



# RESEARCH UPDATE

A WEEKLY COMMUNICATION FROM THE OFFICE OF RESEARCH & SPONSORED PROGRAMS

VOLUME 1: NUMBER 13  
November 19, 2020

## GENERAL INFORMATION

- **New Monthly Feature Added to Research Update**
  - This edition adds a new monthly feature in the form of Director's update. The Director's update is a column written by our Director of Medical Student Research or Director of Research Laboratories on topics of their choosing. This week's Director's Corner is provided by Dr. Ontiveros and provided under the Student Research heading.
- **Distinguished Researcher Seminar Series (December 1, 2020 @ 12:00 p.m.)**
  - The next Seminar will be presented by [John Sharkey](#), Department of Clinical Sciences & Nutrition, University of Chester, Dublin Ireland. The title of the presentation is "*Fascia and the Biotensegrity Connection*".  
*Hosted by Department of Anatomy & Cell Biology*
- **Biosafety in Microbiological and Biomedical Laboratories (BMBL) 6<sup>th</sup> Edition Released**
  - The 6<sup>th</sup> Edition of the BMBL has been released by the CDC. [Download](#) your copy today!

## MEDICAL STUDENT RESEARCH

- **Director's Corner**

### Engaging in Research Experiences While in Medical School

One common question I receive from medical students is whether they should engage in research. Although there are various things to consider before starting a research project, one that I discuss is the benefits associated with such an endeavor. Engaging in research and creative scholarship while in medical school increases personal skills<sup>1</sup> and correlates with increased residency match outcomes.<sup>2,3</sup> Although most matriculating medical students generally have an interest in conducting research, but despite the benefits, most do not participate due to the extreme demands of becoming a physician. An idiom that is used to describe medical school is "being thirsty and choosing to drink water out of a firehose." It is understandable that medical school is challenging, but should the demands of becoming a physician abrogate the potential benefits our future physicians may realize by participating in research?

Within Westernized medicine, treatments, diagnostic methods, and pharmaceuticals originate from research that was once conducted in a lab, on a computer, or at a home office that potentially emerged from someone's cocktail paper napkin. Research and medicine go hand-in-hand like an espoused couple that will continue for the foreseeable future especially considering that research will serve as the foundation and infrastructure of finding new and novel ways of preventing and treating future diseases. Therefore, it makes sense that medical students would attempt to gain new skills while starting their medical careers.

What are some of the benefits that a medical student will realize by engaging in research and creative scholarship? One critical matter here is that medical students who engage in research learn skills that are transferable to them as future physicians.<sup>1</sup> By participating in a research experience, a medical student will enhance their critical thinking, interpersonal and communication skills by engaging in activities such as: developing a research plan and approach, thinking through and analyzing novel results, working in teams, and effectively communicating those results to the broader scientific community through poster or oral presentations. Also, research experiences have demonstrated to enhance the competitiveness of medical students for residencies. The National Residency Matching Program has found that medical students with research experiences matched more often than peers who did not engage in research,<sup>2,3</sup> demonstrating the perceivable impacts and distinct advantages that research has on medical students.

Participating in a research experience has other positive consequences that go far beyond increasing competitiveness for residencies. Research experiences help to enculture habits that strengthen critical thinking skills and reinforce their abilities as lifelong learners. The ability to critically analyze and interpret medical and biological research is vital for any medical

practitioner, especially those who aspire to make the most informed healthcare decisions and management of care that is based on the best available scientific information.

In summary, the practice of engaging in research provides significant benefits, and not only for our medical students but also their future patients and communities. Engaging in research serves as a first step towards helping pave the way for medical students to be the best physicians possible, and because of this, I serve as an advocate for research and encourage students to make the most of their medical school career by engaging in research.

#### References Cited:

<sup>1</sup>Collier AC. Medical school Hotline: Importance of Research in Medical Education. *Hawai'i Journal Med Public Health*. 2012;71(2):53-6.

