October 20th 2018

Dear HAPS 2018 Western Regional Conference Attendees:

It is my privilege and honor to welcome you to the College of Marin in Kentfield, CA. COM values and understands the importance of human anatomy and physiology education as it is the gateway to numerous professional careers for our students. Thank you for coming today to learn, collaborate, and network with fellow colleagues in order to improve pedagogical skills.

The College of Marin is dedicated to offering a high quality education to our diverse community. We offer a wide range of credit and noncredit courses, and community education classes for lifelong learners. Please feel free to tour our new laboratories in the Science and Mathematics building, walk around our campus, and enjoy the beautiful views that Marin has to offer. I hope you have an engaging, interactive, and productive conference that will lead to innovative teaching methodologies in human anatomy and physiology education.

Sincerely,

Carol Hernandez, Ed.D.
Dean of Mathematics & Sciences
College of Marin
835 College Avenue
Kentfield, CA 94904
415-485-9506
October 20, 2018

HAPS Western Regional Meeting Attendees:

It is with pleasure that I welcome you to the College of Marin’s Kentfield campus for the 2018 Human Anatomy and Physiology Society (HAPS) Western Regional meeting. This conference promises to provide you with valuable information and tools that will support and improve teaching and learning in your field, as well as the opportunity to collaborate, connect and share with other educators.

While you are here, I hope that you will take some time to walk around our beautiful campus and enjoy the view of Mount Tamalpais. We are truly fortunate to work in such a beautiful location and are very proud of the physical transformation of the campus over the past several years with new and renovated facilities. Our Math, Science and Nursing facility, constructed in 2013, earned top design honors from the American School and University trade publication and we are delighted to share this state of the art facility with you, our students and faculty.

The College of Marin is very proud of our history and programs in the sciences and I hope that all of you have an enjoyable and memorable experience at the conference today.

Sincerely,

[Signature]

David Wain Coon, Ed.D.
Superintendent/President
COLLEGE OF MARIN

BUIDLINGS AND FACILITIES

• Academic Center
• Bookstore
• Cafeteria, Student Lounge
• Child Study Center
• Community Education
• Dance Center
• Student Accessibility Services Office
• Fine Arts Building
• Fine Arts Gallery
• Fusselman Hall
• Gymnasium
• Health Services
• Human Resources
• James Dunn Theatre
• Learning Resources Center
• Library
• Maintenance & Operations
• Performing Arts/Drama/Music/Dance
• Physical Education Center
• Police/Lost and Found
• Registration/Admissions
• Science-Math-Nursing
• Sheriff
• Student Services Building
• Village Square

PARKING
Designated parking available for: carpools/vanpools, motorcycles, persons with disabilities and fuel efficient vehicles. Vehicles on campus are subject to parking and traffic regulations. All cars must have a permit which may be purchased from the parking ticket dispensers located in parking lots. Parking permits are required at all times, except Sundays and school holidays. Note: Child Study Center is located at 1144 Magnolia Avenue.

SPRING 2018
Kentfield Campus
835 College Avenue, Kentfield, CA 94904

College of Marin is a smoke-free environment. Smoking is permitted in designated areas only.

POLICE PHONE NUMBERS
Emergency: 911
Urgent: 415.485.9696
KTD Police Business: 415.485.9455
<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>7:00 AM –</td>
<td>Exhibitor Set-up</td>
<td>Science, Math &amp; Nursing Building (SMN) Second Floor – Rm 224</td>
</tr>
<tr>
<td>7:30 AM –</td>
<td>Registration</td>
<td>Performing Arts Building (PA) Lobby</td>
</tr>
<tr>
<td>7:30 AM –</td>
<td>Breakfast with Exhibitors</td>
<td>Performing Arts Building (PA) Lobby</td>
</tr>
<tr>
<td>8:45 AM –</td>
<td>Welcome: Conference Coordinators: Becky Brown and Glenn Yoshida</td>
<td>Lefort Hall, PA Building, Rm 72</td>
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<tr>
<td>9:00 AM –</td>
<td><strong>Update Seminar I:</strong> Mark Tanouye, University of California - Berkeley</td>
<td>Lefort Hall, PA Building, Rm 72</td>
</tr>
<tr>
<td>10:00 AM –</td>
<td><strong>“Drosophila as an Animal Model for Human Epilepsy: Modifying Seizure-Susceptibility by Mutation and by Drugs”</strong></td>
<td>Lefort Hall, PA Building, Rm 72</td>
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<tr>
<td>10:00 AM –</td>
<td>Break with Exhibitors</td>
<td>SMN, Second Floor</td>
</tr>
<tr>
<td>10:20 AM –</td>
<td>Optional Breakout Session: “Development of a HAPS Cadaver Dissection Mentorship Program”</td>
<td>SMN, Second Floor, Rm 225</td>
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<tr>
<td>11:00 AM –</td>
<td>Workshop Session 1</td>
<td>SMN, Second Floor Classrooms</td>
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<tr>
<td>12:00 PM –</td>
<td>Lunch</td>
<td>PA Lobby</td>
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<tr>
<td>1:00 PM –</td>
<td><strong>Update Seminar II:</strong> Kevin Petti, San Diego Miramar College</td>
<td>Lefort Hall, PA Building, Rm 72</td>
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<tr>
<td>2:00 PM –</td>
<td><strong>“Connecting Art and Anatomy in Italy”</strong></td>
<td>Lefort Hall, PA Building, Rm 72</td>
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<tr>
<td>2:00 PM –</td>
<td>Break with Exhibitors</td>
<td>SMN, Second Floor</td>
</tr>
<tr>
<td>2:15 PM –</td>
<td>Optional Tour: COM Cadaver Lab</td>
<td>SMN Second Floor, Rm 205</td>
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<tr>
<td>3:00 PM –</td>
<td>Workshop Session 2</td>
<td>SMN, Second Floor Classrooms</td>
</tr>
<tr>
<td>4:00 PM –</td>
<td>Closing &amp; Door Prizes</td>
<td>SMN, Rm 224</td>
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HAPS Conference attendees can gain access to WiFi at COM by using the Guest Network. No password is necessary.
HAPS Western Regional Meeting 2018
Exhibitors

