Anatomy: A Full Body of Knowledge

Now's the time to invest... in yourself!

With the economy still in rough shape and budgets being cut, you may be tempted to pass up meeting travel and stick close to home this year. But that would be a bad investment decision! You may not be ready to get back into the stock market, but this is the best time to invest in yourself, the perfect time not only to add to your knowledge base and brush up on your teaching skills, but also to refresh and expand your professional network.

Informal networking opportunities abound at the AAA Annual Meeting/EB 2010—between sessions in the AAA Chat Room (Convention Center, Room 211A), at the AAA membership booth (#456), around the posters, and at AAA social events. Or take advantage of the more formal networking available through the EB Career Center (see page 13) and its full array of services, including career development seminars, resume critique workshops, and a Virtual Career Fair that continues after the meeting ends.

Beyond the networking, here's a sampling of what's offered at AAA's scientific, education, and new professional development sessions:

Biological Anthropology Mini-meeting (page 4) – Anatomy and anthropology come together for a two-day program.

- *Workshop: Getting Published in the Biomedical Sciences* (page 1) – No matter where you are in your career, you're bound to benefit from this advice from AAA editors.
- *The SPIRIT of Creating Fundable Proposals* (page 1) – Lots of opportunity to get your grant-writing questions answered.
- *Master Class: The Problem with Pain* (page 2) – All you ever wanted to know about pain so that you can better teach your students in various health care professions.
- *Refresher Course: Surface Anatomy—The Foundation of Physical Assessment* (page 11) – Understanding the body's surface is the basis of a good physical exam.
- *Anatomical Record Symposium: Epigenetics—A Regulatory Force* (page 11) – Increase your understanding of how early life events affect adult health.
- *Developmental Dynamics Symposium: Wnt Signaling in Development & Disease* (page 6) – Presentations focus on transcriptional and cellular outputs of Wnt signaling in neural, heart, and endoderm development and in diseases such as cancer.

See you in Anaheim!

Saturday, April 24

THE SPIRIT OF CREATING FUNDABLE PROPOSALS: PREPARING SBIR/STTR, PROGRAM, INSTRUMENT, RESEARCH, INFRASTRUCTURE AND TRAINING GRANTS ❖

8:00-10:00 a.m., Room 213A

Chairs: **Lynne Opperman** (TAMUSHSC) & **Kathy Svoboda** (Baylor College of Dentistry)

Lynne Opperman (TAMUSHSC)
Translational Research, Technology Transfer and Small Business Grants – Alternate Funding Resources

Kathy Svoboda (Baylor College of Dentistry)
Instrumentation Grant Savvy – What's the Best Fit for Your Institution?

Paul Dechow (Baylor College of Dentistry)
Team Building: Growing Your Research Career through Institutional Awards

Anna Lysakowski (Univ. of Illinois at Chicago)
Research Career Development Awards: Which One is Right for Me?

Panel Discussion

WORKSHOP: GETTING PUBLISHED IN THE BIOMEDICAL SCIENCES ❖

11:00 a.m.-1:00 p.m., Room 213A

Co-sponsored by The Anatomical Record & Developmental Dynamics

Chairs: **Gary Schoenwolf** (Univ. of Utah School of Medicine) & **Kurt Albertine** (Univ. of Utah School of Medicine)

KEY

- ✳ Biological Anthropology Mini-Meeting
- ❖ Inaugural Professional Development Track
- ▲ Education & Teaching
- ♥ Cardiovascular
- ● Imaging/Computational Analysis
- ■ Developmental Biology
- ♦ Regeneration/Tissue Engineering
- ♣ Neurobiology
- ○ Immunology

Kurt Albertine (Univ. of Utah School of Medicine)
Your Writing Goal Should be to Confuse the Fewest Readers

Gary Schoenwolf (Univ. of Utah School of Medicine)
Choosing Your Journal Wisely

John Carey (American Journal of Medical Genetics)
The Editorial Peer-Review Process

