

## MESSAGE FROM THE PRESIDENT



#### Dear Colleagues,

I wish you all a happy new year! I am looking forward at 2022 with great optimism, and I hope you are able to share this perspective. Vaccinations and safety precautions increase the likelihood that we eventually will be able to travel more this year. One of the things I look forward to most is seeing many of you in person April 2-5, 2022, at our annual meeting, EB2022, in Philadelphia. I grew up there, so this will be an especially fun trip for me! Beyond 2022, we are excited for all of the improvements and innovations planned for our upcoming stand-alone AAA meetings. In 2023, we will be in Washington, D.C., and the new meeting structure will let us take advantage of the rich resources available in that amazing city. In 2024, we will celebrate the international distribution of our membership and hold our annual meeting in Toronto, Canada. I hope you are as excited about these new developments as I have been!

The new year is also a chance to look back, and I am honored to share with you this 2021 Year in Review. The last year has been challenging for many of us. Personal and professional losses have affected us all. At the same time, we have persevered. As a community, we have continued to work and support each other. One of the bright spots for me has been my own ongoing engagement with the AAA community. At a time that I have felt disconnected from many of the people in my life, my online relationships have prospered. I have come to know many of you through Twitter exchanges and Instagram posts, and I have come to appreciate the value of participating in social media. I meet on Zoom with many of you socially and professionally. AAA Committees continue to meet regularly, and we held both 2021 Board meetings in a multi-day virtual format. We have vibrant conversations in AAA-sponsored webinars. We held our first-ever Virtual Regional Meeting in December. Organized by member **Edgar Meyer** and other members of the Planning

Committee, the Regional Meeting focused on inclusivity and interprofessional connections. Even our Annual Meeting helped to bring us together in a virtual space! One of the things I enjoyed in this format was being able to take part in concurrent sessions. Overall, the virtual meeting exceeded my expectations, thanks to the excellent work of **Colby Shultz** and the entire AAA staff.

We have worked together in 2021 to recognize and celebrate the achievements of our colleagues through our Awards Program, including the creation of **three new awards** emphasizing inclusion, mentorship, and outreach. We have taken a proactive role in promoting diversity in our own community by launching the Anatomy Scholars Program, and more broadly in medical education by funding the POP AART initiative. We support each other in the ethical and responsible conduct of our research and teaching, including an emphasis on legacy anatomical collections. Finally, we support the outstanding ideas of our colleagues in the form of four new Innovations Grants.

I am grateful to all of you for your engagement and participation in the work of our Association. Our accomplishments are built on your effort. Please join me also in thanking the Staff, **Shawn Boynes, Colby Shultz, Liz Phares, Joanna Kotloski, Kelly Cox, Keli Hughes,** and **Jacquelyn Quash,** for all of their contributions to our success over the past year!

Valerie Burke DeLeon, Ph.D.

President, American Association for Anatomy Associate Professor, Department of Anthropology University of Florida

# **MEETINGS**

# First-Ever Virtual Annual Meeting at Experimental Biology

April 27-30, 2021

As much as we hoped COVID-19 would be behind us, the realities of an ongoing and persistent pandemic led AAA and other host scientific societies to transition **EB21** to a virtual platform for the first time in its 134-year history. While registrants of course missed connecting face-to-face – further illustrating just how tight our members' camaraderie is! – attendees were still overwhelmingly in support of the online format, with 96.4 percent very likely or likely to recommend the meeting to others. Being able to stay current on science and research, attend sessions relevant to careers and professional development, and still find time to network online ensured the meeting's success.

Conference highlights included nearly 60 sessions featuring oral talks and poster presentations. 72 exhibitors who welcomed nearly 800 registrants to an online trade show of sorts, including via 19 "EB Talks" by sponsors. The EB21 website even provided "people finder" options, making it easier for registrants to contact speakers and poster presenters, and small group roundtables for those looking for career development.

# Start making plans now for our future Annual Meetings!

2023 Annual Meeting

March 25 – 27, 2023 Washington, DC JW Marriott Hotel 2024 Annual Meeting

March 23 – 25, 2024 Toronto, ON, Canada Sheraton Centre Toronto Hotel



#### First Virtual Regional Meeting

COVID spurred AAA and our members to try a lot of new things for the first time, and in 2021, the University of Arkansas for Medical Sciences (UAMS) hosted our first-ever virtual regional meeting and made it a benefit to members with no registration fee (along with very affordable rates for non-members). "Making Inclusive and Interprofessional Strides," offered in December, embraced an overall theme of the diverse and multidisciplinary nature of anatomy and highlighted efforts in education, research, interprofessional interactions, and professional development within the anatomical sciences.

After having met jointly since the 1980s, the elected leadership of AAA, the American Society for Investigative Pathology, and the American Society for Pharmacology and Experimental Therapeutics chose to disband Experimental Biology (EB) after 2022. Beginning in 2023, each society will hold stand-alone meetings going forward.





# What did you like most about the virtual meeting?

**A:** I loved the diverse range of speakers and poster presenters that were present. People from many different fields were able to present their research, and I loved hearing different people's experiences and perspectives.

A: The meeting was well organized and professional, with interesting topics and great speakers. It was easy to navigate the system and gather a lot of good information in one day - thank you for all of the work by the organizing committee!

**A:** The speakers were all excellent, and the information is applicable and exciting. The people were so engaging that I felt a part of the community.

