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GSBMS Dean's Report

NYMC Publications

Fall 2021

Dean's Report- Fall 2021

Marina K. Holz

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NEW YORK MEDICAL COLLEGE

A MEMBER OF THE TOURO COLLEGE AND UNIVERSITY SYSTEM

Graduate School of Basic Medical Sciences

Dear Members of the Graduate School of Basic Medical Sciences (GSBMS) Community,

Welcome to the Fall Semester of the 2021-2022 academic year. It feels great to be back in person and resume our usual activities, such as the orientation luncheon where we were able to meet new students, welcome back returning students and catch up with colleagues. We also started new traditions like the Ph.D. Lab Coat Ceremony to acknowledge the students who selected a research lab for their dissertation project. Many of our small group classes are meeting in person and I enjoyed leading a lively discussion in one of our Select Topic courses earlier in the semester. We have so much good news to share with you in this report about faculty successes in obtaining funding, our students' academic accomplishments and positive contributions to community service. I hope that you all achieve academic and scientific success in this academic year.

Marina K. Holz, Ph.D.

Dean, Graduate School of Basic Medical Sciences
Professor of Cell Biology and Anatomy



Marina K. Holz, Ph.D.

Welcome Lunch for our Students



Although storm clouds loomed, on August 19, the GSBMS chose to trust its luck and hosted an outdoor welcome lunch for new and returning students. As the sun broke through the clouds, faculty and students joined in the festivities on the Medical Education Center (MEC) plaza, having lively conversations, catching up with familiar faces and meeting new friends over a healthy and delicious boxed lunch meal. Best of luck to all in the upcoming year.



Orientation

Last year, with the sudden arrival of COVID-19, the GSBMS had to create a new way to provide orientation sessions to new students, with all the vitally important information and presentations by faculty, administrators and representatives, from New York Medical College's (NYMC) many service-oriented departments. Out of necessity, an innovative online orientation program was developed. This year's orientation followed the same format once again with great success. Materials, including PowerPoints and videos, were provided to students to complete orientation at their own time and pace, followed by live virtual group sessions allowing students to ask additional questions related to the beginning of the academic year. Given the success of this format, it may be here to stay.

Meet and Greet Sessions

The academic year 2021-2022 is up and running with our enthusiastic returning M.S. and Ph.D. students giving a warm welcome to the newly enrolled members of the GSBMS at our student-run online meet and greet sessions. Upper-class members of each GSBMS program hosted a group meeting with the new students after they had completed their official orientation session. This new tradition allows incoming students to gather and get to know one another, as well as discuss and ask questions of experienced NYMC students about classes, campus life, exams or any other concerns. Students have told us that this is a great way to help them overcome any trepidations they may have coming into graduate school. They say it helps them break the ice, start forming new friendships and study partnerships.

The Accelerated Master's Program (AMP) Mentorship Program also arranged an outdoor pizza party for the new AMP students allowing them to meet their mentors and each other in person. AMP Mentorship Program leaders Aiden Lui and Charanpreet Sasan said, "It was a success and there was lots of interaction between mentors and mentees. Mentees also reported it was the first time many of them were seeing their classmates in person, and it helped give them a sense of camaraderie. All in all, it was a good event for the mentorship program, and we hope it will help mentees feel more comfortable reaching out to their mentors."

GSBMS Commencement Awards Ceremony and Celebration of the Class of 2021

Joy and excitement filled the tent as the GSBMS Class of 2021 graduates took their places among family, friends and faculty, to celebrate together their victorious accomplishments after a challenging year.