John Fallon (Univ. of Wisconsin)
Publication Ethics

ENDOTHELIAL TIP CELL GUIDANCE & MECHANISMS ♥

1:30-3:30 p.m., Room 213B [Hybrid Symposium]

Supported by an educational grant from Aquatic Habitats, Caliper Life Sciences & Union Biometrica - Large Particle Flow Cytometry

Chair: **Ramani Ramchandran** (Medical College of Wisconsin)

Claudio Franco (London Research Institute - Cancer Research UK)
Molecular Control of Sprouting Angiogenesis: Defining Tip/stalk Positions

Robert Fischer (NHLBI)
Actomyosin Contraction & Adhesion Control Angiogenic Sprouting & Guidance

Ganesh Vinayak Samant (Medical College of Wisconsin)
Sox Transcription Factor Mediated Transcriptional Regulation of Robo4 Expression & Function.

Arie Horowitz (Lerner Research Institute, Cleveland Clinic)
Vesicle Trafficking of a Rhoa Guanine Exchange Factor Regulates Vegf-driven Directional Migration

Andras Czirok (Univ. of Kansas Medical Center)
Endothelial Sprout Formation During Vasculogenesis

MASTER CLASS: THE PROBLEM WITH PAIN ▲

1:30-4:00 p.m., Room 212AB

Co-sponsored with ASPET

Chairs: **David Bolender** (Medical College of Wisconsin) & **Robert DePhilip** (Ohio State Univ. College of Medicine)

Jennifer McBride (Cleveland Clinic Lerner College of Medicine)
Ouch! Neuronal Pathways Responsible for Conduction of Somatosensory & Visceral Pain

Tony Yaksh (Univ. of California, San Diego School of Medicine)
Biology of Transmission in the Pain Pathway

Allan Basbaum (Univ. of California, San Francisco Medical School)
Basic Mechanisms Underlying Pain after Nerve Injury

Quynh Pham (David Geffen School of Medicine at UCLA)
Current Treatment for Chronic Pain

BIOLOGICAL CONSEQUENCES OF GLOBAL CHANGE

4:00-6:00 p.m., Room 213B

Chairs: **Brian Helmuth** (Univ. of South Carolina) & **Wenhua Xiong** (International Society of Zoological Sciences)

Brian Helmuth (Univ. of South Carolina)
A Mechanistic View of Ecology: Why All Global Warming is Local

Lars Tomanek (California Polytechnic State University)
The Costs of Getting Too Hot: Proteins that Take the Heat from Global Warming

Kenneth Leung (The Univ. of Hong Kong)
A Fitness Cost for Thermal Tolerance in the Marine Copepod Tigriopus Japonicus: Implication on Long-term Biological Effects of Global Warming

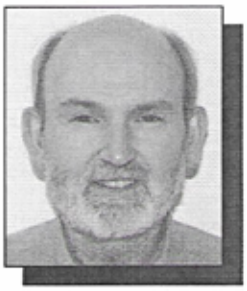
John Buckeridge (RMIT Univ.)
Climate Change as a Driver for Natural Selection: A Case Study Using Darwin's Barnacles

STUDENT/POSTDOCTORAL PLATFORM SESSIONS – **see page 14**

4:00-7:00 p.m., Room 213A

Sunday, April 25

PLENARY SPEAKERS

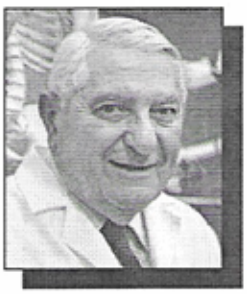


Gary C. Schoenwolf, Ph.D. (Univ. of Utah School of Medicine)

Distinguished Professor

8:00-9:00 a.m., Room 213CD

Formation & Patterning of the Rudiments of the Vertebrate Inner Ear ■



Carmine D. Clemente, Ph.D. (UCLA School of Medicine)

Professor, Director Brain Research

9:00-10:00 a.m., Room 213CD

Famous & Outstanding Anatomy Professors I Have Known or with Whom I Have Taught ▲

ALL EARS ■

10:30 a.m.-12:30 p.m., Room 213CD

Chair: **Gary Schoenwolf** (Univ. of Utah School of Medicine)

Bruce Riley (Texas A&M Univ.)
Early Patterning in the Zebrafish Inner Ear

Tatjana Piotrowski (Univ. of Utah School of Medicine)
What Can the Zebrafish Lateral Line Teach Us about Hearing?

