

ANNUAL REPORT

2019-2020



RUTGERS

Robert Wood Johnson
Medical School

DEPARTMENT OF PEDIATRICS



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ANNUAL REPORT | 2019-2020

The Department of Pediatrics' mission is to protect and ensure the health and well-being of all children. We are dedicated to advancing the field of pediatrics through patient services, research, education, and advocacy. We are committed to providing multi-disciplinary family-centered care with respect, compassion and the highest standards of excellence. The faculty and staff in the Department of Pediatrics conduct clinical, research, educational and outreach activities, which directly and indirectly impact the lives of children and their families in central New Jersey, throughout the state and regionally.

A Special Thank You to our photographers:

Suzanne L. Anderson

Harry Chefitz

Steve Hockstein/Harvard Studio

Jason Martin/J Martin Studio

Emily Yang

*Various photos were taken before mask
and social distancing recommendations were in place.*



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Sally Radovick, MD, is the Professor and Henry Rutgers Term Chair of the Department of Pediatrics at Rutgers Robert Wood Johnson Medical School and Physician-in-Chief at Bristol-Myers Squibb Children's Hospital at Robert Wood Johnson University Hospital in New Brunswick, part of the RWJBarnabas Health System. Dr. Radovick is also a Chancellor Scholar, a designation awarded by Rutgers Biomedical and Health Sciences. As a physician-scientist, Dr. Radovick's well-funded research program focuses on developmental endocrine disorders in children, specifically on the regulation of hypothalamic-pituitary function. Dr. Radovick is a specialist in growth and development and pubertal disorders in children. Her laboratory has elucidated some of the factors that control the onset of puberty in children and defined the pathways which link nutrition and growth with pubertal development and reproduction. Her laboratory has shown the critical requirement for kisspeptin signaling in the neuroendocrine control of pubertal onset. Another major area of her research has been to characterize the factors important for normal pituitary development. Her initial studies provided the first description of the molecular genetic mechanism for combined pituitary hormone deficiency in children. She has been continuously funded by the NIH since 1992 and serves on the Integrative and Clinical Endocrinology and Reproduction Study Section (ICER).

Dr. Radovick has authored or co-authored more than 100 peer-reviewed scientific publications and has written, by invitation, a dozen book chapters in her field. She is an author of "Puberty in the female and its disorders" in Sperling's textbook, *Pediatric Endocrinology* and "Normal and aberrant growth" in *Williams Textbook of Endocrinology*. Dr. Radovick served as the President of the Pediatric Endocrine Society. Dr. Radovick participates in teaching of undergraduates, medical students, residents, and endocrinology fellows. She actively participates in clinical activities, holding pediatric endocrinology teaching clinics. She spearheaded the approval of the first Pediatric Endocrinology fellowship training program in New Jersey.

Chair's Message

Welcome to the Department of Pediatrics at Rutgers Robert Wood Johnson Medical School in New Brunswick. The department is composed of 120 full-time and more than 200 volunteer faculty members, organized into 17 divisions covering all of the pediatric subspecialties: Adolescent Medicine; Allergy, Immunology, and Infectious Diseases; Cardiology; Critical Care Medicine; Education; Emergency Medicine; Endocrinology; Gastroenterology; Medical Genetics; Hematology/Oncology; Pediatric Hospital Medicine; Immunobiology; Neonatology; Nephrology; Child Neurology and Neurodevelopmental Disabilities; Population Health, Quality, and Implementation Sciences; Pulmonary Medicine and Cystic Fibrosis Center; and Rheumatology. In addition, our centers of excellence include The Boggs Center on Developmental Disabilities, the Pediatric Clinical Research Center, the Institute for the Study of Child Development and the SIDS Center of New Jersey.

The department is undergoing a renaissance following the recent integration of the medical school with Rutgers, The State University of New Jersey, and the merger of two major health systems to form RWJBarnabas Health.

The department recruited 15 new faculty in FY19, and 22 new faculty in FY20 (of which 10 will start in FY21). We are in the process of recruiting several senior level positions with plans to continue to hire additional faculty, allowing us to expand our research, education, and clinical programs and enhance care to our patients. Our educational mission is focused on the development of the next generation of multitasking physicians who will become leaders in education, research and patient care. Our Accreditation Council for Graduate Medical Education accredited training programs continue to thrive. We have an outstanding pediatric residency and fellowship training programs.

Our practice offers exceptional health care services for children from birth to age 21. The programs are designed to provide patients and their families with highly specialized care to manage their child's illness. We are actively expanding the scope and reach of the services

available for children so they can receive the highest quality of care as close to home as possible. Our New Brunswick-based clinical programs have achieved Accredited Status for Ambulatory Health Care by The Joint Commission, one of only a small number of academic ambulatory practices to receive this status. Our faculty also provides clinical services at The Bristol-Myers Squibb Children's Hospital at Robert Wood Johnson University Hospital, a five-time Magnet recipient recognized as "One of America's Best Children's Hospitals" by U.S. News and World Report for the sixth time.

During the past year, our talented and dedicated faculty, staff, residents and fellows were called upon to care for children with COVID-19. They navigated through the COVID-19 pandemic firm in their commitment to provide outstanding clinical service and support. We continue as a pediatric 'family' strengthened in our mission. I am especially proud of their dedication to our children and families.

