HAPS Central Regional Meeting
October 19, 2019

COLUMBUS STATE COMMUNITY COLLEGE
Dear Conference Attendee,

I am pleased to welcome you to our downtown campus for the Human Anatomy and Physiology Society 2019 Central Regional Meeting.

We appreciate opportunities to welcome visitors to our campus and to showcase the many excellent programs and opportunities we have for the study of anatomy and physiology. We are also excited to discover what you're doing in your own classrooms and laboratories. It is an honor to host a group committed to promoting teaching excellence.

I hope you will find our state-of-the-art facilities to be the perfect place for collaboration, innovation, and learning. We are proud of our campus and even more proud of the diverse community we have studying and working here.

If you're new to Columbus, plan to also spend some time at the Center of Science and Industry (COSI), our fantastic hometown science museum. Our city also is home to a vibrant entertainment atmosphere, featuring unique neighborhoods and restaurants. You can find out more about all our city has to offer at https://www.experiencecolumbus.com.

Once again, welcome. I hope you enjoy your time on our campus and time with each other.

Very truly yours,

[Signature]

David T. Harrison
President
**HAPS Central Regional Conference**  
**Columbus State Community College**  
**Schedule of Events**  
**October 19, 2019**

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<th>Time</th>
<th>Event</th>
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<td>7:30 AM – 8:00 AM</td>
<td>Exhibitor Setup</td>
<td>*WD Ballroom</td>
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<tr>
<td>8:00 AM – 8:45 AM</td>
<td>Registration</td>
<td>Outside WD Ballroom</td>
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<tr>
<td>8:00 AM – 8:45 AM</td>
<td>Breakfast with Exhibitors</td>
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<tr>
<td>8:45 AM – 9:00 AM</td>
<td>Welcome: Conference Coordinator: Lyndsy Frazier</td>
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<td>9:00 AM – 10:00 AM</td>
<td>Keynote Presentation: Freeric Bertley, PhD</td>
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<td></td>
<td>“Communicating Science: Empowering Both Students and Lay Public About the Importance of Science Literacy of Biosciences”</td>
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<tr>
<td>10:00 AM – 10:45 AM</td>
<td>Workshop Session 1</td>
<td>CW 410, 412A, 412B, 418</td>
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<td>10:45 AM - 11:15 AM</td>
<td>Break with Exhibitors</td>
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<td>11:15 AM – 12:00 PM</td>
<td>Workshop Session 2</td>
<td>CW 410, 412A, 412B, 418</td>
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<td>12:00 PM – 1:00 PM</td>
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<td>1:15 PM – 2:00 PM</td>
<td>Workshop Session 3</td>
<td>CW 410, 412A, 412B, 418</td>
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<td>2:00 PM – 2:30 PM</td>
<td>Break with Exhibitors</td>
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<td>2:30 PM – 2:45 PM</td>
<td>Closing &amp; Door Prizes</td>
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<tr>
<td>2:45 PM – 3:30 PM</td>
<td>Cadaver Lab, Physiology Lab, Nursing Simulation Lab Tours</td>
<td>Union 410, 543, 544, and 547</td>
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<tr>
<td>3:45 PM – 5:30 PM</td>
<td>Social Hour at Land Grant Brewing Company</td>
<td>424 W. Town St. Columbus, OH 43215</td>
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*please note transportation is not provided for this event*

*WD = Center for Workforce Development*

To access the CSCC WiFi, please select CSCC-Visitor Network and agree to the terms.
Columbus State Community College

Campus Map

Center for Workforce Development Building Map
HAPS Central Regional Meeting
Exhibitors

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

Exhibitors
3B Scientific
ADInstruments
bluedoor Publishing
Goodheart Willcox Publisher
McGraw Hill Education

The HAPS 34th Annual Conference will be held in Ottawa, Ontario on May 23 through May 27. The Update Seminar portion of the meeting (May 23-25) will be held at The Westin Ottawa and the Workshop portion of the meeting (May 26-27) will be held at The University of Ottawa.

Online registration is now open!
Update Speaker

Frederic Bertley

“Communicating Science: Empowering Both Students and the Lay Public About the Importance of Science Literacy of Biosciences”

9:00 – 10:00 AM
Center for Workforce Development Ballroom

Abstract: In this presentation, Dr. Bertley will discuss the progress of science, technology, engineering and mathematics (STEM) and the impact of this scientific and technological revolution on our society. With a focus on biosciences, the presentation will showcase cutting edge innovations and discoveries from both life scientists and bioengineers around the world that can solve some of the world’s greatest health challenges and provide hope for future generations. From nanotechnology and computer science to genomics and bio-engineering, Bertley will take you through a tour-de-force of technological advances. Despite these incredible resources and the increasing career diversity and employment opportunities, there simultaneously exists a growth in science illiteracy. Dr. Bertley discusses this duality and challenges us as a society to care more about science, and regardless of the professional career choices made in life, develop basic science literacy skills and have a healthy appreciation for the scientific community.

