Veronica Martinez Acosta
Associate Professor of Biology
University of the Incarnate Word

Veronica Martinez Acosta is an Associate Professor of Biology at University of the Incarnate Word. Veronica earned a Ph.D. in Zoology from Texas A&M University in the laboratory of Dr. Mark J. Zoran. She then completed a postdoctoral fellowship at the University of Texas under the direction of Dr. Bing Zang, now at the University of Missouri. Dr. Martinez Acosta has studied systems-level neural plasticity in the annelid worm, Lumbriculus variegatus and in Drosophila melanogaster. Her current research interests include molecular mechanisms governing neural regeneration and wound healing and the role of stem cell populations in these regenerative processes. She has been awarded an NIH-EARDA award (2010-2011); a SOMAS-URM award (2009-2010); and most recently a Department of Defense Research and Education Program for Historically Black Colleges and Universities and Minority-Serving Institutions Award (2013-2016). Dr. Martinez Acosta teaches undergraduate courses in cellular biology, developmental biology, and neurobiology. She also conducts research with undergraduate students and is currently mentoring UIW’s 1st postdoctoral fellow in teaching and research. She has won numerous awards for teaching and service to her university including the UIW Provost’s Legacy Teaching Award and the Sr Eleanor Ann Young Award for Truth.

Session Title: Retention of Underrepresented Minority Faculty: a Predominantly Undergraduate Institution Perspective.

Scheduled: Sunday, 8/3, 10:15-11:30

SESSION IX: PLENARY 4.

Description:
The quality and timing of mentorship received directly affects an individual’s contribution to the field and their retention in academe. This is especially true with faculty who are underrepresented minority. As a product of strong mentorship myself, I offer a personal perspective on the value of the student-mentor relationship. Moreover I offer a perspective that is unique to the environment of predominantly undergraduate institutions, where the challenges of heavy teaching loads force faculty to learn to balance service, scholarship, and family life much earlier. I offer that mentorship at the earliest stages of the career and the development of a “Tool Box” of Mentorship is crucial to the retention of this faculty.
Mary Ann Asson-Batres  
Program Director  
BIO/IOS Neural Systems Cluster  
National Science Foundation

Currently, I am a Rotating Program Director in the Integrative Organismal Systems Division of the Biology Directorate. I manage the Organization portfolio in the Neural Systems Cluster. My own research is focused on the role of vitamin A/retinoic acid in neuron regeneration in the postnatal animal using the rodent olfactory epithelium as a model system.

Session Title: Funding Possibilities for Undergraduate Neuroscience Education at the National Science Foundation.

Scheduled: Saturday, 8/2, 8:30-9:45  
(Repeats Saturday, 8/2, 2:45-4:00)

SESSION IV: Breakouts C.
SESSION VI: Breakouts E.)

Description:
The presentation will cover opportunities for seeking grant support from the NSF for educational and research based projects and opportunities for serving on Merit Review Panels, serving as an ad hoc reviewer, or serving as a Rotating Program Director.
Anette Birck
Director of Science & Health Programs
Danish Institute for Study Abroad

Anette Birck is the Director of Science & Health Programs at DIS, Copenhagen, Denmark. She has seven years of experience in study abroad, directing and developing science, health and environment related programs taught in Copenhagen with integrated study tours all over Europe. She was part of the workgroup for the FORUM Guidelines for Undergraduate Health-Related Programs Abroad. Anette has MSc and PhD degrees from the University of Copenhagen and a MBA from Copenhagen Business School.

Session Title: Neuroscience Study Abroad Opportunities – Flexible Curricula for a Variety of Student Experiences

Description:
There is a growing push on campuses throughout the United States to provide intercultural and study abroad experiences for undergraduate students. Intercultural awareness and collaboration are liberal arts and science values/skills that are essential for the future scholarly and academic success of our students. In fact, a recent AAC&U survey of employers indicated that skills like intercultural awareness, communication skills, and teamwork skills are essential qualities that they want in our graduates, more so then their ultimate major. The growing international and collaborative nature of science makes it imperative that science students have experiences that prepare them to be successful in an international context.

This joint session will focus on the development of study abroad experiences that stretch throughout a student’s college career. Chris Korey will begin the session with the creation and assessment of first-year courses that contain short-term study abroad experiences. These courses introduce the study abroad experience early in a student’s career and sets the stage for later, more extensive opportunities. Michael Ruscio will continue with an exploration of the College of Charleston/FUN Neuroscience Seminar in Germany summer course that targets rising Juniors and Seniors. This course provides students the opportunity to explore international neuroscience and observe and engage in the process of scientific research in the laboratories and universities at Ludwig-Maximilians University (Munich) and Humboldt University/Charité Medical University (Berlin). He will also discuss the EuroScholars semester abroad program. Finally, Anette Birck will discuss the semester long study abroad experiences that DIS, Danish Institute for Study Abroad, offers in the Science & Health fields, especially Neuroscience. The program targets juniors and seniors majoring in neuroscience, biology, biochemistry, health science, psychology or public health etc. The DIS study abroad experience focuses on experiential learning, field studies, research and European study tours, taught by experts in the field, all viewed from an European and Scandinavian perspective and scientific stronghold. Following these presentations, the session will be opened up for a group discussion about the future of neuroscience study abroad and the role that FUN may play in it.
Graham Cousens
Associate Professor of Psychology
and Chair of Neuroscience Program
Drew University

Graham Cousens is Director of the Neuroscience Program at Drew University and President-Elect of Nu Rho Psi. He earned a Ph.D. in Behavioral Neuroscience at Rutgers University and served as a post-doctoral fellow in the Section of Neurobiology at Yale School of Medicine and at The Earnest Gallo Clinic and Research Center. Graham's research program focuses on the neural substrates of olfactory learning and memory, and he has had the opportunity to work alongside many talented undergraduate students at Drew.

Session Title: Nu Rho Psi, The Honor Society for the Neurosciences.

Scheduled: Saturday, 8/2, 8:30-9:45  SESSION IV: Breakouts C.
(Repeats on Sunday, 8/3, 8:30-9:45  SESSION VIII: Breakouts F.)

Description:
Nu Rho Psi is the National Honor Society in Neuroscience. The organization was founded in 2006 by the Faculty for Undergraduate Neuroscience and is now an independent honor society. Nu Rho Psi is a non-profit, grass-roots organization of neuroscientists and is governed by a National Council elected by the members. Charters have been awarded to chapters at Colleges and Universities in all regions of the United States, and the organization currently consists of 40+ chapters and 1700+ lifetime members.

