

Department of Pharmaceutical Sciences

2017 Annual Report*



* Report is for the 2017 calendar year

Table of Contents

I.	Executive Summary	4
II.	Who We Are and What We Do	5
III.	2017 in Review	5
	Short Term Goals	
	S1: Increase faculty satisfaction regarding administrative support for research through added personnel, strengthened policies, & advocacy.	5
	S2: Revitalize the graduate curriculum by improving course content, offering development opportunities, and advancing curricular assessment.	6
	S3: Recognize individual differences in strengths, interests, and careers in part by implementing a differential workload policy and by workload recognition to maximize scholarly, instructional, and service-related goals.	7
	Long-Term Goals	7
	L1: Plan for and position the department for increased collaborative research.	7
	L2: Offer excellent foundational training in the pharmaceutical sciences to PharmD students by working with Pharmacy Practice, sharing in the governance and operation of this program, and achieving successful re-accreditation in 2017.	8
	L3: Position programs to earn acclaim within the university, regionally and nationally as world class training programs for high caliber graduate students, postdoctoral fellows, and other trainees.	8
	Other Progress	8
VI.	Departmental Faculty and Staff	9
	Faculty	9
	Adjunct Faculty	9
	Emeritus Faculty	10
	Staff	10
V.	Research Personnel in Training	10
	Pharmaceutical Sciences Ph.D. Candidate	10
	Ph.D. Candidates Training with PSC Faculty	11
	MD / Ph.D. Candidates	11
	Pharmaceutical Sciences M.S. Candidates	11

M.S. Candidates Training with PSC Faculty	11
Postdoctoral Scholars	11
Research Assistants / Associates / Scientists	12
PharmD / SURF / Undergraduate / Intern / Volunteer / Others	12
VI. Graduate Degrees Conferred	14
Ph.D. Degrees	14
M.S. Degrees	15
VII. Honors and Awards	16
University	16
College	17
VIII. Professional, Scientific and Other Leadership	17
External to the University	17
Internal (External to College)	19
IX. Scientific Review Panels	20
X. Editorial Boards	23
XI. Grants Awarded	24
Federal Grants	24
Foundation Grants	26
University / College Awards	27
XII. Invited Presentations	30
XIII. Journal Publications	31
XIV. Book Chapters and Books	34
XV. Patents	35
XVI. Abstracts Presented / Published	35
XVII. Departmental Seminars	39
Winter 201	39
Fall 2017	40

I. Executive Summary

The Department of Pharmaceutical Sciences is a multidisciplinary academic unit formed from the faculty of pharmacy in 1982 to advance the disciplines of medicinal chemistry, pharmacology/toxicology and pharmaceuticals. The Department offers MS and Ph.D. degrees in Pharmaceutical Sciences. In addition, our Faculty provide extensive instruction in the professional Doctor of Pharmacy (PharmD) program. In 2017, the Department had 23 exceptional Faculty members and 45 productive graduate students. The Faculty have broad interests, with notable strengths in diabetes, neuroscience, cancer, environmental toxicology and infectious disease research.



Chair: Dr. George Corcoran

Dr. George Corcoran has served as chair and chief administrative officer of the department since 1996. Additional leadership and management are provided by Directors, the faculty, and robust standing committees. Many policies critical to the operation of the Department are proscribed by collectively bargained union contracts and the Department is guided by our strategic plan and specific approved policies.

In 2017, the Faculty were highly productive. According to the American Association of Colleges of Pharmacy (AACP) 2014 Research Survey, the Department ranks 37th in NIH funding, with 63% of Faculty funded. The total number of research publications/abstracts in 2017 from our Department is greater than those of our comparator schools. In 2017, the PSC Faculty had a national presence while at the same time embracing the community through the urban mission of the University. Wayne State is one of a small handful recognized by the Carnegie Foundation as a Doctoral university with Very High Research Activity and extensive Community Engagement.

The Department's graduate program includes degrees offered at both the Ph.D. and MS levels. The Ph.D. program in Pharmaceutical Sciences continues to be highly multi-disciplinary and all students are required to take courses in each of the three disciplines. In 2017, the Department had 23 students in our Ph.D. program funded by Departmental and Graduate School resources and mentor NIH grant support. The Department is unique among similarly ranked programs in also offering a multi-disciplinary, research-intensive, entry-level MS program. Over the past 3 years, the number of MS students in the program has ranged from 8-22. These students are consistently highly successful, and the academic quality of MS students is comparable to those entering the Ph.D. program.

The Department does not have an undergraduate program per se. The primary non-graduate teaching is conducted in the PharmD program. Our faculty coordinate courses in the PharmD program and contribute to teaching throughout the curriculum. The Department offers the Summer Undergraduate Research Fellowship (SURF) program, which provides a research-intensive program for 6-10 highly motivated students. The majority of our SURF students are from Michigan and SURF graduates have been successful in advancing to graduate or professional programs. In 2017, the department hosted 4 SURF students.

II. Who We Are and What We Do: At a Glance

Who We Are

Faculty: 51 (23 Full-Time, 1 Part-Time, 24 Adjunct, 4 Emeritus).

Staff: 4

Graduate Students: 40 (21 Ph.D. Candidates ,192 MS Candidates)

Postdoctoral Scholars: 14

Research Assistants / Associates / Scientists: 6

PharmD / SURF / Undergraduate / Intern / Volunteer / Other Researchers: 72

What We Do

Degrees Granted: 16 (5 Ph.D., 11 M.S.)

Honors / Awards: 11 (9 University, 2 College)

Professional / Scientific Leadership: 127 (66 External, 61 Internal)

Scientific Review Panels: 66 (17 NIH)

Editorial Boards: 60 (2 Editors, 3 Associates, 1 Senior, 1 Review, 1 Regional, 1 Honorary, 1 Guest, 50 Board Members)

Grants: 50 (28 Federal, 16 Foundation, 6 University/College)

Invited Presentations: 19

Publications: 109 (34 Papers, 2 Book Chapters, 4 Patents/Disclosures, 53 Abstracts)

Department Seminars: 20

III. 2017 in Review

This review attempts to capture essence of the department in 2017 through its programs, activities, accomplishments, progress, culture and life. It is organized under the framework of the Department Strategic Plan 2012-2017 short-term and long-term goals. The Chair oversees implementation of the PSC 2012-2017 Strategic Plan by champions and lead stakeholders in all areas.

Short Term Goals

1. Increase faculty satisfaction regarding administrative support for research through added personnel, strengthened policies, & advocacy.

In the area of key personnel, the department has been able to maintain excellent administrative support thanks to the continual efforts of our staff. Key PSC staff, including the Administrative Assistant, the Departmental Secretary, and assistance from two Student Assistants, have helped our department continue to perform in a highly productive manner. A challenge however that we continue to face is high office workload, and the growing workload

associated with the maturation of four relatively recent faculty additions to our department and their growing laboratories. Competition for department time and other resources continue to expand at an unprecedented rate, and this overdemand on our staff member's time should be a real concern as we strive to expand into the future. In addition, advancement of the department research mission has also been hindered due to recurring budget cuts and intensive risk mitigation policies.

Recent roles of faculty in the department has either shifted to adapt for changes in college oversight, or helped provide constant leadership to assist the chair. Dr. Stemmler, who was appointed Associate Chair in 2016, was retitled to Director of Research for PSC. Dr. David Pitts served in his second year as PSC Director of Curriculum, and Dr. Steven Firestine continues service as the Director of the Graduate Program.

Departmental faculty have been nominated for and received a disproportionate number of awards in 2017, with Dr. Anjan Kowluru became the first University Distinguished Professor in the history of the college and one of only 19 university wide, was elected Vice President of the Academy of Scholars, and received the College Excellence in Research Faculty Award, Dr. Firestine received the Pharmacy Faculty Recognition Award in Pharmaceutical Sciences, and was awarded sabbatical leave for Fall 2017, Dr. Liu received several awards in 2017 before moving to the department from Purdue University, Dr. Commissaris received the Pharmaceutical Sciences Teacher of the Year Award, and Dr. Moszczynska received a Tuition Incentive Award.

2. Revitalize the graduate curriculum by improving course content, offering development opportunities, and advancing curricular assessment.

Changes in curriculum, suggested by the PSC Graduate Program Committee for our graduate program, were enacted in 2017, with changes associated in the seminar courses PSC7850, 7860, 7870 and 7880, and in PSC 7020. The class of 2017 PhD candidates included x department supported GRAs and xx PhD candidates on other support, for a total of 21 PhD candidates in our program; 5 of whom graduated in 2017. The department's first MD/PhD candidate also graduated in 2017. Our trainees received a large number of awards in 2017 including Ms. Suhadine Gamage and Ms. Zoha Siddiqua Congressional Hearings Best Presentation Awards, Ms. Qian Lin the College Research Forum Best Student Poster in the Basic Sciences for her outstanding work with mentor Dr. Steven Firestine, Dr. Sau Samaresh 3rd Place Postdoctoral Scholar Award and Mr. Daniel Feldman a 1st Place Doctoral Student Award at the university Graduate and Postdoctoral Research Symposium, Ms. Divyasri Damacharla the George C. Fuller Endowed Scholarship Award and Ms. Dan Luo and Ms. Dongyue Yu the 2017 Frank O. Taylor Scholarships.

The department continues to implement adjustments to our department that were suggested by the Assessment Committee in response to the Pharmaceutical Sciences Self-Study, presented it to the faculty for approval in February 2016. Internal and external evaluation team reports cited strengths including: 1. superb students who are comparable to those in nationally elite programs, 2. outstanding and growing research program driven by a well-funded faculty with productivity that meets or exceeds both comparator and aspirational schools, 3. research-intensive entry level MS program that is unique among Pharmaceutical

Sciences programs, 4. outstanding time-to-graduation (one year shorter than WSU average) as well as outstanding retention (25% above WSU and 30% above national average), 5. maintenance of program quality and growth in size despite nearly annual budget cuts, and 6. program leadership and administrative structure. Areas requiring attention or investment were 1. The number of GRAs / faculty member, 2. staff support, 3. numbers of domestic and diverse students and systematic recruiting. 4. some policies and procedures, 5. replacement of retired and departed faculty, and 6. opportunities for student teaching. The department was among the most active in the university wide BEST and ReBuild programs, extending experiences to careers outside academics. Revised formal descriptions, policies and charges were prepared for the Appointment, Awards, Budget, Faculty Search, Promotion, and Tenure committees, and the Biosafety Officer and Associate Chair.

New deadlines established for forming thesis and dissertation committees, completing written qualifying examinations, completing the prospectus and oral qualifying examinations, and transferring from MS to the PhD program and the Graduate Program Policies and Procedures were developed in 2016 and successfully implemented in the 2017 calendar year. The 17th Summer Undergraduate Research Fellowship (SURF) program was held in 2017, with 4 SURF students participating in the program.

The department appointed its first Director of Education, Dr. David Pitts, in July 2016 and Dr. Pitts continues to grow in this capacity in 2017. His responsibilities of the Director include: 1) overseeing planning for improving PhD, MS, SURF, Postdoctoral, PharmD/PhD, MD/PhD, and future curricula, 2) assisting in assessing effectiveness and outcomes of curricula, 3) advising on teaching workload, 5) coordinating faculty mentoring, and 6) serving as education liaison outside the department. He has taken a leadership role in the PharmD Research Scholars track.

3. Recognize individual differences in strengths, interests, and careers in part by implementing a differential workload policy and by workload recognition to maximize scholarly, instructional, and service-related goals.

Department faculty and the Division of Pharmacy Workload Committee implemented the new workload policy in 2013. The policy was used in 2013 and 2014, with the understanding that it was provisional and would be revised. Dr. Dutta continues to serve in the leadership role in advancing the workload committee activities in 2017.

Long-Term Goals

1. Plan for and position the department for increased collaborative research.

While internal and external collaborations involving PCS faculty have remained steady over recent years, external funding has fluctuated substantially. External funding in the 2017 calendar year of \$2.46M rose slightly over \$2.38M in 2017. Five faculty have 3 or more grants, with special notice going to Dr. Chen with NIH grants totaling \$13 million and Dr. Kowluru grants totaling \$5 million. The number of laboratories engaged in research and

training reached a historic high at 15, and all faculty roster positions (22) were filled for the first time. Most grant funding to the college comes from highly competitive NIH investigator-initiated R01 awards and other federal agencies to pharmaceutical sciences faculty. In January, Dr. Wanqing Liu joined our department from Purdue University, bringing with him a NIH/NIDDK R01 grant through 2021 for \$1,912,508.

The department reinvigorated new research partnerships with KCI, Engineering, Infectious Diseases, iBio and companies. A diabetes working group involves Drs. Kowluru, Yi, Chen, Stemmler, Wang, Lau, and Monks. The department continues to support the revised Research Enhancement Plan approved presented in 2016 to increase the number and ratio of supported GRAs.

Our NIH awards are complemented by funding from the Veterans Administration, American Heart and American Diabetes foundations, and competitive internal research programs supported by Wayne State. A top goal of the department and college is to establish one or more multi-investigator grants. Areas that are existing strengths and poised for national competitiveness include diabetes / obesity / metabolic syndrome, neurosciences, cancer, infection, and drug discovery and design. The pharmacy program has taken several steps to advance this goal.

