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SOM Dean's Research Newsletter

NYMC Publications

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Dean's Research Newsletter, August 2021

Jerry L. Nadler

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DEAN'S RESEARCH NEWSLETTER

August 2021





Dear Members of the New York Medical College (NYMC) Community,

I am pleased to share with you the August issue of the research newsletter that highlights important research taking place at NYMC School of Medicine (SOM), including several COVID-19 related studies conducted by both faculty and students.

I am excited that our meaningful research here at NYMC and its clinical affiliates is being recognized, as demonstrated by the recent selection of the NYMC Genomics Core Laboratory by New York State as one of just five institutions to bolster state efforts in identifying COVID-19 variants.

We also partnered with Regeneron Pharmaceuticals on a high impact study published in *Science* that used cutting edge technology to pinpoint a gene mutation that may protect against obesity.

You can read more about this important work done by researchers in the labs of Michal L. Schwartzman, Ph.D., professor and chair of the Department of Pharmacology, and Victor Garcia, Ph.D. '15, assistant professor of pharmacology, later in this newsletter.

Congratulations to all faculty and students on their recent accomplishments, only a small portion of which are reported here. I am confident much more progress lies ahead for the NYMC research community. I also want to especially thank the faculty and staff mentors for helping our students carry out their summer research projects. Be safe and well.

Jerry L. Nadler, M.D., MACP, FAHA, FACE Dean of the School of Medicine Professor of Medicine and Pharmacology

Recommended Articles

Evidence-Based Practices to Reduce COVID-19 Transmission in Dialysis Facilities published by Renee Garrick, M.D. Professor of Clinical Medicine Vice Dean and Chief Medical Officer for Westchester Medical Center AHA Guideline: Prevention of Viridans Group Streptococcal Infective Endocarditis published by Michael Gewitz, M.D. Vice Chair of Department of Pediatrics and Professor of Pediatrics William Russell McCurdy Physician-in-Chief Maria Fareri Children's Hospital

NYMC Researchers Partner with Regeneron to Discover *GPR75* Gene Mutations that Protect Against Obesity

Researchers from NYMC and Regeneron Genetics Center (RGC) have discovered rare genetic mutations in the *GPR75* gene associated with protection against obesity. As reported in <u>Science</u>, almost 650,000 people were sequenced to find rare individuals with this genetic 'superpower,' providing new insights into the genetic basis of obesity. It is estimated that more than one billion people could be suffering from obesity (body mass index [BMI] of 30 or higher) by 2030.

NYMC researchers in the labs of Michal L. Schwartzman, Ph.D., professor and chair of the Department of Pharmacology, and Victor Garcia, Ph.D. '15, assistant professor of pharmacology, in collaboration with RGC scientists found that individuals who have at least one inactive copy of the *GPR75* gene have lower BMI and, on average, tend to weigh about 12 pounds less and



(L to R) Sakib Hossain, Michal Schwartzman, Ph.D. Victor Garcia, Ph.D., and Jonathan Pascale

face a 54 percent lower risk of obesity than those without the mutation. Protective 'loss of function' mutations were found in about one of every 3,000 people sequenced.

Previous to this study, Dr. Garcia, while still an NYMC graduate student under Dr. Schwartzman's mentorship, found the orphaned G-protein coupled receptor, *GPR75*, to be the cellular target for the vasoactive and pro-inflammatory lipid 20-HETE (*Circulation Research* 2017). In a subsequent 2021 study published in the *British Journal of Pharmacology*, the molecular underpinnings of *GPR75*, were further characterized by Dr. Garcia's lab, with relatively low levels of 20-HETE found to trigger a physiological response in *GPR75*.

"In our preliminary studies, we identified protection from diet-driven obesity and associated metabolic and cardiovascular complications in *GPR75* knockout mice," said Dr. Schwartzman. "This remarkable observation mirrored previous findings that identified an association between high-fat, diet-induced obesity in animal models and BMI in humans and 20-HETE levels, implicating 20-HETE as a key mediator driving weight gain and a diabetic phenotype (hyperglycemia and insulin resistance) in mice." Read full story about research on *GPR75* gene.

NYMC Selected to Assist New York State in Identification of COVID-19 Variants



Weihua Huang, Ph.D.