This breakout session is intended both for faculty at institutions with chapters and for faculty considering initiating a chapter at their home institution. We will take stock of the past 8 years will consider new initiatives aimed at increasing membership – particularly at large institutions and overseas institutions – and increasing student engagement on campus. Chapter advisors will be asked to discuss practices at their home institutions. In addition, we will discuss the charter application process with interested attendees.
Gary Dunbar
Professor and Director, Program in Neuroscience
Central Michigan University

Gary L. Dunbar received a BA in Philosophy and a BS in Biopsychology from Eckerd College and MA in Psychology and a MS in Biology from Central Michigan University, before receiving his PhD in Psychology (Behavioral Neuroscience) from Clark University. Presently, he is the John G. Kulhavi Professor of Neuroscience and Director of the Neuroscience Program at Central Michigan University. He also serves as the Executive Director of Field Neurosciences Institute in Saginaw, Michigan, and as President for the American Society for Neural Therapy and Repair. His teaching and research interests are primarily in the area of behavioral neuroscience. In 1997, He received the Michigan Professor of the Year award from the Carnegie Foundation for the Advancement of Teaching and the Council for the Advancement and Support for Education, and was also honored as a Distinguished Faculty Member award from the Michigan Association of Governing Boards of State Universities in 1998. He also received the President’s Award for Outstanding Research and Creative Endeavors at Central Michigan University in 2011. Most of his recent research has focused on testing the efficacy of transplants of genetically-altered adult stem cells and other potential treatments for neuroanatomical and behavioral deficits in animal models of neurodegenerative diseases, stroke, and spinal cord injury. His research has been supported by grants and contracts, including awards from public (NIH and NSF) and private sources.

Session Title 1: Career transitions.
Scheduled: Friday, 8/1, 3:30-4:45

SESSION II: Breakouts A.

Description:
This breakout session will look at both common and uncommon career transitions that can occur during one’s tenure in academia. Topics will include: (1) transitioning from graduate school or postdoc to academics (or industry); (2) preparing for promotion and tenure decisions; (3) balancing teaching, research, and service during one’s career; (4) weighing the pros and cons to taking on more administrative responsibilities (e.g., becoming a director or chair); (5) exploring the options of staying at a particular institution or moving to another; (6) and deciding when and how to retire. The session is designed to be highly interactive and specific situations that participants are facing are open for discussion, so that advice and ideas can be shared freely in a constructive and positive manner.

Session Title 2: Best Practices: sometimes the magic works, sometimes it doesn’t.
Scheduled: Saturday, 8/2, 1:15-2:30

SESSION V: PLENARY 2.

Description:
This plenary session will be focused on best practices and innovative approaches that were highlighted by CNDP when making selections for the Undergraduate Neuroscience Programs of
the Year awards. One area of focus will be on the peer-mentoring system, including what works and what does not work. A special segment of this approach will be devoted for starting an introduction to research lab for freshmen and how the goals of this class could work into the peer-mentoring system. Closely related to the peer-mentoring model, will be a presentation on the TEAM approach that is used in a larger school environment. Included in this forum will be a discussion on some of the political problems associated with running an undergraduate program in a university that is trying to transition from teaching, as its primary mission, into a research university. Finally, an open discussion will allow participants to share or discuss new ideas—both magical and not.
William Grisham  
Adjunct Professor of Psychology  
University of California at Los Angeles

When Bill Grisham was an undergraduate, he wanted to change the world. Now, as a UCLA professor, he is taking the high-quality laboratory experiences that he offers his students at UCLA and transforming them so that they are completely digital. Further, he has provided these digital teaching tools on the web so that they can be downloaded for free from http://mdcune.psych.ucla.edu/. These digital labs offer the same inquiry-based experiences given to UCLA students; they are not demonstrations, simulations, or "cookbook exercises." These labs span neurophysiology, bioinformatics, hormonal influences on neural development, and molecular biology.

Formerly, Bill Grisham served as Councilor for FUN, and recently served as a Program Officer at the National Science Foundation. He is currently proud to be on the editorial boards of JUNE and ERIN.

Session Title: Gel Scramble: a digital molecular neuroscience lab module

Scheduled: Friday, 8/1, 3:30-4:45      SESSION II: Breakouts A.  
(Repeats Saturday, 8/2, 2:45-4:00     SESSION VI: Breakouts E.)  
(This session is also featured in the Intensive Pre-Workshop Seminar.)

Description:

In this module, students not only learn content about molecular neuroscience but also utilize web-based tools to make predicted outcomes based on experimental protocols. Students are then challenged to develop their critical thinking skills when asked to match their predicted outcomes to an array of empirical results. A still bigger challenge to students' critical thinking skills is posed when they are asked to explain unexpected outcomes, which exist in the empirical data and have reasonable explanations. Some estimates hold that at least half of all experiments of any kind produce unexpected results, and unexpected results can be responsible for enlightening discoveries. Thus, as educators, we should also train students to deal with unexpected results rather than just focusing on experiments that "work."

Participants will receive all materials required to teach this module at their home institution, including images, PDFs of handouts and laboratory instructions, grading keys and rubrics, Powerpoint slides, etc.
Jean Hardwick
2014 FUN Workshop Co-Chair and Host
Professor of Biology and Coordinator of
Neuroscience Program
Ithaca College

Jean Hardwick is a Professor of Biology and Coordinator of the Neuroscience minor at Ithaca College. She did her undergraduate work at Smith College, received a PhD in Physiology & Biophysics from the University of Vermont, and then went on to do a postdoc with Rod Parsons in the Anatomy and Neurobiology department at the University of Vermont in neurophysiology. She began her faculty career at Ithaca College in 1997. Her teaching duties include Animal Physiology, Neurobiology, Principles of Biology, and occasional courses for non-majors. Jean helped establish the Neuroscience minor at Ithaca College in 2002. Jean has been an active member of FUN since 1998, serving as Editor of the Newsletter, Councilor, Secretary, and President. She also maintains an active research program that has involved numerous undergraduates on the modulation of autonomic neurons that regulate cardiac function and has received several grants from the NIH to support this work.
Kurt Illig
Associate Professor of Biology
and Director of Neuroscience Program
University of St. Thomas

Dr. Illig received a Bachelor of Science degree from Drake University and a PhD from the University of Wisconsin-Madison. He completed a postdoctoral fellowship at the University of Wisconsin Medical School in 2002, when he moved to a faculty position at the University of Virginia. In 2009, he accepted a position in the Biology Department at the University of St. Thomas, where he serves as Director of the Neuroscience Program, teaches courses in biology and neuroscience, and conducts research on learning and on the evolution of the nervous system. For over a decade, Dr. Illig has been incorporating various technologies in his teaching. He started out podcasting his lectures in 2002 (using a hammer and chisel), then explored various strategies for online and distance learning and successfully team-taught a course 750 miles away from the classroom. He has presented at the Society for Neuroscience Teaching Workshop, and has received grants to restructure, teach and assess blended courses.