2. Offer excellent foundational training in the pharmaceutical sciences to PharmD students by working with Pharmacy Practice, sharing in the governance and operation of this program, and achieving successful re-accreditation in 2017.

Our faculty play leadership roles on the PharmD Accreditation Steering Committee and other PharmD committees including chairing the curriculum and co-chairing the admissions committees. The PharmD program was successfully reaccredited in 2016 through 2018, and based on interim reports was extended to 2023 by ACPE.

3. Position programs to earn acclaim within the university, regionally and nationally as world class training programs for high caliber graduate students, postdoctoral fellows, and other trainees.

The PhD program attracts and graduates excellent scientists. Recent PhD graduates have taken postdoctoral positions in top programs including at Harvard, MIT, CalTech, and U of M. The number of graduate students doubled over the previous two years is expected increase slightly again next year. Further growth by introducing new MS and BS programs is under consideration. This includes admitting Plan B or Plan C MS candidates. Pharmacy worked with the Registrar to create a mechanism for admitted PharmD students to earn a BS in Health Sciences with a concentration in Pharmaceutical Sciences upon completion of their P1 year and accruing at least 120 credit hours of courses work.

Other Progress:

Communication: Department faculty meetings remain at a frequency of 5-7 per year to cultivate more interaction, deliberation, and collective decision-making. A significant number

of Congratulations email are distributed to make department members aware of the successes of their colleagues.

IV. Departmental Faculty and Staff

Faculty

Hanley N. Abramson, Ph.D., Professor
Deepak K. Bhalla, Ph.D., Professor and Interim Dean of the College
Fei Chen, Ph.D., Professor
Randall L. Commissaris, Ph.D., Associate Professor
George B. Corcoran, Ph.D., Professor and Chairman
Aloke K. Dutta, Ph.D., Professor
Steven M. Firestine, Ph.D., Professor
Fusao Hirata, Ph.D., Professor
Arun K. Iyer, Ph.D., Assistant Professor
Anjan Kowluru, Ph.D., Professor and Associate Dean for External Scientific Affairs
Serrine Lau, Ph.D., Professor and Dean of EACPHS
Wanqing Liu, Ph.D., Associate Professor
Olivia M. Merkel, Ph.D., Assistant Professor
Terrence Monks, Ph.D., Professor and Assistant Vice President of Integrative Biosciences
Anna B. Moszczynska, Ph.D., Associate Professor
David K. Pitts, Ph.D., Associate Professor
Philip L. Pokorski, Ph.D., Assistant Professor (Clinical)
Zhihui Qin, Ph.D., Assistant Professor
Duska M. Separovic, Ph.D., Associate Professor (Research)
Timothy L. Stemmler, Ph.D., Professor and Assoc. Dean of the Grad School
Jiemei Wang, Ph.D., Assistant Professor
Zhengping Yi, Ph.D., Professor
Hani Zaher, Ph.D., Part-Time Instructor
Xiangmin Zhang, Ph.D., Assistant Professor (Research)

Adjunct Faculty

Jacob V. Aranda, Adjunct Professor, SUNY Downstate, New York
Hossam Ashour, Adjunct Assistant Professor, Pharmacy Practice
Amit Banerjee, Past Assistant Professor Research
David J.P. Bassett, Adjunct Professor, Family Medicine
Michael R. Bleavins, Adjunct Associate Professor, MI Technology & Research Institute
Kyle Burghardt, Adjunct Assistant Professor, Pharmacy Practice
Christine Davie, Adjunct Assistant Professor, Pharmacy Practice
Merlin E. Ekstrom, Adjunct Associate Professor, WSU

Peter D. Frade, Associate Professor, Fundamental and Applied Sciences
Bradford R. Hepler, Adjunct Assistant Professor, Wayne County Office of Medical Examiner
Daniel Isenschmid, Adjunct Assistant Professor, NMS Laboratories, Willow Grove, PA.
Edward Kerfoot, Adjunct Professor, Occupational and Environmental Health Sciences
Paul Kilgore, Adjunct Professor, Pharmacy Practice
Ladislau C. Kovari, Adjunct Associate Professor, Biochemistry
Robert E. Levine, Adjunct Professor, Wellness and High-Performance Strategies
Jing Li, Adjunct Associate Professor, Karmanos Cancer Institute
Emily T. Martin, Adjunct Assistant Professor, University of Michigan
Howard J. Normile, Adjunct Associate Professor, Health Care Sciences
Allen J. Rosenspire, Adjunct Associate Professor, Microbiology and Immunology
Michael J. Rybak, Adjunct Professor, Pharmacy Practice
Paul M. Stemmer, Associate Professor, Institute of Environmental Health Sciences
Bonita G. Taffe, Adjunct Assistant Professor, State of Michigan Bureau of Laboratories
David M. Thomas, Adjunct Professor, Oakland University William Beaumont School of
Medicine
William D. Watt, Adjunct Professor, Occupational and Environmental Health Sciences

Emeritus Faculty

Martin Barr
Raymond J. Dauphinais
Janardan B. Nagwekar
Henry Wormser

Staff

Angela Bumphus, Secretary
Latoya Rice, Administrative Assistant
Dhanashri Pawale, Student Assistant

V. Research Personnel in Training

Pharmaceutical Sciences Ph.D. Candidates

Alsaab, Hashem: Graduate Research Assistant, Advisor Dr. Arun Iyer
Alghanem, Lana: Graduate Research Assistant, Advisor Dr. Anna Moszczynska
Alzharni, Rami: Graduate Research Assistant, Advisor Dr. Arun Iyer
Alzhrani, Majed: Graduate Research Assistant, Advisor Dr. Zhengping Yi
Bhise, Ketki: Graduate Research Assistant, Advisor Dr. Arun. Iyer
Batelu, Sharon: Graduate Research Assistant, Advisor Dr. Timothy Stemmler
Damacharla, Divyasri: Graduate Research Assistant, Advisor Dr. Zhengping Yi and Anjan Kowluru
(Graduated in 2017)

Elmabruk, Asma: Graduate Research Assistant, Advisor Dr. Alope Dutta
Gamage, Suhadinie: Graduate Research Assistant, Advisor Dr. Anjan Kowluru
Killinger, Bryan: Graduate Research Assistant, Advisor Dr. Anna Moszczynska (Graduated 2017)
Lewis, Brianne: Graduate Student, Advisor Dr. Timothy Stemmler
Li, Lingzhi: Graduate Research Assistant, Advisor Dr. Fei Chen (Graduated in 2017)
Liao, Yi: Graduate Research Assistant, Advisor Dr. Zhihui Qin
Lin, Qian: Graduate Research Assistant, Advisor Dr. Steven Firestine
Luo, Dan: Graduate Research Assistant, Advisor Dr. Alope Dutta (Graduated in 2017)
Nguyen, Huong: Graduate Research Assistant, Advisor Dr. Terrence Monks
Qi, Yue: Graduate Research Assistant, Advisor Dr. Zhengping Yi (Graduated in 2017)
Sharma, Akil: Graduate Research Assistant, Advisor Dr. Anna Moszczynska
Wadgaonkar, Priya: Graduate Research Assistant, Advisor Dr. Anjan Kowluru
Zhang, Qian: Graduate Research Assistant, Advisor Dr. Fei Chen

Ph.D. Candidates outside PSC Training with PSC Faculty

Tagett, Rebecca: Ph.D. Candidate, Co-Advisor Dr. Zhengping Yi

MD / Ph.D. Candidates

Streeter, Cale: Graduate Research Assistant, Advisor Dr. Steven Firestine (Graduated in 2017)

Pharmaceutical Sciences M.S. Candidates

Alali, Kawthar: Advisor Dr. Randall Commissaris
Alla, Lakshmi: Advisor Dr. David Pitts (Graduated in 2017)
Ashok Kumar, Srinivas: Advisor Dr. Fei Chen (Graduated in 2017)
Baidwan, Sartaj: Advisor Dr. Anjan Kowluru (Graduated in 2017)
Gawde, Kaustubh: Advisor Dr. Arun Iyer (Graduated in 2017)
Monshi, Manahil: Advisor Dr. David Pitts (Graduated in 2017)
Ou, Siyu: Advisor Dr. Zhihui Qin (Graduated in 2017)
Patel, Anjali: Advisor Dr. Timothy Stemmler
Pawale, Dhanashri: Advisor Dr. Zhengping Yi (Graduated in 2017)
Ravipati, Pranay: Advisor Dr. Alope Dutta (Graduated in 2017)
Sharma, Marcella: Advisor Dr. Steven Firestine
Siddiqua, Zoha: Advisor Dr. David Pitts
Simon, Matthew: Advisor Dr. Steven Firestine
Sulaiman, Shukurat: Advisor Dr. Zhengping Yi (Graduated in 2017)
Taneja, Rimzim: Advisor Dr. Randall Commissaris
Tatiparti, Katyayani: Advisor Dr. Arun Iyer
Wang, Yihan: Advisor Dr. Jiemei Wang
Wang, Zhaoxian: Advisor Dr. Arun Iyer (Graduated in 2017)
Yu, Dongyue: Advisor Dr. Anna Moszczynska (Graduated in 2017)

Postdoctoral Scholars

Clarkston, Heather: Ph.D., Advisor Dr. Zhengping Yi
Damacharla, Divyasri: Ph.D., Advisor Dr. Anjan Kowluru/ Dr. Zhengping Yi
Das, Banibrata: Ph.D., Advisor Dr. Alope Dutta
Dinda, Bidyut: Ph.D., Advisor Dr. Alope Dutta
Khan, Sabbir: Ph.D., Advisor Dr. Anjan Kowluru
Li, Lingzhi: Ph.D., Advisor, Dr. Fei Chen
Mottillo, Emilio: Ph.D., Advisor Dr. Zhengping Yi
Qi, Yue: Ph.D., Advisor Dr. Zhengping Yi
Shukkur, Muhammed Farooq Abdul: Advisor Dr. Jemei Wang
Thakur, Chitra: Ph.D., Advisor Dr. Fei Chen
Thamiselvan, Vijayalakshmi: Ph.D., Advisor Dr. Anjan Kowluru
Varshney, Pallavi: Ph.D., Advisor Dr. Anjan Kowluru
Yedlapudi, Deepthi: Advisor Dr. Terrence Monks/Alope Dutta
Zhang, Xiang: Ph.D., Advisor Dr. Jemei Wang

Research Assistants / Associates / Scientists

Ma, Yongpan: Supervisor Dr. Randall Commissaris
Mekala, Naveen Kumar: Ph.D. Research Associate, Supervisor Dr. Anjan Kowluru
Sharma, Shiv: Ph.D. Research Scientist, Supervisor Dr. Steven Firestine
Swift, Aaron: Sr. Systems Administrator, Supervisor Dr. Randall Commissaris
Xu, Liping: Ph.D., Research Technician, Supervisor Dr. Alope Dutta
Zhang, Xiangmin: Ph.D. Research Scientist, Supervisor Dr. Dr. Zhengping Yi

PharmD / SURF / Undergraduate / Intern / Volunteer / Other Researchers

PharmD

Alkeilani, Asmaa: Advisor Dr. David Pitts
Althabte, Anas Jamal: Advisor Dr. Fei Chen
Baidun, Sonya: Advisor, Dr. Arun Iyer
Burghardt, Kyle: Advisor Dr. Zhengping Yi
Calme, Griffin Robert: Advisor Dr. Zhengping Yi
Chamaa, Dana: Advisor, Dr. Randall Commissaris
Chehab, Fatme: Advisor, Dr. Randall Commissaris
Clancey, Scott: Advisor Dr. Anjan Kowluru
Clarkston, Heather: Advisor, Dr. Randall Commissaris
Dagher, Joseph: Advisor Dr. George Corcoran
DeLor, Jeremy: Advisor Dr. Duska Separovic
Doane, Alison: Advisor, Dr. Arun Iyer
Donovan, Justine Tyler: Advisor, Dr. Arun Iyer
El-Husseini, Hadi: Advisor Dr. David Pitts
Emlaw, Brianna: Advisor, Dr. Arun Iyer
Garbo, Rawan: Advisor, Dr. Randall Commissaris
Griffin, Hannah: Advisor Dr. Anjan Kowluru

Gropcaj, Endrit: Advisor Dr. Anjan Kowluru
Haider-Ahmad, Batoul: Advisor, Dr. Randall Commissaris
Haddad, Justin: Advisor, Dr. Arun Iyer
Hana, Rand: Advisor, Dr. Arun Iyer
Hanna, Andrew: Advisor, Dr. Arun Iyer
Hijazi, Aida: Advisor, Dr. Randall Commissaris
Husseini, Alexandra: Advisor Dr. David Pitts
Jain, Ritika: Advisor Dr. Anjan Kowluru
Jamal, Suzanne: Advisor Dr. David Pitts
Jarbou, Natalia: Advisor Dr. Anjan Kowluru
Kahn, Mashal: Advisor Dr. David Pitts
Khalil, Ali: Advisor, Dr. Arun Iyer
Khan, Mashal: Advisor Dr. David Pitts
Kim, Austin: Advisor, Dr. Randall Commissari and Dr. Anjan Kowluru
Matti, Faddy Yousif: Advisor Dr. Fei Chen
McKay, Candice: Advisor, Dr. Arun Iyer
Mikhail, Sandra: Advisor Dr. Fei Chen
Muma, Alexandra: Advisor Dr. Anjan Kowluru
Nabil, Ghazal: Advisor Dr. Arun Iyer
Nasser, Hussein: Advisor, Dr. Randall Commissaris
Nofar, Thomas: Advisor Dr. Fei Chen
Neelam, Osto: Advisor, Dr. Arun Iyer
Petrovic, Alex: Advisor, Dr. Arun Iyer
Pierson, Benjamin: Advisor, Dr. Arun Iyer
Sawyer, Jessica: Advisor, Dr. Randall Commissaris
Stewart, Jessica: Advisor Dr. Anjan Kowluru
Yacoub, Rand: Advisor Dr. Anjan Kowluru
Zofchak, Kristen: Advisor Dr. Anjan Kowluru