Ping Chen (Emory Univ. School of Medicine)
Shaping the Mammalian Inner Ear Sensory Organs by the Vertebrate Planar Cell Polarity Pathway

Neil Segil (House Ear Institute)
Development & Regeneration of the Inner Ear: Coordinating Cell Cycle & Differentiation–Constraining Notch Signaling

REGENERATION OF NERVE FIBERS IN THE CENTRAL NERVOUS SYSTEM ♣

10:30 AM-12:30 PM, Room 212AB

Chair: **Carmine Clemente** (UCLA School of Medicine)

Oswald Steward (Univ. of California at Irvine)
Regeneration of Spinal Cord Fibers in Genetically Modified Mice

Mark Tuszynski (Univ. of California at San Diego)
Combinatorial Strategies for Promoting Axonal Plasticity After Spinal Cord Injury

Michael Sofroniew (UCLA School of Medicine)
Functional Mechanisms of Reactive Astrocyte Scar Formation

V. Reggie Edgerton (UCLA)
Potential for Regeneration in Recovering Locomotion After Spinal Cord Injury

ANATOMICAL VARIATION: GENETIC, DEVELOPMENTAL & COMPARATIVE PERSPECTIVES ■

2:30-4:30 p.m., Room 213CD

Co-sponsored by AAA's Advisory Committee for Young Anatomists

Chair: **Kathleen Muldoon** (Dartmouth Medical School)

Rebecca Young (Yale Univ.)
Epigenetic Regulation of Development Links Adaptation & Diversification of Skeletal Phenotypes: A Case Study in Shrews

Carolyn Rogers (Univ. of Wisconsin)
Facial Muscle Ontogenesis in Human Fetuses With & Without Cleft Lip/palate

Benjamin Auerbach (The Univ. of Tennessee)
Going to Extremities: Is Variation in Human Limb Lengths & Proportions a Paradox?

Rui Diogo (The George Washington Univ.)
Human Muscular Variations: Comparative, Evolutionary & Developmental Perspective

EPICARDIUM TO CORONARY HIERARCHY: MOLECULAR & CELLULAR MECHANISMS ♥ ■

2:30-4:30 p.m., Room 213A

Chair: **Robert Tomanek** (Univ. of Iowa)

Ramon Munoz-Chapuli (Univ. of Malaga)
Epicardial Cell Transformation

Robert Tomanek (Univ. of Iowa)
Growth Factor Signaling & the Progression of Coronary Vessel Formation

Anne Eichmann (Collège de France)
Vascular Patterning & Guidance

Mark Majesky (Univ. of North Carolina)
Specification & Differentiation of Coronary Smooth Muscle

NEUROPHOBIA TO NEUROPHILIA: TEACHING BASIC NEUROSCIENCE AS FOUNDATIONAL TO CLERKSHIPS ▲ ♣

2:30-4:30 p.m., Room 212AB

Chairs: **Jennifer McBride** (Cleveland Clinic Lerner College of Medicine) & **Donald Wong** (Indiana Univ. School of Medicine)

Donald Wong (Indiana Univ. School of Medicine)
Integration of Basic & Clinical Neuroscience: Current Models

Joanne Lynn (Ohio State Univ. College of Medicine)
Effective Strategies for Integration of Basic & Clinical Neuroscience: A Clerkship Director Leads the Charge!

Jeanette Norden (Vanderbilt Univ. School of Medicine)
Effective Strategies for Integration of Basic & Clinical Neuroscience: A Basic Scientist Leads the Charge!