The awards ceremony took place on May 26, outdoors under the Sunshine Cottage tent, following COVID-19 protocols established by NYMC. Invitations were extended to students' family members, Ph.D. students and a select group of faculty who



had worked directly with graduates. The program included a welcome address by Marina K. Holz, Ph.D., dean of the GSBMS; valedictory remarks by Kaitlin Martins, M.S. '21, and Hannah Mulhall, Ph.D. '21. The GSBMS awards ceremony address given by Brian B. Ratliff, Ph.D., associate professor of physiology and of medicine, was an engaging speech on finding one's path in life. Dr. Ratliff shared his five secret tips for happiness: 1) exercise; 2) be caring, compassionate and respectful; 3) be determined and persevere in the face of failure; 4) have a plan (and backup plans) and goals in life; and 5) pray. Graduation awards and recognition of all graduates followed, with each graduate receiving gifts on stage. While the College's 162nd Commencement Ceremony was held online later that evening, the

GSBMS was fortunate and grateful to have been able to conduct a safe, in-person celebration together.

[View the GSBMS Awards Ceremony](#)

[View the College's 162nd Commencement Ceremony](#)



First Graduates of the Clinical Laboratory Sciences Program



Congratulations to Kristen Julia Grumblatt, M.S. '21, second from right and Elizabeth Fernandez Hidalgo, M.S. '21, second from left, the first graduates of the Clinical Laboratory Sciences Program (CLS). Congratulations also go to Carol Carbonaro, Ph.D., SM, MLSCM (AASCP), far left, program director, and to Debbie Isabella, MT SC (ASCP), far right, CLS program coordinator, who both have worked so hard to build this program into the success it is today.

The CLS Program was established to help address the urgent demand for clinical laboratory technologists in hospitals and in clinical and pharmaceutical laboratories. Students attend classes while interning at a dozen clinical rotation sites across the tri-state area, including BioReference Laboratories, Care Mount Laboratory in Brewster, New York, Good Samaritan Hospital, Greater Hudson Valley Health-Garnet Health Medical Center, Mount Sinai Medical Center, New York-Presbyterian Lawrence Hospital, Nuvance Health-Danbury and Putnam Hospitals, White Plains Hospital and Westchester Medical Center.

We wish our graduates the very best as they help fill the need in these important positions in the health care community.

Congratulations to our GSBMS students on their acceptance to the NYMC School of Medicine



The GSBMS congratulates the 26 GSBMS graduates who entered the NYMC School of Medicine (SOM) Class of 2025 this fall. These students successfully completed the Accelerated Master's Program (AMP), Basic Medical Sciences (BMS) Program or Master of Science in Physiology (M.S.) program. We look forward to watching them progress through medical school and their professional careers. The GSBMS would also like to congratulate the students attending other medical school programs including, Sidney Kimmel Medical College of Thomas Jefferson University; Lewis Katz School of Medicine, Temple University; Albert Einstein College of Medicine; Tulane University School of Medicine; University of Massachusetts Medical School; Lake Erie College of Osteopathic Medicine; and the State University of New York (SUNY)-Downstate Health Sciences University.

New Touro Physician Assistant Program Agreement for GSBMS Students



The GSBMS is pleased to announce a newly established guaranteed interview and/or conditional acceptance agreement with Touro College's Physician Assistant (PA) Program.

Under this agreement, Touro's PA programs in the School of Health Sciences' Manhattan, Middletown and Long Island, New York, campuses, will provide either a guaranteed interview or a conditional acceptance to their PA programs to qualified GSBMS master's students or graduates. Eligible GSBMS master's students or graduates will be required to meet criteria including successful completion of their M.S. degree and all undergraduate prerequisite courses. We are grateful to Touro College School of Health Sciences for recognizing the strength of our programs with this agreement and for offering this opportunity to our students who wish to pursue a highly regarded career as a PA. For more information, please contact the GSBMS Office of Admissions at GSBMS_apply@nymc.edu or visit the [GSBMS Guaranteed Interview Agreements](#) page.

The Inaugural Ph.D. Lab Coat Ceremony

On October 1, the GSBMS hosted the Inaugural Ph.D. Lab Coat Ceremony, recognizing Ph.D. students who entered the Ph.D. program in the years of 2019, 2020 and 2021. The presentation of the white coat marks the Ph.D. students' commitment to uphold scientific honesty and professionalism and to abide by the principles of ethical conduct and policies set out by NYMC.

