

**Science**  
**Advocacy**

**2017 Year in Review**





# Advocacy and Communication in Science

In 2017, the American Association of Anatomists, like many other societies, non-profits, and community organizations had begun to look more closely at our advocacy efforts on behalf of our members and the disciplines of anatomical sciences and research funding.

Through our partnership with the Federation of American Societies for Experimental Biology (FASEB) we advocate on behalf of our members interests to Congress as it relates to issues that affect the scientific enterprise such as research funding and protections of biomedical education.

In the upcoming pages you will learn about our commitment to science advocacy, communication, and diversity. As always, please reach out to us in the National Office, or to your leadership representative to provide feedback on your Association.

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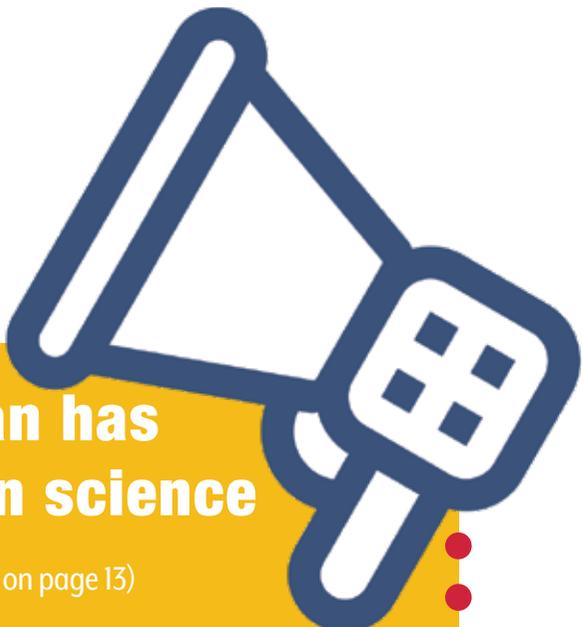
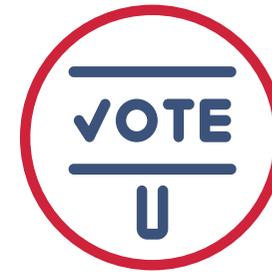
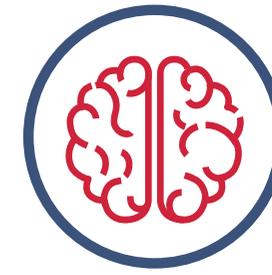
Page 26: Board and Committees

## ABOUT THE AMERICAN ASSOCIATION OF ANATOMISTS

**Mission: Advancing anatomical science through research, education, and professional development.**

The American Association of Anatomists was founded by Joseph Leidy in Washington, D.C. in 1888 for the "advancement of anatomical science." Today, via research, education, and professional development activities, AAA serves as the professional home for an international community of biomedical researchers and educators focusing on the structural foundation of health and disease.

In 1993, AAA joined the Federation of American Societies for Experimental Biology (FASEB). FASEB is the nation's largest coalition of biomedical researchers, representing 30 scientific societies and over 130,000 researchers from around the world.



## Q&A WITH AAA'S PRESIDENT:

**In 2017, AAA became more involved in science funding.**

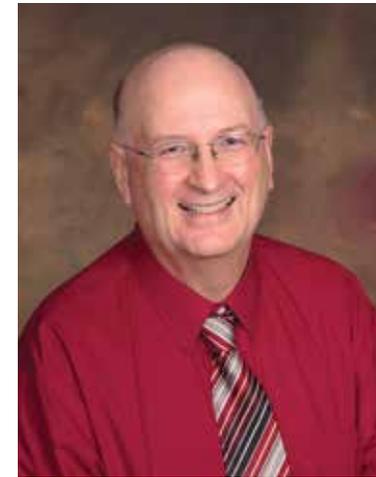
**Why is it important for members to advocate on their own behalf as it relates to science funding and support?**

AAA became more involved in advocacy this past year as highlighted in this year's, Year In Review. But as an individual, it is vital members advocate on their own behalf and play an active role in influencing decisions impacting their research and educational activities. Advocacy begins at your home institution and from there begins to expand into the local, state, and

national level. There is a need for scientific literacy and by educating the public regarding scientific research, you can contribute to this literacy. If the public doesn't understand the basics, how can they be expected to comprehend the policies made by lawmakers and the impact these policies have on scientific progress and their quality of life? While organizations representing groups of scientists and educators can advocate for funding and support, nothing replaces the impact of individuals (one organization representing a 1000 members advocating for science versus a 1000 individuals making calls and sending letters and emails). Be proactive by contacting your legislators and in responding to alerts issued by scientific organizations. AAA can provide the information and ideas on how to go about advocating for your own scientific research.



Member Sylvia Smith, and colleagues, meet with Congressman John Lewis



Philip Brauer, Ph.D., FAAA  
President 2017-2019

**Our new strategic plan has AAA taking the lead in science communication** (Learn more on page 13)

We will:

- Design and implement science communication training programs focused on engaging members with the public, policy makers, other scientists and clinicians.
- Identify and support champions of science communication and anatomy.
- Engage the public by popularizing anatomical sciences.

**Looking into the future for 2018 and beyond, how is AAA leading the way for science communication?**

Increasing AAA's presence in science communication is a goal in our new strategic plan. Identifying and supporting champions of science that engage the public and popularize anatomical sciences is an area we plan to pursue. Developing and implementing science communication workshops is one way we will help our members be better equipped to engage with the public, policy makers, and other scientists. We have recently sponsored such programs through our Innovations Program, including Science Communication Bootcamp, Anatomy for Every Body, and the "I Am Anatomy" programs. Our journals provide another avenue by which AAA is leading in science communication. Our journal editors are constantly finding innovative ways to deliver new knowledge to the scientific community, a prime example being *The Anatomical Record's* WOW series of publications. Finally, we will actively pursue collaborations with other scientific organizations aimed at improving science communication and literacy to the public and instilling curiosity.

# 2017 Timeline



Anatomical Sciences Education begins its 10-year celebration as a journal

JANUARY

AAA participates in ASAPbio town hall on preprints in the life sciences and the development of a next-generation preprint ecosystem



FEBRUARY

AAA once again participates in FASEB Hill Day, sending three members and staff to the Hill in the biggest event to date, that included representatives from 28 states and visits to 113 Congressional offices



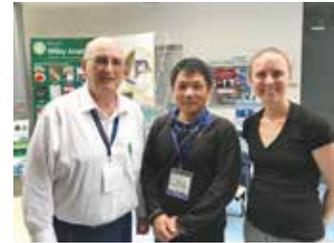
MARCH

Virtual Microscopy Database launches; EB attendance high at first ever Chicago annual meeting



APRIL

Joint AAA-Anatomical Society meeting in Galway, Ireland



MAY



Paul Trainor, Ph.D. announced as the new Editor-in-Chief of *Developmental Dynamics* journal

JUNE

AAA takes part in the FASEB Postdoctoral Preparation Institute to learn how to support postdoc, student, and early-career members



AUGUST



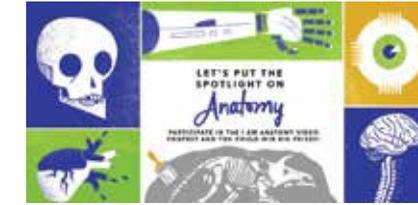
Anatomy Education Research Institute, funded by an Innovations Program grant, is held in Bloomington, Indiana

JULY



Strategic Planning Retreat held to plan the next strategic vision of the Association

SEPTEMBER



I Am Anatomy contest launches

OCTOBER

Fall Regional meeting held November 4th in Pittsburgh, PA at Duquesne University drawing 123 attendees



NOVEMBER

Virtual Meeting for Members held



DECEMBER

# Science Advocacy

Jason Mussell, Ph.D., Assistant Professor at Louisiana State University, School of Medicine, is the AAA representative to the FASEB Science Policy Committee. We spoke with him about the advocacy work of that committee and his experience visiting Congressional offices at FASEB's annual Hill Day.