Session Title: Teaching a Blended Course in Neuroscience.

Scheduled: Saturday, 8/2, 10:00-11:15
(Repeats on Saturday, 8/2, 8:30-9:45)
SESSION IV: Breakouts D.
SESSION IV: Breakouts C.

Description:
A blended (or “hybrid”) course is one in which face-to-face instruction and activities are integrated with online instruction and activities. This is usually accompanied by a decrease in the amount of time spent in the classroom, and by a shift from traditional lecture to more interactive activities among the students. One advantage of this approach is increased opportunity for students to interact with the material, with the professor, and with each other. But do students learn in this setting? What are students’ attitudes towards the blended format? And if there is no lecture, what does the professor do?

In this presentation, I will introduce pedagogical and practical reasons why teaching blended courses in neuroscience makes sense, and I will share some strategies and tactics. I will also present the results of our recent study comparing traditional and blended teaching styles in a Neurobiology course. Finally, I’ll highlight several technological tools that you can use in any kind of class you teach (online, blended, or traditional) to enhance student engagement.
Bruce Johnson  
2014 FUN Workshop Committee Member and Co-Host  
Senior Research Associate  
Department of Neurobiology and Behavior  
Cornell University  

My professional responsibilities are balanced between research and teaching activities. My research activities at Cornell address the neural mechanisms of small motor network plasticity using the pyloric network of the lobster stomatogastric ganglion as a model system. My teaching includes an upper division lecture/laboratory course in neurobiology techniques and development of teaching activities and other resources for national dissemination.
Kristy Kenyon
Associate Professor and Chair of Biology
Hobart and William Smith Colleges

Kristy L. Kenyon is an Associate Professor, and current Chair, of Biology at Hobart and William Smith Colleges. Her involvement with the C.R.E.A.T.E. project began in 2007, when she was trained in its methodology. She has successfully incorporated the C.R.E.A.T.E. strategy in upper level biology courses focused in developmental biology and stem cell biology. Currently, she is co-leading (with S. Hoskins) a nation-wide study examining the use of the C.R.E.A.T.E. strategy at two, and four-year institutions (NSF 1021443; details at teachcreate.org). Kenyon's other research interests are focused in the area of neurosensory organ development in frogs (Xenopus laevis) and insects (Drosophila melanogaster, moths).

Session Title: Let Them Play Ball: Transforming the Science Classroom with the C.R.E.A.T.E. Strategy.

Scheduled: Saturday, 8/2, 2:45-4:00

SESSION VI: Breakouts E.

Description:
The C.R.E.A.T.E. project aims to transform undergraduate science education by shifting the center of the classroom universe from the textbook to the journal article. The C.R.E.A.T.E. strategy provides students with a "toolkit" of pedagogical approaches (e.g. concept mapping, cartooning, annotation of figures, learning to design and evaluate experiments; see Hoskins et al., 2007) are used strategically for analyzing primary scientific publications. In C.R.E.A.T.E. courses, students learn the universal language of data analysis as they reconstruct experimental design, analyze the data, and propose new hypotheses. The instructor facilitates student learning by bringing their expertise and experience of authentic research practice to every class (see Hoskins and Stevens, 2009). The final critical step in the strategy is to foster a direct connection between students and scientists. To this end, students devise a single survey of questions that address realities of science at a human level. Author responses reveal novel insights into scientists and research, dispelling students’ often-negative preconceptions about science careers.

In this presentation, participants will learn and experience aspects of this strategy, discuss the results gleaned from its use by faculty teaching a diverse range of courses and consider its application for courses in the field of neuroscience.
Chris Korey
Associate Professor of Biology and Director of The First Year Experience
College of Charleston

Chris Korey is an Associate Professor of Biology and Director of the First Year Experience at the College of Charleston (Charleston, SC). He has five years of experience organizing and running study abroad programs for freshman and more advanced students in Germany.

Chris co-directs the College of Charleston/FUN Neuroscience Seminar in Germany summer course and coordinates the College’s First Year Experience Abroad program. He received the 2013 FUN Neuroscience Educator of the Year Award with fellow Germany course director, Mike Ruscio. Chris received his Ph.D. from Harvard University and did post-doctoral work at Massachusetts General Hospital. His research lab focuses on neurodevelopment and plasticity in Drosophila and the snapping shrimp, Alpheus angulosus.

Session Title: Neuroscience Study Abroad Opportunities – Flexible Curricula for a Variety of Student Experiences

Scheduled: Saturday, 8/2, 4:15-6:00

SESSION VII: PLENARY 3.

Description:
There is a growing push on campuses throughout the United States to provide intercultural and study abroad experiences for undergraduate students. Intercultural awareness and collaboration are liberal arts and science values/skills that are essential for the future scholarly and academic success of our students. In fact, a recent AAC&U survey of employers indicated that skills like intercultural awareness, communication skills, and teamwork skills are essential qualities that they want in our graduates, more so then their ultimate major. The growing international and collaborative nature of science makes it imperative that science students have experiences that prepare them to be successful in an international context.

This joint session will focus on the development of study abroad experiences that stretch throughout a student’s college career. Chris Korey will begin the session with the creation and assessment of first-year courses that contain short-term study abroad experiences. These courses introduce the study abroad experience early in a student’s career and sets the stage for later, more extensive opportunities. Michael Ruscio will continue with an exploration of the College of Charleston/FUN Neuroscience Seminar in Germany summer course that targets rising Juniors and Seniors. This course provides students the opportunity to explore international neuroscience and observe and engage in the process of scientific research in the laboratories and universities at Ludwig-Maximilians University (Munich) and Humboldt University/Charité Medical University (Berlin). He will also discuss the EuroScholars semester abroad program. Finally, Anette Birck will discuss the semester long study abroad experiences that DIS, Danish Institute for Study Abroad, offers in the Science & Health fields, especially Neuroscience. The program targets juniors and seniors majoring in neuroscience, biology, biochemistry, health science, psychology or public health etc. The DIS study abroad experience focuses on experiential learning, field studies, research and European study tours, taught by experts in the field, all viewed from an European and Scandinavian perspective and scientific stronghold. Following these presentations, the session will be opened up for a group discussion about the future of neuroscience study abroad and the role that FUN may play in it.
Stephen Korn
Director, NINDS Office of Training, Career Development and Workforce Diversity
National Institutes of Health

Dr. Korn came to NINDS as Director of the Office of Training, Career Development and Workforce Diversity in January, 2006. He received his Ph.D. in Pharmacology from the University of North Carolina- Chapel Hill, and received postdoctoral training at NIH (as a PRAT Fellow of NIGMS) and at the Roche Institute of Molecular Biology (with financial support from NRSA postdoctoral fellowships). He then spent 15 years on the faculty of the University of Connecticut at Storrs, where he was a Full Professor. His area of scientific specialty is the molecular basis of ion channel gating and permeation, but he has also conducted electrophysiological and imaging research on calcium and pH transport/buffering, and synaptic transmission in the hippocampal slice.