HAPS would like to recognize and thank all of our conference exhibitors. Their generous support makes this conference possible.

Exhibitors
ADI Instruments
Gale, A Cengage Company
Pearson
Vernier Software

Don’t forget to register for HAPS 2019!

The HAPS 2019 Annual Conference will take place in Portland, Oregon on May 22nd through May 26th.

The last day to register at the Early Bird rate is February 15th, so register online today!
Update Speaker I

Mark Tanouye

“Drosophila as an Animal Model for Human Epilepsy: Modifying Seizure-Susceptibility by Mutation and by Drugs”

9:00 – 10:00 am
Lefort Hall, Rm 72 – Performing Arts (PA) Building

Abstract: Despite the frequency of seizure disorders in the human population, the genetic and physiological bases for these central nervous system dysfunctions have been difficult to resolve. Although many genetic defects that cause seizure susceptibility have been identified, the defects involve disparate biological processes, many of which are not neural specific. The large number and heterogeneous nature of the genes involved makes it difficult to understand the complex factors underlying the etiology of seizure disorders. Examining the effect known genetic mutations have on seizure susceptibility is one approach that may prove fruitful. This approach may be helpful both in understanding how different physiological processes affect seizure susceptibility and in identifying novel therapeutic treatments. We have taken advantage of Drosophila, a genetically tractable system, to identify factors that modify seizure susceptibility. Of particular interest has been a group of Drosophila mutants, the bang-sensitive (BS) mutants, which are much more susceptible to seizures than wild type. The BS phenotypic class includes at least eight genes, including three introduced here, bangsenseless (bss), easily shocked (eas), and slamdance (sda). In addition to causing epilepsy, genetic factors can suppress seizures and epileptogenesis. Examination of seizure-suppressor genes is challenging in humans. However, such genes are readily identified and analyzed in Drosophila. A novel class of genes called seizure-suppressors is described. Mutations defining suppressors revert the “epilepsy” phenotype of neurological mutants. We conclude this talk with particular discussion of a seizure-suppressor gene encoding DNA topoisomerase I (top1). Mutations of top1 are especially effective at reverting the seizure-sensitive phenotype of Drosophila epilepsy mutants. In addition, an unexpected class of anti-epileptic drugs has been identified. These are DNA topoisomerase I inhibitors such as camptothecin and its derivatives; several candidates are comparable or perhaps better than traditional anti-epileptic drugs such as valproate at reducing seizures in Drosophila drug feeding experiments.

Bio: Mark Tanouye was born in San Jose, CA and grew up in Sunnyvale, CA. He received the B.S. degree from Stanford University, and the Ph.D. degree from Yale University. He was a postdoctoral fellow at Caltech. He was formerly Assistant Professor of Biology at Caltech. He is currently at the University of California, Berkeley where he is Professor in the Department of Environmental Science, Policy, and Management. He holds joint appointments in the UC Berkeley Department of Molecular and Cell Biology and the Helen Wills Neuroscience Institute. Tanouye developed numerous electrophysiological methods for studying the nervous system of the fruitfly Drosophila melanogaster. He has studied the molecular biology and genetics of voltage-gated ion channels using Drosophila mutants. In recent years, he has studied genes in Drosophila responsible for neurological dysfunction, especially genes responsible for seizure disorders.
Abstract: Italy’s medieval universities established the study of human anatomy for physicians. To heighten their art, Renaissance masters clandestinely examined anatomy through human dissection. The profound connection between art and science in Italy is beautifully demonstrated by the genius of Michelangelo. Indeed, the wooden crucifix he carved in gratitude for secret access to corpses from a convent’s hospital still hangs in the Basilica of Santo Spirito in Florence. This talk will examine the nexus between art and science, the history of anatomy education in the university, and how this story is unique to the Italian peninsula.

Bio: Kevin Petti, Ph.D. is a dual U.S./Italian citizen, a college professor, a textbook coauthor, and president-emeritus of the Human Anatomy and Physiology Society. Dr. Petti teaches anatomy and physiology, human dissection, and health science at San Diego Miramar College, where he is a full professor. Dr. Petti also leads academic programs to Italy focusing on the genesis of anatomy as a science, and it’s influence on the Renaissance masters in the Anatomia Italiana program he founded in 2012. His students range from anatomy professors pursuing continuing education, to undergraduate study abroad programs for San Diego State University.