## Why did you want to be the representative for this committee?

What drew me most to this committee is the chance to be involved in initiatives that can impact as many members of AAA as possible and to help craft policy to guide not only the current generation of scientists, but future generations as well.

## How was your experience at Hill Day last year?

Being a part of Hill Day was a truly exceptional and humbling experience. I have a new respect for the members of Congress, and their staffs in particular, in their knowledge and expertise in facing myriad issues relating to science and so much else. To see the inner workings of government is a double-edged sword though. While I was impressed with the breadth of knowledge our Congress people tackle, I was routinely confronted with the amount of directions in which these individuals are pulled and the struggle for a group, even as large as FASEB, to contend with the interests of larger more well-funded organizations. I came away appreciating the role of local governments far more than I thought I would after experiencing the federal government in action.

## What is your role as a representative to the Science Policy Committee?

### How do you advocate on behalf of AAA's interests?

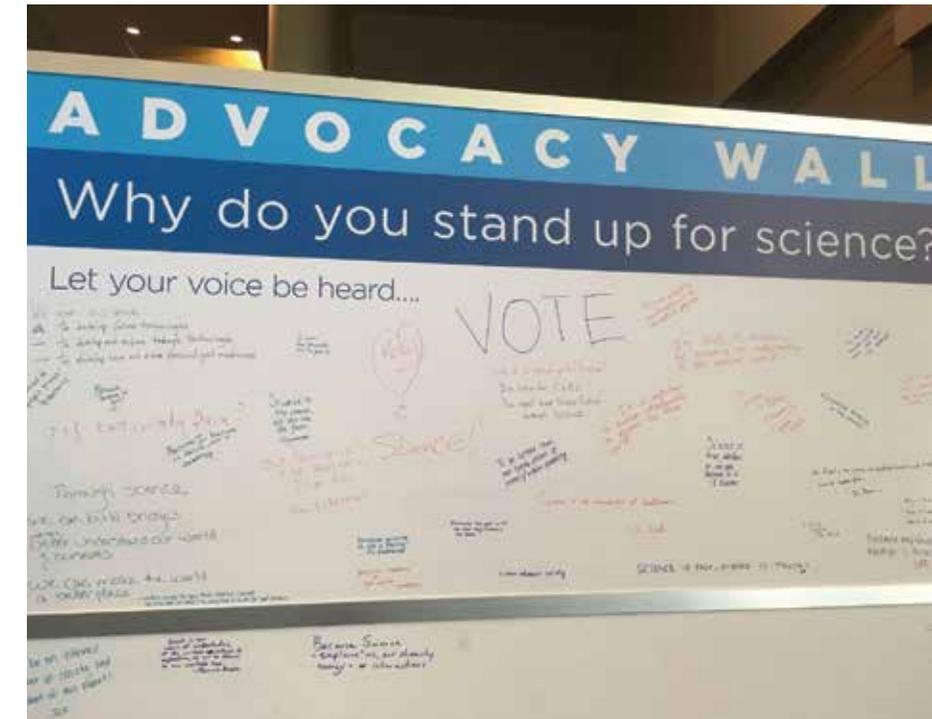
My role is to participate in discussions of federal, state, and if necessary local, Science Policy issues as a regular member of the SPC. I advocate on behalf of the AAA by bringing my experiences as a scientist and educator to these discussions. Anatomists at both the gross and microscopic level deal with issues unique among FASEB societies and it is my role to ensure these issues are considered in broader policy discussions. For example, few gross anatomists have concerns surrounding shared wet laboratory resources as few others make use of cadaver lab and cadaveric remains, however, this is critical for microscopic anatomists at academic centers of varying sizes. Additionally, concerns regarding changes to instruction of evolutionary principles and ethics of the use of biological specimens may seem to impact microscopic anatomists less while they are critical for gross anatomists and anatomy educators.

### What does FASEB do to help support science?

FASEB helps to support science in many ways including: monitoring changes to science policy at all levels of government across the nation and internationally, advising government on possible effects of proposed changes, establishing a dialogue between scientists and the leaders of the federal funding organizations, keeping the member societies aware of the direction federal funding bodies want to guide research interests, and more recently collaborating with the Public Affairs arm to enable scientists to more effectively act on their own behalf to advocate for continued excellence and rigor in science.

Each year, AAA advocates to Congress urging action on a variety of science policy issues. Additionally, as a member of the Federation of American Societies for Experimental Biology (FASEB), the Association of American Medical Colleges (AAMC) and the American Association for the Advancement of Science (AAAS), we also have the opportunity to attach our name to Congressional letters urging action on a wide variety of policy issues put forth by these groups.

Topics that FASEB, AAA, AAMC, and AAAS advocate for on behalf of our members include providing sustainable and predictable federal funding for scientific research. Ways in which this is accomplished is through signing on to Congressional letters and petitions urging action on topics related to federal science funding from agencies like the National Institutes of Health (NIH), National Science Foundation (NSF), and others. We also act in support of letters related to immigration issues within the scientific enterprise, concerns related to education, such as grad student tax waivers or access to quality biomedical education at all levels, and topics surrounding open access to scholarly publications.



Advocacy wall from our annual meeting at Experimental Biology 2017 (left)  
(Below) Advocating for science on Capitol Hill



# Science Advocacy

An important part of advocacy is adding our Association's name to letters that are sent to Congress on behalf of specific issues.

**In 2017 AAA signed on to the following multi-society backed letters.**

- AAMC Sign-on letter on urging legislative remedy for health professionals with Deferred Action for Childhood Arrivals (DACA) status (December 2017)
- Friends of the Department of Veterans Affairs (FOVA) sign-on letter to House Appropriation Committee urging leadership to support specific funding requests for the Medical and Prosthetic Research Program in FY 2018 appropriations package (November 2017)
- Public access to scholarly communication legislation (FASTR) letter organized by the International Association of Scientific, Technical & Medical Publishers (STM) and the Association of American Publishers (AAP) (November 2017)
- AAAS Letter opposing immigration and visa policy proclamation issued by White House Administration. Letter urged that such extreme vetting has implications for diplomatic, humanitarian, and national security interests, in part because it weakens our U.S. science and engineering capacity (October 2017)
- AAMC sign-on letter in opposition to prohibitions or restrictions that would further impede the use of federal funding for fetal tissue or embryonic stem cell research (September 2017)
- AAMC sign-on letter in opposition to Administration's proposal to cut \$7.2 billion, or 21 percent, from National Institutes of Health (NIH) budget in fiscal year (FY) 2018, including the proposal to drastically reduce NIH support for facilities and administrative (F&A) expenses (also referred to as "indirect costs") for physical infrastructure and other essential research costs (July 2017)
- AAMC sign-on letter urging increase in NIH FY 2018 budget by \$2 billion above FY 2017 amounts (May 2017)
- AAAS letter to increase federal funding support of scientific research and development when completing FY 2017 appropriations (April 2017)



AAA Executive Director, Shawn Boynes, and members Jason Mussell, David Burr, and Sylvia Smith are ready to take to the Hill on FASEB Hill Day 2017

In addition to letters that AAA individually signs on to, FASEB drafts and delivers letters to Congressional leaders urging action on topics related to research funding and science policy. As a member of FASEB, AAA's members have a voice in these issues.