<sup>2</sup>National Resident Matching Program. Charting Outcomes in the Match: Senior Students of U.S. DO Medical Schools. [https://mk0nrmp3oyqui6wqfm.kinstacdn.com/wp-content/uploads/2020/07/Charting-Outcomes-in-the-Match-2020-DO-Senior\\_final.pdf](https://mk0nrmp3oyqui6wqfm.kinstacdn.com/wp-content/uploads/2020/07/Charting-Outcomes-in-the-Match-2020-DO-Senior_final.pdf). Published July 2020. Accessed November 12, 2020.

<sup>3</sup>National Resident Matching Program. Charting Outcomes in the Match: Senior Students of U.S. MD Medical Schools. [https://mk0nrmp3oyqui6wqfm.kinstacdn.com/wp-content/uploads/2020/07/Charting-Outcomes-in-the-Match-2020-MD-Senior\\_final.pdf](https://mk0nrmp3oyqui6wqfm.kinstacdn.com/wp-content/uploads/2020/07/Charting-Outcomes-in-the-Match-2020-MD-Senior_final.pdf). Published July 2020. Accessed November 12, 2020.

Email: [S.J. Ontiveros, Ph.D.](mailto:S.J.Ontiveros,Ph.D.)

- **AOA Research Training Grants**
    - We are about a month away from the opening date for the [AOA Research Training Grants](#) for medical students. The application cycle will open on December 15, 2020 and close on February 15, 2021. These training grants provide up to \$5,000 in funding for medical students and aim to promote the osteopathic approach to care through AOA-funded research.
  
  - **Student Research Support Fund**
    - In support of Burrell College medical student research and creative scholarship endeavors, the Office of Research and Sponsored Programs (ORSP) is pleased to announce the new 2020-2021 Student Research Support Fund and invites student researchers to submit an application. This funding opportunity provides Burrell College medical students with limited funds to support their research and creative scholarship. Applications are available on the [program website](#).
  
  - **Distinction in Research**
    - The Office of Research and Sponsored Programs (ORSP) is pleased to announce the **Distinction in Research (DIR)** that will begin accepting applications on **January 15, 2021**. The DIR is a highly intensive and optional path that provides opportunities for medical students who seek higher levels of mentored research experiences.
      - **Goals and Benefits:**
        - Enhance research awareness and skills
        - Enhance critical thinking, personal, and communication skills, and to become a self-directed learner
        - Develop a mentoring relationship with Burrell College faculty member(s)
        - Engage in research and the creation of new knowledge
        - Gain a deeper understanding of the respective and associated disciplines
        - Enhance academic credentials
      - Additional information available through the [Distinction in Research Website](#)
- S.J. Ontiveros, Ph.D.
- Contact: [sjontiveros@bcomNM.org](mailto:sjontiveros@bcomNM.org) or [research@bcomNM.org](mailto:research@bcomNM.org)

## RESEARCH LABORATORIES

- **Research Laboratory Access**
  - The Research Laboratories are still operating at a reduced occupancy with social distancing measures in place. Please contact Dr. Woods or Kalli Martinez if you have any questions about Research Laboratory access.

Email: [M.Woods, Ph.D. and K. Martinez](mailto:M.Woods,Ph.D.andK.Martinez)

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- ***New Equipment will Expand Laboratory Capabilities***
  - The Burrell College Research Laboratories are expanding laboratory technical capability in support of Faculty and Student research. The Research Labs have purchased a Bio-Rad Bio-Plex 200 Multiplex Immunoassay System. The Bio-Plex 200 is capable of supporting highly multiplexed quantification of over 450 biologically relevant targets: assays for inflammation, disease, cancer, cell signaling and growth, apoptosis, toxicity, and more in a single 12.5 uL sample. Learn more about the [Bio-Plex and associated assays](#).
  - **BioRad is offering discounts on reagents and kits for the Bio-Plex.** Contact Dr. Woods for details.

