

# REGIONAL MEETING



Duquesne University  
Pittsburgh, PA

November 4, 2017

## Onsite Program

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## **WELCOME TO PITTSBURGH!**

Thank you for participating in our 2017 Regional Meeting. We want to thank our sponsors and exhibitors for supporting the meeting, especially Duquesne University for being our gracious host and sponsor. In addition, a special thanks to all the volunteers and the Planning Committee for their hard work in organizing a fantastic meeting: Anne Burrows (Planning Committee Chair, Duquesne University), Tim Smith (Slippery Rock University), Rebecca German (NEOMED), Seth Weinberg (University of Pittsburgh), and Jasmien Roosenboom (University of Pittsburgh).

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### **SAVE THE DATE:**

AAA Annual Meeting at Experimental Biology – April 21 - 24, 2018, San Diego, CA

### **THANK YOU TO OUR SPONSORS AND EXHIBITORS:**





## SCHEDULE OF EVENTS

### SATURDAY, NOVEMBER 4, 2017

#### MORNING SESSIONS

All morning sessions will be in the Wolfe Lecture Hall in Bayer Hall

**8:00 am - 8:45 am**      **Registration & Continental Breakfast (Bayer Rotunda, Bayer Hall)**

**8:45 am - 9:00 am**      **Welcome**  
Anne Burrows, Ph.D., Duquesne University  
Kimberly Topp, PT, Ph.D., AAA Past President, Univ. of California San Francisco

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**9:00 am - 9:30 am**      **Development of the Craniofacial Cartilage - From Base to Nose**  
Heather Szabo-Rogers, Ph.D.  
Dept. of Oral Biology, School of Dental Medicine, University of Pittsburgh

**9:30 am - 10:00 am**      **Functional Morphology of the Feeding Apparatus**  
Christopher Vinyard, Ph.D.  
Dept. of Anatomy & Neurobiology, Northeast Ohio Medical University

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**10:00 am - 10:30 am**      **Exhibitors & Coffee Break (Bayer Rotunda, Bayer Hall)**

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**10:30 am - 11:00 am**      **The Mammalian Skull: A Perspective from the Mesozoic**  
John Wible, Ph.D.  
Curator, Section of Mammals, Carnegie Museum of Natural History

**11:00 am - 11:30 pm**      **Evolutionary Genetics of Human Facial Feature Variation**  
Mark Shriver, Ph.D.  
Dept. of Anthropology, Penn State University

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#### LUNCH/POSTERS

**11:30 am - 1:50 pm**      **Posters and Lunch (Lobby, Mellon Hall of Science)**  
Networking Lunch to begin at 11:30 am  
Poster Session from 12:00 pm – 1:50 pm  
    Odd poster boards – 12:00 pm – 12:50 pm  
    Even poster boards – 1:00 pm – 1:50 pm  
Career Mentoring

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## AFTERNOON SESSIONS

### **Concurrent Workshops**

**2:00 pm - 3:00 pm**      **Workshop 1: Developing and Funding a Community Outreach Program in the Anatomical Sciences (Room 102, Bayer Hall)**  
Presenter: Dana Peterson, Ph.D., M.A., M.Ed., Northeast Ohio Medical University

Participants will be introduced to the variety of outreach programs that have been initiated at Northeast Ohio Medical Univ. (NEOMED). NEOMED's outreach programming in anatomical and health sciences annually reaches over 1,000 participants that range in age from 5 to 90 years old. A description of the logistical and liability issues that have had to be resolved and of the funding sources that have supported our programming will be included in this session. Lastly, a summary of some of the positive outcomes for participants, medical student volunteers and faculty educators will be discussed.

**Workshop 2: Teaching Portfolio Workshop (Room 103, Bayer Hall)**  
Presenter: Nirusha Lachman, Ph.D, Mayo Clinic

Looking for a job? Want to get a head start on the promotion process? This workshop will provide tips and tools on the components of a teaching portfolio and how to make the best representative teaching portfolio for your purposes.

**Workshop 3: Surgical Approach to the Temporomandibular Joint- Anatomy Lab Workshop (Anatomy Lab, Room 402 - Health Sciences Building)**  
Presenters: Samuel Liu, D.D.S.  
Michael Chambers, D.M.D., M.D.  
Brandon Humberger, D.M.D.  
Gaurav Shah, D.M.D., M.D.