**Below is a small subset of the letters and actions FASEB signed onto on behalf of its member societies in 2017.**

- Capitol Hill Day— representatives from the 31 FASEB societies and others visit Congressional offices to ask for sustained, predictable increases to federal biomedical funding for agencies such as NIH, NSF, and the VA. In 2017, Hill Day had 55 participants and meetings with 112 congressional offices. AAA representatives were David Burr, Ph.D. Indiana University School of Medicine, Jason Mussell, Ph.D., Louisiana State University, and Sylvia Smith, Ph.D., Augusta University
- FASEB issued a statement opposing House proposal to fully fund defense spending with no relief for non-defense agencies (December 2017)
- FASEB issued an e-Action alert on tuition tax waivers and the tax legislation (December 5). In the first three days, the alert generated 22,451 messages from 7,150 individuals. They reached all 100 Senate offices and 414 House offices (December 2017)
- FASEB issued a statement opposing the proposed elimination of the tuition tax waiver for graduate students (November 9); It was later cited in a press release by Democratic Whip Steny Hoyer (November 2017)
- FASEB signed onto Coalition for Health Funding letter on FY 2018 302b allocation for Departments of Labor, Health and Human Services, and Education and Related Agencies appropriations bill (May 2017)
- FASEB signed onto Energy Sciences Coalition letter on FY 2017 appropriations (March 2017)
- FASEB signed onto Coalition for National Science Funding letter in support of \$8 billion for NSF in FY 2018 (March 2017)
- FASEB Capitol Hill video and FASEB Advocacy video released (July 2017)
- FASEB signed onto Research!America's letter urging Congress to raise the FY 2018 budget caps (June 2017)
- FASEB created an Experimental Biology advocacy flier for ASPET, ASN, and AAA (April 2017)
- FASEB created an e-Action alert for Experimental Biology societies use on the day of the March for Science (April 2017)

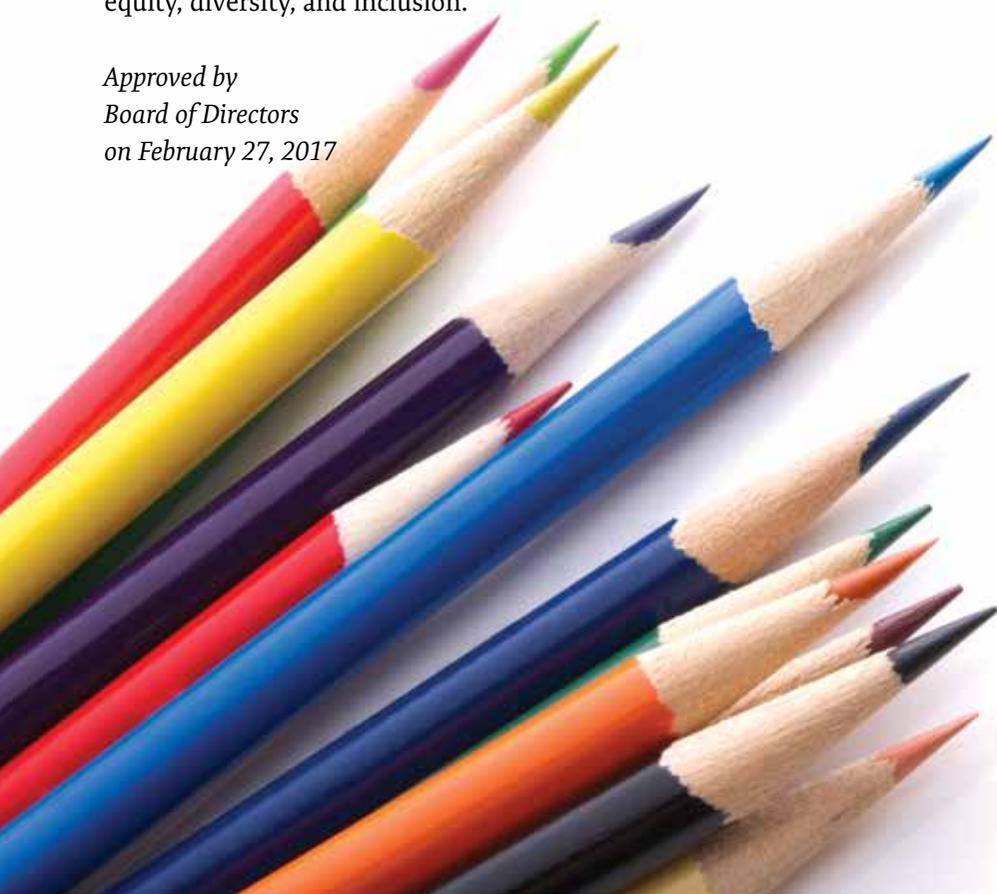
# Diversity and Inclusion

AAA is working to create and inclusive and engaged community of members.

In 2017, The Diversity and Inclusion Task Force created their mission statement for the Association:

WE ARE ... firmly committed to welcoming, developing and maintaining scientists and educators in a culture that embraces individuals with diverse life experiences. This includes engaging and nurturing a broad representation of individuals who value science and education, regardless of race, ethnicity, religion, national origin, mental or physical ability, age, gender identity or expression, or sexual orientation. In pursuit of advancing the anatomical sciences, we promote the values of equity, diversity, and inclusion.

Approved by  
Board of Directors  
on February 27, 2017



The Task Force members listed below work with the Board, Committees, staff, and other fellow members to create a more diverse and inclusive membership that is reflected in all aspects of the Association from awards to leadership positions, and from the annual meeting to committee rosters.

Additionally, on October 27, 2017, the Board of Directors received and approved the Diversity & Inclusion Task Force Action Plan which is a strategic tracking document that outlines the initiatives the Association will take in both the short- and long-term to move the needle on Diversity and Inclusion tracking, policies, and programs within the Association.

## Diversity and Inclusion Task Force Members

Kimberly Topp, Task Force Chair,  
Professor and Chair, University of California, San Francisco

Martine Dunnwald,  
Research Assistant Professor, University of Iowa  
Carver College of Medicine

Rebecca Fisher,  
Associate Professor, University of Arizona  
College of Medicine, Phoenix

Loydie Jerome-Majewska,  
Associate Professor and Medical Scientist,  
McGill University Health Centre

Shaun Logan, Research Scientist,  
Texas A&M University College of Dentistry

Anna Lysakowski,  
Professor, University of Illinois at Chicago

Jason Organ,  
Assistant Professor, Indiana University School of Medicine

Additional information about Diversity and Inclusion within AAA is available on our website [www.anatomy.org/diversity](http://www.anatomy.org/diversity).

## Can you provide some background about your journey in academia ?

I received my Honor's Bachelor degree from Wesleyan University in Middletown CT. in 1991, I was a biology major and had the opportunity to work as a work-study student during the year. During the summers with scholarships from The McNair Program, Howard Hughes Foundation, and Pfizer, I was able to perform research in the laboratory of Dr. L. Grabel (She was an amazing mentor – really fueled my passion for Development). ¶ I went to Columbia University and performed my Ph.D. research in the laboratory of Dr. Virginia Papaioannou in a Developmental Genetics Laboratory. I received my Ph.D. degree in October of 2001, from The Integrated Program of Cellular Molecular Biophysics. During my Ph.D., I was funded by a NSF pre-doctoral award. ¶ After my Ph.D., I stayed with Dr. Papaioannou for a year as postdoctoral fellow and later went to the laboratory of Dr. Elizabeth Lacy at The Sloan Kettering Cancer Center at Cornell for a three year Postdoctoral Fellowship (2003 – 2005). I had the opportunity to work with Drs. Licia Selleri, Lee Niswander and Kathryn Anderson during those three years. ¶ I was appointed as an assistant professor non-tenured track in the Department of Pediatrics at McGill University in 2005, and I am now an associate professor with Tenure in the same department.