Bio: Frederic Bertley is shepherding COSI, the leading Central Ohio science center, to its next great iteration in a legacy success. Prior to COSI, Dr. Bertley was the SVP for Science and Education at The Franklin Institute, where he oversaw a diverse portfolio of initiatives supporting innovation in STEM learning regionally, nationally, and internationally. He also directed the storied 200 year-old Benjamin Franklin Awards Program. After graduating from McGill University where he studied Physiology, Mathematics and earned a Ph.D. in Immunology, Dr. Bertley worked in preventative medicine and vaccines in Haiti, The Sudan, and the Canadian Artic. He then joined a research group at Harvard Medical School focusing on the development of DNA vaccines for HIV/AIDS and later worked in IP at WilmerHale. Dr. Bertley has been a speaker at several distinguished institutions including The UN, The White House, and the National Academy of Sciences. He has received numerous honors including: Dell’s Inspire 100 World Changers, Harvard Medical School Dean’s Service Award, the George Washington Carver Award, a citation from the Commonwealth of Pennsylvania, and is a two time Mid-Atlantic EMMY™ winner. He received an Honorary Doctorate from Otterbein University. Bertley serves on numerous Boards in Columbus, Philadelphia and Montreal, Canada.
Workshop Presentations

Sessions 1 – 10:00 AM – 10:45 AM

101 (WD 410) - How to Produce and Implement an Alternative to Traditional Textbooks in a Digital Format for Various Anatomy and Physiology Teaching Modalities
Lyndsy Frazier, Columbus State Community College, lfrazier11@csc.edu, Merideth Sellars, Columbus State Community College, msellars@csc.edu, Julie Posey, Columbus State Community College, Cathy Bill, Columbus State Community College, Eric Kenz, Columbus State Community College
This presentation will demonstrate a complement of unique digital books for students taking Anatomy and Physiology. The innovative and pioneering books allow teaching to be engaging, exciting and interactive, both in the traditional and web modalities. The content is student driven, downloadable and collaborative, giving easy access to all. Data indicates success, both from an academic perspective and student experience. The classroom and technology merge beautifully, and the way in which the material can be delivered is forever changed. Let us show you this tailor-made resource that exceeds anything previous open resources can offer for anatomy and physiology.

102 (WD 412 A) - Sex and Sport: Exploring the Practice of Sex Verification of Athletes to Teach Sex Determination and Build Quantitative Reasoning Skills
Jessica Ashley Allen, Columbia College of SC, jallen@columbiasc.edu
Sponsored by HHMI BioInteractive
Currently, both scientists and governing bodies for sporting events are struggling with the issue of how and if binary segregations for “male” or “female” should be determined for athletic competition. This workshop introduces an activity available on QUBES where students analyze one potential approach to sex verification by interpreting data about testosterone levels of elite athletes. Workshop participants will explore this quantitative reasoning activity and the associated HHMI BioInteractive resource "Sex Verification of Athletes", and then discuss how this activity has and can be used in various courses of differing size, student populations, and informational content.

103 (WD 412 B) - Histology Speed-dating: Help Your Students Make a Meaningful Connection
Katrina Porter, Penn State University, klp5517@psu.edu
Histology is a difficult topic for A&P students to grasp, causing many to feel overwhelmed. Combine the complex nature of histology with lack of sufficient lab time, and I often see students struggle to retain key information about histology. In the interest of time constraints, I established a "Speed-dating" setup in the lab, to allow every student a short but meaningful "meeting" with each tissue type. Students play a role in creating the tissue's station, including microscope set-up and creating the tissue's "profile". Students then rotate station-to-station, allowing them an attempt to make that "meaningful connection" with each tissue type.

