This will be my last contribution to Bioscope as the Chair of Biology. Starting next fall, Dr. Elliott Blumenthal will be the Chair of Biology and I will return to regular faculty status. It has been my pleasure to serve our students and faculty as chair and I appreciate all the wonderful students and faculty who I have interacted with over my 25+ years as Chairman. I also want to let you all know that Dr. Punya Nachappa and Dr. Vamsi Nalam will be leaving IPFW and joining the faculty at Colorado State University. We wish them the best of luck in their new jobs there and I’m sure that our students will miss both of these wonderful professors. I want to congratulate all the new Tri Beta Biological Honor Society inductees and members as well as Dr. Nachappa who was selected as the Tri Beta professor of the year. With all that I wish all our graduates best of luck and please don’t forget to tell us where you go and what you are doing after graduation. I look forward to seeing you all in my classes next year and wish you a happy and healthy summer break.

Frank Paladino  
Chair of Biology

Professor Frank Paladino (Purdue / The Leatherback Trust) presenting on 20+ years of research on turtle migration across the Eastern Tropical Pacific at the Coco International Symposium  
(Photo: Frank Paladino).
MESSAGE FROM THE LEAD ADVISOR

As I am sure that you are all aware, IPFW is transitioning to Purdue Fort Wayne (PFW). What you might not be aware of is that this transition will not change the Department of Biology’s mission. Biology has always been a Purdue department and our primary goal is to serve the needs of our students. There has been some miscommunication from the media that PFW will no longer be offering pre-medicine or pre-dentistry, but I want to be clear that this mission has not changed. Our course offerings are the same as always, and we can give you an outstanding academic background for whatever you might want to do with a Biology major. With our concentration areas you can get training with an emphasis in Genetics and Molecular Biology, Microbiology and Immunology, or Environmental Biology. We have had continuing success in getting our graduates accepted into Medical, Dental and Pharmacy schools, and the opportunities for undergraduate research with outstanding faculty mentors is a great way to highlight your creative abilities. Please make sure that you spread the word to the community that not only can you get an outstanding education at PFW, but the opportunities that have been available within Biology are still here.

Thank you,

Elliott Blumenthal
Associate Chair and Lead Advisor, Biology

COURSE ANNOUNCEMENTS

Fall 2018 – Biology Electives

A Electives
BIOL 44500 - Aquatic Biology (lecture and lab)
BIOL 50100 – Field Botany (lecture and lab)
BIOL 55600 – Physiology I (lecture only)

B Electives
BIOL 21500 - Basic Human Anatomy (lecture and lab)
BIOL 38100 - Cell Biology (lecture only)
BIOL 43700 - General Microbiology (lecture and lab)
BIOL 50600 - Human Molecular Genetic (lecture only)
BIOL 51600 – Molecular Biology of Cancer (lecture only)
BIOL 52410 – Bacterial Diversity and Systematics (lecture only)
BIOL 57710 – Emerging Infectious Diseases (lecture only)

Note: Any of the lower level courses (from the above list) can be taken as an upper level course upon consultation with the course instructor.

CONGRATULATIONS TO THE DECEMBER 2017 GRADUATES

Bachelor of Science:
Nicholas Bartkowiak
Isaiah Newton
Sifon-Glory Benson
Brennan Northrup
Drake Bowers
Cody Richardson
Caitlyn DeLong
Amber Simons
Joanna Guebard
Zachary Terwilliger
Hannah Hunting
Kristen Weimer
Todd Knot
Preston Yoder
Nway Ko

Master of Science:
Rebecca Young
Ariel Miller
Areli Gutierrez
Allison Hamm
Amanda Powell
CONGRATULATIONS TO THE SPRING/SUMMER 2018 GRADUATES

2018 SCHOLARSHIP/AWARD WINNERS

Outstanding Biology Senior Award
Adrita Iman

Adrita has worked in Professor George Mourad’s lab as an undergraduate research student on the genetic, molecular and biochemical characterization of two putative transporter proteins, one from Erwinia amylovora, the bacterial causative agent of fire blight disease in apples and pears, and the other transporter from apple (the host plant). Both research projects constitute her Honors project. In addition, Adrita was involved in several extracurricular activities, such as IPFW AmbassaDon, Tri-Beta, Biological Honor Society, Phi Kappa Phi- Interdisciplinary Honors Society, and Big Brother Big Sister of IPFW. Adrita has already received Ph.D. offers of admission in Fall 2018 with full financial support from University of Maryland, Molecular & Cellular Biology Program and from Indiana University, Genome and Cell Biology Program.

Congratulations!
STUDENT AWARDS AND HONORS

IPFW TOP 50 STUDENTS AWARD 2018

The following biology students have been named among the TOP 50 IPFW students for 2018. These individuals are not only highly engaged on the IPFW campus in their academics and co-curricular activities, they also make significant impacts in their own communities.