After a warm welcome by Marina K. Holz, Ph.D., front row far left, dean of the GSBMS and professor of cell biology and anatomy, Tetyana Cheairs, M.D., M.S.P.H., far right, assistant dean for Ph.D. programs, led the presentation



of the lab coats, as each student was cloaked with their new white lab coat by their advisor. The student address was presented by Elizabeth Berry, Ph.D. candidate in the Departments of Cell Biology and Anatomy and of Physiology. Kenneth M. Lerea, Ph.D., assistant dean for M.S. programs, introduced the keynote speaker, Francis L. Belloni, Ph.D., former dean of the GSBMS and professor

of physiology. The ceremony concluded with a celebratory dessert reception for the Ph.D. students, their families, faculty and staff. Congratulations to all of the Ph.D. students.



Introducing the newly elected 2021-2022 Executive Council of the Graduate Student Association (GSA)

The [Graduate Student Association \(GSA\)](#) is an elected representative organization of graduate students giving voice to students on relevant academic, social and professional matters. The GSA is an important partner of GSBMS and has representation on the Graduate Faculty Council and Board of Trustees.

The GSA is also the organizer and driving force behind the annual [Graduate Student Research Forum](#), which provides students with the opportunity to present their research to faculty and students at NYMC as well as the broader, regional scientific community.

We congratulate the members of the GSA and thank them for their dedication and service to the GSBMS. Follow the GSA on Instagram [@NYMC_GSA](#).



- President:** Jillian Evalle
- Vice President:** Sabrina Martinez
- Chair of the Graduate Student Research Forum:** Jessica Adams
- Vice Chair of the Graduate Student Research Forum:** Peter Sheu
- Chair of Community Building:** Elizabeth Nguyen
- Secretary:** Jodie Renaud
- Treasurer:** Ellen Huhulea

From left to right: Peter Sheu, Elizabeth Nguyen, Jessica Adams, Jillian Evalle, Jodie Renaud, Ellen Huhulea and Sabrina Martinez.

NYMC Selected to Assist NYS in the Identification of COVID-19 Variants



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 [NYMC Genomics Core Laboratory](#) 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. [Read the full article on the NYMC Genomics Core Laboratory selection.](#)

Why A Graduate Degree in the Biomedical Sciences Is Worth It

There has been a lot of talk lately about the high cost of graduate education. Today's students are keenly aware that to achieve their career goals in the health and biomedical fields, they need to make a substantial investment of both time and money in their education. For some, it may feel more like a high-stakes gamble than an investment.

The GSBMS is highly conscious of the debt that students often incur through their years in higher education and takes seriously the responsibility of providing a high-quality education that is not only “worth it” but will leave them professionally prepared and financially stable in the years following their graduation.

When applicants reach out and apply, our admissions committees' first question is whether graduate education will benefit the applicant. We admit only those students for whom we are confident that graduate degree can improve their professional outcomes, and that the students can be successful in our programs academically and personally. We believe it is an ethical imperative not to mislead those willing to entrust us with their investment and future.

The focus of the GSBMS is the quality of the education we provide. We aim to offer in-person courses taught by our full-time faculty, as compared to asynchronous online programs. We keep our classes small to facilitate interactions between individual students and faculty. While COVID-19 has brought the necessity of virtual classes to NYMC, wherever possible, all classes less than 20 students are taught in-person—especially when human interaction is key, such as for student presentations and discussion sessions. The majority of GSBMS faculty members have full-time appointments, are committed to our students' learning and advisement both inside and outside of the classroom and are involved in our campus community and activities. This leads to real connection and personalized advising relationships, unlike many larger and online programs where students can be left feeling alone and adrift in the virtual sea.

The cost of education can be intimidating to students balancing their finances while honing their knowledge and professional skills. With hard work and determination, the investment is well worth the risk for our students, leading ultimately to a lifetime of professional fulfillment, financial security and personal success.