## Why did you think the time was right for AAA to focus on Diversity and Inclusion (D&I) ?

I don't think there is a wrong time to focus on D&I. ¶ However, I think there are a combination of circumstances that make this the right time for AAA to focus on D&I. The first has to do with the internal reflection taking place amongst the AAA members as the association approaches its 130th Anniversary. At this mature milestone of the Association, there is an assessment of the goals and achievements of the past that have occurred and consequently a realization that the association does not reflect the diversity of our society at large. The second is the fact that the AAA has some very thoughtful and strong leaders, like Dr. Kimberly Topp (chair of the D&I Committee), who has the conviction and drive to address this lack of diversity head-on. ¶ Of course, I think that the political and social environment at large, also contributes to making this need urgent as there are many marginalized groups who are demanding equal opportunities.

## Where are you hopeful as it relates to D&I at AAA and in higher education institutions in general?

My hope is that we won't have a need for a D&I task force or committee in 20 years! As a member of the AAA society I feel that there is strong support for the goals of this task-force. If the Diversity and Inclusion task force is successful, I think the society will have the strength that it will need to succeed another 130 years! Moving forward we will need the brilliance and passion that can only come from a more diverse membership.

Loydie Jerome-Majewska, Ph.D., is an Associate Professor at McGill University and a member of our Diversity and Inclusion Task Force. We spoke with her about her career trajectory and her time with the task force.



# Celebrating 130 Years of Research, Education, and Professional Development

## Highlights from 2011 to 2019

### 2011

AAA establishes the Fellows Legacy Fund

### Anatomical Sciences Education

Named the number one ranked journal in Education, Scientific Disciplines.

### 2012

First Regional Meeting is held in Chicago

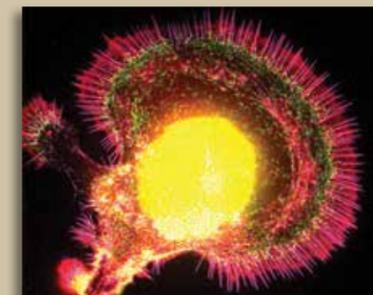
Discovery that mature cells can be reprogrammed to become pluripotent



John B. Gurdon



Shinya Yamanaka



Neuron regenerating in culture

John B. Gurdon and Shinya Yamanaka are awarded the 2012 Nobel Prize in Physiology or Medicine for the discovery that mature cells can be reprogrammed to become pluripotent. In 1962, Gurdon shows the specialization of cells is reversible. In a classic experiment, he replaces the

immature cell nucleus in the egg cell of a frog with the nucleus from a mature frog intestinal cell. This modified egg cell develops into a normal tadpole, demonstrating that the DNA of the mature cell still has all the information needed to give rise to all the cells in an organism.

More than 40 years later, Yamanaka discovers how intact mature cells in mice can be reprogrammed to become immature stem cells. Surprisingly, by introducing only a few genes, Yamanaka can reprogram mature cells to become pluripotent stem cells, i.e., immature cells capable of developing into all types of cells in the body.

Together, these groundbreaking discoveries have completely changed the understanding of cell development and specialization. The mature cell does not have to be confined forever to its specialized state. By reprogramming human cells, scientists have created new opportunities to study diseases and develop methods for diagnosis and therapy.

### “Discovery of a sensory organ that coordinates lunge-feeding in rorqual whales.”

This article, appearing in the May 24, 2012 issue of Nature, solves the mystery of the dramatic changes and adjustments needed in jaw position and throat-pouch expansion to make lunge feeding successful. N. D. Pyenson, J. A. Goldbogen, A. W. Vogl, G. Szathmary, R. L. Drake, and R. E. Shadwick discover a sensory organ in the chin of rorqual whales that communicates with the brain. The organ, composed of connective tissue with papillae (protrusions) that

## Presidents 2011-2019



2011-2013  
Jeffrey Laitman



2013-2015  
Lynne Opperman



2015-2017  
Kimberly Topp

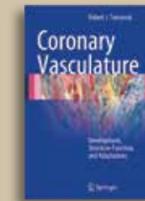


2017-2019  
Philip Brauer



Scientists from the University of British Columbia and the Smithsonian Institution point to a ridge of tissue sampled from the throat pouch of a fin whale (background) in Iceland. Left to right: Jeremy A. Goldbogen (Cascadia Research Collective), A. Wayne Vogl (UBC) and Robert E. Shadwick (UBC).

in the field of cardiac angiogenesis and arteriogenesis, Tomanek publishes *Coronary Vasculature* in 2012. The book reviews, discusses, and integrates findings from various areas of coronary vasculature research and will be a valuable reference source for cardiovascular scientists and physicians for many years to come.



Parker Antin

### 2013

President Obama launches project to study human mind

The White House has announced a 10-year study on the inner workings of the human brain, akin to the Human Genome Project's

contain nerves, is suspended in a gel-like material and is located in the whale's chin in the space between the tips of the two lower jaw bones.

### Robert Tomanek

In addition to his life-long achievements

research into genetics. The research, called the Brain Activity Map Project, will study the billions of neurons in humans' brains and learn what exactly leads to certain perceptions, actions and even levels of consciousness. The project would help understand what has gone wrong in brains of people with psychiatric diseases and degenerative diseases like Alzheimer's.

Shawn Boynes becomes the third Executive Director of AAA



Shawn Boynes

### Strategic Plan created and adopted by Board of Directors

AAA ushers in a new era of strategic oversight by adopting a strategic plan to achieve its vision and mission as an Association.

### CRISPR-Cas9 Emerges Strongly in the Research Literature

CRISPR, or Clustered Regularly Interspaced Short Palindromic Repeats, are part of the bacterial defense system that forms the basis for the CRISPR-Cas9 genome editing technology. CRISPR-Cas9 systems can be programmed to target specific stretches of genetic code and to edit DNA at precise locations, as well as for other purposes, such as for new diagnostic tools.

### 3D Printed Anatomical Models

3D printed anatomical models continue to rise in prominence in medical schools and the research literature. Accurate 3D copies of anatomical specimens can be rapidly and economically reproduced to allow for additional resources in anatomy classrooms.

### 2014

The Anatomical Record (AR) launches WOW Video Articles

AR WOW video articles publish video and 3D-interactive files as primary digital video files within your manuscript allowing authors the ability to include video figures of their research.

### Anatomy Connected Online Community Launched

Anatomy Connected online community launches as a discussion forum for members to pose questions and connect online outside of in-person meetings.

### Innovations Program Launches

Innovations Program provides up to \$50,000 funding to support new scientific, educational, and professional development programs and services developed by AAA's members and/or Committees.

### 2015

First-ever International Regional Meeting held in London, Ontario, Canada at The University of Western Ontario

### New Human-like Species *Homo naledi* Discovered

Fossil skeletons, believed to be an off-shoot of the genus *Homo* and later named *Homo naledi*, found in the Gauteng province of South Africa dating between 300,000 and 200,000 years ago. *Homo naledi*'s anatomical features are in some ways similarly associated with later hominids like our own species (*Homo sapiens*), but also include ancestral features, like a smaller brain and skull known from the Australopithecines.

### Congenital Zika Syndrome Identified

The Zika virus — spread mostly by the bite of infected Aedes species mosquito — are shown to cause birth defects and anatomical changes in fetuses (e.g. microcephaly, eye damage) when passed from a Zika-infected pregnant woman to fetus during pregnancy.

### 2016

Fellows Grant Award Program (FGAP) launches

The Fellows Grant Award Program supports research proposals originally submitted to national or international funding agencies (e.g., NIH, NSF) that were scored and generally well received but did not receive funding. Awards of up to \$25,000 provided.

### Webinar Series launched

AAA Professional Development committee launches a webinar series aimed at professional development topics such as career development, medical education funding, and mentoring. The webinar series was funded by an Innovations Program grant.