Paul Bojrab
Abbigayle Dunlavy
Darren Shoemaker
Lauren Watson

2018 HONORS

The following biology students have presented their honors project at the IPFW Honors Show Case on April 06, 2018:

Deborah Iddoko
Project title: "Eliminating Sickle Cell Anemia; The Way To Go" (Research Mentor: Associate Professor Elliott Blumenthal)

Adrita Iman
Project title: "Functional Characterization of Putative Nucleobase Transporter Proteins in the Causative Pathogen of Fire Blight Disease, Erwinia amylovora, and its Host Apple" (Research Mentor: Professor George Mourad)

The following biology students have received Honors in Biology:

Janine Bennett (Mentor: Associate Professor Tanya Soule)
Andrea Funk (Mentor: Professor George Mourad)
Adrita Iman (Mentor: Professor George Mourad)
Aaron Jones (Mentor: Associate Professor Tanya Soule)
Kenneth Saillant (Mentor: Professor Ahmed Mustafa)

2018 SUMMIT SCHOLAR SHOWCASE

The following Summit Scholar (Discipline- Biology) have presented their research at the 2018 Summit Scholar Showcase:

Abbigayle Dunlavy
Project Title: “Seniors and Social Media: Facebook Training and Loneliness in Older Adults” (Faculty Mentor: Associate Professor Elliott Blumenthal)
STUDENTS MOVING FORWARD

Tori Getz has been accepted to the Parkview Clinical Lab Sciences Program.
Lindzie Gibson has been accepted to Manchester University – College of Pharmacy.
James Greer has been accepted to the Parkview Clinical Lab Sciences Program.
Jacob Hoger has been accepted to the Manchester University- College of Pharmacy.
Luke Landrigan has been accepted to the Indiana School of Medicine.
Cathleen Landrigan has been accepted to the Indiana School of Medicine.
Jamison Law has been accepted to the Ohio State University Biochemistry program.
Randy McComb has been accepted to the Indiana School of Medicine.
Valentina Murzin-Kudrina has been accepted to the Manchester University- College of Pharmacy.
Lin Pham has been accepted to the Manchester University- College of Pharmacy.
Rebecca Young has been accepted to the Parkview Clinical Lab Sciences Program.

2018 TRI-BETA INDUCTEES

This year 14 outstanding biology students from IPFW have been honored with the life time membership of Beta Beta Beta - Biological Honor Society. The honored students received their membership at the induction ceremony held April 9, 2018, are:

David Adkins
Tyler Bowers
Jonathan Danielson
Matthew Dunn
Alicia Griffin
Lauren Hoffman
Ashley Johnson
Caleb Morton
Jaclyn Mullins
Amy Nguyen
Shea Noonan
Brianna Ruby
Desta Tekle-Wold
Marcus Thomas

2018 Tri-Beta inductees and officers of Xi-Epsilon Chapter, IPFW
(Photo: Colleen Krohn)
BIOLOGISTS IN ACTION

Lindsay McKenna (from Paladino lab) traveled to Playa Ostional, Costa Rica to be filmed for a documentary co-produced by the BBC, CBC, and Arte about sea turtles inside the nest. Her role was to discuss and show the research she conducted as part of her Master’s thesis at IPFW focusing on the vocalizations of sea turtle embryos and hatchlings (Photo: Lindsay McKenna)

Shailesh Acharya (from Nalam lab) and Noelle McGee (from Nachappa lab) are busy working with their plants (Photo: Ahmed Mustafa)

Undergraduate student Ashley Baum (from Mustafa lab) is dissecting fish for her senior seminar research project (Photo: Aparna Biswas)

McKenzie Comby, Kenneth Saillant and Destin Furnas (from Mustafa lab) are busy sampling for their research (Photo: Ahmed Mustafa)

FACULTY AWARDS

Outstanding Research Award

Professor Bruce Kingsbury has been awarded with the 2017-2018 IPFW Outstanding Research Award. The purpose of the Outstanding Research Award is to honor a faculty member for outstanding performance in the area of research, scholarly activity, or creative endeavor. Professor Kingsbury has achieved an exceptional record of contributions to the body of knowledge and creative works in his discipline. In addition, Professor Kingsbury has great success in communicating the results of his work to a wide audience, and has demonstrated the range and significance of their intellectual contributions. This is the highest honor on campus for research.