Bridge Funding Grant Awarded to Wen-Hui Wang, M.D.



Wen-Hui Wang, M.D., professor of pharmacology, was awarded a bridge funding grant that will allow him to complete several key experiments as he prepares to resubmit his NIH-funded, multi-year RO1 grant on “The Role of Kir4.1 in Regulating NCC and ROMK in DCT.”

“The proposed grant application will test a novel mechanism by which the kidney can sense the change in dietary potassium content and regulate potassium excretion or absorption,” said Dr. Wang. “The new concept will expand the current knowledge regarding renal potassium transport and may lead to the development of a new approach for the treatment of abnormal high plasma potassium concentrations, known as hyperkalemia, a potentially fatal disorder that can cause an irregular heartbeat (arrhythmia).” [Read the full article.](#)

Faculty Feature:

Nicholas R. Ferreri, Ph.D. '84

Professor of Pharmacology, GSBMS Alumnus and NIH Grant Recipient



Nicholas R. Ferreri, Ph.D. '84, lectures in the pharmacology course for medical and graduate students and is the course director for the pharmacology elective course titled Immunopharmacology. He also serves as chair of the Faculty Membership Committee and is a member of several other committees at the college.

Dr. Ferreri recently received a four-year grant from the National Institutes of Health (NIH) National Heart, Lung, and Blood Institute (NHLBI) totaling \$1,640,000 for “Regulation of NKCC2 Isoforms and Blood Pressure by Tumor Necrosis Factor-alpha.”

Educational and Professional Background

Dr. Ferreri became interested in pharmacology as an undergraduate student at Case Western Reserve University in Cleveland, Ohio, where he worked in the school of medicine studying cyclic nucleotides. After completing his Ph.D. degree in pharmacology at NYMC, he decided to study immunology while at the Scripps Research Institute in La Jolla section of San Diego, California, and then at Yale University in New Haven, Connecticut. He was recruited back to NYMC in 1990 by John C. McGiff, M.D., who was chair of the Department of Pharmacology. “Learning another discipline while working in the lab was challenging but rewarding. I knew eventually the combination of these areas would allow me to have greater insight into the research areas I was interested in. This has paid dividends for several recently completed grants as well as the most recent grant from NIH in which we can utilize the combination of pharmacology, immunology and renal physiology to define the role of an intratubular system in the kidney involving TNF-alpha that helps regulate increases in blood pressure related to salt intake,” said Dr. Ferreri.

Dr. Ferreri’s research interests include the role of cytokines, renal tubular epithelial cells and immune system function in the development of salt sensitive forms of hypertension. With respect to the recent NIH grant, “We are thrilled to have the opportunity to continue our work on the role of tumor necrosis factor-alpha (TNF) and renal tubular function as it relates to salt sensitive forms of hypertension. Since TNF is a cytokine that exhibits both protective and damaging effects related to immunity and inflammation, we hypothesized that a profile of beneficial and detrimental effects also may be important in the cardiovascular and renal systems,” said Dr. Ferreri.

“As my colleagues who compete for NIH funding know, there are enormous obstacles to maintaining an active research program in the current funding environment coupled with the challenges of the COVID-19 pandemic. I attribute the success of our lab to the tireless efforts of Shoujin Hao, M.D., Ph.D., research assistant professor of pharmacology, with whom I have worked for more than 15 years, and the long-standing collaborations we have had with several investigators both in the United States and internationally,” said Dr. Ferreri.

“We also began moving our research program into the translational realm with a grant from NIH that allowed us to study samples from the DASH2 study. This work done in collaboration with Elizabeth D. Drugge, Ph.D., M.P.H. '12, assistant professor of epidemiology and adjunct professor of pharmacology, has yielded data that is consistent with the basic science studies we have done in the lab and has opened new areas to be explored related to sex and race differences of the renal TNF system,” said Dr. Ferreri.

