Regional Meeting

Saturdays – May 30, 2015

Schulich School of Medicine and Dentistry,
Western University, London, Canada

Regional Meeting Program
WELCOME TO LONDON, CANADA!

Thank you for participating in our 2015 Regional Meeting. We want to thank our sponsors for supporting the meeting, especially the Schulich School of Medicine and Dentistry, Western University for being our gracious host and sponsor. In addition, a special thanks to the Planning Committee for their hard work in organizing a fantastic program: Dr. Kem Rogers (Organizer), Brian Allman, Tim Wilson, Victoria Roach, and Sonya Van Nuland.

SAVE THE DATE FOR THESE UPCOMING AAA MEETINGS:
Regional Meeting - October 3, 2015 at the Medical College of Wisconsin in Milwaukee, WI
Annual Meeting at Experimental Biology – April 2-6, 2016, San Diego, CA

THANK YOU TO OUR SPONSORS:
# Schedule of Events

All sessions located in the University Community Centre (UCC) except Workshop 1

## Friday, May 29

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
<th>Location</th>
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<tbody>
<tr>
<td>6:00 pm – 9:00 pm</td>
<td>Welcome Reception</td>
<td>(UCC 2nd floor, The Wave Restaurant)</td>
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## Saturday, May 30

### Morning Sessions – Located in UCC Auditorium 146

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
<th>Location</th>
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<tr>
<td>7:30 am - 8:30 am</td>
<td>Registration &amp; Continental Breakfast</td>
<td>(UCC Mustang Lounge/165)</td>
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<tr>
<td>8:45 am - 9:00 am</td>
<td>Welcome Address</td>
<td>Dr. Kem Rogers – Western University</td>
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<td>Dr. Philip Brauer– Creighton University and AAA President-Elect</td>
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<td></td>
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<td>Dr. Brian Allman – Western University</td>
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<tr>
<td>9:00 am - 9:30 am</td>
<td>Learning Styles in Anatomical Education, Does Style Matter?</td>
<td>Dr. Mark Terrell, Ed.D. – Lake Erie College of Osteopathic Medicine</td>
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<tr>
<td>9:30 am - 10:00 am</td>
<td>Fossils and Embryos: Understanding Skull Complexity</td>
<td>Dr. Tamara Franz-Odendaal, Ph.D. – Mount Saint Vincent University</td>
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<tr>
<td>10:00 am - 10:30 am</td>
<td>Coffee Break</td>
<td>(UCC Mustang Lounge/165)</td>
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<tr>
<td>10:30 am - 11:00 am</td>
<td>Nerve Growth Factor Mediates Axonal Plasticity in Response to Disease and Aging</td>
<td>Dr. Michael Kawaja, Ph.D. – Queen’s University</td>
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<tr>
<td>11:00 am - 11:30 am</td>
<td>The Channel Protein Panx1 Regulates Early Skin Development and Melanoma Transformation</td>
<td>Dr. Silvia Penuela, Ph.D. – Western University</td>
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### Lunch/Posters

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
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<tbody>
<tr>
<td>11:30 am - 2:00 pm</td>
<td>Lunch</td>
<td>(UCC 2nd floor, The Wave Restaurant)</td>
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<tr>
<td></td>
<td>Poster Session and Student Poster Judging</td>
<td>(UCC Mustang Lounge/165)</td>
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### Afternoon Sessions

#### Concurrent Proceedings

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<th>Time</th>
<th>Event</th>
<th>Location</th>
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<tbody>
<tr>
<td>2:00 pm - 3:15 pm</td>
<td>Workshop 1: Simulation Experiences in Basic Anatomy and Clinical Skills Workshop</td>
<td>(Labatt Health Sciences Bldg., The Anatoratorium 322 and Clinical Nursing Suite 306)</td>
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<tr>
<td></td>
<td>Jamie Melling, Barb Sinclair and Danielle Brewer – Western University</td>
<td>Conference participants interested in wider clinical simulations and face-to-face anatomical education without the use of dissection will be keen to participate in this</td>
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</tbody>
</table>
workshop. The facilities serve multiple cohorts of students and faculty in Nursing, Health Studies, and Kinesiology. The Anatatorium is a gross anatomy laboratory utilizing plastic models and a state-of-the-art large format stereoscopic projection system enabling students to undertake laboratory objectives without the use of cadavers. Attendees to this workshop will participate in a typical laboratory session in the Anatatorium to experience how the facility uses stereoscopic projection in undergraduate education. Following the hands-on lab, attendees will move to the Simulated Education Suite. This laboratory houses a nine-bed simulated hospital facility where students learn to engage in basic and complex care and develop critical thinking skills. The facility utilizes programmable simulated patients to teach students about the management of complex clinical situations. Workshop attendees will participate in hospital case studies that will incorporate concepts introduced in the anatomy lab.