Sessions 2 – 11:15 AM – 12:00 PM

201 (WD 410) - Using Guided Inquiry to Teach Anatomy and Physiology Core Concepts
Murray Jensen, University of Minnesota, msjensen@umn.edu, Kerry Hull, Bishop's University, khull@hapsconnect.org, Betsy Ott, bott@tjc.edu, Kyla Ross, kross@hapsconnect.org, Ron Gerrits, gerrits@msoe.edu
This session is directed towards anatomy and physiology educators who wish to revisit what they teach and how they teach it. The presenters will focus on two recommendations of national policy documents: focusing on core concepts, and incorporating inquiry and cooperative learning methods. Participants will: 1. learn how current research in anatomy and physiology education complements the recommendations of the Next Generation Science Standards and Vision and Change national policy documents; 2. increase their knowledge of instructional strategies for small group learning and guided inquiry; 3. acquire inquiry-based curriculum materials; and 4, interact with fellow A & P educators.
202 (WD 412 A) - Reduce and Flip to Engage Your Students
Nelson H. Kraus, University of Indianapolis, nkraus@uindy.edu

Sponsored Presentation
After a half century of facilitating learning in a variety of settings including colleges, universities, the US Army, and business and industry, I realized the traditional means of transferring knowledge at an undergraduate level was out of date and ineffective in the 21st century. My eighteen and nineteen-year-old college freshmen and sophomores are different than student cohorts of even five years ago. Much of the change is driven by their apparent addiction to smartphones. They are the "iGeners" as described by Dr. Tenge at San Diego State. As a result, I no longer lecture in my classes at UIndy. Rather than telling the students what they need to know, I ask questions to engage them in peer instruction modeled after Dr. Eric Mazur, a Harvard physics professor. I have dramatically reduced the amount of content we cover and flipped my classroom from one that is teacher-centered to a true student-centered classroom. It makes teaching a real JOY, AGAIN!

203 (WD 412 B) - Autopsy.Online - Your Cadaver Lab Next Door
Ben Margolis, Autopsy Center of Chicago, info@autopsychicago.com

Sponsored by Autopsy Center of Chicago
Dr. Margolis will discuss the interactive anatomy platform, autopsy.online, and illustrate how this online platform of real human casework spans the cadaver lab-digital resource divide in anatomy education. Participants are encouraged to share their "in-the-field" views as concepts are presented.

Sessions 3 – 1:15 PM – 2:00 PM

301 (WD 410) - Teaching the Gray: Fostering Critical Thinking By Discussing Unique Clinical Case Studies in A&P Courses
Jeanette M. Ferguson, Columbus State Community College, jfergus1@csc.edu
The presenter's experience as a student facing a non-traditional diagnosis will illustrate the importance of using case studies featuring unique presentations of diseases to foster critical thinking in undergraduate A&P students. Course resources describe the most common patients and presentations of diseases, but students need to recognize that there will always be patients who do not fit the norm. Exposing students to the "gray" situations that stray from the straightforward black and white descriptions from their courses will help them with thinking outside of the box and help them gain better insight into real world health care situations.

302 (WD 412 A) - Would You Be My Neighbor?: A Peer Instruction Approach to Teaching and Learning Anatomy
Edgar R. Meyer, University of Arkansas for Medical Sciences, ermeyer@uams.edu
There is a trend among science, technology, engineering, and mathematics (STEM) disciplines to utilize evidence-based practices when instructing students. One evidence-based practice, peer instruction, is effective in promoting students' conceptual understanding of content in physics, biology, chemistry, and computer science courses when applied in specific steps. This workshop will explain how peer instruction can be applied to anatomy courses to increase student engagement and conceptual understanding of specific content. Attendees will be grouped in pairs, experience how peer instruction works in its seven-step sequence, and gain understanding of the roles of both the students and faculty facilitator during the session.
303 (WD 412 B) - Metacognition, the Real MVP!
Chasity O'Malley, Nova Southeastern University, chasityomalley@gmail.com

One of the major hurdles that instructors face is the under-prepared student who doesn't know how to appropriately attack the material for success. Using metacognition is one way to help students recognize where they need to make improvements and how to make such improvements. This workshop will touch on the importance of metacognition and how to introduce your students to it, along with some examples for the students. We will also focus on how to set up your course/syllabus for successful guidance towards student success. Audience participation is requested, so please bring your strategies to share and questions to discuss.
On behalf of the Human Anatomy and Physiology Society (HAPS) I would like to thank you for visiting Columbus, Ohio and for participating in our Fall 2019 HAPS Central Regional Meeting at Columbus State Community College. Your attendance and participation are greatly appreciated. Thank you for sharing your knowledge and expertise. Scientific education and research can only grow by dedicated people like you.

Thank you to Columbus State Community College administration, faculty, staff, and committee members for the great support and hard work to make this conference possible. This event would not have been possible without the help and assistance from you all.

I also would like to thank our loyal exhibitors, update speakers, and workshop.

In addition, a special thanks to Brittney Roberts, HAPS assistant business manager, for her great support and assistance in making this meeting a success.

We hope to see you again at another regional conference and in May 2020 at the 34th annual HAPS Conference in Ottawa, Ontario.

Sincerely,

Lyndsy Frazier
Host – HAPS Fall 2019 Central Regional Conference