Abstract submission fees were also waived, with speakers chosen for platform presentations from the abstracts. Topics included:

- · Anatomy Education
- Anthropology
- · Cell and Molecular Biology
- Developmental Biology/Embryology
- · Diversity, Equity, and Inclusion
- Gross Anatomy
- Histology
- Imaging
- · Interprofessional Education
- Neurobiology
- Paleontology
- Physiology
- · Rehabilitation Sciences and Biomechanics.

A pre-conference **workshop** was offered, on "Interprofessional Education and the Implementation of Anatomy Competence Workshops on Campuses with Multidisciplinary Anatomy Learners.



~ Rick Sumner, President

will reflect that."

discipline. Our new annual meeting

#### A Report from Down Under

"I love travelling to conferences – it's probably my favourite part of my job – so travelling for AAA conferences in 2018 and 2019 was an absolute ball. I loved being with so many like-minded and fun people, and the presentations were inspiring; the experience made me feel like I am part of something really big! I really missed going to the 2020 meeting, since it was of course canceled, so when I learned that 2021 would be virtual, I knew I had to find a way to 'qo.'

In thinking about why I love going to conferences, I realised that it is the adventure of being somewhere different but also the feeling of leaving 'normal work' behind. Still, I couldn't imagine sitting up through the night at a desk where I spend way too much time ... so I thought if I went to a nice hotel, I could effectively switch my time zone and have the excitement of a conference 'trip' to look forward to and be able to concentrate more easily. I decided to try it, booking a hotel in Sydney for the duration of the conference.

It worked well, giving me some of the buzz I was after. While my body clock was not entirely fooled, I largely participated throughout the night and in the morning even played 'tourist' in my city – catching our new tram for the first time was very exciting in its own way! I enjoyed picking somewhere for dinner each night and, during conference days, I could feel 'in the moment' with everyone else as I stayed active on Twitter.

I missed being with people, but even the best virtual conference would struggle with that. A few of us had been meeting up semi-regularly on Zoom through the year, and we happily held a Zoom call during the conference, which really helped feel a part of it and be able to chat casually with a small group of people. By the end of four days, I was sad to let everyone go again!

#### Dr. Sarah Croker | Lecturer in Anatomy

The University of Sydney
School of Medical Sciences
Faculty of Medicine and Health

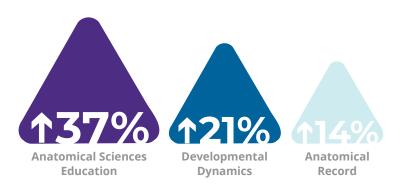
# **JOURNALS**

#### **Impact Factors UP in 2020**

In July, 2020 Impact Factor (IF) data were released for AAA's three journals, with all three of AAA's journals seeing a healthy increase:

- The Anatomical Record 2.064, up from 1.634 in 2019
- Developmental Dynamics 3.780, up from 3.275 in 2019
- Anatomical Sciences Education 5.958, up from 3.759 in 2019

Thank you and congratulations to all the authors and editors who have brought such impactful research to the anatomy community!





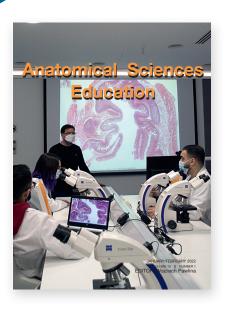
# Reflections on the First Year as Editor-in-Chief for The Anatomical Record



It was just one year ago that AAA named the first woman to serve as Editor-in-Chief of any of AAA's journals, when we announced that **Heather F. Smith**, professor of anatomy at Midwestern University (MWU) in Glendale, AZ, would succeed **Dr. Kurt H. Albertine**, University of Utah, at the helm of The Anatomical Record (AR).

In looking back over her first year, Smith reflected, "I am proud of the progress we made at AR and the new direction in which the journal is evolving. This year, we started several new initiatives that have helped AR to reach new audiences, experience growth in high-quality manuscript submissions, increase diversity and representation at the journal, and raise article Altmetric scores and public awareness of our published research. Personally, it was a year of tremendous professional growth and development, and serving as Editor-in-Chief of AR has already been the honor of a lifetime.

"In 2022," she added, "I look forward to furthering these efforts, as well as returning to AR sponsorship and representation at in-person scientific conferences, partnering with Developmental Dynamics in the Inspiring Scientific Curiosity and Discovery seminar series, and adding additional mentorship opportunities to Early-Career Researchers interested in gaining editorial experience. When my tenure at The Anatomical Record draws to a close, I won't judge my success solely by Impact Factor or number of articles published, but by whether I contributed to making the publication process more equitable and accessible to scholars of all backgrounds."



#### **Anatomical Sciences Education**

Recognizing that COVID-19 ushered in an entirely new environment for teaching and learning – one that will likely have repercussions for years to come – Anatomical Sciences Education (ASE) Journal dedicated a section in every issue in 2021 to focus on some aspect of teaching during a pandemic.

Articles examined a wide range of realities recognized since the start of the pandemic, ranging from **blended learning** approaches – with face-to-face learning and digital platforms combined to deliver integrated medical curriculum – to the use of both physical and digital cadavers in an era when anatomy education was disrupted enormously and new ways of learning had to be discovered.

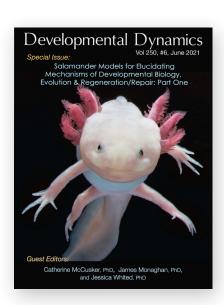


AAA's Anatomical Sciences Education (ASE) Journal dedicated a section in every issue in 2021 to focus on some aspect of teaching during a pandemic.

