

Dr. James Woods is the recipient of the ASPET P.B. Dews Lifetime Achievement Award in Pharmacology for his seminal contributions to the fields of behavioral pharmacology and drug abuse.

Investigator Grant from the Brain and Behavior Research Foundation.

Lori Isom and Jack Parent were awarded a National Institute of Neurological Disorders and Stroke U01 Centers Without Walls: Sudden Unexpected Death in Epilepsy grant

D. Adam Lauver awarded the 2014 Frankel Cardiovascular Center Inaugural grant.

John Tesmer and Matthew Young have been awarded drug discovery research grants from the Center for the Discovery of New Medicines.

Postdoc News

Dr. Chad Frasier (Isom Lab) selected to present platform presentations at the 2014 American Heart Association Meeting and the 2014 American Epilepsy Society Meeting.

Dr. Kristoff Homan (Tesmer Lab) has accepted a position as Senior Scientist II with AbbVie in Boston.

Dr. Melissa Smaldino (Isom Lab) is a recipient of a Center for Organogenesis NRSA Postdoctoral Fellowship.

Dr. Peter Vollbrecht (Ferrario Lab) met with congressional staff to discuss state research funding and the NIH budget under the auspices of the American Society for Biochemistry and Molecular Biology Hill Day.

Student News

Andrew Haak (Neubig/Hollenberg Lab) was runner up for the Best Oral Presentation at the 41st Pharmacology Colloquium, June 2014, Michigan State University.

Larisa Kruger (Isom Lab) received a PhRMA Foundation Pre-doctoral Fellowship.

Kathryn Livingston (Traynor Lab) won the Graduate Student Outstanding Poster Award at the 45th Annual Meeting of the Michigan Chapter of the Society for Neuroscience, May, 2014.

Sarah Mikelman (Gnegy Lab) won the Best Poster Award at the 41st Pharmacology Colloquium, June 2014, Michigan State University.

Phillip Saccone (Woods Lab) awarded a Ruth L. Kirschstein National Research Service Award (NRSA) Individual Fellowship. Phillip is also current President of the Rackham Student Government.



We hope that you have enjoyed reading our inaugural newsletter. We would also like to remind you that this is the time of year to make an annual gift or, if you are able, a multi-year pledge to the Department. For more information on our philanthropic priorities, please visit our department website at <https://leadersandbest.umich.edu/find/#/med/med/pharmacology>

For Daily News Updates check our webpage:

<http://www.pharmacology.med.umich.edu/Pharmacology/Home.html>

And don't forget to "friend us" on Facebook

<https://www.facebook.com/pages/Michigan-Pharmacology/193058470712533>

If you have news or views you would like to share with alumni, faculty, students and staff, please send information to John Traynor: jtraynor@umich.edu