Workshop 2: Bringing Your Anatomy Lab Online
(UCC Classroom 54A)
Kem Rogers and Sonya Van Nuland – Western University

This workshop will demonstrate how to transform your undergraduate anatomy class with a laboratory component seamlessly into an online e-learning environment. Our online approach conveys 3D anatomical modules, anatomy labs, lecture streaming, archiving, and evaluation in an interactive platform. Recently validated as a quantitatively equivalent to face-to-face instruction, this methodology is revolutionizing the delivery of anatomical education at Western University. Please bring your own device (laptop or iPad) and sign up at the registration desk. You will participate directly in the presentation from the point of view of the students.

Workshop 3: Developing a Career in Anatomy and Beyond
(UCC Classroom 37)
Moderator: Victoria Roach – Western University
Panelists Include:
Rodger Dusky —Director of the Partners in Experiential Learning (PEL), a curriculum-based program that matches senior science high school co-op students with mentors in the health research community.
Tamara Franz-Odendaal—Assoc. Professor and Atlantic Chair for Women in Science and Engineering awarded by the National Science and Engineering Research Council of Canada
Jeremy Friedberg—Partner, Co-Founder at SpongeLab Interactive, which develops digital learning media for science
Jennifer MacLean—Director, Business Development at Mitacs, Canada’s premiere research internship program

This workshop is directed at individuals in various stages of their education, who are considering the anatomical sciences as a possible future career. Catering to undergraduate and graduate level individuals specifically, this workshop strives to demonstrate the array of employment opportunities that exist to individuals trained in anatomy, and shed light on the many translational, and occasionally unorthodox opportunities that exist for aspiring anatomists. The workshop will feature candid perspectives and interactive discussions with trained anatomists in varying stages of their careers, and who find themselves employed in a variety of disciplines. Following the structured panel discussion, participants will be invited to interact with the presenters for career advice, to ask additional questions, and for additional networking opportunities.
Workshop 4: A Walk on the Flip Side: Evolution of the Lecture  
(UCC Classroom 41)  
Derek McLachlin, Sarah McLean and Tim Wilson – Western University

This workshop will demonstrate approaches that can help migrate all or parts of your class into a Blended or Flipped design. The goal of the blending or flipping a class is to move some of the lower order learning (that typically takes place through lecture) to outside of class time using technology. This frees in-class time to allow greater engagement, application and integration of course material. Informed by learning theory and the experiences from the award-winning presenters, techniques and examples will be demonstrated. This workshop will explore activities and techniques that may be done before, during, and after classes enabling you get more out of the face-to-face time with students. The pedagogic techniques can be applied to undergraduate, graduate, and professional learning environments.

3:15 pm - 3:30 pm  Coffee Break (UCC Mustang Lounge/165)

Concurrent Proceedings – repeat of Workshops

3:30 pm - 4:45 pm  Workshop 1: Simulation Experiences in Basic Anatomy and Clinical Skills Workshop  
(Labatt Health Sciences Bldg., The Anatorium 322 and Clinical Nursing Suite 306)  
Jamie Melling, Barb Sinclair and Danielle Brewer

Workshop 2: Bringing Your Anatomy Lab Online  
(UCC Classroom 54A)  
Kem Rogers and Sonya Van Nuland

Workshop 3: Developing a Career in Anatomy and Beyond  
(UCC Classroom 37)  
Moderator: Victoria Roach  
Panelists: Rodger Dusky, Tamara Franz-Odendaal, Jeremy Friedberg and Jennifer MacLean

Workshop 4: A Walk on the Flip Side: Evolution of the Lecture  
(UCC Classroom 41)  
Derek McLachlin, Sarah McLean and Tim Wilson

KEYNOTE SPEAKER

5:00 pm - 6:00 pm  Insights into Multiple Sclerosis Neuropathology Using Ultra High Field MRI  
Keynote Speaker: Dr. Ravi Menon, Ph.D. – Robarts Research Institute  
(UCC Auditorium 146)

RECEPTION

6:00 pm - 7:30 pm  Networking Reception & Student Award Announcements  
(UCC 2nd floor, The Wave Restaurant)
## Posters

**ANATOMY**

1. **Scott Barton** (University of California, San Diego)
   Fixation of the Upper Extremity during Embalming to Maintain Anatomical Position

2. **Daniel Krupa** (Southern Medical University)
   A Case Report on Deviating Short Saphenous Vein

3. **Michael Kolitsky** (The University of Texas at El Paso)
   3D Orienting makes Visible Human Cadaver Sections Accessible for Blind Students

4. **Tyler Beveridge** (Western University) *
   Histology of the Ovarian Ganglia and Prehypogastric Ganglion of the Aortic Plexus in Females

**ANATOMY EDUCATION**

5. **Yu Hang (Eric) Zheng** (McMaster University) *
   Virtual Unreality and Anatomy Learning

6. **Alexander Ball** (McMaster University)
   Different Student Perceptions of the Effectiveness of TBL between Undergraduate Health Sciences and Medical Students

7. **Sonya Van Nuland** (Western University) *
   The Anatomy of E-Learning Tools: Does Software Usability Influence Learning Outcomes?