#### Developmental Dynamics Hosted Webinars

**Paul Trainor**, Editor-in-Chief of Development Dynamics, created and hosted "**Inspiring Scientific Curiosity & Discovery**," a series of webinars designed to bring anatomy research from the journal pages alive through interactive webinars. Sessions included:

- · How to Build a Dog
- Cardiovascular Development and Predisposition to Adult Heart Disease
- RNA Regulation in Pancreatic Islet Development and Function
- Discovering How Muscle Develops, Regenerates, and Evolves
- The Difficulty in Reconciling Dogma with Data.





### MEMBER SPOTLIGHT

# Meet Anatomical Sciences Education's New Associate Editor

In June, Anatomy Now Weekly introduced **Dr. Nalini Pather** as the new Associate Editor for Anatomical
Sciences Education journal, drawing on her more than
25 years' experience in design and implementation of
educational innovation in medicine and health science
programs in a number of countries, including South
Africa, North America, and the UK. She is deeply involved
in e-learning technologies and chairs the Technology
Enabled Learning and Teaching (TELT) research group,
which studies anatomical applications and imaging
technology in clinical practice and education.

Pather completed her PhD in cell biology and wound healing at Wits University in South Africa in 2009. "Wound healing brings everything together in one place," she said in an interview with the Anatomy Education Podcast. "So it's anatomy at a different level, with histology, pharmacology, inflammation, pathology. It was just a great PhD to have done."

On the international stage, Pather was appointed International Chair of the International Program for Anatomical Education (FIPAE) in 2020, a program of the International Federation of Associations of Anatomists (IFAA) and has served as the Co-Editor of Plexus.

# **BODY DONATION & LEGACY COLLECTIONS**

In late 2020, the Board of Directors formed a Human Body Donor Task Force, with key goals including advocating for body donors' best interests while supporting legal and ethical program operations and activities for educators, researchers, body donors, and our greater community. In May 2021, we took this a step further by further developing a **formal statement on the ethical use of human tissues** after it came to light in April that a set of children's remains were held at both the University of Pennsylvania and Princeton University for decades and were studied by their anthropology and archaeology departments without the family's knowledge.

# Thank you to the following members of the Human Body Donor Task Force for their advocacy:

- · Joy Balta, The Ohio State University
- · Thomas Champney, University of Miami
- Chris Ferrigno, Rush University Medical Center
- · Laura Johnson, University of Missouri
- · Callum Ross, University of Chicago
- Brandi Schmitt, University of California
- Heather Smith, Midwestern University

### Free Ethics Resources Library Introduced

Ethics and professionalism in teaching the anatomical sciences has become a rallying cry, and in 2021, AAA expanded upon **our online library of free resources, created in 2020**. Designed to support the development of medical ethics and professionalism in health professions students while they are taking anatomy or biomedical courses, educators are also encouraged to use, distribute, and integrate these resources into their teaching.

Content ranges from PowerPoint slides that can easily be integrated into teaching delivery to raise awareness about specific ethical or professional issues, to more detailed units that can be used as small group discussion content. Topics include ethics in embryology; gross anatomy; histology; and neuroanatomy education.

"As a scientific organization, AAA supports the highest ethical standards for the use of human tissues and strives to educate its membership and the general public on the proper procurement and use of human remains for education and research. The AAA encourages institutions that maintain legacy collections of human tissues to investigate the means and manner by which those tissues were collected. If unethically collected, institutions should consider a dignified process for return or appropriate disposition. If legacy tissues continue to be used by institutions for research and education, the ethical concerns must be acknowledged and used as a teaching opportunity to educate all involved about proper consent, care, and use."

— from AAA's Statement on Ethical Use of Human Tissues

# Anatomical Legacy Collections: Webinars & Roundtable Address Ethics Surrounding Human Remains

With events in 2021 highlighting the ethical dilemma around the history and use of human remains for education and/or research purposes, AAA presented a three-part webinar series called "Anatomical Legacy Collections," which focused on the ethical stewardship of human remains. More than 200 members attended the first two webinars in July, with more than 90 joining a round table discussion in August. Highlights of each, which remain online for viewing, include:

- Ethical Concerns about the Origins of Legacy Anatomical Collections: Presenters describe the issue of legacy collections and the need to inventory and report on human remains in their care (ethical stewardship, duty of care). Perspectives include anatomical museum and teaching collections, known and unprovenanced remains, effects of colonialism, slavery, and marginalized populations. Emphasis is placed on inventory and understanding the source of remains.
- Ethical Concerns about the Disposition of Collections with
   Unknown Origins: Presenters describe a spectrum of options for
   storage, use and disposition of legacy anatomical collections from
   continued ethical use to repatriation to mass burial, with special focus
   on museum and teaching collections. Emphasis is placed on the ethical
   use, storage, and disposition of unprovenanced remains.
- Roundtable Discussion of Specific Ethical Case Studies: Speakers from the first two sessions return to answer questions and discuss topics with attendees.

#### A New Viewpoint on an Old Practice

Every member views the world through their own unique lens, and in one of our first **Member Spotlights** of the year, **Rosemary Bassey**, now an assistant professor at the Donald and Barbara Zucker School of Medicine at Hofstra/ Northwell in New York, shared how stunned she felt when she moved to the U.S. from Nigeria in 2015 to teach at Howard University in Washington, DC.

"I was surprised to find out they had an anatomy donation program," she said. "People actually donate their bodies? There are people who actually wanted their bodies to be used for teaching?"