SURF (Summer Undergraduate Research Fellow)

Ferger, Kelly: Advisor Dr. Timothy. Stemmler
Yetukuri, Amoolya: Advisor Dr. David Pitts
Annie, Nelson: Advisor Dr. Arun Iyer
St. Amour, Miranda: Advisor Dr. Timothy. Stemmler

Undergraduate

Bassett, Lukas: Undergraduate Researcher, Advisor Dr. Zhengping Yi
Buchanon, Brando: Undergraduate Researcher, Advisor Dr. Randall Commissaris
Clarkston, Amanda: Undergraduate Researcher, Advisor Dr. Zhengping Yi
Ghosh, Preetha: Undergraduate Researcher, Advisor Dr. Zhengping Yi
Issa, Fatima: Undergraduate Researcher, Advisor Dr. Zhengping Yi
Khraizat, Laila: Undergraduate Researcher, Advisor Dr. Steven Firestine
Koujane, Ayah: Undergraduate Researcher, Advisor Dr. Zhengping Yi
Maassen, Philip: Undergraduate Researcher, Advisor Dr. Fei Chen
Malone, Ki-Jana: Undergraduate Researcher, Advisor Dr. Randall Commissaris
Mason, Zachary: Undergraduate Researcher, Advisor Dr. Timothy Stemmler

Mohammad, Mohammad: Undergraduate Researcher, Advisor Dr. Randall Commissaris
Murdock, Brianna: Undergraduate Researcher, Advisor Dr. Randall Commissaris
O'Meara, Megan: Undergraduate Researcher, Advisor Dr. Jemei Wang
Parker, Jasmine: Undergraduate Researcher, Advisor Dr. David Pitts
Patros, Jennifer: Undergraduate Researcher, Advisor Dr. Steven Firestine
Rockwell, Ryan: Undergraduate Researcher, Advisor Dr. Steven Firestine
Smith, Christofer: Undergraduate Researcher, Advisor Dr. Randall Commissaris
Tiwana, Talha: Undergraduate Researcher, Advisor Dr. Fei Chen
Yacoub, Simon: Undergraduate Researcher, Advisor Dr. Zhengping Yi

Volunteer

Alghanem, Lana Jamil: Volunteer, Advisor Dr. Anna Moszczynska

Other Researchers

Ammar, Amina: Research Assistant, University of Michigan Dearborn, Supervisor Dr. Randall Commissaris
Bazylianska, Viktoriia: Fullbright Research Scholar, Supervisor Dr. Anna Moszczynska
Kesamneni, Srikar: Summer High School Student, Supervisor Dr. Arun Iyer

VI. Graduate Degrees Conferred in 2017

PhD Conferred

Dr. Dan Luo:

Advisor: Dr. Alope Dutta

Thesis Title: Approach towards the development of novel disease modifying therapeutics for parkinson's disease

Current: Postdoctoral Fellow, Wayne State University, Detroit, MI

Dr. Divyasri Damacharla:

Advisor: Dr. Anjan Kowluru/Dr. Zhengping Yi

Thesis Title: Protein phosphatase-2A in human skeletal muscle and pancreatic beta-cells in diabetes

Current: Postdoctoral Fellow, Wayne State University, Detroit, MI

Bryan Killinger:

Advisor: Dr. Anna Moszczynska

Thesis Title: Axonal Transport, Parkin, And A-Synuclein; Novel Therapeutic Targets To Treat Methamphetamine Neurotoxicity

Current: Postdoctoral Fellow, Van Andel Institute

Lingzhi Li:

Advisor: Dr. Fei Chen

Thesis Title: Underlying mechanisms of arsenic-induced tumorigenesis: from epigenetics to malignancy

Current: Postdoctoral Fellow, Beckman Institute City of Hope, CA.

Dr. Yue Qi:

Advisor: Dr. Zhengping Yi

Thesis Title: Human Kinome in Skeletal Muscle Insulin Resistance.

Current: Postdoctoral Fellow, Wayne State University, Detroit, MI

MS Conferred

Dhanashri Pawale:

Advisor: Dr. Zhengping Yi

Thesis Title: Regulation of protein phosphatase 1 regulatory subunit 12 in insulin resistant human myotubes.

Current: Clinical Research Specialist, Indiana University School of Medicine and Riley Children's Hospital

Dongyue Yu:

Advisor: Dr. Anna Moszczynska

Thesis Title: The Role of Line-1 Transposable Element In Methamphetamine Neurotoxicity In The Neurogenic Zones

Current: Graduate Research Assistant, University of Maryland, Baltimore

Kaustubh Gawde:

Advisor: Dr. Arun Iyer

Thesis Title: Synergistic Combination of Di-Fluorinated Curcumin and Paclitaxel Formulated Using Folate Decorated Bovine Serum Albumin Nanocarrier For Targeting Ovarian and Cervical Cancer

Current: Formulation Scientist, KVK Tech, Pennsylvania

Lakshmi Alla:

Advisor: Dr. David Pitts

Thesis Title: An Evaluation of endocrine disrupting effects of emerging contaminants using *Daphnia pulex* and *Danio rerio*

Current: Editorial Assistant Intern at OMICS International USA, Hyderabad, India

Manahil Monshi:

Advisor: Dr. David Pitts

Thesis Title: Endocrine-Disrupting Properties of Pharmaceuticals and Personal Care Products (PPCPs): An Evaluation Using Aquatic Model Organisms.

Current: Yanbu National Hospital, Saudi Arabia

Pranay Ravipati:

Advisor: Dr. Alope Dutta

Thesis Title: Mechanism of a Multifunctional Dopamine Agonist Against Rotenone Induced Toxicity: Implication in Parkinson's Disease Therapy

Current: Unknown

Sartaj Baidwan:

Advisor: Dr. Anjan Kowluru

Thesis Title: Metformin, glucotoxicity and islet dysfunction

Current: Attending Doctor of Pharmacy Program at Ferris State University, Big Rapids, MI

Shukurat Oluwatoyin Sulaiman:

Advisor: Dr. Zhengping Yi

Thesis Title: Protein Phosphatase 2A PP2A Function and Regulation in Human Skeletal Muscle Cells in Insulin Resistance.

Current: Clinical Research Coordinator at University of California San Diego, San Diego, CA

Siyu Ou:

Advisor: Dr. Zhihui Qin

Thesis Title: Design and Synthesis of Enzalutamide-Isothiocyanate Hybrid Drug As Anti-Prostate Cancer Agent

Current: Research Assistant, Wayne State University

Srinivas Ashok Kumar:

Advisor: Dr. Fei Chen

Thesis Title: Pathological And Prognostic Role of Mdig In Pancreatic Cancer

Current: Associate Scientist at L'Oréal, New York, NY

Zhaoxian Wang:

Advisor: Dr. Arun Iyer

Thesis Title: Redox Responsive Cerium Oxide Nanoparticles and Cd44 Targeted Nanomicelles For Selective Cancer Therapy

Current: Graduate Research Assistant, University of Kansas

VII. Honors and Awards

University

Dutta, Alope: Outstanding Graduate Mentor, Wayne State University.

Firestine, Steven: Faculty Recognition Award in Pharmaceutical Sciences, Wayne State University

Kowluru, Anjan: Distinguished Professor, Wayne State University

Kowluru, Anjan: Engraved plaque of appreciation for service as the Secretary/Treasurer from the Metropolitan Detroit Research and Education Foundation [MDREF] Board.

Kowluru, Anjan: Outstanding Performance Rating, John D Dingell VA Medical Center, Detroit, MI

Liu, Wanqing: Chaney Scholar Award, College of Pharmacy, Purdue University

Liu, Wanqing: MCMP Research Enhancement Award, Purdue University

Liu, Wanqing: Annual Excellence in Research Awards, Purdue University

Moszczynska, Anna: Tuition Incentive Program Award

College

Commissaris, Randall: Pharmaceutical Sciences Teacher of the Year”, WSU College of Pharmacy, Class of 2017

Kowluru, Anjan: Research Excellence Award, Eugene Applebaum College of Pharmacy and Health Sciences

VIII. Professional, Scientific and Other Leadership

External to University

Chen, Fei: Member, American Association for Cancer Research

Chen, Fei: Member, Society of Toxicology

Corcoran, George: Member, Society of Toxicology

Corcoran, George: Workshop Organizer and Chair, Medical Marijuana: Issues Facing the Regulatory, Medical, and Academic Environments

Corcoran, George: Member, National Toxicology Program Board of Scientific Counselors

Corcoran, George: Board Member Representative, National Toxicology Program Report on Carcinogens: Cobalt

Corcoran, George: Member, Regulatory and Safety Evaluation Specialty Section

Corcoran, George: Member, Mechanisms Specialty Section

Commissaris, Randall: Member, American Association for the Advancement of Science

Commissaris, Randall: Member, Society for Neuroscience, National

Commissaris, Randall: Member, Society for Neuroscience, Michigan Chapter

Commissaris, Randall: Member, International Behavioral Neuroscience Society

Commissaris, Randall: Member, Rho Chi Pharmacy Society

Commissaris, Randall: Member, American Association of Colleges of Pharmacy

Commissaris, Randall: Member, New York Academy of Sciences

Commissaris, Randall: Member, Sigma Chi Scientific Society

Dutta, Alope: Member, American Chemical Society.

Dutta, Alope: Member, Society of Nuclear Medicine.

Dutta, Alope: Member, Society for Neuroscience

Firestine, Steven: Member, American Chemical Society, Division of Biological Chemistry, Division of Medicinal Chemistry

Iyer, Arun: Member, Molecular Therapeutics Program, Karmanos Cancer Institute, WSU School of Medicine.

Iyer, Arun: Member, WSU-Pune University, Research Collaboration and Student Review Panel.

Iyer, Arun: Member, PhD Thesis committee, NIRMA University, Ahmedabad, India.

Iyer, Arun: Member, External P&T Committee, The University of KwaZulu-Natal, South Africa

Kowluru, Anjan: Member, Selection Committee for SFRBM 2016 Lifetime Achievement Awards

Kowluru, Anjan: Member, Selection Committee for SFRBM 2016 Fellows Selection Committee

Kowluru, Anjan: Adjunct Professor, Interdisciplinary Science and Technology Research Academy, University of Pune, Pune. India

Kowluru, Anjan: Adjunct Professor, Faculty of Health Sciences, School of Biomedical Sciences at Curtin University, Perth, Western Australia

Lau, Serrine: Member, Executive Committee, HESI

Lau, Serrine: Treasurer, HESI.

Lau, Serrine: Toxicology Forum Program Planning Committee

Lau, Serrine: Chair, Symposium “Fortuitous Protein Modification in Disease Pathogenesis and Treatment”, Division of Toxicology, ASPET, San Diego April 5, 2016.

Lau, Serrine: Member, International Life Sciences Institute (ILSI) Board of Trustees.

Lau, Serrine: Vice-President, Board of Trustees, HESI.

Liu, Wanqing: Member, American Society of Human Genetics

Liu, Wanqing: Member, American Association for Cancer Research

Liu, Wanqing: Member, American Society of Clinical Oncology

Liu, Wanqing: Member, American Association for the Study of Liver Diseases

Monks, Terrence: Professor and Chair, Department of Pharmacology and Toxicology, College of Pharmacy, University of Arizona Health Sciences Center, Tucson, AZ.

Monks, Terrence: Director, ROS and Disease Prevention Research Core, Southwest Environmental Health Sciences Center.

Monks, Terrence: Associate Dean for Research & Graduate Studies, College of Pharmacy, University of Arizona Health Sciences Center, Tucson, AZ.