## DATES AND DEADLINES

- Institutional Review Board (IRB) – November 20, 2020, 12:00 – 1:30 p.m.
  - Email: [IRB@bcomnm.org](mailto:IRB@bcomnm.org)
- Institutional Biosafety Committee (IBC) –
  - Email: [Research@bcomnm.org](mailto:Research@bcomnm.org)
- Research Advisory Council (RAC) – November 20, 2020, 1:00 - 3:00 p.m.
- [Distinguished Researcher Seminar Series](#)
  - December 1, 2020: 12:00 – 1:00 p.m.
    - [John Sharkey](#), Department of Clinical Sciences & Nutrition, Univerwity of Chester, Dublin Ireland. The title of the presentation is “*Fascia and the Biotensegrity Connection*”.

*Hosted by Department of Anatomy & Cell Biology*

## POLICY & REGULATORY UPDATE

- ***Burrell College New or Updated Policies and Procedures***
  - The Biosafety Manual has been updated after undergoing IBC review and is available on the Burrell College website. A minor modification has been made to the Blood-borne Pathogen Exposure Control Plan and we are still finalizing an SOP to inform the process by which Burrell Investigators can document Hepatitis B vaccination.
    - [Biological Safety Manual](#)
    - [Bloodborne Pathogen Exposure Control Plan](#)
  - This new SOP details the use of electronic gift cards for payments to research participants.
    - [RSP.017](#), “Payments to Research Participants
- **Human Research Protection**
  - [AHRQ Guide Notice on Exception to the Use of the Single IRB Review Requirements During the Coronavirus Disease 2019 \(COVID-19\) Public Health Emergency](#)
- **CDC**
  - [Biosafety in Microbiological and Biomedical Laboratories \(BMBL\) 6<sup>th</sup> Edition](#) **New Edition!**

## FUNDING OPPORTUNITIES and NOTICES

- Guidance on new proposal submission and related information is available in MS Teams and on the Research Office Website. Please submit a completed [Proposal Transmittal Routing Request](#) in advance of the deadline. Allow five (5) business days for institutional review and signatures.
- [NIH Weekly Funding Opportunities and Notices](#) – November 6, 2020
- American Osteopathic Association
  - [AOA Research Grants](#) for DOs, MDs, and PhDs
  - [Research Opportunities](#) for resident physicians, fellows and osteopathic medical students
- [Wells Fargo Philanthropic Services](#) (Search for Opportunities)
- **[New Mexico SBIR/STTR Innovation Summit](#)**: *Learn more about federal funding and resources, at Arrowhead Center’s NM FAST virtual New Mexico SBIR/STTR Innovation Summit on December 9<sup>th</sup>. Federal program managers, defense representatives, experts, and local organizations who have a vested interest in driving innovation through the Small Business Innovation Research (SBIR) and Small Business Technology Transfer (STTR) programs will be on hand to walk you through the process.*
- [Experimental Biology 2021](#) will be held April 27-30, 2021 as a virtual meeting.
- [AACOM Educating Leaders 2021](#) will be held April 20-22 as a virtual event.

## CLINICAL TRIALS INFORMATION

- **Clinical Trials Information**
  - [TrialSite News](#) is a digital media resource dedicated to transparent and open coverage of clinical research trial sites around the globe.

## INFORMATION FOR AUTHORS

- [Call for COVID-19 Research Papers](#): The JAOA editors invite researchers to share information and data about their experiences with COVID-19 with the osteopathic community.
- Are you interested in publishing a literature review? The Journal of the American Osteopathic Association has created a video that provides tips for putting together a quality [Systematic Literature Review](#)

## RECENT AND FORTHCOMING SCHOLARLY WORK BY BURRELL COLLEGE RESEARCHERS

*(Please email us with your news and we will add it to future Updates.)*

- Vadhan JD, Gilderman GS, Fuentes I (October 21, 2020) Congenital Right Coronary Artery Fistula Causing an Aortic Steal: A Rare Anatomic Abnormality and a Review of the Literature. [Cureus 12\(10\): e11084. doi: 10.7759/cureus.11084](#)
- Kania AM, Weiler KN (OMS-III), Kurian AP (OMS-III), Opena ML (OMS-III), Orellana JL (OMS-III), and Stauss HM. Activation of the Cholinergic Anti-inflammatory Reflex by Occipitoatlantal Decompression and Transcutaneous Auricular Vagus Nerve Stimulation. JAOA, in-press, 2020.