We hope you will enjoy learning about our department and our many accomplishments.

Sincerely,



Sally Radovick, MD

Chair, Department of Pediatrics



Department Leadership

VICE CHAIRS



Lawrence Kleinman, MD, MPH, FAAP
Professor & Vice Chair for Academic Development, Department of Pediatrics
Health, Quality, and Implementation Sciences (PopQuIS)
Chair, Pediatric Appointments and Promotions Committee



M. Douglas Baker, MD
Professor & Vice Chair for Clinical Affairs, Department of Pediatrics
Division of Emergency Medicine

DEANS



Janice Cato-Varlack, MD,
Assistant Professor of Pediatrics
Associate Dean of Multicultural Affairs



Dayla Cheftiz, MD
Professor of Pediatrics
Division Director, Pediatric Hospital Medicine
Assistant Dean, Clinical Learning Environment



Vicki L. Craig, MD, FCCM, CPHQ
Associate Professor of Pediatrics
Interim Division Director, Critical Care Medicine
Senior Associate Dean Safety, Quality and Clinical Affairs



Michael Kelly, MD
Assistant Professor of Pediatrics
Associate Dean for Graduate Medical Education



Sally Radovick, MD
Professor and Henry Rutgers Term Chair
Department of Pediatrics
Senior Associate Dean for Clinical and Translational Research



Patricia Whitley-Williams, MD
Professor of Pediatrics
Division Director, Allergy, Immunology and Infectious Diseases
Associate Dean for Inclusion and Diversity

DIVISION DIRECTORS

Adolescent Medicine

Wendy Neal, MD
Associate Professor of Pediatrics

Allergy, Immunology and Infectious Diseases

Patricia Whitley-Williams, MD
Professor of Pediatrics

The Boggs Center on Developmental Disabilities

Deborah M. Spitalnik, PhD
Professor of Pediatrics

Cardiology

Joseph Gaffney, MD
Associate Professor of Pediatrics

Critical Care Medicine (PICU)

Vicki Craig, MD
Associate Professor of Pediatrics
(Interim FY20)

Simon Li, MD

Associate Professor of Pediatrics
(FY21)

Education - Residency Program

Indira Amato, MD
Associate Professor of Pediatrics
(FY20)

Joann Carlson, MD

Associate Professor of Pediatrics
(FY21)

Education - Student Programs - Pediatric Clerkship

Elizabeth Goodman, MD
Associate Professor of Pediatrics

Department Leadership

Emergency Medicine

Ernest Leva, MD
Professor of Pediatrics

Endocrinology

Ian Marshall, MD
Associate Professor of Pediatrics

Gastroenterology and Nutrition

Soula Koniaris, MD
Associate Professor of Pediatrics

Medical Genetics

Philip Giampietro, MD, PhD
Professor of Pediatrics

Hematology/Oncology

(Rutgers Cancer Institute of New Jersey)
Peter Cole, MD
Professor of Pediatrics

Pediatric Hospital Medicine

Dalya Chefitz, MD
Professor of Pediatrics

Immunobiology

Derek Sant'Angelo, PhD
Professor of Pediatrics

Institute for the Study of Child Development

Michael Lewis, PhD
University Distinguished Professor of Pediatrics

Neonatology (NICU)

David Sorrentino, MD
Associate Professor of Pediatrics
(FY20)

Deepak Jain, MD

Associate Professor of Pediatrics
(Interim FY21)

Nephrology and Hypertension

Joann Carlson, MD
Associate Professor of Pediatrics

Child Neurology and Neurodevelopmental Disabilities

Vikram Bhise, MD
Associate Professor of Pediatrics

Population Health, Quality, and Implementation Sciences (PopQulS)