Monks, Terrence: Chairman, Special Emphasis Panel (ZRG1 DKUS C 54) evaluating RO1 & R21 applications responding to PAR-14-203/204 “Environmental Contributors to Autism Spectrum Disorders”

Pitts, David: Member, American Society for Pharmacology and Experimental Therapeutics

Pitts, David: Member, International Brain Research Organization

Pitts, David: Member, International Association for Great Lakes Research

Pitts, David: Member, Neurobehavioral Teratology Society

Pitts, David: Member, Society for Neuroscience

Pitts, David: Member, Society of Toxicology

Pokorski, Philip: Member, American College of Forensic Examiners

Pokorski, Philip: Member, American Association for the Advancement of Science

Pokorski, Philip: Member, American Society of Clinical Pathologists

Pokorski, Philip: Member, Michigan Academy of Physician Assistants

Pokorski, Philip: Member, Rho Chi Pharmacy Society

Pokorski, Philip: Member, Mu Omicron Pi Chapter of Kappa Psi

Stemmler, Timothy: Member, Society for Bioinorganic Chemistry

Stemmler, Timothy: Member, American Heart Association

Stemmler, Timothy: Member, American Chemical Society

Stemmler, Timothy: Member, Friedreich's Ataxia Research Alliance (FARA)
Wang, Jiemei: Member, American Heart Association
Wang, Jiemei: Member, Wound Healing Society
Wang, Jiemei: Member, American Society for Pharmacology and Experimental Therapeutics
Wang, Jiemei: Member, American Diabetes Association
Wang, Jiemei: Member, Rho Chi Pharmacy Honor Society
Yi, Zhengping: Member, American Diabetes Association
Yi, Zhengping: Member, American Society for Mass Spectrometry
Yi, Zhengping: Member, American Chemical Society

Internal (External to College)

Bhalla, Deepak: Joint appointments in Karmanos Cancer Institute, Wayne State University, Detroit, MI
Bhalla, Deepak: Non-voting Chair (Dean's Representative), Promotion and Tenure Committee, College of Pharm. & Health Sci.
Bhalla, Deepak: Committee on Academic and Professional Progress for Pharmacy students, College of Pharm. & Health Sci.
Bhalla, Deepak: Health Care Sciences Faculty Search Committee, College of Pharm. & Health Sci.
Chen, Fei: Review Committee, Geological Department
Commissaris, Randall: Associate Professor, Psychiatry and Behavioral Neurosciences (Adjunct), School of Medicine, Wayne State University.
Corcoran, George: Co-Chair, WSU Chairs and Directors Development Committee.
Corcoran, George: Member, Technology Transfer and Commercialization Review Committee
Corcoran, George: Member, OVPR Research Enhancement Program Review Panel
Corcoran, George: Member, Postdoctoral Office Advisory Board
Corcoran, George: Academic Departments and Programs Review Committee
Dutta, Alope: Member, University Advanced Patent Committee
Hirata, Fusao: Chair, WSU Radiation Safety and Radioisotope Committee.
Hirata, Fusao: Member, University Fellowship Review Committee
Iyer, Arun: Member, Molecular Imaging Program, Karmanos Cancer Institute
Iyer, Arun: Member, Molecular Therapeutics Program, Karmanos Cancer Institute
Iyer, Arun: Editorial Advisory Board Member, Current Smart Materials, Bentham Science
Iyer, Arun: Special Topics Editor, Frontiers in Pharmacology
Iyer, Arun: Mentor, AAPS WSU student Chapter
Iyer, Arun: Editorial Advisory Board Member, Current Pharmaceutical Design, Bentham Science
Iyer, Arun: Member, Summative Evaluations Committee
Iyer, Arun: Member, Health Outcome and Pharmacy Practice
Iyer, Arun: Member, PPS Facilitator
Iyer, Arun: Member, PCOA Facilitator
Kowluru, Anjan: Adjunct Professor, Institute for Environmental Health Sciences [IEHS]

Kowluru, Anjan: Professor of Internal Medicine, Division of Endocrinology and Metabolism, Wayne State School of Medicine.

Kowluru, Anjan: Associate Faculty, Department of Nutrition and Food Science

Kowluru, Anjan: Associate Faculty and Professor, Department of Surgery, Wayne State University School of Medicine

Kowluru, Anjan: Associate Faculty, Institute of Gerontology, Wayne State University

Kowluru, Anjan: Adjunct Professor, Center for Molecular Medicine and Genetics

Kowluru, Anjan: Distinguished Professor, Wayne State University

Kowluru, Anjan: Board Member, Metropolitan Detroit Research and Education Foundation [MDREF], John D. Dingell VA Medical Center, Detroit

Kowluru, Anjan: Voting Member, Detroit Research and Development Committee

Kowluru, Anjan: Voting Member, Subcommittee on Research Safety

Kowluru, Anjan: Voting Member, Institutional Biosafety Committee

Kowluru, Anjan: Member, Scientist Promotion Review Panel

Kowluru, Anjan: Voting Member, Research Review Committee

Kowluru, Anjan: Chief, Beta-Cell Biochemistry Laboratory

Kowluru, Anjan: Member, Diabetes and Obesity Team Science [DOTS] Program

Kowluru, Anjan: Acting ACOS-Research and Development, JDD VA Medical Center

Kowluru, Anjan: Research Integrity Officer, JDD VA Medical Center

Kowluru, Anjan: Secretary/Treasurer [acting], Metropolitan Detroit Research and Education Foundation [MDREF], John D. Dingell VA Medical Center, Detroit

Kowluru, Anjan: Deputy ACOS-Research

Kowluru, Anjan: Member, Outstanding Graduate Mentor Award and the Distinguished Graduate Faculty Award Selection Committee, Graduate School, Wayne State University

Kowluru, Anjan: Judge, Graduate and Post-Doctoral Research Symposium, Wayne State University

Kowluru, Anjan: Vice President [President Elect], Academy of Scholars, Wayne State University

Pitts, David: Co-Director, Urban Watershed Environmental Research Group (UWERG).

Pitts, David: Member, Healthy Urban Waters (HUW) Advisory Board

Stemmler, Timothy: Stanford Synchrotron Radiation Lightsource User's Executive Committee, Stanford University, Palo Alto, CA

Stemmler, Timothy: Brookhaven National Laboratory/Case Western Reserve P30 Advisory Committee

Stemmler, Timothy: Faculty Mentoring Committee, Department of Chemistry, College of Charleston, Charleston, SC

Stemmler, Timothy: Asst. Dean of Grad School, Assoc. Dir of Postdoctoral Studies

Stemmler, Timothy: Director of Postdoctoral Office, WSU

Stemmler, Timothy: Associate Chair of Pharmaceutical Sciences, Wayne State University

Stemmler, Timothy: Member, University Budget Committee, Wayne State University

Stemmler, Timothy: Member, University Core's Oversight Committee, Wayne State University

Stemmler, Timothy: Member, Masters of Public Health Advisory Committee, Wayne State University

Stemmler, Timothy: Member, Library Committee, Wayne State University
Stemmler, Timothy: Member, PhD Advisory Committee, Wayne State University
Stemmler, Timothy: Member, University Core Committee, Wayne State University
Stemmler, Timothy: Member, Research Procurements Committee, Wayne State University
Stemmler, Timothy: Member, Research Grant Review Committee, Wayne State University

IX. Scientific Review Panels

Bhalla, Deepak: Member, National Research Council Committee on Toxicology
Chen, Fei: External Assessor of Research Grants Council of Hong Kong
Chen, Fei: Reviewer, the Israel Science Foundation
Chen, Fei: Reviewer, National Medical Research Council of Singapore
Chen, Fei: Reviewer, Italian Ministry of Health in association with NIH
Chen, Fei: Reviewer, NIH ZCA1 SRB-5 (O2) S NCI Clinical and Translational R21 and Omnibus R03: SEP-5, Bethesda, MD
Chen, Fei: NIH ZES1 LAT-D (K2) 1 SEP for K01, K02, K08, K23, NIEHS, Research Triangle Park, NC
Chen, Fei: NIH SIEE Study Section, Ad Hoc
Chen, Fei: NIH ZES1 LAT-S (K8), NIEHS Special Emphasis Panel
Chen, Fei: DoD 2017 CDMRP PRMRP Focused Program – Metals Toxicology
Commissaris, Randall: Member Addiction Research Institute of Michigan.
Commissaris, Randall: American Society for Pharmacology and Therapeutics (ASPET)
Dutta, Alope: Ad hoc member of NIH ZRG1 MDCN-C (94) “Drug Discovery for the Nervous System”
Dutta, Alope: Ad hoc committee member of NIH DDNS “Drug Discovery for the Nervous System” Reviewer of research proposals, Parkinson’s UK Foundation
Dutta, Alope: Ad hoc committee member of NIH ZRG1BCMB-G (50) “Chemical Discovery for Substance Use Disorders”
Dutta, Alope: Ad hoc committee member of NIH ETTN-D Special Emphasis Panel
Firestine, Steven: Grant Reviewer, National Institutes of Health, MSFA
Firestine, Steven: Grant Reviewer, National Institutes of Health, ZRG1 IDM-X(10)B.
Firestine, Steven: Chair, National Institutes of Health
Hirata, Fusao: Member, National Foundation of Sciences (USA) Scientific Council.
Hirata, Fusao: National Institutes of Health, Ad hoc Reviewer.
Hirata, Fusao: Member, North Atlantic Treaty Organization Scientific Council.
Hirata, Fusao: Member, Neurological Sciences, NIH Study Section 1988
Hirata, Fusao: Member, Veterans Administration, Medical Sciences
Iyer, Arun: Grant Reviewer, Cancer Research UK
Iyer, Arun: Grant Reviewer, Health Research Council of New Zealand
Iyer, Arun: Grant Reviewer, University of Missouri Research Board
Iyer, Arun: Member, American Association of Pharmaceutical Scientists (AAPS)
Iyer, Arun: Member, American Chemical Society (ACS)

Iyer, Arun: Member, American Association of Colleges of Pharmacy (AACP)
Iyer, Arun: Member, Society of Nuclear Medicine (SNM)
Iyer, Arun: Member, The Controlled Release Society (CRS)
Iyer, Arun: Member, Japanese Society of Drug Delivery System (DDS)
Iyer, Arun: Member, Society of Polymer Science, Japan (SPSJ)
Iyer, Arun: Member, Society of Polymer Science, India (SPSI)
Iyer, Arun: Member, Society of Molecular Imprinting, Sweden (SMI)
Kowluru, Anjan: Member, Center for Urban Resources to Environmental Stressors [CURES], Wayne State University
Kowluru, Anjan: Member, Advisory Committee for the Annual Research Day Symposium on “Precision translational medicine for improving veteran’s health care” held at Harry S. Truman Veterans Hospital, Columbia in May 2016
Kowluru, Anjan: Member, American Society for Experimental Biology and Medicine
Kowluru, Anjan: Member, American Diabetes Association
Kowluru, Anjan: Member, American Diabetes Association-Complications Interest Group
Kowluru, Anjan: Member, American Diabetes Association-Nutritional Sciences and Metabolism Group
Kowluru, Anjan: Member, Endocrine Society
Kowluru, Anjan: Member, European Association for the Study of Diabetes
Kowluru, Anjan: Member, European Association for the Study of Diabetes Islet Study Group.
Kowluru, Anjan: Member, European Association for the Study of Diabetes
Kowluru, Anjan: Life member, Atherosclerosis Society-India
Kowluru, Anjan: Member, Association for Research in Vision and Ophthalmology
Kowluru, Anjan: Life Member, Research Society for the Study of Diabetes-India
Kowluru, Anjan: Life Member, Free Radical Society-India
Kowluru, Anjan: Member, American Society of Cell Biology
Kowluru, Anjan: Member, American Physiological Society
Kowluru, Anjan: Member, Islet Society, Stockholm
Kowluru, Anjan: Member, Society for Free Radical Biology and Medicine
Kowluru, Anjan: Member, American Association of Pharmaceutical Sciences
Kowluru, Anjan: Member, AAPS-Clinical Pharmacology and Translational Research Section
Kowluru, Anjan: Member, AAPS-Drug Discovery and Development Interface Section
Kowluru, Anjan: Member, International Society for Eye Research
Kowluru, Anjan: Member, American Heart Association
Kowluru, Anjan: Recognized Reviewer, Biochemical Pharmacology
Kowluru, Anjan: Board Member, Metropolitan Detroit Research and Education Foundation [MDREF], John D. Dingell VA Medical Center, Detroit
Liu, Wanqing: Full member, study section, NIH ZRG1 F06 A Review Panel
Moszczyńska, Anna: Member, Society for Neuroscience (SfN)
Moszczyńska, Anna: Member, International Brain Organization (IBRO)
Moszczyńska, Anna: Member, American Society for Pharmacology and Experimental Therapeutics (ASPET)
Moszczyńska, Anna: Member, American Association of Colleges of Pharmacy (AACP)

Moszczynska, Anna: Member, International Society for Neurochemistry (ISN)
Moszczynska, Anna: Member, The Rho Chi Society
Moszczynska, Anna: Member, Society for Neuroscience Michigan Chapter (MiSfN)
Moszczynska, Anna: Member, Society for Toxicology (SOT)
Stemmler, Timothy: Grant Reviewer, NIH – ZRG1 BCMB-D (02)M Special Emphasis Panel
Stemmler, Timothy: Grant Reviewer, NSF – Biomolecules Study Section (Ad Hoc).
Stemmler, Timothy: Grant Reviewer, Friedreich’s Ataxia Research Alliance (Ad Hoc).
Stemmler, Timothy: Grant Reviewer, Reviewer, Petroleum Research Fund (Ad Hoc).
Stemmler, Timothy: Grant Reviewer, Stanford Synchrotron Radiation Laboratory.
Yi, Zhengping: Member, American Diabetes Association's Research Grant Review Committee.
Yi, Zhengping: Member, NIH/NIDDK, Clinical and integrative Diabetes and Obesity (CIDO) Study Section.