Ralph Jozefowicz (Univ. of Rochester)
Continuum of Basic & Clinical Neuroscience Across the Entire Curriculum

STEM CELL BASED THERAPY ♦

2:30-4:30 p.m., Room 213B

Chair: **Martine Dunnwald** (Univ. of Iowa)

Suneet Agarwal (Children's Hospital Boston)
Translational Potential of Patient-specific Human Pluripotent Stem Cells

Johnny Huard (Univ. of Pittsburgh)
Regenerative Medicine Based on Muscle Stem Cells: Potential for Tissue Regeneration & Repair

COMMITTEES/BUSINESS MEETINGS/SOCIAL EVENTS • COMMITTEES/BUSINESS MEETINGS/SOCIAL EVENTS

AAA business meetings, poster sessions, and socializers are open to all members. Unless otherwise noted, all other meetings are by invitation only. CC=Convention Center, AM=Anaheim Marriott

FRIDAY, APRIL 23

AAA Board of Directors
8 a.m.–5 p.m., AM, Grand Ballroom A&B

SATURDAY, APRIL 24

Fellows Circle Brunch
7-7:45 a.m., AM, Grand Ballroom A&B

AAA Mentoring Program Networking Reception
10-11 a.m., CC, outside of Room 213A

Publications Committee Meeting
2-5 p.m., AM, Grand Ballroom D

ACYA Pre-judging Meeting
2-3:15 p.m., CC, Room 211A

AACBNC Socializer (department chairs only)
5:30-7 p.m., AM, Elite 1

AAA/Wiley Reception (invitation only)
7–8:30 p.m., AM, Veranda Room

Richard Burt (Northwestern Univ.)
Hematopoietic Stem Cell Transplantation for Multiple Sclerosis & Type 1 Diabetes

Michele De Luca (Univ. of Modena & Reggio Emilia)
Use of Stem Cell for Cornea Replacement-Human Studies

AAA YOUNG INVESTIGATOR AWARDS SYMPOSIUM
5:00-7:00 p.m., Room 213CD

R.R. Bensley Award Lecture in Cell Biology

Adrian Salic, Ph.D. (Harvard Univ.)

Toward a Chemical Anatomy: New Tools to Image Biological Molecules in Cells and in Tissues

C.J. Herrick Award Lecture in Neuroanatomy

Michael Piper, Ph.D. (Queensland Brain Institute, Univ. of Queensland)

NFIA Controls Progenitor Cell Differentiation through Repression of the Notch Effeffector Hes1

H.W. Mossman Award Lecture in Developmental Biology

David Bilder, Ph.D. (Univ. of California-Berkeley)

Function Follows Form: Linking Epithelial Polarity, Growth Control and Morphogenesis in Drosophila

AAA Morphological Sciences Award Lecture

Katja Schenke-Layland, Ph.D. (Fraunhofer Institute)

Multiphoton Imaging: A Powerful Tool for Tissue-State Diagnosis in Regenerative Medicine

Monday, April 26

ANATOMY EDUCATION BREAKFAST ROUNDTABLES ▲
8:00-10:00 a.m., Room 212AB

Supported by an educational grant from Touch of Life Technologies

Chair: **David Bolender** (Medical College of Wisconsin)

COMPARATIVE PRIMATE ANATOMY: RECENT MODELS FOR FUNCTIONAL ADAPTATION IN THE POSTCRANIAL SKELETON *
8:00-10:00 a.m., Room 213CD

Co-sponsored by The Anatomical Record

Chair: **Jason Organ** (Saint Louis Univ.)

