





# Message from the President

Organized and implemented by the Touro College Research Council, Touro College Research Day is a day-long embodiment of our institution's commitment to intellectual curiosity and scientific advancement. The varied and impressive work of our faculty and students allow us to best showcase the impressive scope of Touro's research activities and academic offerings.

Exhibited student and faculty research projects span the gamut from medicine and pharmacy to social work, humanities and more. Touro's reach, both in terms of academic offerings and experiential, community-based learning opportunities, is unparalleled, and we are determined to explore and further develop a wide array of applied and theoretical knowledge. Research Day is but a small window into the world of change that we effect.

This year's Research Day will address COVID-19, One Year Later. This past school year has been unlike any other. The COVID pandemic had an extraordinary impact on everyone, especially students who learned to adapt to a paradigm shift that is not temporary. As the pandemic winds down, numerous lessons were learned in the short period of this very long year. For one, we know conclusively that science and medicine have advanced to the point where we can isolate a virus and create a vaccination in record time; this was unimaginable during previous global pandemics. We also know that children experience far lower infection rates than adults. Children between ages 5 and 17 make up less than 10% of all confirmed COVID-19 cases in the U.S., while those under age 4 account for just 2%. We also saw how misinformation about the virus spread as fast as the disease itself, and that this misinformation was deadly. Not least of all, we learned a lesson that we already knew: that in times of crisis, many people will step forward and offer their services and resources. Our school—our faculty and many of our students—can proudly say they were part of the solution in many ways.

Today's renowned speakers will provide insights on COVID-19, one year later, from two quite different vantage points. Our Research Day Distinguished Keynote Speaker is Dr. Abhay Dhand, an Associate Professor of Medicine at New York Medical College and Director, Transplant Infectious Diseases, Westchester Medical Center. Dr. Dhand will discuss the variety of immune response to SARS-CoV-2 and its role in pathogenesis of COVID-19, the role of active and passive immunity in the prevention and treatment of COVID-19, and the challenges of developing best interventions in the setting of evolution of a novel virus. Our Touro College Distinguished Research Speaker is Dr. Jeffrey Gardere, Associate Professor of Behavioral Medicine. Dr. Gardere will address the range of issues that adults, teenagers, and adolescents have faced because of COVID, including why and how anxiety and depression have dramatically increased in all these groups. I look forward to these presentations

After the formal program, I urge you to participate in our Poster Session. You will enjoy engaging with Touro's faculty and students, and speaking with them about the research initiatives that fuel their professional and educational passions.

I hope today's presentations and poster exhibition stimulate in you the same kind of excitement I feel about research efforts at our college and inspire more collaboration and synergy across our entire university system.

**Dr. Alan Kadish**

President | Touro College and University System

# Welcome to

# Touro College Research Day 2021

I am delighted to welcome you to our ninth annual Research Day, resuming an important tradition being held in a new fashion after a year's hiatus due to COVID-19.

This forum allows us to highlight original research by faculty and students and celebrate the contributions that are being made across the range of disciplines that makes Touro College an exceptionally eclectic intellectual community.

Our theme this year should come as no surprise—the pandemic has impacted all of our lives in every conceivable manner. Taking stock and looking ahead as we round the bend into the new normal is appropriate. While active research, particularly bench science, was significantly affected by the shutdowns and the need for faculty and students to pivot their energies to deal with a virtual instructional environment, research managed to eke along and now is in the process of rebounding.

Today we are pleased to have with us two acclaimed researchers who will provide key insights about the virus and its consequences. Abhay Dhand, M.D., Associate Professor of Medicine at New York Medical College and Director of the Transplant Infectious Diseases at Westchester Medical Center will discuss the variety of immune response to SARS-CoV-2 and its role in pathogenesis of COVID-19, the role of active and passive immunity in the prevention and treatment of COVID-19, and the challenges of developing best interventions in the setting of evolution of a novel virus. My TouroCOM colleague Jeffrey Gardere, Ph.D., is Associate Professor of Behavioral Medicine; he will address the range of issues adults, teenagers, and adolescents have faced because of COVID, including why and how anxiety and depression have dramatically increased in all these groups and will focus on the emerging new normal in behaviors and interpersonal relationships in American society.

