## **Executive Summary**

## Blueprint for Academic Excellence School of Medicine - Columbia AY2021-2022

#### Introduction

Despite the COVID-19 pandemic, the School of Medicine Columbia (SOMC) has continued to advance all of its missions as we implement the goals and objectives outlined in our five year strategic plan. Strategic planning efforts have focused on improving our culture of diversity and inclusion. Our enhanced medical student curriculum enters the final year of implementation in 2021-22. Our student first time board pass rates and residency match rates remain above national averages. The nurse anesthesia program transitions to a doctoral level program this year. Our Florence campus continues to mature, with plans being made to expand faculty and students in future years. We received the first \$1 million donation toward the new health sciences campus this year as the planning for construction of the campus becomes a reality. Research has advanced with the opening of the Cardiovascular Translational Research Center and the joint hiring of a new Columbia VA Health System research director.

### **Highlights**

This year will forever be remembered as the year of the COVID-19 pandemic. Despite the challenges, our student educational outcomes have continued to improve, and hundreds of our faculty, staff and students contributed to the COVID-19 community response. The SC Center for Rural and Primary Health Care is expanding rural health professions education, care and research. The Research Center for Transforming Health has found new ways to promote translational and clinical research, overseeing a Seed Grant Process with Prisma Health and several UofSC schools/colleges. In February, 2021, we celebrated Black History Month by establishing a wall of Luminary Leaders in Medicine and Science in the entryway of our SOM Educational Building.

Les Hall, M.D. Dean, School of Medicine, Chief Academic Officer, Prisma Health Midlands School of Medicine - Columbia



## **Table Of Content**

Executive Summary	1
Introduction	1
Highlights	
Foundation for Academic Excellence	5
Mission Statement	5
Vision Statement	5
Values Statement	5
Goals - Looking Back	6
Goals - Real Time	7
Goals - Looking Ahead	. 30
Academic Programs	. 32
Program Rankings	. 32
Instructional Modalities	. 32
Program Launches	. 33
Program Terminations	. 34
Academic Initiatives	. 35
Experiential Learning For Undergraduates	. 35
Experiential Learning For Graduate Students	
Affordability	. 37
Reputation Enhancement	. 37
Challenges	. 39
Faculty Population	. 40
Faculty Employment by Track and Title	
Faculty Diversity by Gender and Race/Ethnicity	
Faculty Information	
Research and Scholarly Activity	. 43
Faculty Development	
Other Activity	. 46
Supplemental Info - Faculty Information	. 47
Teaching	. 48
Analysis of Ratio	. 48
Student Recruiting and Retention	. 49
Student Recruitment	. 49
Student Retention	. 50
Student Enrollment & Outcomes	. 52
Student Enrollments	. 52
Enrollment by Time Status	. 54
Student Diversity by Gender	
Student Enrollment by Race/Ethnicity	. 56
Student Retention, Transfer, and Graduation	. 58
Degrees Awarded by Level	. 60

Faculty Awards Nominations	
Research Awards	
Service Awards	
Teaching Awards	63
Other Awards	-
Faculty Awards Received	
Research Awards	65
Service Awards	67
Teaching Awards	70
Other Awards	72
Alumni Engagement & Fundraising	74
Alumni	
Development, Fundraising and Gifts	75
Community Engagement	78
Community Engagements and Community - Based Activities	
Community Perceptions	85
Incentivizing Faculty Engagement	85
Collaborations	87
Internal Collaborations	87
External Collaborations	87
Other Collaborations	87
Equity and Diversity Plan	89
Improve Under-Represented Minority (URM) Student Enrollment	
Improve The Number Of Full-Time URM Faculty Across Academic Units	89
Enhance Outcomes For URM Undergraduate and Graduate/Professional Students	89
Improve Post-Graduate Outcomes For URM Undergraduate and	
Graduate/Professional Students	89
Increase the engagement of students, faculty, staff, administrators in Equity and	
Inclusion	
Improve The Sense Of Inclusion Amongst All University Community Members	90
Dashboard Metrics and Narrative	91
Metrics	
Student Information Narrative	91
Contribution (Per Student) Narrative	
Model Allocations (Per Student) Narrative	91
Faculty Information Narrative	91
Credit Hours Taught Narrative	91
College/School Financial Information Narrative	91
Student Outcomes Narrative	91
HERD Research Expenditures Narrative	91
Other Information Narrative	91
Concluding Remarks	92
Quantitative Outcomes	92
Cool Stuff	92

Appendix A. Research & Scholarly	Activity	9	94
Appendix 1. Faculty Information			97

### Foundation for Academic Excellence

#### **Mission Statement**

We serve the people of South Carolina and beyond through exemplary medical and health education, transformative research, and compassionate patient care.

#### **Vision Statement**

To be part of a vibrant academic health center that provides access to the best evidencebased medical care and biomedical education, supported by research and cutting edge technologies.

#### **Values Statement**

Excellence: We are committed to achieving the highest levels of personal and professional performance in all our endeavors.

Professionalism: We adhere to the highest standards of behavior guided by the values and practices of our professions.

Collaboration: We partner with individuals, teams, institutions and communities to enhance the value of our efforts.

Diversity and Inclusion: We create and sustain an inclusive and diverse environment, demonstrating in word and deed our commitment to valuing and supporting each other and those whom we serve.

Compassion: We are resolute in our efforts to relieve suffering and promote fairness.

Updated: 02/28/2018

Updated: 02/28/2018

Updated: 02/28/2018

Goals for the previous Academic Year.

Goals - Looking Back
No goals have been entered for this section.

Goals for the current Academic Year.

#### **Goal 1 - Curriculum Innovation**

	-
Goal Statement	Implement Curriculum Innovation Task Force recommendations as approved by Curriculum Committee.
Linkage to University Goal	<ul> <li>Attract, inspire, challenge and enable our students to become innovative thinkers and transformative leaders.</li> <li>Cultivate a more diverse, equitable, and inclusive campus culture where every individual, regardless of background, has the full opportunity to flourish and thrive.</li> <li>Harness the power, attributes and institutional diversity of an integrated and interoperative university system that enhances access, success and affordability for every eligible SC student.</li> </ul>
Alignment with Mission, Vision, and Values	Mission - Exemplary medical and health education. Vision - A vibrant academic health center that provides access to the best biomedical education Values - Excellence, professionalism, collaboration
Status	Progressing as expected (multi-year goal)
Action Plan	Hire curriculum leaders to oversee implementation of Health Systems Science and ACE curriculums.  Curriculum Committee and Subcommittees, Course Directors, and Clerkship Directors finalizing action plans and curriculum for implementation of approved curriculum changes.
Achievements	Curriculum changes have been approved by the BOT and are awaiting review/approval by the SC CHE.  Rearrangement of the M-I curriculum started this past fall with the combination of Gross Anatomy and Histology.  M-II block directors have been appointed and consolidation of the curriculum is progressing.
Resources Utilized	School of Medicine faculty, staff, and students Associate Dean for Medical Education Office of Medical Education and Academic Affairs
Goal Continuation	Completion of the goal is anticipated in 2021/2022.
Goal Upcoming Plans	Implementation of the new M-II curriculum in the Fall 2021 and expanded Capstone rotation in Spring 2022.

	Curriculum Committee and Subcommittees, Course Directors, and Clerkship Directors will implement approved curriculum changes.
Resources Needed	Curriculum Committee
	Course and clerkship directors
	Office of Medical Education and Academic Affairs
	Teaching faculty
Goal Notes	Due to the loss of a key faculty member, who has now been replaced and changed due to COVID-19 restrictions, implementation of some of the proposed areas of curricular change has been delayed.

### **Goal 2 - Student Success and Wellness Center**

Goal Statement	Establish a Student Success and Wellness Center.
Linkage to University Goal	<ul> <li>Attract, inspire, challenge and enable our students to become innovative thinkers and transformative leaders.</li> <li>Assemble and cultivate a world-class faculty and staff.</li> <li>Cultivate a more diverse, equitable, and inclusive campus culture where every individual, regardless of background, has the full opportunity to flourish and thrive.</li> <li>Harness the power, attributes and institutional diversity of an integrated and interoperative university system that enhances access, success and affordability for every eligible SC student.</li> <li>Provide a sustainable campus infrastructure that supports academic excellence and preeminent student life.</li> </ul>
Alignment with Mission, Vision, and Values	Mission - Exemplary medical and health education Vision - A vibrant academic health center that provides access to the best biomedical education Values - Excellence, professionalism, collaboration, diversity and inclusion, compassion
Status	Progressing as expected (multi-year goal)
Action Plan	Identify and renovate space.
	Identify leader, faculty coaches, and staff to work in center.
	Hire student tutors.
	Plan and implement services to increase student success and wellness.
	Partner with the School of Education to provide additional learning resources and evaluate best practices
Achievements	One faculty coach began working part-time in the Student Success and Wellness Center in the Fall of 2020.
	A success center coordinator was hired in March 2021 to increase student programming and to focus initially on student resilience and stress.
Resources Utilized	Faculty and staff time A funds
<b>Goal Continuation</b>	Components of the Success and Wellness Center continue to evolve with the hiring of a success center coordinator to increase student programming.
Goal Upcoming Plans	Set up a Success Center Advisory Board.
	Continue to expand wellness opportunities for students in

Goal Notes	
Resources Needed	A funds E-funds Faculty and staff time
	coordination with the Wellness Promotion Committee with a focus on stress and resilience.  Collaborate with SOM-Greenville to identify ways to collaborate on student success and wellness.

**Goal 3 - Doctoral Program in Nurse Anesthesia** 

	Tam in Nurse Anestnesia	
Goal Statement	Transition nurse anesthesia master's program to a doctoral program.	
Linkage to University Goal	<ul> <li>Attract, inspire, challenge and enable our students to become innovative thinkers and transformative leaders.</li> <li>Assemble and cultivate a world-class faculty and staff.</li> </ul>	
Alignment with Mission, Vision, and Values	Mission - Exemplary medical and health education. Vision - A vibrant academic health center that provides access to the best biomedical education Values - Excellence, professionalism, collaboration	
Status	Progressing as expected (multi-year goal)	
Action Plan	The Masters of Nurse Anesthesia program is currently undergoing a mandatory transition to a doctoral program in 2019, as mandated by AANA/COA.	
	Continue to develop partnership with College of Nursing to integrate existing MNA and DNP curricula to confer a doctoral degree.	
	Develop a solid organizational plan that enhances open communication and strategic decision-making with USC SOM, CON, program administrators, and clinical partners.	
Achievements	A formal name for the doctoral degree – Doctor of Nurse Anesthesia Practice (DNAP) has been established and approved.	
	Full accreditation was received for the Nurse Anesthesia program in Summer 2020.	
	Formal launch of the DNAP program has occurred and first matriculation of students begin Spring 2021.	
	Developed a formal agreement with the College of Nursing for combined on-line courses/curriculum.	
Resources Utilized	Associate Dean for Research and Graduate Education	
	Nurse Anesthesia Program Director	
	Faculty and staff time	
Goal Continuation	The launch of the DNAP program is ongoing for 2021.	
Goal Upcoming Plans	Evaluate the content and effectiveness of the combined CON and DNAP on-line courses in terms of learning objectives specific for DNAP students. This will entail quantitative assessment of course exam performance and course evaluations.	
	An ongoing need and challenge is distance education infrastructure.	

	Difficulties are encountered with DNAP courses offered to students at the SOM and GHS. Some approaches to address this are simplified strategies to activate the system for faculty, improved training and IT troubleshooting and upgrades as necessary.  Continue to develop a business plan and operational budget to allow NA program director to expand faculty as necessary.
Resources Needed	Faculty and staff time.  Funding for office renovation.
Goal Notes	Continue to grow the Greenville campus and strengthen the UofSC and clinical partnerships.

### **Goal 4 - School of Medicine Five Year Strategic Plan (2017-2022)**

<b>Goal Statement</b>	Implement School of Medicine Five Year Strategic Plan (2017-2022)
Linkage to University Goal	<ul> <li>Attract, inspire, challenge and enable our students to become innovative thinkers and transformative leaders.</li> <li>Assemble and cultivate a world-class faculty and staff.</li> <li>Create new pathways to research excellence to become AAU eligible.</li> <li>Cultivate a more diverse, equitable, and inclusive campus culture where every individual, regardless of background, has the full opportunity to flourish and thrive.</li> <li>Harness the power, attributes and institutional diversity of an integrated and interoperative university system that enhances access, success and affordability for every eligible SC student.</li> <li>Build teams that win with excellence and character.</li> </ul>
Alignment with Mission, Vision, and Values	Mission - Exemplary medical and health education, transformative research, and compassionate patient care.  Vision - A vibrant academic health center that provides access to the best evidence-based medical care and biomedical education, supported by research and cutting edge technologies.  Values - Excellence, professionalism, collaboration, diversity and inclusion, compassion
Status	Progressing as expected (multi-year goal)
Action Plan	This year, the Strategic Planning Steering Committee has expanded to include more students in the planning process.  We have focused this year on strategies to improve diversity and inclusion in the SOM Columbia. Focus areas include student pipeline programs, faculty/staff hiring, and improving the culture of inclusion.  Committee has met monthly throughout this academic year.  Responsible leaders will continue to work with teams to implement action plans for goals and objectives as assigned.
Achievements	New curricular elements related to diversity and inclusion being implemented.  A new program, "Luminary Leaders in Medicine and Science", recognizes contributions of diverse leaders to our School of Medicine.
Resources Utilized	Office of the Dean Office of Continuous Professional Development and Strategic Affairs Faculty and staff from all departments
<b>Goal Continuation</b>	Goal is progressing on time with expectation that Strategic Plan

	2017-22 goals and objectives will be appropriately revised between 2020-2022 as the local, regional, and national environment of academic health centers shifts and changes.
Goal Upcoming Plans	Strategic Planning Steering Committee will finalize action plans from the ongoing work this academic year, and begin implementation.  Committee will meet frequently during 2020-21 to review goals and objectives and refresh the plan as needed.  Responsible leaders will continue to work with teams to implement action plans for goals and objectives as assigned.
Resources Needed	Faculty and staff from all departments.
Goal Notes	

**Goal 5 - Master of Physician Assistant Studies Program** 

Goal 5 - Master of Physician Assistant Studies Program			
Goal Statement Establish a Master's in Physician Assistant Studies Pr	ogram		
<ul> <li>Attract, inspire, challenge and enable our students innovative thinkers and transformative leaders.</li> <li>Assemble and cultivate a world-class faculty and statements.</li> </ul>			
Alignment with Mission, Vision, and Values  Mission - Exemplary medical and health education. Vision - A vibrant academic health center that provide best biomedical education Values - Excellence, professionalism, collaboration	les access to the		
Status Progressing as expected (multi-year goal)			
Action Plan Recruit new program director and two faculty.			
Conduct mock site visit summer 2018.			
Prepare for December 2018 accreditation site visit.			
Successfully achieve full accreditation status.			
Achievements			
Resources Utilized PA Program faculty and staff			
Associate Dean for Research and Graduate Educatio	n		
Goal Continuation Goal is progressing on time with the expectation that accreditation status will be achieved in 2021.	t full		
Goal Upcoming Plans To achieve a >95% PANCE pass rate for the graduat 2021, and ensure a majority pursue primary care, pr SC midlands.	_		
Continue to measure the number of PA graduates wi on/serving in rural health/underserved areas.	th a focus		
Successfully achieve full, continuing accreditation st	atus.		
Expand PA partnerships in areas of mental health an science.	d addiction		
Resources Needed PA Program faculty and staff			
Associate Dean for Research and Graduate Educatio	n		

## **Goal 6 - LCME Accreditation Response**

<b>Goal Statement</b>	Provide status reports to the LCME regarding accreditation standards/elements.
Linkage to University Goal	<ul> <li>Attract, inspire, challenge and enable our students to become innovative thinkers and transformative leaders.</li> <li>Assemble and cultivate a world-class faculty and staff.</li> <li>Create new pathways to research excellence to become AAU eligible.</li> <li>Cultivate a more diverse, equitable, and inclusive campus culture where every individual, regardless of background, has the full opportunity to flourish and thrive.</li> <li>Harness the power, attributes and institutional diversity of an integrated and interoperative university system that enhances access, success and affordability for every eligible SC student.</li> </ul>
Alignment with Mission, Vision, and Values	Mission - Exemplary medical and health education Vision - A vibrant academic health center that provides access to the best biomedical education Values - Excellence, professionalism, collaboration, diversity and inclusion, compassion
Status	Progressing as expected (multi-year goal)
Action Plan	Implement continuous quality improvement program to ensure effective monitoring of the medical educational program's compliance with accreditation standards.  Conduct focus group with medical students regarding feedback in LCME self-study independent student analysis.  Update Appointment, Promotion, and Tenure guidelines for approval by the Provost's Office.
Achievements	School of Medicine remains fully accredited after 2017 LCME site visit for a full eight years with the next site visit scheduled to be 2024-25.  Progress report submitted to LCME in December 2020.  Conducted surveys of students in March - June 2020 focused on cited elements in LCME site visit. Results showed improvement in several areas.  To help address the LCME standard that focuses on diversity of faculty and students, the Strategic Planning Committee made diversity and inclusion a major focus for the 20-21 academic year.
Resources Utilized	Executive Dean Associate Dean for Medical Education

	Office of Madical Education and Associated Affairs
	Office of Medical Education and Academic Affairs Faculty and staff from all departments
Goal Continuation	Goal is progressing on time with expectation that the LCME will request annual status report updates.
Goal Upcoming Plans	Monitor progress on cited elements through our CQI process/report.  Conduct surveys of students regarding cited elements in Spring 2021 and Fall 2021.  Provide status report to the LCME by December 1, 2021.
Resources Needed	Dean Associate Dean for Medical Education Office of Medical Education and Academic Affairs Faculty and staff from all departments
Goal Notes	

#### **Goal 7 - Rural Health Center of Excellence**

Goal Statement	Support and develop rural and primary care education, delivery, and sustainability in South Carolina through clinical practice, training and research.
Linkage to University Goal	<ul> <li>Attract, inspire, challenge and enable our students to become innovative thinkers and transformative leaders.</li> <li>Cultivate a more diverse, equitable, and inclusive campus culture where every individual, regardless of background, has the full opportunity to flourish and thrive.</li> <li>Harness the power, attributes and institutional diversity of an integrated and interoperative university system that enhances access, success and affordability for every eligible SC student.</li> </ul>
Alignment with Mission, Vision, and Values	Mission - Compassionate patient care. Vision - A vibrant academic health center that provides access to the best evidence-based medical care. Values - Excellence, professionalism, collaboration, compassion
Status	Progressing as expected (multi-year goal)
Action Plan	Establish a rural health center of excellence. Engage statewide partners in enhancing the delivery of healthcare in rural areas of S.C. Seek recurring funding for center of excellence. Expand programs in a spoke and hub fashion for provision of clinical care, education of health professions students and research.
Achievements	Proposal for Center of Excellence and ICARED funding for rural health in 2019 legislative cycle finalized and funds from SC DHHS allocated - total \$31.0M -\$6.5M recurring 2017-18, 2018-19, 2019-20, 2020-2021  Coordinated meetings of Rural Health Center of Excellence statewide committee October 2017 to present.  Established state-supported health professions scholarships/forgivable loans for medical students, physician assistants, advanced practice registered nurses as part of pipeline program in South Carolina Center for Rural and Primary Care.  Funded primary care residency program in Sumter (2019), with 8 residents currently.  Funded Pharmacy Residency Program in Sumter (2021)  Developed a rural residency continuity track in Winnsboro, SC for one additional Family Medicine resident per year.

	Established the SC Healthcare Resource Dashboard (https://arcg.is/0fLSCW) Implemented rural practitioner/staff development and practice enhancement micro-grant program in Partnership with SCORH.
	Expanded capacity for rural clinical training sites at School of Medicine to increase student and resident interest in rural practice.
	Funded educational and training programs for allied health professions for rural areas.
	Established a division of community engagement to facilitate community based programs.
	Funded 5 library systems across the state to connect residents to the health care system.
Resources Utilized	Legislative appropriations
	Faculty and staff time
	Director, South Carolina Center for Rural & Primary Healthcare
Goal Continuation	Goal is progressing on time with expectation continuing funds would be necessary to continue filling the gaps in health care delivery across the state.
<b>Goal Upcoming Plans</b>	Providing technical Assistance to Mobile Health Units across the state.
	Establish educational partnerships across the UofSC System.
	Expand ICARED / care subsidy program to other health systems across the state.
	Pilot test a provider incentive program.
Resources Needed	Legislative appropriations
	Faculty and staff time
	Director, South Carolina Center for Rural & Primary Healthcare
Goal Notes	

#### **Goal 8 - Research and Collaborations**

Goal Statement	Foster research and promote collaborations and interdisciplinary research.
Linkage to University Goal	<ul> <li>Attract, inspire, challenge and enable our students to become innovative thinkers and transformative leaders.</li> <li>Assemble and cultivate a world-class faculty and staff.</li> <li>Create new pathways to research excellence to become AAU eligible.</li> <li>Cultivate a more diverse, equitable, and inclusive campus culture where every individual, regardless of background, has the full opportunity to flourish and thrive.</li> <li>Harness the power, attributes and institutional diversity of an integrated and interoperative university system that enhances access, success and affordability for every eligible SC student.</li> <li>Spur innovation and economic development through impactful community partnerships.</li> </ul>
Alignment with Mission, Vision, and Values	Mission – Transformative Research Vision – A vibrant academic health supported by research and cutting edge technologies. Values - Excellence, professionalism, collaboration
Status	Progressing as expected (multi-year goal)
Action Plan	Streamline clinical research submissions. Increase pre-proposal support for clinicians/residents. Reduce turnaround times for IRB reviews. Unify language and policies for IP, subject injury and COI. Plan MS biomedical technology program to fill need for well-trained research technicians. Complete recruitment and open the cardiovascular translational research center as part of the Excellence Initiative. Strategic utilization of Bldg 9 on the VA Campus for joint VA recruitments and programmatic efforts. Explore clinical research opportunities with affiliate campuses and hospitals. Foster new initiatives in technology transfer, IP generation and strategies for NIH SBIR and STTR funding.
Achievements	The Center for Transforming Health (RCTH) was established in Fall 2017, and is now in full operation under the direction of the Center Director, Dr. Kevin Bennett. The RCTH has launched several initiatives which directly address the above action plan. This includes management of a seed grant program to encourage new ideas and initiatives between SOM faculty and Prisma. The seed grant applications have been received and funding activated the Spring of 2021. Another important development of the RCTH is a formal research contractual relationship with the Columbia VA. This provides infrastructure support for joint research initiatives between

VA providers and SOM faculty. Several new VA research applications have been prepared and submitted. The RCTH also supports a formal summer research program targeting medical students: Student Opportunities for Academic Achievement through Research (SOAR). For 2020, more than 55 applicants applied for the SOAR program, and for 2021 this has reached a new high of 75 applications. We will continue to work towards expansion of the SOAR program in terms of diversity of mentors, sustainable funding and strong experiences for SOAR students.

One of the major accomplishments during this period and aligned with our strategic goals, is growing the research collaboration with the VA. Over this past period, SOM faculty continue to receive eligibility for VA funding, and several SOM faculty were funded over this past performance period. The total VA funding being received by SOM faculty are now approaching \$9 million.

Another major accomplishment was a joint faculty appointment with a SOM professor faculty position and the Associate Chief of Staff (ACOS) for research was filled. This is a unique and new collaborative initiative and this was filled in 2020. Dr. Mike Ryan, an NIH and VA funded investigator now holds a Professor of Physiology, Pharmacology and Neurosciences and ACOS for research.

The UofSC Excellence Initiative awarded to the SOM for the development of Cardiovascular Translational Research Center. This entailed expanding the research footprint at the 4th floor, Bldg 1 which has been accomplished. Moreover, we have successfully recruited Dr. Clinton Webb an established NIH funded investigator to be the Director for this center. This center received formal UofSC Board of Trustees status in December 2020 and has initiated a campus wide cardiovascular seminar series which has engaged UofSC faculty across all colleges. One expected deliverable from the center, in addition to recruiting new funded SOM faculty, is to develop and be the nexus for a program project. In terms of fostering SBIR/STTR NIH funding, an early stage incubator laboratory was established on the SOM campus and has resulted in several new SBIR/STTR applications with a major success for STTR Phase I/II funding (Fan/Murphy).

School of Medicine continues to serve as lead institution for NIH-funded South Carolina IDeA Networks of Biomedical Research Excellence (SC INBRE) with the goal of increasing NIH research capacity of the state. With Dr. Edie Goldsmith as the SOM PI, this program received a high priority score and successful funding of the INBRE program was received in 2020. Graduate students continue to excel in publishing and presenting at national meetings and peer reviewed journals and continue to receive competitive research support which includes NIH predoctoral awards and USC SPARC

	awards.
Resources Utilized	A funds E funds Associate Dean for Research and Graduate Education All departments faculty and staff
Goal Continuation	Goal is progressing as expected and viewed as an ongoing goal into the foreseeable future.
Goal Upcoming Plans	Develop and deploy an academic incentive plan.
	Increase focus and capacity for program project type research proposals.
	In terms of streamlining and improving clinical research, this is an area that remains a challenge as our health system partner continues to evolve. However, in 2020 a working group of Prisma/SOM representatives was formed and in early by end of 2020, specific flow charts for how to prepare and submit grants/trials was developed and put to practice.
	A critical component to developing collaborative, multidisciplinary NIH funded programs is through the use of subcontracts and subawards. The SOM Columbia will continue to work jointly with UofSC Office of Grants and Contracts to improve processes related to invoicing/receivable tracking.
Resources Needed	Continued support from Office of the Provost and Vice President for Researchfor recruitment of researchers is needed.
	As noted above, an accountable and responsive NIH subaward grants management system remains a critical issue.
Goal Notes	

<b>Goal 9 - Diversity and Inclusion Pipeline Programs</b>
---

<b>Goal Statement</b>	Expand pipeline programs that increase likelihood of under- represented students entering the health professions workforce.
Linkage to University Goal	<ul> <li>Attract, inspire, challenge and enable our students to become innovative thinkers and transformative leaders.</li> <li>Assemble and cultivate a world-class faculty and staff.</li> <li>Create new pathways to research excellence to become AAU eligible.</li> <li>Cultivate a more diverse, equitable, and inclusive campus culture where every individual, regardless of background, has the full opportunity to flourish and thrive.</li> <li>Harness the power, attributes and institutional diversity of an integrated and interoperative university system that enhances access, success and affordability for every eligible SC student.</li> <li>Provide a sustainable campus infrastructure that supports academic excellence and preeminent student life.</li> <li>Build teams that win with excellence and character.</li> </ul>
Alignment with Mission, Vision, and Values	Mission - Exemplary medical and health education, transformative research, and compassionate patient care.  Values - Excellence, professionalism, collaboration, diversity and inclusion, compassion
Status	Progressing as expected (multi-year goal)
Action Plan	Initiate the Claflin University pipeline program to increase admissions to the Masters of Biomedical Science Program.  Partner with Orangeburg High School for Health Professions on the establishment of an MOU to formalize collaboration of School of Medicine support for expansion of their programs.
Achievements	Claflin University agreed in 2019 to have students participate in the Masters of Biomedical Science Program but student participation failed to materialize due to the lack of full scholarships.  Face-to-face collaborative activities with the Orangeburg High School for Health Professions were suspended for the past year due to the COVID-19 pandemic.  The SOM-C Strategic Planning Steering Committee established a Student Pipeline, Recruitment and Support Working Group which was charged with exploring short and long term strategies to more strategically expand pipeline efforts.  Preliminary conversations were held between Prisma Health and SOM-C about possible expansion of the Finding Your Future] program to look more like the MedEx Academy at Prisma Health Upstate.