Adam Sylvester (Max Planck Institute for Evolutionary Anthropology)
Proximal Tibia Shape & Locomotion

Biren Patel (Stony Brook Univ.)
Integrating Comparative & Experimental Methods to Better Understand the Functional Morphology of Primate Hand Bones

Anne Burrows (Duquesne Univ.)
Shouldering the Burdens of Locomotion & Posture: Glenohumeral Joint Structure in Strepsirrhines

Timothy Ryan (Pennsylvania State Univ.)
Trabecular Bone Structure in the Humeral & Femoral Heads of Anthropoid Primates

DEVELOPMENT & EPIGENETIC INFLUENCES ON DEVELOPMENT ■
8:00-10:00 a.m., Room 213A [Platform Session]

Chair: **Judith Venuti** (LSU Health Sciences Center)

Drew Noden (Cornell College of Veterinary Medicine) – Embryonic Origins of Avian and Mammalian Laryngeal Musculoskeletal Structures

Rosie Thecia McNeil (Univ. of the Witwatersrand) – Immunolocalization of VEGF and VEGFR 1 & 2 in Embryonic Lung Tissues

SUNDAY, APRIL 25

AAA New Member Welcome Breakfast
7–8 a.m., AM, Elite 2

Past Presidents' Luncheon
12:30–1:30 p.m., AM, Grand Ballroom D

Membership Committee
12:30-2:15 p.m., AM, Grand Ballroom C

AAA Socializer (*sponsored by Wiley*)
7:00–8:00 p.m., CC, Pacific Terrace & Inside Corridor

MONDAY, APRIL 26

Terminology Committee
7:30–9:30 a.m., AM, Grand Ballroom D

Public Affairs Committee
8–9:30 a.m., AM, Grand Ballroom A

Educational Affairs Committee
12:30–2:30 p.m., AM, Grand Ballroom D

AAA Business Meeting
6-7 p.m., CC, Room 213CD

Grace Lee (Harvard Medical School) – Intravascular Flow Fields Shape Intussusceptive Pillars in the Chick Chorioallantoic Membrane

Emrush Rexhaj (CHUV) – Vascular Dysfunction in Adult Mice Generated by Assisted Reproductive Technologies

Michelle Barton (UT MD Anderson Cancer Center) – Functions and Control of p53 in Embryonic Stem Cells

Rupa Sridharan (UCLA) – Role of the Reprogramming Factors in the Induction of Pluripotency

Pablo Hernan Strobl-Mazzulla (Caltech) – Epigenetic Control of Neural Crest Specifier Genes by Histone Demethylases jmjd2A

Kenneth Kao (Memorial Univ. of Newfoundland)
Regulation of Wnt-mediated Developmental Competency by Pygo-Bcl9 during Body Axis Specification in *Xenopus*

REWIRING THE SPINAL CORD: RECOVERY AFTER SPINAL CORD INJURY ♣
8:00-10:00 a.m., Room 213B

Chair: **M. Douglas Benson** (Texas A&M Health Science Center, Baylor College of Dentistry)

M. Douglas Benson (Texas A&M Health Science Center, Baylor College of Dentistry)
Ephrin Contribution to Myelin-based Inhibition of Axonal Regeneration

Timothy Gomez (Univ. of Wisconsin Medical School)
Regulation of Spinal Neuron Axon Outgrowth by Calcium Influx through Mechanosensitive TrpC Channels

Zhigang He (Harvard Medical School)
Intrinsic Control of Axon Regeneration

Mary Bunge (The Miami Project to Cure Paralysis/Univ. of Miami)
Combination Strategies to Repair the Injured Spinal Cord

Serge Rossignol (Université de Montréal Faculty of Medicine)
Re-expression of Locomotion & Reflex Changes after Various Types of Spinal Lesions

SOMETHING TO CHEW ON: DECIPHERING THE EVOLUTION OF PRIMATE CRANIOFACIAL FORM ∗
10:30 a.m.-12:30 p.m., Room 213CD

Co-sponsored by The Anatomical Record

Chair: **Qian Wang** (Mercer Univ. School of Medicine)

Paul Dechow (Baylor College of Dentistry)
Browridge Morphology & Hominid Evolution: Is There Any Evidence for a Mechanical Influence?