8. **Saleem Ahmed** (Virginia Tech Carilion School of Medicine)
   Demonstrations in Anatomy Instruction: Do I Model or Not?

9. **Victoria Roach** (Western University) *
   Do The “Eyes” Have It? How Eye Tracking Can Reveal Accuracy In Time-Limited Test Of Spatial Reasoning

10. **Chelsea Mackinnon** (McMaster University) *
    The Effect of Image Quality on Anatomy Learning

11. **Stefanie Attardi** (Western University)
    Instructor Perceptions of Teaching an Online Systemic Human Anatomy Course with Laboratory

12. **Lauren Allen** (Western University) *
    Integration of an Interactive 3D e-learning Resource for Improved Neuroanatomy Education

13. **Oleksiy Zaika** (Western University) *
    Evaluation of User Performance in Simulation-Based Diagnostic Cerebral Angiography Training

14. **Rabia Malik** (Aga Khan University, Pakistan)
    Creation, Implementation and Evaluation of a New Practical Assessment Tool in Anatomy

15. **Belle Cao** (McMaster University) *
    MacAnatomy Pathology Library Project
Andrew Palombella (McMaster University) *
Dissecting through Barriers: A Mixed-methods Study Evaluating the Effects of an Interprofessional Cadaveric Dissection Course

Anna Farias (Western University)
CanMEDS Competencies Transferred from the Anatomy Lab to the Clinical Setting in Medical Education

**CELL BIOLOGY**

Swati Gupta (McGill University) *
Characterization of SEC23A and MAN1B1 Expression and Function in a Family with Craniofacial Abnormalities and Mental Retardation

**DEVELOPMENT**

Stephen Renaud (Western University)
OVO-like 1 is a Key Transcriptional Regulator of Trophoblast Differentiation during Placental Development

**IMAGING**

Ziad Sabaa-Ayoun (Robarts Research Institute) *
Navigated Simulator for Spinal Needle Interventions

**MUSCULOSKELETAL**

Mary Bee (University of Detroit Mercy)
Intervening Tendon Variability of the Semispinalis Capitis Muscle

Zhi Li (University of Toronto) *
Parametric Human Project

**NEUROBIOLOGY**

Ashley Schormans (Western University) *
The Differential Effects of Noise-Induced Hearing Loss on Auditory, Visual and Multisensory Cortical Areas

Paul Sirek (Western University) *
Using c-Fos Immunoreactivity to Map Cortical Plasticity Induced by Acute Noise Exposure

Sarah Fitzpatrick (Western University) *
The Effect of Acute Noise Exposure on GABA Neurotransmission in the Auditory, Visual and Multisensory Cortices in Rats

* Finalist for a Student Poster Award Competition
Brief History

The American Association of Anatomists (AAA) was founded by Joseph Leidy in Washington, D.C. in 1888 for the “advancement of anatomical science.” Through the individual efforts of its members, and collectively as a pre-eminent scientific society AAA has made many significant contributions in research and education.

Members have been recognized worldwide for leading edge scientific accomplishments in science and medicine, and the generation of documents that have literally changed the approach, direction and emphasis of anatomical science education around the world.

Our Mission

Advancing anatomical science through research, education, and professional development.

Our Vision

Serve as the gateway for conveying the relevance of biological structure as it relates to function from molecules to organisms, and the role of anatomy in team-based, interdisciplinary science, healthcare, and education.

Our Difference

AAA is dedicated to supporting and providing our members with opportunities to enhance their careers, expand their scientific knowledge, and grow their professional network.

“AAA is a great organization and provides many ways to become involved and build careers. As an example, AAA gave me the opportunity to give my first presentation as a graduate student, chair my first platform session as a postdoctoral fellow, organize my first symposium as an assistant professor, and as a professor, to take my first trip to China to participate in a meeting of the Chinese Anatomical Society.

So, AAA has continued to give me opportunities to learn and network from early career up to being a senior faculty member. AAA can do the same for you.”

Lydia DonCarlos, Ph.D., Professor
Loyola University Chicago
Member Since 1988