Lawrence Kleinman, MD, MPH
Professor of Pediatrics

Pulmonary Medicine and Cystic Fibrosis Center

Thomas Scanlin, MD
Professor of Pediatrics

Rheumatology

Lakshmi N. Moorthy, MD, MS
Professor of Pediatrics

Chair's Administration

Suzanne L. Anderson
Program Assistant

Kathleen Faup
Faculty Practice Manager

Kelley Hamilton
Staff Assistant

Christine Jurcsek
Staff Assistant

Abdur Khan
Business Manager

Tracey Sharp
Program Administrator

Neil Silver
Senior Director of Administration

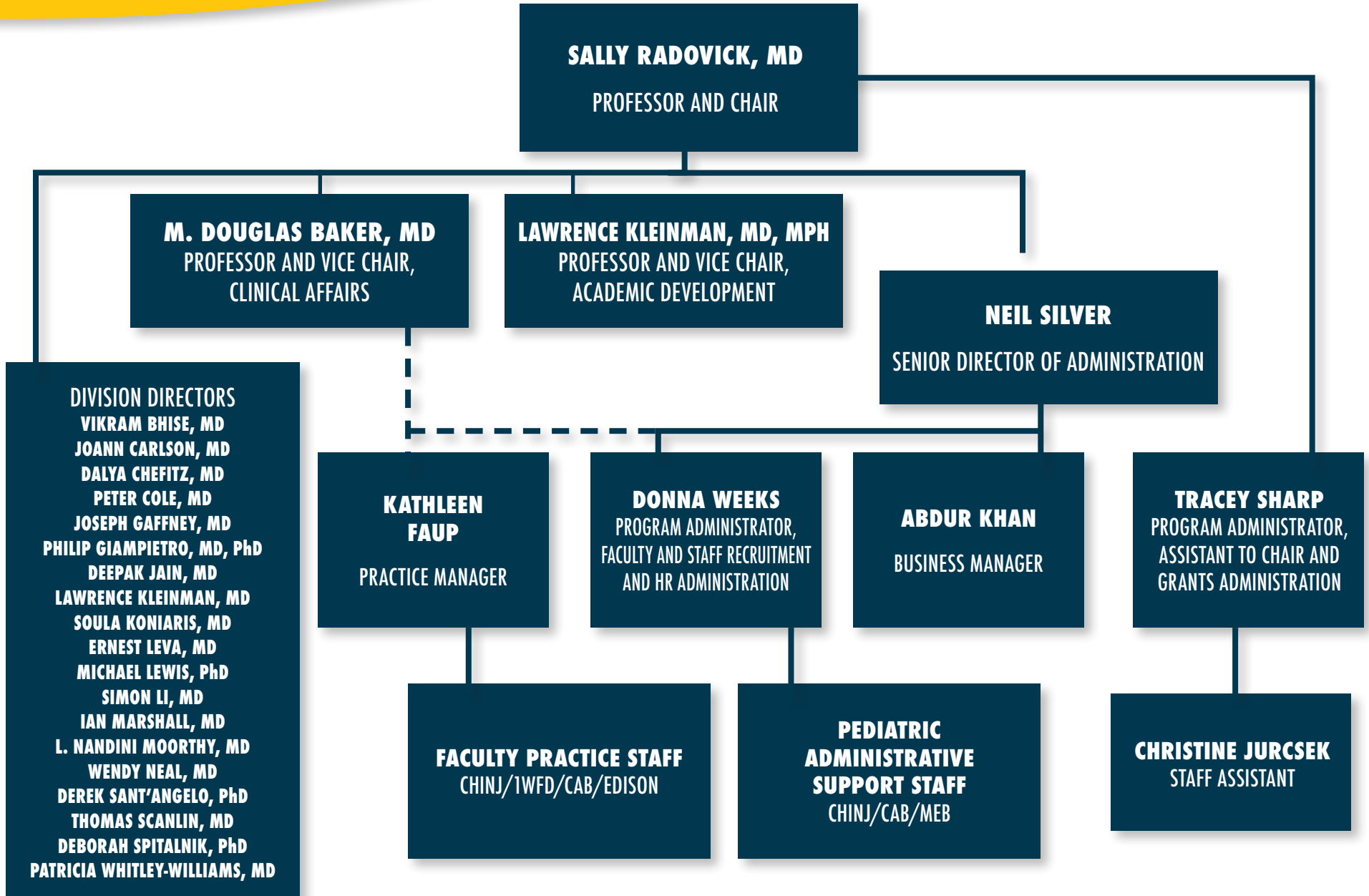
Donna L. Weeks
Program Administrator

CHAIR'S ADMINISTRATION TEAM

I-r C. Jurcsek, K. Hamilton, S. Anderson, N. Silver, S. Radovick, A. Khan, T. Sharp, K. Faup, D. Weeks



Department Organization



EFFECTIVE SEPTEMBER 2020

DEPARTMENT CHAIR

SALLY RADOVICK, MD

DIVISIONS/CENTERS

ADOLESCENT MEDICINE

WENDY NEAL, MD

ALLERGY, IMMUNOLOGY AND INFECTIOUS DISEASES

PATRICIA WHITLEY-WILLIAMS, MD

BOGGS CENTER ON DEVELOPMENTAL DISABILITIES

DEBORAH SPITALNIK, PhD

CARDIOLOGY

JOSEPH GAFFNEY, MD

CRITICAL CARE MEDICINE

SIMON LI, MD

EDUCATION

JOANN CARLSON, MD
(INTERIM)
ELIZABETH GOODMAN, MD

EMERGENCY MEDICINE

ERNEST LEVA, MD

ENDOCRINOLOGY

IAN MARSHALL, MD

GASTROENTEROLOGY/ NUTRITION

SOULA KONIARIS, MD

MEDICAL GENETICS

PHILIP GIAMPIETRO, MD, PhD

HEMATOLOGY/ ONCOLOGY

PETER COLE, MD

PEDIATRIC HOSPITAL MEDICINE

DALYA CHEFITZ, MD

IMMUNOBIOLOGY

DEREK SANT'ANGELO, PhD

INSTITUTE FOR THE STUDY OF CHILD DEVELOPMENT

MICHAEL LEWIS, PhD

NEONATOLOGY

DEEPAK JAIN, MD
(INTERIM)

NEPHROLOGY AND HYPERTENSION

JOANN CARLSON, MD

CHILD NEUROLOGY AND NEURODEVELOPMENTAL DISABILITIES

VIKRAM BHISE, MD

POPULATION HEALTH, QUALITY & IMPLEMENTATION SCIENCES (PopQuIS)