Session Title: Training, the R15 and other NIH funding opportunities

Scheduled: Friday, 8/1, 3:30-4:45
5:00-6:15
SESSION II: Breakout Sessions A and B.

Description:
Sessions will focus on training approaches, NIH funding opportunities for both research and training, and NINDS/NIH philosophy regarding training and research at R15 and larger institutions. The format will be primarily discussion, with heavy emphasis on questions and answers. There will be a few slides to get the discussion started.
Barbara Lom and Jennifer Round are each developmental neurobiologists who teach courses in introductory biology, cellular/molecular neuroscience, and upper-level seminars. Jennifer completed her undergraduate work at the University of Rhode Island, graduate work at Yale University, and a HHMI postdoc at Davidson College before launching her career at Ursinus College in 2013. Barbara completed her undergraduate work at Lawrence University, graduate work at Northwestern University, and did postdocs at UCSD and UCLA before joining the faculty at Davidson College in 2000. Both teach fused-format upper-level undergraduate lab courses and continue to experiment with this evolving model.

Session Title: Fused Courses: Minimizing the Divide Between Lab & Lecture Learning.

Scheduled: Friday, 8/1, 5:00-6:15  
(Repeats on Saturday, 8/2, 8:30-9:45)  
SESSION II: Breakouts B.  
SESSION IV: Breakouts C.)

Description:

Undergraduate courses in the life sciences at most institutions are traditionally composed of two or three weekly sessions in a classroom supplemented with a weekly three-hour session in a laboratory. We have found that many students can have difficulty making connections and/or transferring knowledge between lab activities and lecture material. Consequently, we are each actively developing ways to decrease the physical and intellectual divides between lecture and lab to help students make more direct links between what they learn in the classroom and what they learn in the lab. In this session we will discuss our experiences teaching fused courses that intentionally blurred the distinctions between lab and lecture. We will also discuss creative ways instructors can work to integrate lecture and lab learning even when the two components of the course are separated in space and time.
Hewlet G. McFarlane  
Professor of Neuroscience  
Kenyon College

Hewlet G. McFarlane earned his Ph.D. in Experimental Psychology from Syracuse University in 1998, after which he joined the Kenyon Department of Psychology and Neuroscience Program. He did post-doctoral research training in Neuropsycharmacology in the Department of Psychiatry at Case Western Reserve University, and spent a sabbatical year as a visiting fellow in the Laboratory for Behavioral Neuroscience (LBN) at the National Institutes of Mental Health (NIMH).

His teaching revolves around the effects of both healthy and diseased/damaged brains on behavior. His research interests, broadly defined, focus on the relationship(s) between brain chemistry and behavior with particular emphasis on mental illness. Specifically, he is interested in the interactions between neurotransmitter systems, the effects of drugs on the brain, and the relationship between brain chemistry and mental illness. His current research focuses on: 1) developing and assessing mouse models of autism; 2) the interactions between tyrosine availability in the brain and regional dopamine release; and 3) assessing the behavioral consequences of alterations in growth hormone levels using transgenic mice.

Hewlet maintains ongoing research collaborations with the Department of Psychiatry at the Veterans Affairs Medical Hospital in Brecksville, OH and with the Edison Biotechnology Institute at Ohio University. He is a member of the Society for Neuroscience (SFN), the International Behavioral and Neural Genetics Society (IBANGS), the Midwestern Psychological Association (MPA), International Behavioral Neuroscience (IBNS), and the Faculty for Undergraduate Neuroscience (FUN).

Session Title: Bridging the Two Cultures: The Humanities and Sciences as Partners in the Educational Process

Scheduled: Friday, 8/1, 3:30-4:45  
(Repeats Friday, 8/1, 5:00-6:15)  
SESSION II: Breakouts A.  
SESSION II: Breakouts B.

Description:

We developed a non-majors introductory neuroscience course that explored a range of topics and issues that are important to the field of neuroscience. Specifically, the course focused on the relationship(s) between neuroscience, the arts and humanities. The course treated the humanities and sciences as partners working together on the same problems. In an average semester, three topics were covered. These included the neuroscience of emotions, play behavior, film, visual and artistic perspective, space, and time. The nature of the course is such that other topics can be covered depending on the interest and expertise of the teachers. This was a team taught course, taught by a neuroscience professor and a humanities professor. The assignments included weekly quizzes, class discussions, online discussion forums, a thesis paper and an oral presentation. There were no prerequisites for the course as it was designed to introduce neuroscience to those who had never studied it formally. It was geared towards first
and second year students although upper class non-majors also found it interesting and useful. This presentation will discuss and demonstrate how the course was developed, how it is taught and managed, and how assignments are chosen and assessed.
Dr. Jacqueline Morris is the Neuroscience Program Director and a tenured Associate Professor in the Department of Biology at Baldwin Wallace University. Dr. Morris earned her Ph.D. in the Department of Cell Biology from Baylor College of Medicine in Houston, Texas. Her teaching responsibilities at Baldwin Wallace University include Developmental Biology, Histology, Principles of Neurosciences, Principles of Biology and non-majors Biology. During graduate school her research focus was to understand the cellular signaling mechanisms that control ovulation in the rat. For her post-doctoral work Dr. Morris traveled to the Salk Institute in La Jolla, CA to investigate the role of tyrosine kinase receptors on peripheral nervous system development. She continued her post-doctoral work at the Cleveland Clinic Foundation to understand glia cell development by utilizing the zebrafish as a model. Dr. Morris has been teaching and mentoring students in the BWU Neuroscience Program for over 10 years. Her current research focus is to use zebrafish as a genetic model to understand the molecular mechanisms of glia and axonal interaction, especially myelination, in the central nervous system.

Session Title: Best Practices: sometimes the magic works, sometimes it doesn't.
Scheduled: Saturday, 8/2, 1:15-2:30 SESSION V: PLENARY 2.