Over the years, the Touro College Research Council has endeavored to support our researchers and build upon President Alan Kadish's initiatives in tandem with Senior Vice President for Research Affairs, Dr. Salomon Amar. Let me take this opportunity to thank the faculty and staff involved in planning this year: Sabra Brock (Business & Accounting); Brian Chiswell (Biology); Velma Cobb (Education); Albretha Conner (TouroCOM-Harlem); Glenn Davis (Sponsored Programs); Howard Feldman (Biology); Meira Orentlicher (Occupational Therapy); Louis Primavera (Dean—Health Sciences); Zvi Loewy (Pharmacy); Sara Tabaei (Libraries); Timothy Valenti (Libraries); and, David Yens (TouroCOM-Middletown). We thank President Kadish and Dr. Amar for their steadfast support of Research Day.

Today's event caps off ongoing research-oriented activities and events throughout our many different campuses—among which are awards under Touro College's Presidential Research Development Grant Program, whose 2021 recipients will be recognized. We also are excited to present for the second time, prizes for best student posters and best faculty publications.

Please partake of our first virtual poster session! View the video presentations and posters and reach out to a presenter available to respond to your questions about the project. Enjoy this annual day for sharing our collective search for knowledge. On behalf of the Touro College Research Council, thank you for participating.

**Piotr Kozlowski, MD, Ph.D.**

Chair, Touro College Research Council



**Patricia E. Salkin, J.D.**

Senior Vice President for Academic Affairs, and Provost, Graduate and Professional Divisions

It is a great pleasure to welcome you to our first virtual Research Day. By bringing together the full spectrum of faculty and student researchers of the Touro community, this annual event once again celebrates lab-based, clinical, and social science research taking place across the New York City metro area campuses of our Undergraduate, Graduate, and Professional Divisions. The diverse Touro College and University System serves over 19,000 students across three dozen undergraduate, graduate, and professional schools in New York, California, Illinois, Nevada and overseas in Berlin, Moscow and Israel, including schools of medicine, dentistry, pharmacy, law, health sciences and social work. The scholarly and research interests of our students and faculty reflect that diversity—as witnessed by the breadth of exciting presentations you will hear and see today.

Under the leadership of our Senior Vice President for Research Affairs, Dr. Salomon Amar, President Kadish's vision of expanding our scholarship and research footprint and fostering enhanced collaboration at all levels and across our widespread campuses continues to be realized. The College has continued its commitment to increased funding for research in the sciences, in the humanities, and in the social sciences, encouraging the innovative and creative work of our faculty. The Presidential Faculty Award for excellence in research and scholarship affords high-profile recognition for those who excel in their pursuits in the research arena. We see this emphasis reflected in the monthly entries in our Faculty Focus e-news, in the growing annual volume of faculty publications, in prestigious peer reviewed journals and, despite the restrictions imposed by the pandemic, by a steady stream of presentations by faculty and students at regional, national, and international conferences. Our excellent teaching faculty also is building and supporting a growing community of world-class researchers. I am truly proud of the individual and collective accomplishments of Touro College students and faculty.

A special thank you to the Touro College Research Council for coordinating today's program and to all faculty and student participants and presenters. Research Day arose out of a faculty-based initiative several years ago. The growing momentum guarantees a firm foundation for Touro's future success.



**Stanley L. Boylan, Ph.D.**

Vice President of Undergraduate Education & Dean of Faculties

With deep appreciation for the tremendous effort involved, I thank all of those who have contributed to this year's Research Day program that captures the intellectual vitality of Touro College. We are an institution of higher education that continues to have at its core an enriched undergraduate experience and an abiding commitment to the Jewish intellectual experience. Our late President Dr. Bernard Lander founded Touro College close to fifty years ago with about three dozen undergraduate students. Under the leadership of President Alan Kadish, the institution, its faculty, and their research contributions have grown exponentially, both at the College and across the entire Touro College and University System.

Traditionally focused on excellence in instruction, scholarship and research has always had its place here. While continuing to be primarily a teaching institution, our scholarship and research take many different directions seeking always to enrich enriching the teaching experience. Our faculty make outstanding contributions in areas of science, social science, and the humanities. Dr. Kadish's challenge to expand our research focus is invigorating—no greater evidence of the ensuring enrichment exists than what we experience on Research Day. This year's Virtual Presentation has required ingenuity and dedicated effort. The creativity needed to make this such a positive experience is a tribute to the dedication of the research community at Touro.