LAWRENCE KLEINMAN, MD

PULMONARY MEDICINE AND CYSTIC FIBROSIS CENTER

THOMAS SCANLIN, MD

RHEUMATOLOGY

L. NANDINI MOORTHY, MD

EFFECTIVE SEPTEMBER 2020

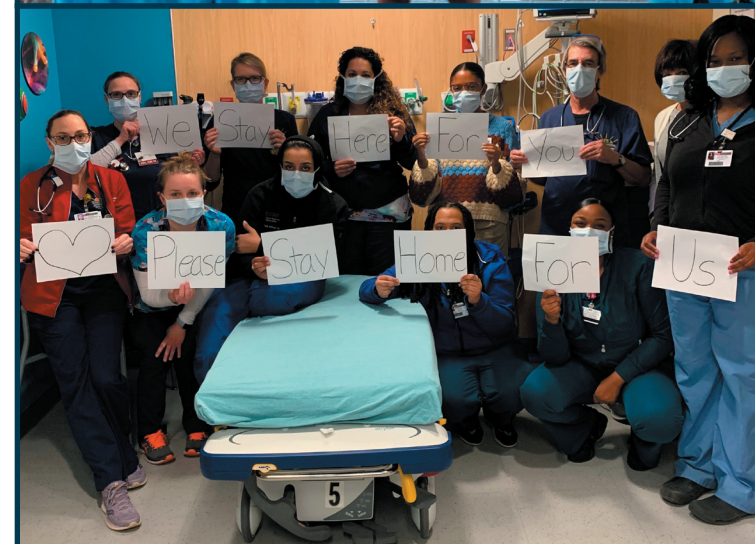
COVID-19 Pandemic

In the midst of every crisis lies great opportunity.
- Albert Einstein

The **COVID-19 pandemic** is a global human tragedy of epic magnitude. In the United States alone, COVID-19 infected millions of people and resulted in hundreds of thousands of deaths. While children were affected proportionately less than adults, they were not completely spared. Many were hospitalized. Some required intensive clinical management of unique manifestations of their viral infections. A select cohort of children developed newly-described late-onset multisystem inflammation syndrome (MIS-C). We still are seeking to understand the impact of COVID-19 infections in children on their families and other contacts.

Although COVID-19 had gained world-wide visibility prior to entering the United States, it was upon us before we knew it. The pandemic unfolded in an unpredictable manner, testing the capabilities and commitment of the department to its clinical and academic responsibilities. Beginning mid-March 2020, there followed 100 days of unprecedented change in all aspects of daily living. Government restrictions on personal activities and business practices evolved daily. The practice of medicine was turned upside-down, minimizing in-person interactions and expanding the use of virtual technologies. The predominance of COVID-19 infections in adults also stretched the traditional age boundaries of the scope of pediatric medical practice.

The department faculty, trainees and staff responded to the challenges of the pandemic without pause, all committing to provide services in whatever manner needed, for as long as needed. For many, there were no weekend, holiday or other breaks. Pediatric out-patient specialists quickly learned the use of telemedicine platforms, and facilitated safe patient care to patients who were sheltering at home. Pediatric Emergency Medicine physicians helped conceive and implement remote triage of incoming patients to help safely distance those who could be well cared for without entrance into the emergency department. Pediatric hospitalists, intensivists and trainees practiced meticulous PPE protocol for patients under investigation for and those known to be positive for COVID-19, while keeping safe from exposure those who tested negative for the virus.



COVID-19 Pandemic

The pandemic created a need for systematic observations to help achieve a near real time understanding of the virus and the illness, and their management. The Department of Pediatrics at Robert Wood Johnson Medical School stepped up and produced. The department's participation in national collaborations produced landmark papers describing pediatric intensive care of children seriously ill with COVID-19 infections at the outset of the American pandemic and the largest aggregation of cases of the newly emerging syndrome MIS-C (Multi-system Inflammatory Syndrome in Children). Ongoing work looks to share our local experience more broadly including considerations of special populations of patients (immunocompromised and others); unusual and interesting presentations of virus-related illness; diagnostic dilemmas that are created by the context of the pandemic, and more. We have developed a collaborative infrastructure to support local and national studies that allows us to address critical questions as they arise.

The department has also stepped forward for public service and public and professional education. Various faculty members helped to bring items of importance to the public sphere through interviews in newspapers, on radio and television. Statewide and regional webinars featured our faculty in professional and public fora. A trans-disciplinary working group that developed rapid guidance for the early education community featured three medical school faculty pediatrics members. Our faculty were called upon and stepped up to testify before legislatures, advise elected and appointed officials, and provide guidance to public, religious, and private schools and other organizations.

The COVID-19 pandemic revealed much of the professional talent of the department. Under the leadership of Chair Sally Radovick, MD, and her senior team, the department gelled and stood up to an ongoing crisis and

responded with clinical, academic, and service achievements that continue to grow and to adapt to the changing circumstances. Department faculty members collaborated to help determine the best clinical care to manage the medical consequences of COVID-19 infections in children and to understand and mitigate the nonmedical challenges faced by families. Their efforts contributed to the statewide, regional, and national understanding of management of MIS-C and other COVID-19 related illnesses, and has helped to establish the national medical standard of care. Our ongoing efforts seek to unravel and remedy the racial and ethnic disparities that this virus currently demonstrates. It is not surprising that our faculty continue to appear prominently as leading experts in regional, national, and global media.