Description:
This plenary session will be focused on best practices and innovative approaches that were highlighted by CNDP when making selections for the Undergraduate Neuroscience Programs of the Year awards. One area of focus will be on the peer-mentoring system, including what works and what does not work. A special segment of this approach will be devoted for starting an introduction to research lab for freshmen and how the goals of this class could work into the peer-mentoring system. Closely related to the peer-mentoring model, will be a presentation on the TEAM approach that is used in a larger school environment. Included in this forum will be a discussion on some of the political problems associated with running an undergraduate program in a university that is trying to transition from teaching, as its primary mission, into a research university. Finally, an open discussion will allow participants to share or discuss new ideas—both magical and not.
Gary Muir is Associate Professor of Psychology at St. Olaf College, Director of its teaching and learning center – the Center for Innovation in The Liberal Arts (CILA) – and Acting Director of Assessment and Evaluation for 2014-15. Muir’s research examines the neural mechanisms of spatial cognition and navigation using single-unit electrophysiology techniques. The firing activity of a certain class of neurons – “head direction” cells - is thought to represent the animal’s perceived orientation or direction. Muir and his students explore how information contained in the firing activity of these cells is used by the animal when solving spatial tasks, and how this neural activity relate to the animal’s navigational behavior. In addition to publishing his neuroscience research, Muir has published in the areas of assessment and Scholarship of Teaching and Learning (SoTL), and teaches courses in neuroscience-related areas, including Biological Psychology and the Neurobiology of Learning and Memory, as well as Principles of Psychology (introductory psychology).

Session Title: Mission-driven, Manageable and Meaningful Assessment of an Undergraduate Neuroscience Program.

Scheduled: Saturday, 8/2, 2:45-4:00
(Repeats on Sunday, 8/3, 8:30-9:45)

SESSION VI: Breakouts E.
SESSION VIII: Breakouts F.

Description:
Academia has recently been under mounting pressure to increase accountability and intentionality in instruction through development of student “intended learning outcomes” (ILOs) developed at multiple levels (e.g., course, program, major, and even institution). Once these learning goals have been determined, then classroom instruction can be purposefully designed to map onto those intended outcomes in a “backward design” process (Wiggins and McTighe, 2001). The ongoing challenge with any such process, however, is in determining one’s effectiveness in achieving these intended learning goals, so it is critical that efficient tools can be developed that enable these goal be assessed. In addition, an important requirement of any ILOs is that they are mission-driven, meaningful and parsed in such a way that they can be used to obtain evidence in a manageable way. So how can we effectively assess these outcomes in our students? In this session we will discuss the planning and implementation of assessment for an undergraduate neuroscience program and how that might be applied at your institution.
Richard Olivo
Professor, Biological Sciences and Neuroscience
Smith College

Richard Olivo, ERIN's project director, is Professor of Biological Sciences and Neuroscience at Smith College. In addition to his work with ERIN, he organizes the yearly teaching workshops at the SfN annual meeting.

Session Title: Top Teaching Resources from SfN's ERIN Project

Scheduled: Friday, 8/1, 5:00-6:15
(repeats Saturday, 8/2, 8:30-9:45)

SESSION II: Breakouts B.
SESSION IV: Breakouts C.

Description:
In 2012, the Society for Neuroscience launched a website to support teaching in colleges and universities. The site, "Educational Resources in Neuroscience (ERIN)," lists, describes, and reviews resources that help us enrich our courses. In this session, five of ERIN's founding editors will present their favorite resources from the topic areas that they cover. They will show excerpts, describe what they like about the resource, and explain the course level where the resource fits in a neuroscience curriculum. Like all ERIN listings, these high-quality videos, lab exercises, books and other media types provide an answer to ERIN's underlying question: "There is so much out there -- how do you know what's good?"

The session will also discuss the role of crowdsourcing in the neuroscience faculty community, including some puzzling aspects of how we share information with colleagues.

Panelists

Bob Calin-Jageman is Associate Professor of Psychology and Director of the Neuroscience Program at Dominican University. He is also the designer and webmaster for the FUN website.

Laura Symonds is Assistant Professor of Neuroscience at Michigan State University and Director of the Undergraduate Neuroscience Program.

Bill Grisham is Adjunct Professor of Psychology at UCLA. He is the co-developer of a number of digital teaching modules, which can be downloaded at https://mdcune.psych.ucla.edu/.

Joe Burdo is Assistant Professor of the Practice of Biology at Boston College, where he studies stroke and other neural diseases, his topic area for ERIN.
Stefan Pulver  
Junior Fellow,  
Janelia Farm Research Campus  
Howard Hughes Medical Institute  

I received my undergraduate degree from Colby College and my PhD from Brandeis University. At Colby I worked with Bill lemon and Rebecca Johnston, as well as Patsy Dickinson at neighboring Bowdoin College. At Brandeis, I studied motor control in lobsters and flies with Eve Marder and Leslie Griffith, respectively. I then went on to do a postdoc in the lab of Mike Bate at the University of Cambridge. In the U.K., I studied the embryonic development of central pattern generating networks in Drosophila. I have been a Junior Fellow at Janelia Farm Research Campus since fall of 2011. At Janelia, I study mechanisms and development of segmental coordination in the Drosophila larval locomotor system. In recent years, I have worked to make modern research tools in Drosophila neurogenetics accessible for educators, students, and laypeople. I teach at the Cold Spring Harbor Drosophila Neurobiology summer course and am co-founder of the CrawFly neurophysiology course for educators at Cornell University. In January 2015, I will be moving to Scotland to take up a faculty position in the School of Psychology and Neuroscience at the University of St Andrews.

Session Title: Photo-Activation of an Escape Response: An optogenetics lab module for exploring neural circuits and behavior.

Scheduled: Friday, 8/1, 5:00-6:15  
(Repeats Saturday, 8/2, 2:45-4:00)  
SESSION II: Breakouts B.  
SESSION VI: Breakouts E.)  
(This session is also featured in the Intensive Pre-Workshop Seminar.)

Description:
Optogenetics techniques are all the rage in neuroscience research. With fruit flies it is easy and inexpensive to bring these experiments into the undergraduate neuroscience classroom. The experiments provide striking examples of how neural circuits control behavior. Students integrate principles of ion channel physiology, phototransduction, synaptic transmission, and genetics to understand how the system works. For the first few minutes of this session I will provide a scientific overview of optogenetics and discuss the logistics for setting up these experiments in your classroom. The rest of the time will be spent experimenting!