David Strait (Univ. at Albany-SUNY)
Assessing the Structural Performance of the Skull of *Australopithecus Africanus* During Feeding

Christopher Vinyard (Northeastern Ohio Univ. Colleges of Medicine)
Separate but Equal? Relating Morphological Divergence to Functional Performance in the Evolution of Primate Chewing

David Daegling (Univ. of Florida)
Full Field Strain Analysis of the Colobine Mandibular Symphysis: Evaluation of the Curved Beam Model of Jaw Function

STEM CELLS ♦
10:30-12:30 p.m., Room 213B [Platform Session]

Chair: **Martine Dunnwald** (Univ. of Iowa)

Maya Sieber-Blum (Newcastle Univ.) – Human Epidermal Neural Crest Stem Cells (hEPI-NCSC)

Jordan Van Orman (Medical College of Wisconsin) – hESC-Derived Definitive Endoderm Induces Cardiomyogenesis in Human Embryonic Stem Cells

Glenn Marsboom (Univ. of Chicago) – The Role of Mitochondrial Activity in the Differentiation of Human Embryonic Stem Cells (ESCs)

Alyson Korry Spealman (Weill Cornell Medical College) – C-kit+ Cardiac Precursor Cells Exhibit a Unique Oxidant & Antioxidant Gene Expression Profile

Jeff Leiter (Pan Am Clinic) – Potential for Treatment of Age-related Muscle Atrophy by Exogenous Nitric Oxide & Exercise

Gina Schatteman (The Univ. of Iowa) – Bone Marrow-Derived Cells Stimulate Healing by Modulating Early Inflammatory Processes

COMMITTEES/BUSINESS MEETINGS/SOCIAL EVENTS • COMMITTEES/BUSINESS MEETINGS/SOCIAL EVENTS

AAA Student/Postdoctoral Posters & Reception
7-8 p.m., CC, 2nd floor indoor corridor near Room213

TUESDAY, APRIL 27

ASE Editorial Board Meeting
7-8 a.m., AM, Grand Ballroom A

Biological Anthropology Mini-meeting Posters
8 a.m.-4:30 p.m., CC, Room 213B

***Anatomical Record* Editorial Board Meeting**
12-2 p.m., AM, Grand Ballroom A

Professional Development Committee
12-2 p.m., AM, Grand Ballroom C

ACYA Judges Meeting
2-4:30 p.m., AM, Grand Ballroom D

AAA Reception & Banquet
7-10 p.m., AM, Grand Ballroom E&F

WEDNESDAY, MAY 28

AAA Program Committee
10 a.m.–1 p.m., AM, Orange 4 Ballroom

Rajasingh Johnson (Univ. of Illinois at Chicago) – Reprogramming of Endothelial Progenitor Cells: Unipotency Toward Multipotency

TEACHING INNOVATIONS IN ANATOMY I ▲
10:30 a.m.-12:30 p.m., Room 212AB [Platform Session]

Chair: **Carol Nichols** (Medical College of Georgia)

Carlos Suarez-Quian (Georgetown Univ.) – A Guided Electronic Dissector (GED) to Teach Medical Gross Anatomy

David Morton (Univ. of Utah) – Anatomy Table Conference Assessments in Place of Cadaver Practical Exams

Mary Beth Downs (Alabama State Univ.) – The Sensitive Man: An Interactive Computer Program to Teach Cutaneous Nerves, Dermatomes & Sensory Testing

April Richardson (Univ. of Kentucky)
A Novel Use of Second Life (SL) Technology to Teach the Pterygopalatine Fossa to Medical Students

Darren Hoffmann (Univ. of Iowa Carver College of Medicine) – Medical Students Using Plastinated Prosections as a Sole Learning Tool Perform Equally Well on Identification Exams as Compared to those Performing Dissections over the Same Regions

Kevin Christensen (Mayo Medical School) – Defining the Role of the Student Teaching Assistant in Gross Anatomy