Resources Utilized	Faculty time.
<b>Goal Continuation</b>	Goal is anticipated to be completed within next three years.
Goal Upcoming Plans	We will continue to seek funding for scholarships to facilitate participation of Claflin University students in the pipeline program to the Masters of Biomedical Science Program.
	We will seek to resume collaboration with the Orangeburg High School of Health Professions depending on the status of the COVID-19 pandemic.
	The SOM-C Strategic Planning Steering Committee Student Pipeline, Recruitment and Support Working Group will make recommendations in May 2021 regarding short and long term strategies to more strategically expand pipeline efforts.
	Prisma Health and SOM-C will continue the exploration of possible expansion of the Finding Your Future program to look more like the MedEx Academy at Prisma Health Upstate.
Resources Needed	Associate Dean for Diversity and Inclusion
	Assistant Dean for Diversity and Inclusion
	Faculty and staff time.
	Scholarship funding
Goal Notes	

#### **Goal 10 - New Medical School Facilities**

Goal 10 - New Medical	
Goal Statement	Refine vision and plan for new medical school facilities.
Linkage to University Goal	<ul> <li>Attract, inspire, challenge and enable our students to become innovative thinkers and transformative leaders.</li> <li>Assemble and cultivate a world-class faculty and staff.</li> <li>Create new pathways to research excellence to become AAU eligible.</li> <li>Cultivate a more diverse, equitable, and inclusive campus culture where every individual, regardless of background, has the full opportunity to flourish and thrive.</li> <li>Harness the power, attributes and institutional diversity of an integrated and interoperative university system that enhances access, success and affordability for every eligible SC student.</li> </ul>
Alignment with Mission, Vision, and Values	Mission - Exemplary medical and health education, transformative research, and compassionate patient care. Vision - A vibrant academic health center that provides access to the best evidence-based medical care and biomedical education, supported by research and cutting edge technologies.
Status	Progressing as expected (multi-year goal)
Action Plan	In partnership with UofSC and other UofSC health sciences schools, advance the planning for new medical facilities on the new health and biosciences campus.  Work with UofSC Facilities Department and Architect to participate in the early planning phase of the medical education building on the new health sciences campus.  In partnership with USC Office of Development, obtain pledges toward the development of new medical school facilities as part of a new health and biosciences campus.  Educate School of Medicine alumni about plans for new medical school facilities and opportunities for input and support.
Achievements	UofSC and School of Medicine leaders have engaged numerous legislators and state officials to advocate for the creation of the new health sciences campus. We remain optimistic that this will result in additional funding allocation during the 2021 legislative session.
Resources Utilized	
Goal Continuation	We anticipate that active planning for the construction of the Bull Street SOM Education Building will begin in 2021. This process will involve a large number of SOM leaders, faculty, staff, and students to participate in a comprehensive planning process. Concurrently, UofSC will start the governmental process for approval of the building plans.

	on the new health and biosciences campus.  Work with UofSC Facilities Department and Architect to participate in the early planning phase of the medical education building on the new health sciences campus.  Continue to partner with the USC Office of Development to obtain pledges toward the development of new medical school facilities as part of a new health and biosciences campus.  Continue to educate School of Medicine alumni about plans for new medical school facilities and opportunities for input and support.
Resources Needed	A and E funds, recurring and nonrecurring state appropriations,
Goal Notes	philanthropy.

#### **Goal 11 - Organizational Climate**

Goal Statement	Enhance and sustain an organizational culture, and climate that
	consistently promotes a welcoming and inclusive environment throughout all levels of the organization.
Linkage to University Goal	<ul> <li>Attract, inspire, challenge and enable our students to become innovative thinkers and transformative leaders.</li> <li>Assemble and cultivate a world-class faculty and staff.</li> <li>Cultivate a more diverse, equitable, and inclusive campus culture where every individual, regardless of background, has the full opportunity to flourish and thrive.</li> <li>Harness the power, attributes and institutional diversity of an integrated and interoperative university system that enhances access, success and affordability for every eligible SC student.</li> <li>Provide a sustainable campus infrastructure that supports academic excellence and preeminent student life.</li> <li>Build teams that win with excellence and character.</li> </ul>
Alignment with Mission, Vision, and Values	Mission - Exemplary medical and health education, transformative research, and compassionate patient care. Vision - A vibrant academic health center that provides access to the best biomedical education. Values - Professionalism, collaboration, diversity and inclusion, compassion.
Status	Progressing as expected (multi-year goal)
Action Plan	Dean will establish a Climate Task Force, with representation from students, staff, and faculty, to advise School of Medicine leadership on opportunities to enhance and sustain an organizational culture, environment, and climate that consistently promotes a welcoming and inclusive environment throughout all levels of the organization.  This work will be complemented by the contributions of the Committee on Women in Science and Medicine, which was reactivated this year. Based upon a recommendation arising from this group, an Ad Hoc Committee on Diversity in the Arts was established, to increase the diversity of individuals honored within School of Medicine Columbia facilities through the display of portraits, photographs, or other types of images.
Achievements	Dean Hall established the Advisory Task Force on Climate in the SOM Columbia (Climate Task Force [CTF]) to which he appointed 17 members - faculty (7), staff (4), and students (6). Ms. Gloria Johnson (staff) and Dr. Matt Orr (faculty) were appointed Co-Chairs. In October 2020, the CTF began its work in earnest on the following charge by the Dean:
	• Identify the broad categories of concerns related to SOMC climate and/or professionalism that have arisen in the past 12 months.

- Review existing qualitative and/or quantitative data that provides additional understanding of these issues. Conduct conversations in a way that promotes transparent understanding of issues while maintaining strict confidentiality of protected information.
- Identify existing documents, policies, guidelines, and statements of values that reflect the desired culture and climate within our SOM as it relates to professionalism, equity, and fairness.
- Engage faculty, staff, and students in a deeper exploration of these issues, seeking to gain both a better understanding of concerns as well as an appreciation of positive aspects of the culture and climate of our SOM (i.e., when we "get it right", what does that look like?).
- Recommend additional steps that would be likely to enhance the climate, equity and level of professionalism within the School of Medicine.

Discovery Phase (October-December 2020): The CTF conducted a comprehensive process to identification and review of existing qualitative and quantitative data sources as well as relevant institution policies and documents related to civility, professionalism, and equity. In addition, the CTF partnered with the SOMC Office of Continuous Professional Development & Strategic Affairs to facilitate 11 focus groups comprised of over 70 faculty, staff, and students, which enabled the CTF to probe deeper into the areas of concern.

Insight Phase (January 2021-March 2021): The CTF is currently engaged in an extensive data synthesis and analysis to ensure that we have saturation of information and to identify themes and predominant issues in the data, as well review both peer-reviewed and grey literature regarding those themes/issues. Director of Library Services in the SOMC, has provided extensive support during this phase of the process. In addition, as the CTF enters the latter stages of this phase, it is actively seeking to engage content experts and resources on the main campus of UofSC, including but not limited to the Center for Teacher Excellence (CTE) and Office of Diversity, Equity, and Inclusion to gain further insights into actions the SOMC can take to address the issues it has identified.

#### **Resources Utilized**

Faculty and staff time.

#### **Goal Continuation**

The goal is progressing as expected and will continue in 2021-2022.

#### **Goal Upcoming Plans**

Recommended Actions Phase (April 2021): The CTF will submit to Dean Hall a report of its findings, including a list of initial action steps it recommends the SOMC should take to address the identified issues and advance the climate, equity, and levels of civility and professionalism in the SOMC.

(AY2021-2022 and beyond):

	Execution Phase (May 2021 and beyond): The CTF will continue to support the Dean with implementation of actions until an infrastructure is created to provide the support such actions require.
Resources Needed	Faculty, staff, and students time.
Goal Notes	

# **Goals - Looking Ahead**

Goals for the next Academic Year.

#### **Goal 1 - School of Medicine Florence Regional Campus**

Goal Statement	In partnership with UofSC and academic and health care partners in the Pee Dee Region, plan for a multi-year expansion of health professional programs in Florence and the surrounding region.
Linkage to University Goal	<ul> <li>Attract, inspire, challenge and enable our students to become innovative thinkers and transformative leaders.</li> <li>Assemble and cultivate a world-class faculty and staff.</li> <li>Spur innovation and economic development through impactful community partnerships.</li> <li>Provide a sustainable campus infrastructure that supports academic excellence and preeminent student life.</li> </ul>
Alignment with Mission, Vision, and Values	Mission - Exemplary medical and health education, transformative research, and compassionate patient care. Vision - A vibrant academic health center that provides access to the best biomedical education. Values - Professionalism, collaboration, diversity and inclusion, compassion.
Status	Newly Established Goal
Action Plan	UofSC School of Medicine Columbia and UofSC will collaborate with Francis Marion University, MUSC, McLeod Health, MUSC Health in Florence and other health care providers in the region under the auspices of the Pee Dee Medical and Health Education Consortium to plan for ongoing expansion of health professional training in the Pee Dee Region over the next few years.  During 2021-2022, we will review input from two educational consultations regarding health education in the Pee Dee, working with partners to identify opportunities and needed steps to expand medical student education and graduate medical education.
Achievements	UofSC has been part of an extensive planning process during 2020-21, which will soon result in recommendations from the involved universities regarding next steps.
Resources Utilized	Office of the Dean Faculty and staff from Office of Curricular Affairs and clinical faculty from the Florence Campus.
Goal Continuation	New goal established this year.
Goal Upcoming Plans	The focus for 2021-2022 will be to work with the academic and clinical partners to agree upon a set of goals and associated actions for the next few years. A timeline will be established and resources identified.

# **Goals - Looking Ahead**

Resources Needed	Faculty, staff, and students time.
Goal Notes	

## **Academic Programs**

#### **Program Rankings**

Academic programs that were nationally ranked or received external recognition during the Academic Year.

Medical Degree (M.D.) Program

Association of American Medical Colleges (AAMC) - March 3, 2021 notification The AAMC Missions Management Tool (MMT) provides comparative outcomes data for medical education programs with full LCME accreditation as of January 1, 2021. The MMT is issued annually.

Ranks nationally in the 99th percentile for Percent of graduates planning to participate in military service.

Ranks nationally in the 78th percentile for Percent of graduates practicing in rural areas. Ranks nationally in the 70th percentile for Percent of graduates practicing in primary care.

#### Instructional Modalities

Innovations and changes to Instructional Modalities in unit's programmatic and course offerings that were implemented during the Academic Year.

**Medical Degree:** Curriculum Committee in 2018 approved a framework for a new 2020 curriculum that includes increased focus on early clinical experiences, health systems science, and social determinants of healthcare. The second year curriculum is being reorganized from the current foundational sciences to an organ system approach that more closely aligns and integrates learning of clinical material. The first elements of the new curriculum were introduced in the Fall 2020 with a combined Gross Anatomy/Histology course and increased content in Health Systems Science. The new second year curriculum is set to be launched in Fall 2021.

**Biomedical Sciences (MS/PhD):** Our program uses a combination of didactic and experiential instructional modalities. Didactic courses comprise the early part of the curriculum and are mostly lecture based. The Applied Biotechnology concentration within our program offers a series of courses that are a combination of traditional lecture and hands-on lab based activities to teach students skills that can be used in a research setting. Students in our program can take a dissection-based human anatomy course that also has a significant component of hands-on learning. All research based courses (course number 780) as well as thesis/dissertation preparation (course numbers 799/899) are experiential learning, where students engage in hands-on research training in current biomedical methods and techniques.

Master's in Nurse Anesthesia: Embedded clinical experiential learning into several didactic courses. Courses PHPH 761 & PHPH762 in place more than one year with great success & positive student response. Changing PHPH 773 (Physical Assessment for Anesthesia Providers) to a flipped classroom style has had resounding success over the past year. The Program has created and implemented a "board Prep" course the last two semesters of the program, the last two years and have had great student feedback. The Program is 100% distance education approved for all didactic courses to continue to better serve the upstate area. Full time clinical coordinator positioned at Prisma Health Richland to further strengthen student experiential learning.

## **Academic Programs**

Masters of Physician Assistant Studies: Didactic phase includes interprofessional instruction in cadaveric gross anatomy, physiology, and point-of-care ultrasound with experiential learning on standardized patients occurring in multiple didactic courses including Anatomy, Physical Diagnosis, and Diagnostic Testing.. In addition, unique courses continue in genetics, research, law and ethics are embedded in the program curriculum. Clinical Immersion and Clinical Skills Lab expose the students to numerous clinical related and handson learning experiences in the simulation lab and other settings prior to clinical rotations. Our continued focus on active learning which includes flipped classrooms, team-based learning, and problem-based learning, has resulted in positive student feedback.

Masters of Arts (M.A.) in Counseling and Rehabilitation. Instructional modalities in the 60 credit hour MA degree program, which accepted its first students in Fall 2018, include classroom-based learning, pre-clinical practice, and field experiences. Prior to the COVID-19 pandemic, for most classes, students have the option of attending in-person or in real-time via an online webinar-style platform. In addition, all students are required to attend in-person full-day Learning Community workshops held on a Saturday in each of the major semesters. This year, the School of Medicine invested in an upgrade of the classroom technologies that include large monitors for video-conferencing and information displays, sophisticated cameras that track presenters and in-class speakers, and enhanced sound management. This upgrade optimizes student-learning experiences and helps to ensure program competitiveness with other similar programs.

Master's in Rehabilitation Counseling (MRC): Instructional modalities in the 48 credit hour MRC degree program continue to include classroom-based learning, pre-clinical practice, and field experiences. The MRC program stopped accepting new students in 2017 and will fully phase out in summer 2021 when the last student graduates. Certificate of Graduate Study (CGS) in Psychiatric Rehabilitation. Instructional modalities in the Certificate program includes classroom-based learning and a capstone project in which the student, with a faculty advisor, completes a comprehensive independent study.

**Master's in Genetic Counseling:** Curriculum order of courses changed to include HGEN 730 Advanced Medical Genetics in spring first year, promoting more substantial pre-clinical knowledge prior to summer rotation. Mini-rotations added in niche areas of genetic counseling to allow senior students to explore evolving areas of genetic counseling experiential fieldwork.

**Post-Baccalaureate Certificate in Biomedical Sciences:** Our program uses a combination of didactic and experiential instructional modalities. Didactic courses comprise most of the curriculum and are largely lecture based. Students can take a dissection-based human anatomy course that also has a significant component of hands-on learning or a pathology course with some hands-on laboratory activities. To enhance the academic success rate of students enrolled in this program, the current didactic curriculum is continuing to be examined to meet the individual student academic needs.

#### **Program Launches**

Academic Programs that were newly launched during the Academic Year; those that received required approvals but which had not yet enrolled students are not included.

## **Academic Programs**

Masters of Arts (M.A.) in Counseling and Rehabilitation.

The 60 credit hour MA degree program was approved by SACSCOC in early 2018 and accepted its first students in fall 2018. The program is a modified and strengthened version of the 48 credit hour Masters of Rehabilitation Counseling (MRC) degree program and addresses national changes in the education of professional counselors and in accreditation standards. The new program includes all of the content of the 48 credit hour degree program and incorporates previously existing electives as required classes. We completed the self-study component of the accreditation process in 2019 and hosted an accreditation site visit in July 2020. The program met all CACREP standards and was reviewed by CACREP at its January 2021 board meeting. The program was granted a full 8 year accreditation through March 2029.

#### **Program Terminations**

Academic Programs that were newly terminated or discontinued during the Academic Year. The Masters of Rehabilitation Counseling (MRC) program will phase out in summer of 2021 after the last student graduates. At that time, the program will be officially terminated through established University procedures.

### Academic Initiatives

#### **Experiential Learning For Undergraduates**

Initiatives, improvements, challenges, and progress with Experiential Learning at the Undergraduate level.

**Medical Degree:** As part of the new 2020 curriculum, physical diagnosis has been moved from the second year curriculum to the first year curriculum. This has increased the ability of students to participate in clinical experiences between their M-I and M-II years as well as allowing for an expanded clinical preceptorship during the M-II year. Due to COVID-19 restrictions however, the clinical preceptorship for placed on hold for the Fall 2020 semester, but is expected to restart for the Spring 2021 semester. On a volunteer basis, students have started to participate in vaccine administration as well.

**Biomedical Sciences (MS/PhD):** Experiential learning occurs in didactic courses with handson laboratory sessions which provide students the opportunity to gain expertise in multiple biomedical research techniques. Research courses facilitate development of problem solving skills as students design and carry out experiments. Students also develop writing skills by preparing manuscripts which describe the results of their experiments and presentation skills through participation in our seminar course.

**Master's in Nurse Anesthesia:** Embedded freshman clinical experiential learning into several didactic courses to better reinforce knowledge being learned. Courses PHPH 761 & PHPH762 (replacing PHPH 791, 792 & 775) have been in place for more than two years with great success & positive student response. Have a full time clinical coordinator for Columbia campus positioned at Prisma Health Richland on full-time basis to strengthen experiential learning. Students continue to get an average of about 30% more clinical experiences than required by the accreditation agencies and national averages.

Masters of Physician Assistant Studies: Clinical phase includes required core rotations in Family Medicine, Internal Medicine, Emergency Medicine, General Surgery, Women's Health, Orthopedics, Behavioral Health, Pediatrics. Students also complete two elective rotations of their choice not only providing excellent experiential learning, but allowing students to pursue areas of individual interest. We continue to expand our sites in rural and underserved areas to align with our mission and goals.

**Masters of Arts in Counseling and Rehabilitation:** Experiential learning in the MA program takes place in pre-clinical course work & in formal clinical field experiences that include a 150-hour practicum and a 600-hour internship that take place in clinical & vocational rehabilitation service agencies.

**Master's in Rehabilitation Counseling:** Experiential learning takes place in pre-clinical course work & in formal clinical field experiences that include 150-hour practicum and 600-hour internship that take place in clinical & vocational rehabilitation service agencies.

**Certificate of Graduate Study in Psychiatric Rehabilitation:** The program concludes with an Independent Study capstone project. Some students choose to visit psychiatric rehabilitation sites & others choose to conduct a research project. For either option, a designated faculty member oversees all capstone projects.

### **Academic Initiatives**

**Master's in Genetic Counseling:** Embeds experiential learning throughout curriculum from first year Community Engagement/Service Learning outreach to Role Play Workshops with Actors to in-class assignments requiring student interaction with national genetic laboratories. Each activity is assessed for learning opportunity as it relates to development of Practice Based Competencies as defined by Accreditation Council for Genetic Counseling.

## **Experiential Learning For Graduate Students**

Initiatives, improvements, challenges, and progress with Experiential Learning at the Graduate or Professional level.

**Medical Degree:** In preparation for new 2020 curriculum, Curriculum Committee approved increasing clinical experiences in first two years. Physical diagnosis has been moved from the second year curriculum to the first year curriculum. A pilot program was initiated using first & second-year students as health leads advocates in outpatient clinics at Prisma Health with a focus on access to food and transportation (social determinants of health).

**Biomedical Sciences (MS/PhD):** Experiential learning occurs in didactic courses with handson laboratory sessions which provide students the opportunity to gain expertise in multiple biomedical research techniques. Research courses facilitate development of problem solving skills as students design and carry out experiments. Students also develop writing skills by preparing manuscripts which describe the results of their experiments and presentation skills through participation in our seminar course.

**Master's in Nurse Anesthesia:** Embedded freshman clinical experiential learning into several didactic courses to better reinforce knowledge being learned. Courses PHPH 761 & PHPH762 (replacing PHPH 791, 792 & 775) have been in place for two years with great success & positive student response. Have a full time clinical coordinator for Columbia campus positioned at Palmetto Health Richland on full time basis to strengthen experiential learning. Student continue to get an average of about 30% more clinical experiences than required by the accreditation agencies and national averages.

Masters of Physician Assistant Studies: Clinical Phase includes core rotations in Family Medicine, Internal Medicine, Emergency Medicine, General Surgery, Women's Health, Orthopedics, Behavioral Health, Pediatrics & two elective rotations providing PA students with excellent experiential learning. We continue to expand our sites in rural and underserved settings aligning with our mission.

Masters of Arts in Counseling and Rehabilitation: Experiential learning in the MA program takes place in pre-clinical course work & in formal clinical field experiences that include a 150-hour practicum and a 600-hour internship that take place in clinical & vocational rehabilitation service agencies. Master's in Rehabilitation Counseling: Experiential learning takes place in pre-clinical course work & in formal clinical field experiences that include 150-hour practicum and 600-hour internship that take place in clinical & vocational rehabilitation service agencies.

**Certificate of Graduate Study in Psychiatric Rehabilitation:** Concludes with Independent Study capstone project. Some students choose to visit psychiatric rehabilitation sites & others choose to conduct a research project. For either option, a designated faculty member oversees all capstone projects.

### **Academic Initiatives**

**Master's in Genetic Counseling:** Embeds experiential learning throughout curriculum from first year Community Engagement/Service Learning outreach to Role Play Workshops with Actors to in-class assignments requiring student interaction with national genetic laboratories. Each activity is assessed for learning opportunity as it relates to development of Practice Based Competencies as defined by Accreditation Council for Genetic Counseling.

### **Affordability**

Assessment of affordability and efforts to address affordability.

**Medical Degree:** As the cost of medical education and student debt continues to rise, the School of Medicine continues to look for ways to allow a medical education to remain affordable for all students. Tuition increases have been modest, and as noted in our goals, the SOM continues to make increases in endowments and scholarships a high priority.

**Biomedical Sciences (MS/PhD):** The cost of attendance is comparable to other regional MS and PhD programs. PhD students receive a stipend from their research mentor and are provided full tuition and funds to support the purchase of health insurance by the Biomedical Sciences Graduate Program. MS students are required to cover their own tuition and living expenses, although some students are able to find paid teaching or research assistant positions to help with costs.

**Master's in Nurse Anesthesia:** The program is listed in the top 20 most affordable programs in the nation according to the 2021 Affordable Schools website.

**Physician Assistant Studies:** Continues to be the most affordable and best value of the five PA programs in the state consisting of two public and three private institutions.

**Master of Arts (M.A.) in Counseling and Rehabilitation:** The cost of attendance is comparable to other 60 credit hour counseling degree programs. The program is mindful of student expenses when selecting textbooks and supplemental materials, ensuring students invest in quality educational materials that have utility throughout their studies and in professional practice.

**Certificate of Graduate Study (CGS) in Psychiatric Rehabilitation:** The updated 18 credit hour certificate includes all the essential learning elements that had been in the previous 24 credit hour certificate. The certificate is now more affordable and can be completed in one year.

**Masters of Genetic Counseling:** Program accepts nine students per year from an applicant pool of over 165 applicants. We have two tracks with financial support in the national match for admission to genetic counseling programs. We will match one applicant to a graduate research assistantship in the SOM Center for Disability Resources (provides stipend and in state tuition) and we will match two applicants to the SC Leadership Education in Neurodevelopmental Disorders training program (Provides second year stipend). Plan to offer Diversity Scholarship track for Fall 2022 admissions cycle.

### **Reputation Enhancement**

Contributions and achievements that enhance the reputation of UofSC Columbia regionally

### **Academic Initiatives**

and nationally.

**Biomedical Sciences:** Faculty and students in the Biomedical Sciences graduate program continue to publish their research in high impact journals and when able over the past year have presented their research at regional, national and international conferences. The graduate program provides travel awards to promote student attendance and presentation at professional society meetings. Several PhD students hold extramurally funded fellowships through NIH (F31 and Diversity awards) and NSF.

**Nurse Anesthesia:** The Nurse Anesthesia Program continues to have a greater than 93% first time national board pass rate. Recruits approximately 30% of each class from out of state. Discussions continue with Prisma Health to continue to strengthen local & regional placement of graduates. These graduates often return to their place of origin & with the quality, knowledgeable care they provide we have health care institutions nationally seeking our graduates for employment.

**Physician Assistant Studies:** The program has a national board exam pass rate of 100% after two second attempts. The inaugural graduating Class of 2019 posted a first-time pass rate of 95% followed by a 96% first-time pass rate for the Class of 2020. Over half of our graduates have remained and are working in South Carolina. Faculty and students are active and well-represented on the state level with the South Carolina Academy of Physician Assistants (SCAPA) and nationally with the American Academy of Physician Assistants (AAPA).

**Counseling and Rehabilitation:** MRC program has been continuously accredited by Council on Rehabilitation Education (CORE) since 1976 and, when CORE merged with Council on Accreditation of Counseling & Related Educational Programs (CACREP) in 2017, MRC accreditation transferred to CACREP. CACREP is the most highly regarded accrediting body for counselor education programs. Because the 48 credit hour program is phasing out, it will not be reaccredited after the last students graduate. The 60 credit hour program successfully completed its site visit in July 2020 and was reviewed at CACREP's January 2021 board meeting. The program received official notification of a full 8 year accreditation and is now accredited through March 2029.

**Genetic Counseling:** Faculty continue to practice clinically & participate in the national/international profession. Whitney Dobek is a certification exam writer for the American Board of Genetic Counseling. Jessica Fairey is working on the National Society of Genetic Counselors Outcomes Committee. Janice Edwards is facilitating an online course on genetics & genomics for over 110 maternal fetal medicine fellows in collaboration with Columbia University & University of California San Francisco. Ms. Edwards continues to serve as the president of the Transnational Alliance for Genetic Counseling, an international network of genetic counselor educators.

**Post-Baccalaureate Certificate in Biomedical Sciences:** Students from this program continue to gain admission to MD and graduate programs after completing their certificate. SOM and Claflin University are continuing efforts to build a pipeline program whereby Claflin students will matriculate into our Biomedical Sciences graduate program to earn an MS degree. This additional academic preparation will facilitate potential advancement of students to medical or dental school.

### **Academic Initiatives**

### **Challenges**

Challenges and resource needs anticipated for the current and upcoming Academic Years, not noted elsewhere in this report and/or those which merit additional attention.

Overall, the SOM faces challenges with limited scholarships, aging facilities, limited classroom space, increasing in-state competition for student recruitment and clinical training sites.

Master's in Nurse Anesthesia: Program has moved to School of Medicine from a more shared Prisma Health/UofSC program. Several positions changed with the greater university involvement. Affiliation partnering with Prisma Health (Formerly Palmetto Health and Greenville) hospital system will continue to be developed to ensure the continued high quality experiential experiences that the program has enjoyed. Conversion to a doctoral level (DNAP) program is underway, with implementation in 2021. The Graduate Program in Nurse Anesthesia received a full 10 year re-accreditation, this re-accreditation is from the Council on Accreditation of Nurse Anesthesia Educational Programs.

Masters of Physician Assistant Studies: Internally, faculty and staff turnover in the program had been problematic and now stabilized. Now, the major focus will be on faculty and staff development, satisfaction, and retention. Office space, classroom space, and parking are also challenges not just to the program but globally for the entire School of Medicine. Externally, we face challenges of competition within the state for clinical sites as well as concerns for exponential growth of physician assistant programs nationally.

# **Faculty Population**

## **Faculty Employment by Track and Title**

The following data was provided by UofSC's Office of Institutional Research, Assessment, and Analytics.

**Table 1. Faculty Employment by Track and Title.** 

	Fall 2020	Fall 2019	Fall 2018
Tenure-track Faculty	41	42	40
Professor, with tenure	17	17	18
Associate Professor, with tenure	15	16	15
Assistant Professor	9	9	7
Librarian, with tenure	0	0	0
Research Faculty	12	8	9
Research Professor	2	3	2
Research Associate Professor	3	1	2
Research Assistant Professor	7	4	5
Clinical/instructional Faculty	162	159	159
Clinical Professor	21	23	22
Clinical Associate Professor	61	56	55
Clinical Assistant Professor	80	76	76
Instructor	0	4	6
Lecturer	0	0	0
Visiting	0	0	0
Adjunct Faculty	15	36	52

## **Faculty Population**

## Faculty Diversity by Gender and Race/Ethnicity

Note: UofSC follows US Department of Education IPEDS/ National Center for Education Statistics guidance for collecting and reporting race and ethnicity. See this link: https://nces.ed.gov/ipeds/Section/collecting re

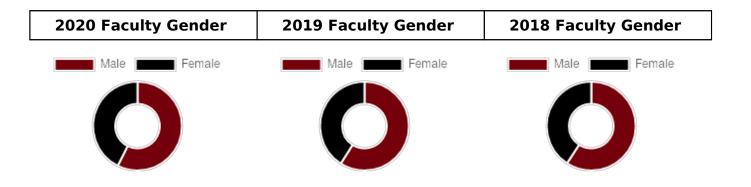
Table 2. Faculty Diversity by Gender and Race/Ethnicity.