### 2017

Diversity and Inclusion Statement and Action Plan created



### Anatomical Sciences Education (ASE) 10th anniversary

ASE journal celebrates 10 years of research as an international forum for the exchange of ideas, opinions, innovations, and research on topics related to education in the anatomical sciences.

Paul Trainor named as new Editor-in-Chief of *Developmental Dynamics* journal

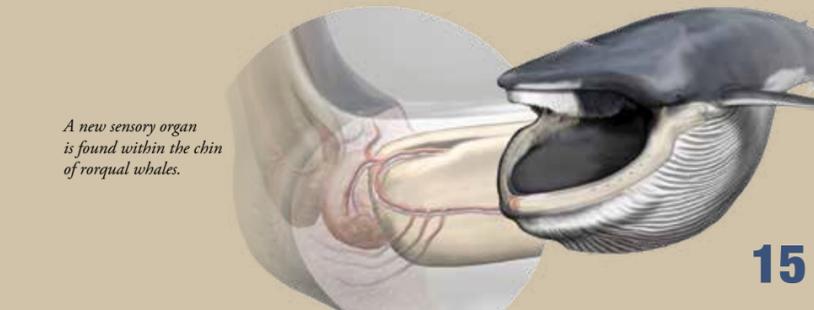


Paul Trainor

### 2018

Young Anatomist Publication Award expanded

Young Anatomist Publication Award (YAPA) expands to award up to three recipients, one from each of our three journals, *Anatomical Sciences Education*, *Developmental Dynamics*, and *The Anatomical Record*.



A new sensory organ is found within the chin of rorqual whales.



# Strategic Plan

*Approved by the Board of Directors on October 28, 2017*

**Vision: Inspiring scientific curiosity and discovery**

**Mission: Advancing anatomical science through research, education, and professional development**

**A. AAA will advance knowledge and its application in anatomical sciences through research and education.**

- Broaden the awards portfolio to recognize and support a diverse range of awardees at all stages of their professional development.
- Expand involvement of international associations in the AAA regional and annual meetings to advance anatomical sciences research globally.
- Increase the profile of AAA's journals.
- Create mechanisms to encourage members and awardees to publish in AAA journals.

**B. AAA will promote lifelong professional development of a diverse membership within the association.**

- Create leadership training for members with a mentoring component and metrics for success.
- Sustain a welcoming environment and act as champions and role models for engagement and career development of its members.
- Expand opportunities for members to showcase the role of anatomy in their specific disciplines.

**C. AAA will lead in science communication.**

- Design and implement science communication training programs focused on engaging members with the public, policy makers, other scientists and clinicians.
- Identify and support champions of science communication and anatomy.
- Engage the public by popularizing anatomical sciences.

**D. AAA will infuse diversity, inclusion, and equity into all aspects of its activities.**

- Increase representation and engagement of individuals from diverse and underrepresented groups.
- Enact systems ensuring committee membership and actions that reflect the diversity and diverse perspectives of the AAA membership.
- Enact systems ensuring leaders and leaders' actions that reflect the diversity and diverse perspectives of the AAA membership.
- Develop an awards portfolio that recognizes the full breadth of the AAA membership.
- Increase internal and external communications to emphasize the AAA commitment to, and value of, diversity and inclusion.
- Develop programs for outreach to potential members from underrepresented groups.
- Develop programs of engagement and career development for members from diverse and underrepresented groups.

**E. AAA will strengthen the infrastructure and governance necessary to fulfill its strategic goals mission.**

- Identify and acquire the resources necessary for serving a growing and more diverse membership.
- Continually evaluate AAA's governance for effectiveness and responsiveness to the needs of its members.
- Assess and cultivate relationships with other key groups.

# Numbers

**2,139** Members across **57** countries

**502** New Members joined in 2017

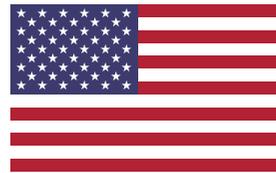
Postdoc and Student members in 2017 **32%** of total membership

**\$300,000+** in Awards

**41%** are Women

## Countries with the most members:

**#1** United States



**#2** Canada

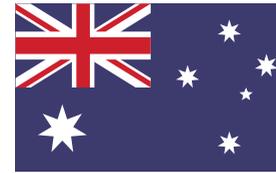


**#3** United Kingdom

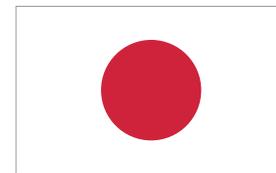


**Furthest members from AAA National Office in Bethesda, MD**

**2** in Perth, Australia



**#4** Australia



**#5** Japan

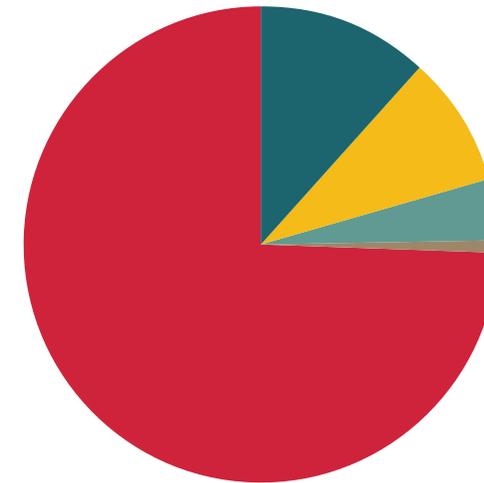


**#6** Brazil

# Financials

AAA remains financially healthy as well as committed to supporting its membership by reinvesting in programs and services that strengthen the Association's mission and strategic goals. These pie charts provide a snapshot of where the Association generates its revenue as well as a breakout of primary expense categories.

2017 INCOME



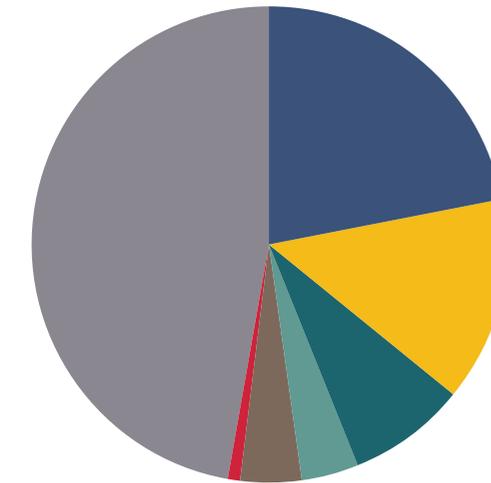
72% Royalties 14% Annual & Regional Meetings  
9% Membership Dues 4% Contributions 1% Advertising

**Royalty Income:** revenue earned from journal subscriptions to *Anatomical Sciences Education*, *Developmental Dynamics*, and *The Anatomical Record*

**Contributions:** revenue received from member donations, meeting and awards sponsorships

**Advertising:** revenue generated from online job postings to the job listings web page

2017 EXPENSES



47% General & Administrative 20% Annual & Regional Meetings  
12% Awards 11% Committees & Governance 4% Newsletter & Journals  
4% Member Retention & Development 2% Website

**General and Administrative:** expenses related to accounting and auditing fees; bank and credit card fees; computer and IT service expenses; rent; insurance; office supplies; staff salaries and benefits; payroll and human resources expenses; and consulting fees



We caught up with member Erica Malone, Ph.D. candidate at the Texas A&M University to talk to her about her interest in Anatomy Visualizations and teaching.