Rebecca Lufler (Boston Univ.) – The Future of Medical Education Research: A Different Way to Analyze Data to Produce More Valid Results/Conclusions

DEVELOPMENTAL DYNAMICS SYMPOSIUM: WNT SIGNALING IN DEVELOPMENT & DISEASE ■
10:30 a.m.-12:30 p.m., Room 213A

Co-sponsored by Developmental Dynamics

Chair: **Richard Dorsky** (Univ. of Utah)

Richard Dorsky (Univ. of Utah)
Wnt Target Genes in CNS Development

L. Charles Murtaugh (Univ. of Utah)
Wnt/beta-catenin Signaling in Patterning & Differentiation of the Vertebrate Endoderm

Stefan Hoppler (Univ. of Aberdeen)
Wnt Signalling & GATA Transcription Factors Regulate Heart Muscle Development

Marian Waterman (Univ. of California, Irvine)
LEF/TCFs & Transcription Regulation

FUNCTIONAL MUSCULOSKELETAL ANATOMY *
2:30-4:30 p.m., Room 213CD [Platform Session]

Chair: **Valerie DeLeon** (Johns Hopkins Medical School)

Kristen Brown (Johns Hopkins Univ.) – Shape Differences in the Bony Pelvis of Women with & without Pelvic Floor Disorders

Rebecca Lufler (Boston Univ.) – Forefoot Varus Malalignment: Anatomical Origin & Association with Signs of Patellofemoral Joint Osteoarthritis in Cadavers

Tamojit Ghosh (King Faisal Univ.) – The Genesis of the Popliteal Tendon & the 'Climb' of the Popliteus Muscle

Joshua Stefanik (BUMC) – Does Quadriceps Strength Modify the Association Between Patella Alta & Structural Features of Osteoarthritis on MRI? The MOST Study

Cheryl Hill (Univ. of Missouri-Columbia)
Functional Implications of Temporal Bone Pneumatization in Hominids

Benjamin Laitman (Univ. of Pennsylvania) – The Sleepy Neanderthal Hypothesis: Relationships among Craniofacial Form, Obstructive Sleep Apnea & Sleep Deprivation

William Pearson (Boston Univ.) – Disambiguating Muscular Forces Effecting Hyoid Movement in Pharyngeal Phase of Deglutition

Andrea Taylor (Duke Univ.) – The Functional Correlates of Jaw-muscle Fiber Architecture in Primates

THE MILLENNIAL STUDENT: WHAT WE SHOULD KNOW ▲
2:30-4:30 p.m., Room 212AB

Chair: **Camille DiLullo** (Philadelphia College of Osteopathic Medicine)

Christopher Ceriale (San Diego State Univ.)
Facilitating Learning: The Millennial Perspective

Robert Kvavik (Univ. of Minnesota)
Redesigning the Learning Environment for the Millenial Student

Patricia McGee (The Univ. of Texas at San Antonio)
Learning, Teaching & Web 2.0: Finding a Comfortable Fit

Camille DiLullo (Philadelphia College of Osteopathic Medicine)
Assessing Millennial Student Behaviors

NEW TRENDS IN CARDIAC & VASCULAR BIOLOGY ♥
2:30-4:30 p.m., Room 213A [Platform Session]

Chair: **Eduard Dedkov** (New York College of Osteopathic Medicine/NYIT)

Masahiro Murakami (Yale Univ. School of Medicine) – FGF Regulation of Myocardial Integrity & Angiogenesis

Robert Garriock (Univ. of California San Francisco) – Myocardial BMP Can Promote Orientated Protrusion of the Proepicardium Necessary for Entry of Coronary Vessel Precursors & Epicardial Progenitors to the Heart

Anastasiia Aleksandrova (Univ. of Kansas Medical Center) – Computational Analyses of Endocardial Cell Motion During Cardiovascular Morphogenesis in Transgenic Avian Embryos