I sincerely thank all who have organized and participated today. In particular, I would like to congratulate the student researchers who are presenting. We are very proud of them and their research accomplishments—truly a testimony to the excellence of the Touro College educational experience.



# Welcome to you

I welcome you to Touro College Research Day 2021. Today is an opportunity to reflect upon the extraordinarily challenging past year and where we believe we are headed from there. COVID-19 has dominated our lives and will continue to do so in ways still unfolding. But this also has been a most exciting time, for even while turmoil, anxiety and sorrow were prevailing emotions, we also witnessed firsthand the amazing tenacity of researchers throughout the country and the entire world as they harnessed their skills and resources to collectively fight the virus in an attempt to overcome the pandemic and its aftershocks. We saw research inspire hope and, I believe, bring us to the precipice of victory.

Within that pool was talent of our own at the Touro College and University System, with two of those accomplished faculty members present today. Abhay Dhand, M.D., is an Associate Professor of Medicine at New York Medical College and Director, Transplant Infectious Diseases, Westchester Medical Center. Dr. Dhand will give a talk entitled "SARS-CoV-2 Immunity: The Good, The Bad, The Ugly," while Jeffrey Gardere, Ph.D., an Associate Professor of Behavioral Medicine at the Touro College of Osteopathic Medicine, will present on "The Pandemic Mental Health Tsunami." Undoubtedly, the insights they will share from two of the key foci of COVID-related research will demonstrate the complexity of what still lies ahead.

Here at Touro, the senior leadership continues to seek expansion of our research footprint through an array of support for our faculty's scholarly endeavors. Our system-wide Bridge and Seed funding awards for biomedical and health sciences projects recently were announced. Today we will recognize our fourth class of distinguished faculty recipients of the Presidential Research Development Program awards. Finally, during our program, the winners of our prize competitions for best faculty publications and best student posters will be announced for the second time.

Research Day reminds us of the uniqueness of Touro College across all our campuses—both in the diversity of scholarly interests present in the humanities, social sciences, basic sciences, biomedical and health sciences, and within undergraduate, graduate, and professional divisions. I encourage you to support our colleagues by visiting them through our first virtual poster sessions and to applaud their pursuit of new knowledge that strengthens the research reputation of Touro and our success.

Research Day at Touro would not have seen light without the commitment of various bodies of our institution. I deeply thank our students for embracing Research Day and our faculty for their support of the educational mission of our university.

Let me close by expressing my appreciation to President Kadish for his broad vision aimed at integrating research and scholarly activity within the fabric of the College and to Senior Vice President for Academic Affairs Patricia Salkin for her partnership as we work together to implement our initiatives.

**Salomon Amar, D.D.S., Ph.D.**

Senior Vice President for Research Affairs | Touro College & University System

RESEARCH DAY

# Distinguished Keynote Speaker

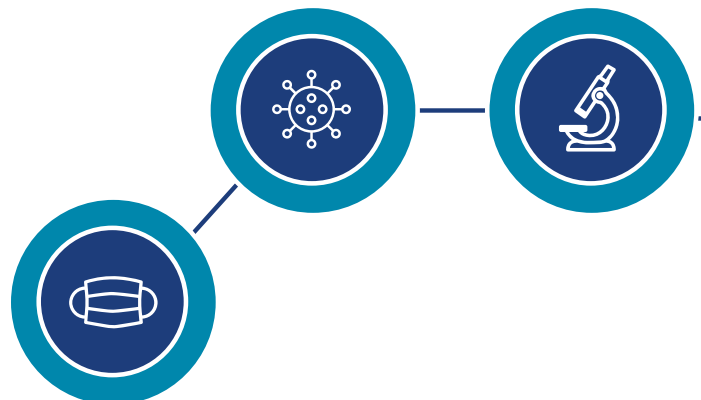


## “SARS-CoV-2 Immunity: The Good, The Bad, The Ugly”

ABHAY DHAND, M.D.

Over the past year, the medical community has marshaled its full array of resources—in research and health care delivery—to pursue an unparalleled attempt to combat a novel pathogen that has resulted in millions of deaths around the globe. Despite rapidly evolving data, viral mutations, and political and socio-economic challenges, our community has achieved great strides in understanding the virus and in management of those infected. In this presentation, Dr. Dhand will discuss the variety of immune responses to SARS-CoV-2 and their role in pathogenesis of COVID-19, the role of active and passive immunity in the prevention/treatment of COVID-19, and the challenges of developing best interventions in the setting of evolution of a novel virus.