After a competitive request for proposal process, NYMC is among five institutions selected by New York State to bolster state efforts in identifying COVID-19 variants. The New York State Department of Health is partnering with the <u>NYMC Genomics</u> <u>Core Laboratory</u> to access and process positive specimens of SARS-CoV-2, the virus that causes COVID-19, from large multi-county areas in New York State outside of New York City.

The NYMC Genomics Core Laboratory in the Department of Pathology, Microbiology and Immunology, was established to house both basic and translational genomics research, provide state-of-the-art next-generation sequencing (NGS) technologies, conduct genomics experiments and bioinformatics analyses, as well as provide opportunities for education and training in genomics and bioinformatics. The lab is directed by Weihua Huang, Ph.D., associate

professor of pathology, microbiology and immunology.

Data will be used to help build an understanding of disease manifestations, therapy or vaccine evasion and efficacy, and will support other discoveries to inform public health intervention. Sequencing results from the partner laboratories will be reported to the New York State Department of Health and the Global Initiative on Sharing Avian Influenza Data. NYMC expects to collaborate with the Westchester Medical Center (WMC) Health Network to acquire samples from the Hudson Valley.

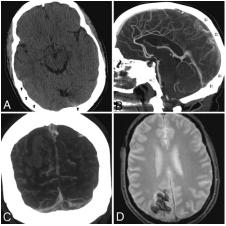
"I am elated at the selection of the Genomics Core Laboratory for this partnership, which not only affirms that NYMC and Touro College and University System (TCUS) are at the forefront of COVID-19 research but allows us to play an important role in keeping the public safe," said Salomon Amar, D.D.S., Ph.D., vice president for research at NYMC, and senior vice president for research affairs at TCUS, who is the principal investigator on the project.

"This selection is a testament to the outstanding research work done under the directorship of Dr. Huang and I feel honored to be part of this team. Thanks to everyone involved in this invaluable work, including NYMC leadership and our clinical affiliate WMC Health Network, this study will allow us to better track, monitor and combat this unprecedented pandemic of COVID-19," said Humayun Islam, M.D., Ph.D., chair of the Department of Pathology, Microbiology and Immunology. <u>Read full story on the NYMC Genomics Core Laboratory selection.</u>

Research Finds COVID-19 Patients at Higher Risk for Cerebral Venous Thrombosis

New research by NYMC faculty and staff found that cerebral venous thrombosis (CVT) occurs at a higher frequency in COVID-19 patients and that it predominantly affects patients who are young, male and otherwise healthy. Findings from the study, which examined case records of 13,500 patients with COVID-19 admitted to six New York metropolitan tertiary care centers in the first half of 2020, were recently published in the *American Journal of Neuroradiology*.

The study, <u>Cerebral Venous Thrombosis in COVID-19: A New York Metropolitan</u> <u>Cohort Study</u>, was led by Fawaz Al-Mufti, M.D., assistant professor of neurology, neurosurgery and of radiology, and Chirag Gandhi, M.D., chair of the Department of Neurosurgery and professor of neurosurgery, neurology and of radiology. Additional authors on the study, include Ramandeep Sahni, M.D., clinical associate professor of neurology; Jonathan Ogulnick, SOM Class of 2022; Philip



J. Overby, M.D., clinical associate professor of pediatrics and of neurology; Jared Cooper, M.D., neuro-interventional surgery fellow; Jose Dominguez, M.D., neurosurgery resident; Tolga Sursal, M.D., neurosurgery resident; Haris Kamal, M.D., neuro-interventional surgery fellow; Katarina Dakay, M.D., neuro-interventional surgery fellow; and Edwin Gulko, M.D., assistant professor of radiology.

The group embarked on the study after physicians at Westchester Medical Center (WMC), a major academic affiliate of NYMC, observed an increased incidence of CVT, a rare type of stroke in which a clot forms in the veins of the brain instead of an artery, in patients infected with COVID-19. Dr. Al-Mufti, who is the associate chair for research in the Department of Neurology and an interventional neurologist/neurointensivist at WMC, subsequently collected data on COVID-19 patients who also had CVT from across the New York greater metropolitan area. <u>Read full story on study on cerebral venous thrombosis</u>.