X. Editorial Boards

Bhalla, Deepak: Editorial Board Member, Journal of Toxicology and Environmental Health
Bhalla, Deepak: Associate Editor, Inhalation Toxicology
Chen, Fei: Senior Editorial Board Member, American Journal of Cancer Research.
Chen, Fei: Editorial Board Member, Journal of Cancer Therapeutics and Research.
Chen, Fei: Editorial Board Member, Occupational Diseases and Environmental Medicine.
Chen, Fei: Editorial Board Member, Journal of Hepatocellular Carcinoma.
Chen, Fei: Editorial Board Member, Annals of Cancer Research.
Chen, Fei: Editorial Board Member, International Journal of Respiratory and Pulmonary Medicine.
Chen, Fei: Editorial Board Member, Toxicology and Applied Pharmacology.
Chen, Fei: Editorial Board Member, Scientific Reports
Corcoran, George: Editor, Journal of Pharmaceutical Sciences and Pharmacology.
Corcoran, George: Editor, MO Journal Toxicology.
Corcoran, George: Associate Editor, Toxicology and Applied Pharmacology.
Corcoran, George: Guest Editor, Toxicology and Applied Pharmacology
Dutta, Alope: Honorary Editorial Board Member, Research and Reports in Medicinal Chemistry.
Dutta, Alope: Editorial Board Member, Current Medicinal Chemistry-Central Nervous System.
Dutta, Alope: Editorial Board Member, The Open Bioactive Compounds Journal.
Dutta, Alope: Editorial Board Member, Pharmaceutics.
Dutta, Alope: Editorial Board Member, Journal of Drug Discovery, Development and Delivery.
Dutta, Alope: Editorial Board Member, Neurotransmitter.
Firestine, Steven: Editorial Board Member, ACS Combinatorial Science.
Hirata, Fusao: Editorial Board Member, DNA and Biology.
Hirata, Fusao: Editorial Board Member, Journal of System Biology.
Hirata, Fusao: Editorial Board Member, International Journal of Clinical Pharmacology and Toxicology.
Hirata, Fusao: Editorial Board Member, SOJ Pharmacy & Pharmaceutical Sciences.

Hirata, Fusao: Editorial Board Member, Versita in Medicine, Pharmacy and Public Health.
Hirata, Fusao: Editorial Board Member, Austin Journal of Pharmacology and Therapeutics.
Hirata, Fusao: Editorial Board Member, J. Pharmacology Toxicology Research.
Iyer, Arun: Editorial Board Member, Annals of Pharmacology and Pharmaceutics Journal.
Iyer, Arun: Editorial Board Member, The Scientific Pages of Pancreatic Cancer Journal.
Iyer, Arun: Editorial Board Member, The Scientific Pages of Pharmacology and Pharmaceutical Science Journal.
Iyer, Arun: Editorial Board Member, The Scientific Pages of Nanotechnology.
Kowluru, Anjan: Editorial Board Member, Recent Patents on Endocrine, Metabolic and Immune Drug Discovery.
Kowluru, Anjan: Editorial Board Member, Biochemical Pharmacology.
Kowluru, Anjan: Editorial Board Member, Metabolic & Functional Research on Diabetes.
Kowluru, Anjan: Editorial Board Member, Islets.
Kowluru, Anjan: Editorial Board Member, JOP- Journal of Pancreas.
Kowluru, Anjan: Editorial Board Member, Journal of Membrane Science and Technology.
Kowluru, Anjan: Editorial Board Member, Journal of Diabetes and Metabolism.
Kowluru, Anjan: Editorial Board Member, OA Diabetes [London].
Kowluru, Anjan: Review Editor, Frontiers in Diabetes.
Kowluru, Anjan: Editorial Board Member, International Journal of Diabetology and Vascular Disease Research.
Kowluru, Anjan: Regional Editor, Recent Patents on Endocrine, Metabolic and Immune Drug Discovery.
Merkel, Olivia: Editorial Board Member, Drug Delivery Letters.
Merkel, Olivia: Editorial Board Member, European Journal of Pharmaceutics and Biopharmaceutics.
Monks, Terrence: Editorial Board Member, Chemical-Biological Interactions.
Monks, Terrence: Associate Editor - Toxicology & Applied Pharmacology.
Moszczyńska, Anna: Editorial board member, Scientific Reports (Nature Publishing Group)
Wang, Jiemei: Editorial Board Member, Archives of Biochemistry and Biophysics
Wang, Jiemei: Editorial Board Member, Scientific Report
Wang, Jiemei: Editorial Board Member, Human and Experimental Toxicology
Wang, Jiemei: Editorial Board Member, Kidney & Blood Pressure Research
Wang, Jiemei: Editorial Board Member, PLOS One
Wang, Jiemei: Editorial Board Member, International Journal of Molecular Science
Wang, Jiemei: Editorial Board Member, Journal of Human Hypertension
Wang, Jiemei: Editorial Board Member, Stem Cell Research & Therapy
Wang, Jiemei: Editorial Board Member, Advances in Pharmacological Sciences
Yi, Zhengping: Editorial Board Member, Journal of Proteomics & Bioinformatics.
Yi, Zhengping: Editorial Board Member, Journal of Data Mining in Genomics & Proteomics.
Yi, Zhengping: Editorial Board Member, International Journal of Clinical Pharmacology and Toxicology.

XI. Grants Awarded (Summarized in Table 1)

Federal

Chen, Fei: NIH 1R01 ES028263-01 Titled “Reduced reactive oxygen species and oxidative phosphorylation in arsenic-induced cancer stem cells”

Chen, Fei: NIH R01 ES020137 Titled “MicroRNA-190 and Oxidative Stress in Arsenic Carcinogenesis”

Chen, Fei (Co-I; Runge-Morris PI): NIH 1P30 ES020957 Titled “The Center for Urban Responses to Environmental Stressors (CURES)”

Commissaris, Randall (Dunbar PI): NIH (S06GM08167) Titled “MBRS/IMSD program at Wayne State University”

Firestine, Steve: NIH, NIAID, R01AI109139 Titled “Prophylaxis of Clostridium difficile infection”

Iyer, Arun (Co-I Amiji): NCI/NIH 1R21CA179652-01A1 Titled “Targeted Platinates/siRNA Combination Therapy for Resistant Lung Cancer”

Kowluru, Anjan: Department of VA MERIT Review 1O1BX00281 Titled “Novel Regulators of Islet Beta-Cell Function in Health and Diabetes”.

Kowluru, Anjan: Department of VA Senior Research Career Scientist Award 13S-RCS-006

Kowluru, Anjan: NIH RO1EY022230 titled “NADPH Oxidase, Mitochondrial Dysfunction and Diabetic Retinopathy”.

Kowluru, Anjan: NIH RO1EY022230 [supplemental award] titled “NADPH Oxidase, Mitochondrial Dysfunction and Diabetic Retinopathy”.

Kowluru, Anjan: Shared Equipment [ShEEP] Award from VA to purchase Vevo 3100 Ultrasound instrument.

Kowluru, Anjan: VA Merit Award [101BX002019] Titled “Diabetes: ERK5 and Vascular Inflammation”

Liu, Wanqing (PI: Crabb/Chalasan): NIAAA U01 (AA021840) Titled “Translational Research and Evolving Alcoholic hepatitis Treatment (TREAT-IU)”

Liu, Wanqing NIH/NIDDK R01 Titled “Role of fatty acid desaturase 1 (FADS1) gene variants and nonalcoholic fatty liver disease (NAFLD)”

Liu, Wanqing (PI Renbarger): NIH/NICHD U54 Titled “Genetic and Ontogenic Determinants for Pharmacogenes Expression in Children Livers”

Liu, Wanqing (PI: Zhang): NIH R25 Titled “Big Data Training for Translational Omics Research”

Liu, Wanqing (PI: Zhang): NIH R25 (Administrative Supplement) Titled “Big Data Training for Translational Omics Research”

Moszczynska, Anna: NIH R01DA034783 Titled “Proteasome and Parkin as Drug Targets Against Methamphetamine Toxicity”

Pitts, David: NSF-FSML 1624761, Co-PI, “HEART Field Station Improvements for Urban Watershed Research and Education”

Pitts, David: NIH R21- ES027199, Co-PI, Project Titled: “Rapid response to contaminants in Flint drinking water”

Stemmler, Timothy: NIH R01 GM107542 Titled “Mitochondria Cytoplasm Interaction for Cytosolic Fe-S Cluster Assembly”

Stemmler, Timothy: NIH R01 DK068139 Titled “Structural Insights into the Function of Frataxin”

Stemmler, Timothy: NIH F30 DK101230 Titled “Characterizing Isu Scaffolding Protein and ISC Multiprotein Complex Structure and Function In Vitro”

Wang, Jiemei: NIH DK109036 Titled “Role of Inositol requiring enzyme 1 in regulating angiogenesis for diabetic wound repair”

Yi, Zhengping (Kowluru Co-I): NIH R01DK081750 Titled “Human Skeletal Muscle Proteome and Phosphoproteome in Obesity and Type 2 Diabetes”

Yi, Zhengping (Kowluru Co-I): NIH R01DK107666 Titled “Serine/threonine Protein Phosphatase 1 in Insulin resistance and Type 2 Diabetes”

Foundation

Firestine, Steve: President’s Research Enhancement Award Titled “Urban Center for Antimicrobial Resistance, Discovery, Education and Stewardship (UCARDES)”

Commissaris, Randall: Lear Corporation (Research Contract; Lear Corporation) Titled “Lear’s Dynamic Rear Impact Injury Mitigation Device: Driving Simulator Studies”

Iyer, Arun: ACS-IRG# 14-238-06 Titled “Polymer-lipid Hybrid Theranostic Nanoparticles for Targeted Cancer Therapy”

Kowluru, Anjan: Department of Veterans Affairs. Senior Research Career Scientist Award

Kowluru, Anjan: Department of VA Titled “Diabetes: ERK5 and Vascular Inflammation”

Liu, Wanqing: CURES Pilot Grant Titled “Heavy Metals and Nonalcoholic Fatty Liver Disease”

Liu, Wanqing (PI Overholser): “IUSM Center of Excellence in Cardiovascular Research”

Liu, Wanqing Indiana CTSI-CTR Titled “A Precision Therapeutic Approach for Nonalcoholic Steatohepatitis (NASH)”

Liu, Wanqing (PI: Overholser): Indiana CTSI-CTR Titled “Calcium-dependent transcriptional regulation of KCNH2”

Liu, Wanqing (PI: Overholser): American Heart Association Titled “Pathophysiological regulation of KCNH2 in heart failure”

Pitts, David (PI Tracie Baker): CURES grant (internal) Titled “The use of novel assay systems to evaluate cardiac, reproductive, and neurobehavioral effects of volatile organic chemicals (VOCs) in aquatic model organisms”

Pitts, David: Seed Grants for Project Development (Internal) Titled “Emerging and endocrine disrupting chemicals in Detroit drinking water”

Wang, Jiemei: American Heart Association 13SDG16930098 Titled “MicroRNA regulation of endothelial progenitor cell apoptosis in diabetic wound healing”

Qin, Zhihui: Department of Defense Prostate Cancer Research Program Idea Development Award for New Investigator Titled “Targeting prostate cancer cells by combined androgen receptor antagonism and oxidative stress induction”

Yi, Zhengping: American Diabetes Association 300385387 Titled “Protection against insulin resistance in obesity”

Zhang, Xiangmin: MDRC Titled “Recombinant attenuated bacteria as drug to initiate insulin synthesis in vivo”

University/College

Firestine, Steve: University of Las Vegas Titled “Prophylaxis of Clostridium difficile infection”

Firestine, Steve: Karmanos Cancer Center Titled “Development of Potent Small Molecule Inhibitors Targeting Rad6, a Principal Component of the Translesion DNA Synthesis Pathway”

Iyer, Arun: Faculty Research Award Program (FRAP) Titled “Polymeric Nanoparticles for Co-Delivery of Anti-infective Agents for Treating Bacterial Drug Resistance”

Liu, Wanqing Purdue MCMP: Role of Genetic Changes in Fatty Acid Desaturase Levels in Parkinson’s Disease

Moszczynska, Anna: GRA Award Titled “The role of striatal parkin in methamphetamine neurotoxicity and methamphetamine addiction”.