	Fall 2020	Fall 2019	Fall 2018
Gender	218	234	218
Male	125	138	129
Female	93	96	89
Race/Ethnicity	218	234	218
American Indian/Alaska Native	1	1	0
Asian	26	28	27
Black or African American	12	13	11
Hispanic or Latino	5	5	4
Native Hawaiian or Other Pacific Islander	0	0	0
Nonresident Alien	11	12	4
Two or More Races	1	1	2
Unknown Race/Ethnicity	0	1	1
White	162	173	169

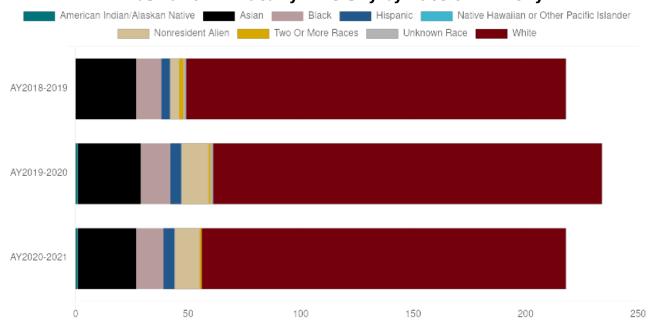
Illustrations 1 and 2 (below) portray this data visually.

# **Faculty Population**

Illustration 1. Faculty Diversity by Gender



#### Illustration 2. Faculty Diversity by Race & Ethnicity



### **Research and Scholarly Activity**

Please refer to Appendix 3, which provides detailed information from the Office of the Vice President for Research, department of Information Technology and Data Management, including:

- 1) The total number and amount of externally sponsored research proposal submissions by funding source for the appropriate Fiscal Year.
- 2) Summary of externally sponsored research awards by funding source for the appropriate Fiscal Year. Total extramural funding processed through Sponsored Awards Management (SAM) in the Fiscal Year, and federal extramural funding processed through SAM in the Fiscal Year. (Available at: http://sam.research.sc.edu/awards.html) Amount of sponsored research funding per faculty member for the appropriate fiscal year (by rank, type of funding; e.g., federal, state, etc., and by department if applicable).
- 3) Number of patents, disclosures, and licensing agreements for three most recent Fiscal Years.

The School of Medicine continues to be a significant contributor to NIH extramural funding for the University of South Carolina. Several recent NIH awards were to junior faculty with some receiving a first time NIH grant. It should also be emphasized that many of these funded research programs are multidisciplinary and reach across a number of UofSC colleges which include Engineering, Arts and Sciences, Public Health and Pharmacy. More importantly, and what does not appear in the SAM financial report in a uniform manner, is the significant federal funding received by SOM faculty through Veterans Administration (VA) Merit funding. For FY 2020, SOM reported external funding fell from the last FY to just over \$40 million. The basic science research productivity was slightly above the five year average. However, significant changes in reporting structure from past performance periods has occurred. Specifically, past reports including funds associated with large service grants and in some cases includes funding pass-throughs related to clinical funds flow, such as the Medicaid Teaching Supplement. This reporting change was due to the movement of the Medical Group into Prisma Health. In addition, shifts in funding levels for the Housing Opportunities for Persons with AIDS program occurred over this past year.

The current report out of \$40M is likely a true benchmark for overall research funding productivity and will be the setpoint for evaluating effectiveness of several ongoing strategies to increase extramural funding, particularly competitive federal medical research funding. The initiatives to address this that have been put in place and operative during this 2020 reporting cycle include:

Research Center for Transforming Health (RCTH). The RCTH has continued to develop an expanded role in engaging clinicians in research opportunities, and this now includes a formal contractual relationship with the Columbia VA. The RCTH received UofSC center status in 2019 and continues to represent a significant financial investment by the SOM. The RCTH has launched several initiatives. This includes the Emerging Physician Scientist program, which has graduated five physicians that are now actively pursuing extramural funding for their specific medical research. The RCTH has also been charged with managing a major initiative in the FY 2020 which is the UofSC/Prisma seed grant program. This is specifically targeted to enhance and encourage research collaborations across the UofSC campus with Prisma physicians with a focus on targeting disease areas relevant to SC citizens, particularly here in the Midlands. The first round of seed grant funding will be operationalized in the Spring of 2021. The RCTH also supports a formal summer research program targeting medical

students: Student Opportunities for Academic Achievement through Research (SOAR). The RCTH also serves as the administrative nexus for SOAR which partners SOM, Prisma, VA and other affiliates with an M1 SOM student to engage in medical research. Since 2016, SOAR has accepted and matched over 110 medical students with a summer research opportunity, resulting in 100+ regional and national presentations, 10+ manuscripts with the student as a co-author, and over 50 UofSC Graduate seminar presentations and poster presentations at Discover USC. For the Spring of 2021, 75 first year medical students have applied to the SOAR program. Putting this in perspective, 55 M1 students applied for the SOAR program in 2020. This is a reflection of the success of this program, but also the need for judicious expansion of SOAR in terms of sustainable growth in the number of SOAR slots available. To that end, additional sponsors and mentors are being aggressively pursued which includes expanding VA research opportunities and other research positions outside of the SOM/Prisma system.

Cardiovascular Translational Research Center. The UofSC Excellence Initiative awarded to the SOM for the development of Cardiovascular Translational Research Center. This entailed expanding the research footprint at the 4th floor, Bldg 1 which has been accomplished. Moreover, we have successfully recruited Dr. Clinton Webb an established NIH funded investigator to be the Director for this center. This center received formal UofSC Board of Trustees status in December 2020 and has initiated a campus wide cardiovascular seminar series which has engaged UofSC faculty across all colleges. One expected deliverable from the center in addition to recruiting new funded SOM faculty, is to develop and be the nexus for a program project.

Increased VA Funding and Presence by SOM Faculty. One of the major accomplishments during this period and aligned with our strategic goals, is growing the research collaboration with the VA. Over this past period, SOM faculty continue to receive eligibility for VA funding, and several SOM faculty were funded over this past performance period. The total VA funding being received by SOM faculty are now approaching \$9 million. Another major accomplishment was a joint faculty appointment with a SOM professor faculty position and the Associate Chief of Staff (ACOS) for research was filled. This is a unique and new collaborative initiative and this was filled in 2020. Dr. Mike Ryan, an NIH and VA funded investigator now holds a Professor of Physiology, Pharmacology and Neurosciences and ACOS for research.

**Enhancing Scholarly/Academic Productivity.** Increasing extramural funding is highly dependent upon an active faculty with respect to scholarly activity. One index of this is the number of publications by SOM faculty which increased significantly compared to 2019. SOM faculty continue to publish in high impact journals and it is notable that many are co-authored by junior faculty, fellows and students. The increased scholarly activity is notable in light of the challenges faced by SOM faculty with respect to remote work, and distance collaborations. In order to increase and encourage SOM faculty academic productivity, an academic incentive plan will be developed in Spring 2021. This will be a transparent, metric driven process which will recognize SOM faculty that are achieving levels of high academic success.

Continue to Overcome Challenges Encountered by SOM Faculty. While most certainly an overarching challenge this past year has been the pandemic, there are other challenges that are faced, which are addressable. Firstly, the changeover from the UofSC-Palmetto Medical Group to Prisma has been finalized, and reaches far beyond unifying health service lines and systems between the Midlands and the Upstate. The Prisma system is not geared to

be a true academic health system, and it is not a major priority of Prisma and is unlikely to be one for the near foreseeable future. Nevertheless, there are multiple research opportunities that exist with a unified health system of this size, and when the challenges of harmonizing electronic medical record systems, service lines and leadership structure are overcome then opportunities will surface for research partnerships between the SOM and Prisma. A second challenge confronting increased productivity for SOM faculty is the physical space and infrastructure. Many of the biomedical research laboratory facilities suffer from physical plant problems such as air conditioning and water leaks. Over the past FY, significant AC upgrades were put in place and mitigation of other areas continues to occur. An important infrastructure resource for SOM faculty continues to be the instrumentation research facility (IRF). Duplicative instrumentation purchased by small cohorts of SOM faculty continue to undermine the user base for the IRF and while this was identified as a major threat to the IRF by an external advisory board, it remains a significant challenge. The duplicative/redundant instrumentation issues is also of larger import to the UofSC research community as a whole, and if increased competitiveness for extramural funding is to occur, then reduced internal competitiveness for research instrumentation must occur.

**Enhance Graduate Student Experiences**. Despite challenges associated with the pandemic, research projects and thesis/dissertation milestones were achieved by the SOM graduate students. SOM graduate students continue to be awarded USC SPARC awards as well as NIH undergraduate fellowship awards.

**Intellectual Property.** Another benchmark for research productivity is IP disclosures and this increased from FY19 from 10 to 16. Moreover, a total of 14 provisional patents were filed, which is an all time yearly high for the SOM. These are beginning to be translated into biotech/spinoff initiatives such as STTR/SBIR funding applications by SOM faculty.

### **Faculty Development**

Efforts at Faculty Development, including investments, activities, incentives, objectives, and outcomes.

**Wellbeing** - The School of Medicine has prioritized professional wellbeing as a critical success factor in developing and sustaining faculty vitality. With personal wellbeing being especially important during the period of the COVID-19 pandemic, the OCPDSA developed a two-page document called "Well-Being Actions in Practice" which provides practical tips for addressing stress in the moment at work or outside of work. This document is posted as part of the COVID-19 resource website of the SOM and continues to be circulated by department leaders to their faculty.

**Climate** - In 2020, Dean Hall commissioned a Climate Task Force to respond to concerns about equity, fairness, and lack of professional behavior within the School of Medicine, issues raised through in complaints from faculty, staff, and students, as well as results of the 2019 climate survey conducted by the University of South Carolina. Led by Co-Chairs Ms. Gloria Johnson and Dr. Matt Orr, this effort is supported by the OCPDSA and the SOM Library. This task force work is intended to strengthen and advance the working and learning environment for all members of the SOM – students, staff, and faculty. Focus during AY2020-2021 has been to take a deep dive into the experiences of SOM members through focus groups and individual

interviews, as well as to conduct a thorough review of the literature regarding the identified issues. As with each group, faculty have been engaged in all aspects of the work from membership on the task force to membership in focus groups and through surveys/individual interviews. The task force expects to have recommendations to the Dean by late 2020-2021 AY with expected implementation beginning AY2021-2022.

**Strategic Planning** - This academic year, the UofSC School of Medicine focused strategic planning efforts on identifying ways to build a more robust culture of diversity and inclusion within our School of Medicine. With the assistance of SOM Library faculty, they have identified best practices for inclusion excellence. Each group is honing recommended action plans for Steering Committee consideration this spring. The SOM Strategic Planning Steering Committee organized three work groups meeting regularly for the following three areas:

- 1. Promoting diversity and inclusion within our faculty and staff, led by Dr. Caughman Taylor and Dr. Donna Ray to attract, hire, and retain a talented and diverse workforce.
- Attracting a more diverse group of medical and graduate students to the School of Medicine, led by Dr. Robert Rhinehart and Ruth Riley to strategically expand pipeline programs, increase return on investment and create incentives for students to prioritize the UofSC SOM Columbia as their choice for medical/graduate training.
- 3. Creating a more equitable culture of inclusion within the SOM, led by Dr. Carol McMahon and Dr. Matt Orr to highlight and communicate our desired values, address behavioral issues that can undermine a culture of inclusion, and seek ways to mitigate bias.

Motivational Interviewing Community of Practice (MI CoP) – Motivational Interviewing (MI) is an evidence-based patient counseling model for engaging patients in health behavior change. Dr. Matt Orr of the Office of Continuous Professional Development and Strategic Affairs (OCPDSA) in the School of Medicine leads an ongoing CoP for clinical faculty to improve their skills not only as MI practitioners but also as MI coaches with their learners in the clinical learning environments. This CoP is open to faculty from all departments and currently serves faculty from Family Medicine, Internal Medicine, and Pediatrics. In 2021-2022, the Activity Planning Committee for the CoP will seek to engage faculty from other departments who have previously expressed interest, such as Obstetrics & Gynecology and Psychiatry.

**CTE Partnership** - Partnering with the UofSC Center for Teaching Excellence (CTE), the CPD leaders in Greenville and the Midlands helped plan and deliver a summer workshop series for faculty at both campuses to learn together virtually about virtual learning. Faculty from both medical schools participated. With active learning techniques and best practice in online learning being taught and experienced, this well received workshop series readied participants for improvement in course design and delivery especially in online synchronous or asynchronous instruction.

Faculty Development opportunities were continued through adapting workshops to virtual platforms. Courses such as iTEACH! workshops to enhance clinical teaching and several sessions on conducting virtual interviews were offered, working with department leadership to tailor education to the needs of faculty.

### Other Activity

Supplemental Faculty Info attachment:

SCHOOL OF MEDICINE-COLUMBIA FACULTY PUBLICATIONS ACADEMIC YEAR 2019-20

## **Supplemental Info - Faculty Information**

Any additional information on Faculty Information appears as 'Appendix 1. Faculty Information' (bottom).

## **Teaching**

### **Faculty to Student Ratio**

The following data was provided by UofSC's Office of Institutional Research, Assessment, and Analytics.

The formula used to compute the ratio uses data from Faculty Population by Track and Title and Student Enrollment by Time Basis, as follows:

(Total Full-time Students + 1/3 Part-time Students)

((Total Tenure-track Faculty +Total Research Faculty + Total Clinical/Instructional Faculty) + (1/3 Adjunct Faculty))

### **Analysis of Ratio**

Analysis of the ratio, agreement with the data, and plans for the future to impact this ratio. With a faculty to student ratio of 1:2.9 plus additional volunteer faculty members, the School of Medicine continues to have sufficient breadth of knowledge and expertise to educate our students both in the basic sciences and in the clinical arena. Continued affiliation with Prisma Health and other clinical partners will allow the SOM to continue to expand the number of clinical educators available for our students.

Table 4. Faculty-to-Student Ratio.

	Fall 2020	Fall 2019	Fall 2018
Analysis of Ratio	01:2.9	01:2.8	01:2.6

## **Student Recruiting and Retention**

#### Student Recruitment

Efforts, including specific actions, to recruit students into College/School programs.

Medical Degree: Due to COVID-19 restrictions student recruitment activities were limited to virtual meetings of faculty and students with prospective and current applicants.

**Biomedical Sciences (MS/PhD):** After screening applications, promising applicants are invited to visit campus for a two-day recruitment visit. We bring in small groups of prospective students so they can meet with current students and faculty within our program as well as tour campus and research facilities. We provide materials and support to faculty who attend the Annual Biomedical Research Conference for Minority Students (ABRCAMS) as a mechanism to inform minority students about our program and the opportunities we offer. Through emails to primarily undergraduate institutions in SC, SC INBRE meetings, Discover USC and SC Science Fair we advertise our program to students across the state.

**Master's in Nurse Anesthesia:** Website modifications now provide more user friendly access to program information for potential candidates. Nurse Anesthesia faculty have been speaking with area nursing schools to better inform the potential future candidates of the program of the opportunities that exist in the anesthesia field. This effort will continue to increase and the presence of faculty and students at job fairs has been utilized the past few years, with a very positive response. Identifying and encouraging registered nurses in the hospitals by encouraging job shadowing and application to the program, is an area of opportunity that both current students and faculty have been encouraging.

Master of Physician Assistant (PA) Studies: The program website is frequently updated and offers specific information to prospective students on program requirements for admission and details about curriculum, faculty, and accreditation. The website also provides a link to the Central Application Service for Physician Assistants (CASPA) which all applicants to the program must utilize for application. Our website advertises virtual information sessions for the program and links to the program's social media platforms. PA faculty continue to meet with pre-medical undergraduate student groups to provide information about the program. The Program Director, Admissions Chair, Medical Director and other faculty participate in recruitment events at UofSC, Clemson University, and other universities throughout South Carolina including historically Black colleges and universities (HBCUs) striving to improve our diversity and inclusion. We will continue advertising our program on the South Carolina Academy of Physician Assistants (SCAPA) website as well as other electronic and social media platforms.

Master's in Rehabilitation Counseling/Certificate of Graduate Study in Psychiatric Rehabilitation: We continue to recruit students through the provision of updated program information to state and local agencies serving persons with disabilities and to undergraduate programs and career counseling services of all colleges and universities in South Carolina. Faculty also attend career fairs at USC and other South Carolina colleges and promote the program at national counseling conferences.

**Master's in Genetic Counseling:** We offer a competitive six week, full time summer internship to an undergraduate with focus on diverse candidates. For USC undergraduates, we offer a Genetic Counselor Assistant position each semester for qualified students interested in

## Student Recruiting and Retention

exploring the career. Since 2015, we have offered an online course for individuals interested in pursuing genetic counseling education. Over 400 students from across the country and internationally have completed this course, which introduced the Program and core faculty. Reduced tuition has been offered to diverse candidates in 2020-2021. We have also initiated education outreach to HBCUs and other undergraduate institutions in the state to raise awareness for the career among underrepresented populations.

#### **Student Retention**

Efforts at retaining current students in College/School programs.

**Medical Degree:** We expanded the offerings of the Student Success and Wellness Center to provide student academic support leaders for all basic science courses as well as preparation for USMLE Step 1 which were conducted virtually and saw an increased attendance. A part time faculty coach and a full time Success Center coordinator were hired. Increased attention to student wellness was made a priority through coordination of efforts with the Wellness Promotion Committee including an exercise competition among classes.

**Biomedical Sciences (MS/PhD):** In general, the Biomedical Sciences MS and PhD programs have very high retention rates. The overwhelming majority of students who start in one of these programs will complete their degree. We continue to provide students information regarding the Academic Success Center on the SOMC campus and we encourage students in all of the Biomedical Sciences programs (Certificate/MS/PhD) to take advantage of resources offered by this center. Over the past year students were apprised of webinars offered by NIH's Office of Intramural Training and Education to support student mental health and wellbeing along with professional development topics.. All of the students who enrolled in Fall 2020 are still in their respective programs.

**Master's in Nurse Anesthesia:** We provide extra didactic and experiential learning support/review sessions. With the addition of a clinical coordinator, at Columbia site and restructuring at Greenville site, we are able to identify and address student learning needs and thus intervene earlier to ensure continued success. A National Certification preparation course was modified to begin earlier, with more focus on individual student areas for improvement, to increase the success rate on this final exam, modules are assigned every week with 4 exams and two different comprehensive finals. This testing method is given under a computerized model thus creating an atmosphere very similar to the NBCRNA exam model. Graduate response to this preparation method has been very positive and the program continues to have a 100% certification pass and employment rate.

Masters of Physician Assistant Studies: Our program continues a low faculty-to-mentor ratio where each student is paired with a faculty mentor who guides them throughout the program. Students meet with mentors a minimum of once per semester or more frequently to address academic, professional, or personal issues that may arise. Each student is also assigned a student mentor in the class above them to assist with transition and student-specific issues prior to and during matriculation in the program. During the didactic phase, the Director of Didactic Education monitors all student grades and provides faculty mentors with regular updates and notifications when a student's grade drops below 80. During the Clinical Phase, the Director of Clinical Education provides academic updates to faculty on all students. Our retention rate is 97.8%. Master's in Rehabilitation Counseling (MRC and MA): For students who started the 48 credit-hour master's degree program in 2017-2018 (N=17):

## **Student Recruiting and Retention**

- 1. 1 graduated in 2 years.
- 2. 6 graduated in 2.5 years.
- 3. 2 are on track to graduate in 3.5 years.
- 4. 7 transferred to the 60 hour MA degree program (of the 7, 3 graduated in 2.5 years; 2 graduated in 3 years; and 2 are on track to graduate in 3.5 years)

**Master's in Genetic Counseling:** Retention and on-time graduation have been near 100% over the past decade for the Genetic Counseling Program.

The following data was provided by UofSC's Office of Institutional Research, Assessment, and Analytics.

Note: Student enrollment and outcomes data are calculated by headcount on the basis of primary program of student only.

## Student Enrollment by Level & Classification

Table 5. Student Enrollment by Level & Classification.

	Fall 2020	Fall 2019	Fall 2018
Undergraduate Enrollment			
Freshman	0	0	0
Sophomore	0	0	0
Junior	0	0	0
Senior	0	0	0
Dual/Non-Degree	0	0	0
Sub Total	0	0	0
Graduate Enrollment			
Masters	206	193	180
Doctoral	40	43	51
Graduate Certificate	19	18	28
Sub Total	265	254	259
Professional Enrollment			
Medicine	402	391	380
Law	0	0	0
PharmD	0	0	0
Sub Total	402	391	380
Total Enrollment (All Levels)	667	645	639

#### Illustration 3. Undergraduate Student Enrollment by Classification

#### Illustration 4. Graduate/Professional Student Enrollment by Classification

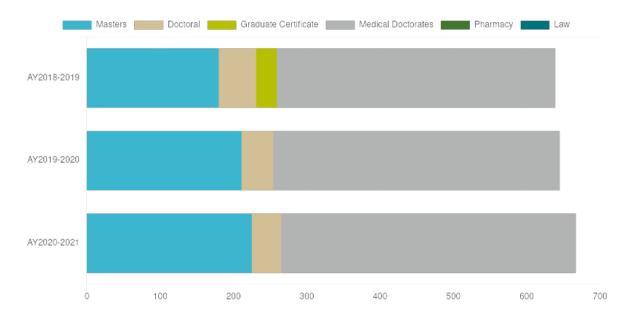
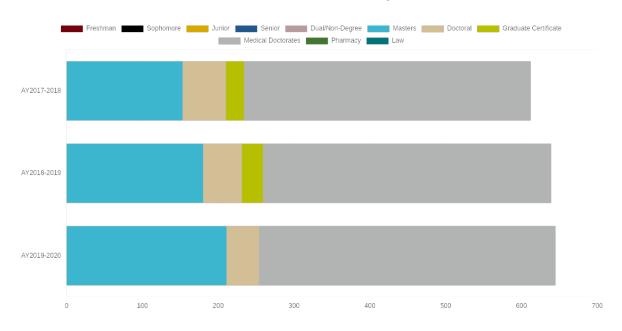


Illustration 5. Total Student Enrollment by Classification (All Levels)



## **Enrollment by Time Status**

**Table 6. Student Enrollment by Level and Time Status** 

	Fall 2020	Fall 2019	Fall 2018
Undergraduate	0	0	0
Full-Time	0	0	0
Part-Time	0	0	0
Graduate/Professional	667	645	639
Full-Time	655	621	615
Part-Time	12	24	24
Total - All Levels	667	645	639
Full-Time	655	621	615
Part-Time	12	24	24

### **Student Diversity by Gender**

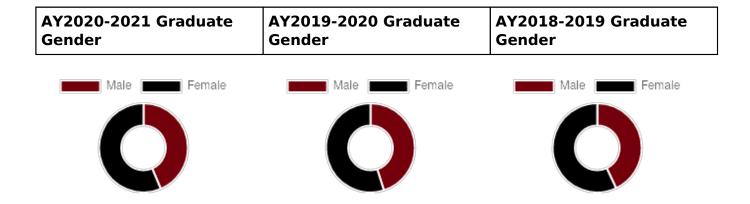
**Table 7. Student Enrollment by Gender.** 

	Fall 2020	Fall 2019	Fall 2018
Undergraduate	0	0	0
Female	0	0	0
Male	0	0	0
Graduate/Professional	667	645	639
Female	376	354	364
Male	291	291	275

#### Illustration 6. Undergraduate Student Diversity by Gender

AY2020-2021 Undergrad	AY2019-2020 Undergrad	AY2018-2019 Undergrad
Gender	Gender	Gender

#### Illustration 7. Graduate/Professional Student Diversity by Gender



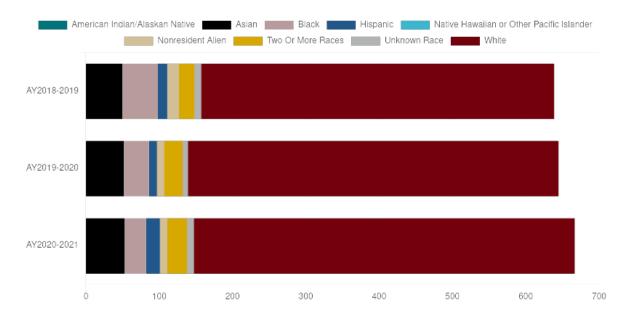
## **Student Diversity by Race/Ethnicity**

**Table 8. Student Enrollment by Race/Ethnicity** 

	Fall 2020	Fall 2019	Fall 2018
Undergraduate	0	0	0
American Indian/Alaska Native	0	0	0
Asian	0	0	0
Black or African	0	0	0
Hispanic or Latino	0	0	0
Native Hawaiian or Other Pacific Islander	0	0	0
Nonresident Alien	0	0	0
Two or More Races	0	0	0
Unknown Race/Ethnicity	0	0	0
White	0	0	0
Graduate/Professional	667	645	639
American Indian/Alaska Native	0	0	0
Asian	53	52	50
Black or African	29	34	48
Hispanic or Latino	19	11	13
Native Hawaiian or Other Pacific Islander	0	0	0
Nonresident Alien	10	10	16
Two or More Races	27	25	21
Unknown Race/Ethnicity	9	7	9
White	520	506	482

#### Illustration 8. Undergraduate Student Diversity by Race/Ethnicity

#### Illustration 9. Graduate/Professional Student Diversity by Race/Ethnicity



### **Undergraduate Retention**

Table 9. Undergraduate Retention Rates for First-time Full-time Student Cohorts

	First Year	Second Year
Fall 2019 Cohort	0%	N/A
Fall 2018 Cohort	0%	N/A
Fall 2017 Cohort	0%	N/A

Illustration 10. Undergraduate Retention, First and Second Year

First Year Second Year

### **Student Completions**

### **Graduation Rate - Undergraduate**

Table 10. Undergraduate Graduation Rates for First-time Full-time Student Cohorts at 4-, 5-, and 6 Years.

	Fall 2020	Fall 2019	Fall 2018
4-Year Same Cohort	0%	0%	0%
4-Year Diff Cohort	0%	0%	0%
4-Year Total Cohort	0%	0%	0%
5-Year Same Cohort	0%	0%	0%
5-Year Diff Cohort	0%	0%	0%
5-Year Total Cohort	0%	0%	0%
6-Year Same Cohort	0%	0%	0%

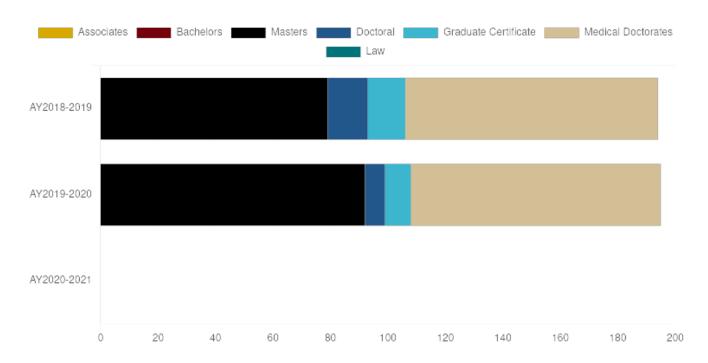
6-Year Diff Cohort	0%	0%	0%
6-Year Total Cohort	0%	0%	0%

## **Degrees Awarded by Level**

Table 11. Degrees Awarded by Level.

	Fall 2020	Fall 2019	Fall 2018
Associates Degree		0	0
Bachelors		0	0
Masters		92	79
Doctoral		7	14
Medical		0	0
Law		0	0
Pharmacy Doctorate		9	13
<b>Graduate Certificate</b>			

#### Illustration 11. Degrees Awarded by Level



Faculty nominated for the following awards in the categories of Research, Service, Teaching, or Other.

## **Research Award Nominations**

Recipient(s)	Award	Organization
Reagan, Lawrence	2021 Breakthrough Leadership in Research Award	Office of the Vice President for Research
Pocivavsek, Ana	2021 Breakthrough Stars Award	Office of the Vice President for Research

### **Service Award Nominations**

Recipient(s)	Award	Organization
Dixon, Rita	2020 Physician Assistant of the Year	South Carolina Academy of Physician Assistants

**Teaching Award Nominations** 

Recipient(s)	Award	Organization
LeBlanc, Kevin	Clinical Practice Teaching Award	Office of the Provost
Busbee, Philip	Teacher of the Year	MD Class of 2022
Jackson, Benjamin	Clinical Practice Teaching Award	Office of the Provost
Bookstaver, Brandon	Preceptor of the Year	UofSC College of Pharmacy

## **Other Award Nominations**

Recipient(s)	Award	Organization
Startz, Robert	Board of Advisors	North Dakota State University College of Science and Mathematics
Foster, Zoe	Michael L. Slive Distinguished Service Award	Southeastern Conference

Faculty were recognized for their professional accomplishments in the categories of Research, Service, Teaching, or Other.