NYMC Student Examines Early Predictors of Severe Disease Progression for COVID-19 Patients



Aaron Rips, SOM Class of 2023

While much of clinical COVID-19 research has focused on treatment for the sickest patients in hospital intensive care units, many of those same patients first present to clinics with milder symptoms. In a recently published study in the *Journal of Clinical Medicine*, Aaron Rips, SOM Class of 2023, examined the most common early prognostic indicators in patients presenting with mild cases of COVID-19 in the outpatient/ambulatory setting that indicated later progression to severe disease and subsequent hospitalization. His findings suggest the presence of comorbidities, shortness of breath and lymphopenia as the most reliable predictors of adverse outcomes, with 100 percent of those with more than three comorbidities requiring hospitalization.

"Often patients go to their physicians or a clinic with any number of symptoms such as cough, fever or shortness of breath, and are then sent home as their symptoms do not require emergency care," said Mr. Rips, who worked on the research with a team of clinicians at Benaroya Research Institute in Seattle, Washington, in partnership with Virginia Mason

Hospital. "The majority of these patients go on to recover at home from COVID-19 with no further complications. A smaller subset of these patients returns to the clinic or hospital several days later with severe symptoms and subsequently requires hospitalization, ventilators and intensive treatment."

"If doctors and clinicians can identify which patients are at high risk for serious complications before such complications occur, early intervention and treatment can help save both lives and resources. Preventative medicine has become increasingly important in medical practice and our research ties into this philosophy," he said. <u>Read full story on study of early predictors for severe disease progression.</u>

NYMC Faculty Demonstrate Safety of Organ Transplantation in Recovered COVID-19 Patients

Challenges in organ transplantation regarding the safety of transplanting organs to a patient recovered from COVID-19 as well as from a donor with COVID-19 were addressed by NYMC faculty recently, with their successful findings published in the journals <u>Transplant Infectious Diseases</u> and <u>American Journal of Transplantation</u>. Several NYMC faculty contributed to the reports, with Abhay Dhand, M.D., associate professor of medicine and director of transplant infectious diseases at Westchester Medical Center, a major academic affiliate, serving as both reports' lead author.

"Transplanting organs in recently recovered COVID-19 patients can be challenging, and this was especially true during the earlier days of the pandemic, as we struggled to learn more about the virus and its resulting complications," said Dr. Dhand. "In the end, we concluded that prospective liver recipients can and should be considered for transplantation after recovering from COVID-19, as long as the proper evaluation, donor selection and risk-benefit analysis is performed."

Additional NYMC faculty who contributed to the reports included: Roxana Bodin, M.D., assistant professor of medicine; Thomas Diflo, M.D., professor of surgery; Alan Gass, M.D., professor of medicine; Masashi Kai, M.D., assistant professor of surgery; Rifat Latifi, M.D., the Felicien M. Steichen, M.D., Professor and Chair of Surgery; Edward Lebovics, M.D., the Sarah C. Upham Professor of Gastroenterology and professor of medicine; Christopher Nabors, M.D., Ph.D., assistant professor of medicine; Seigo Nishida, M.D., clinical professor of surgery; Rajat Nog, M.D., assistant professor of medicine; Suguru Ohira, M.D., Ph.D., clinical assistant professor of surgery; Hiroshi Sogawa, M.D., associate professor of surgery; David Spielvogel, M.D., associate professor of surgery; and David C. Wolf, M.D., professor of medicine.

Grants Corner

Fawaz Al-Mufti, M.D., assistant professor of neurology, neurosurgery and of radiology, received a \$144,056 grant from NovaSignal Corp. for "A Prospective Non-Invasive Study of Cerebral Blood Flow Velocity Morphology for Quantification of Intracranial Pressure."

Ama Buskwofie, M.D., assistant professor of obstetrics and gynecology, received a \$62,445 grant from Vascular Biogenics/ GOG Foundation for "The OVAL Study: A Randomized, Controlled, Double-Arm, Double Blind, Multi-Center Study of Ofranergene Obadenovec (VB-111) Combined with Paclitaxel vs. Paclitaxel Combined with Placebo for the Treatment of Recurrent Platinum-Resistant Ovarian Cancer."

Tetyana Cheairs, M.D., M.S.P.H., assistant professor of pathology, microbiology and immunology, received a \$45,000 grant from Firmenich for "Detection of Thresholds for DNA Adduct Formation by Alkylbenzenes in the Turkey Egg Genotoxicity Assay."