Dr. Petti is invited to speak about the connection between art and anatomy in Greco-Roman, Medieval, and Renaissance Italy at international conferences, museums, and Italian-American groups, as well as universities throughout North America and Europe. The Italian government has invited him to speak at their Cultural Institutes in Los Angeles and New York City, and The University of Palermo, Sicily, hosted Dr. Petti for a week as a guest lecturer in their seminar series celebrating its 210th anniversary. Dr. Petti also served as Senior Scientific Consultant and General Coordinator for North America, for the 2017 International Congress on Anatomical Wax Modeling, London.
Workshop Presentations

Session 1: 11:00 AM – 12:00 PM

101: SMN 227
Vernier For Human Physiology Courses Using Different Platforms
John Melville, Vernier Software, jmelville@vernier.com
*Sponsored by Vernier Software*
Students gain a deeper understanding of physiology concepts when using sensors to collect their own physiological data. This combined demonstration and hands-on workshop will focus on how to use physiology sensors on a variety of platforms. Emphasis will be placed on Graphical Analysis 4, but LabQuest 2 and Logger Pro will also be demonstrated. Bring your own device to explore how student learning can be enhanced by Data Sharing and learn to use our new Go Direct human physiology sensors that can be used wirelessly.

102: SMN 207
Engaging Students in Learning Cardiovascular Anatomy by Utilizing Pig Heart Dissection Prior to Cadaver Viewing
Rosalind McClure, Oregon Institute of Technology, rosalind.mcclure@oit.edu
Dissection is a hands-on approach to learning anatomy, students are able to gain a greater understanding of the human heart through exploration of a pig heart. In this workshop, we will dissect pig hearts and discuss various cardiovascular anatomical structures that should be emphasized. If time allows, additional hands-on activities such as cadaver viewing, ultrasound, blood typing, and cholesterol testing will be shared.
**Workshop Presentations Continued**

**Session 2: 3:00 – 4:00 PM**

**201: SMN 227**  
**Vernier For Human Physiology Courses Using Different Platforms**  
John Melville, Vernier Software, jmelville@vernier.com  
*Sponsored by Vernier Software*  
Students gain a deeper understanding of physiology concepts when using sensors to collect their own physiological data. This combined demonstration and hands-on workshop will focus on how to use physiology sensors on a variety of platforms. Emphasis will be placed on Graphical Analysis 4, but LabQuest 2 and Logger Pro will also be demonstrated. Bring your own device to explore how student learning can be enhanced by Data Sharing and learn to use our new Go Direct human physiology sensors that can be used wirelessly.

**202: SMN 229**  
**A&P Cases - Connecting the Systems by Using Cases and Flow Charts**  
Daniel Brouse, Southwestern Oregon Community College, dbrouse@socc.edu  
This A&P Cases project uses health conditions to bring the individual back into focus while reinforcing the detailed study of lower levels of organization. It also emphasizes the interconnections of different systems, and encourages students to work through the underlying A&P while de-emphasizing diagnosis. The instructor has been using this case approach since 2007 and has observed that students are able to work though causality, the meaning of signs, symptoms and diagnostic test results while staying focused on the underlying A&P. The presenter will introduce the method and provide some examples for workshop attendees to experience.
Thank you for coming and participating in our 2018 HAPS Western Regional Meeting at College of Marin. The heart and soul of HAPS has always been the people of HAPS. Thank you for joining together to engage in our ongoing conversation about how to strengthen our students’ understanding of Human Anatomy and Physiology.

A special thanks to the following College of Marin (COM) faculty, staff and administration for the hard work they have done to bring this conference to life:

**COM Administration**
David Wain Coon, Superintendent/President
Carol Hernandez, Dean of Math and Sciences

**COM Faculty and Staff**
Lindsay Bacigalupi, Facility Rental Supervisor
Tina Christensen, Faculty, Life & Earth Sciences
Andy Harber, Technical Support Specialist
Joanna Pinckney, Administrative Assistant, Performing Arts
Monica Rudoph, Administrative Assistant, Math and Sciences
David White, Designer Stage Technician

**Caterer**
Suzy Lee

We also thank our loyal exhibitors, update speakers, workshop and poster board presenters. In addition, we want to recognize the following HAPS personnel/members for their assistance:

- J. Mark Danley
- Peter English
- Jeannette Green
- Britney Roberts
- Margaret Weck
- Jon Jackson
- Terence Lee
- Tom Lehman
- Terry Thompson

All the hard work on everyone’s part made this day so worthwhile and enriching. We hope to see you again in the near future, possibly at next year’s annual HAPS 2019 Conference in Portland, Oregon or at one of several HAPS Regional Meetings scheduled next year.

Sincerely,

The 2018 Western Regional Meeting Co-Chairs:
Becky Brown, College of Marin
Glenn Yoshida, Los Angeles Southwest College, Prof. Emeritus