Moszczynska, Anna (Co-PI: Burghardt): FRAP Collaborative Research Award Titled “The role of transposable elements in neurotoxic effect of chronic methamphetamine”

Table 1: PSC Grant Detailed Information (*Total Award)

PSC Faculty	Sponsor	Grant Title	Start Date	End Date	Project Amount*
Chen, Fei	NIH	<i>MicroRNA-190 and Oxidative Stress in Arsenic Carcinogenesis</i>	9/1/12	5/31/17	\$2,048,592
Chen, Fei	NIH	<i>Reduced reactive oxygen species and oxidative phosphorylation in arsenic-induced cancer stem cells</i>	08/15/2017	06/30/2022	\$1,686,385
Chen, Fei	NIH	<i>The Center for Urban Responses to Environmental Stressors (CURES)</i>	04/01/2017	03/30/2022	\$7,500,000
Commissaris, Randall	NIH	<i>MBRS/IMSD program at Wayne State University</i>	04/01/2015	03/31/2019	\$4,834,311
Commissaris, Randall	Lear Corporation	<i>Lear’s Dynamic Rear Impact Injury Mitigation Device: Driving Simulator Studies</i>	09/01/2017	08/31/2018	\$109,634
Dutta, Alope	NYU	<i>Biogenic Amine Transporters: Mechanisms of Ligand Interactions</i>	4/1/16	3/31/17	\$20,000
Firestine, Steve	NIH/NIAID	<i>Prophylaxis of Clostridium difficile infection</i>	12/1/14	11/30/19	\$1,308,864

Firestine, Steve	President's Research Enhancement Award	<i>Urban Center for Antimicrobial Resistance, Discovery, Education and Stewardship (UCARDES)</i>	11/1/2015	10/31-2018	\$892,296
Firestine, Steve	Karmanos Cancer Center	<i>Development of Potent Small Molecule Inhibitors Targeting Rad6, a Principal Component of the Translesion DNA Synthesis Pathway</i>	11/1/2016	9/30/2018	\$50,000
Iyer, Arun	NCI/NIH	<i>Targeted Platinates/siRNA Combination Therapy for Resistant Lung Cancer</i>	04/2014	03/2017	\$77,806
Iyer, Arun	ACS	<i>Polymer-lipid Hybrid Theranostic Nanoparticles for Targeted Cancer Therapy</i>	09/01/2017	08/31/2018	\$30,000
Kowluru Anjan	VA	<i>Novel Regulators of Islet Beta-Cell Function in Health and Diabetes</i>	7/1/15	6/30/19	\$650,000
Kowluru Anjan	VA	<i>Senior Research Career Scientist Award</i>	9/1/13	8/31/20	\$1,320,000
Kowluru Anjan	NIH	<i>NADP Oxidase, Mitochondrial Dysfunction and Diabetic Retinopathy</i>	4/1/12	3/31/18	\$1,520,000
Kowluru Anjan	NIH	<i>NADP Oxidase, Mitochondrial Dysfunction and Diabetic Retinopathy [Administrative Supplement]</i>	4/1/12	3/31/18	\$50,500
Kowluru Anjan [Co-I]	VA-Merit	<i>Diabetes: ERK5 and Vascular Inflammation</i>	10/1/14	9/30/18	\$1,113,000

Kowluru Anjan [Co-I]	VA-ShEEP	<i>Vevo 3100 Ultrasound Instrument</i>	2016	Not applicable	\$556,000
Liu, Wanqing	NIH/NIDDK	<i>Role of fatty acid desaturase 1 (FADS1) gene variants and nonalcoholic fatty liver disease (NAFLD)</i>	09/22/2016	07/31/2021	\$1,912,508
Moszczynska, Anna	NIH	<i>Proteasome and Parkin as Drug Targets Against Methamphetamine Toxicity</i>	9/15/13	5/31/18	\$2,029,580
Pitts, David	NIH	<i>Rapid response to contaminants in Flint drinking water</i>	4/1/16	3/31/18	\$422,110
Pitts, David	NSF	<i>HEART Field Station Improvements for Urban Watershed Research and Education</i>	8/1/16	1/31/18	\$251,996
Stemmler, Timothy	NIH	<i>Structural Insights into the Function of Frataxin</i>	8/1/11	7/31/16	\$1,995,386
Stemmler, Timothy	NIH	<i>Mitochondria Cytoplasm Interaction for Cytosolic Fe-S Cluster Assembly</i>	7/1/14	4/30/17	\$79,637
Stemmler, Timothy	NIH	<i>Characterizing Isu Scaffolding Protein and ISC Complex Structure and Function In Vitro</i>	8/1/14	7/31/19	\$281,534
Wang, Jiemei	NIH	<i>Role of Inositol requiring enzyme 1 in regulating angiogenesis for diabetic wound repair</i>	3/1/16	2/28/21	\$1,702,343
Wang, Jiemei	AHA	<i>MicroRNA regulation of endothelial progenitor cell apoptosis in diabetic wound healing</i>	7/1/13	6/30/17	\$231,000
Yi, Zhengping	NIH	<i>Serine/threonine Protein Phosphatase</i>	9/25/15	8/31/20	\$2,583,325

		<i>1 in Insulin resistance and Type 2 Diabetes</i>			
Yi, Zhengping	NIH	<i>Human Skeletal Muscle Proteome and Phosphoproteome in Obesity and Type 2 Diabetes</i>	8/1/14	4/30/18	\$1,349,133
Yi, Zhengping	ADA	<i>Protection against insulin resistance in obesity</i>	1/1/16	12/31/18	\$148,158
Zhang, Xiangming	NIH	<i>Recombinant attenuated bacteria as drug to initiate insulin synthesis in vivo</i>	12/1/16	11/30/17	\$36,000

XII. Invited Presentations

Chen, Fei: Environmental arsenic and metabolic reprogramming in cancer stem cells.

Department of Pharmaceutical Sciences, South Dakota State University

Chen, Fei: Mdig and cancer, 20 years of mining and digging. Fudan University-Wayne State University Colloquium in translational sciences: Genetic and epigenetic modulations of cancer

Dutta, Alope: A novel iron (ii) preferring dopamine agonist chelator d-607 significantly suppresses α -syn- and MPTP-induced toxicities in vivo. The 13th International Conference on Alzheimer's & Parkinson's, Vienna, Austria.

Dutta, Alope: Multifunctional dopamine agonist as potential symptomatic and neuroprotective treatment agents for Parkinson's disease. ACS 2017 Central Regional Meeting.

Firestine, S.M.: Spores and Purines: Developing New Antibacterial Agents. Department of Pharmacology, Michigan State University, East Lansing

Kowluru, Anjan: "Beta-Cell Signaling Revisited" to be held in St Jean Cap Farrat, France in 18th Servier-IGIS Symposium

Liu, Wanqing: Nonalcoholic Fatty Liver Disease: Genetics, Genomics and Precision Medicine. Department of Biochemistry and Molecular Biochemistry, Wayne State University

Liu, Wanqing: Nonalcoholic Fatty Liver Disease: Genetics, Genomics and Precision Medicine. CMMG, Wayne State University

Liu, Wanqing: Nonalcoholic Fatty Liver Disease: Genetics, Genomics and Precision Medicine. Genomics@Wayne., Wayne State University

Liu, Wanqing: Germline Genetics of Somatic Mutations in Non-Small Cell Lung Cancer. Cancer Center, Sun Yat Sen University, Guangzhou, China

Liu, Wanqing: Diagnosis and Therapy in the Era of Precision Medicine. Shanghai Children's Hospital. Shanghai, China

Moszczynska, Anna: Department of Pharmacology and Experimental Therapeutics, College of Pharmacy and Pharmaceutical Sciences, University of Toledo, Toledo, Ohio, USA

Moszczynska, Anna: Faculty of Science University of Waterloo, School of Pharmacy, Kitchener, Ontario, Canada

Stemmler, Timothy: International Conference on the Global Perspectives on Multidisciplinary Approaches in Pharmaceutical Sciences, IPS Academy, Indore, MP, India, Keynote Speaker

Stemmler, Timothy: Molecular Factors that Drive Mitochondrial Fe-S Cluster Biosynthesis, Department of Biological Sciences, University of Michigan, Dearborn, Michigan

Stemmler, Timothy: Molecular Factors that Drive Mitochondrial Fe-S Cluster Biosynthesis, Canadian Conference for Bioinorganic Chemistry, Parry Sound, Canada

Stemmler, Timothy: Responsible Conduct of Research Program to Meet All Students' Needs, Midwest Association of Graduate Schools, Indianapolis, IN

Wang, Jiemei: Seminar, Department of Anatomy and Cell Biology, Wayne State University School of Medicine, Detroit, MI

Yi, Zhengping: Proteomics discovery of abnormal tyrosine phosphorylation events in type 2 diabetes, Metabolism Monthly Meeting, Center for Integrative Metabolic and Endocrine Research (CIMER), SOM

XIII. Journal Publications

Kumar SA, Thakur C, Li L, Cui H, **Chen F***. Pathological and prognostic role of mdig in pancreatic cancer. *Genes & Cancer*, 8: 650-658, **2017**

Zhang D, Wang F, Pang Y, Zhao E, Zhu S, **Chen F***, Cui H*. ALG2 regulates glioblastoma cell proliferation, migration and tumorigenicity. *Biochem Biophys Res Commun*. 486:300-306, **2017**

Li L, Chen F*. Arsenic and SUMO wrestling in protein modification. *Cell Cycle*, 16: 913-914, **2017**

Das, B., Kandegedara, A., Xu, L., Antonio, T., Stemmler, T., Reith, MEA., **Dutta, AK**. A Novel Iron (II) Preferring Dopamine Agonist Chelator as Potential Symptomatic and Neuroprotective Therapeutic agent for Parkinson's Disease. *ACS Chem Neurosci*, 8(4):723-730, **2017**.

Singh, SK., **Dutta, A.**, Modi, G. Alpha-synuclein aggregation modulation: An emerging approach for the treatment of Parkinson's disease. Invited Review, *Future Medicinal Chemistry*, 9(10):1039-1053, **2017**.

Das, B., Rajagopalan, S., Joshi, GS., Xu, L., Luo, D., Todi, SV., Andersen, JK., **Dutta, AK**. A novel iron (II) preferring dopamine agonist chelator D-607 significantly suppresses α -Syn- and MPTP-induced toxicities in vivo. *Neuropharmacology*, 123, 88-99, **2017**.

Lindenbach, D., Das, B., Conti, MM., Meadows, S., **Dutta, AK.**, Bishop, C. D-512, a novel dopamine D2 / D3 receptor agonist, demonstrates superior anti-parkinsonian efficacy over ropinirole in parkinsonian rats. *British Journal of Pharmacology*, 174(18):3058-3071, **2017**.

Amjad, MW., Kesharwani, P., Amin, MCIM., **Iyer, AK***. Recent advances in the design, development, and targeting mechanisms of polymeric micelles for delivery of siRNA in cancer therapy. *Progress in Polymer Science.*, 64:154-181, **2017**.

Luong, D., Sau, S., Kesharwani, P., **Iyer, AK***. Polyvalent Folate-Dendrimer-Coated Iron Oxide Theranostic Nanoparticles for Simultaneous Magnetic Resonance Imaging and Precise Cancer Cell Targeting. *Biomacromolecules.*, 18 (4), 1197-1209, **2017**.

Sahu, P., Kashaw, SK., Jain, S., Sau, S., **Iyer, AK***. Assessment of penetration potential of pH responsive double walled biodegradable nanogels coated with eucalyptus oil for the controlled delivery of 5-fluorouracil: In vitro and ex vivo studies. *Journal of Controlled Release.*, 253, 122-136, **2017**.

Luong, D., Kesharwani, P., Alsaab, HO., Sau, S., Padhye, S., Sarkar, FH., **Iyer, AK**. Folic acid conjugated polymeric micelles loaded with a curcumin difluorinated analog for targeting cervical and ovarian cancers. *Colloids and Surfaces B: Biointerfaces*, 157: 490-502, **2017**.

Sahu, P., Kashaw, SK., Kushwaha, V., Jain, S., **Iyer, AK**. pH Responsive biodegradable nanogels for sustained release of bleomycin. *Bioorganic & Medicinal Chemistry*, **2017**.

Gorain, B., Tekade, M., Kesharwani, P., **Iyer, AK**, Kalia, K., Tekade, RK.. The use of nanoscaffolds and dendrimers in tissue engineering. *Drug Discovery Today*, **2017**.

Sharma, AK., Gothwal, A., Kesharwani, P., Alsaab, H., **Iyer, AK**, Gupta, U. Dendrimer Nano-Architectures for Cancer Diagnosis and Anticancer Drug Delivery. *Drug Discovery Today*, 22 (2), 314-326, **2017**.

Alsaab, H., Alzhrani, R., Kesharwani, P., Sau, S., Boddu, SHS., **Iyer, AK***. Folate Decorated Nanomicelles Loaded with a Potent Curcumin Analogue for Targeting Retinoblastoma. *Pharmaceutics*. 9 (2), 15, **2017**.

Gawde, K., Kesharwani, P., Sau, S., Sarkar, FH., Padhye, S., Kashaw, SK., **Iyer, AK***. Synthesis and Characterization of Folate Decorated Albumin Bio-conjugate Nanoparticles loaded with a Synthetic Curcumin Difluorinated Analogue. *Journal of Colloid and Interface Science*, 496, 290-299, **2017**.

Tatiparti, K., Gawde, KA., Alasab, H., Sau, S., Kashaw, SK., Kesharwani, P., **Iyer, AK**. Pancreatic Cancer – The Role of Hypoxia. *The Scientific Pages of Pancreatic Cancer*, **2017**.

Tatiparti, K., Sau, S., Kashaw, SK., **Iyer, AK***. siRNA Delivery Strategies: A Comprehensive Review of Recent Developments. *Nanomaterials*, 7 (4), 77, **2017**.

Kashaw, SK., **Iyer, AK***. Biodegradable Topical Nanogels in the Treatment of Skin and Superficial Tumors. *Global Journal of Nanomedicine*. 1(2): GJO.MS.ID.555552, **2017**.

Kowluru A. Tiam1/Vav2-Rac1 axis: A tug-of-war between islet function and dysfunction. *Biochemical Pharmacology* 132:9-17, [PMID: 28202288], **2017**.

Sidarala V., **Kowluru A**. Exposure to chronic hyperglycemic conditions results in Ras-related C3 botulinum toxin substrate 1 [Rac1]-mediated activation of p53 and ATM kinase in pancreatic β -cells. *Apoptosis* 22: 597-607, [PMID: 28220272], **2017**.