Vickas Patel (Univ. of Pennsylvania) – Melanocyte-like Cells in the Heart & Pulmonary Veins Contribute to Atrial Arrhythmia Triggers

Jennifer Yang (California Institute of Technology) – Mechanistic Perspective of Early Vertebrate Cardiogenesis

Anita Austin (Vanderbilt Univ.) – Migration and Differentiation of Epicardial Cells Stimulated by *TGF*-β1, *TGF*-β2, or BMP-2 Do Not Require the Type III Transforming Growth Factor β Receptor

Joseph Sanger (SUNY Upstate Medical Univ.) – Distribution and Dynamics of Nonmuscle Myosins IIs in Cardiac and in Skeletal Muscle Cells

REGENERATIVE MEDICINE/WOUND HEALING ♦
2:30-4:30 p.m., Room 213B [Platform Session]

Chair: **Lynne Opperman** (TAMUSHSC)

Leah Olson (Univ. of Iowa) – The Potential Role for *Interferon Regulatory Factor 6* in Keratinocyte Adhesion and/or Migration

Symon San Miguel (Baylor College of Dentistry) – Antioxidants Increased *In Vitro* Wound Healing of Nicotine-Treated Oral Fibroblasts

Aleah Brubaker (Loyola Univ. Medical Center) – Impact of Aging on Dermal Wound Healing

Mridhula Thangaraj (Louisiana Tech Univ.) – Design of Smart Nanofilms for Regenerative Medicine

Veera Malavia (Baylor College of Dentistry) – Nerve & Vascular Regeneration in Bone Transport Osteogenesis

Sarah Calve (Northwestern Univ.) – The Extracellular Matrix Plays an Active Role in Muscle Regeneration

Katherine McLean (Univ. of Guelph) – A Histochemical & Immunohistochemical Investigation of Epimorphic Regeneration in the Representative Lizard, *eublepharis macularius*

Matthew Vickaryous (Univ. of Guelph) – The Anatomy & Histology of Wound Healing Following Tail Loss in the Leopard Gecko *eublepharis macularius*

KEYNOTE SPEAKER

Dr. Leroy Hood (President, Institute for Systems Biology)

5:00-6:00 p.m., Room 213CD

(Supported by an educational grant from JEOL USA Inc./AACBNC)

Systems Approaches to Biology & Disease: Integrating Discovery & Hypothesis-driven Paradigms

Tuesday, April 27

FORMATION & REMODELING OF THE COLLATERAL VASCULATURE ♥
8:00-10:00 a.m., Room 213A

Chair: **William Chilian** (Northeastern Ohio Universities College of Medicine)

Axel Pries (Charite Berlin)
Modeling Structural Adaptations of the Vasculature

James Faber (Univ. of North Carolina)
Genetic Regulation of Native Collateral Formation

Stephen Epstein (Washington Hospital Center)
Influence of Aging on Collaterals & on Mechanisms Involved in Collaterogenesis

William Chilian (Northeastern Ohio Universities College of Medicine)
Mitochondrial Basis of Collateral Growth

TEACHING INNOVATIONS IN ANATOMY II ▲
8:00-10:00 a.m., Room 212AB [Platform Session]

Chair: **Rebecca Fisher** (Univ. of Arizona College of Medicine-Phoenix)

Thomas Gest (Univ. of Michigan Medical School) – Clinical Cases Based on Body Donors as a Method to Enhance Radiology Education and Clinical Relevance for Gross Anatomy

Alinea Serena Noronha (SUNY Downstate Medical Center) – Stretching the Limits: Dyad Pedagogy and Technology Bolster Anatomy Learning

Carrie Elzie (Univ. of Alabama at Birmingham) – Low-tech Anatomy - Bringing Back Games, Music and Art!

Jordan Barker (Univ. of Utah) – A Novel Seven-layered Approach to Teaching Body Wall Anatomy

Mikel Snow (Keck School of Medicine) – Promoting Medical Student Independent Learning using Radiology PowerPoint Self-study Modules in Gross Anatomy