Congratulations!
**IPFW Featured Faculty for Excellence in Teaching and Librarianship**

Professor Ahmed Mustafa has been awarded with the 2017-2018 IPFW Featured Faculty for Excellence in Teaching and Librarianship. The purpose of the IPFW Featured Faculty Award for Teaching Excellence is to recognize sustained and varied performance of excellence in teaching and to honor faculty for their teaching accomplishments. Sustained teaching excellence engages students in learning and provokes intellectual curiosity through excitement, concern, reflection, creativity, and mentoring. This award recognizes the diverse paths teaching may follow as faculty weave their excellence in teaching with their creative and scholarly work. Professor Mustafa has been selected for this prestigious award as he demonstrated extraordinary dedication to teaching in the classroom, clinical setting, and/or in the online environment.

Congratulations!

**Fellow of the Indiana Academy of Science**

Professor Bruce Kingsbury and Associate Professor Jordan Marshall have been named as the Fellows of the Indiana Academy of Science 2018. Fellowships are usually awarded to those active members who have “demonstrated service to the Academy and to the advancement of science in Indiana.” Congratulations!

**Tri-Beta Faculty Award**

2018 Faculty Award has been awarded to Associate Professor Punya Nachappa for her dedicated contributions for student research. Congratulations!
Assistant Professor Jaiyanth Daniel has been awarded with $10,000 research grant from the Institute for Research, Scholarship and Creative Endeavors, IPFW.

Associate Professor Mark Jordan and Professor Bruce Kingsbury were awarded a START grant from the IPFW College of Arts and Sciences entitled, “Urban Turtles for Wetland Conservation and Outreach”. The funding will support a collaboration with the Little River Wetlands Project that will allow student researchers to document the diversity of turtles at Eagle Marsh, establish a citizen science monitoring protocol, and participate in outreach activities involving freshwater turtle conservation.

**Recent Conference Presentations**


RECENT BIOLOGY PRESENTATIONS (CONTINUED)

21st IPFW Annual Student Research and Creative Endeavor Symposium, 2018

The following biology students have presented their research at the 21st Annual Student Research and Creative Endeavor Symposium held in March, 2018:

From Jordan Lab:
Minh Le
From Blumenthal Lab:
Connor Hamilton
From Marshall/Soule Labs:
Michael Hall
From Mustafa Lab:
Destin Furnas and Kenneth Saillant
From Nalam Lab:
Shailesh Acharya
From Soule Lab:
Janine Bennett, Aaron Jones and Emmy Wanjiku

133rd Annual Meeting of the Indiana Academy of Science

The following biology students have presented their research at the 132nd Annual Meeting of the Indiana Academy of Science held in Indianapolis in March, 2018:

From Gillespie Lab:
Abhijeet Bisht, Deanne Jensen, Gabe Curtis, Hannah Hunting, Jennifer Troy, and Tyler Shuman
From Kingsbury Lab:
Monica Matthews
From Marshall Lab:
Tessa Aby and Cecelia Smith
From Mustafa Lab:
Ashley Baum, Aparna Biswas, McKenzie Comby, Destin Furnas, Austin Petras and Kenneth Saillant
From Nachappa Lab:
Chengyu Bi, Asif Mortuza and Valerie Castro Salazar
From Nalam Lab:
Shailesh Acharya, Travis Isaacs and Sarah Moh
From Soule Lab:
Carlena Crawford

Annual Meeting of the Indiana Branch of the American Society for Microbiology

The following biology students have presented their research at the Annual Meeting of the Indiana Branch of the American Society for Microbiology held at the University of Indianapolis, April 6-7, 2018:

From Soule Lab:
Carlena Crawford (won first place in the MS graduate division)
Janine Bennett
Emmy Wanjiku (Emmy won first place in the undergraduate division)
**Recent Biology Presentations (continued)**

**Guest Presentations:**

Dr. Sherrie Steiner from the Department of Sociology, IPFW presented a seminar entitled, “Using a Popular Epidemiology Method for Assessing Elemental Atmospheric Pollution via Moss-Based Measurements in Hartford City, IN” in March, 2018.

Dr. Rod Williams from the Department of Forestry and Natural Resources, Purdue University presented a seminar entitled, “The Eastern Hellbender: A decade of discovery” in March, 2018.

Dr. Daniel Suter from the Department of Biology, Purdue University presented a seminar entitled, “Regulation of axonal growth and guidance by reactive oxygen species” in December, 2017.

Dr. Cankui Zhang from the Department of Agronomy, Purdue University presented a seminar entitled, “Phloem: a major player for carbon transport, plant development and stress signaling” in September, 2017.
IPFW Alum Callie Veelenturf won Nature’s 2018 #ScientistAtWork photo contest! Callie’s photo won first place out of over 330 submissions (https://www.nature.com/articles/d41586-018-04881-z). Congratulations Callie!
BIOscope is an information bulletin published two times during the academic year by the PFW Department of Biology. It is posted electronically in PDF format on the Department of Biology Web site. Students wishing to submit items for the next issue should contact the editor, Professor Ahmed Mustafa, at 260-481-6328, or mustafa@pfw.edu.