At this workshop, participants will be introduced to the surgical anatomy of the temporomandibular joint and have opportunities to practice safe surgical approaches to the joint. Two basic approaches, the coronal and preauricular, will be demonstrated and participants will be guided through those approaches on cadaver specimens.

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**3:00 pm - 3:30 pm**      **Exhibitors & Coffee Break (Bayer Rotunda, Bayer Hall)**

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### **Concurrent Workshops – repeat of Workshops**

**3:30 pm - 4:30 pm**      **Repeat Concurrent Workshops (see list above)**

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## CLOSING RECEPTION

**4:30 pm - 5:30 pm**      **Closing Reception & Student Award Announcements (Murray Pavilion, School of Law)**

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# POSTERS

(Lobby, Mellon Hall of Science)

**Poster Session from 12:00 pm – 1:50 pm**

Odd poster boards – 12:00 pm – 12:50 pm

Even poster boards – 1:00 pm – 1:50 pm

Poster #            First Author/Abstract title

## ANATOMY EDUCATION

- 1            **Derek Altema** (Howard University College of Medicine) \*  
Implications of Nerve and Vessel Anastomosis in Wrist and Palmar Injury
- 2            **Theresa Bullen** (George Washington School of Medicine and Health Sciences) \*  
Use of Ultrasound to Teach Living Anatomy to Graduate Students
- 3            **Brianna Flynn** (University of Indianapolis) \*  
A Prosection Technique Preserving and Displaying both External Musculature and Visceral Organs
- 4            **Maria Ganoë** (West Liberty University) \*  
Prospective Utilization of 3D Skull Scans in and out of the Anatomy Laboratory
- 5            **Catherine Mattinson** (Northeast Ohio Medical University)  
Was It Worth It? The Value of Undergraduate Human Gross Anatomy Lecture and Laboratory Courses as Preparation for Medical School: The Perspective of First and Second Year Medical Students
- 6            **Mary McGinn** (Northern Illinois University)  
Early Human Fetal Period: Dissection and Photographic Atlas
- 7            **Diana Messer** (The Ohio State University) \*  
Exposing Our Roots: A Graduate Level Course in the History of Anatomy
- 8            **Sumitra Miriyala** (Louisiana State University - Health Sciences, Shreveport)  
Using Virtual Dissection Approach to Teach Post-traumatic Stress Students
- 9            **Lis Regula** (University of Akron)  
Using 3D Printing to Increase Critical Thinking in Pre-Medical Students
- 10          **Claire Werner** (Duquesne University) \*  
First Forays: Incorporating 3D Technology into Undergraduate-Level, Allied Health Gross Anatomy Courses

## GROSS ANATOMY

- 11          **Benjamin Brechtel** (Kent State University) \*  
The Incidence of Fibularis Digiti Quinti Tendon in a Cadaveric Cohort with Anthropological and Clinical Considerations
- 12          **Lauren Butaric** (Des Moines University)  
Third Molar Agenesis: Prevalence and Asymmetry in Northern Chinese Archaeological Populations

- 13 **Justin Chin** (Touro College of Osteopathic Medicine) \*  
Hepatic Morphology: Variations and Its Clinical Importance
- 14 **Delaena Cline** (Howard University College of Medicine) \*  
The Development & Evolution of the Multi-Chambered Heart in Vertebrates
- 15 **Gretter Diaz** (Howard University College of Medicine) \*  
Anatomical Analysis of Musculoskeletal Anomalies in a Trisomy 13 Fetus Due to Delayed Development
- 16 **Lauren Hartnell** (West Liberty University) \*  
The Location of the Infraorbital Foramen Relative to the Inferolateral Piriform Aperture and the Inferolateral Orbit
- 17 **Matthew Kesterke** (Texas A&M University)  
Estimating Masticatory Muscle Mechanical Efficiency Using Northern Chinese Archaeological Samples
- 18 **Hannah Lynch** (West Liberty University) \*  
Costal Cartilage Harvesting and Grafting for Use in Facial Reconstructive Surgery: A Comparison between Females and Males
- 19 **Jacob Pancake** (West Liberty University) \*  
The Width of the Marginal Tubercle: Implications for Neurosurgery
- 20 **Michelle Russell** (West Liberty University) \*  
The Location of the Infraorbital Foramen between Nasospinale and Jugale: Considerations for Infraorbital Nerve Block and Maxillofacial Surgery in Adult and Pediatric Populations
- 21 **McKenzie Sweigart** (Slippery Rock University) \*  
Internal Iliac Artery: Branching Deviations
- 22 **Thomas Trupo** (West Liberty University) \*  
The Orientation of the Foramen Ovale According to Cephalic Index
- 23 **Catalina I. Villamil** (Dickinson College)  
The Evolution of Magnitudes of Phenotypic Integration in the Primate Cranium
- 24 **Benjamin Wharton** (West Liberty University) \*  
The Contour of the Zygomatic Bone from the Zygomaticofrontal Suture to the Zygomaticotemporal Suture