In Nigeria, funerals are often multi-day, lavish affairs that include music, dancing, feasts, and special clothes, and "everyone wants to be buried whole –

no cremation or donation. That is understandable as people would want to be whole ancestors, not one with missing body parts."

Rosemary told readers of Anatomy Now Weekly, "At my institution, we have observation/correlation sessions on the first day the students meet their donors. Students get to observe the donor bodies closely, make inferences on their lives and last days, and reflect on their feelings about death. Amid learning, they gain empathy. The body donor is their first patient. A memorial service is also conducted for these donors at the end of their service to us, to say thank you for your gift."

# **CELEBRATING DIVERSITY IN ANATOMY**

AAA partners closely with **Black in Anatomy**, so it was a natural for us to participate in their first-ever Black in Anatomy Week, October 11-16, 2021. The special week marked the one-year anniversary of the formation of the Black in Anatomy community, formed to celebrate and create a safe space to network, uplift, support, and amplify Black contributions to anatomical science. Over the course of six days, #BlackinAnatWeek hosted a virtual rollcall, a webinar, a Zoom networking event, an intercultural career panel discussion, a celebration of World Anatomy Day, plus scavenger hunts, prizes and coloring pages.

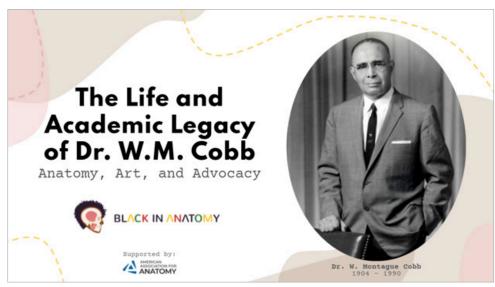
On October 12, we were proud to host "The Life and Academic Legacy of Dr. W. Montague Cobb" **webinar**, recognizing the first Black man to earn a PhD in physical anthropology and the first Distinguished professor of Anatomy at Howard University in 1969. Panelists examined his legacy in the fields of anthropology, anatomy, and medical illustration, and family members provided invaluable insights into Dr. Cobb as a man and as a civil rights advocate. The webinar is now available on Black in Anatomy's library of **online resources**.



"We aim to paint a more comprehensive picture of Dr.
Cobb as a man who, from a small boy interested in animals, grew into not only an anatomist, but also a physician, teacher, mentor, writer, and activist for the rights of Black people."

www.blackinanatomy.com/video







# Black in Anatomy Co-Founder

In the October 6, 2021, issue of Anatomy Now Weekly, readers met Allison Nesbitt, assistant teaching professor of Pathology and Anatomical Sciences at the University of Missouri, who joined AAA out of a desire to take on a bigger role in the organization: "I saw some representation within the organization, and I knew [AAA is] trying to increase diversity," she remembered.

Nesbitt came from a home of science – her father was an industrial pharmacist and her mother worked for a pharmaceutical company. She thought she'd someday go into medicine herself, but a summer program exploring different medical fields helped her realize that she didn't want to do patient care on a daily basis. It was a conversation with another student athlete on the track at Duke University that led Allison to focus in on biological anthropology and anatomy.

"Even after all these science museum visits and with a good biology background in high school, you just never make the connection that there are people today who do these things, this is the path, or these are the departments they are in. It's not just the biology department."

Today, helping other young professionals find their path within anatomy is a passion for Allison. As a member of the Diversity, Equity and Inclusion (DEI) Committee, Allison is contributing to the new Anatomy Scholars Program (ASP). "The goal is to create a mentorship and professional development program for underrepresented people who are in postdoc roles, about to finish up grad school, or are in the first few years as junior faculty, to help them stay in their profession and be promoted."

# **NEW INITIATIVES**

#### **Three New Awards**

In 2017, the Board of Directors adopted a **Diversity & Inclusion Action Plan**, designed to create a welcoming culture that embraces individuals with diverse life experiences. In tandem with the plan, the Board also developed a timeline for each goal – membership, committees, leadership, awards, communication, and outreach. In 2021, AAA rolled out three new awards for early- and mid-career that recognize members beyond the current AAA lifetime achievement awards.

**Excellence in Diversity, Equity, & Inclusion Award:** Presented to a member who creates inclusive teams representing the rich diversity of communities served – with initiatives that cultivate, promote, and foster a more diverse, equitable, and/or inclusive environment.

**Outstanding Mentor Award:** Recognizes the dedication and impact of members with a sustained career commitment to mentoring through guiding, supporting, and promoting the training and career development of others.

**Building Community Scholarship:** To fund members, at all career stages, who are based at international institutions (including Canada and Mexico) to attend and present at the Annual Meeting.

"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 the Board of Directors, February 27, 2017



#### **Anatomy Scholars Program**

AAA continued its advance toward inclusivity and diversity with the creation of the Anatomy Scholars Program (ASP), developed specifically to support and increase retention of Underrepresented Minorities (URM) in STEM in academia in the U.S. and Canada. A new cohort will be selected yearly from the pool of applicants, with the first cohort meeting at our 2022 Annual Meeting.

**Who:** ASP applicants are recently appointed faculty or individuals transitioning from either a terminal degree or a postdoctoral fellowship to an independent position as a faculty member in an anatomy-related field.