Lawrence Kleinman, MD, MPH
Professor and Vice Chair,
Academic Development

M. Douglas Baker, MD
Professor and Vice Chair,
Clinical Affairs



White Coats for Black Lives



The Department of Pediatrics is committed to creating an environment free of bias and discrimination where all staff, faculty, students, residents, fellows and patients feel respected and valued regardless of their race or ethnicity. During this past year, social unrest in our country, in response to acts and words of racial bias and microaggressions, permeated our everyday lives, our learning institutions and our workplaces. Racism reared its ugly head but had always existed just below the surface, and was easily recognized by those who were subjected to it. We became acutely aware that immediate intervention was necessary to address this issue of racism. It was important for the leadership to commit and create effective change immediately. It was also up to all of us to be aware and address the racial biases that existed, to acknowledge the role of implicit bias as a barrier in developing a diverse workplace, and to ensure a bias free working environment. It takes a movement to address and eliminate racism, and it is a movement we all must join. As research has shown, health inequities and health care disparities among people of color exist and persist because of racism and implicit bias.

The department is proud to have one of the most diverse faculty, staff and residents and fellows in the medical school. To enhance or increase awareness, the chair organized a Committee on Diversity, which has been very active in engaging our faculty, residents and staff. The topics of health inequities and health care disparities have been presented at Pediatric Grand Rounds to increase awareness and stimulate self-assessment. A presentation on student-reported microaggressions and implicit bias was also given at a Grand Rounds session. Our underrepresented minority (URM) faculty met virtually with residency candidates that were being interviewed. Faculty and our residents participated in URM residency recruitment fairs, including those for students at historically Black medical schools. Implicit bias trainings were held for the school in which our department members participated. These forementioned activities represent only some of the response by the department to address implicit bias and racism.

With the ongoing commitment and support from the chair of the department to move the agenda forward, we share the goal of creating a diverse, inclusive, safe, and bias-free learning and workplace environment. Our steadfast goal remains to improve health outcomes for all of our patients and their families, regardless of race or ethnicity. As Dr. Martin Luther King Jr. so eloquently stated, "I have a dream that my four little children will one day live in a nation where they will not be judged by the color of their skin, but by the content of their character." We, in the Department of Pediatrics have a dream that all our pediatric patients will not be judged by the color of their skin, but by the content of their character.

Patricia Whitley-Williams, MD
Professor and Associate Dean for Inclusion and Diversity

Adolescent Medicine



Wendy Neal, MD, MPHTM

Associate Professor and Division Director

The **Division of Adolescent Medicine** is dedicated to provide comprehensive, culturally sensitive medical care to preteens through age 22 years. Consultative services are available at three different sites: New Brunswick, Somerset, and Edison.

Non-surgical gynecologic problems: menstrual disorders - primary and secondary amenorrhea, dysmenorrhea, abnormal uterine bleeding, irregular bleeding, and Polycystic Ovary Syndrome (PCOS).

Contraception counseling and services: contraception methods, STD diagnosis and treatment, PAP smears, pregnancy diagnosis and option counseling, breast disorders, ovarian cyst, and vaginal and uterine problems.

Weight management services: obesity, underweight, and eating disorders.

Wendy Neal, MD, MPHTM, is a highly experienced clinician in adolescent medicine with over 22 years of experience. She is an Associate Professor of Pediatrics, fellowship trained in adolescent medicine, and board certified in both general pediatrics and adolescent medicine. Additionally, she has a master's degree in public health which shapes her comprehensive approach to patient care. She has received numerous awards for her excellence in providing clinical care. Dr. Neal has authored numerous articles, written chapters in text books and has done research in the field of adolescent medicine. She has appeared in the media as an expert consultant and has consulted internationally on the development of adolescent health services. Dr. Neal was named to the Society of Adolescent Medicine and Health annual program planning committee in 2018, and continues to serve, charged with reviewing abstracts and planning the educational content of the society's annual meeting.

Dr. Neal worked with the Departments of Obstetrics, Gynecology and Reproductive Sciences, and Pediatric Surgery to develop the Child and Adolescent Gynecology Program in 2017. The program goal is to evaluate,

diagnosis and manage gynecologic issues in girls and young women. Patients have access to experienced physicians across many disciplines to address their needs.

Dr. Neal is working collaboratively with multiple divisions and departments, which includes Pediatric Gastroenterology and Nutrition, Psychology, Gastroenterology (adult), and Pediatric Surgery to expand services to patients struggling with obesity. The goal is to establish a comprehensive obesity management program that addresses the multiple areas that come to play when addressing this complex disease, in order to prevent the associated morbidities and mortality.

Staff

Lyneta (Nina) Blair

Secretary I

Melanie Sunkyung Lee, RD

Nutritionist I

Aura Velasco, RN

Staff Nurse



Left to right: L. (Nina) Blair, W. Neal

Allergy, Immunology and Infectious Diseases



Patricia Whitley-Williams, MD
Professor and Division Director

The Division of Allergy, Immunology and Infectious Diseases currently has six full-time faculty, one part time faculty, four volunteer faculty, and nine program and administrative support staff. One of our full-time faculty, Aswine Bal, MD, is based at Jersey Shore University Medical Center.