### **Research Awards**

Recipient(s)	Award	Organization
Wood, Susan	2020 J.H. Woods Early Career Award in Behavioral Pharmacology	American Society of Pharmacology and Experimental Therapeutics
Wood, Susan	2020 Distinguished Undergraduate Research Mentor Award	Office of the Vice President for Research
Hollis, Fiona	VISN-7 Research Development Career Award	VISN-7 Veterans Administration
Frizzell, Norma	2020 Distinguished Research Service Award	Office of the Vice President for Research
Pocivavsek, Ana	Elected as Associate Member	American College of Neuropsychopharmacology
Fadel, Jim	F31 Predoctoral Award - Mentor for Jennifer Erichsen	National Institutes of Health
Mott, David	SPARC Graduate Research Award - Mentor for Joshua Bratsch-Prince	Office of the Vice President for Research
Grillo, Claudia	SPARC Graduate Research Award - Mentor for Nicholas Maxwell	Office of the Vice President for Research
Fadel, Jim	SPARC Graduate Research Award - Mentor for Jennifer Erichsen	Office of the Vice President for Research
Wood, Susan	Best Basic Science Poster, Women's Health Research Forum	Prisma Health/School of Medicine Department of Obstetrics and Gynecology
Wood, Susan	Mentor for Graduate Student Travel Award, Experimental Biology Conference	American Society of Pharmacology and Experimental Therapeutics
Nagarkatti, Mitzi	2020 Elected Fellow	National Academy of Inventors
Busbee, Philip Brandon	Early Career Faculty Award	American Association of Immunologists
Velazquez, Kandy	2021 Distinguished Undergraduate Research	Office of Undergraduate Research

	Mentor Award	
Oskeritzian, Carole	2021 Distinguished Research Service Award	Office of the Vice President for Research
Nagarkatti, Mitzi	UofSC COVID-19 Big Data Health Science Center Grant	Office of Vice President for Research
Nagarkatti, Mitzi	UofSC COVID-19 Research Initiative	Office of the Vice President for Research
Nagarkatti, Mitzi	Paper of the Year Award - Drug Discovery Toxicology Specialty Section	Society of Toxicology
Singh, Narendra	Travel Award	American Association of Immunologists
LaVoie, Holly	Travel Award to attend Fertility 2020 in Edinburgh, UK	British Fertility Society
Weissman, Sharon	Excellent in Abstract Submission among All Presenters Award	American Public Health Association

### **Service Awards**

Recipient(s)	Award	Organization
Stallworth, James	Career Achievement Award	South Carolina Chapter of the American Academy of Pediatrics
Albrecht, Helmut	Dean's Leadership Award	School of Medicine Office of the Dean
Grillo, Claudia	Diversity and Inclusion Leadership Award	School of Medicine Office of the Dean
LaVoie, Holly	Sustained School of Medicine Service Award	School of Medicine Office of the Dean
Edwards, Janice	Career Achievement Award	School of Medicine Office of the Dean
Stallworth, James	Career Achievement Award	School of Medicine Office of the Dean
Fisher, Janet	20 Year State Service Award	University of South Carolina
Walsh, Ken	30 Year State Service Award	University of South Carolina
McMullen, Karen	30 Year State Service Award	University of South Carolina
Riley, Ruth	20 Year State Service Award	University of South Carolina
McDonald, Alexander	Distinguished Professor Emeritus	Office of the Provost
Fisher, Janet	Professor Emeritus	Office of the Provost
Hoppmann, Richard	President-Elect	American Institute of Ultrasound in Medicine
Goodman, Christopher	2020 Distinguished Humanitarian Physician Alumni Award	School of Medicine Alumni Association
Velazquez, Kandy	Faculty Advisor for Postdoctoral Association	UofSC
Catroppo, James	Committee on Libraries - Three Year Term	UofSC Faculty Senate
Chatzistamou, Ioulia	Editorial Board - Translational Oncology	Elsevier
Oskeritzian, Carole	South Carolina Academy of Science Councilor	South Carolina Academy of Science
Grabowski, Gregory	President	South Carolina Orthopedic

		Association
Grabowski, Gregory	Annual Research Day Visiting Professor	University of Vermont
Guy, Jeffrey	President	Southern Orthopedic Association
Koon, David	President	South Carolina Orthopedic Association Foundation
Mazoue, Christopher	Chairman of Medical Aspects of Sports Medicine Committee	South Carolina Medical Association
Mazoue, Christopher	Interspecialty Council for Legislation Member	South Carolina Medical Association
Holmes, Wendell	Medical Aspects of Sports Medicine Committee Member	South Carolina Medical Association
LaVoie, Holly	20 Year State Service Award	University of South Carolina
Weissman, Sharon	Chair, Infectious Diseases Society of America G.E.R.M.	Infectious Diseases Society of America
Weissman, Sharon	Committee Member, Scholarship Awards Program	Infectious Diseases Society of America
Weissman, Sharon	Standards and Practice Guidelines Committee Member	Infectious Diseases Society of American
Leach, David	Board of Directors	Mental Health America
Dawson, Robert	President of Board of Directors	ABLE South Carolina
Sacco-Bene, Christine	Board of Directors	Lift Disability Network
Walsh, Michael	Awards Committee	School of Medicine Alumni Association
LaChance, Kerry	Disability Affairs Committee	UofSC
Dawson, Robert	Faculty Senate Senator	UofSC
Justo, Julie	Pharmacist of the Year	South Carolina Society of Health-System Pharmacists
Justo, Julie	Fellow	Infectious Diseases Society of America
Justo, Julie	Presidential Coin of Excellence	UofSC Office of the President
Justo, Julie	HHS Remdesivir Consultative Committee	US Department of Health and Human Services Office of the Assistant Secretary for Preparedness and Response

Justo, Julie	SC COVID-19 Clinical Advisory Council	SC Department of Health and Environmental Control
Justo, Julie	SC Pandemic Healthcare Ethics Advisory Council	SC Department of Health and Environmental Control and SC Hospital Association
Riley, Ruth	Alumni Association Honorary Life Membership Award	School of Medicine Alumni Association
Allen, Kari Claudia	Woman Leader in Healthcare	South Carolina Commission for Minority Affairs Women's History Month
Platt, Tan	South Carolina Order of the Palmetto	Governor's Office for the State of South Carolina
Foster, Zoe	Certificate of Meritorius Service	University of South Carolina
Foster, Zoe	Frontline Worker of the Game	University of South Carolina Athletics Department
Hall, Jeff	Certificate of Meritorious Service	University of South Carolina
Witherspoon, Patricia Wilson	Luminary Leader in Medicine and Science	School of Medicine
Humphrey, Mark	Diversity Leadership Fellow	The Riley Institute at Furman University

**Teaching Awards** 

Recipient(s)	Award	Organization
Stallworth, James	Teacher of the Year	MD Class of 2020
Edwards, Hollie	Newcomer Award	Prisma Health/School of Medicine - Resident Education
Lindsey, Sara	Frank Bower Teaching Award	Prisma Health/School of Medicine - Resident Education
Stephenson, Katie	Hall of Fame	Prisma Health/School of Medicine - Resident Education
Blackburn, Melanie	Humanism in Medicine Award	Prisma Health/School of Medicine - Resident Education
Hawn, Jason	C. Warren Derrick, Jr. Commitment to Child Health	Prisma Health/School of Medicine - Resident Education
Ricker, Erin	Award for Commitment to Resident Excellence	Prisma Health/School of Medicine - Resident Education
Holleman, Rob	Supervisor Award	Prisma Health/School of Medicine - Resident Education
Bell, Floyd	O'Neill Barrett Teaching Excellence Award	MD Class of 2020
Hall, Jeff	2020 Clinical Practice Teaching Award	Office of the Provost
Sides, Andrew	2020 Clinical Practice Teaching Award	Office of the Provost
Wilson, Britt	Teacher of the Year	MD Class of 2023
Kelly, Michy	2020 Breakthrough Graduate Scholar - Mentor for Kaitlin Pilarzyk	Office of the Vice President for Research
Mott, David	2020 W. Morgan Newton Graduate Research Symposium Winner - Mentor for Joshua Bratsch-Prince	School of Medicine
Wood, Susan	Magellan Scholar	Office of Undergraduate Research
Busbee, Philip Brandon	Teacher of the Year	MD Class of 2022
Weil, David	2020 Garnet Apple Award for Teaching Innovation	UofSC Center for Teaching Excellence

Dawson, Robert	Virtual Environments Grant	UofSC Center for Teaching Excellence
Sides, Andrew	O'Neill Barrett Teaching Excellence Award	MD Class of 2020
Rhodes, Morgan Adams	Medication Therapy Management Award	South Carolina Department of Health and Environmental Control
Rhodes, Morgan Adams	Outstanding Teacher Award	Prisma Health Midlands Family Medicine Residency Class of 2020

### **Other Awards**

Recipient(s)	Award	Organization
Wood, Susan	Associate Editor - Journal of Pharmacology and Experimental Therapeutic	American Society for Pharmacology and Experimental Therapeutics
Reagan, Lawrence	Associate Editor - Neurobiology of Stress	Elsevier
Wood, Susan	Editorial Board Member - Neurobiology of Stress	Elsevier
Wood, Susan	Editorial Board Member - Frontiers in Behavioral Endocrinology	Frontiers
Frizzell, Norma	Editorial Board Member - Adipocyte	Taylor and Francis
Frizzell, Norma	Contributing Editor - International Maillard Reaction Society	International Maillard Reaction Society
Singh, Narendra	Associate Editor - Frontiers in Immunology	Frontiers
Azhar, Mohamad	Editorial Board - Laboratory Investigation	Nature Publishing
Azhar, Mohamad	Scientific Advisory Board	Vikor Scientific/KOR Life Sciences
Azhar, Mohamad	Review Board - Journal of Cardiovascular Development and Disease	Multidisciplinary Digital Publishing Initiative, Switzerland
Carver, Wayne	Editorial Board - Cells	Multidisciplinary Digital Publishing Initiative, Switzerland
Goldsmith, Jack	Question Writer	Association of Biochemistry Educators
LaVoie, Holly	Associate Editor - Reproduction	Bioscientific on behalf of the Society for Reproduction and Fertility
Lessner, Susan	Co-guest Editor of "Experimental Advances in Cardiovascular Biomechanics"	Special Edition of Experimental Mechanics journal
Potts, Jay	Scientific Board Member	Firststring Research, Mount

## **Faculty Awards Received**

		Pleasant, SC
Potts, Jay	Editor of Micrographia	Cambridge University Press for the Microscopy Society of America
Price, Bob	Editor-in-Chief of Microscopy Today	Microscopy Society of America
Price, Bob	Editorial Board - Microscopy and Microanalysis	Cambridge University Press for the Microscopy Society of America
Webb, Clinton	Editor-in-Chief, Vascular Pharmacology	Elsevier
Webb, Clinton	Associate Editor - American Journal of Hypertension	Oxford University Press
Webb, Clinton	Member of Editorial Boards of Hypertension, Journal of Cardiovascular Pharmacology, Journal of Medical Sciences, Gender Medic	Scientific publishers
Allen, Kari Claudia	Leadership through Scholarship Fellowship	Society of Teachers of Family Medicine

#### **Alumni**

Substantial activities, engagements, and initiatives with alumni, focusing on relationships and activities with alumni.

The School of Medicine Columbia (SOMC) recognizes that our alumni are a very special constituency that play a foundational role in strengthening and advancing the school's mission. Our 4,246 graduates are brand ambassadors, influencers and supporters, who's role and potential impact is far reaching.

In 2018, the Office of Development and Alumni Relations renewed its commitment to developing an effective alumni engagement strategy grounded on unity, inclusivity, and diversity. Our mission was defined: to engage alumni in a way that promotes a mutually beneficial partnership and generates meaningful connections for both alumni and the School of Medicine. In the spring of that year, we began the planning process with a comprehensive survey distributed to all graduates (both medical and graduate). Our goal was to provide alumni a platform to be heard and understood. We captured feedback on their experiences as students, discovered their preferences on frequency and communication methods, and learned what engagement and a relationship with the school looked like to them. We then took this valuable insight and established an expansive framework for goals, strategies and tactics as outlined below, which drive program planning and implementation each year.

Cultivate a vibrant and robust alumni community through purposeful, personal, and professional engagement.

- 1) Provide a more effective method to communicate with alumni now in its fourth volume, our monthly alumni e-newsletter, The Garnet Microscope, continues to serve as our most effective communication method, with an average open rate of 24.28%.
- 2) Implement innovative communication outreach methods in FY20, we decreased our fundraising efforts and focused on telling our alumni's stories. From Alumni COVID-19 Heroes to featuring our alumni's vaccination pictures and encouraging words, we found ways to connect with our alumni on a personal level.
- 3) Identify and promote alumni leaders our Alumni Association Board continues to serve as ambassadors for the school. With the addition of graduate alumni and students, this membership has grown to be a complete representation of the School of Medicine.
- 4) Establish a presence on social media platforms where our alumni are active our private Alumni Facebook Group has now grown to 619 members and we continue to see activity rise.
- 5) Develop processes to recognize alumni annually for their professional accomplishments our annual Alumni and Dean's Awards Dinner proves to be a great program to engage alumni who might not have relationships with the school.
- 6) Customize and implement events to fit the needs of our alumni 2021 marks the 40th anniversary since the first graduating class of medical students and the 40th anniversary of the Biomedical Sciences program. Due to the pandemic, we cannot have in-person celebrations this spring and so we sent out a survey to identify how we move forward. We will be modifying plans based on their responses and will remain flexible.

Prepare students to become engaged alumni.

1) Establish relationships with students in their first year – we speak at every student orientation and follow up with email correspondence; we established a White Coat

Sponsorship program to connect alumni to students and to provide financial relief in their first year.

- 2) Provide support around major student milestones we secured partners to elevate the Match Day experience.
- 3) Create and deliver messaging that fosters a culture of giving this is a strategy we hope to establish in the future.
- 4) Create a strong partnership with the Office of Student Affairs we speak almost daily with the staff in student affairs; this partnership is critical to our mission and has proven beneficial in cultivating relationships with the students throughout their time at the school.
- 5) Improve and expand opportunities to enhance the student experience we meet regularly with our Student Alumni Council to brainstorm ways our office can support students in their greatest needs.
- 6) Develop meaningful ways to engage with students prior to graduation we gift every graduate with a School of Medicine Alumni padfolio that includes a note of encouragement from an alumnus/alumna

### **Development, Fundraising and Gifts**

Substantial development initiatives and outcomes, including Fundraising and Gifts. Beyond building life-long relationships with our alumni, The SOMC Office of Development and Alumni Relations also is responsible for fundraising that supports the Dean's top priorities, with a goal of raising at least \$10 million per year. Current priorities include: 1) increasing recruitment of underrepresented and minority students for the MD program, aiming to recruit 10-12 such students per year; 2) continuing to plan/ramp up for the future health sciences campus, which will include a medical education building and a research facility; 3) increasing the number of endowed faculty positions to enhance recruiting and retention; 4) increasing support for the neurosciences, the new Cardiovascular Translational Research Center and the Center for Transforming Health through private, corporate and foundation funding and 5) increasing academic and programmatic support.

The Associate Director of Alumni Relations and Development is responsible for overseeing and implementing annual giving programs, while the Senior Director of Development and Alumni Relations is the only individual focused on major gifts. The Associate Director is focused on: 1) increasing the total amount and number of gifts that come in each year at the \$24,999 and below level; 2) on increasing donor acquisition, renewal and retention; and 3) increasing the number of Dean's Circle Donors (donors who contribute \$1,000 or above annually). The Senior Director is focused on gifts of \$25,000 and above, with an annual goal of raising between \$1,000,000 - \$1,500,000. This is accomplished by: 1) maintaining a qualification pool of 25-50 individuals and a prospect portfolio of between 75-125 individuals; 2) Identifying at least 15 funding opportunities per year; and 3) visiting (either in-person or virtually) at least 130 individuals. Major gift fundraising efforts also include working closely with the offices of Corporate & Foundation Philanthropy, Principal Gifts and Gift Planning to identify top prospects.

In FY 2020 the School of Medicine Columbia (SOMC) Office of Development and Alumni Relations raised \$11,249,125. This included: \$6,900,000 in new pledge commitments; \$2,500,000 in gifts and pledge payments; \$1,900,000 via SAM/SPAR and \$51,900 in planned gifts. From this, \$10,000,000 was spendable dollars; 1,000,000 was directed to the future

medical education building project and \$281,000 was added to the endowment. As of the end of third quarter FY 2021, we have raised \$2,500, 000. This includes: \$525,000 in new pledge commitments; \$1,800,000 in gifts and pledge payments; and \$139,200 via SAM/SPAR. Of this, \$1,800,000 is spendable dollars and \$638,500 has been added to the endowment. In FY 2020, the annual giving program garnered total gifts of \$290,783 from 394 unique donors. One hundred and seventy-two SOMC alumni donors gave \$65,985 and faculty/staff contributions totaled \$15,864 from 58 donors. As of the end of third quarter FY 2021, the annual giving program has generated \$198,043 from 213 donors. Seventy-two alumni donors have contributed \$36,648, while 33 faculty and staff donors have contributed \$21,031.

For most of FY 2020 and 2021, our team has worked remotely. Due to the pandemic and the inability to hold in-person alumni and donor events, or for the senior director of development to hold in-person visits or travel to visit in-state and out-of-state prospects, we increased stewardship efforts and relied heavily on virtual platforms like Zoom and WebEx and the Thank View messaging platform to send out email messages to all of our donors. We additionally sent a targeted Thank View video to all scholarship donors that featured student scholarship recipients. We also continued other popular stewardship initiatives, such as: 1) sending birthday email and card greetings to alumni, donors and friends of the school on a monthly basis and 2) sending donors an annual holiday card. All of these efforts have been well received & will hopefully lead to better donor and alumni relations, as well as increased giving.

The Office of Development & Alumni Relations and the Office of the Dean have continued to engage and cultivate the Dean's Executive Advisory Council members, whose primary role consists of fundraising & helping to identify sources & prospects that enable us to achieve the goals and objectives outlined in the SOMC strategic plan. The council consists of 16 individuals & typically holds two in-person all-day meetings per year (fall/spring). Due to the pandemic, however, we have shifted to quarterly virtual meetings. Meetings were held in May, July and, October 2020, and in January 2021. Another meeting is scheduled for April 2021. At least half of the advisory council members are current donors, with five additional members donating in the past. Four of the members are past major donors. Before the end of FY 2021, we will do a special solicitation specific to the advisory council members asking each of them to commit to a \$1,000 or above gift, which will make them members of our Dean's Circle.

For the remainder of FY 2021 and moving into FY 2022, our office will be focusing on: 1) continuing to identify creative virtual ways to engage our donor and alumni constituencies; 2) growing the annual donor pipeline through more targeted solicitations; 3) Growing the Dean's Circle donor membership; 4) meeting major gift fundraising goals and objectives; 5) increasing overall annual gifts; and 6) at the appropriate time, ramping up marketing and engagement efforts in preparation for the next capital campaign. The Office of Development and Alumni Relations also is committed to increasing the number of scholarship funds to benefit underrepresented students.

It's projected that SOMC is once again likely to receive funding from the state legislature this year to support building a new medical education building – a top priority of the University's Board of Trustees. In preparation for fundraising activities around this initiative, a case statement & other relative marketing materials are currently in development, a social media strategy is being created and a building initiative landing page is in the early planning stages

– all of which are to be ready in advance of our campaign kick-off date, which as yet remains unknown. It is likely that beginning toward the end of FY 2021 or the beginning of in FY 2022, our office will be most intensely focused on securing leadership gifts for the future SOM education building, while fundraising for our other key priorities, such as underrepresented scholarships and endowed faculty positions, and, on creating an alumni giving campaign that is focused on generating smaller to support the building project.

## Community Engagements and Community - Based Activities

Community engagement and community based research, scholarship, outreach, service or volunteerism conducted, including activities at the local, state, regional national and international levels.

**MD Program:** School of Medicine Columbia serves Columbia and surrounding communities largely through volunteer opportunities arranged by our student interest groups, one of which, the Community Interest Group, was formed last year for this express purpose. Students most commonly set up their own experiences, though they sometimes require staff and faculty support. Community service activities during the last calendar year are listed below:

Vaccination clinics: Students served as COVID vaccinators, post-vaccine monitors, and traffic directors at community vaccinations sites for Prisma Midlands and the VA.

Flu shot clinics: Students served as check-in staff and nurse vaccinator support for drive-thru Prisma Midlands flu shot clinics.

Prisma Health Halloween Treats: Students decorated and assembled Halloween goodie bags, which contained donated toys, stuffed animals, drawing materials, etc. for the outpatients at the Children's Hospital.

Marine Toys for Tots Drive: Students spearheaded the Annual Christmas holiday toy fundraiser.

John A. Martin Community Garden: Students helped construct a community garden for patients in Winnsboro, SC by constructing garden beds, orienting herbs and vegetables, setting up a water source, and feeding volunteers.

Transitions Homeless Shelter: Students volunteer to serve meals at a local homeless shelter.

ACT Team Coat Drive: Students led a donation drive for coats and other winter clothes for patients of the Prisma Midlands ACT team, which serves initially homeless, severely and persistently mentally ill adults.

Allies of Sistercare: Students organized a clothing, food, and cleaning supplies drive for domestic violence survivors and their children.

The Period Project: Students collected feminine hygiene products for homeless women and girls.

Service Saturdays: Students join the main campus for Service Saturdays, a monthly service day comprising a multitude of various community volunteer opportunities.

CA Johnson High School: Student volunteers speak about their experiences getting into medical school and assist with leading educational breakout sessions.

Red Cross: Students organize several blood drives a year for School of Medicine and VA faculty, staff and students.

Midlands Heart Walk: Students formed a team to walk as a fundraiser for the American Heart Association (cancelled due to COVID).

Healthy Strides 5K and Health Fair: Annual event during which students host a 5K to benefit FoodShare SC, a local food bank, and the MLK Community Center, and provide basic medical screenings end education during the community health fair after the race. (Cancelled due to COVID.)

Salvation Army: Incoming first-year students volunteered at two Salvation Army sites as part of orientation.

**Biomedical Sciences (MS/PhD) Program:** The Biomedical Sciences Graduate Student Association (includes Certificate/MS/PhD students) has been very active and engaged with community projects this year including having the SOMC as an official donation site for the Toys for Tots Christmas Toy drive; they organized a Thanksgiving canned food drive with all donations going to Harvest Hope Food Bank; students volunteered to serve as judges at the Lexington-Richland District 5 Science Fair for middle and high school students; students participated in the Big Brother/Sister program in our area; they formed a team for the local Heart Walk to raise funds for the American Heart Association; and students raised money to purchase carnations and send them to children at the Prisma Midlands Children's Hospital for Valentine's Day.

**Master's in Nurse Anesthesia Program:** The Nurse Anesthesia Program faculty and students are uniquely qualified and have participated in COVID 19 vaccination clinics giving vaccinations, as all are advanced practice nurses or registered nurses licensed in the state of South Carolina.

Masters of Physician Assistant Studies Program: Faculty and students of the program have been in forefront volunteering for weekly mass vaccination clinics during the COVID-19 vaccination rollout. Faculty, clinical students, and students with previous medical certifications administer vaccines. Didactic students volunteer in administrative and observation roles at the vaccination site. Faculty members are active in the state organization South Carolina Academy of Physician Assistants (SCAPA) holding positions as Secretary, Midlands representative, and serving on the Communications, Diversity, Philanthropy, Legislative, Membership, and Continuing Medical Education (CME) committees. Also, individual faculty members serve as the Functional Neurosurgery Coordinator for Movement Disorders and Epilepsy, on the Women in Science and Medicine Committee, and in the Columbia Junior League. In addition, all graduating students are required to complete a minimum of 25 hours of approved community service to complete their Capstone portfolio, a requirement for graduation.

Master's in Genetic Counseling Program: The Genetic Counseling Program has an active community outreach/service learning component, including: Social Media Presence: Blog posts-Through Our Eyes: Experience from Genetic Counseling Students at the University of South Carolina- Blogs are posted monthly for nine months of the year. Topics were of disease awareness and interest stories about student activities in January-May 2020 and specific non-

profit and support groups along with student activities in September-December 2020. Facebook posts- Genetic Counseling Graduate Program site-(2020) 65 posts in 2020 with 288 likes Instagram posts: USCGP Instagram site – (2020) 84 posts with 534 followers Tweets-@USCGCprogram-21 tweets in 2020 with many being retweets with 474 followers. 2020 Event Participation - Child Life at Prisma Health Wish List drive volunteers, Volunteered for Boxes and Bows Prisma Children's Hospital Fundraiser, Genetic Counseling Virtual Career Fair, National Diaper Bank diaper drive volunteers and donors, Rare Disease Day booth and craft at the Prisma Children's Hospital, Student Activism at the State House to establish licensure for genetic counselors, USC Pre-Health Professional Genetics Club presentation (11/20).

#### Master's in Rehabilitation Counseling Program:

Kerry Lachance continued to volunteer with the American Foundation of Suicide Prevention-SC Chapter after concluding her second 3-year term as a member of the board of directors in 2018.

With Brianna Newton, Christine Sacco-Bene hosted a Rehabilitation Counseling program table at the Inaugural MED Two Expo, in support of the Richland Two MED Two program. The MED Two program is an after school extension program that provides healthcare related opportunities for middle and high school students in Richland County District 2.

Robert Dawson served as a lead partner at the South Carolina Center for Assistive Technology and Educational Research (SC-CATER), which offers a place for the advancement and dissemination of assistive technology. SC-CATER emphasizes instruction and research for the School of Medicine, the College of Education, and the School of Computer Science and Engineering.

Christine Sacco-Bene was the invited speaker at Power Up, a Career Academy for Students with Disabilities, sponsored by The College of Social Work, UofSC Conference team, and South Carolina Vocational Rehabilitation.

Michael Walsh provided expert witness testimony in Medicaid Disability appeals cases.

Michael Walsh served as a Hearing Officer in deciding disputes between service agencies and consumers.

Michael Walsh served as a mediator in disputes between service agencies and consumers.

#### **Ultrasound Institute:**

iCARED - project to train rural health providers in South Carolina in the use of point-of-care ultrasound.

Floyd Bell spoke remotely to 8th grade science classes at McCraken Middle School in Spartanburg, SC about the use of waves in medical imaging.

#### **Department of Cell Biology and Anatomy:**

Mohamad Azhar served as Chair of the School Improvement Council for Dutch Fork Middle School.

Jay Potts served as a member of the Biological Science Board for Spring Hill Academy in Ballentine, SC.

#### **Department of Family and Preventive Medicine:**

#### Kari-Claudia Allen

- South Carolina Statehouse Legislative Advocacy for H.4712 Maternal Mortality Bill
- Volunteer physician, Good Samaritan Clinic

#### Paul Bornemann

- American Institute of Ultrasound in Medicine (AIUM) Board of Governors
- AIUM Ultrasound Practice Accreditation Council
- Director, ICARED Rural Primary Care Ultrasound Training

#### **Chuck Carter**

 Served as the outpatient unit leader as part of Prisma Health's COVID-19 pandemic response incident command. This included planning and deploying drive through testing sites for the facility and community outreach sites.