**What:** Scholars will participate in a two-year program of professional development activities that includes:

- Asynchronous learning, online curriculum addressing the tenets of faculty life: Service, Teaching, and Research
- A sustainable and formal mentoring program to help guide Scholars during their transition into academic positions
- Informal virtual meetings between Scholars, designed to cultivate a diverse peer-support network required for successful STEM careers
- An Annual Retreat in conjunction with a meeting, with registration and travel support provided by AAA.

Find out more at anatomy.org/ASP!

# Making Diversity in Medical Illustrations Accessible

Have you ever seen anatomical imagery featuring humans other than pale-skinned, muscular, male subjects? Did you know that many of these White-centric images are either copyright-protected or owned by publishers, greatly limiting the availability of affordable visual supplements for anatomy instructors?

The issue drew additional attention when, in December 2021, an image of a Black fetus inside a Black pregnant woman **went viral**. For many, it was the first time they'd ever seen such an illustration – and for most, it was the first time they even realized it.

To help counteract these realities – and in AAA's ongoing commitment to diversity and inclusivity – we announced in December our funding of "Portfolios of People: Advancing Anatomical Representation Together (POP AART)" to create an accessible digital library of representative photographs and illustrations of diverse individuals. Work on the project will begin in January 2022 and will continue through December 2023, and portfolios will include self-identified narratives from models, illustrators, and photographers.



"I am beyond thrilled to be on the POP AART team and know that this project will provide essential resources for our membership and beyond. I am grateful for AAA's full support of this project and the Association's ongoing, intentional efforts to advance diversity, equity and inclusion work within anatomical science education, research and service."



~ Dr. Kelly Harrell



This project started as a tweet almost 1.5 years ago. And now we are here! So grateful for my team members and for @shawnboynes and the Board of @AnatomyOrg!

We'll be providing updates about the project over at @POP\_AART! More to come in the new year!

American Association for Anatomy @AnatomyOrg · Dec 8, 2021

(1/4) We are very excited to announce that we have funded POP AART, a new program to help address the lack of #anatomy teaching visual supplements that are representative of #humandiversity.

Read more here: bit.ly/3y5FSCm

#MedEd #AnatEd #AnatDEI #MedTwitter

Show this thread



"As anatomy educators, we need to demonstrate the diversity of individuals along the continuum of physical traits that we see in skin tone, habitus, age, and lived experience. Lived experience includes the diversity of scars, tattoos, amputations, abilities, and self-identification. Our project is unique because it asks our models and creatives (photographers and illustrators) to voluntarily self-identify so that we can further reflect on the inclusivity of what it means to be human."



#### Melissa Carroll, Ph.D.

Associate Professor of Anatomy and Cell Biology The George Washington University



5:11 PM · Dec 8, 2021 · Twitter Web App

11 Retweets 44 Likes



#### The Other Bias: Gender Bias

Eponyms, particularly in medicine, are generally understood to mean that something, like a disease or body part, was named after the person thought to have been the discoverer. While the practice may have started to honor the discoverer, the result has – much like racial biases in medical illustrations – created gender biases. A paper by AAA members, published in November 2021 in the National Library of Medicine, "NOMENs land: The place of eponyms in the anatomy classroom," examined the practice – and its place in the classroom, with authors discussing "the history of anatomical eponyms, explain[ing] the additional cognitive load imposed by eponyms that can negatively impact student learning and explor[ing] the view that eponyms are 'pale, male and stale' in the socially conscious 21st century."

Picked up by the New York Times in "Even the G-Spot is Named for a Man: Why do so many female body parts honor male scientists?", reporter Rachel Gross wrote, "Such terms were officially banned from medicine in 1895. Unofficially, they are everywhere. A recent count found at least 700 in the human body, most of which take their names from men."

It's a practice that many in the medical community are debating: Does the continued use of (almost always male) eponyms reflect a gender bias? Perhaps even worse, does it perpetuate it? And even more challenging, how do we move away from words that are so instilled in our lexicon?





# From Refugee to Neuroanatomist

In the March 24 issue of Anatomy Now Weekly, readers learned the interesting career path of Adel Afifi: As the third son in a Palestinian family, Adel was allowed to choose what he would study, and he chose Arabic culture and literature. But then, his brother, Nabih, fainted while visiting the anatomy dissection room prior to applying to medical school ... and Nabih switched his major to education and political sciences, while Adel went to medical school at the American University of Beirut (AUB) in 1947.

In 1948, Adel and his family become part of the more than 700,000 Palestinians abruptly displaced from their homes during the Israeli-Palestine conflict in 1948. Still, he continued his studies, graduating in 1957 and joining the AUB medical school's anatomy department in 1959, where he developed a special interest in neuroscience.

"You have to be inquisitive to do things in anatomy," Adel explained. "Students like my presentation style because of the fact that I relate structure in the brain to function, which made anatomy much more appealing to them."

After moving to lowa City to research neuroanatomy and train in clinical neurology at the University of Iowa, Adel joined AAA; **Dr. Rex Ingram**, chairman of the department and Adel's mentor, was a member.

Over the next 19 years, Adel moved up the academic ranks at AUB, including creating the Department of Human Morphology, where he served as department chair.

"Looking back at those happy and fulfilling years of teaching at AUB, I feel a sense of pride to have contributed, in a small way, to the career of some of my students who went on to become successful in their professional careers," Adel said.

During that period, Adel co-authored a number of books with **Dr. Ronald Bergman** from John Hopkins University, including "Functional Neuroanatomy," a text book that's considered the definitive text on neuroscience and is still in use in classrooms today.