Clinical subspecialty services and consultations in pediatric immunology and infectious diseases are conducted at the ambulatory site at the Child Health Institute of New Jersey by Patricia Whitley-Williams, MD; Sunanda Gaur, MD; and Amisha Malhotra, MD. The allergy/immunology services (allergies, asthma; eczema) are provided by Clement Maccia, MD, at 1 Worlds Fair Drive in Somerset, NJ, two days per week. Dr. Maccia retires at the end of June of this academic year. We are in the process of

looking for his successor. In the interim, our pediatric pulmonologists and the allergist in the Department of Medicine, who sees children from six years of age, will provide the allergy services for our pediatric patients. Our inpatient services are conducted at Bristol-Myers Squibb Children's Hospital. Examples of ambulatory consults are HIV infection, Lyme disease, fevers, immunodeficiencies, MRSA infections and tuberculosis. We provide inpatient consultations for the management of pediatric patients with infections, infectious complications and immunodeficiencies.

The Robert Wood Johnson AIDS Program (RWJAP), which serves central New Jersey, has as its mission to provide comprehensive, multidisciplinary, coordinated, family-centered services to HIV infected individuals, especially the youth, women and children. Under the direction of Dr. Sunanda Gaur, Medical Director; Program Coordinator Roseann Marone, BSN, RN, MPH; and the RWJAP team members, this program has served over 1,300 patients and families. It is one of the seven sites of the New Jersey Statewide Family Centered HIV Care Network, administered by NJ Department of Health (DOH), Division of Family Services Special Child Health (SCHS) and Early Intervention Services since 1988; and provides Ryan White Part D funding. Through this comprehensive and integrated care model, morbidity, mortality and perinatal transmission rates have been drastically reduced in NJ. RWJAP Grant Funding from Ryan White funding, SCHS, and DOH totals over \$1,000,000. This has allowed consistent viral load suppression (81% non-detectable in CY2017) and keep patients in care. RWJAP has initiated a Youth Advisory Board (YAB) for youth with HIV, ages 13-24, which provides an opportunity for youth with HIV to have input into their medical treatment.

RWJAP has provided an on-site rapid HIV testing program through funding from the NJ DOH Division of HIV, STD and TB Services since 2004 conducted in both adult and pediatric Emergency Rooms at RWJUH, CHINJ, and the Inpatient Adolescent Unit at BMSCH. Walk-in testing is also available to the community. The HIV testing program was interrupted by the COVID-19 pandemic in March 2020.

In 2018, the program secured additional funding from NJ DOH to provide preexposure prophylaxis (PrEP) services targeting Latino gay and bisexual men, but also available to the general public. Another two-year grant award was recently received from Northwestern University to participate in an e-health HIV prevention trial targeting young men who have sex with men (YMSM), beginning in the fall of 2019. Mumah Tawe, MPH, Coordinator of the HIV Testing and PrEP Program and RWJAP counselors continue to identify HIV positive and at risk individuals to afford them earlier access to care and prevention. RWJAP, in coordination with Central Jersey Legal Services, sponsored a medical-legal symposium focused on how access to legal services can improve outcomes for people living with HIV/AIDS and other chronic medical conditions.

Education: The division conducts a one-month long elective for both medical students and residents in pediatric infectious diseases of which one week is spent in the Allergy Clinic. For the 2019-2020 academic year four medical students and eight residents took the elective. The residents also spend a day in the Microbiology and PCR labs at the RWJUH. Gail Burack, PhD, Child Psychologist, RWJAP and Roseann Marone, BSN, RN, MPH, (RWJAP) have served as supervisors for several RWJMS students as part of their Distinction in Service to the Community (DISC) project. The project was initiated in 2015. Seven RWJMS medical students have served as mentors to RWJAP patients and worked with the patients to address the psychosocial burdens of growing up with HIV. Faculty participate in CME programs.

Community outreach activities include: Educating young people about HIV/AIDS, offering counseling and HIV Rapid Testing, offering PrEP and participating in community health fairs. The South Asian Total Health care Initiative (SATHI) was established in 2008 at the Rutgers Robert Wood Johnson Medical School with a mission to improve health outcomes in South Asians living in the United States. SATHI serves as a platform to engage multidisciplinary professionals such as researchers, health practitioners, and public health experts in promoting research, education and outreach to improve the health of this community. Since its founding in 2008, SATHI has collaborated with various schools, institutions and programs at Rutgers, including the School of Public Health, School of Pharmacy, Co-operative Extension, South Asian Studies Program, and the Cancer Institute of NJ to study and understand South Asian Health.

Allergy, Immunology and Infectious Diseases

Some highlights include community-based research projects, scholarly publications, CME conferences, and community outreach programs focusing on improving health outcomes in the South Asian community. SATHI has received several awards in recognition of its commitment to the community.

Examples of institutional contributions by division members:

Patricia Whitley-Williams, MD – Associate Dean for Inclusion and Diversity, RWJMS
Amisha Malhotra, MD – Director of the Pediatric Antibiotic Stewardship Program, BMSCH
Sunanda Gaur, MD – Director of the Adult CRC and the Pediatric CRC; Director of SATHI

Examples of national contributions by division members:

Patricia Whitley-Williams, MD – President of the National Foundation of Infectious Diseases (appointed 7/1/2020); Chair, USMLE Management Committee; and Liaison member for the National Medical Association to the CDC/Advisory Committee on Immunization Practices.

Research: Some of our research interests include HIV medication, COVID-19 pandemic, medical care compliance and immunizations.