Abhay Dhand, M.D., is Director of Transplant Infectious Diseases and Antimicrobial Stewardship Program at Westchester Medical Center (WMC) and is an Associate Professor of Clinical Medicine at New York Medical College. He was trained in Infectious Diseases and Geographic Medicine at Tufts University-School of Medicine and has served as a faculty member in Westchester Medical Center/New York Medical College since 2007. During current pandemic he was involved in: devising and implementing COVID-19 clinical pathways at WMC; clinical trials regarding use of COVID convalescent plasma; risk factors associated with severity of COVID; use of COVID-19 monoclonal antibodies; organ transplantation & COVID-19; and, clinical outcomes research in patients hospitalized with COVID-19. His other research interests include antibiotic resistance, infections in immunocompromised hosts, and best practices regarding use of antimicrobials.



TOURO COLLEGE

# Distinguished Research Speaker



## “The Pandemic Mental Health Tsunami”

JEFFREY R. GARDERE, PH.D.

Covid-19 has killed Americans from all walks of life—over 560,000 and counting—and, as Dr. Gardere will discuss in his presentation, the related mental health toll of the pandemic has been immeasurable. However, certain demographics and communities have been affected more than others. Black and brown adults have been disproportionately affected by COVID infections yet have disproportionately received less vaccines for many reasons including a mistrust of the medical establishment. There are non-black adults who have refused the vaccine or wearing masks for political reasons. Asian-Americans are being terrorized by hate crimes. Relatedly, racism and tribalism are exploding and fueled by the pandemic. Both adults and teenagers have seen a record rise in anxiety and depression. Children have lost an average of at least one year in academic achievement and social skills attainment. Most people are yearning for a return to normal, but a “new normal” is the new reality, which can only happen with adaptative behaviors and post traumatic growth. Dr. Gardere’s goal is to remind us that the physical medical emergency and continuing challenges we face have their counterparts in the realm of the human psyche.

Jeffrey Gardere, Ph.D., is a board-certified clinical psychologist and an ordained interfaith minister. Since 2014, he has been an Associate Professor at the Touro College of Osteopathic Medicine’s Harlem Campus, where he is Course Director of Behavioral Medicine, Intro to Cultural Competence, Community Service and Health and Human Behavior. In addition to having a private practice in Manhattan, Dr. Gardere, better known as “America’s Psychologist,” is an author of parenting and relationship books. “Dr. Jeff” has been a contributor to the FOX Network, the Today Show, MSNBC, and CNN, was the host of VH1’s Dad Camp, and was recently the substitute news anchor on the nightly newscast, Chasing News, on the FOX affiliates. Additionally, Dr. Gardere has co-produced three documentary films: “You Are Not Alone, Black Gay Men and Depression”; “Erasing Family; Parental Alienation and the Effects on Children”; and, “When Harlem Saved a King; The 1958 Assassination Attempt on Dr. Martin Luther King Jr.”



# PRESIDENTIAL RESEARCH DEVELOPMENT GRANT PROGRAM

## 2021 Award Recipients

**MAYSA AZZEH**, ASSOCIATE PROFESSOR, COLLEGE OF OSTEOPATHIC MEDICINE-  
HARLEM CAMPUS

“The Role of Cellular Kinases in HCMV Assembly”

**JENNA BLOEMER**, ASSISTANT PROFESSOR, COLLEGE OF PHARMACY

“Investigating Alterations in Brain Adiponectin and Autophagy in Alzheimer’s Disease”

**ZVI KAPLAN**, PROFESSOR, LANDER COLLEGE FOR WOMEN

“French Jewry and the Problem of Church and State: 1905-1940”