# **CELEBRATING THE ARTS IN SCIENCE**



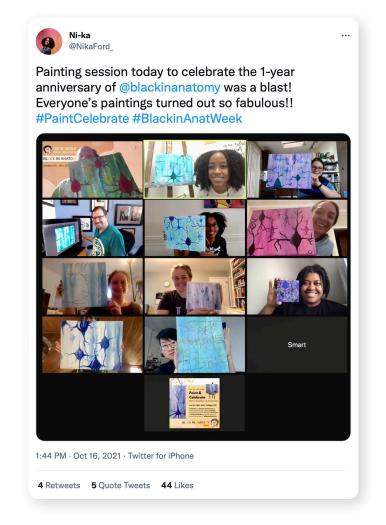
#### **Neuroanatomy in One Hand**

Mikaela Stiver, PhD a faculty lecturer at McGill University in Montreal, Québec, was on the hunt for anatomy flash cards that could double as trading cards, but she kept coming up empty. So in 2021, she decided to make her own: Armed with an iPad, an iPad pencil and the Procreate app, Stiver started drawing in the park near her condo on evenings and weekends. She completed 18 cards, each featuring an image for every cranial nerve and including text describing the structure and function of the nerve, where it enters and exists the base of the skull, two "attacks" based on the nerve's functions, as well as a nickname for the nerve at the bottom of the card.

Stiver officially released her **first set of neuroanatomy cards** on September 13, selling over 165 sets in 13 countries across six continents in the first month.

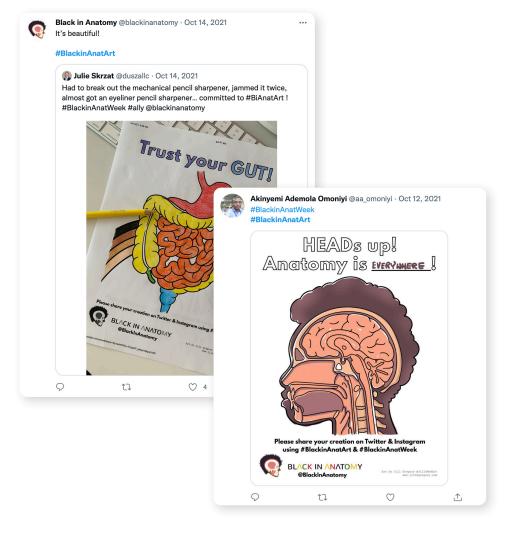
#### Painting with Ni-ka Ford

Also during Black in Anatomy Week, medical illustrator **Ni-ka Ford** invited anatomists to join her for a guided painting session on October 16 to celebrate the one-year anniversary of @blackinanatomy. Participants painted on canvas and digitally on tablets.



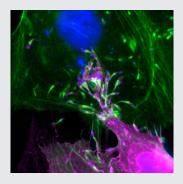
#### **Black in Anatomy Coloring Pages**

The zen of coloring isn't just for kids, and during Black in Anatomy Week 2021, medical illustrator **Jill Gregory** released five days of coloring sheets, encouraging visitors to share their creations on Twitter and Instagram using the hashtags #BlackinAnatArt and #BlackinAnatWeek. AAA proudly partnered and supported their efforts.



#### **Members Honored in BioArt**

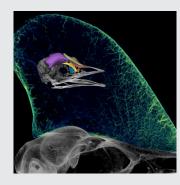
To celebrate the art of science, FASEB's BioArt Competition shares the beauty and wonder of biological research. Winners in 2021 included three members and their bioart listed below. Congratulations!



**Arandeep Dhanda,** Simon Fraser University: A Bacterial Flower of Death (First Place)



Heather F. Smith, (Editor-in-Chief of The Anatomical Record), Midwestern University: MicroCT Scan of 96 million-year-old Fossil Turtle Shell Surface Texture (Second Place)



Todd Green, New York Institute of Technology: Southern Cassowary Casque Development from Embryo to Adult (Third Place).

#### An Eye for Anatomy

In October, the New York Institute of Technology's College of Osteopathic Medicine's Art in Medicine Interest Group (aka ART-ery) held a painting event at Morgan Memorial Park in New York City. Led by the group's president and student physician **Eden Alin** and NYIT associate professor and member **Julia Molnar**, 40 students participated, using watercolor to depict the anatomy of the eye and iris.



NYITCOM's Art in Medicine Interest Group aka "ARTery" held a painting event at picturesque Morgan Memorial Park. Led by advisor Dr. Julia Molnar, the #artists used watercolor to depict the #anatomy of the #eye and #iris.



NYITCOM and 2 others

11:17 AM  $\cdot$  Oct 5, 2021  $\cdot$  Twitter Web App

4 Retweets 7 Likes





# CONGRATULATIONS TO OUR 2021 INNOVATIONS PROGRAM AWARDEES

AAA's Innovations Program was developed to expand the development, implementation, or adoption of innovative approaches and technologies that will benefit the membership and association. In 2021, we awarded four members \$50,000 each to dive deeper into innovation and implement their project ideas.





Tamara Franz-Odendaal and Karen Pinder, Histology Coloring Workbook

This book provides hands-on, interactive experiences that enable students to utilize active learning skills as they complete coloring correlates to the micro- anatomical structures (cells, tissues and organs) of the human body.



"This grant funding will be utilized to expand the positive impact of this core foundational science in medical and allied health sciences curricula, to the benefit of the association, its membership and other international audiences of educators and learners."