#### Curt Elliott

• Serves on the Academic Commission of the Christian Medical-Dental Association which organizes an annual 10 day CME conference for medical workers in developing countries

#### Zoe Foster

- Event coverage for the Lexington Half Marathon
- Pre-participation physical exams and varsity team event coverage for UofSC

#### Jeff Hall

- Volunteer physician, Good Samaritan Indigent Clinic
- Assistant Scout Master, Troop 48. Ballentine, SC
- American Academy of Family Physicians: Center for Global Health Initiatives
  - Advisory Board Member
  - Global Health Summit Planning Committee
  - · Global health Fellowship Working Group Member

#### Malgorzata Hasek

- ACPM annual national meeting planning committee, Future of Preventive Medicine & -Advocacy Track Chair
- ACOEM Work Fitness and Disability section secretary/ and treasurer

- ACOEM Membership Council, special focus on mentoring program
- CSOEMA Board of Governors

#### Mark Humphrey

- One World Health, CFCI, San Jose, Costa Rica (Supervised) Mentorship of Global Health Fellow
- Diversity Leadership Fellow at the Riley Institute at Furman University
- Volunteer Physician, Columbia Free Medical Clinic
- Volunteer Physician, Good Samaritan Clinic
- Medical Director for Epworth Children's Home foster care group home for children ages 10-18
- Medical Director for Burton and Chesco Centers providing care for mentally handicapped adults
- Ezekiel Farms nonprofit board member help to guide organization as they work to mentor youth in lower socioeconomic youth in Columbia
- Serve as a small group leader coach mentoring small group leaders at Midtown Fellowship church

#### Brian Keisler

- Volunteer for SMART pre-participation physicals for local middle and high school students
- Pre-participation physical exams and varsity team event coverage for UofSC

#### Jesse Miller

- SC State pre-participation physicals
- Benedict College pre-participation physicals
- SC State University athletic event coverage
- SC State University Athletics COVID Advising
- Med-Eastern Athletic Conference Medical Advisory Committee Representative for SC State
- Lexington Half Marathon Coverage
- Hammond High School Football game coverage
- Lugoff-Elgin High School Wrestling tournament coverage
- Student Health Topi Q&A sessions at SC State University

#### Morgan Adams Rhodes

- Society of Teachers of Family Medicine Pharmacy Faculty Collaborative
- Society of Teachers of Family Medicine Scholarship Chair Elect
- Wellness Promotion Committee University of South Carolina
- Opioid Pain Addiction Workgroup Prisma Health Midlands Family Medicine and Internal Medicine Residency Programs and the Office of Continuous Professional Development: developed protocols and educational goals for the residents and multidisciplinary team. Also partnered with local nonprofits and developed a new patient service to address the opioid epidemic.

#### Mark Shaffer

- The Addis Clinic telemedicine for the Developing World
- Specialist Consultant Volunteer: 1 hour monthly
- Development of a Community Garden associated with a Rural Health Center in Winnsboro,
   SC

#### Andrew Vaughan

- Family Medicine liaison for Covid-19 volunteers
- Climate Change Task Force, University of South Carolina and University of South Carolina School of Medicine
- Community Covid Reopening Task Force, Riverside Community Church

#### Patricia Witherspoon

- Richland County School District 1 Health Science Advisory Committee
- Chronic Disease Prevention Symposium Planning Committee
- Diabetes Advisory Council Executive Community (DAC)
- DAC Pillar I Chairperson Physician Engagement
- SC Birth Defect Advisory Council
- SC Birth Outcome Access and Coordination Chairperson
- SC Center for Rural and Primary Healthcare Advisory Committee
- Volunteer Physician, Columbia Free Medical Clinic
- Volunteer Physician, Good Samaritan Clinic
- SC Legislator Doctor of the Day care provider

#### **Department of Internal Medicine:**

Christopher Goodman is the co-medical director for the Good Samaritan Clinic, a local non-profit that primarily serves Spanish-speaking patients.

Elizabeth Edwards serves on the Education Committee for the Southern Medical Association and is on the medical board for PEBA reviewing disability claims.

#### Pathology, Microbiology and Immunology:

Oskeritzian, Carole A.: Judge, South Carolina Academy of Science, Oral presentation, and Reviewer/Judge, Discover UofSC, Medical Scholars Program.

Narendra P. Singh: Invited as a speaker to deliver a talk on topic "Motivation and Mentoring" in Botany, Department at Ranchi University, Ranchi, India. March 6, 2020.

Kamla Sanasi-Bhola arranged a testing event with the student infectious diseases interest group, served as a Co-investigator and curriculum development for training of specialized community health workers, Rural HIV testing and navigation which targets rural at risk and linkage on ca care, served on the SC DHEC Ending the Epidemics Steering committee and served as a vaccine volunteer.

Edwin Hayes engaged in community based research regarding Refugee Focus Groups Vaccine Hesitancy Assessment, served as Gilead SIMPLE study Primary Investigator for Prisma Health

and REMDACTA Trial, provided outreach to Refugee Phone Bank for Vaccine Registration, served on the South Carolina COVID Clinical Treatment Advisory Group as a Physician Member, served as a Gamecock Park Vaccinator, served as the Carolina Survivor Clinic Director and Community Physician, served as the Harriet Hancock COVID-19 Best Practices Physician Advisor, and volunteered for the Center for Victims of Torture National Conference Presenter, Students Today, Doctor's Tomorrow Pre-Med Conference Presenter, and Vaccine Hesitancy and Barriers in Refugees.

Brandon Bookstaver served as Sunday School Teacher, Shandon Baptist Church, as Vaccine Volunteer for Influenza vaccine, as Vaccine volunteer for COVID-19 vaccine, as Little League Baseball Coach, and YMCA Flag Football Coach.

#### **Department of Orthopedic Surgery:**

David Koon has served as the Team Physician for the Irmo High School since 2002.

Christopher Mazoue served as a member of the South Carolina High School Sports Medicine Advisory Committee.

Christopher Hydorn participated in mission trips to Haiti with the South Carolina Orthopedic Association.

Michael Horan led Career Day Discussions regarding orthopedic surgery at local schools.

Frank Voss volunteered with Habitat for Humanity.

#### **Department of Pediatrics:**

Mobile Clinic during COVID (Pediatric Cardiology and Pulmonology) - "Children's Hospital on the Road" - During COVID-19 pandemic, subspecialists at Prisma Health CH-Midlands concerned with safety of medically fragile patients. It was best for these children and families not to travel to the hospital, but to be seen in their own homes, instead. Subspecialist put a plan together to rent the PH Community Health Mobile unite and use it to see patients. With the assistance of funds from PH-Midlands Foundation's annual giving societies for Children's Hospital which covered rental expenses for the unit, fuel, and driver, allowed 60 children to be seen in their own homes through July. It also allowed us to continue home visits, as needed in the fall and winter.

Work at Vaccination Site (Gamecock Park) - Pediatric faculty and staff manned the vaccination sites at Gamecock Park during normal office hours and weekends.

CHAMPS –Expansion into Clinics and Sumter County - Carolina Health Advocacy Medicolegal Partnership (CHAMPS) Clinic a collaboration of the School of Law, the UofSC School of Medicine, Prisma Health, PH-USC Medical Group, and South Carolina Legal Services. CHAMPS offers law students the opportunity to work on legal cases that impact children's health. Law students work in collaboration with doctors, social workers, medical students, and other health professionals on their cases.

Students take legal cases on behalf of low-income children and families referred from Prisma and PH-USC Medical Group. These cases address the social determinants of clients' health

and include SSI, Medicaid, housing conditions, SNAP, and end of life planning matters. Since the inception of CHAMPS at Prisma Health-Midlands we have been able to expand from the Columbia area to many of the pediatric subspeciality satellite clinics throughout the counties served such as Sumter and Orangeburg.

#### **Department of Pharmacology, Physiology & Neuroscience:**

Judge for written papers for Dept. of Defense SC Junior Science & Humanities Symposium (Joseph McQuail)

Judge at Junior Science and Humanities Symposium held at USC (Ana Pocivavsek)

Grant review committee for the Dept. of Defense SC Junior Science & Humanities Symposium (David Mott)

Judge for oral presentations for Dept. of Defense SC Junior Science & Humanities Symposium (David Mott)

Head Judge for Junior and Senior Divisions at the Central South Carolina Region II Science and Engineering Fair (David Mott)

Judge for the University of South Carolina Region II Science & Engineering Fair, March 13, 2020, Columbia, SC. (Claudia Grillo)

Organizing Committee- Brain Awareness Week (Ana Pocivavsek, Joseph McQuail, Sarah Tryon)

Organizer, First Annual SC Brain Bee (Sarah "Kitty" Tryon)-Cancelled due to COVID19

### **Community Perceptions**

How unit assesses community perceptions of engagement, as well as impact of community engagement on students, faculty, community and the institution.

The Office of Development and Alumni Relations, along with the Office of the Dean, has a Dean's Executive Advisory Council. This council's primary role is fundraising and helping the School of Medicine identify sources and prospects to enable us to achieve our goals and overarching strategic vision.

The Department of Pediatrics, in partnership with Children's Hospital, has a community meeting of private physicians and a community board that are asked for input, and have a required longitudinal advocacy /community program and that medical students and residents can join.

#### **Incentivizing Faculty Engagement**

Policies and practices for incentivizing and recognizing community engagement in teaching and learning, research, and creative activity.

The Office of the Dean provides an annual Community Service Award as part of the Dean's Distinguished Service Awards Program. It's awarded to a member(s) of the faculty, staff, or student body whose contributions to the local, regional, or global community has demonstrated a commitment to improving the welfare of all people and has upheld the highest traditions of servant leadership.

School of Medicine tenure and promotion criteria note that faculty members are expected to perform service in support of the mission and goals of the School of Medicine, the University, and the scientific community. Relevant community service, support and assistance to community groups, and involvement in civic activities are included as evidence of accomplishment of service.

The School of Medicine encourages faculty to participate in the annual United Way campaign sponsored by the university.

### **Collaborations**

#### Internal Collaborations

Our most significant academic collaborations and multidisciplinary efforts characterized as internal to the University.

- BARSC-MD Program
- Biomedical Engineering Program
- Center for Colon Cancer Research
- Center for Dietary Supplements and Inflammation
- Center for Cardiovascular Translational Research
- Interprofessional Education Program
- Medical-Legal Partnership (MLP) Clinic
- NIH Complementary Alternative Medicine Center
- Office of Pre-Professional Advising Collaboration on Health Sciences Student Clinical Rotations
- School of Medicine-Columbia and School of Medicine-Greenville Collaboration
- South Carolina IDeA Networks of Biomedical Research Excellence (INBRE)
- Ultrasound Institute

#### **External Collaborations**

Our most significant academic collaborations and multidisciplinary efforts characterized as external to the University.

- Claflin University
- Columbia VA Health Care System
- FoodShareSC
- Grand Strand Regional Medical Center
- Greenwood Genetic Center
- Lexington Medical Center
- McLeod Regional Medical Center
- · Medical University of South Carolina
- Medical University of South Carolina-Florence
- Orangeburg High School for Health Professions
- Pee Dee Medical and Health Education Consortium
- Prisma Health
- Prisma Health-Midlands
- Prisma Health-Upstate
- Providence Health
- SC Center for Rural and Primary Healthcare
- SC Area Health Education Consortium
- SC Department of Health and Human Services
- SC Office of Rural Health
- Simulation and Interactive Learning Center with Columbia VA Health Care System

#### **Other Collaborations**

## **Collaborations**

Our most significant academic collaborations and multidisciplinary efforts that are not otherwise accounted for as Internal or External Collaborations.

None.

## **Equity and Diversity Plan**

### Improve Under-Represented Minority (URM) Student Enrollment

The Office of Diversity & Inclusion (SOM-C) continues to work with the Admissions Committees for the Doctor of Medicine and other SOM-C graduate programs to advocate for underrepresented students. The Office has also been working with the Office of Development and Alumni Relations as well as the Office of Admissions to develop and expand scholarships, and to ensure that recipients of Corbett funds -- Corbett Scholars -- represent an inclusive group, as specified in the SOM-C Diversity Statement. Efforts to develop pipeline programs with regional high schools (Lower Richland, C.A. Johnson and the High School for the Health Professions in Orangeburg) were initiated and pursued, but decreased funding and the SARs-CoV-2 pandemic (COVID-19) have adversely affected those initiatives and future activities remain deferred.

## Improve The Number Of Full-Time URM Faculty Across Academic Units

Office of Diversity and Inclusion continues to work with the PRISMA Family Medicine Diversity Task Force to promote its elective for 4th year URM medical students, thereby potentially recruiting them as residents and grooming them as prospective faculty members. The Office also conducts diversity, sensitivity and unconscious/implicit bias training to search committees for positions at the faculty, department chair, and assistant/associate dean level. In an effort to develop, support, retain and attract faculty from under-represented groups, the SOM-C will sponsor attendance of URM faculty at annual AAMC Minority Faculty Leadership Development Conferences, once these conferences resume. In addition, the innovative hiring initiatives launched by the Dean's Office to address the lack of under-represented groups in the biomedical sciences will continue.

## **Enhance Outcomes For URM Undergraduate and Graduate/Professional Students**

The Office of Diversity & Inclusion will continue to work with the Office Curricular Affairs to enhance supplemental instruction efforts and assist at risk students early on through the SOM-C Student Success and Wellness Center.

### Improve Post-Graduate Outcomes For URM Undergraduate and Graduate/Professional Students

## Increase the engagement of students, faculty, staff, administrators in Equity and Inclusion

To advance the goals of equity, engagement and involvement, the Office of Diversity and Inclusion will continue diversity forums by inviting speakers (to campus, virtually), or participating and encouraging participation in diversity activities sponsored by other departments within the University of South Carolina, at the School of Medicine (SOM), or by other agencies (e.g., AHEC).

## **Equity and Diversity Plan**

## Improve The Sense Of Inclusion Amongst All University Community Members

To improve the sense of inclusion, the Office of Diversity and Inclusion will continue the engagement activities cited above. In addition, the SOM-C established a strategic goal to enhance and sustain an inclusive environment at all levels and appointed a task force to that end. Therefore, the Office will apply the recommendations issued by that Climate Task Force and the Strategic Planning Steering Committee after final review and submission. It will also collaborate with other UofSC schools/colleges and community partners in striving to eliminate health disparities in the local area. The ongoing work related to inclusion will continue to be complemented by the contributions of the Committee on Women in Science and Medicine, the Ad Hoc Committee on Diversity in the Arts, and the Alumni Association. In February, 2021, we celebrated Black History Month by establishing a wall of Luminary Leaders in Medicine and Science in the entryway of our SOM Educational Building.

### **Dashboard Metrics and Narrative**

	-			
М	Δt	rı	C	c
	CL		L	3

**Student Information Narrative** 

**Contribution (Per Student) Narrative** 

**Model Allocations (Per Student) Narrative** 

**Faculty Information Narrative** 

**Credit Hours Taught Narrative** 

**College/School Financial Information Narrative** 

**Student Outcomes Narrative** 

**HERD Research Expenditures Narrative** 

**Other Information Narrative** 

## **Concluding Remarks**

#### **Quantitative Outcomes**

Explain any surprises regarding data provided in the quantitative outcomes modules throughout this report.

#### **Cool Stuff**

Describe innovations, happy accidents, good news, etc. that occurred within your unit not noted elsewhere in your reporting.

School of Medicine Columbia faculty, staff and students volunteered their time to assist at the COVID-19 vaccine clinics being held at Gamecock Park. The volunteers have given countless hours, often working in cold and rainy conditions, to ensure South Carolinians receive their vaccines.

The Columbia VA Health Care System and School of Medicine Columbia partnered to conduct COVID-19 testing for students, employees, and Veterans. The Columbia VA collaborated with UofSC to leverage and convert its joint research lab into a Clinical Laboratory Improvement Amendment (CLIA) compliant laboratory to conduct COVID-19 tests. By repurposing a robotic-based polymerase chain reaction (PCR) analyzer – previously purchased with a VA research grant – the SOM is able to conduct high-volume COVID-19 testing. The robotic system processes up to 400 samples per day and allow for rapid turnaround of results as soon as 24 hours after collection. "We are proud to be one of the first VA medical centers to support a large university and core academic affiliate with their student COVID-19 testing," said David Omura, medical center director and chief executive officer for the Columbia VA. "In times like these, it is more important than ever to think outside the box. The repurposing of the lab equipment will allow UofSC to conduct needed COVID-19 testing for their students and staff, but also will enhance the testing capacity for our Veterans."

School of Medicine Columbia established a Luminary Leaders in Medicine and Science Recognition program. In 2019, the Women in Science and Medicine Committee accurately noted that virtually all of the images on display in the school depicted white males. Although these individuals have made noteworthy contributions to the School of Medicine, they advocated that many women and those from diverse racial backgrounds also deserved to be honored. The inaugural class of Luminary Leaders were recognized during a virtual ceremony on February 18, 2021. The honorees are noted members of the medical and science community, who have not only made meaningful contributions to the School of Medicine, but who have also created a legacy through their service, leadership and efforts to promote diversity, equity and inclusion. The inaugural honorees are:

Raymond P. Bynoe, M.D., Everett Dargan, M.D., Everlyn Hall-Baker, M.D., Carol McMahon, M.D., Lurlene Scott, MGC, Alvin F. Wells, M.D., Patricia Witherspoon, M.D.

As part of National Salvation Army Week, representatives from The Salvation Army of the Midlands presented their "Doing the Most Good" award to the School of Medicine Columbia. Students accepted the award at the School of Medicine on May 19. The school and its students were selected for the award in honor of their service during the COVID-19 pandemic. Since April, students have served meals to the homeless community at Transitions for 14 days each month. These students are playing a crucial role in helping to feed the homeless and provide basic needs when many volunteers are not available.

## **Concluding Remarks**

Charles and Donna Bryan, a couple with long and deep ties to the university and the School of Medicine in Columbia. Their \$1 million gift, the latest and largest gift commitment in their 35-year history of giving to the university, will support construction of a new medical education building to include the Charles S. and Donna H. Bryan Health Sciences Library. The Bryans hope their early gift will inspire others to support the new campus.

FoodShare South Carolina, an initiative of the School of Medicine Columbia, has been awarded a five-year grant to improve South Carolinians' access to fresh, healthy food as a foundational step to decrease the impact of diabetes on the state. The BlueCross BlueShield of South Carolina Foundation awarded a total of \$11.6 million to four organizations as part of Diabetes Free SC, a new long-term, multi-million dollar initiative dedicated to addressing disparities in diabetes care. Recognizing a healthy diet is essential for the prevention and management of diabetes and its complications, Diabetes Free SC will provide support for FoodShareSC with the goal of ensuring access to fresh fruits and vegetables to all the citizens of the state. To date FoodShare has sold and distributed more than 71,000 Fresh Food Boxes containing over 1.2 million pounds of produce to the citizens of South Carolina.

U.S. Senator Lindsey Graham visited with representatives from the University of South Carolina School of Medicine and Prisma Health to discuss the future of telemedicine, the benefits it offers, and how to expand its use throughout South Carolina. Meera Narasimhan, M.D., chair of the Department of Neuropsychiatry & Behavioral Science, presented and gave a demonstration of how her team uses telemedicine.

Jason Thieling, M.D., a member of the class of 2006, and Dan Gilstrap, M.D., a member of the class of 2007, were classmates at the School of Medicine Columbia. Years later, they find themselves as colleagues working together at Duke Health and the Duke University School of Medicine. More significantly, as the number of positive coronavirus cases continue to rise, their roles have placed them on the front lines of the COVID-19 pandemic.

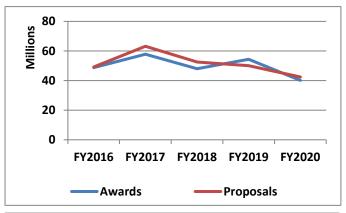
## **Appendix A. Research & Scholarly Activity**

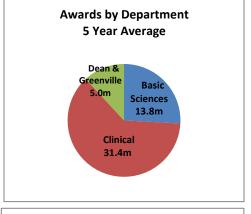
# Appendix A. Research & Scholarly Activity

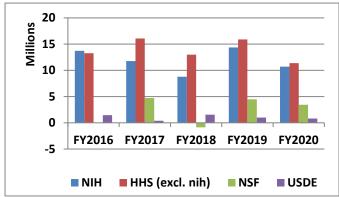
## Office of Research IT and Data Management Office

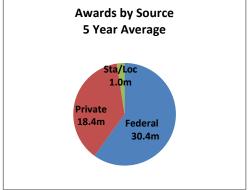
#### School of Medicine Summary of Awards

SAM ACTIVITY	FY2016	FY2017	FY2018	FY2019	FY2020	5 Year % Change Avg. (16-19) & 2020
Division Award Totals	48,766,397	57,825,873	47,967,680	54,401,972	40,148,740	(23.1)
Unit Totals						
Basic Sciences	12,532,681	15,548,589	7,897,160	18,550,606	14,560,346	6.8
Clinical	35,546,860	32,662,353	30,618,236	34,494,179	23,905,747	(28.3)
Dean / Greenville Campus	686,856	9,614,931	9,452,284	1,357,187	1,682,647	(68.1)
Source						
Federal	30,031,540	33,818,757	23,318,464	36,846,179	28,213,064	(9.0)
Private	17,417,577	22,881,701	24,039,843	16,440,307	11,150,356	(44.8)
State/Local	1,317,280	1,125,415	588,023	1,115,486	785,320	(24.2)
Proposals						
Submissions	216	267	206	198	209	(5.7)
Dollars Requested	49,196,133	63,198,342	52,591,553	50,117,287	42,442,042	(21.1)









SCHOOL OF MEDICINE					
	Invention Disclosures	Provisional Patent Applications	Non- Provisional Patent Applications	Issued Patents	
TOTALS:	16	14	19	2	
	Depa	artment Breako	lown		
Cell Biology & Anatomy	(ID nos. 1427, 1450 (shared w/ Engineering & Computing), 1455, 1454, 1462, 1466, 1475)	(ID nos. 1406 (shared w/ Internal Medicine), 1407 (shared w Internal Medicine), 1313, 1427, 1466 (2))	(ID nos. 1197, 1147 (shared w/ Engineering & Computing), 1370, 1368 (2) (trademarks) (shared w/ Engineering & Computing), 1368 (shared w/ Engineering & Computing))	0	
School of Medicine Greenville	0	0	(ID no. 1340)	0	
Pathology, Microbiology & Immunology	(ID nos. 1461, 1432, 1465 <i>(shared w/</i> <i>Pharmacy)</i> , 1478, 1486)	(ID nos. 1238, 1461, 1432, 1465 (shared w/ Pharmacy), 1478)	(ID nos. 1371, 1319, 1346, 1403 (shared w/ Arts and Sciences), 1347, 1150 (shared w/ Pharmacy), 1211 (shared w/ Pharmacy))	<b>1</b> (ID no. 1154 <i>(shared w/ Pharmacy)</i> )	
Pharmacology, Physiology, Neuroscience	0	0	<b>1</b> (ID no. 1221)	0	
Internal Medicine	(ID nos. 1430, 1453)	(ID nos. 1453, 1430, 1406 (shared w/ Cell Biology), 1407 (shared w/ Cell Biology))	(ID nos. 1276, 1266, 1323 (Utility), 1323 (PCT))	(ID no. 987)	
Biomedical Sciences	<b>1</b> (ID no. 1438)	0	0	0	
Orthopedic Surgery	<b>1</b> (ID no. 1426)	<b>1</b> (ID no. 1426)	0	0	

## **Appendix 1. Faculty Information**

UNIVERSITY OF SOUTH CAROLINA SCHOOL OF MEDICINE-COLUMBIA FACULTY PUBLICATIONS

ACADEMIC YEAR 2019 – 2020 (July 1, 2019 – June 30, 2020)

**TOTAL: 233** 

1: Abebayehu D, Spence AJ, Caslin H, Taruselli M, Haque TT, Kiwanuka KN,

Kolawole EM, Chumanevich AP, Sell SA, Oskeritzian CA, Ryan J, Kee SA. Lactic

acid suppresses IgE-mediated mast cell function in vitro and in vivo. Cell

Immunol. 2019 Jul;341:103918. doi: 10.1016/j.cellimm.2019.04.006. Epub 2019 Apr

12. PMID: 31030957; PMCID: PMC6579658.

2: Adejumo AC, Adejumo KL, Adegbala OM, Enwerem N, Ofosu A, Akanbi O, Fijabi DO,

Ogundipe OA, Pani L, Adeboye A. Inferior Outcomes of Patients With Acute

Myocardial Infarction and Comorbid Protein-Energy Malnutrition. JPEN J Parenter

Enteral Nutr. 2020 Mar;44(3):454-462. doi: 10.1002/jpen.1680. Epub 2019 Jul 18.

PMID: 31317574.

3: Aguirre F, Heft J, Yunker A. Factors Associated With Nonadherence to Pelvic

Floor Physical Therapy Referral for the Treatment of Pelvic Pain in Women. Phys

Ther. 2019 Jul 1;99(7):946-952. doi: 10.1093/ptj/pzz050. PMID: 30916754; PMCID:

PMC6602154.

4: Ahluwalia R, Kiely C, Foster J, Gannon S, Wiseman AL, Shannon CN, Bonfield

CM. Positional posterior plagiocephaly: a single-center review. J Neurosurg

Pediatr. 2020 Jan 31:1-5. doi: 10.3171/2019.12.PEDS19651. Epub ahead of print.

PMID: 32005011.

5: Ahluwalia R, Foster J, Sherburn MM, Sellyn GE, Kelly KA, Abdul Ghani MO,

Wiseman AL, Shannon CN, Bonfield CM. Deformational brachycephaly: the clinical

utility of the cranial index. J Neurosurg Pediatr. 2020 May 1:1-5. doi:

10.3171/2020.2.PEDS19767. Epub ahead of print. PMID: 32357338.

6: Ahluwalia R, Foster J, Brooks E, Lim J, Zhao S, Gannon SR, Guidry B, Wellons J, Shannon CN. Chiari type I malformation: role of the Chiari Severity Index and Chicago Chiari Outcome Scale. J Neurosurg Pediatr. 2020 May 22:1-7. doi: 10.3171/2020.2.PEDS19770. Epub ahead of print. PMID: 32442974.

7: Al-Ghezi ZZ, Busbee PB, Alghetaa H, Nagarkatti PS, Nagarkatti M. Combination of cannabinoids, delta-9-tetrahydrocannabinol (THC) and cannabidiol (CBD), mitigates experimental autoimmune encephalomyelitis (EAE) by altering the gut microbiome. Brain Behav Immun. 2019 Nov;82:25-35. doi: 10.1016/j.bbi.2019.07.028. Epub 2019 Jul 26. PMID: 31356922; PMCID: PMC6866665.

8: Al-Ghezi ZZ, Miranda K, Nagarkatti M, Nagarkatti PS. Combination of Cannabinoids, Δ9- Tetrahydrocannabinol and Cannabidiol, Ameliorates Experimental Multiple Sclerosis by Suppressing Neuroinflammation Through Regulation of miRNA-Mediated Signaling Pathways. Front Immunol. 2019 Aug 21;10:1921. doi: 10.3389/fimmu.2019.01921. PMID: 31497013; PMCID: PMC6712515.

9: Al-Ghezi ZZ, Singh N, Mehrpouya-Bahrami P, Busbee PB, Nagarkatti M, Nagarkatti PS. AhR Activation by TCDD (2,3,7,8-Tetrachlorodibenzo-p-dioxin) Attenuates Pertussis Toxin-Induced Inflammatory Responses by Differential Regulation of Tregs and Th17 Cells Through Specific Targeting by microRNA. Front Microbiol. 2019 Oct 18;10:2349. doi: 10.3389/fmicb.2019.02349. PMID: 31681214; PMCID: PMC6813193.

10: Al-Hasan MN, Rac H. Transition from intravenous to oral antimicrobial therapy in patients with uncomplicated and complicated bloodstream infections. Clin Microbiol Infect. 2020 Mar;26(3):299-306. doi: 10.1016/j.cmi.2019.05.012.

Epub 2019 May 23. PMID: 31128289.

- 11: Al-Hasan MN, Baddour LM. Resilience of the Pitt Bacteremia Score: 3 Decades and Counting. Clin Infect Dis. 2020 Apr 15;70(9):1834-1836. doi: 10.1093/cid/ciz535. Erratum in: Clin Infect Dis. 2019 Nov 27;69(12):2238. PMID: 31219546.
- 12: Al-Hasan MN, Winders HR, Bookstaver PB, Justo JA. Direct Measurement of Performance: A New Era in Antimicrobial Stewardship. Antibiotics (Basel). 2019 Aug 24;8(3):127. doi: 10.3390/antibiotics8030127. PMID: 31450576; PMCID: PMC6784134.
- 13: Al-Hasan MN. Gram-Negative Bacteria with Difficult-to-Treat Resistance: A Moving Target. Clin Infect Dis. 2020 Apr 3:ciaa384. doi: 10.1093/cid/ciaa384. Epub ahead of print. PMID: 32249916.
- 14: Albadrani M, Seth RK, Sarkar S, Kimono D, Mondal A, Bose D, Porter DE, Scott GI, Brooks B, Raychoudhury S, Nagarkatti M, Nagarkatti P, Jule Y, Diehl AM, Chatterjee S. Exogenous PP2A inhibitor exacerbates the progression of nonalcoholic fatty liver disease via NOX2-dependent activation of miR21. Am J Physiol Gastrointest Liver Physiol. 2019 Oct 1;317(4):G408-G428. doi: 10.1152/ajpgi.00061.2019. Epub 2019 Aug 8. PMID: 31393787; PMCID: PMC6842990.
- 15: Alrafas HR, Busbee PB, Nagarkatti M, Nagarkatti PS. Resveratrol modulates the gut microbiota to prevent murine colitis development through induction of Tregs and suppression of Th17 cells. J Leukoc Biol. 2019 Aug;106(2):467-480. doi: 10.1002/JLB.3A1218-476RR. Epub 2019 Mar 21. PMID: 30897248; PMCID: PMC6863607.