Kowluru A. Inappropriate movement of Rac1 contributes to glucotoxicity of the islet β -cell. *Cell Cycle* 16:1387-1388, [PMID: 28723259], **2017**.

Kowluru A. Role of G-proteins in islet function in health and diabetes. *Diabetes, Obesity and Metabolism* 19 [supplement 1] 63-75, [PMID: 28880478], **2017**.

Syeda GK, **Kowluru A**. Pharmacological inhibition of prenylation promotes caspase 3 activation, lamin B degradation and induces loss in metabolic cell viability in pancreatic beta-cells. *Cell Physiol Biochem* 43: 1052-1063, [PMID: 28968609], **2017**.

Tricò D, Di Sessa A, Caprio S, Chalasani N, **Liu W**, Liang T, Graf J, Herzog RI, Johnson CD, Umamo GR, Feldstein AE, Santoro N. Oxidized Derivatives of Linoleic Acid in Pediatric Metabolic Syndrome: Is Their Pathogenic Role Modulated by the Genetic Background and the Gut Microbiota? *Antioxid Redox Signal*. **2017**.

Zheng G, Zhang Z, Liu H, Xiong Y, Luo L, Jia X, Peng C, Zhang Q, Li N, Gu Y, Lu M, Song Y, Pan H, Liu J, *, **Liu W** He Z*. HSP27-mediated Extracellular and Intracellular Signaling Pathways Synergistically Confer Chemo-Resistance in Squamous Cell Carcinoma of Tongue. *Clin Cancer Res*. **2017**

Munoz, F.M., Zhang, F., Islas-Robles, A., Lau, S.S., **Monks, T.J.** ROS-induced store-operated Ca²⁺ entry coupled to PARP-1 hyperactivation is independent of PARG activity in necrotic cell death. *Tox Sci.*, 158, 444-453, PMID 28525621, **2017**.

Sapiro, J.M., Lau, S.S., **Monks, T.J.** Activation of p-ERK initiates all-trans retinoic acid-mediated cytoprotection in renal epithelial cells. *Am J Physiol. Renal Physiol*, 313, F1200-F1208, PMID 28768661, **2017**.

Li, H., Wang, Y., Fu, Z., **Monks, T.J.**, Chen, A., and Wang, J-M. MiR-27b augments bone marrow progenitor cell survival via suppressing the mitochondrial apoptotic pathway in type 2 diabetes. *Am J Physiol. Endocrinology & Metab.*, 313, E391-E401, PMID 28698281, **2017**.

Feldmann, D.P., Xie, Y, Jones, S.K., Yu, D., **Moszczynska, A.** and Merkel, O.M. The impact of microfluidic mixing of triblock micelleplexes on in vitro/in vivo gene silencing and intracellular trafficking. *Nanotechnology* 28; 224001, **2017**.

Rhinesmith, T.*, Killinger, B.A.*, Sharma, A.*, **Moszczynska, A.** Multimer-PAGE: A method for capturing and resolving protein complexes in biological samples. *J Vis Exp* 123, **2017**.

Moszczynska, A. Burghardt, K. and Yu, D.* Neurotoxic Doses of Chronic Methamphetamine Trigger Retrotransposition of Identifier Element in Rat Dorsal Dentate Gyrus. *Genes* 8; pii: E96. **2017**.

Moszczynska, A., Callan, S.P. Molecular, Behavioral and Physiological Consequences of Methamphetamine Neurotoxicity: Implications for Treatment. A review. *JPET* 362:474-88. Review., **2017**.

Flack, A., Persons, A.L., Kousik, S.M., Napier, T.C., **Moszczynska, A.** Self-Administration of Methamphetamine Alters Gut Biomarkers of Toxicity. *Eur. J. Neurosci.* 46:1918-32, **2017**.

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- Dzul, S.*; Rocha, A.; Rabat, S.; Kandedgedara, A.*; Kusowski, A.*; Pain, J.; Murari, A.; Pain, D.; Dancis, A.; **Stemmler, T.L.**; "In vitro characterization of a novel Isu homologue from *Drosophila melanogaster* for de novo FeS-cluster formation." *Metallomics*, 9, 48-60. PMID: 27738674, **2017**
- Farooq SM, Hou Y, Li H, Wang Y, Li CY*, **Wang JM***. Disruption of GPR35 Exacerbates Dextran Sulfate Sodium-induced Colitis in Mice. (*: Co-Corresponding author), *Digestive Diseases and Sciences* **2017**
- Wang JM***, Qiu YN, Yang ZQ, Li L, Zhang K*. Inositol requiring enzyme 1 α facilitates diabetic wound healing through modulating microRNAs. *Diabetes* 66:177-192, **2017**
- Xie, X., Sinha, S., **Yi, Z.**, Langlais, P., Madan, M., Bowen, B., Willis, W., Meyer, C., "Role of Adipocyte Mitochondria in Inflammation, Lipemia and Insulin Sensitivity in Humans: Effects of Pioglitazone Treatment", *International Journal of Obesity*, 1-8, doi: 10.1038/ijo.2017.192, **2017**
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- Liu, Q., Yi, J., Liang, K., **Zhang, X.**, Liu, Q., Salmonella Choleraesuis outer membrane vesicles: Proteomics and immunogenicity. *J Basic Microbiol.* doi: 10.1002/jobm.201700153, **2017**
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XIV. Book Chapters and Books

Firestine, S.M.*, Lister, T. "Preface". *Antibiotic Drug Discovery: New Targets and Molecular Editor*, Firestine, S.M. and Lister, T., RSC Drug Discovery Series, Cambridge, England, **2017**.

*Corresponding Author

Firestine, S.M. and Lister, T. "Antimicrobial Drug Discovery: New Targets and Molecular Entities.". Royal Society of Chemistry. **2017**. Editors

XV. Patents Issued or Pending

Dutta, Alope: Tri-substituted 2-benzhydryl-5-benzlamino-tetrahydro-pyran-4-ol and 6-benzhydryl-4-benzylamino-tetrahydro-pyran-3-ol analogues, and novel 3,6 disubstituted pyran derivatives. Canadian Pat No, 2563161, January 24, **2017**.

Dutta, Alope: Neuroprotective agents for treatment of neurodegenerative diseases. Provisional Application filed WSU 0223 Patent Family, **2017**.

Iyer, Arun and Sau, Samaresh: Bio-degradable Nanoparticles for Early Diagnosis and Therapy of Hypoxic and Cancer Stem Cell Rich Tumor. Tech ID 17-1442. Invention Disclosure filed under Wayne State University. May 12, **2017**.

Yi, Zhengping and Zhang, Xiangmin, "Isolating adherent cell clones by tracing circular petroleum jelly walls", Invention Disclosure filed under Wayne State University **2017**

XVI. Abstracts

Mohammed, MB, Murdock, BAD., Taneja, R., Malone, KJS., Buchanan, B., Smith, C., Olson, B., Head, D., **Commissaris, R.** Medical Marijuana Effects on Texting While Driving: Preliminary Studies. BUILD Summer Symposium, Wayne State University, **2017**.

Smith, CJ., Malone, KJS., Mohammed, MB., Murdock, B., Buchanon, B., Taneja, R., Head, D., **Commissaris, RL.** I Didn't See That Coming !!! A 'Hands On' Exposure to the Hazards of Texting While Driving. BUILD Summer Symposium, Wayne State University, **2017**.

Taneja, R., Alali K., Mohammed, MB., Murdock, BAD., Malone, KLS., Buchanan, B., Olson, B., Head, D., **Commissaris, R.** Medical Marijuana Effects on Texting While Driving: Preliminary Studies. Brainstorm 2018, Wayne State University, **2017**

Dutta, AK, Santra, S., Mabrouk, O., Antonio, T., Reith, MEA. D-473, a novel triple dopamine, serotonin and norepinephrine transporters blocker as new generation orally active antidepressants: Characterization in in vitro and in vivo pharmacological and behavioral assays. Cutting Edge / Drug Discovery & Development in Michigan, MichBio and the University Research Corridor, **2017**.

Luo, D., Yedlapudi, D., Joshi, GS., Todi, SV., **Dutta, AK.** Assessment of inhibition of α -synuclein aggregation and toxicity by multifunctional dopamine agonists by a novel in vitro assay and an in vivo Drosophila synucleinopathy model. Cutting Edge / Drug Discovery & Development in Michigan, MichBio and the University Research Corridor, **2017**.

Andreola, L.R., Pathiraja, I., **Firestine, S.M.**, Tamez, A., Fox, D.J. and Evanseck, J. D. ONIOM model of malonate decarboxylation: Significance of the hydrogen bonding buckle. 252nd ACS National Meeting, San Francisco, CA. **2017**.

Alsaab, H., Cheryan, VT., Kesharwani, P., Rishi, AK., **Iyer, AK.** CARP-1 functional mimetic loaded in Vitamin E-TPGS micellar nano-formulation for treating renal cell carcinoma. Graduate and postdoctoral research symposium, Wayne State University, 2017.

Sau, S., Kashaw, SK., Alsaab, H., **Iyer, AK**. Folate Receptor Targeted Liposome for Treating Cancer and Autoimmune Disease. Graduate and postdoctoral research symposium, Wayne State University, **2017**.

Bhise, K., Yousef, S., Alsaab, H., Kashaw, SK., Sau, S., **Iyer, AK**. Ligand Decorated Nanoparticles Engineered Using Copper Free Click Chemistry for Targeted Cancer Therapy. The Graduate and Postdoc Research Symposium, **2017**.

Kashaw, SK., **Iyer, AK**. Docking guided virtual screening of pde4b inhibitors for the development of drugs to treat COPD: Exploring the role of water molecules at ligand binding domain. Graduate and postdoctoral research symposium, Wayne State University, **2017**.

Tatiparti, K., Gawde, KA., Kashaw, SK., Sau, S., **Iyer, AK**. Synthesis and characterization of novel drug delivery systems targeting tumor hypoxia. Presented: WSU Graduate Research Day, **2017**.

Alzhrani, R., Sau, S., Alsaab, H., **Iyer, AK**. Polymer-Lipid Hybrid Nanoparticles Loaded with Drug-Gene Payload for Combination Therapy and Imaging of Pancreatic Ductal Adenocarcinoma. WSU graduate research day, **2017**.

Sau, S., Alsaab, H., Tatiparti, K., Bhise, K., Alzhrani, R., Rishi, AK., **Iyer, AK**. Tumor Multi-Component Targeting Nano-carriers: A Strategy to Recalibrate Nanomedicines for Personalized Cancer Theranostics. Presented: NanoDDS international symposium at University of Michigan, **2017**.

Alsaab, H., Sau, S., Cheriyan, VT., Sekhar, S., Alzhrani, R., Rishi, AK., **Iyer, AK**. Synergistic Combination of Sorafenib with Small Molecule Apoptosis Inducers Loaded in Vitamin E-TPGS Micellar Nano-formulation for Effective Therapy of Renal Cell Carcinoma. Presented: NanoDDS, University of Michigan, **2017**.

Sau, S., Alsaab, H., Tatiparti, K., Bhise, K., Alzhrani, R., Rishi, AK., **Iyer, AK**. Tumor Multi-Component Targeting Nano-carriers: A Strategy to Recalibrate Nanomedicines for Personalized Cancer Theranostics. Presented: Michigan Regional Postdoctoral Symposium, **2017**.

Sau, S., Alsaab, H., Tatiparti, K., Bhise, K., Alzhrani, R., Rishi, AK., **Iyer, AK**. Tumor Targeting Nano-carriers for Personalized Cancer Theranostics. Presented: Michigan Bio Symposium, **2017**.

Alsaab, H., Cheryan, VT., Kesharwani, P., Rishi, AK., **Iyer, AK**. CARP-1 functional mimetic loaded in Vitamin E-TPGS micellar nano-formulation for treating renal cell carcinoma. Graduate and postdoctoral research symposium, Wasyne State University, **2017**.

Sau, S., Kashaw, SK., Alsaab, H., **Iyer, AK**. Folate Receptor Targeted Liposome for Treating Cancer and Autoimmune Disease. Graduate and postdoctoral research symposium, Wayne State University, **2017**.

Bhise, K., Yousef, S., Alsaab, H., Kashaw, SK., Sau, S., **Iyer, AK**. Ligand Decorated Nanoparticles Engineered Using Copper Free Click Chemistry for Targeted Cancer Therapy. EACPHS Research Day, **2017**.

Gawde,KA., **Iyer, AK**. Combination Studies of Folate Decorated Albumin Encapsulated Paclitaxel and 2,3-difluoro curcumin for treatment of Cerival Cancer and Ovarian Cancer. EACPHS Research Day, **2017**.

Kashaw, SK., **Iyer, AK**. Docking guided virtual screening of pde4b inhibitors for the development of drugs to treat COPD: Exploring the role of water molecules at ligand binding domain. EACPHS Research Day, **2017**.

Tatiparti, K., Gawde, KA., Kashaw, SK., Sau, S., **Iyer, AK**. Synthesis and characterization of novel drug delivery systems targeting tumor hypoxia. Presented: EACPHS Research Day, **2017**.

Petrovici, A., Sau, S., Alsaab, H., Gawde, KA., **Iyer, AK**. PD-L1 Antibody Drug Conjugates to Treat Triple Negative Breast Cancer: A Strategy of Immune-chemo Combination Therapy" Presented: EACPHS Research Day, **2017**.