Habiba Chirchir, development and implementation of a high school training program in West Virginia, High School Anatomy Training Program (HSATP)

HSATP aims to train educators on hands on, problem-based learning and dissection methods that they will implement in their high school anatomy classes to prepare the learners for collegiate anatomical studies and health care fields.



"This program will be impactful to young West Virginian students' and their teachers including minority and socioeconomically disadvantaged communities. Through training of teachers on hands-on, problembased learning and dissection methods, the implementation of the anatomy training program will prepare learners for collegiate anatomical studies and health care fields."





Rebecca Lufler and Lela Giannaris, Developing and Elevating Leaders with Tools for Advancement (DELTA)

DELTA will consist of three parts: (1) a 3-day retreat held in summer 2023, with invited speakers, face-to-face mentoring sessions and workshops; (2) virtual mentored projects; and (3) final project presentations. During the 3-day retreat, the DELTA program will bring together leaders in faculty development and anatomy to cover topics including: development of leadership skills and opportunities, negotiation skills, effective communication skills, feedback, bias education, wellness, and mentoring.



"The DELTA program creates a longitudinal, mentored, leadership professional development opportunity specifically for underrepresented and diverse groups in academia. Given the staggering statistics documenting low numbers of women and underrepresented groups in advanced academic and leadership positions, there is a need for a leadership program to make an immediate, long-lasting, and wide-spread impact - DELTA is that change."





Mikaela Stiver and Melissa Carroll The Global Neuroanatomy Network (GNN)

The GNN strives to be an international platform where members can access and share support by exchanging expertise and curated peer-reviewed teaching resources, including a database of clinical cases developed by our core team through a lens of diversity, equity, and inclusion.



"The idea for this initiative grew organically from an informal neuroanatomy working group that formed on Twitter, recognizing the need to create an online hub for resource and experience sharing to support neuroanatomy educators around the world. The GNN aims to complement existing AAA-funded projects — such as the Virtual Microscopy Database (VMD) and Virtual Dissection Databased (VDD) — with a specific emphasis on creating and disseminating neuroanatomy resources that are accessible and applicable to a wide range of global contexts."

# **COMMUNICATING SCIENCE**

#### **Zoom University**

The start of the pandemic set the stage for a unique first year of medical school, and medical student **Rhian Germany** and Assistant Professor and Anatomy Director **Sumitra Miriyala**, LSU Health Shreveport – School of Medicine and member of the Committee for Early-Career Anatomists (CECA), shared their insights in a fascinating article in **Anatomy Now Weekly**.

"The main question student and faculty both had was, 'How would we be able to dissect cadavers assigned to us through our anatomy course?'," they wrote. "Unfortunately, the answer was that we could not safely have 150 students dissecting in the same lab without risking

viral transmission from person to person. Therefore, we had no choice but to navigate the course virtually.

"AAA was a great blessing for many professors teaching anatomy during this pandemic," they added. "Fortunately, many more digital resources are available now than there were 5-10 years ago."

Using online dissector instructional videos and Net Anatomy for supplemental teaching material, LSU also incorporated a 3D anatomy app on a tablet to 'interact' with anatomical components of the human body. Still, the writers concluded, "As learners and educators, it would not be effective for the course to remain virtual once the pandemic is over. Rather, health professional students need the full physical experience of dissection to retain imperative anatomical knowledge. This reflects the findings of AAA's report in support of resuming cadaveric dissection when it is safe to do so: **Gross Anatomy During the Pandemic**."





#### The Queen Mary Anatomy Channel

Maryví González, an adjunct professor in the Texas Women's University (TWU) Department of Biology, finds educational research and finding better ways to teach anatomy and biology her passion. In 8th grade biology class, she remembered, "I loved how the organs looked and how they worked, and that intrigued and fascinated me."

Outside of her traditional on-campus teaching, González started her own education project, "The Queen Mary Anatomy Channel" on YouTube, where she teaches anatomy and study tips. She was motivated to start the channel because, "If you have something on your mind and you want to do it. Don't aim for perfection. Just do it. You learn as you go."

González joined AAA in 2011 and counts Past
President **Lynne Opperman** among her mentors,
crediting her support in helping González get a seat
on the Education Affairs Committee. Now, she's in
a position to pay it forward, mentoring other young
members and creating videos for students and health
professionals on YouTube.

#### **Animating Anatomy**

Teaching a traditionally hands-on discipline like anatomy is no easy feat to teach online, and to help, members **Jacki Whisenant** and **Aaron Kufner**, UW–Madison graduate students, teamed up with comparative anatomy professor **Scott Hartman** to create an online **library** of 109 videos and lab livestreams that walked students through every aspect of Zoology 430: Comparative Anatomy of the Vertebrates during Fall 2021.

The high-production videos range from a 55-second virtual lab examination of an owl's skull to rabbit dissection videos that clock in at over 20 minutes. "Practice" videos allow students to test their knowledge of a specimen, encouraging them to pause the video to name a structure before the label appears, while "Walkthrough" videos provide descriptions of each structure on display. "Osteology" videos cover everything from an entire bird skeleton to mandibles from a fox, cat, alligator, and iguana.

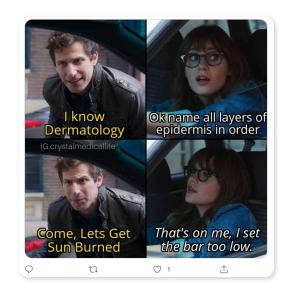


#### **Meme Me This**

Memes are more than funny – they can be excellent teachers, too! In September, members had some fun on Twitter sharing their **favorite anatomy memes**!