## **HISTOLOGY**

- 25 **Montserrat Caballero** (Cincinnati Children's Hospital Medical Center)  
Polychrome Sequential Labeling Techniques to Analyzed Craniofacial Bone Growth in Juvenile Swine
- 26 **Rowan Farrell** (University of Indianapolis) \*  
Identifying Ultrastructures of Spermatids in Process of Spermiogenesis in *Masticophis flagellum*
- 27 **Joel Gintzler** (University of Indianapolis) \*  
Spermiogenesis in Testes of the Bunchgrass Lizard (*Sceloporus aeneus*)
- 28 **Alanna Mayberry** (University of Indianapolis) \*  
Spermiogenesis in Testes of the Texas Horned Lizard (*Phrynosoma cornutum*)

- 29        **Holly Racine** (Joan C. Edwards School of Medicine, Marshall University) \*  
Inhibiting IGF1 Activity in the Proximal Tibial Growth Plate Attenuates the Bone-Lengthening Effects of Temperature in Hindlimbs of Growing Mice
- 30        **Ashley Turner** (D'Youville College) \*  
A Procedure for Comparing the Articular Discs in the Jaw from Human Cadavers with Dentures versus Natural Teeth

### **IMAGING**

- 31        **Chad Kuhns** (West Liberty University)  
A Mathematical Model that Describes the Spatial Interrelationship between the Anatomy of the Foramen Ovale and a Cannulating Stylet

### **NEUROBIOLOGY**

- 32        **Adam Groh** (University of Western Ontario) \*  
What is the Mechanism Underlying Electroejaculation? Evidence from a Porcine Model

### **PHYSIOLOGY**

- 33        **Chris Dijanic** (Northeast Ohio Medical University) \*  
Bone Biomechanics of the Wing Bones of Bats Compared to Terrestrial Mammals
- 34        **Francois Gould** (Northeast Ohio Medical University)  
Sensory Motor Integration and Task Specific Control of Shared Anatomical Substrates of Swallowing and Respiration in Mammals
- 35        **Donna Jones** (Cincinnati Children's Hospital Medical Center)  
Micron-scale Strain Estimates of the Juvenile Swine Cranial Skeleton for Use in Surgical Models of Alveolar Cleft Repair

### **CELL AND MOLECULAR BIOLOGY**

- 36        **Emily Durham** (Medical University of South Carolina) \*  
Pharmacological Exposures Effect Cranial Suture Stem Cells

### **DEVELOPMENT AND GROWTH**

- 37        **Aaron Koons** (West Liberty University) \*  
The Development of the Fetal, Neonatal, and Infant Basiocciput
- 38        **Rachel Menegaz** (University of North Texas Health Science Center)  
Craniofacial Growth in a Mouse Model of Osteogenesis Imperfecta
- 39        **Susan Rehorek** (Slippery Rock University)  
Development of the Snout in American Alligators
- 40        **Timothy Smith** (Slippery Rock University)  
Tooth Crown Volume of Subadult Primates: Methodology for Measuring Age-related Changes
- 41        **Linda Spurlock** (Kent State University)  
Developmental Abnormalities in an Adult Male Skull: Challenges for Forensic Facial Approximation

- 42            **Matthew Zdilla** (West Liberty University)  
The Size and Shape of the Oval Window: A Micro-CT Anatomical Study with Considerations for Stapes Surgery
- 43            **Chi Zhang** (University of Pittsburgh) \*  
Nasal Asymmetry as a Potential Risk Marker for Non-syndromic Cleft Lip with or without Palate (NSCL/P)

**DEVELOPMENTAL BIOLOGY/EMBRYOLOGY**

- 44            **Dameel Edwards** (Howard University College of Medicine) \*  
Exploring the Role of Nkx2.5 & Islet1 during Development of Cardiopharyngeal Mesoderm
- 45            **Yong Wan** (University of Pittsburgh)  
Point Mutation of *Prickle1* Cause Cleft Palate and Craniofacial Bone Defects

***\* Finalist for a Student Poster Award Competition***