Alzhrani, R., Sau, S., Alsaab, H., **Iyer, AK**. Polymer-Lipid Hybrid Nanoparticles Loaded with Drug-Gene Payload for Combination Therapy and Imaging of Pancreatic Ductal Adenocarcinoma. EACPHS Research Day, **2017**.

Alzhrani, R., Sau, S., Alsaab, H., **Iyer, AK**. Polymer-Lipid Hybrid Nanoparticles Loaded with Drug-Gene Payload for Combination Therapy and Imaging of Pancreatic Ductal Adenocarcinoma: Presented: EACPHS Research Day, **2017**.

Gawde, KA., **Iyer, AK**. Combination Studies of Folate Decorated Albumin Encapsulated Paclitaxel and 2,3-difluoro curcumin for treatment of Cervical Cancer and Ovarian Cancer. Graduate and postdoctoral research symposium, Wayne State University, **2017**.

Baidwan S, Chekuri A, **Kowluru A**. Glucotoxicity promotes aberrant activation and mislocalization of Ras-related C3 botulinum toxin substrate 1 [Rac1] and metabolic dysfunction in pancreatic islet β -cells: Reversal of such metabolic defects by metformin. Annual Research Day, John D. Dingell VA Medical Center, **2017**.

Damacharla D, Zhang X, Ma D, Qi Y, Seyoum B, Mallisho A, Dragichi S, Caruso M, **Kowluru A**, Yi Z. Identification of interaction partners of Protein Phosphatase 2A in human skeletal muscle using Label free Mass spectrometry. Annual Research Day, John D. Dingell VA Medical Center, **2017**.

Damacharla D, Zhang X, Ma D, Caruso M, Mallisho A, Msallaty Z, Draghici S, Seyoum B, **Kowluru A**, Yi Z. Identification of Interaction Partners of Protein Phosphatase 2A Catalytic Subunit in human skeletal muscle using Label free Mass Spectrometry. Presented in the 65th American Society for Mass Spectrometry Conference on Mass Spectrometry, Indianapolis, Indiana, **2017**.

Kowluru RA, Mishra M, **Kowluru A**. Epigenetics in augmentation of hyperlipidemia-mediated mitochondrial damage in diabetic retinopathy. Annual Meetings of the International Diabetes Federation, Abu Dhabi, UAE, **2017**.

Kowluru A. Glucotoxicity promotes aberrant activation and mislocalization of Ras-related C3 botulinum toxin substrate 1 [Rac1] and metabolic dysfunction in pancreatic islet β -cells. Annual Meetings of the International Diabetes Federation Abu Dhabi, UAE, **2017**.

Kowluru A. Defective prenylation of Rac1 mediates metabolic dysfunction of pancreatic β -cells under the duress of metabolic stress. International Physiological Society meetings, Rio de Janeiro, Brazil, **2017**.

Kowluru A. Role of G-proteins in islet function in health and diabetes. IGIS-Servier Symposium on Beta Cell Signaling Revisited, Jean Cape Farrat, France, **2017**.

Khan S, **Kowluru A**. CD36, a fatty acid translocase, contributes to lipid accumulation in pancreatic beta-cells under the duress of glucolipotoxic conditions. Michigan Regional Post-Doctoral Symposium held at Wayne State University, September, **2017**.

Khan S, **Kowluru A**: Inhibition of decetylases attenuates lipid accumulation and caspase 3 activation in pancreatic beta cells under the duress of glucolipotoxicity: Potential roles for CD36 activity. Accepted for presentation in ASCB/EMBO meetings in Philadelphia, December, **2017**.

Varshney P., **Kowluru A**. Increased expression of Rho GDP-dissociation inhibitor- β (LyGDI) in insulin-secreting β (INS-1 832/13) cells under glucotoxic conditions. Presented in the Annual Research Forum, Eugene Applebaum College of Pharmacy, Wayne State University, November, **2017**.

- Khan S, **Kowluru A.** CD36, a fatty acid translocase, contributes to lipid accumulation in pancreatic beta-cells under the duress of glucolipotoxic conditions. Presented in the Annual Research Forum, Eugene Applebaum College of Pharmacy, Wayne State University, November, **2017**.
- Liu Z, Chalasani N, **Liu W.** Genetic variants in ELOVL6 are associated with hepatic phospholipid composition and fat accumulation. AASLD, Washington DC, **2017**.
- Moszczynska, A.** Knockout of park2 gene alters dopamine and β -phenylethylamine signaling in rat striatum the insight into the role of e3 ligase parkin in neuroprotection. The 50th Annual Winter Conference on Brain Research. Big Sky, MO, USA, **2017**.
- Zhou, J., Poulin, M., Miller, A., Yan, L. and **Moszczynska, A.** Diversity-based analysis of repetitive sequence elements in next generation sequencing. Advances in Genome Biology and Technology Meeting. Hollywood Beach, FL, **2017**.
- Sharma, A., Callan, S.P., Harutyunyan, A., Gore, T.A., Perrine, S.A. and **Moszczynska, A.** Behavioral adaptations in parkin knockout rats support the role of parkin in Parkinson's disease pathology. The 48th Annual Scientific Meeting of the Michigan Chapter of the Society for Neuroscience. Ann Arbor, MI, **2017**.
- Sharma, A. and **Moszczynska, A.** Striatal parkin regulates methamphetamine seeking in long-access self-administration in rats. College on Problems of Drug Dependence (CPDD) 78th Annual Scientific Meeting. Montreal, Quebec, Canada, **2017**.
- Sharma, A., Callan, S. A., Harutyunyan, A., Gore, T.A., Perrine, S.A. and **Moszczynska, A.** Behavioral adaptations in parkin knockout rats support the role of parkin in Parkinson's disease pathology. The 47th Annual Meeting of the Society for Neuroscience". Washington, DC, USA, **2017**.
- Parker, J., Reddy Alla, L.N., Monshi, M., **Pitts, D.** The Effect of Contaminants of Emerging Concern (CECs) on Predator-Prey Relationships. International Association of Great Lakes Research, **2017**
- Monshi, M., Matta, V., Alame, K., Reddy, N., Meyer, D., Crofts, E.J., McElmurry, S.P., Kashian, D.R., Baker, T., and **Pitts, D.K.** Lethal and sub-lethal behavioral effects of triclosan and triclocarban, in *Daphnia pulex* and *Danio Rerio*. 60th Annual International Association of Great Lakes Research (IAGLR), **2017**
- Reddy, N., Monshi, M., Alame, K., Crofts, E.J., Meyer, D., McElmurry, S.P., Kashian, D. R., Baker, T, and **Pitts, D.K.** Sub-lethal behavioral effects of chlorpyrifos and 4-nonylphenol on *Daphnia pulex* and *Danio Rerio*. 60th Annual International Association of Great Lakes Research (IAGLR), **2017**.
- Tremonti, A.R., **Pitts, D.K.**, Hashemi, P., McElmurry, S.P. Sublethal Cu effects on photo stimulated neurotransmitter release in *Daphnia magna* using Fast Scan Cyclic Voltammetry. International Association of Great Lakes Research, **2017**
- Baker, T.R., **Pitts, D.K.**, and Zhang, Y. Wayne State University field station: the pilot plant at the GLWA's Water Works Park. International Association of Great Lakes Research, **2017**
- Roostaei, J., Zhang, Y., **Pitts, D.K.**, and McElmurry, S.P. Comparing the removal efficiency of 4-Nonylphenol by UV, chlorination and algae cultivation. International Association of Great Lakes Research, **2017**
- Ou, S., Liping Xu; **Qin, Z.** Synthesis and in vitro anti-prostate cancer activities of androgen receptor ligand-isothiocyanate hybrid drug AACR-NCI-EORTC Molecular Targets and Cancer Therapeutics International Conference, Philadelphia, PA, **2017**
- Qin, Z.**, Discovery of Hybrid Androgen Receptor Ligands for Prostate Cancer Treatment Department of Medicinal and Biological Chemistry, University of Toledo, **2017**

Qi, Y., Li, L., Caruso, M., Zhang, X., Chen, F., **Yi, Z.**, "Quantitative Phosphoproteomics Unveils Novel Phosphorylation Events in Transformed Human Bronchial Epithelial Cell Induced by Arsenic", the 65th American Society for Mass Spectrometry (ASMS) Conference, Indianapolis, Indiana, **2017**

Damacharla, D., Zhang, X., Ma, D., Lewis, M., Caruso, MA., Al-janabi, W.; Qi, Y., Yang, Z., Berry, R.; Mallisho, A., Msallaty, Z., Tagett, R., Draghici, S., Horowitz, J., Seyoum, B., **Yi, Z.**, "Identification of interaction partners of Protein Phosphatase 2A in human skeletal muscle using Label free Mass spectrometry", the 65th American Society for Mass Spectrometry (ASMS) Conference, Indianapolis, Indiana, **2017**

XVII. Departmental Seminars

Winter 2017

January 11: Arsenic biotransformations and new arsenic antibodies. Dr. Barry Rosen, Cellular Biology and Pharmacology, Florida International University, Miami, FL

February 1: Novel regulators of ischemic injury and repair. Dr. Gangjian Qin, Director of Molecular Cardiology Program, University of Alabama, Birmingham AL

February 8: Mitochondria superoxide dismutase (SOD2), reactive oxygen species and cancer: Shedding light onto the missing links. Dr. Marcelo Bonini, Director of Oxidation Stress Core, University of Illinois Chicago, Chicago, Illinois

February 15: Simulant use disorder, brain function, and dopamine receptor subtypes. Dr. Edythe London, Department of Psychiatry and Biobehavioral Sciences and Molecular and Medical Pharmacology, Semel Institute of Neurosciences and Human Behavior, UCLA, Los Angeles, CA

March 15: Multidimensional nanoparticles for personalized diagnostics and therapy of NSCLC. Dr. Raghuraman Kannan, Department Radiology and Biological Engineering, Bukstein Chair in Cancer Research, University of Missouri, Columbia, MO

March 22: Dietary cancer prevention with natural tocopherols. Dr. Nanjoo Suh, Rutgers University, Piscataway, NJ

March 29: Building an imaging toolbox: Nanosensors for biological discovery. Dr. Heather Clark, Department of Pharmaceutical Sciences, Northeastern University, Boston, MA

April 19: The Dynamic Nature of Isu1 During Fe-S Cluster Biosynthesis. Brianne Lewis, 3rd Year PhD Student Seminar, Department of Pharmaceutical Sciences, Wayne State University, Detroit, MI

May 3: The role of Parkin in methamphetamine dependence and neurotoxicity in methamphetamine self-administration model. Akhil Sharma, 3rd Year PhD Student Seminar, Department of Pharmaceutical Sciences, Wayne State University, Detroit, MI

May 10: Design, synthesis and biological evaluation of carbohydrate derivatives as potential antitumor and antiviral agents. Dr. Yongmin Zhang, Director of Research CRNS, University of Paris 6, Pierre and Marie Curie University, Paris Institute of Molecular Chemistry, Paris, France

Fall 2017

- September 6: Dynamics of Cu homeostasis. Dr. Sabeeha Merchant, Department of Chemistry & Biochemistry, Director, Institute of Genomic and Proteomics, UCLA, Los Angeles, CA.
- September 13: Zwitterionic Polymers for Nanomedicine and Implants. Dr. Zhiqiang Cao, Department of Chemical Engineering and Materials Science, Wayne State University, Detroit, MI.
- September 20: Nrf2 in Environmental Response and Disease Intervention. Dr. Donna Zhang, Department of Pharmacology and Toxicology, College of Pharmacy, The University of Arizona Health Sciences, Tucson, AZ
- September 29: Can non-coding RNAs help control bacterial inflammation? Dr. Min Wu, Immunology and Microbiology (Joint Appointment, Department of Bio Medical Science. University of North Dakota, Grand Forks, ND.
- October 4: Anti-inflammatory Drugs for the Prevention and Treatment of Cancer. Dr. Karen Liby, Department of Pharmacology and Toxicology, Michigan State University, East Lansing, MI.
- October 18: Whole Cell Based Phage Display Identifies Perlecan as a Target in Metastatic Breast Cancer. Dr. Jayanth Panyam, Department of Pharmaceutics, College of Pharmacy, University of Minnesota, Minneapolis, MN
- October 25: CCAR2 as a target for early intervention of colorectal cancer. Dr. Roderick H. Dashwood, Director, John S. Dunn Chair for Disease Prevention, Center for Epigenetics & Disease Prevention, Texas A&M University, Houston, TX.
- November 15: The Role of Hypothalamic Inflammation in Metabolic Programming and Aging. Dr. Marianna Sadagurski, College of Liberal Arts & Sciences, Wayne State University. Adjunct Assistant Research Professor (University of Michigan)
- November 29: Corticohippocampal Dysfunction in the OBiden Model of Primary Oligodendroglipathy. Dr. Alex Gow, Center for Molecular Medicine and Genetics, Pediatrics and Neurology, Wayne State University School of Medicine, Detroit, MI.
- December 6: Leverage Physiology for Bioresponsive Drug Delivery. Dr. Zhen Gu, Jackson Family Endowed Chair, Joint Department of Biomedical Engineering, University of North Carolina at Chapel Hill and NC State University, Translational Innovation (TraIn) Professional Science Master Program.