# #Anatchat

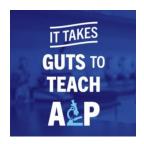






# PODCASTS AND YOUTUBE, OH MY!

Members took to the airwaves to help make anatomy-related content accessible in new ways – always an important goal, but especially during an ongoing pandemic.



#### **It Takes Guts Podcast**

A **podcast** devoted to Anatomy and Physiology Instruction, hosted by Carolina Biological's **Candace Berkeley** and **Jennie Ingram** – both members – rolled out in 2021, with each episode devoted to a unique A&P topic as interesting guests from secondary and post-secondary institutions, as well as the education industry.

#### **Science Night**

Science Night, a podcast launched in 2021, seeks to promote scientific fluency and increase accessibility by allowing scientists to tell their stories. "By making abstract scientific concepts accessible to everyone, we can spark curiosity and create a tradition of lifelong learning," creators



say. And in their first few episodes of the year, Science Night featured several AAA members, including **Kathleen Muldoon**, **Jason Organ**, and **Ellie McNutt**. In episode 11, AAA Executive Director **Shawn Boynes** was featured! **Listen in** for Shawn's viewpoint on the importance of science communication and the role of professional organizations in science.

#### From Lion Training to Podcasting

**Kevin Patton**, a founding faculty member of Human Anatomy and Physiology Instruction (HAPI) at the Northeast College of Health Sciences, once apprenticed as a lion tamer with a circus. AAA profiled this fascinating member in the July issue of Anatomy Now, tracking his career teaching anatomy and physiology at the St. Louis University Medical School and the St. Charles Community College before he started up a master's program in human anatomy and physiology with the then-New York Chiropractic College. Today, he still teaches a class on the nervous system at the renamed Northeast College of Health Sciences and is a textbook author, blogger, vice president/president elect of the Textbook and Academic Authors (TAA) Association. Get to know this anatomist through his podcast, "**The A&P Professor**," offering tips and resources helpful to professors and students of human anatomy and physiology.



"My podcast is a way for me to share decades of experience and studying teaching, trying to find out what works well for teachers and find out what can inform my own teaching, and I wanted to share that."

~Kevin Patton



# **MEMBERSHIP**

Membership continued to provide a much-needed steadying hand through the second year of the pandemic, with an increase in members as well as an increase in more institutions taking advantage of our competitive **group membership program**.







For the **2021** membership cycle - **10 universities with a total of 141** individual members renewed/joined under this membership option.

For the **2022** membership cycle (as of December) - **16 universities with a total of 171** individual members renewed/joined under this membership option.

George Washington University Indiana University -Bloomington

McMaster University

Michigan State University

Midwestern University

New York Institute of Technology

Oregon Health & Science University

Rush University

Sam Houston State University
Southern Illinois University Carbondale
Stanford University
Stony Brook University
Texas Tech University Health
Sciences Center
University At Buffalo, SUNY
University of Iowa
University of Missouri -

Columbia

### Complimentary Student Memberships in 2021

Students of anatomy are often our hardest population to reach, and with a goal of introducing more young people to the Society, the Association strives to reach the next generation of educators and researchers – across all disciplines and career stages of anatomy. As part of that goal, in 2021 membership dues were waived for current student members through December 31, 2021.

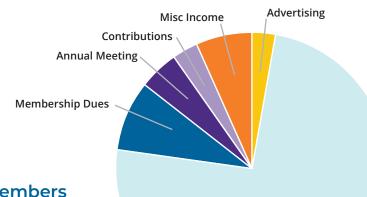
The effort – which was widely appreciated by student members – also sought to alleviate some of the uncertainty and challenges brought on by the COVID-19 pandemic by ensuring that students could stay connected ... with people; career-development resources; and exclusive content.



"The institutional [group] rate plan is awesome because it allows me as a department chair to provide a very tangible benefit to faculty and trainees at a modest cost. One of the key steps in career management is membership and participation in scientific societies and this payment mechanism gives me an easy way to encourage this behavior."

~ D. Rick Sumner, PhD, FAAA, Rush University Medical Center Professor and Chair, Department of Cell & Molecular Medicine The Mary Lou Bell McGrew Presidential Professor for Medical Research

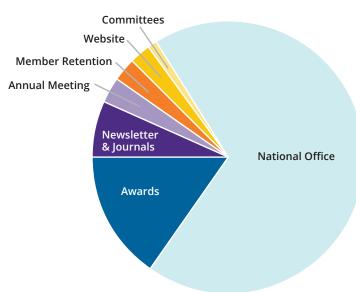
# **2021 FINANCIALS**



**Royalty Income** 

**Supporting Our Members** 

AAA remains financially healthy and committed to supporting its members by investing in programs and services that strengthen our mission and strategic goals. These charts provide an overview of revenue sources and primary expense categories as of December 31, 2021.



#### 

#### **Income by Source**

Advertising/List Sales	49,116.78
Royalty Income	1,207,819.51
Membership Dues	139,561.85
Annual Meeting Income	74,487.69
Journal Print Fee Income	1,950.00
Contributions	48,000.00
Misc Income	106,286.42

#### Total Expenses ......... 1,652,986.31

#### **Expenses breakdown**

National Office	1,136,657.25
Member Retention & Development	44,581.18
Awards	251,547.64
Committees, Board, & Governance	14,205.58
Newsletter & Journals	108,713.70
Web Site	42,524.78
Annual Meeting & Regional Meeting	54,756.18

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