- 16: Alrafas HR, Busbee PB, Nagarkatti M, Nagarkatti PS. Resveratrol

  Downregulates miR-31 to Promote T Regulatory Cells during Prevention of TNBSInduced Colitis. Mol Nutr Food Res. 2020 Jan;64(1):e1900633. doi:

  10.1002/mnfr.201900633. Epub 2019 Dec 11. PMID: 31730734; PMCID: PMC6940522.
- 17: Alrafas HR, Busbee PB, Chitrala KN, Nagarkatti M, Nagarkatti P. Alterations in the Gut Microbiome and Suppression of Histone Deacetylases by Resveratrol Are Associated with Attenuation of Colonic Inflammation and Protection Against Colorectal Cancer. J Clin Med. 2020 Jun 9;9(6):1796. doi: 10.3390/jcm9061796. PMID: 32526927; PMCID: PMC7355848.
- 18: Altimus CM, Marlin BJ, Charalambakis NE, Colón-Rodriquez A, Glover EJ, Izbicki P, Johnson A, Lourenco MV, Makinson RA, McQuail J, Obeso I, Padilla-Coreano N, Wells MF; for Training Advisory Committee. The Next 50 Years of Neuroscience. J Neurosci. 2020 Jan 2;40(1):101-106. doi: 10.1523/JNEUROSCI.0744-19.2019. Erratum in: J Neurosci. 2020 May 20;40(21):4264. PMID: 31896564; PMCID: PMC6939479.
- 19: Amini R, Situ-LaCasse EH, Acuña J, Theodoro D, Blaivas M, Tayal V, Adhikari S. Impact of Point-of-Care Ultrasound in Critically III Patients: Flawed Data and Wrong Conclusions. Crit Care Explor. 2019 Sep 4;1(9):e0042. doi: 10.1097/CCE.000000000000042. PMID: 32166284; PMCID: PMC7063933.
- 20: Ardeleanu V, Toma A, Pafili K, Papanas N, Motofei I, Diaconu CC, Rizzo M, Stoian AP. Current Pharmacological Treatment of Painful Diabetic Neuropathy: A Narrative Review. Medicina (Kaunas). 2020 Jan 9;56(1):25. doi: 10.3390/medicina56010025. PMID: 31936646; PMCID: PMC7022869.
- 21: Atwez A, Friedman HI, Durkin M, Gilstrap J, Mujadzic M, Chen E. Sternotomy

Wound Closure: Equivalent Results with Less Surgery. Plast Reconstr Surg Glob

Open. 2020 Jun 23;8(6):e2899. doi: 10.1097/GOX.0000000000002899. PMID: 32766054;

PMCID: PMC7339261.

22: Azar D, Torres WM, Davis LA, Shaw T, Eberth JF, Kolachalama VB, Lessner SM, Shazly T. Geometric determinants of local hemodynamics in severe carotid artery stenosis. Comput Biol Med. 2019 Nov;114:103436. doi: 10.1016/j.compbiomed.2019.103436. Epub 2019 Sep 5. PMID: 31521900; PMCID: PMC6817414.

23: Baillie GS, Tejeda GS, Kelly MP. Therapeutic targeting of 3',5'-cyclic nucleotide phosphodiesterases: inhibition and beyond. Nat Rev Drug Discov. 2019 Oct;18(10):770-796. doi: 10.1038/s41573-019-0033-4. Epub 2019 Aug 6. PMID: 31388135; PMCID: PMC6773486.

24: Baratta AM, Kanyuch NR, Cole CA, Valafar H, Deslauriers J, Pocivavsek A. Acute sleep deprivation during pregnancy in rats: Rapid elevation of placental and fetal inflammation and kynurenic acid. Neurobiol Stress. 2019 Dec 14;12:100204. doi: 10.1016/j.ynstr.2019.100204. PMID: 32258253; PMCID: PMC7109515.

25: Barton BM, Ramsey T, Magne JM, Worley NK. Delayed Metastatic Melanoma to the Pharyngeal Tonsil in an African American Female. Ochsner J. 2019

Summer;19(2):181-183. doi: 10.31486/toj.17.0083. PMID: 31258433; PMCID: PMC6584195.

26: Batchala PP, Dyer A, Mukherjee S, Rehm PK. Lateral ectopic thyroid mimics carotid body tumor on Indium-111 pentetreotide scintigraphy. Clin Imaging. 2019 Nov-Dec;58:46-49. doi: 10.1016/j.clinimag.2019.05.012. Epub 2019 May 25. PMID:

31238185.

27: Battle SE, Augustine MR, Watson CM, Bookstaver PB, Kohn J, Owens WB, Baddour LM, Al-Hasan MN. Derivation of a quick Pitt bacteremia score to predict mortality in patients with Gram-negative bloodstream infection. Infection. 2019 Aug;47(4):571-578. doi: 10.1007/s15010-019-01277-7. Epub 2019 Feb 8. PMID: 30737765.

28: Bell N, Arrington A, Adams SA, Jones M, Sakran JV, Mehta A, Eberth JM.
Incidental Cancer Diagnoses in Trauma Patients: A Case-Control Study Evaluating
Long-term Outcomes. J Surg Res. 2019 Oct;242:304-311. doi:
10.1016/j.jss.2019.03.008. Epub 2019 May 22. PMID: 31128411.

29: Bennett CL, Schooley B, Taylor MA, Witherspoon BJ, Godwin A, Vemula J, Ausdenmoore HC, Sartor O, Yang YT, Armitage JO, Hrushesky WJ, Restaino J, Thomsen HS, Yarnold PR, Young T, Knopf KB, Chen B. Caveat Medicus: Clinician experiences in publishing reports of serious oncology-associated adverse drug reactions. PLoS One. 2019 Jul 31;14(7):e0219521. doi: 10.1371/journal.pone.0219521. PMID: 31365527; PMCID: PMC6668902.

30: Bennett KJ, Borders TF, Holmes GM, Kozhimannil KB, Ziller E. What Is Rural? Challenges And Implications Of Definitions That Inadequately Encompass Rural People And Places. Health Aff (Millwood). 2019 Dec;38(12):1985-1992. doi: 10.1377/hlthaff.2019.00910. PMID: 31794304.

31: Blaivas M, Blaivas L. Are All Deep Learning Architectures Alike for Point-of-Care Ultrasound?: Evidence From a Cardiac Image Classification Model Suggests Otherwise. J Ultrasound Med. 2020 Jun;39(6):1187-1194. doi: 10.1002/jum.15206. Epub 2019 Dec 24. PMID: 31872477.

- 32: Blaivas M. Unexpected finding of myocardial depression in 2 healthy young patients with COVID-19 pneumonia: possible support for COVID-19-related myocarditis. J Am Coll Emerg Physicians Open. 2020 Jun 13;1(4):375–8. doi: 10.1002/emp2.12098. Epub ahead of print. PMID: 32838381; PMCID: PMC7323425.
- 33: Brett AS, Al-Hasan MN. COPD Exacerbations A Target for Antibiotic Stewardship. N Engl J Med. 2019 Jul 11;381(2):174-175. doi: 10.1056/NEJMe1905520. PMID: 31291521.
- 34: Bryan CS. The centenary of 'The Old Humanities and the New Science,' the last public address of Sir William Osler (1849-1919). J Med Biogr. 2019

  Nov;27(4):197-204. doi: 10.1177/0967772018800799. Epub 2018 Oct 18. PMID: 30334668.
- 35: Bryan CS, Podolsky SH. Sir William Osler (1849-1919) The Uses of History and the Singular Beneficence of Medicine. N Engl J Med. 2019 Dec 5;381(23):2194-2196. doi: 10.1056/NEJMp1911601. PMID: 31800984.
- 36: Busbee PB, Menzel L, Alrafas HR, Dopkins N, Becker W, Miranda K, Tang C, Chatterjee S, Singh U, Nagarkatti M, Nagarkatti PS. Indole-3-carbinol prevents colitis and associated microbial dysbiosis in an IL-22-dependent manner. JCI Insight. 2020 Jan 16;5(1):e127551. doi: 10.1172/jci.insight.127551. PMID: 31941837; PMCID: PMC7030851.
- 37: Callahan BN, Kammala AK, Syed M, Yang C, Occhiuto CJ, Nellutla R, Chumanevich AP, Oskeritzian CA, Das R, Subramanian H. Osthole, a Natural Plant Derivative Inhibits MRGPRX2 Induced Mast Cell Responses. Front Immunol. 2020 Apr 24;11:703. doi: 10.3389/fimmu.2020.00703. PMID: 32391014; PMCID: PMC7194083.

38: Calva CB, Fadel JR. Intranasal administration of orexin peptides: Mechanisms and therapeutic potential for age-related cognitive dysfunction. Brain Res. 2020 Mar 15;1731:145921. doi: 10.1016/j.brainres.2018.08.024. Epub 2018 Aug 24. PMID: 30148983; PMCID: PMC6387866.

39: Calva CB, Fayyaz H, Fadel JR. Effects of Intranasal Orexin-A (Hypocretin-1) Administration on Neuronal Activation, Neurochemistry, and Attention in Aged Rats. Front Aging Neurosci. 2020 Jan 22;11:362. doi: 10.3389/fnagi.2019.00362. PMID: 32038222; PMCID: PMC6987046.

40: Caroselli C, Zaccaria E, Blaivas M, Dib G, Fiorentino R, Longo D. A Pilot Prospective Study to Validate Point-of-Care Ultrasound in Comparison to X-Ray Examination in Detecting Fractures. Ultrasound Med Biol. 2020 Jan;46(1):11-19. doi: 10.1016/j.ultrasmedbio.2019.09.006. Epub 2019 Oct 1. PMID: 31585766.

41: Caroselli C, Blaivas M, Carobene L. A Cumbersome Rolling Stone. J Ultrasound Med. 2020 May;39(5):1037-1038. doi: 10.1002/jum.15173. Epub 2019 Nov 19. PMID: 31746000.

42: Carrero JP, Kaigler KF, Hartshorn GH, Fadel JR, Wilson MA. Mu opioid receptor regulation of glutamate efflux in the central amygdala in response to predator odor. Neurobiol Stress. 2019 Oct 14;11:100197. doi: 10.1016/j.ynstr.2019.100197. PMID: 31832510; PMCID: PMC6888766.

43: Carrick-Ranson G, Spinale FG, Bhella PS, Sarma S, Shibata S, Fujimoto N, Hastings JL, Levine BD. Plasma matrix metalloproteinases (MMPs) and tissue inhibitors of MMPs and aging and lifelong exercise adaptations in ventricular and arterial stiffness. Exp Gerontol. 2019 Aug;123:36-44. doi:

10.1016/j.exger.2019.05.004. Epub 2019 May 13. PMID: 31095969; PMCID: PMC6559842.

44: Chakrabarti M, Al-Sammarraie N, Gebere MG, Bhattacharya A, Chopra S, Johnson J, Peña EA, Eberth JF, Poelmann RE, Gittenberger-de Groot AC, Azhar M.

Transforming Growth Factor Beta3 is Required for Cardiovascular Development. J

Cardiovasc Dev Dis. 2020 May 24;7(2):19. doi: 10.3390/jcdd7020019. PMID: 32456345; PMCID: PMC7344558.

45: Chaparala A, Poudyal D, Tashkandi H, Witalison EE, Chumanevich AA, Hofseth JL, Nguyen I, Hardy O, Pittman DL, Wyatt MD, Windust A, Murphy EA, Nagarkatti M, Nagarkatti P, Hofseth LJ. Panaxynol, a bioactive component of American ginseng, targets macrophages and suppresses colitis in mice. Oncotarget. 2020 Jun 2;11(22):2026-2036. doi: 10.18632/oncotarget.27592. PMID: 32547701; PMCID: PMC7275787.

46: Chaparala A, Tashkandi H, Chumanevich AA, Witalison EE, Windust A, Cui T, Nagarkatti M, Nagarkatti P, Hofseth LJ. Molecules from American Ginseng Suppress Colitis through Nuclear Factor Erythroid-2-Related Factor 2. Nutrients. 2020 Jun 21;12(6):1850. doi: 10.3390/nu12061850. PMID: 32575883; PMCID: PMC7353434.

47: Clair DG. Dealing with complex external iliac artery disease. J Vasc Surg. 2020 Jun;71(6):2038. doi: 10.1016/j.jvs.2019.09.023. PMID: 32446512.

48: Clarke MA, Massad LS, Khan MJ, Smith KM, Guido RS, Mayeaux EJ Jr, Darragh TM, Huh WK, Johnson AL, Gold MA, Schiffman M, Wentzensen N. Challenges Associated With Cervical Cancer Screening and Management in Obese Women: A Provider Perspective. J Low Genit Tract Dis. 2020 Apr;24(2):184-191. doi: 10.1097/LGT.0000000000000506. PMID: 32243314.

49: Conner J, Nottingham JM. Biliopancreatic Diversion With Duodenal Switch.
2020 Sep 23. In: StatPearls [Internet]. Treasure Island (FL): StatPearls
Publishing; 2020 Jan—. PMID: 33085340.

50: Coward J, Prier J, Duda J, Yallapragada A. Post-thrombectomy intracranial blooming artifact. Clin Case Rep. 2020 Jun 2;8(8):1361-1364. doi: 10.1002/ccr3.2753. PMID: 32884754; PMCID: PMC7455406.

51: Crouch E, Radcliff E, Probst JC, Bennett KJ, McKinney SH. Rural-Urban Differences in Adverse Childhood Experiences Across a National Sample of Children. J Rural Health. 2020 Jan;36(1):55-64. doi: 10.1111/jrh.12366. Epub 2019 Apr 2. PMID: 30938864.

52: Crouch E, Radcliff E, Hung P, Bennett K. Challenges to School Success and the Role of Adverse Childhood Experiences. Acad Pediatr. 2019 Nov-Dec;19(8):899-907. doi: 10.1016/j.acap.2019.08.006. Epub 2019 Aug 9. PMID: 31401231.

53: Cukier HN, Griswold AJ, Hofmann NK, Gomez L, Whitehead PL, Abramson RK, Gilbert JR, Cuccaro ML, Dykxhoorn DM, Pericak-Vance MA. Three Brothers With Autism Carry a Stop-Gain Mutation in the HPA-Axis Gene NR3C2. Autism Res. 2020 Apr;13(4):523-531. doi: 10.1002/aur.2269. Epub 2020 Feb 17. PMID: 32064789.

54: Dasgupta S, Ray SK. Ceramide and Sphingosine Regulation of Myelinogenesis: Targeting Serine Palmitoyltransferase Using microRNA in Multiple Sclerosis. Int J Mol Sci. 2019 Oct 11;20(20):5031. doi: 10.3390/ijms20205031. PMID: 31614447; PMCID: PMC6834223.

55: Das BC, Dasgupta S, Ray SK. Potential therapeutic roles of retinoids for prevention of neuroinflammation and neurodegeneration in Alzheimer's disease. Neural Regen Res. 2019 Nov;14(11):1880-1892. doi: 10.4103/1673-5374.259604. PMID: 31290437; PMCID: PMC6676868.

56: DeMarsh M, Bookstaver PB, Gordon C, Lim J, Griffith N, Bookstaver NK, Justo JA, Kohn J, Al-Hasan MN; Prisma Health Antimicrobial Stewardship Support Team (PHASST). Prediction of trimethoprim/sulfamethoxazole resistance in community-onset urinary tract infections. J Glob Antimicrob Resist. 2020 Jun;21:218-222. doi: 10.1016/j.jgar.2019.10.023. Epub 2019 Nov 1. PMID: 31683038.

57: DePriest J, Jagannath P, Iannetti M, Kemper S. A More Directive Living Will for Older Adult Patients with End-Stage Medical Conditions? South Med J. 2019 Oct;112(10):531-534. doi: 10.14423/SMJ.0000000000001028. PMID: 31583413.

58: Desrosiers LR, Quinn E, Cramer S, Dobek W. Integrating genetic counseling and testing in the pediatric oncology setting: Parental attitudes and influencing factors. Pediatr Blood Cancer. 2019 Oct;66(10):e27907. doi: 10.1002/pbc.27907. Epub 2019 Jul 11. PMID: 31294517.

59: Dumont GD, Antosh IJ, Carmon P. Joint Space Narrowing in Patients with Femoroacetabular Impingement: A Matched Cohort Study of Military versus Civilian Patients. Mil Med. 2019 Dec 1;184(11-12):e797-e801. doi: 10.1093/milmed/usz058. PMID: 31125070.

60: Dumont GD, Money AJ, Thier ZT. Acetabular Subchondral and Cortical
Perforation During Labral Repair With Suture Anchors: Influence of Portal
Location, Curved Versus Straight Drill Guides, and Drill Starting Point.
Arthroscopy. 2019 Aug;35(8):2349-2354. doi: 10.1016/j.arthro.2019.02.016. PMID:

31395168.

61: Dumont GD, Cohn RM, Gross MM, Menge TJ, Battle NC, Thier ZT. The Learning Curve in Hip Arthroscopy: Effect on Surgical Times in a Single-Surgeon Cohort.

Arthroscopy. 2020 May;36(5):1293-1298. doi: 10.1016/j.arthro.2019.11.121. Epub 2019 Dec 3. PMID: 31805387.

62: Dumont GD, Menge TJ, Money AJ, Carmon P. Para-acetabular Radiopaque

Densities in Patients With Femoroacetabular Impingement: A Retrospective

Assessment of Prevalence and Characteristics. Orthop J Sports Med. 2020 Jan

23;8(1):2325967119892330. doi: 10.1177/2325967119892330. PMID: 32030344; PMCID:

PMC6978822.

63: Dwyer AJ, Murphy CC, Boland CR, Garcia R, Hampel H, Limburg P, Lowery J, Zauber AG, Waring S, Worrall S, Perea J, Siegel R, Lee J, Molmenti C, Sears CL, Buckhaults P, Hayes R, Hussan H, de Miranda N, Palles C, Diaz L, Song M, Cercek A, Lieu CH, Patel SG, Karlitz JJ, Cao Y, Demb J, Blatchford P, Risendal B, Weltzien E, Wali A, Daschner P, Loomans-Kropp H, Flores R, Levell CL, Wehling K, Martin J, Pesmen C, Kuchar V, Soisson R, Davis A, Ahnen D. A Summary of the Fight Colorectal Cancer Working Meeting: Exploring Risk Factors and Etiology of Sporadic Early-Age Onset Colorectal Cancer. Gastroenterology. 2019 Aug;157(2):280-288. doi: 10.1053/j.gastro.2019.04.049. Epub 2019 May 13. PMID: 31095950.

64: Edwards EW, DiPette DJ. Determining central blood pressure: Role in the prediction of the decline of renal function. J Clin Hypertens (Greenwich). 2020 Feb;22(2):243-244. doi: 10.1111/jch.13789. Epub 2020 Jan 15. PMID: 31944558.

65: Eekhoff L, Edwards J, Martin A, Prijoles EJ. Assessing the barriers to

cardiac care in carriers of Duchenne and Becker muscular dystrophy. J Genet Couns. 2019 Oct;28(5):993-1002. doi: 10.1002/jgc4.1151. Epub 2019 Aug 1. PMID: 31373078.

66: Fakhry M, Sidhu MS, Bangalore S, Mathew RO. Accelerated and intensified calcific atherosclerosis and microvascular dysfunction in patients with chronic kidney disease. Rev Cardiovasc Med. 2020 Jun 30;21(2):157-162. doi: 10.31083/j.rcm.2020.02.99. PMID: 32706205.

67: Fang L, Zhao F, Iwanowycz S, Wang J, Yin S, Wang Y, Fan D. Anticancer activity of emodin is associated with downregulation of CD155. Int Immunopharmacol. 2019 Oct;75:105763. doi: 10.1016/j.intimp.2019.105763. Epub 2019 Jul 17. PMID: 31325728; PMCID: PMC7020937.

68: Fan J, Wang H, Ye G, Cao X, Xu X, Tan W, Zhang Y. Letter to the Editor: Low-density lipoprotein is a potential predictor of poor prognosis in patients with coronavirus disease 2019. Metabolism. 2020 Jun;107:154243. doi: 10.1016/j.metabol.2020.154243. Epub 2020 Apr 19. PMID: 32320740; PMCID: PMC7166305.

69: Faqihi F, Alharthy A, Alodat M, Asad D, Aletreby W, Kutsogiannis DJ, Brindley PG, Karakitsos D. A pilot study of therapeutic plasma exchange for serious SARS CoV-2 disease (COVID-19): A structured summary of a randomized controlled trial study protocol. Trials. 2020 Jun 8;21(1):506. doi: 10.1186/s13063-020-04454-4. PMID: 32513290; PMCID: PMC7276972.

70: Farmaki E, Kaza V, Chatzistamou I, Kiaris H. CCL8 Promotes Postpartum Breast Cancer by Recruiting M2 Macrophages. iScience. 2020 Jun 26;23(6):101217. doi: 10.1016/j.isci.2020.101217. Epub 2020 Jun 1. PMID: 32535027; PMCID: PMC7300153.

71: Farmer R, Burbano SD, Patel NS, Sarmiento A, Smith AJ, Kelly MP.

Phosphodiesterases PDE2A and PDE10A both change mRNA expression in the human brain with age, but only PDE2A changes in a region-specific manner with psychiatric disease. Cell Signal. 2020 Jun;70:109592. doi: 10.1016/j.cellsig.2020.109592. Epub 2020 Feb 29. PMID: 32119913; PMCID: PMC7153982.

72: Finnell JE, Moffitt CM, Hesser LA, Harrington E, Melson MN, Wood CS, Wood SK. The contribution of the locus coeruleus-norepinephrine system in the emergence of defeat-induced inflammatory priming. Brain Behav Immun. 2019 Jul;79:102-113. doi: 10.1016/j.bbi.2019.01.021. Epub 2019 Jan 29. PMID: 30707932; PMCID: PMC6591045.

73: Fix C, Carver-Molina A, Chakrabarti M, Azhar M, Carver W. Effects of the isothiocyanate sulforaphane on TGF-β1-induced rat cardiac fibroblast activation and extracellular matrix interactions. J Cell Physiol. 2019
Aug;234(8):13931-13941. doi: 10.1002/jcp.28075. Epub 2019 Jan 4. PMID: 30609032; PMCID: PMC6478523.

74: Flood MS, Weeks B, Anaeme KO, Aguirre H, Hobizal KB, Jiongco SE, Klein RJ, Lemoi A, Rafols R, Landsman AS. Treatment of Deep Full-thickness Wounds
Containing Exposed Muscle, Tendon, and/or Bone Using a Bioactive Human Skin
Allograft: A Large Cohort Case Series. Wounds. 2020 Jun;32(6):164-173. Epub 2020
May 7. PMID: 32804658.

75: Foster J, Ahluwalia R, Sherburn M, Kelly K, Sellyn GE, Kiely C, Wiseman AL, Gannon S, Shannon CN, Bonfield CM. Pediatric cranial deformations: demographic associations. J Neurosurg Pediatr. 2020 May 29:1-6. doi:

10.3171/2020.3.PEDS2085. Epub ahead of print. PMID: 32470930.

76: Friedman HI, Talebagha S, Gilstrap J, Mujadzic M, Chen E. Wise Pattern
Direct Implant Breast Reconstruction: A Review and Improved Outcomes Using
Dermal Matrix. Plast Reconstr Surg Glob Open. 2019 Oct 16;7(10):e2439. doi: 10.1097/GOX.0000000000002439. PMID: 31772882; PMCID: PMC6846324.

77: Frierson RL. Examining the Past and Advocating for the Future of Forensic Psychiatry Training. J Am Acad Psychiatry Law. 2020 Mar;48(1):16-25. doi: 10.29158/JAAPL.003919-20. Epub 2020 Jan 16. PMID: 31948994.

78: Frierson RL, Joshi KG. Malpractice Law and Psychiatry: An Overview. Focus (Am Psychiatr Publ). 2019 Oct;17(4):332-336. doi: 10.1176/appi.focus.20190017. Epub 2019 Nov 6. PMID: 32047377; PMCID: PMC7011304.

79: Fu Z, Huang J, Xiang Y, Huang J, Tang Z, Chen J, Nelson JS, Tan W, Lu J. Characterization of Laser-Resistant Port Wine Stain Blood Vessels Using In Vivo Reflectance Confocal Microscopy. Lasers Surg Med. 2019 Dec;51(10):841-849. doi: 10.1002/lsm.23134. Epub 2019 Jul 16. PMID: 31310339.

80: Gandy KAO, Zhang J, Nagarkatti P, Nagarkatti M. Resveratrol (3, 5, 4'-Trihydroxy-trans-Stilbene) Attenuates a Mouse Model of Multiple Sclerosis by Altering the miR-124/Sphingosine Kinase 1 Axis in Encephalitogenic T Cells in the Brain. J Neuroimmune Pharmacol. 2019 Sep;14(3):462-477. doi: 10.1007/s11481-019-09842-5. Epub 2019 Apr 2. PMID: 30941623; PMCID: PMC6900929.

81: Gao L, Qu H, Gao N, Li K, Dang E, Tan W, Wang G. A retrospective analysis for facial telangiectasia treatment using pulsed dye laser and intense pulsed light configured with different wavelength bands. J Cosmet Dermatol. 2020

Jan;19(1):88-92. doi: 10.1111/jocd.13179. Epub 2019 Oct 22. PMID: 31638320.

82: Gao L, Wang L, Li K, Tan Q, Dang E, Lu M, Li Y, Tan W, Wang G. Treatment of acne vulgaris using 1,565 nm non-ablative fractional laser in combination with isotretinoin and pricking blood therapy. J Dermatolog Treat. 2020 Jun 19:1-7. doi: 10.1080/09546634.2020.1773383. Epub ahead of print. PMID: 32501765.

83: Gazzola WH, Benson RS, Carver W. Meltblown Polylactic Acid Nanowebs as a Tissue Engineering Scaffold. Ann Plast Surg. 2019 Dec;83(6):716-721. doi: 10.1097/SAP.000000000002036. PMID: 31688103.

84: Gonzalez T, Briceno J, Velasco B, Kaiser P, Stenquist D, Miller C, Kwon JY.

Gunshot-Related Injuries to the Foot & Ankle: Review Article. Foot Ankle Int.

2020 Apr;41(4):486-496. doi: 10.1177/1071100720901712. Epub 2020 Feb 5. PMID: 32020817.

85: Goodman CW, Brett AS. Gabapentinoids for Pain: Potential Unintended Consequences. Am Fam Physician. 2019 Dec 1;100(11):672-675. PMID: 31790179.

86: Goodman CW, Flanigan A, Probst JC, Brett AS. Charity Care Characteristics and Expenditures Among US Tax-Exempt Hospitals in 2016. Am J Public Health. 2020 Apr;110(4):492-498. doi: 10.2105/AJPH.2019.305522. Epub 2020 Feb 20. PMID: 32078357; PMCID: PMC7067084.

87: Goodman CW, Brett AS. Accessibility of Virtual Visits for Urgent Care Among US Hospitals: a Descriptive Analysis. J Gen Intern Med. 2020 May 18:1–2. doi: 10.1007/s11606-020-05888-x. Epub ahead of print. PMID: 32424785; PMCID: PMC7234442.

88: Goyal G, Tella SH, Funni S, Kommalapati A, Inselman JW, Shah ND, Go RS, Ansell SM. Association between facility volume and mortality of patients with classic Hodgkin lymphoma. Cancer. 2020 Feb 15;126(4):757-764. doi: 10.1002/cncr.32584. Epub 2019 Nov 12. PMID: 31714588.