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and leg movement behaviors. We also look forward to testing these responses in a decapitated preparation, and will be seeking feedback on whether this is too disturbing for the students. The startup cost and expertise required to prepare these setups is minimal for behavioral experiments. For departments with an existing electrophysiology infrastructure we are combining these preparations with intracellular recordings in the pre-workshop seminar. To wrap up the session I will answer questions about that procedure and present student survey data on motivation and learning outcomes from previous cohorts at two different universities.
Julio J. Ramirez obtained his Ph.D. in Psychology from Clark University in 1983. He did his postdoctoral work in neuroscience at the Massachusetts Institute of Technology from 1985 to 1986. He taught at the College of St. Benedict/St. John's University from 1981 to 1985. Presently he is the R. Stuart Dickson Professor of Psychology at Davidson College, where he has been since 1986. Julio's research interests include the recovery of function after central nervous system injury, with an emphasis on determining the functional significance of hippocampal neuroplasticity. Julio teaches undergraduate courses in neuroscience and psychology. He has involved well over a hundred undergraduate students in his research program since 1981. Numerous students have coauthored presentations and papers with him in national and international conferences and journals. He was named the 1989 North Carolina Professor of the Year. In 2004, the National Science Foundation gave him the Director's Award for Distinguished Teaching Scholars. In 2011, Julio received the Presidential Award for Excellence in Science, Mathematics, and Engineering Mentoring from President Barack Obama and the FUN Distinguished Mentor Award. He was the Founding President of the Faculty for Undergraduate Neuroscience. He was the Founding Senior Editor of The Journal of Undergraduate Neuroscience Education.

Session Title 1: The Intentional Mentor.
Scheduled: Friday, 8/1, 5:00-6:15
SESSION II: Breakouts B.

Description:
This workshop will focus on the mentorship of undergraduate students. We will explore the value of mentoring, the developmental profile of undergraduate students, as well as the traits of a good mentor. We will also discuss the structure of a mentoring relationship, how to create a mentoring climate in a laboratory, and a variety of tips to help improve one's mentoring abilities.

Session Title 2: Winning the Tenure Trophy at a Predominantly Undergraduate Institution.
Scheduled: Saturday, 8/2, 10:00-11:15
SESSION IV: Breakouts D.

Description:
This workshop is aimed at helping junior faculty become more competitive for securing tenure at predominantly undergraduate institutions (PUI). We will discuss survival tips for the first and second years. We will also explore the three principal components that are involved in the tenure decision at a PUI: teaching, research, and service.
Michael Ruscio  
Associate Chair and Professor of Psychology  
College of Charleston

Dr. Michael Ruscio is an Associate Professor and the Associate Chair of the Psychology Department at the College of Charleston. For the past three years he has co-taught the Neuroscience Seminar in Germany summer study abroad program. This program developed from collaboration between FUN, Ludwig Maximilian University, Munich, and Charité University, Berlin. He was a co-recipient of the FUN Educator of the Year Award in 2013. He received his Ph.D. from Cornell University, with research interests in behavioral neuroendocrinology. Presently, his research program focuses on the interactions between the social environment, neuroendocrinology, and neuroplasticity in the California mouse. He teaches a variety of courses, including Hormones and Behavior, and Behavioral Neuroscience.

Session Title: Neuroscience Study Abroad Opportunities – Flexible Curricula for a Variety of Student Experiences

Scheduled: Saturday, 8/2, 4:15-6:00  
SESSION VII: PLENARY 3.

Description:
There is a growing push on campuses throughout the United States to provide intercultural and study abroad experiences for undergraduate students. Intercultural awareness and collaboration are liberal arts and science values/skills that are essential for the future scholarly and academic success of our students. In fact, a recent AAC&U survey of employers indicated that skills like intercultural awareness, communication skills, and teamwork skills are essential qualities that they want in our graduates, more so then their ultimate major. The growing international and collaborative nature of science makes it imperative that science students have experiences that prepare them to be successful in an international context.

This joint session will focus on the development of study abroad experiences that stretch throughout a student’s college career. Chris Korey will begin the session with the creation and assessment of first-year courses that contain short-term study abroad experiences. These courses introduce the study abroad experience early in a student’s career and sets the stage for later, more extensive opportunities. Michael Ruscio will continue with an exploration of the College of Charleston/FUN Neuroscience Seminar in Germany summer course that targets rising Juniors and Seniors. This course provides students the opportunity to explore international neuroscience and observe and engage in the process of scientific research in the laboratories and universities at Ludwig-Maximilians University (Munich) and Humboldt University/Charité Medical University (Berlin). He will also discuss the EuroScholars semester abroad program. Finally, Anette Birck will discuss the semester long study abroad experiences that DIS, Danish Institute for Study Abroad, offers in the Science & Health fields, especially Neuroscience. The program targets juniors and seniors majoring in neuroscience, biology, biochemistry, health science, psychology or public health etc. The DIS study abroad experience focuses on experiential learning, field studies, research and European study tours, taught by experts in the field, all viewed from an European and Scandinavian perspective and scientific stronghold. Following
these presentations, the session will be opened up for a group discussion about the future of neuroscience study abroad and the role that FUN may play in it.
I serve as the Malcolm and Lois Field Endowed Chair in Health Science and the Director of the Brain Research Laboratory at Saginaw Valley State University. I earned my BS and MS in psychology from Georgia College and my Ph.D. in psychology from Emory University. The research that my students and I are currently focused on explores the mechanisms (behavioral, cellular, and pharmacological) that impact recovery from traumatic brain injury. I have mentored over sixty undergraduates in my lab over the years and many have gone on to receive post-baccalaureate training in psychology, neuroscience, medicine, and other health professions. I have been an active member of the undergraduate neuroscience community since 1999 serving as councilor for the Faculty for Undergraduate Neuroscience (FUN) for two terms and on multiple sub committees including the Nu Rho Psi steering committee, the Public Policy committee, and am currently President. I am currently serving as the member-at-large councilor for the Michigan SfN chapter and have previously served on the Midwest region steering committee for Psi Chi.

Session Title: Discussions with the FUN President

Scheduled: Sunday, 8/3, 11:45-11:15  SESSION IV: Plenary V.

Description:
This is an opportunity for the FUN President to discuss issues that he feels are most relevant to the FUN faculty, and a chance for faculty to highlight areas that they feel warrant further consideration and discussion by FUN.
Josh Titlow
Postdoctoral Research Associate, Department of Biochemistry University of Oxford

I recently completed a Ph.D. in Biology and began a postdoctoral position at the University of Oxford. My research focuses on mechanisms of plasticity in neural circuits using microscopy, electrophysiology, and behavioral techniques. I received MS in Biology and BS in Chemistry degrees from Marshall University, working on summation of modulatory effects in a giant fiber escape circuit. Each semester of grad school I've worked as a teaching assistant with lab instructor duties ranging from introductory biology to animal physiology and histology, plus one semester as an adjunct faculty teaching human physiology. During this time I've mentored 10 undergraduate students and been involved in neuroscience education by helping organize Brain Awareness Expos and presenting neuroscience lab activities to high school students. For undergraduate neuroscience education we have published three JOVE videos describing different invertebrate electrophysiology preparations that are appropriate for teaching labs. The lab module I am presenting at the FUN workshop was developed based on work that I did in the Drosophila Neurobiology course at Cold Spring Harbor last summer.