Savneek Chugh, M.D., associate professor of medicine, received a \$39,000 grant from Alexicon Pharmaceuticals for "A Phase 3 Open-label, Randomized, Controlled Study to Evaluate the Efficacy and Safety of Intravenously Administered Ravulizumab Compared with Best Supportive Care in Patients with COVID-19 Severe Pneumonia, Acute Lung Injury, or Acute Respiratory Distress Syndrome" and a grant for \$26,000 from Retrophin for "A Randomized Multi center, Double-Blinded, Parallel, Active-Control Study of the Effects of Sparsentan, a Dual Endothelin Receptor and Angiotensin Receptor Blocker, on Renal Outcomes in Patients with Primary Focal Segmental Glomerulosclerosis (FSGS)."

Marina K. Holz, Ph.D., dean of the Graduate School of Basic and Medical Sciences and professor of cell biology and anatomy, received a \$123,000 grant from the U.S. Army for "Characterization of Estrogen-mTORC1 Signaling Network in TSC/LAM."

Marc El Khoury, M.D., associate professor of medicine, received a \$66,403 grant from ContraFect for "A Randomized, Double-Blind Placebo-Controlled Study of the Efficacy and Safety of a Single Dose of Exebacase in Adult Patients Receiving Standard-of-Care Antibiotic for the Treatment of Staphylococcus aureus bloodstream Infections (Bacteremia)."

Srihari Naidu, M.D., professor of medicine, received a \$174,666 grant from Myokardia for "A Randomized, Double-Blind, Placebo-Controlled Study to Evaluate Mavacamten in Adults with Symptomatic Obstructive Hypertrophic Cardiomyopathy who are Eligible for Septal Reduction Therapy."

Steven Wolf, M.D., clinical professor of pediatrics, received a \$22,340 grant from Zogenix for "An Open-Label Extension Trial to Assess the Long-Term Safety of ZX008 (Fenfluramine Hydrochloride) Oral Solution as an Adjunctive Therapy for Seizures in Patients with Rare Seizure Disorders Such as Epileptic Encephalopathies Including Dravet Syndrome and Lennox-Gastaut Syndrome."

Department of Surgery Hosts 18th Annual Louis R.M. DelGuercio Distinguished Visiting Professorship and Research Day

The 18th Annual Louis R.M. DelGuercio Distinguished Visiting Professorship and Research Day, featuring keynote speaker Raymond R. Price, M.D., FACS, was held at NYMC on June 18. During his address, Dr. Price, vice chair for global health at the Center for Global Surgery, clinical professor and adjunct associate professor of the Department of Family and Preventive Medicine Division of Public Health at the University of Utah, shared an inspirational story of his experience with global health and the immense impact it has on communities worldwide.

The Louis R.M. DelGuercio Research Day, sponsored annually since 2002 by the Department of Surgery, provides students, residents and fellows, with both an opportunity to showcase their research



L to R, Roberto Bergamaschi, M.D., Ph.D., Maria Castaldi, M.D., Thomas Diflo, M.D., Raymond Price, M.D., Matthew McGuirk, Klaudia Koziol and Rifat Latifi, M.D.

and an occasion to network, learn from one another and potentially combine efforts to promote the advancement of surgical research. During the event, John A. Savino, M.D., former chair and director of surgery, reviewed the life and scientific impact of Professor emeritus Louis R.M. Del Guercio, M.D., who served as chair of the Department of Surgery for 24 years before retiring in 2000.

This year, the Department received 70 submissions from students, residents and fellows. Rifat Latifi, M.D., FACS, FICS, FKCS, the Felicien M. Steichen, M.D., Professor and Chair of Surgery, remarked, "This year we were honored by having Dr. Price as the distinguished professor, who is clearly one of the most prominent surgeons working globally, and whose work has improved the lives of people in many countries. Moreover, the quality of submissions was excellent and most of these papers could have been presented in any national or international meeting." <u>View list of award winners and video of event</u>.