**YAKOV PETER**, ASSOCIATE PROFESSOR, LANDER COLLEGE FOR MEN

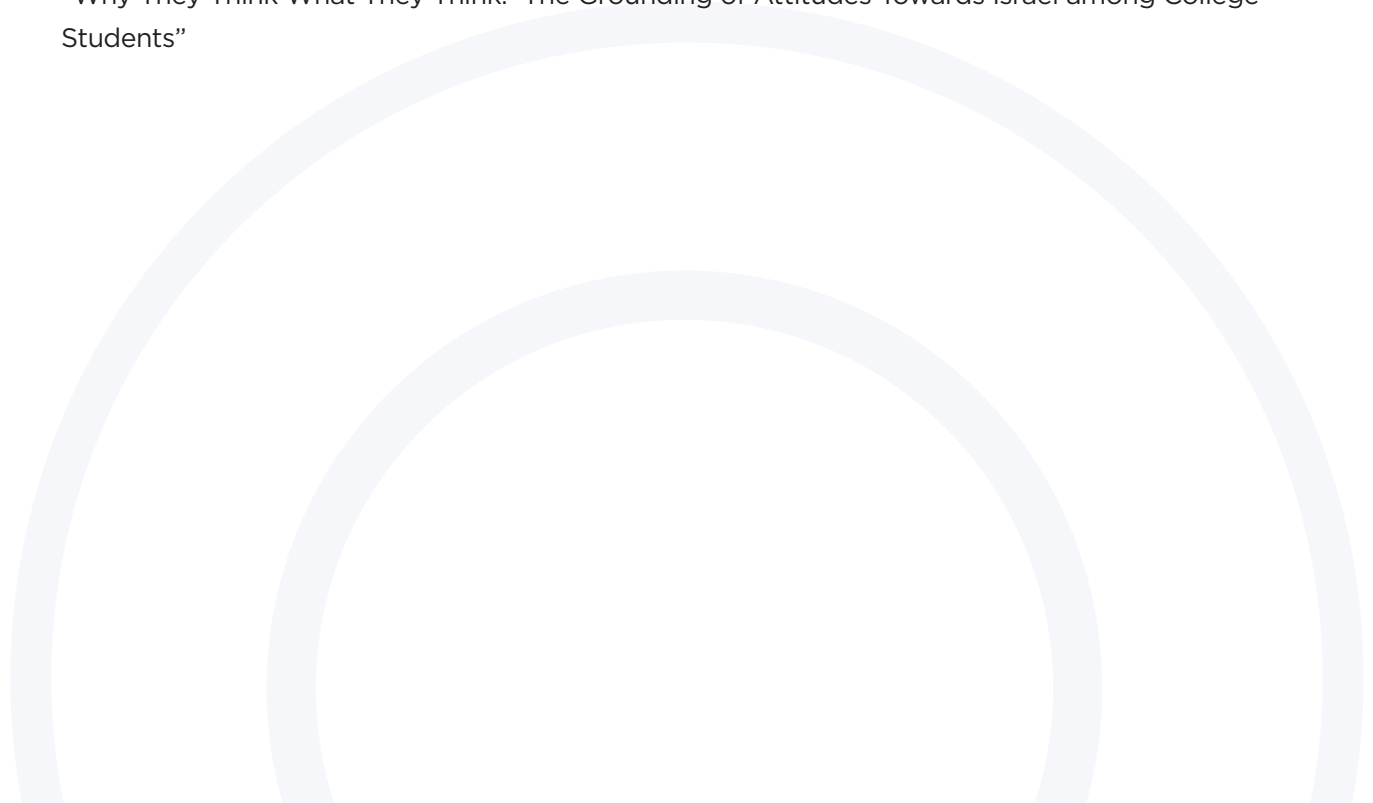
“The Hippo Pathway Links Cancer Development and Immune Evasion in Human Lung Stem Cells”

**NILANK SHAH**, ASSISTANT PROFESSOR, COLLEGE OF OSTEOPATHIC MEDICINE-  
MIDDLETOWN CAMPUS

“Develop & Optimize “Unique” Organ Storage Mechanism for Organ Preservation & Transplant”

**MERVIN VERBIT**, PROFESSOR, LANDER COLLEGE FOR WOMEN

“Why They Think What They Think: The Grounding of Attitudes Towards Israel among College Students”





# Touro College Research Day 2021 Prizes

## BEST FACULTY RESEARCH PUBLICATIONS IN 2018

### **Biomedical, Health, and Natural Sciences**

**JILL HORBACEWICZ, PT, M.A., PH.D., ASSOCIATE PROFESSOR**  
PHYSICAL THERAPY/SCHOOL OF HEALTH SCIENCES

Horbacewicz, J. (2018). Effect of blocked versus random practice on physical therapy students' manual force modulation. *Perceptual and Motor Skills*, 125(6), 1173-1185.  
<https://doi.org/10.1177/0031512518797845>

### **Arts, Humanities, Social, Behavioral & Educational Sciences**

**ZVI J. KAPLAN, J.D., PH.D., PROFESSOR**  
HISTORY/LANDER COLLEGE FOR WOMEN-THE ANNA RUTH & MARK HASTEN SCHOOL

Kaplan, Z. J. (2018). The plight of the Agunah: The proposal of the Union des Rabbins Français. In S. Fishbane & E. Levine (Eds.), *Dynamics of continuity and change in Jewish religious life* (pp. 226-240). Touro University Press.