Faculty

Patricia Whitley-Williams, MD
Professor and Division Director
Associate Dean for Inclusion and Diversity

Aswine Bal, MD
Professor

Sunanda Gaur, MD
Professor and Medical Director, RWJAP

Clement Maccia, MD
Clinical Professor

Amisha Malhotra, MD
Associate Professor

Roseann Marone, BSN, RN, MPH
Assistant Professor

Staff

Katharine Anatale, RN
Nurse Case Manager, RWJAP

Suzanne L. Anderson
Program Assistant

Gail Burack, PhD
Supervising Program Development Specialist, RWJAP

Fatima Corona
Medical Health Technician

Donna Fong
Family Case Manager, RWJAP

Bishakha Ghoshal, MPH
Data Control Clerk II

Anthony Helena
Community Health Worker

Marie LeFort, RN
Nurse Case Manager

Vanessa Rios
Grants Coordinator

Editt Rodriguez
Public Health Rep III

Mumah Tawe, MPH
Public Health Rep I, HIV CTR / PrEP Program Coordinator, RWJAP

Xiomara M. Vargas
Public Health Rep III

N. Colleen Whelan, MSN, RN, PNP-BC
Pediatric Nurse Practitioner, RWJAP



1st row 1-r R. Marone, F. Corona 2nd row 1-r A. Malhotra, P. Whitley-Williams, S. Gaur
3rd row 1-r K. Anatale, B. Ghoshal, M. Tawe, E. Rodriguez

The Boggs Center on Developmental Disabilities



Deborah Spitalnik, PhD
Professor and Executive Director

The Boggs Center on Developmental Disabilities is New Jersey's federally designated University Center for Excellence in Developmental Disabilities Education, Research, and Service (UCEDD). Part of a national network of University Centers sponsored by the Administration on Intellectual and Developmental Disabilities, Administration on Community Living, U.S. Department of Health and Human Services (HHS), The Boggs Center provides student education and community training and technical assistance, conducts research, and disseminates information and educational materials to promote independence, productivity, and full inclusion of people with developmental disabilities in all facets of community life. The Boggs Center is also New Jersey's Leadership Education in Neurodevelopmental Disabilities program (NJLEND), a clinical interdisciplinary

leadership program, funded by the Maternal and Child Health Bureau within the Health Services Resource Administration, HHS. LEND programs are the premier federally funded training program to address autism and related early onset disabilities, health disparities, social determinants of health, and other maternal and child health priorities.

A community health program of the Department of Pediatrics, The Boggs Center has responded to the myriad ways that the COVID-19 pandemic has exacerbated the on-going disparities experienced by the disability community, by developing disability specific informational resources, converting community and student education programs to virtual platforms, and engaging in advocacy. The center has reached out to families of children and adults with disabilities, service providers, and state and community agencies, to address the loss of access to in-person special education and adult services, the

increased demands on families for 24/7 caregiving, health concerns and prevention measures, social isolation and the grief and loss experienced due to COVID-19.

COVID-19 resources, including original resources on helping children and adults with disabilities wear masks, have been created and widely disseminated throughout New Jersey and nationally. Planning for emergency situations in which a primary caregiver is no longer available, helping children and adults with intellectual and developmental disabilities process grief and loss, and how stimulus payments affect disability benefits are among the available resources, as are guides to safe community participation. COVID-19 resources, created and curated by The Boggs Center, many in Spanish as well as English, and in plain language accessible to people with disabilities, are available at <https://rwjms.rutgers.edu/boggscenter/links/COVID-19Resources.html>

In April 2020, the center launched its "Just in Time" webinar series to provide virtual learning opportunities focused on emotional well-being, mental health, behavior supports, creating meaningful days, and Direct Support Professional skill building and self-care. Through a virtual format, the Developmental Disabilities Lecture Series reached over 1,000 participants. The clinical interdisciplinary NJLEND program addressing autism, related disabilities, health disparities, and social determinants of health, conducted virtually since mid-March, graduated 14 leadership fellows. All Robert Wood Johnson Medical School third-year students received education in developmental disabilities through the Seminar on Family Centered Care and Developmental Disabilities, a required component of the Pediatrics clerkship.

The Boggs Center continued to offer the Elective in Health Care for Children and Adults with Developmental Disabilities, reaching 20 medical students. The eight third-year medical students who participated in the elective during the pandemic, participated through adaptations to distance learning, including phone visits rather than home visits with families, as well as the unique opportunity to develop projects to address COVID-19 for people with developmental disabilities and their families. Students developed materials around wearing masks, hand washing, stress reduction, and helping children with disabilities cope with the disappointment of not being able to attend summer camp. These direct contributions to children's well-being and safety, provided students with a sense of efficacy at a time where their education had been disrupted, increased their understanding of health policy, and increased their knowledge and skills about patients with disabilities.