Research on Structural Heart Disease Presented by NYMC Students at American College of Cardiology Conference



Akiva Rosenzveig



Joshua Hsu

NYMC students—Akiva Rosenzveig and Joshua Hsu, both in the SOM Class of 2023—were chosen to present their research into transcatheter aortic valve replacement (TAVR) and geometric changes in heart structure at the American College of Cardiology annual conference.

TAVR, a minimally invasive procedure that accesses the heart by way of catheters to insert a prosthetic valve, has become a feasible alternative to open heart aortic valve surgery for individuals with aortic stenosis. Originally intended as an alternative for only patients who face prohibitive risk with surgery, TAVR is now approved by the FDA for patients who have a low risk surgical profile. Under the mentorship of Hasan Ahmad, M.D., clinical associate professor of medicine, and Syed Zaid, M.D., cardiology fellow, Mr. Rosenzveig and Mr. Hsu, joined by Medha Biswas, M.D. '20, examined the potential impact of TAVR on patients who needed both an aortic valve and mitral valve replacement, with particular emphasis on changes to the heart structures related to the left ventricular outflow tract and the mitral annulus.

"As there has been a precipitous rise in the use of TAVR for aortic stenosis treatment, our goal was to look at the impact the new aortic valve has on the heart anatomy," said Mr. Rosenzveig. "Sixteen percent of patients undergoing TAVR have concomitant mitral regurgitation, some of which requires transcatheter mitral valve replacement (TMVR). The mitral valve apparatus is very closely behind the aortic valve apparatus, specifically the outflow tract that leads from the left ventricle to the aortic valve. TMVR involves placing a new valve that pushes the original leaflets out (as opposed to removing them as one would do surgically), allowing for the anterior mitral leaflet to obstruct the left ventricular outflow tract (LVOT). Our objective was to assess the effect TAVR has on the LVOT size and the geometrical relationship between the mitral and aortic valvular apparatuses."

"We found that TAVR does not meaningfully affect the geometric relationship between the mitral and aortic valvular apparatuses, but it does increase the LVOT area," said Mr. Rosenzveig. "The increase in LVOT area without a change in aorto-mitral geometry suggests a possible reduction in risk of LVOT obstruction following a TMVR procedure." <u>Read full story on TAVR research.</u>

NYMC Students Examine Success of Sexual Health Education Lecture Series

Illustrating how student-initiated research projects can both lead to publication and inform ongoing curriculum changes, a group of NYMC students investigated the success of the student-driven sexual health education lecture series with their study recently accepted for publication in the *Journal of Advances in Medical Education and Professionalism*. Hosted by several NYMC interest groups, including American Medical Women Association, LGBTQ Advocacy in Medicine, the OB-GYN Interest Group, the Psychiatry Interest Group, the Infectious Disease Interest Group, Physicians for Human Rights and Medical Students for Choice, the lecture series, which was attended by over 250 medical students, featured content area experts on a variety of topics ranging from caring for adolescent LGBTQ patients to working with victims of domestic violence and human trafficking.

Under the mentorship of Jennifer Koestler, M.D., senior associate dean for medical education, and Donald Risucci, Ph.D., assistant dean of assessment and evaluation, SOM students Kayla Morel, Class of 2022, and Class of 2023 classmates Camille Briskin and Madison Kasoff, together with Sarah Speigel, M.D. '20; Jasmin Mahabamunuge, M.D. '21; John Budrow, M.D. '21; Innes Tounkel, M.D. '21; and Cassidy Hart, M.D. '21, evaluated the effectiveness of the lecture series to improve medical student comfort with diverse sexual health content.

"National surveys of medical students reveal students perceive that they receive insufficient training on gender and sexual health topics in medical school," said Ms. Morel. "The health disparities disproportionately affecting gender and sexual minorities compared to heterosexual and cis-gender individuals are well studied with emerging research finding that provider bias and inadequate training contribute to these disparities."

After comparing pre- and post-lecture series survey responses, investigators found that students had significantly greater comfort discussing topics around sexual health with adult, adolescent, transgender and LGB-identified patients following the lecture series. Additionally, respondents indicated greater comfort discussing elective termination of pregnancy, sexual violence, contraception, medical transitioning and HIV pre-exposure prophylaxis with patients, as well as with identifying female genital cutting on physical exam.