89: Grillo CA, Woodruff JL, Macht VA, Reagan LP. Insulin resistance and hippocampal dysfunction: Disentangling peripheral and brain causes from consequences. Exp Neurol. 2019 Aug;318:71-77. doi: 10.1016/j.expneurol.2019.04.012. Epub 2019 Apr 24. PMID: 31028829.

90: Gutovitz S, Leggett J, Hart L, Leaman SM, James H, Stillinger T. The impact of tele-neurologists on acute stroke care at an advanced primary stroke centre.

J Telemed Telecare. 2020 May 14:1357633X20921039. doi: 10.1177/1357633X20921039. Epub ahead of print. PMID: 32408841.

91: Haldeman MS, Nolan MS, Ng'habi KRN. Human hookworm infection: Is effective control possible? A review of hookworm control efforts and future directions.

Acta Trop. 2020 Jan;201:105214. doi: 10.1016/j.actatropica.2019.105214. Epub 2019 Oct 7. PMID: 31600519.

92: Haldeman MS, Kishimbo P, Seddon M, Sangare A, Mwasomola D, Hall J, Shaffer M, Leclair R, Caulder C, Bookstaver PB, Nsojo A. Evaluation of Antimicrobial Utilization and Concordance with National Guidelines at a Tertiary Hospital in the Southern Highlands Zone of Tanzania. Am J Trop Med Hyg. 2020 Feb;102(2):370-376. doi: 10.4269/ajtmh.19-0231. PMID: 31802729; PMCID: PMC7008321.

93: Hall JWW, Holman H, Barreto TW, Bornemann P, Vaughan A, Bennett KJ, Chamberlain J, Micks T, Maurer DM, Bergus GR. Point-of-Care Ultrasound in Family

Medicine Residencies 5-Year Update: A CERA Study. Fam Med. 2020 Jun;52(7):505-511. doi: 10.22454/FamMed.2020.223648. PMID: 32640473.

94: Hall JW, Bouchard J, Bookstaver PB, Haldeman MS, Kishimbo P, Mbwanji G, Mwakyula I, Mwasomola D, Seddon M, Shaffer M, Shealy SC, Nsojo A. The Mbeya Antimicrobial Stewardship Team: Implementing Antimicrobial Stewardship at a Zonal-Level Hospital in Southern Tanzania. Pharmacy (Basel). 2020 Jun 24;8(2):107. doi: 10.3390/pharmacy8020107. PMID: 32599699; PMCID: PMC7356184.

95: Hardee JP, Fix DK, Koh HJ, Wang X, Goldsmith EC, Carson JA. Repeated eccentric contractions positively regulate muscle oxidative metabolism and protein synthesis during cancer cachexia in mice. J Appl Physiol (1985). 2020 Jun 1;128(6):1666-1676. doi: 10.1152/japplphysiol.00908.2019. Epub 2020 May 14. PMID: 32407241; PMCID: PMC7311684.

96: Hartstone-Rose A, Dickinson E, Paciulli LM, Deutsch AR, Tran L, Jones G, Leonard KC. Total Eclipse of the Zoo: Animal Behavior during a Total Solar Eclipse. Animals (Basel). 2020 Mar 31;10(4):587. doi: 10.3390/ani10040587. PMID: 32244374; PMCID: PMC7222787.

97: Hernandez AR, Hernandez CM, Truckenbrod LM, Campos KT, McQuail JA, Bizon JL, Burke SN. Age and Ketogenic Diet Have Dissociable Effects on Synapse-Related Gene Expression Between Hippocampal Subregions. Front Aging Neurosci. 2019 Sep 13;11:239. doi: 10.3389/fnagi.2019.00239. PMID: 31607897; PMCID: PMC6755342.

98: Hodge J, Wang F, Wang J, Liu Q, Saaoud F, Wang Y, Singh UP, Chen H, Luo M, Ai W, Fan D. Overexpression of microRNA-155 enhances the efficacy of dendritic cell vaccine against breast cancer. Oncoimmunology. 2020 Feb 9;9(1):1724761. doi: 10.1080/2162402X.2020.1724761. PMID: 32117588; PMCID: PMC7028336.

99: Hofseth LJ, Hebert JR, Chanda A, Chen H, Love BL, Pena MM, Murphy EA, Sajish M, Sheth A, Buckhaults PJ, Berger FG. Early-onset colorectal cancer: initial clues and current views. Nat Rev Gastroenterol Hepatol. 2020 Jun;17(6):352-364. doi: 10.1038/s41575-019-0253-4. Epub 2020 Feb 21. Erratum in: Nat Rev Gastroenterol Hepatol. 2020 Aug;17(8):517. PMID: 32086499.

100: Hosseinipour M, Wan F, Altomare D, Creek KE, Pirisi L. HPV16-transformed human keratinocytes depend on SIX1 expression for proliferation and HPV E6/E7 gene expression. Virology. 2019 Nov;537:20-30. doi: 10.1016/j.virol.2019.08.009. Epub 2019 Aug 13. PMID: 31425971; PMCID: PMC6901751.

101: Huang X, Li Y, Li X, Fan D, Xin HB, Fu M. TRIM14 promotes endothelial activation via activating NF-κB signaling pathway. J Mol Cell Biol. 2020 Apr 24;12(3):176-189. doi: 10.1093/jmcb/mjz040. PMID: 31070748; PMCID: PMC7181718.

102: Jackson JB 3rd, Chu CH, Williams KA, Bornemann PH. Normal Ultrasonographic Parameters of the Posterior Tibial, Peroneal, and Achilles Tendons. Foot Ankle Spec. 2019 Oct;12(5):480-485. doi: 10.1177/1938640018800785. Epub 2018 Sep 28. PMID: 30264576.

103: Jansen EC, She R, Rukstalis MM, Alexander GL. Sleep Duration and Quality in Relation to Fruit and Vegetable Intake of US Young Adults: a Secondary Analysis. Int J Behav Med. 2020 Feb 3. doi: 10.1007/s12529-020-09853-0. Epub ahead of print. PMID: 32016881.

104: Jones MC, Budh DP. Cholecystokinin Test. 2020 Jul 18. In: StatPearls [Internet]. Treasure Island (FL): StatPearls Publishing; 2020 Jan–. PMID: 32809658.

105: Kaur N, Starling AP, Calafat AM, Sjodin A, Clouet-Foraison N, Dolan LM, Imperatore G, Jensen ET, Lawrence JM, Ospina M, Pihoker C, Taylor KW, Turley C, Dabelea D, Jaacks LM. Longitudinal association of biomarkers of pesticide exposure with cardiovascular disease risk factors in youth with diabetes.

Environ Res. 2020 Feb;181:108916. doi: 10.1016/j.envres.2019.108916. Epub 2019 Nov 14. PMID: 31761333; PMCID: PMC6982582.

106: Khathayer F, Taylor MA, Ray SK. Synergism of 4HPR and SAHA increases antitumor actions in glioblastoma cells. Apoptosis. 2020 Apr;25(3-4):217-232. doi: 10.1007/s10495-020-01590-9. PMID: 32006189.

107: Kommalapati A, Tella SH, Yadav S, Goyal G, Hallemeier C, Durgin L, Jin Z, Mahipal A. Survival and prognostic factors in patients with rectal squamous cell carcinoma. Eur J Surg Oncol. 2020 Jun;46(6):1111-1117. doi: 10.1016/j.ejso.2020.02.039. Epub 2020 Mar 4. PMID: 32201124.

108: Kumar A, Potts JD, DiPette DJ. Protective Role of  $\alpha$ -Calcitonin Gene-Related Peptide in Cardiovascular Diseases. Front Physiol. 2019 Jul 2;10:821. doi: 10.3389/fphys.2019.00821. PMID: 31312143; PMCID: PMC6614340.

109: Kumar A, Supowit S, Potts JD, DiPette DJ. Alpha-calcitonin gene-related peptide prevents pressure-overload induced heart failure: role of apoptosis and oxidative stress. Physiol Rep. 2019 Nov;7(21):e14269. doi: 10.14814/phy2.14269. PMID: 31724338; PMCID: PMC6854098.

110: Kushchayev SV, Kushchayeva YS, Tella SH, Glushko T, Pacak K, Teytelboym OM. Medullary Thyroid Carcinoma: An Update on Imaging. J Thyroid Res. 2019 Jul 7;2019:1893047. doi: 10.1155/2019/1893047. PMID: 31360432; PMCID: PMC6642782.

111: Lai B, Wang J, Fagenson A, Sun Y, Saredy J, Lu Y, Nanayakkara G, Yang WY, Yu D, Shao Y, Drummer C 4th, Johnson C, Saaoud F, Zhang R, Yang Q, Xu K, Mastascusa K, Cueto R, Fu H, Wu S, Sun L, Zhu P, Qin X, Yu J, Fan D, Shen YH, Sun J, Rogers T, Choi ET, Wang H, Yang X. Twenty Novel Disease Group-Specific and 12 New Shared Macrophage Pathways in Eight Groups of 34 Diseases Including 24 Inflammatory Organ Diseases and 10 Types of Tumors. Front Immunol. 2019 Nov 14;10:2612. doi: 10.3389/fimmu.2019.02612. PMID: 31824480; PMCID: PMC6880770.

112: Lane-Cordova AD, Schneider LR, Tucker WC, Cook JW, Wilcox S, Liu J. Dietary sodium, potassium, and blood pressure in normotensive pregnant women: the National Health and Nutrition Examination Survey. Appl Physiol Nutr Metab. 2020 Feb;45(2):155-160. doi: 10.1139/apnm-2019-0186. Epub 2019 Jun 28. PMID: 31251883; PMCID: PMC7456746.

113: Lawson PA, Patel NB, Mohammed A, Moore ERB, Lo AS, Sardi A, Davis JM, Doyle DA, Hui Y, Testerman T. <i>Parapseudoflavitalea muciniphila</i> gen. nov., sp. nov., a member of the family <i>Chitinophagaceae</i> isolated from a human peritoneal tumour and reclassification of <i>Pseudobacter ginsenosidimutans</i> as <i>Pseudoflavitalea ginsenosidimutans</i> comb. nov. Int J Syst Evol Microbiol. 2020 Jun;70(6):3639-3646. doi: 10.1099/ijsem.0.004204. Epub 2020 Jun 5. PMID: 32501783; PMCID: PMC7395617.

114: Leonard KC, Boettcher ML, Dickinson E, Malhotra N, Aujard F, Herrel A, Hartstone-Rose A. The Ontogeny of Masticatory Muscle Architecture in Microcebus murinus. Anat Rec (Hoboken). 2020 May;303(5):1364-1373. doi: 10.1002/ar.24259. Epub 2019 Oct 6. PMID: 31509342.

115: Liao X, Xiao J, Li SH, Xiao LL, Cheng B, Fu XB, Cui T, Liu HW. Critical

role of the endogenous renin-angiotensin system in maintaining self-renewal and regeneration potential of epidermal stem cells. Biochim Biophys Acta Mol Basis

Dis. 2019 Oct 1;1865(10):2647-2656. doi: 10.1016/j.bbadis.2019.07.006. Epub 2019

Jul 16. PMID: 31319155.

116: Li KC, Wang CH, Zou JJ, Qu C, Wang XL, Tian XS, Liu HW, Cui T. Loss of Atg7 in Endothelial Cells Enhanced Cutaneous Wound Healing in a Mouse Model. J Surg Res. 2020 May;249:145-155. doi: 10.1016/j.jss.2019.12.004. Epub 2020 Jan 17. PMID: 31958599.

117: Li Y, Hodge J, Liu Q, Wang J, Wang Y, Evans TD, Altomare D, Yao Y, Murphy EA, Razani B, Fan D. TFEB is a master regulator of tumor-associated macrophages in breast cancer. J Immunother Cancer. 2020 Jun;8(1):e000543. doi: 10.1136/jitc-2020-000543. PMID: 32487570; PMCID: PMC7269543.

118: Loper PL Jr. Trauma Surgery. JAMA. 2020 Mar 10;323(10):929-930. doi: 10.1001/jama.2020.1331. PMID: 32154860.

119: Macht VA, Woodruff JL, Maissy ES, Grillo CA, Wilson MA, Fadel JR, Reagan LP. Pyridostigmine bromide and stress interact to impact immune function, cholinergic neurochemistry and behavior in a rat model of Gulf War Illness.

Brain Behav Immun. 2019 Aug;80:384-393. doi: 10.1016/j.bbi.2019.04.015. Epub 2019 Apr 3. PMID: 30953774; PMCID: PMC6790976.

120: Macht VA, Woodruff JL, Burzynski HE, Grillo CA, Reagan LP, Fadel JR.

Interactions between pyridostigmine bromide and stress on glutamatergic
neurochemistry: Insights from a rat model of Gulf War Illness. Neurobiol Stress.

2019 Dec 31;12:100210. doi: 10.1016/j.ynstr.2019.100210. PMID: 32258255; PMCID: PMC7109514.

121: Mahipal A, Tella SH, Kommalapati A, Anaya D, Kim R. FGFR2 genomic aberrations: Achilles heel in the management of advanced cholangiocarcinoma. Cancer Treat Rev. 2019 Aug;78:1-7. doi: 10.1016/j.ctrv.2019.06.003. Epub 2019 Jun 22. PMID: 31255945.

122: Mahipal A, Tella SH, Kommalapati A, Lim A, Kim R. Immunotherapy in Hepatocellular Carcinoma: Is There a Light at the End of the Tunnel? Cancers (Basel). 2019 Jul 30;11(8):1078. doi: 10.3390/cancers11081078. PMID: 31366113; PMCID: PMC6721326.

123: Mahipal A, Kommalapati A, Mehta R, Kim RD. Molecular-Targeted Therapies in Hepatocellular Carcinoma. 2019 Aug 6. In: Hoshida Y, editor. Hepatocellular Carcinoma: Translational Precision Medicine Approaches [Internet]. Cham (CH): Humana Press; 2019. Chapter 11. PMID: 32078262.

124: Manuel AM, Walla MD, Dorn MT, Tanis RM, Piroli GG, Frizzell N. Fumarate and oxidative stress synergize to promote stability of C/EBP homologous protein in the adipocyte. Free Radic Biol Med. 2020 Feb 20;148:70-82. doi: 10.1016/j.freeradbiomed.2019.12.037. Epub 2019 Dec 26. PMID: 31883977; PMCID: PMC6961135.

125: Masiewicz S, Gutovitz S, Hart L, Leaman SM, Jehle D. Presentation Times of Myocardial Infarctions to the Emergency Department: Disappearance of the Morning Predominance. J Emerg Med. 2020 May;58(5):741-748. doi: 10.1016/j.jemermed.2020.01.002. Epub 2020 Mar 27. PMID: 32229136.

126: Mathew RO, Rosenson RS, Lyubarova R, Chaudhry R, Costa SP, Bangalore S, Sidhu MS. Concepts and Controversies: Lipid Management in Patients with Chronic

Kidney Disease. Cardiovasc Drugs Ther. 2020 Jun 18. doi: 10.1007/s10557-020-07020-x. Epub ahead of print. PMID: 32556851.

127: McDonald AJ, Mascagni F. Cholecystokinin immunoreactive neurons in the basolateral amygdala of the rhesus monkey (Macaca mulatta). J Comp Neurol. 2019 Nov 1;527(16):2694-2702. doi: 10.1002/cne.24700. Epub 2019 Apr 22. PMID: 30980540; PMCID: PMC6721981.

128: McDonald AJ, Jones GC, Mott DD. Diverse glutamatergic inputs target spines expressing M1 muscarinic receptors in the basolateral amygdala: An ultrastructural analysis. Brain Res. 2019 Nov 1;1722:146349. doi: 10.1016/j.brainres.2019.146349. Epub 2019 Jul 23. PMID: 31348911; PMCID: PMC6755062.

129: McDonald AJ, Augustine JR. Nonpyramidal neurons in the primate basolateral amygdala: A Golgi study in the baboon (Papio cynocephalus) and long-tailed macaque (Macaca fascicularis). J Comp Neurol. 2020 Apr 1;528(5):772-786. doi: 10.1002/cne.24785. Epub 2019 Oct 31. PMID: 31600841.

130: Mediwala KN, Kohn JE, Bookstaver PB, Justo JA, Rac H, Tucker K, Lashkova L, Dash S, Al-Hasan MN. Syndrome-specific versus prospective audit and feedback interventions for reducing use of broad-spectrum antimicrobial agents. Am J Infect Control. 2019 Nov;47(11):1284-1289. doi: 10.1016/j.ajic.2019.04.175. Epub 2019 Jun 18. PMID: 31221448.

131: Memish ZA, Ebrahim SH, Kattan RF, Alharthy A, Alqahtani SA, Karakitsos D. Leadership to prevent COVID-19: is it the most important mitigation factor?

Travel Med Infect Dis. 2020 Nov-Dec;38:101925. doi: 10.1016/j.tmaid.2020.101925.

Epub 2020 Nov 20. PMID: 33227501; PMCID: PMC7678417.

132: Merrell DS, McAvoy TJ, King MC, Sittig M, Millar EV, Nieroda C, Metcalf JL, Blum FC, Testerman TL, Sardi A. Pre- and post-operative antibiotics in conjunction with cytoreductive surgery and heated intraperitoneal chemotherapy (HIPEC) should be considered for pseudomyxoma peritonei (PMP) treatment. Eur J Surg Oncol. 2019 Sep;45(9):1723-1726. doi: 10.1016/j.ejso.2019.01.223. Epub 2019 Jan 30. PMID: 30770164.

133: Miller ED, Abu-Sbeih H, Styskel B, Nogueras Gonzalez GM, Blechacz B, Naing A, Chalasani N. Clinical Characteristics and Adverse Impact of Hepatotoxicity due to Immune Checkpoint Inhibitors. Am J Gastroenterol. 2020 Feb;115(2):251-261. doi: 10.14309/ajg.0000000000000398. PMID: 31789632.

134: Mohammed AD, Khan MAW, Chatzistamou I, Chamseddine D, Williams-Kang K, Perry M, Enos R, Murphy A, Gomez G, Aladhami A, Oskeritzian CA, Jolly A, Chang Y, He S, Pan Z, Kubinak JL. Gut Antibody Deficiency in a Mouse Model of CVID Results in Spontaneous Development of a Gluten-Sensitive Enteropathy. Front Immunol. 2019 Oct 23;10:2484. doi: 10.3389/fimmu.2019.02484. PMID: 31708923; PMCID: PMC6820504.

135: Mohammed A, Alghetaa H, Sultan M, Singh NP, Nagarkatti P, Nagarkatti M. Administration of Δ9-Tetrahydrocannabinol (THC) Post-Staphylococcal Enterotoxin B Exposure Protects Mice From Acute Respiratory Distress Syndrome and Toxicity. Front Pharmacol. 2020 Jun 16;11:893. doi: 10.3389/fphar.2020.00893. PMID: 32612530; PMCID: PMC7308536.

136: Money AJ, Molloy S, Grabowski G. Epidural Abscess Caused by Gas-Producing Clostridium Septicum: A Case Report. JBJS Case Connect. 2019 Dec;9(4):e0282. doi: 10.2106/JBJS.CC.18.00282. PMID: 31688056.

137: Moore JB, Hill SR Jr, Weaver RG. Opportunities for Healthy Learning as a Social Determinant of Health. J Public Health Manag Pract. 2019

Nov/Dec;25(6):523-524. doi: 10.1097/PHH.00000000001089. PMID: 31569188.

138: Mumtaz K, Issak A, Porter K, Kelly S, Hanje J, Michaels AJ, Conteh LF, El-Hinnawi A, Black SM, Abougergi MS. Validation of Risk Score in Predicting Early Readmissions in Decompensated Cirrhotic Patients: A Model Based on the Administrative Database. Hepatology. 2019 Aug;70(2):630-639. doi: 10.1002/hep.30274. Epub 2019 Feb 19. PMID: 30218583.

139: Murphy EA, Jenkins TJ. A ketogenic diet for reducing obesity and maintaining capacity for physical activity: hype or hope? Curr Opin Clin Nutr Metab Care. 2019 Jul;22(4):314-319. doi: 10.1097/MCO.000000000000572. PMID: 31166223.

140: Nandi D, Hayes EA, Wang Y, Jerrell JM. Epidemiology of PediatricHypertrophic Cardiomyopathy in a 10-Year Medicaid Cohort. Pediatr Cardiol. 2020Oct 3. doi: 10.1007/s00246-020-02472-2. Epub ahead of print. PMID: 33009920.

141: Nauta F, de Beaufort H, Mussa FF, De Vincentiis C, Omura A, Matsuda H, Trimarchi S. Management of retrograde type A IMH with acute arch tear/type B dissection. Ann Cardiothorac Surg. 2019 Sep;8(5):531-539. doi: 10.21037/acs.2019.08.05. PMID: 31667150; PMCID: PMC6785497.

142: Neighbors A, Moss T, Holloway L, Yu SH, Annese F, Skinner S, Saneto R, Steet R. Functional analysis of a novel mutation in the TIMM8A gene that causes deafness-dystonia-optic neuronopathy syndrome. Mol Genet Genomic Med. 2020 Mar;8(3):e1121. doi: 10.1002/mgg3.1121. Epub 2020 Jan 5. PMID: 31903733; PMCID:

PMC7057109.

143: Noe N, Shim A, Millette K, Luo Y, Azhar M, Shi W, Warburton D, Turcatel G. Mesenchyme-specific deletion of Tgf-β1 in the embryonic lung disrupts branching morphogenesis and induces lung hypoplasia. Lab Invest. 2019 Sep;99(9):1363-1375. doi: 10.1038/s41374-019-0256-3. Epub 2019 Apr 25. PMID: 31028279; PMCID: PMC7422700.

144: Nottingham JM, Rentea RM. Anal Fistulotomy. 2020 Nov 12. In: StatPearls [Internet]. Treasure Island (FL): StatPearls Publishing; 2020 Jan—. PMID: 32310458.

145: Nottingham JM, McKeown DG. Transhiatal Esophagectomy. 2020 Jun 13. In: StatPearls [Internet]. Treasure Island (FL): StatPearls Publishing; 2020 Jan—.
PMID: 32644622.

146: Nottingham JM, Kyriakopoulos C. Mediastinotomy. 2020 Dec 1. In: StatPearls [Internet]. Treasure Island (FL): StatPearls Publishing; 2020 Jan–. PMID: 32966003.

147: Novick WM, Molloy F, Bowtell K, Forsberg B, Pavanić M, Polivenok I, Rao S, Muñoz Y, Cardarelli M. Pediatric Cardiac Service Development Programs for Lowand Middle-Income Countries in Need of Improving or Initiating Local Services. Front Pediatr. 2019 Sep 20;7:359. doi: 10.3389/fped.2019.00359. PMID: 31616645; PMCID: PMC6763596.

148: O'Sullivan BP, James L, Majure JM, Bickel S, Phan LT, Serrano Gonzalez M, Staples H, Tam-Williams J, Lang J, Snowden J; IDeA States Pediatric Clinical Trials Network. Obesity-related asthma in children: A role for vitamin D.

Pediatr Pulmonol. 2020 Sep 15. doi: 10.1002/ppul.25053. Epub ahead of print. PMID: 32930511.

149: Occhiuto CJ, Kammala AK, Yang C, Nellutla R, Garcia M, Gomez G, Subramanian H. Store-Operated Calcium Entry via STIM1 Contributes to MRGPRX2 Induced Mast Cell Functions. Front Immunol. 2020 Jan 21;10:3143. doi: 10.3389/fimmu.2019.03143. PMID: 32038646; PMCID: PMC6985555.

150: Olatosi B, Zhang J, Weissman S, Hu J, Haider MR, Li X. Using big data analytics to improve HIV medical care utilisation in South Carolina: A study protocol. BMJ Open. 2019 Jul 19;9(7):e027688. doi: 10.1136/bmjopen-2018-027688. PMID: 31326931; PMCID: PMC6661700.

151: Olatosi B, Weissman S, Zhang J, Chen S, Haider MR, Li X. Neighborhood Matters: Impact on Time Living with Detectable Viral Load for New Adult HIV Diagnoses in South Carolina. AIDS Behav. 2020 Apr;24(4):1266-1274. doi: 10.1007/s10461-019-02734-y. PMID: 31754967.

152: Ouriel K, Adelman MA, Rosenfield K, Scheinert D, Brodmann M, Peña C, Geraghty P, Lee A, White R, Clair DG. Safety of Paclitaxel-Coated Balloon Angioplasty for Femoropopliteal Peripheral Artery Disease. JACC Cardiovasc Interv. 2019 Dec 23;12(24):2515-2524. doi: 10.1016/j.jcin.2019.08.025. Epub 2019 Sep 28. PMID: 31575518.

153: Oza M, Becker W, Gummadidala PM, Dias T, Omebeyinje MH, Chen L, Mitra C, Jesmin R, Chakraborty P, Sajish M, Hofseth LJ, Banerjee K, Wang Q, Moeller PDR, Nagarkatti M, Nagarkatti P, Chanda A. Acute and short-term administrations of delta-9-tetrahydrocannabinol modulate major gut metabolomic regulatory pathways in C57BL/6 mice. Sci Rep. 2019 Jul 19;9(1):10520. doi:

10.1038/s41598-019-46478-0. PMID: 31324830; PMCID: PMC6642200.

154: Paciulli LM, Leischner C, Lane BA, McCaughey M, Guertin E, Davis J, Eberth JF, Hartstone-Rose A. Brief communication: Maximum ingested bite size in captive western lowland gorillas (Gorilla gorilla gorilla). Am J Phys Anthropol. 2020 Apr;171(4):725-732. doi: 10.1002/ajpa.23995. Epub 2020 Jan 8. PMID: 31912896.

155: Paolini SL, Pilato M, Rajasekaran V, Waters JFR, Bagic A, Urban A. Outcomes in three cases after brivaracetam treatment during pregnancy. Acta Neurol Scand. 2020 May;141(5):438-441. doi: 10.1111/ane.13222. Epub 2020 Jan 24. PMID: 31943124.

156: Patel UK, Kodumuri N, Dave M, Lekshminarayanan A, Khan N, Kavi T, Kothari R, Lunagariya A, Jani V. Stroke-Associated Pneumonia: A Retrospective Study of Risk Factors and Outcomes. Neurologist. 2020 May;25(3):39-48. doi: 10.1097/NRL.000000000000000009. PMID: 32358460.

157: Patel U, Kodumuri N, Malik P, Kapoor A, Malhi P, Patel K, Saiyed S, Lavado L, Kapoor V. Hypocalcemia and Vitamin D Deficiency amongst Migraine Patients: A Nationwide Retrospective Study. Medicina (Kaunas). 2019 Jul 25;55(8):407. doi: 10.3390/medicina55080407. PMID: 31349730; PMCID: PMC6723741.

158: Paudyal S, Waller JL, Oliver A, Le B, Zleik N, Nahman NS Jr, Carbone L. Rheumatoid Arthritis and Mortality in End Stage Renal Disease. J Clin Rheumatol. 2020 Mar;26(2):48-53. doi: 10.1097/RHU.000000000000916. PMID: 32073514.

159: Pilarzyk K, Klett J, Pena EA, Porcher L, Smith AJ, Kelly MP. Loss of Function of Phosphodiesterase 11A4 Shows that Recent and Remote Long-Term Memories Can Be Uncoupled. Curr Biol. 2019 Jul 22;29(14):2307-2321.e5. doi:

10.1016/j.cub.2019.06.018. Epub 2019 Jul 11. PMID: 31303492; PMCID: PMC6709976.

160: Plante JG, Winders HR, Bookstaver PB, Al-Hasan MN, Justo JA, Waites KS, Weissman S. Regional and statewide antibiograms as targeted interventions against antibiotic resistance. Infect Control Hosp Epidemiol. 2020 Jun 25:1-3. doi: 10.1017/ice.2020.273. Epub ahead of print. PMID: 32583760.

161: Pope BS, Wood SK. Stress-induced inflammation as the "connexin" between post-traumatic stress disorder and cardiovascular disease. Brain Behav Immun. 2019 Nov;82:3-5. doi: 10.1016/j.bbi.2019.08.182. Epub 2019 Aug 16. PMID: 31425828.

162: Rac H, Gould AP, Bookstaver PB, Justo JA, Kohn J, Al-Hasan MN. Evaluation of early clinical failure criteria for gram-negative bloodstream infections.