## Member Spotlight

### Can you provide a little bit of background about your career/academic track so far?

There are three things that I am passionate about – art, animals and anatomy. Even as a small child I would pass up *Goodnight Moon* and *The Very Hungry Caterpillar* for books like *How Your Body Works* or pretty much anything with a picture of a horse or some sort of anatomical image. I was constantly drawing and trying to figure out how the skeleton and muscles were all put together to make what we see on the outside. ¶When it came time to decide on a major for college, I decided veterinary medicine and the Biomedical Sciences major at Texas A&M University was the best option. It only took one semester for me to discover that, while I loved science, I was simply not happy without some sort of creative outlet. ¶In my junior year, I took biomedical anatomy as part of my degree program. I walked into the class more excited than I ever imagined I would be to sit in a lecture hall or lab. I was eager to have a formal setting to study anatomy and a chance to use my hands and my visualization skills in a science course. ¶While studying the osteology of the foot I painted a pair of shoes with the bones of the foot. Each bone was a different color and the shoes glowed in the dark. I was so excited about the shoes that, when the professor for the class walked in, (fellow AAA member Dr. Michelle Pine), I stuck my feet out and said “Dr. Pine! Look what I made!” At this time, Dr. Pine was working on flipping her course and coming up with ways to make the class more engaging. When she saw my shoes, she knew that I had the kind of mind that would be perfect for helping her create the kind of teaching tools she was looking for! As soon as we started talking about how I studied and how she would like to teach, we realized we made the perfect team! ¶By the time graduation came around, my mentors and I had devised a plan for me to do a collaborative master’s program out of the Department of Visualizations with the College of Veterinary Medicine and Biomedical Sciences so that I could gain skills in technology development while designing and building tools for learning the anatomical sciences. ¶To fund my master’s program, I became a teaching assistant for the undergraduate biomedical anatomy course – the very course where everything started for me. It was during this time as a teaching assistant that I realized how much I love teaching. When I began my master’s program I planned to work in industry in some way, designing and building commercial learning and teaching tools for the basic sciences. As the first semester of my master’s program came to an end, I had decided on a career in academia. ¶Because a Master’s in Visualizations and a bachelor’s

degree does not qualify me to teach at the university level, my mentors and I decided that the best course would be for me to pursue a doctorate from the College of Veterinary Medicine and Biomedical Sciences in Physiology and Developmental Biology, which I am doing currently.

### What type of research are you currently studying?

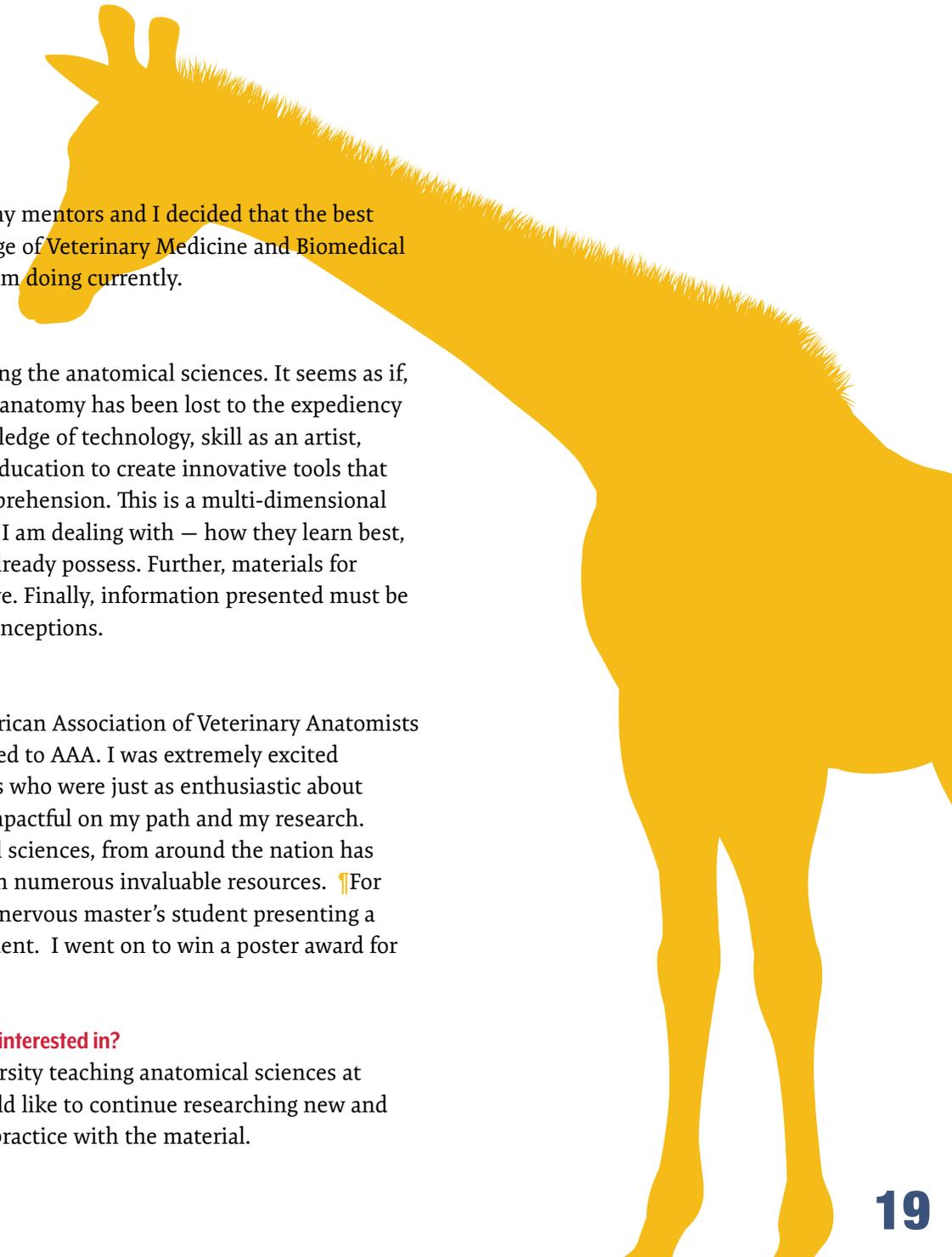
The research that I am doing is on innovative tools for learning the anatomical sciences. It seems as if, in some programs, the inherent tactile and kinetic nature of anatomy has been lost to the expediency of lectures and textbooks. It is my goal to integrate my knowledge of technology, skill as an artist, experience as a learner, and passion for anatomical science education to create innovative tools that minimize the cognitive load for students and maximize comprehension. This is a multi-dimensional undertaking as I must first determine what types of learners I am dealing with – how they learn best, where their misunderstandings are and what abilities they already possess. Further, materials for educational tools should be durable, reusable and inexpensive. Finally, information presented must be accurate, but clear and focused to avoid confusion and misconceptions.

### Why did you join AAA and how has it helped you in your path?

My mentor, Dr. Michelle Pine, was the treasurer for the American Association of Veterinary Anatomists (AAVA). It was through this organization that I was introduced to AAA. I was extremely excited to discover that there was an entire community of academics who were just as enthusiastic about anatomy as I was. Being a part of AAA has been incredibly impactful on my path and my research. Talking to anatomists, especially educators in the anatomical sciences, from around the nation has helped me to refine my techniques and has provided me with numerous invaluable resources. ¶For example, at my very first regional meeting I was a timid and nervous master’s student presenting a poster about a project I had started as an undergraduate student. I went on to win a poster award for that poster, and another at my next regional meeting.

### What’s next for you after graduation? What type of career are you interested in?

After graduation, the goal is to become a professor at a university teaching anatomical sciences at the undergraduate, graduate and/or professional level. I would like to continue researching new and innovative ways to present information and allow students practice with the material.



# Member Benefits

Membership in the American Association of Anatomists is open to students, postdoctoral trainees, faculty, and scientists engaged in teaching or investigation of anatomical or related sciences. Graduate, undergraduate, and medical students are encouraged to join early in their education to gain from the vast network of like-minded individuals in the Association.