Session Title: Photo-Activation of an Escape Response: An optogenetics lab module for exploring neural circuits and behavior.

Scheduled: Friday, 8/1, 5:00-6:15
(Repeats Saturday, 8/2, 2:45-4:00)
SESSION II: Breakouts B.
SESSION VI: Breakouts E.)
(This session is also featured in the Intensive Pre-Workshop Seminar.)

Description:
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Tamily Weissman
Assistant Professor of Biology and Co-Chair of Neuroscience Program
Lewis and Clark College

Tamily Weissman is an Assistant Professor in the Biology Department and Co-Chair of the Neuroscience Program at Lewis & Clark College in Portland, Oregon. A Pomona College alumna, Tamily completed her PhD in Neurobiology & Behavior at Columbia University in 2004, in Arnold Kriegstein’s laboratory. She then completed a post-doctoral fellowship with Jeff Lichtman at Harvard, where she was a part of the team that developed the multicolor Brainbow cell labeling approach. Now in her own research lab at Lewis & Clark, Tamily uses Brainbow and other approaches to study the development of neuronal circuits in zebrafish. She teaches courses in neuroscience, genetics, and evolution. Tamily recently led a team of multidisciplinary faculty at Lewis & Clark to earn a National Science Foundation award to obtain the College's first confocal microscope. She also helped to found the Neuroscience Program at the College in 2013.

Session Title: In vivo multicolor time-lapse imaging in zebrafish – in an undergraduate setting.

Scheduled: Saturday, 8/2, 8:30-9:45  SESSION IV: Breakouts C.
(Repeats on Sunday, 8/3, 8:30-9:45  SESSION VIII: Breakouts F.)
(This session contains material featured in the Intensive Pre-Workshop Seminar.)

Description:

Danio rerio (zebrafish) is a powerful model system for visualizing the development of the brain and nervous system. This session will discuss in vivo approaches for time-lapse imaging in zebrafish larvae that are appropriate for an undergraduate research/teaching lab setting. One specific laboratory exercise will be presented that uses basic wide-field epifluorescence microscopy to follow individual fluorescently tagged mitochondria traveling along axons in the lateral line system. In this lab, undergraduate students visualize mitochondria in living fish and then quantify transport direction, velocity, and other features using free, downloadable software. Additional techniques will be discussed that expand to confocal microscopy, including in vivo time-lapse imaging of neuronal populations in multicolor “Brainbow” zebrafish.
Rebecca Weldon  
Postdoctoral Associate  
Department of Human Development  
Cornell University

Rebecca holds a Ph.D. in cognitive neuroscience from the George Washington University. Her dissertation work focused on working memory capacity and cognitive control. She is currently using fuzzy-trace theory to investigate individual differences and risk taking in behavior and the brain. Her research uses behavioral measures and fMRI to understand risky decision making in adolescents and adults.

Session Title: The Effect of Gist Processing on Risky Decision Making in the Brain

Scheduled: Friday, 8/1, 2:00-3:15  
SESSION I: PLENARY 1.

Description:
Risky decision making is a very timely topic of research in psychology, economics, and neuroscience. Adolescents tend to engage in risky behaviors every day, including substance abuse, risky driving, and unprotected sex. Adolescents are at the peak of physical robustness, yet they are also at an elevated risk of death, injury, and disease. Research has shown that adolescents differ from adults in emotional reactivity, motivation, and self-regulation, but substantial ambiguities remain about how these factors determine adolescents’ risky decision making.

We are currently investigating risky decision making in brain and behavior. Fuzzy-trace theory predicts that people engage in gist and verbatim processing simultaneously, but that the tendency to engage in gist processing increases with development. We employ a modification of the classic framing task to understand how networks in the brain are involved in risk taking in adolescents and adults. Using this task, we find that cueing gist versus verbatim processing can affect risky choice preference. Further, we demonstrate that gist processing can be observed in the brain, as there are several regions of interest in the parietal lobes for which the framing effect is most pronounced in the gist condition and least pronounced in the verbatim condition. Behavior and brain activation can be modulated depending on how risky choices are presented, which has extremely important implications for the modifiability of risky behavior in adolescence.
Joseph A. Whittaker  
Professor and Associate Director,  
NASA GESTAR Program  
Morgan State University

Dr. Whittaker's professional experience spans over 25 years of undergraduate, graduate and medical education, with countless contributions to each of these fields. He pursued undergraduate studies at Morgan State University (MSU) and the doctoral degree in Physiology and Biophysics from Howard University in 1988. Following a Postdoctoral Fellowship in Neuroscience at the University of Tennessee, he joined the Howard University faculty, and subsequently Morehouse School of Medicine (MSM) in Atlanta, where he served for 14 years in the Departments of Anatomy & Neurobiology and Psychiatry & Behavioral Sciences. At MSM, he spearheaded the MSM Developmental Neuroscience Program, which drove the design and construction of the current Neuroscience Institute. Dr. Whittaker later joined MSU as Dean of the School of Computer, Mathematical and Natural Sciences and is currently Associate Director of a $96 million NASA GESTAR Program. He also serves on several Boards as well as scientific review panels and committees at the National Science Foundation, the National Academy of Sciences, and the National Institutes of Health. He has active memberships in the Society of Neuroscience, International Brain Research Organization and Sigma Xi Scientific Research Society. Dr. Whittaker has been recipient of the National Role Model Faculty/Administrator Award from Minority Access, Inc, and was awarded the 2011 Baltimore Times Positive People Award by The Baltimore Times Publications.

Session Title: Retention of URM Faculty and Strategic Initiatives for Institutional Value Proposition.


Description:

Successful recruitment and retention of under-represented minority (URM) faculty have been fraught with challenges and remain a longstanding enigma throughout academia. Extensive research and strategic initiatives ranging from infrastructure development, leadership engagement, and mentoring, among others, have not yielded significant results in “moving the needle” towards meaningful institutional transformation or needed environmental culture change. Despite these shortcomings, many institutions have not leveraged their collective resources as an imperative for development of an inclusive culture to facilitate the creation of transparent and clear paths for engagement, retention and advancement of URM faculty. With current demographic shifts, there is an apparent need for implementation of more disruptive, multi-level and inclusive paradigms. This presentation will discuss potential environmental, socio-cultural and leadership constraints (linked to URM faculty retention) as likely contributors to lack of progress, and identify possible high-impact strategies to proactively address them. Higher Education institutions need to recognize and integrate diversity and URM faculty
retention as fundamental to the development of new capabilities and to raising their value proposition.
Eric Wiertelak
2014 FUN Workshop Chair
DeWitt Wallace Professor of Psychology and Director of Neuroscience Studies Program
Macalester College

Eric Wiertelak received his Ph.D. from the University of Colorado at Boulder and joined the faculty of Macalester College in 1993. He co-developed the college’s interdisciplinary neuroscience studies program, which he directs and in which he teaches the introductory course, advanced behavioral neuroscience and senior seminar. His research has multiple foci, investigating the impact of natural medicines and environmental influences on endogenous pain modulation systems as well as the mechanisms underlying dance and motor responses. A Fellow of the American Psychological Association (APA) and the Association for Psychological Science, he is the recipient of the FUN Career Achievement Award, the APA Brenda A. Milner Award, and the Minnesota Psychological Association Walter Mink Award for Outstanding Undergraduate Teaching. A past-president of FUN, he is President of Nu Rho Psi, the Honor Society in Neuroscience, serves as the FUN Liaison to the Society for Neuroscience, the Editor-in-Chief of the Journal of Undergraduate Neuroscience Education and is the Chair of the FUN Committee on Education and the FUN 2014 Workshop.