Since the program's initial launch, the scope and breadth of the curriculum has grown. In fact, the COVID-19 pandemic created the unanticipated benefit of moving the previously in-person seminar series to an online platform, which has made the program more accessible to a larger student audience. Data from this program has already been presented to the SOM Curriculum Committee and informed the expansion of gender and sexual health topics across the curriculum.

"Our findings demonstrate that a student-initiated lecture series can promote meaningful curriculum change and add value to the medical student experience. In this case, students were able to demonstrate that seminar participants had significantly greater comfort in core knowledge domains around sexual health. Our hope is that this program will allow these future health care professionals to provide more informed and comprehensive patient care for diverse patient populations," said Dr. Koestler.

11th Annual Paul K. Woolf, M.D., Pediatric Trainee Research Day Held



Paul Woolf, M.D.

The SOM Department of Pediatrics, Boston Children's Health Physicians and the Children's Health and Research Foundation Inc., co-hosted the 11th Annual Paul K. Woolf, M.D., Pediatric Trainee Research Day on May 19. The event highlighted new and innovative biomedical research in pediatrics and fostered academic discussions. Four abstracts were selected for oral presentation and received awards in clinical, translational and basic research categories.

Chaired by Mitchell S. Cairo, M.D., professor of pediatrics, medicine, pathology, microbiology and immunology and of cell biology and anatomy, and chief of the Division of Pediatric Hematology, Oncology and Stem Cell Transplantation, the event honors the memory of the late Paul K. Woolf, M.D., SOM senior associate dean for Westchester Medical Center (WMC) and associate professor of pediatrics, who passed away in 2010 at the age of 59. Dr. Woolf was instrumental in developing the pediatric cardiovascular program at NYMC and the Maria Fareri Children's Hospital at WMC. <u>View list of award winners.</u>

Faculty and Student Publications & Accolades

Michael Goligorsky, M.D., the Alvin I. Goodman, M.D., Chair of Nephrology and professor of medicine, pharmacology and of physiology, has published the second edition of his book, *Regenerative Nephrology*, which features subjects as diverse as age and gender influencing regenerative processes; mechanisms and pathways of premature cell senescence affecting kidney regeneration; and novel mechanistic and engineering efforts to recreate functional kidney or its component parts.

Tolga Sursal, M.D., neurosurgery resident, received the Charlie Kuntz Scholar Award from the Joint Section on Disorders of the Spine and Peripheral Nerves of the Congress of Neurological Surgeons for his abstract "Involvement of mTOR pathway modulates autophagy and immune response in recovery from spinal cord injury."

George W. Contreras, M.E.P., M.P.H., M.S., CEM, FACEM, assistant director of the Center for Disaster Medicine, assistant professor in the Institute of Public Health of the School of Health Science and Practice and assistant director of the Advanced Certificate in Emergency Management Program; SOM students Brigitte Burcescu, Class of 2023; Tiffany Dang, Class of 2022; Jeanette Freeman, Class of 2022; Nathan Gilbreth, Class of 2022; Juliet Jacobson, Class of 2022; and Keerthana Jayaseelan, Class of 2023; along with David S. Markenson, M.D., M.B.A., director of the Center for Disaster Medicine, published <u>"Drawing Parallels Among Past Public Health Crises and COVID-19"</u> in *Disaster Medicine and Public Health Preparedness*.

Jose Dominguez, M.D., neurosurgery resident; Boyi Li, M.D. '21; Eric Feldstein, M.D. '21; John Wainwright, M.D., instructor of neurosurgery; Donna Koo, M.D. '20; Bhawnett Chadha, M.D. '20; Akshitha Yarrabothula, M.D. '20; Naina Rao, M.D. '21; Anusha Adkoli, M.D. '21; Ivan Miller, M.D., assistant professor of clinical medicine; Chirag Gandhi, M.D., chair of the Department of Neurosurgery and professor of neurosurgery, neurology and of radiology; Fawaz Al-Mufti, M.D., assistant professor of neurology, neurosurgery and of radiology; and Justin Santarelli, M.D., assistant professor of neurosurgery, co-authored <u>"Spinal Epidural Abscess Patients Have Higher Modified Frailty Indices than Back Pain Patients on Emergency Room Presentation: A Single-Center Retrospective Case-Control Study"</u> in *World Neurosurgery*.