Special membership categories exist for emeritus faculty and members associated with either the Human Anatomy and Physiology Society or the National Postdoctoral Association, or for those who may not fit into a current member category, but who work in a related discipline.

## Anatomy Connected

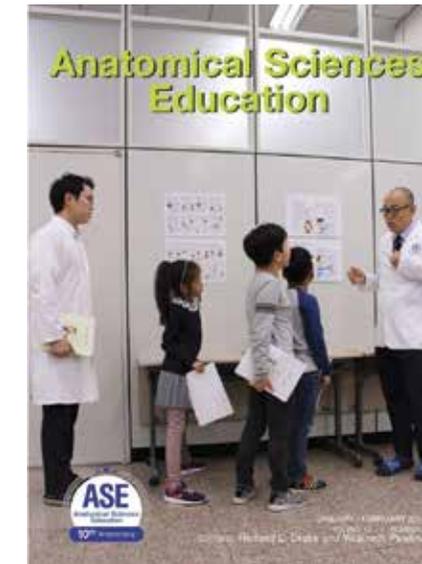
Anatomy Connected is an exclusive value-added online community where members from around the world can post and respond to questions in real time, day or night.

With the ability to reach all the members of the Association, Anatomy Connected is a resource for answers to common questions about teaching, administrative issues, or scientific policy questions. Members have free access to this discussion portal.

## Scholarly Journals

The Association offers three scholarly journals: *Anatomical Sciences Education*, *Developmental Dynamics*, and *The Anatomical Record*, published through Wiley. Each offers a different look at the anatomical sciences field and supports the dissemination of high-quality, peer-reviewed research.

Grow your own research portfolio by submitting to one of our three journals. Each offers no page charges or color figure charges, and a fast, fair, friendly, and free peer review and author support.



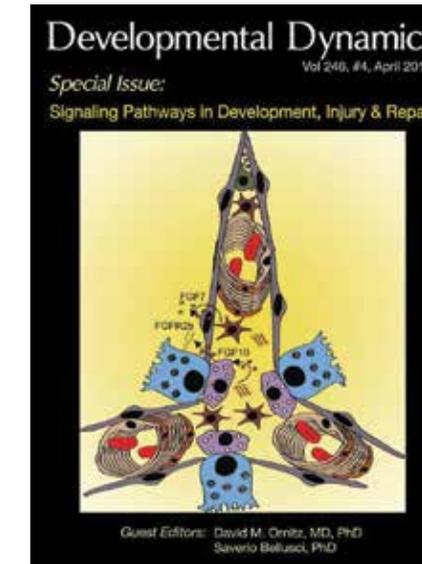
### Anatomical Sciences Education

**Editor:** Wojciech Pawlina, M.D.

**Acceptance Rate:** 34%

#### Top Downloaded Article in 2017:

The integration of an anatomy massive open online course (MOOC) into a medical anatomy curriculum



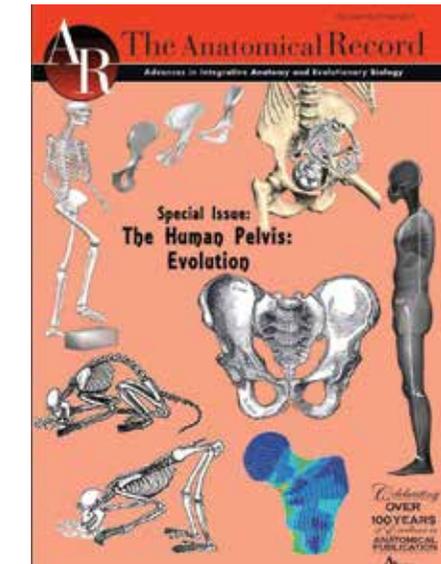
### Developmental Dynamics

**Editor:** Paul Trainor, Ph.D.

**Acceptance Rate:** 62%

#### Top Downloaded Article in 2017:

Achondroplasia: Development, pathogenesis, and therapy



### The Anatomical Record

**Editor:** Kurt H. Albertine, Ph.D.

**Acceptance Rate:** 57%

#### Top Downloaded Article in 2017:

Evolution of the Human Pelvis

# Award Winners

Congratulations to our award recipients from 2017.  
Thank you for your work, service, and commitment to  
the discipline of anatomy.

Members supported through awards and grants

(including travel awards): **268**

Total amount awarded: **\$374,072**



## Service and Scientific Awards

### A.J. Ladman Exemplary Service Award

Marion “Emmy” Gordon, Ph.D.,  
Ernest Mario School of Pharmacy  
at Rutgers University

### Basmajian Award

Heather Jamniczky, Ph.D.,  
University of Calgary

### Henry Gray

#### Distinguished Educator Award

Wojciech Pawlina, M.D.,  
Mayo Clinic College of Medicine

### Henry Gray

#### Scientific Achievement Award

H. Joseph Yost, Ph.D.,  
University of Utah School of Medicine

### Keith and Marion Moore

#### Young Anatomist Publication Award

Ali Nabavizadeh, Ph.D.  
Cooper Medical School of Rowan  
University

## Fellows

Paul Dechow, Ph.D.,  
Texas A&M Health Science Center

Beverley Kramer, Ph.D.,  
University of the  
Witwatersrand, Johannesburg

Joseph LaManna, Ph.D.,  
Case Western Reserve University

Michael Lehman, Ph.D.,  
University of Mississippi Medical Center

Donald McDonald, M.D., Ph.D.,  
University California, San Francisco

Rick Sumner, Ph.D.,  
Rush University Medical Center

## Young Investigator Awards

### C.J. Herrick Award in Neuroanatomy

Florian Merkle, Ph.D.,  
University of Cambridge

### H.W. Mossman Award

#### in Developmental Biology

Maria Barna, Ph.D.,  
Stanford University

### Morphological Sciences Award

Shigeki Watanabe, Ph.D.,  
Johns Hopkins University

### R.R. Bensley Award in Cell Biology

Gloria Brar, Ph.D.,  
University of California, Berkeley

## Scholarships, Grants, and Training Opportunities

### Anatomy Training Program Participants

Martine Dunnwald, Ph.D., University of Iowa  
Carver College of Medicine

Krista Rompolski Taney,  
Drexel University

Jack Mayhew,  
University Newcastle

### Education Research Scholarship

Colin Moore,  
The University of Western Ontario

## Fellows Grant Award Program

Rebecca Hartley, Ph.D.,  
University of New Mexico,  
School of Medicine

Anthony Huang, Ph.D.,  
Southern Illinois University,  
School of Medicine

Jonathan Perry, Ph.D.,  
Johns Hopkins University,  
School of Medicine

## Innovations Program

### Anatomy for Every Body, an Outreach Program

#### Co-Principal Investigators:

Jason Musell, Ph.D.,  
Louisiana State University and  
Adam Sylvester, Ph.D.,  
Johns Hopkins School of Medicine

“I Am Anatomy,” Raising Awareness of  
Transforming Perceptions by Promoting  
Professional Diversity

#### Co-Principal Investigators:

Brent Thompson, Ph.D.,  
Oakland University William Beaumont  
School of Medicine,  
Joshua W. Little, D.C., Ph.D. (Co-PI),  
Saint Louis University School of Medicine  
and Christina Lewis, Ph.D. (Co-PI),  
Samuel Merritt University, on behalf of the  
Membership Committee

## Outreach Grants

David Burr, Ph.D.,  
Indiana University School of Medicine  
*Orthopaedic Research Society, International  
Musculoskeletal Workshop at Sun Valley*

Michael Granatosky, Ph.D.,  
University of Chicago,  
*South Side Anatomical Education*

Angelo Iulianella, Ph.D.,  
Dalhousie University  
*Atlantic Canadian Regional Developmental  
Biology Symposium*