The GSBMS would like to congratulate Dr. Ferreri and his research team on his recent grant, exemplary research work, and on his years of dedication to his students—a career emblematic of the excellence found across NYMC.

Student Feature:

Jillian Evalle

Master of Science (M.S.) in Basic Medical Sciences Class of 2022

Graduate Student Association (GSA) President



Jillian Evalle, M.S. in Basic Medical Sciences Class of 2022, earned her Bachelor of Science in Cellular and Molecular Biology with a minor in sociology in 2019 from the University of South Florida. During her undergraduate career, she served as the president of the Association of Filipino Students.

At the Alpha Alpha Chapter of Alpha Kappa Delta Phi International Sorority, Inc., Ms. Evalle served as new member educator and vice president, where she was recognized for her dedication towards Asian Awareness, Leadership and Service. She worked as a medical assistant and Coumadin nurse at a cardiovascular clinic, where she fostered relationships with recurring patients, monitoring their international normalized ratio (INR) and adjusting their medications accordingly.

During the COVID-19 related lockdown, Ms. Evalle organized a fundraiser in support of the Black Lives Matter Global Network and the Equal Justice Initiative. Her passion for women's health care sparked her dream of becoming an obstetrician-gynecologist. In August of 2020, Jillian came to NYMC to pursue her M.S. in Basic Medical Sciences.

Currently at NYMC, Ms. Evalle serves as president of the Graduate Student Association (GSA), social media ambassador and M.S. student representative for the Curriculum Committee at the GSBMS. She has also joined the Department of Cell Biology and Anatomy, with Libor Velisek, M.D., Ph.D., M.D./Ph.D. program director and professor of cell biology and anatomy, and Jana Veliskova, M.D., Ph.D., professor of cell biology and anatomy, to assist in their work to identify new epilepsy treatments. "Despite starting remotely, being a student at NYMC has been one of the best experiences of my academic career; it is important to me that I attend a progressive school that is diverse and supportive of its students. Moving from Florida to New York was a big change, but I've made long-lasting friendships and I am very grateful for all of the opportunities that this school has given me to grow. We just had our GSA Big/Little reveal and we're excited to host fall socials, community service events and the 33rd Annual Graduate Student Research Forum this spring," said Ms. Evalle.

In her free time, she loves powerlifting, thrift shopping, creating art for her resin jewelry small business and going home to visit her two dogs, Juicy and Jiggle. Ms. Evalle looks forward to graduating with her M.S. in Basic Medical Sciences in 2022 with the hopes of attending medical school in the near future.

Announcing New GSBMS Faculty Appointments

Join us in welcoming the newest members of the GSBMS faculty:

Neeru Chopra, M.D., assistant professor pathology at NYMC and chief of clinical pathology and associate director of transfusion medicine at Westchester Medical Center (WMC)

Kristina Harris Petersen, Ph.D., assistant dean of academic support and assistant professor of biochemistry and molecular biology at NYMC

Sadiqa Karim, M.D., assistant professor pathology at NYMC and chief of transfusion services at WMC

Utsav Pandey, Ph.D., assistant professor pathology at NYMC and chief of microbiology, virology and molecular biology at WMC

Janet Piscitelli, M.D., clinical associate professor of pathology at NYMC and vice chair of clinical affairs at WMC