Ilan Fleisher, SOM Class of 2024, published <u>"HIV testing in patients who are HCV positive: Compliance with CDC guidelines</u> <u>in a large healthcare system</u>" in *PLOS ONE*.

Daniel Greenberg, M.D., internal medicine resident; Christopher Nabors, M.D., Ph.D., assistant professor of medicine; Dipak Chandy, M.D., professor of medicine and of neurology; and Abhay Dhand, M.D., associate professor of medicine, co-authored <u>"Pneumothorax and pneumomediastinum in patients hospitalized with coronavirus disease 2019 (COVID-19)"</u> in *Heart & Lung*.

Sara Heide, SOM Class of 2023, published <u>"Autonomy, identity and health: defining quality of life in older age"</u> in the *Journal of Medical Ethics.*

Rifat Latifi, M.D., Felicien M. Steichen, M.D., Professor and Chair of Surgery, published <u>"Do young patients with high clinical suspicion of appendicitis really need cross sectional imaging? Proceedings from a highly controversial debate among the experts' panel of 2020 WSES Jerusalem guidelines" in the *Journal of Trauma and Acute Care Surgery*.</u>

Dionysios Liveris, Ph.D., assistant professor of pathology, microbiology and immunology; **Maria Aguero-Rosenfeld, M.D.,** adjunct professor of pathology, microbiology and immunology; **Gary Wormser, M.D.,** professor of medicine, pharmacology and of pathology, microbiology and immunology; and **Ira Schwartz, Ph.D.,** professor emeritus of pathology, microbiology and immunology; and **Ira Schwartz, Ph.D.,** professor emeritus of pathology, microbiology and immunology; and **Ira Schwartz, Ph.D.,** professor emeritus of pathology, microbiology and immunology; and **Ira Schwartz, Ph.D.,** professor emeritus of pathology, microbiology and immunology; and **Ira Schwartz, Ph.D.,** professor emeritus of pathology, microbiology and immunology; and **Ira Schwartz, Ph.D.,** professor emeritus of pathology, microbiology and immunology; and **Ira Schwartz, Ph.D.,** professor emeritus of pathology, microbiology and immunology; and **Ira Schwartz, Ph.D.,** professor emeritus of pathology, microbiology and immunology; and **Ira Schwartz, Ph.D.,** professor emeritus of pathology, microbiology and immunology; and **Ira Schwartz, Ph.D.,** professor emeritus of pathology, microbiology and immunology, co-authored <u>"A new genetic approach to distinguish strains of Anaplasma phagocytophilum that appear not to cause human disease" in *Ticks and Tick-Borne Diseases*.</u>

Alexander Mittnacht, M.D., clinical professor of anesthesiology, published <u>"New-onset intra-operative hyperthermia in a large</u> surgical patient population a retrospective observational study" in the *European Journal of Anesthesiology*.

Jerry L. Nadler, M.D., dean of the SOM and professor of medicine and of pharmacology, published <u>"Regulation of Tissue</u> <u>Inflammation by 12-Lipoxygenases</u>" in *Biomolecules*.

William Ross, Ph.D., professor of physiology, published <u>"Mechanism of ArcLight derived GEVIs involves electrostatic interactions that can affect proton wires</u>" in *Biophysical Journal.*

Esther Sabban, Ph.D., professor of biochemistry and molecular biology, published <u>"Systematic Review and Methodological</u> <u>Considerations for the Use of Single Prolonged Stress and Fear Extinction Retention in Rodents</u>" in *Frontiers in Behavioral Neuroscience*.

Stephen J. Seligman, M.D., research professor of pathology, microbiology and immunology, published <u>"Auto-antibodies to</u> type I IFNs can underlie adverse reactions to yellow fever live attenuated vaccine" in the *Journal of Experimental Medicine*.

Changhong Yin, M.D., M.S., research assistant professor of pathology, microbiology and immunology; **Weihua Huang, Ph.D.**, associate professor of pathology, microbiology and immunology; and **Sangmi Chung, Ph.D.**, associate professor of cell biology and anatomy, neurology and of psychiatry and behavioral sciences, published <u>"Migratory cortical interneuron-</u> <u>specific transcriptome abnormalities in schizophrenia"</u> in the *Journal of Psychiatric Research*.

View full list of recent Faculty Publications.