Clin Microbiol Infect. 2020 Jan;26(1):73-77. doi: 10.1016/j.cmi.2019.05.017.

Epub 2019 May 31. PMID: 31158519.

163: Rahman MA, Jui MS, Bam M, Cha Y, Luat E, Alabresm A, Nagarkatti M, Decho AW, Tang C. Facial Amphiphilicity-Induced Polymer Nanostructures for Antimicrobial Applications. ACS Appl Mater Interfaces. 2020 May 13;12(19):21221-21230. doi: 10.1021/acsami.9b19712. Epub 2020 Jan 15. PMID: 31939652.

164: Ramsey EG, Royer J, Bookstaver PB, Justo JA, Kohn J, Albrecht H, Al-Hasan MN. Seasonal variation in antimicrobial resistance rates of community-acquired Escherichia coli bloodstream isolates. Int J Antimicrob Agents. 2019

Jul;54(1):1-7. doi: 10.1016/j.ijantimicag.2019.03.010. Epub 2019 Mar 15. PMID: 30885805.

165: Richardson AL, Richardson OK. Phosphaturic mesenchymal tumor: Case report. Radiol Case Rep. 2019 Oct 22;14(12):1518-1524. doi: 10.1016/j.radcr.2019.09.027. PMID: 31681451; PMCID: PMC6818391.

166: Riddle PJ Jr, Rashti F, Ahuja D. Sigmoid-Derived Neovaginal Hemorrhage in a Transgender Patient. Gastroenterology. 2019 Nov;157(5):1205-1206. doi: 10.1053/j.gastro.2019.07.002. Epub 2019 Jul 4. PMID: 31279872.

167: Rivera-Lebron BN, Cruz Morel KJ, Risbano MG. Postural changes from ventilatory gas exchange in pulmonary hypertension: Is it a practical solution to a complex question? Respirology. 2020 Apr;25(4):354-355. doi: 10.1111/resp.13691. Epub 2019 Aug 27. PMID: 31454132.

168: Roland MM, Mohammed AD, Kubinak JL. How MHCII signaling promotes benign host-microbiota interactions. PLoS Pathog. 2020 Jun 29;16(6):e1008558. doi: 10.1371/journal.ppat.1008558. PMID: 32598378; PMCID: PMC7323949.

169: Sansalone L, Bratsch-Prince J, Tang S, Captain B, Mott DD, Raymo FM.

Photopotentiation of the GABA<sub>A</sub> receptor with caged diazepam. Proc

Natl Acad Sci U S A. 2019 Oct 15;116(42):21176-21184. doi:

10.1073/pnas.1902383116. Epub 2019 Oct 1. PMID: 31575739; PMCID: PMC6800354.

170: Sarkar S, Alhasson F, Kimono D, Albadrani M, Seth RK, Xiao S, Porter DE, Scott GI, Brooks B, Nagarkatti M, Nagarkatti P, Chatterjee S. Microcystin exposure worsens nonalcoholic fatty liver disease associated ectopic glomerular toxicity via NOX-2-MIR21 axis. Environ Toxicol Pharmacol. 2020 Jan;73:103281. doi: 10.1016/j.etap.2019.103281. Epub 2019 Oct 20. PMID: 31706246; PMCID: PMC7100051.

171: Sato S, Gao S, Puppa MJ, Kostek MC, Wilson LB, Carson JA. High-Frequency Stimulation on Skeletal Muscle Maintenance in Female Cachectic Mice. Med Sci Sports Exerc. 2019 Sep;51(9):1828-1837. doi: 10.1249/MSS.0000000000001991. PMID: 30933004; PMCID: PMC6697199.

172: Saylor RA, Hersey M, West A, Buchanan AM, Berger SN, Nijhout HF, Reed MC, Best J, Hashemi P. Corrigendum: <i>In vivo</i> Hippocampal Serotonin Dynamics in Male and Female Mice: Determining Effects of Acute Escitalopram Using Fast Scan Cyclic Voltammetry. Front Neurosci. 2019 Jul 9;13:726. doi: 10.3389/fnins.2019.00726. Erratum for: Front Neurosci. 2019 Apr 23;13:362. PMID: 31354425; PMCID: PMC6630529.

173: Schiffrin EL, Flack JM, Ito S, Muntner P, Webb RC. Hypertension and COVID-19. Am J Hypertens. 2020 Apr 29;33(5):373-374. doi: 10.1093/ajh/hpaa057. PMID: 32251498; PMCID: PMC7184512.

174: Seddon MM, Bookstaver PB, Justo JA, Kohn J, Rac H, Haggard E, Mediwala KN, Dash S, Al-Hasan MN. Role of Early De-escalation of Antimicrobial Therapy on Risk of Clostridioides difficile Infection Following Enterobacteriaceae Bloodstream Infections. Clin Infect Dis. 2019 Jul 18;69(3):414-420. doi: 10.1093/cid/ciy863. PMID: 30312362.

175: Seymour ZR, Nolting L, Boyer B. Elderly man with abdominal and chest pain.

J Am Coll Emerg Physicians Open. 2020 Jun 14;1(4):666-668. doi:

10.1002/emp2.12120. PMID: 33000094; PMCID: PMC7493470.

176: Shealy SC, Brigmon MM, Justo JA, Bookstaver PB, Kohn J, Al-Hasan MN. Impact of Reappraisal of Fluoroquinolone Minimum Inhibitory Concentration

Susceptibility Breakpoints in Gram-Negative Bloodstream Isolates. Antibiotics

(Basel). 2020 Apr 17;9(4):189. doi: 10.3390/antibiotics9040189. PMID: 32316502; PMCID: PMC7235854.

177: Shealy SC, Alexander C, Hardison TG, Magagnoli J, Justo JA, Derrick C, Kohn J, Winders HR, Privette T, Al-Hasan MN, Bookstaver PB. Pharmacist-Driven Culture and Sexually Transmitted Infection Testing Follow-Up Program in the Emergency Department. Pharmacy (Basel). 2020 Apr 23;8(2):72. doi: 10.3390/pharmacy8020072. PMID: 32340149; PMCID: PMC7356047.

178: Shidal C, Singh NP, Nagarkatti P, Nagarkatti M. MicroRNA-92 Expression in CD133<sup>+</sup> Melanoma Stem Cells Regulates Immunosuppression in the Tumor Microenvironment via Integrin-Dependent Activation of TGFβ. Cancer Res. 2019 Jul 15;79(14):3622-3635. doi: 10.1158/0008-5472.CAN-18-2659. Epub 2019 Apr 23. PMID: 31015227; PMCID: PMC6635067.

179: Shokoohi H, LeSaux MA, Roohani YH, Liteplo A, Huang C, Blaivas M. Enhanced Point-of-Care Ultrasound Applications by Integrating Automated Feature-Learning Systems Using Deep Learning. J Ultrasound Med. 2019 Jul;38(7):1887-1897. doi: 10.1002/jum.14860. Epub 2018 Nov 13. PMID: 30426536.

180: Skeete J, DiPette DJ. Editorial commentary: Two years post the ACC/AHA 2017 hypertension guidelines: Where are we now? Trends Cardiovasc Med. 2020 Apr;30(3):165-167. doi: 10.1016/j.tcm.2019.07.010. Epub 2019 Aug 6. PMID: 31420239.

181: Skeete J, Ridley E, DiPette DJ. Could uric acid reduction by specific xanthine oxidase inhibition improve vascular function and reduce cardiovascular risk? J Clin Hypertens (Greenwich). 2019 Nov;21(11):1721-1723. doi: 10.1111/jch.13693. Epub 2019 Sep 26. PMID: 31556222.

182: Smith J, Neupane R, McAmis W, Singh U, Chatterjee S, Raychoudhury S.

Toxicity of polycyclic aromatic hydrocarbons involves NOX2 activation. Toxicol

Rep. 2019 Nov 6;6:1176-1181. doi: 10.1016/j.toxrep.2019.11.006. PMID: 31763181;

PMCID: PMC6861563.

183: Srinivasan S, Glover J, Tampi RR, Tampi DJ, Sewell DD. Sexuality and the Older Adult. Curr Psychiatry Rep. 2019 Sep 14;21(10):97. doi: 10.1007/s11920-019-1090-4. PMID: 31522296.

184: Steck SE, Murphy EA. Dietary patterns and cancer risk. Nat Rev Cancer. 2020 Feb;20(2):125-138. doi: 10.1038/s41568-019-0227-4. Epub 2019 Dec 17. PMID: 31848467.

185: Tampi RR, Zdanys KF, Srinivasan S, Yarns BC. Advice on How to Choose a Geriatric Psychiatry Fellowship. Am J Geriatr Psychiatry. 2019

Jul;27(7):687-694. doi: 10.1016/j.jagp.2019.01.013. Epub 2019 Jan 21. PMID: 30819610.

186: Tashkandi H, Chaparala A, Peng S, Nagarkatti M, Nagarkatti P, Chumanevich AA, Hofseth LJ. Pharmacokinetics of Panaxynol in Mice. J Cancer Sci Clin Ther. 2020;4(2):133-143. doi: 10.26502/jcsct.5079059. Epub 2020 Jun 1. PMID: 32905447; PMCID: PMC7472592.

187: Taylor MA, Khathayer F, Ray SK. Quercetin and Sodium Butyrate
Synergistically Increase Apoptosis in Rat C6 and Human T98G Glioblastoma Cells
Through Inhibition of Autophagy. Neurochem Res. 2019 Jul;44(7):1715-1725. doi: 10.1007/s11064-019-02802-8. Epub 2019 Apr 22. PMID: 31011879.

188: Tella SH, Kommalapati A, Rech KL, Go RS, Goyal G. Incidence, Clinical Features, and Outcomes of Langerhans Cell Sarcoma in the United States. Clin Lymphoma Myeloma Leuk. 2019 Jul;19(7):441-446. doi: 10.1016/j.clml.2019.03.026. Epub 2019 Apr 1. PMID: 31005630.

189: Tella SH, Kommalapati A, Yadav S, Bergquist JR, Truty MJ, Durgin L, Ma WW, Cleary SP, McWilliams RR, Mahipal A. Survival and prognostic factors in patients with pancreatic squamous cell carcinoma. Eur J Surg Oncol. 2019
Sep;45(9):1700-1705. doi: 10.1016/j.ejso.2019.05.011. Epub 2019 May 15. PMID: 31118133.

190: Tella SH, Kommalapati A, Ganti AK, Marr AS. Association Between Hospital Volume, Therapy Types, and Overall Survival in Stage III and IV Cutaneous Malignant Melanoma. J Natl Compr Canc Netw. 2019 Nov 1;17(11):1334-1342. doi: 10.6004/jnccn.2019.7320. PMID: 31693989.

191: Tella SH, Mahipal A, Kommalapati A, Jin Z. Evaluating the Safety and Efficacy of Nivolumab in Patients with Advanced Hepatocellular Carcinoma: Evidence to Date. Onco Targets Ther. 2019 Nov 28;12:10335-10342. doi: 10.2147/OTT.S214870. PMID: 31819517; PMCID: PMC6886547.

192: Tella SH, Kommalapati A, Borad MJ, Mahipal A. Second-line therapies in advanced biliary tract cancers. Lancet Oncol. 2020 Jan;21(1):e29-e41. doi: 10.1016/S1470-2045(19)30733-8. PMID: 31908303.

193: Tella SH, Kommalapati A, Yadav S, Bergquist JR, Goyal G, Durgin L, Borad M, Cleary SP, Truty MJ, Mahipal A. Novel staging system using carbohydrate antigen (CA) 19-9 in extra-hepatic cholangiocarcinoma and its implications on overall survival. Eur J Surg Oncol. 2020 May;46(5):789-795. doi:

10.1016/j.ejso.2020.01.016. Epub 2020 Jan 11. PMID: 31954549.

194: Tella SH, Kommalapati A, Mahipal A. Systemic therapy for advanced hepatocellular carcinoma: targeted therapies. Chin Clin Oncol. 2020 May 14:cco-20-117. doi: 10.21037/cco-20-117. Epub ahead of print. PMID: 32434345.

195: Tella SH, Mahipal A. The future of adjuvant therapy in ampullary cancer: should we offer it to our patients? Hepatobiliary Surg Nutr. 2020

Jun;9(3):368-370. doi: 10.21037/hbsn.2019.11.06. PMID: 32509832; PMCID: PMC7262616.

196: Terebelo HR, Abonour R, Gasparetto CJ, Toomey K, Durie BGM, Hardin JW, Jagannath S, Wagner L, Narang M, Flick ED, Srinivasan S, Yue L, Kitali A, Agarwal A, Rifkin RM; CONNECT MM Registry Investigators. Development of a prognostic model for overall survival in multiple myeloma using the Connect<sup>@</sup> MM Patient Registry. Br J Haematol. 2019 Dec;187(5):602-614. doi: 10.1111/bjh.16139. Epub 2019 Aug 5. PMID: 31382320; PMCID: PMC6899784.

197: Testerman TL, Semino-Mora C, Cann JA, Qiang B, Peña EA, Liu H, Olsen CH, Chen H, Appt SE, Kaplan JR, Register TC, Merrell DS, Dubois A. Both diet and Helicobacter pylori infection contribute to atherosclerosis in pre- and postmenopausal cynomolgus monkeys. PLoS One. 2019 Sep 6;14(9):e0222001. doi: 10.1371/journal.pone.0222001. PMID: 31490998; PMCID: PMC6730863.

198: Thorn SL, Barlow SC, Feher A, Stacy MR, Doviak H, Jacobs J, Zellars K,
Renaud JM, Klein R, deKemp RA, Khakoo AY, Lee T, Spinale FG, Sinusas AJ.
Application of Hybrid Matrix Metalloproteinase-Targeted and Dynamic
<sup>201</sup>Tl Single-Photon Emission Computed Tomography/Computed Tomography
Imaging for Evaluation of Early Post-Myocardial Infarction Remodeling. Circ

Cardiovasc Imaging. 2019 Nov;12(11):e009055. doi: 10.1161/CIRCIMAGING.119.009055. Epub 2019 Nov 11. PMID: 31707811; PMCID: PMC7250243.

199: Tobiansky DJ, Kachkovski GV, Enos RT, Schmidt KL, Murphy EA, Soma KK. Sucrose consumption alters steroid and dopamine signalling in the female rat brain. J Endocrinol. 2020 May;245(2):231-246. doi: 10.1530/JOE-19-0386. PMID: 32112695.

200: Torres WM, Spinale FG, Shazly T. Speckle-Tracking Echocardiography Enables Model-Based Identification of Regional Stiffness Indices in the Left Ventricular Myocardium. Cardiovasc Eng Technol. 2020 Apr;11(2):176-187. doi: 10.1007/s13239-020-00456-0. Epub 2020 Jan 29. PMID: 31997092.

201: Turner-McGrievy G, Wilcox S, Frongillo EA, Murphy A, Hutto B, Williams K, Crimarco A, Wilson M, Davey M. The Nutritious Eating with Soul (NEW Soul) Study: Study design and methods of a two-year randomized trial comparing culturally adapted soul food vegan vs. omnivorous diets among African American adults at risk for heart disease. Contemp Clin Trials. 2020 Jan;88:105897. doi: 10.1016/j.cct.2019.105897. Epub 2019 Nov 16. PMID: 31743793; PMCID: PMC6952545.

202: Valdés González Y, Campbell NRC, Pons Barrera E, Calderón Martínez M, Pérez Carrera A, Morales Rigau JM, Afonso de León JA, Pérez Jiménez V, Landrove Rodríguez O, DiPette DJ, Giraldo G, Orduñez P. Implementation of a community-based hypertension control program in Matanzas, Cuba. J Clin Hypertens (Greenwich). 2020 Feb;22(2):142-149. doi: 10.1111/jch.13814. Epub 2020 Jan 22. PMID: 31967722.

203: Valois RF, Kerr JC, Carey MP, Brown LK, Romer D, DiClemente RJ, Vanable PA.

Neighborhood Stress and Life Satisfaction: Is there a Relationship for African American Adolescents? Appl Res Qual Life. 2020 Mar;15(1):273-296. doi: 10.1007/s11482-018-9679-z. PMID: 32042351; PMCID: PMC7009313.

204: Velázquez KT, Enos RT, Bader JE, Sougiannis AT, Carson MS, Chatzistamou I, Carson JA, Nagarkatti PS, Nagarkatti M, Murphy EA. Prolonged high-fat-diet feeding promotes non-alcoholic fatty liver disease and alters gut microbiota in mice. World J Hepatol. 2019 Aug 27;11(8):619-637. doi: 10.4254/wjh.v11.i8.619. PMID: 31528245; PMCID: PMC6717713.

205: Vogel MT, Abu-Rish Blakeney E, Willgerodt MA, Odegard PS, Johnson EL, Shrader S, Liner D, Dyer CA, Hall LW, Zierler B. Interprofessional education and practice guide: interprofessional team writing to promote dissemination of interprofessional education scholarship and products. J Interprof Care. 2019 Sep-Oct;33(5):406-413. doi: 10.1080/13561820.2018.1538111. Epub 2018 Nov 5. PMID: 30395742; PMCID: PMC6500769.

206: Walsh KB. Screening Technologies for Inward Rectifier Potassium Channels: Discovery of New Blockers and Activators. SLAS Discov. 2020 Jun;25(5):420-433. doi: 10.1177/2472555220905558. Epub 2020 Apr 15. PMID: 32292089.

207: Wang Y, Liu M, Johnson SB, Yuan G, Arriba AK, Zubizarreta ME, Chatterjee S, Nagarkatti M, Nagarkatti P, Xiao S. Doxorubicin obliterates mouse ovarian reserve through both primordial follicle atresia and overactivation. Toxicol Appl Pharmacol. 2019 Oct 15;381:114714. doi: 10.1016/j.taap.2019.114714. Epub 2019 Aug 19. PMID: 31437492; PMCID: PMC6745286.

208: Wei X, Zeng W, Su J, Wan H, Yu X, Cao X, Tan W, Wang H. Hypolipidemia is associated with the severity of COVID-19. J Clin Lipidol. 2020 May-

Jun;14(3):297-304. doi: 10.1016/j.jacl.2020.04.008. Epub 2020 Apr 30. PMID: 32430154; PMCID: PMC7192140.

209: Wheeler AR, Cuenca C, Fisher AD, April MD, Shackelford SA, Schauer SG.

Development of prehospital assessment findings associated with massive transfusion. Transfusion. 2020 Jun;60 Suppl 3:S70-S76. doi: 10.1111/trf.15595.

Epub 2020 Jun 1. PMID: 32478893.

210: Widiapradja A, Manteufel EJ, Dehlin HM, Pena J, Goldspink PH, Sharma A, Kolb LL, Imig JD, Janicki JS, Lu B, Levick SP. Regulation of Cardiac Mast Cell Maturation and Function by the Neurokinin-1 Receptor in the Fibrotic Heart. Sci Rep. 2019 Jul 29;9(1):11004. doi: 10.1038/s41598-019-47369-0. PMID: 31358823; PMCID: PMC6662794.

211: Williams K, Askew C, Mazoue C, Guy J, Torres-McGehee TM, Jackson Iii JB. Vitamin D3 Supplementation and Stress Fractures in High-Risk Collegiate Athletes - A Pilot Study. Orthop Res Rev. 2020 Feb 27;12:9-17. doi: 10.2147/ORR.S233387. PMID: 32161507; PMCID: PMC7051810.

212: Wilson MA, Liberzon I, Lindsey ML, Lokshina Y, Risbrough VB, Sah R, Wood SK, Williamson JB, Spinale FG. Common pathways and communication between the brain and heart: connecting post-traumatic stress disorder and heart failure.

Stress. 2019 Sep;22(5):530-547. doi: 10.1080/10253890.2019.1621283. Epub 2019 Jun 4. PMID: 31161843; PMCID: PMC6690762.

213: Winkler CT, Dobson RW, Tranovich MJ. Low Back Pain and Swelling as an Atypical Presentation of IgA Vasculitis. Clin Pract Cases Emerg Med. 2020 Apr 14;4(2):241-243. doi: 10.5811/cpcem.2019.11.44574. PMID: 32426683; PMCID: PMC7219997.

214: Wirth MD, Robinson C, Murphy EA, Shivappa N, Hébert JR. The dietary inflammatory index is associated with gastrointestinal infection symptoms in the national health and nutrition examination survey. Int J Food Sci Nutr. 2020 Feb;71(1):106-115. doi: 10.1080/09637486.2019.1614539. Epub 2019 May 20. PMID: 31106619.

215: Xavier JB, Young VB, Skufca J, Ginty F, Testerman T, Pearson AT, Macklin P, Mitchell A, Shmulevich I, Xie L, Caporaso JG, Crandall KA, Simone NL, Godoy-Vitorino F, Griffin TJ, Whiteson KL, Gustafson HH, Slade DJ, Schmidt TM, Walther-Antonio MRS, Korem T, Webb-Robertson BM, Styczynski MP, Johnson WE, Jobin C, Ridlon JM, Koh AY, Yu M, Kelly L, Wargo JA. The Cancer Microbiome: Distinguishing Direct and Indirect Effects Requires a Systemic View. Trends Cancer. 2020 Mar;6(3):192-204. doi: 10.1016/j.trecan.2020.01.004. Epub 2020 Feb 7. PMID: 32101723; PMCID: PMC7098063.

216: Xirasagar S, Tsai MH, Heidari K, Hardin JW, Wu Y, Wronski R, Hurley D, Jauch EC, Sen S. Why acute ischemic stroke patients in the United States use or do not use emergency medical services transport? Findings of an inpatient survey. BMC Health Serv Res. 2019 Dec 3;19(1):929. doi: 10.1186/s12913-019-4741-6. PMID: 31796059; PMCID: PMC6892139.

217: Yadav S, Tella SH, Kommalapati A, Mara K, Prasai K, Mady MH, Hassan M, Smoot RL, Cleary SP, Truty MJ, Roberts LR, Mahipal A. A Novel Clinically Based Staging System for Gallbladder Cancer. J Natl Compr Canc Netw. 2020 Feb;18(2):151-159. doi: 10.6004/jnccn.2019.7357. PMID: 32023527.

218: Yang X, Bam M, Nagarkatti PS, Nagarkatti M. Cannabidiol Regulates Gene Expression in Encephalitogenic T cells Using Histone Methylation and noncoding

RNA during Experimental Autoimmune Encephalomyelitis. Sci Rep. 2019 Oct 31;9(1):15780. doi: 10.1038/s41598-019-52362-8. PMID: 31673072; PMCID: PMC6823430.

219: Younas M, Royer J, Weissman SB, Waites KS, Dash S, Rac H, Bookstaver PB, Justo JA, Bell L, Maki A Jr, Al-Hasan MN. Burden of community-associated Clostridioides difficile infection in southeastern United States: a population-based study. Infection. 2020 Feb;48(1):129-132. doi: 10.1007/s15010-019-01368-5. Epub 2019 Nov 1. PMID: 31677084.

220: Zeiss CJ, Gatti DM, Toro-Salazar O, Davis C, Lutz CM, Spinale F, Stearns T, Furtado MB, Churchill GA. Doxorubicin-Induced Cardiotoxicity in Collaborative Cross (CC) Mice Recapitulates Individual Cardiotoxicity in Humans. G3 (Bethesda). 2019 Aug 8;9(8):2637-2646. doi: 10.1534/g3.119.400232. PMID: 31263061; PMCID: PMC6686936.

221: Zeng J, Dou J, Gao L, Xiang Y, Huang J, Ding S, Chen J, Zeng Q, Luo Z, Tan W, Lu J. Topical ozone therapy restores microbiome diversity in atopic dermatitis. Int Immunopharmacol. 2020 Mar;80:106191. doi: 10.1016/j.intimp.2020.106191. Epub 2020 Jan 24. PMID: 31986325.

222: Zhang X, Sergin I, Evans TD, Jeong SJ, Rodriguez-Velez A, Kapoor D, Chen S, Song E, Holloway KB, Crowley JR, Epelman S, Weihl CC, Diwan A, Fan D, Mittendorfer B, Stitziel NO, Schilling JD, Lodhi IJ, Razani B. High-protein diets increase cardiovascular risk by activating macrophage mTOR to suppress mitophagy. Nat Metab. 2020 Jan;2(1):110-125. doi: 10.1038/s42255-019-0162-4. Epub 2020 Jan 23. Erratum in: Nat Metab. 2020 Sep;2(9):991. PMID: 32128508; PMCID: PMC7053091.

223: Zhang Y, Wright B, D'Amore P, Hightower C, Stang T, Israel H, Tucker M, Zura R, Cannada LK. Gunshot Wounds to the Hip: Doomed to Failure? J Surg Orthop Adv. 2020 Summer;29(3):135-140. PMID: 33044152.

224: Zhang Y, Lucius MD, Altomare D, Havighorst A, Farmaki E, Chatzistamou I, Shtutman M, Kiaris H. Coordination Analysis of Gene Expression Points to the Relative Impact of Different Regulators During Endoplasmic Reticulum Stress. DNA Cell Biol. 2019 Sep;38(9):969-981. doi: 10.1089/dna.2019.4910. Epub 2019 Aug 6. PMID: 31355672; PMCID: PMC7061302.

225: Zhang Y, Chatzistamou I, Kiaris H. Identification of frailty-associated genes by coordination analysis of gene expression. Aging (Albany NY). 2020 Feb 29;12(5):4222-4229. doi: 10.18632/aging.102875. Epub 2020 Feb 29. PMID: 32112643; PMCID: PMC7093164.

226: Zhao Z, Hodge J, Wang D, Liu Q. New light shed on the old herb - Silybum marianum. Int J Cardiol. 2019 Aug 1;288:123. doi: 10.1016/j.ijcard.2019.02.013. PMID: 31101227.

227: Zheng J, Tabung FK, Zhang J, Murphy EA, Shivappa N, Ockene JK, Caan B, Kroenke CH, Hébert JR, Steck SE. Post-cancer diagnosis dietary inflammatory potential is associated with survival among women diagnosed with colorectal cancer in the Women's Health Initiative. Eur J Nutr. 2020 Apr;59(3):965-977. doi: 10.1007/s00394-019-01956-z. Epub 2019 Apr 6. PMID: 30955051; PMCID: PMC6778721.

228: Patel UK, Kodumuri N, Dave M, Lekshminarayanan A, Khan N, Kavi T, Kothari R, Lunagariya A, Jani V. Stroke-Associated Pneumonia: A Retrospective Study of Risk Factors and Outcomes. Neurologist. 2020 May;25(3):39-48. doi:

10.1097/NRL.0000000000000269. PMID: 32358460.

229: Rahman MA, Jui MS, Bam M, Cha Y, Luat E, Alabresm A, Nagarkatti M, Decho AW, Tang C. Facial Amphiphilicity-Induced Polymer Nanostructures for Antimicrobial Applications. ACS Appl Mater Interfaces. 2020 May 13;12(19):21221-21230. doi: 10.1021/acsami.9b19712. Epub 2020 Jan 15. PMID: 31939652.

230: Yadav S, Tella SH, Kommalapati A, Mara K, Prasai K, Mady MH, Hassan M, Smoot RL, Cleary SP, Truty MJ, Roberts LR, Mahipal A. A Novel Clinically Based Staging System for Gallbladder Cancer. J Natl Compr Canc Netw. 2020 Feb;18(2):151-159. doi: 10.6004/jnccn.2019.7357. PMID: 32023527.

231: Gober L, Bui A, Ruddy JM. Racial and Gender Disparity in Achieving Optimal Medical Therapy for Inpatients with Peripheral Artery Disease. Ann Vasc Med Res. 2020;7(4):1115. Epub 2020 Jul 15. PMID: 33585679; PMCID: PMC7877491.

232: Chaparala A, Tashkandi H, Chumanevich AA, Witalison EE, Windust A, Cui T, Nagarkatti M, Nagarkatti P, Hofseth LJ. Molecules from American Ginseng Suppress Colitis through Nuclear Factor Erythroid-2-Related Factor 2. Nutrients. 2020 Jun 21;12(6):1850. doi: 10.3390/nu12061850. PMID: 32575883; PMCID: PMC7353434.

233: Frierson RL. Examining the Past and Advocating for the Future of Forensic Psychiatry Training. J Am Acad Psychiatry Law. 2020 Mar;48(1):16-25. doi: 10.29158/JAAPL.003919-20. Epub 2020 Jan 16. PMID: 31948994.