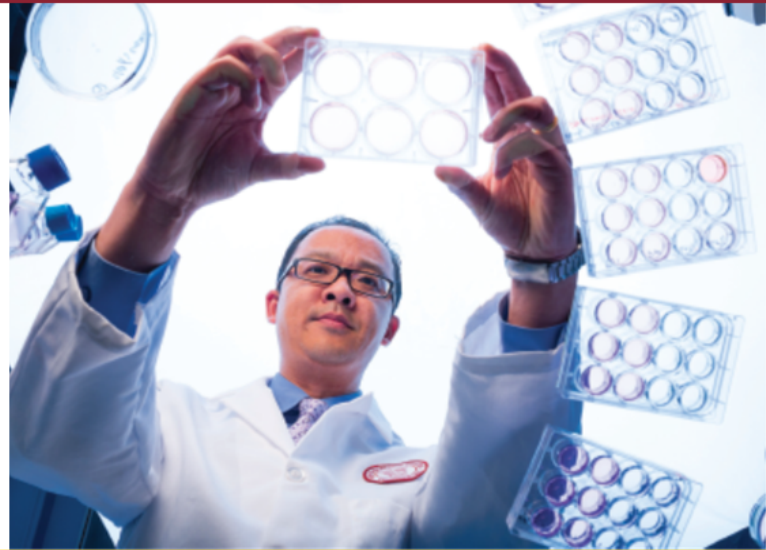


NEW YORK MEDICAL COLLEGE

A MEMBER OF THE Touro College and University System

Graduate School of Basic Medical Sciences

Whether a student aims to discover the next life-changing drug or vaccine, investigate the basic principles of biology, educate the future generation of researchers or manage a science-focused non-profit, we offer M.S., Ph.D. and M.D./Ph.D. programs to meet their goal. Our Accelerated Master's Program offers two years of coursework in just one; and graduates of this program have a distinct advantage when applying to medical school, enjoying an acceptance rate of 85 percent. Our two-year M.S. programs offer options for research training, non-research thesis or project-based internships in industry. The newly launched Biomedical Science and Management Master's track is designed for students interested in pursuing careers in the pharmaceutical, biotechnology, or other biomedical science industries—or in the government and not-for-profit sectors. A new Master of Science in Clinical Laboratory Sciences program trains professionals to work in medical or pharmaceutical laboratories. Our Integrated Ph.D. program focuses on core scientific knowledge and the interrelatedness of the basic sciences while conducting original laboratory research.



GSBMS Facts and Figures

179 STUDENTS
(As of Fall 2021)



67% FEMALE
33% MALE

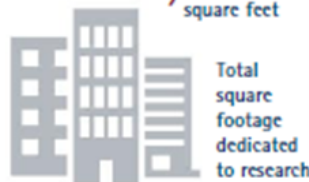
Academic Programs:

- M.S. Interdisciplinary Basic Medical Sciences (Traditional and Accelerated)
- M.S. and Ph.D. in Biochemistry and Molecular Biology
- M.S. and Ph.D. in Cell Biology
- M.S. and Ph.D. in Microbiology and Immunology
- M.S. and Ph.D. in Pathology
- M.S. and Ph.D. in Pharmacology
- M.S. and Ph.D. in Physiology
- Biomedical Science and Management Master's in six disciplines
- M.S. in Clinical Laboratory Sciences
- Dual degree program — M.D./Ph.D. with the NYMC School of Medicine

CAMPUS SIZE **54** ACRES

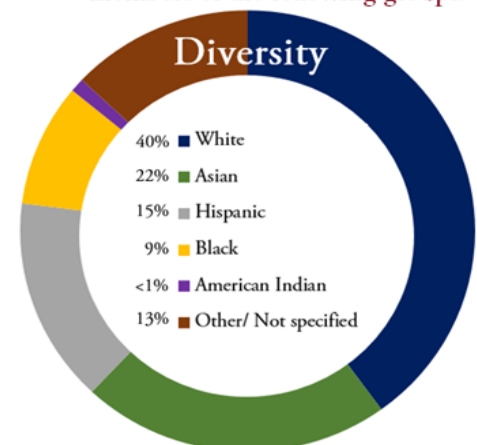


~129,000
square feet



GSBMS Diversity Numbers:

- 26% of GSBMS students self-reported as part of a group currently underrepresented in the sciences
- GSBMS students self-reported as members of the following groups:



Number of GSBMS Faculty: 100
GSBMS Tuition: \$1,236 per credit

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www.nymc.edu/graduate-school-of-basic-medical-sciences-gsbms/