# Touro College Research Day 2021 Prizes

## BEST STUDENT POSTERS | RESEARCH DAY 2021

### Biomedical, Health, and Natural Sciences

#### FIRST PLACE

##### Effect of Probiotics on Respiratory Pathogens

IRENE BERGER (1), MING CHAU CHAN, B.S. (2), AARON MOMENT, PH.D. (3), HELEN LIU, PH.D. (2), AND ZVI LOEWY, PH.D. (4)

1. Pharm.D. Candidate 2023, Touro College of Pharmacy
2. Department of Biomaterial Engineering, Columbia University School of Engineering
3. Department of Chemical Engineering, Columbia University School of Engineering
4. Touro College of Pharmacy

#### SECOND PLACE

##### The Role of Tropomyosin 4 Overexpression in the Balance Between Differentiation and Tumorigenesis in Colon Cancer

SWAPNA ANN GEORGE (1), SALOOMEH NOOCHIRWANI TEHRAN (1), MICHAEL PAPETTI, PH.D. TOURO COLLEGE OF PHARMACY

1. Pharm.D. Candidate 2022

### Arts, Humanities, Social, Behavioral, Educational Sciences

#### FIRST PLACE

##### One Day You Will Be Older: Teaching Empathy to Health Science Students with a Budget-Friendly Geriatric Simulator

KERRI DOWNES (1), FRANK CRISCI (1), ANAIS MARMOL (1), NATALIA PILUK (1), RYAN POWERS (1), KAYLEE TAMURA (1), DANIEL J. LEE, PT, DPT, PHD, COMT

1. DPT Class of 2021

#### SECOND PLACE

##### Differential Pay Expectations in Gender-blind Workplaces: Implications for the Gender Wage Gap

SHALOM N. JAFFE (1), LEIB LITMAN, PH.D., LANDER COLLEGE FOR MEN

1. Class of 2020

# Schedule

**MAY 6, 2021**

## WEBINAR AND VIRTUAL POSTER SESSION PROGRAM

- 12:00-12:10 p.m. **Opening Remarks on Behalf of the Touro College Research Council**  
Piotr Kozlowski, M.D., Ph.D.  
*Chair, Touro College Research Council*
- 12:10-12:20 p.m. **Welcome**  
Alan Kadish, M.D.  
*President, Touro College & University System*
- 12:20-12:30 p.m. **Welcome, Award Recognition, & Recognition of Presidential Research Development Grant 2020 Award Recipients**  
Salomon Amar, D.D.S., Ph.D.  
*Senior Vice President for Research Affairs  
Touro College & University System*
- 12:30-12:40 p.m. **Best Faculty Research Publications 2018**  
Zvi Loewy, Ph.D.  
*Associate Dean for Research, College of Pharmacy*
- Best Student Posters Touro College Research Day 2021**  
Piotr Kozlowski, M.D., Ph.D.  
*Chair, Touro College Research Council*
- 12:40-12:50 p.m. **Introduction to Distinguished Speakers**  
Salomon Amar, D.D.S., Ph.D.  
*Senior Vice President for Research Affairs  
Touro College & University System*
- 12:50-1:30 p.m. **Research Day Distinguished Keynote Speaker**  
**“SARS-COV-2 IMMUNITY: THE GOOD, THE BAD, THE UGLY”**  
Abhay Dhand, M.D.  
*New York Medical College | Westchester Medical Center*
- 1:30-2:10 p.m. **Touro College Distinguished Research Speaker**  
**“THE PANDEMIC MENTAL HEALTH TSUNAMI”**  
Jeffrey R. Gardere, Ph.D.  
*Touro College of Osteopathic Medicine-Harlem Campus*
- 2:10-2:30 p.m. **Question & Answer Session**
- 2:30-2:45 p.m. **Break**
- 2:45-5:30 p.m. **Virtual Poster Session**