Session Title: Contributions far and wide: a. opportunities to contribute to JUNE and b. becoming an external review consultant.

Scheduled: Saturday, 8/2, 10:00-11:15  SESSION IV: Breakout Sessions D.

Description:
There are many opportunities to become more involved in the activities of FUN and the undergraduate neuroscience education community. This session will deal with two of these—publishing articles in the Journal of Undergraduate Neuroscience Education (JUNE) or helping with peer reviews; and becoming a FUN Program and Department Consultant. The FUN-PDC service pairs institutions in need of external reviewers, experts in particular technologies, and experts in a variety of aspects of program management with consultants from our growing list of members.
Ian Woods
Assistant Professor of Biology
Ithaca College

Ian Woods joined the Biology Department at Ithaca College in 2011. He did his undergraduate work in both Music and Biology at Stanford University. After spending a few years in the Peace Corps in the Solomon Islands, he went back to Stanford for his PhD in Developmental Biology and then went on to a postdoctoral fellowship at Harvard University. Here at Ithaca College, Ian uses zebrafish to study the development and function of the nervous system. He uses two approaches to study the role of neuropeptides in controlling aspects of behavior, as well as somatosensory development and function: (1) live imaging of transgenic embryos that express GFP in sensory neurons, and (2) high throughput behavioral studies of larval responses to somatosensory stimuli.

Session Title: Videohacking: Home-grown automated videotracking of animal behavior

Scheduled: Friday, 8/1, 3:30-4:45  
(repeats Saturday 8/2, 10:00-11:15)
SESSION II: Breakouts A.
SESSION IV: Breakouts D.)

Description:
Analysis of animal behavior via videotracking technology can provide powerful insights regarding brain function under normal conditions and upon genetic or pharmacological perturbations. Numerous commercial solutions for videotracking exist, but are often constrained by high cost, limited range of functionality, and difficulty of customization. Freely-available open source software, off-the-shelf video equipment, and a standard-issue laptop can, with a bit of tinkering and engineering, replicate the functionality of commercial systems, and can be customized for many diverse applications. I will present some videotracking software tools and ideas regarding custom-built equipment that can be inexpensively and easily applied to research and classroom use in an undergraduate setting.
Robert Wyttenbach
Senior Lecturer
Neuroscience and Behavioral Biology
Emory University

Bob Wyttenbach completed his PhD in Neurobiology and Behavior at Cornell University in 1995 and then stayed on to continue his research in insect hearing and to develop teaching materials with support from the NSF. He has written or coauthored resources such as Crawdad (neurophysiology lab manual), PsyCog (experiments in perception and cognition), and GameBug (evolutionary game theory tutorial) and has given many faculty workshops with others on the Cornell team. He is now a senior lecturer in Neuroscience and Behavioral Biology at Emory University. In addition to producing the videos used in Crawdad, he has produced training videos for technicians at HHMI’s Janelia Farm campus.

Session Title: Smile, you're (not) on camera: Documenting lab procedures with video.

Scheduled: Saturday, 8/2, 10:00-11:15
(Repeats on Sunday, 8/3, 8:30-9:45)
SESSION IV: Breakouts D.
SESSION VIII: Breakouts F.

Description:
Laboratory procedures such as dissections are often easier to show than to describe. However, demonstrating to a class is time-consuming and, when procedures take place under a microscope, difficult. Homemade video can solve this problem using readily available consumer-level technology and software. Whether your video is quick-and-dirty or polished, it can save time and improve student performance in the lab. This session will cover some of the technology and suggest ways to polish homemade video. Topics will include planning a video, image quality, lighting, editing, narration and subtitles, and delivery on multiple platforms. There will be time for participants to share their experiences and ask specific questions regarding videos that they might wish to make.
Hermes H. Yeh
William W. Brown Professor and Chair, Department of Physiology and Neurobiology
Geisel School of Medicine at Dartmouth College

Dr. Yeh received the Ph.D. degree in Cell Biology with concentration in Neuroscience from the University of Texas Southwestern Medical Center at Dallas. His research interests are in the neurosciences. Specifically, his research revolves around issues related to the functions of neurotransmitter systems and neurotrophins in the normal and diseased brain. There are several research programs ongoing in his laboratory. One of the research programs investigates the role of GABA as a developmental neurotransmitter in regulating neuronal migration and synapse formation at embryonic stages of corticogenesis. This project has been extended to examining the enduring effects of maternal ethanol (alcohol) consumption on brain development in the offspring. Another research program seeks to delineate the cellular and molecular mechanisms underlying altered synaptic plasticity within the septohippocampal system, including the actions of neurotransmitters and neurotrophins. All of the research projects combine experimental approaches that include electrophysiology, neuroanatomy, biochemistry and molecular biology. Overall, these projects have laid the groundwork for graduate students and postdoctoral fellows to develop and elaborate on their own research interests and directions.

Dr. Yeh has taught actively in the medical school and graduate school curricula, and has leadership roles in directing graduate education and training at the institutional and national levels.

Session Title: Best Practices: sometimes the magic works, sometimes it doesn’t.
Scheduled: Saturday, 8/2, 1:15-2:30    SESSION V: PLENARY 2.

Description:
This plenary session will be focused on best practices and innovative approaches that were highlighted by CNDP when making selections for the Undergraduate Neuroscience Programs of the Year awards. One area of focus will be on the peer-mentoring system, including what works and what does not work. A special segment of this approach will be devoted for starting an introduction to research lab for freshmen and how the goals of this class could work into the peer-mentoring system. Closely related to the peer-mentoring model, will be a presentation on the TEAM approach that is used in a larger school environment. Included in this forum will be a discussion on some of the political problems associated with running an undergraduate program in a university that is trying to transition from teaching, as its primary mission, into a research university. Finally, an open discussion will allow participants to share or discuss new ideas—both magical and not.