Nandor Nagy, Ph.D.,  
Simmelweis University  
*Development of the Enteric Nervous System:  
Cells, Signals, Genes and Therapies*

Haley O’Brien, Ph.D.,  
Oklahoma State University  
Center for Health Sciences  
*Perceived Contrasts*

Guenevere Rae, Ph.D.,  
Louisiana State University  
Health Sciences Center  
*Exciting New Orleans Youth with  
Plastinated Anatomic Specimens*

Ann Zumwalt, Ph.D.,  
Boston University  
*Anatomy Programing for Museum of Science,  
Boston*

## Postdoctoral Fellowships

Alice Accorsi, Ph.D.,  
University of Mississippi

Katrina Jones, Ph.D.,  
Harvard University

Aleisha Moore, Ph.D.,  
Stowers Institute for Medical Research

## Short-term Visiting Scholarship

Diane Chico, Ph.D.,  
Texas A&M College of Medicine

Habiba Chirchir, Ph.D.,  
Marshall University

Kenneth “Bo” Foreman, Ph.D., PT.  
University of Utah

Diane Kelly, Ph.D.,  
University of Massachusetts

Michelle Lazarus, Ph.D.,  
Monash University

Christina Nicholas, Ph.D.,  
University of Illinois at Chicago

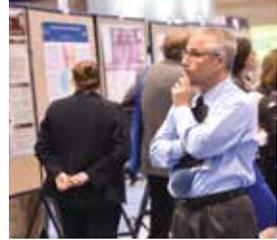
Dara Orbach, Ph.D.,  
Dalhousie University

Maureen Stabio, Ph.D.,  
University of Colorado School of Medicine

# Meetings

**Annual Meeting at Experimental Biology (EB) brings together members and non members for a chance to present their research and take part in educational and professional development sessions and workshops.**

With over 1075 anatomists attending, from 37 countries, and approximately 14,000 total attendees from the six societies, there is always a session to attend to meet your needs. Our 2017 program consisted of over 50 sessions, broken down into 65% scientific, 20% education, and 15% professional development topics.

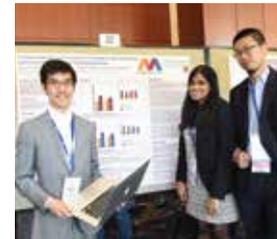


## Meeting Awards and Grants

A highlight of each year is the Awards Ceremony held on the final day of the meeting. Awards are presented to members for their scientific and service accomplishments.

An elite group of 61 students and postdoctoral trainees competed onsite for poster and platform presentation competition awards. The Committee for Early-Career Anatomists (CECA) judges each presentation and awards prizes of up to \$500. In 2017, 19 competition award winners and 206 travel award winners received \$62,500 in support of their accomplishments.

Thank you to our Program Committee, responsible for inviting speakers and programming all the oral sessions and posters. Additional thanks to the Committee for Early-Career Anatomists for adjudicating and awarding poster and platform awards, and to the Educational Affairs and Professional Development Committees for providing additional support and planning to the annual meeting.



## 2017 Program Committee

Brian Allman, Ph.D.,  
The University of Western Ontario

Andras Czirok, Ph.D.,  
University of Kansas Medical Center

Martine Dunnwald, Ph.D.,  
University of Iowa

Casey Holliday, Ph.D.,  
University of Missouri

Kenneth Kramer, Ph.D.,  
Creighton University

Rebecca Lufler, Ph.D.,  
University of Delaware

Ralph Marcucio, Ph.D.,  
University of California, San Francisco

Margaret McNulty, Ph.D.,  
Indiana University School of Medicine

David Mills, Ph.D.,  
Louisiana Tech University

Lisa Taneyhill, Ph.D.,  
University of Maryland

Robert Tomanek, Ph.D.,  
University of Iowa

Paul Trainor, Ph.D.,  
Stowers Institute for Medical Research

## Regional Meeting in Pittsburgh

The 2017 Regional meeting was held in Pittsburgh, Pennsylvania at Duquesne University on November 4, 2017.

The regional meeting drew 123 attendees from 17 states and Canada and brought together a diverse group of faculty, students, clinicians, members, and nonmembers alike. Student posters were eligible for awards, and AAA senior member volunteers adjudicated posters and awarded seven attendees a total of \$1,300 for their work.

Our regional meetings offer a more intimate setting for our attendees to network, attend sessions, and take part in hands-on workshops.

Thank you to the Pittsburgh Regional meeting planning committee:

Chair

Anne M. Burrows, Ph.D.,  
Duquesne University

Tim Smith, PhD.,  
Slippery Rock University

Seth Weinberg, Ph.D.,  
University of Pittsburgh

Rebecca German, Ph.D.,  
NEOMED

Jasmien Roosenboom, Ph.D.,  
University of Pittsburgh



# 2017 Board and Committees

## BOARD OF DIRECTORS

The governance of the association resides in the 14 member Board. Board members are elected by the membership and convene twice yearly at the annual meeting at Experimental Biology and at varying locations around the U.S. in the fall.

### President

Philip Brauer, Ph.D.  
Kansas City University of Medicine  
and Biosciences-Joplin

### President-Elect

Rick Sumner, Ph.D.  
Rush University Medical Center

### President Emeritus

Kimberly Topp, P.T., Ph.D.  
University of California San Francisco

### Secretary-Treasurer

Valerie Burke DeLeon, Ph.D.  
University of Florida

### Program Co-Chair

Paul Trainor, Ph.D.  
Stowers Institute for Medical Research

### Program Co-Chair

Martine Dunnwald, Pharm.D., Ph.D.  
The University of Iowa

### Directors

Julian Guttman, Ph.D.  
Simon Fraser University

Anna Lysakowski, Ph.D.  
University of Illinois at Chicago

Jennifer McBride, Ph.D.  
Cleveland Clinic Lerner College of Medicine

Jason Organ, Ph.D.  
Indiana University School of Medicine

Rebecca Pratt, Ph.D.  
Oakland University William Beaumont School of Medicine

A. Wayne Vogl, Ph.D.  
University of British Columbia

### Student/Postdoctoral Trainee Directors

Heather Richbourg, Ph.D.  
University of California, San Francisco

Sonya Van Nuland, Ph.D.  
Mayo Clinic School of Medicine

## COMMITTEES

Through the volunteer effort of committee members, the Association brings in new members, coordinates programming for the annual meeting, and manages awards and nomination processes. Information about committees is available at [www.anatomy.org/committees.html](http://www.anatomy.org/committees.html)

### Committee for Early-Career Anatomists

*Committee Chair:* Margaret McNulty, Ph.D.  
Indiana University School of Medicine

### Educational Affairs Committee (EAC)

*Committee Chair:* Rebecca Lufler, Ph.D.  
University of Delaware

### Journal Trust Fund & Investment Committee (JTFI)

*Committee Chair:* Bryon Grove, Ph.D.  
University of North Dakota School of Medicine

### Membership Committee

*Committee Chair:* Brent Thompson, Ph.D.  
Lincoln Memorial University

### Professional Development Committee

*Committee Chair:* Doug Gould, Ph.D.  
Oakland University William Beaumont School of Medicine

### Program Committee

*Committee Co-chairs:*  
Paul Trainor, Ph.D., Stowers Institute for Medical Research  
Martine Dunnwald, Pharm.D, Ph.D., The University of Iowa

### Publications Committee

*Committee Chair:* Kem Rogers, Ph.D.  
The University of Western Ontario

### Scientific Affairs Committee (SAC)

*Committee Chair:* Katherine Yutzey, Ph.D.  
Cincinnati Children's Medical Center





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(301) 634-7910 [www.anatomy.org](http://www.anatomy.org)

**2017 Year in Review**