The Boggs Center on Developmental Disabilities



Left to right, 1st (front) row: L. Thomas, A. McVay, J. Jelley, D. Spitalnik, K. Tomlin, S. Ellien, M. Gilbride, J. Mayfield; Left to right, 2nd row: D. Matlock, Z. Arjmand, M. Cheplic, J. Short, C. Coffield, R. Rodkey, K. Paulvin, B. Bickar, S. Lohrmann, J. Zahid, R. Carroll, C. McLaughlin; Left to right, 3rd row: B. Chase, M. Mead, D. Mahovetz, P. Raigoza, N. Nucci, R. Dupiche; Left to right, 4th (back) row: S. Dacres, K. Lewis, R. Kimmel, S. McMahon, M. Steinbruck, M. Darby, S. Monaghan, P. Smith; Not pictured: B. Custer, V. Duverneau, K. Giudice, Dr. M. Jimenez, S. Michael, N. Pedersen, N. Royer, G. Tanol

In partnership with other federally funded agencies in New Jersey, The Boggs Center conducted “Town Halls in the Time of COVID-19”- listening sessions to develop an understanding of the impact of the pandemic on families, providing support to the community, and to guide our efforts in developing resources and programs. Advocacy efforts with governmental agencies addressed decision-making in the allocation of health care resources and the needs for support for patients with disabilities when hospitalized.

The keynote at the Annual Maternal and Child Health Leadership Symposium, which also celebrates the graduation of the NJLEND interdisciplinary fellows, gave voice to The Boggs Center’s on-going commitment to cultural and linguistic competence. The killing of George Floyd and the disproportionate toll of

COVID-19 on persons of color, highlighted the systemic racism of the country. The statement, “The Boggs Center’s Commitment to Racial Justice”, highlights the intersection of race and disability and our dedication to addressing these exponential disparities.

<https://rwjms.rutgers.edu/boggscenter/>



The Boggs Center on Developmental Disabilities

Faculty

Deborah Spitalnik, PhD

*Professor of Pediatrics and Family and Community Medicine;
Executive Director, Boggs Center*

Caroline Coffield, PhD

Assistant Professor

Margaret Gilbride, JD, CT

Assistant Professor

Manuel Jimenez, MD, MS, FAAP

Assistant Professor

Sharon Lohrmann, PhD

Assistant Professor

Philip Smith, PhD

Assistant Professor

Staff

Ziba Arjmand

Program Assistant

Robyn Carroll, MSW

Supervising Program Development Specialist

Bethany Chase, MSW, LSW, CESP

Training and Consultation Specialist

Melissa Cheplic, MPH, NADD-DDS

Senior Training and Consultation Specialist

Lisa Corliss, MA

Training and Consultation Specialist

Beth Ann Custer, PhD

Training and Consultation Specialist

Shelly Ann Dacres, MA

Senior Training and Consultation Specialist

Melinda Elizabeth Darby

Secretary II

Robin Dupiche

Program Support Specialist

Vanessa Duverneau

Data Control Clerk I

Susan Ellien, MSW

Coordinator, Grant Development Communications

Kellyann Giudice

Secretary II

Joyce Jelley

Senior Training and Consultation Specialist

Robert Samuel Kimmel, MAT, BCBA, CESP

Training and Consultation Specialist

Kenny Lewis

Budget Analyst I

Deborah Mahovetz

Management Assistant

Colleen Ann McLaughlin, MEd

Program Director

Scott McMahon, MSW

Training and Consultation Specialist

Ann Marie McVay

Secretary I

Michelle Mead, MA

Training and Consultation Specialist

Stephanie Michael

Program Assistant

Somerlee Monaghan, MS

Training and Consultation Specialist

Nicola Nucci

Program Director

Karen Paulvin, MS, Prof. Dipl.

Training and Consultation Specialist

Nikkilee Pedersen, MA

Training and Consultation Specialist

Paula Raigoza, MEd

Training and Consultation Specialist

Renee Alaina Rodkey

Training and Consultation Specialist

Nicole Royer, MSW, LSW

Program Assistant

Jessica Leigh Short

Senior Training and Consultation Specialist

Michael Paul Steinbruck, MA

Senior Training and Consultation Specialist

Gizem Tanol, PhD

Training and Consultation Specialist

Lisa Michelle Thomas, MEd

Secretary I

Kim Danielle Tomlin

Receptionist

Jaime Zahid

Health Educator II

Cardiology



Joseph Gaffney, MD
Associate Professor and Division Director

The Division of Pediatric Cardiology at Rutgers Robert Wood Johnson Medical School provides comprehensive non-invasive services for infants, children and adolescents with heart disease, along with cardiac fetal evaluation and care. Our echocardiography laboratory is IAC (Inter Societal Accreditation Commission) accredited in pediatric and fetal echocardiography, providing a full range of outpatient and inpatient services. This highly specialized field provides evaluation and treatment of congenital and acquired cardiac disorders including:

- Congenital heart defects (occurrence rate of 7-8/1000 births)
- Cardiac arrhythmias
- Acquired heart disease, such as Kawasaki Disease, endocarditis, pericarditis, cardiomyopathies and rheumatic fever
- Evaluation of common cardiac-related signs

and symptoms such as heart murmur, syncope, chest pain and palpitations

- Genetic cardiac disorders, such as hypertrophic cardiomyopathy and Long QT syndrome
- Family history of sudden cardiac death and early heart disease
- Hypercholesterolemia and hyperlipidemia

Our team has expertise in the procedures of pediatric and fetal echocardiography, ambulatory electrocardiography and exercise stress testing. All of our pediatric cardiologists are board-certified and work with a multidisciplinary pediatric team at Robert Wood Johnson Medical School to provide evidence-based, state-of-the-art medical care. The division is dedicated to teaching all aspects of pediatric cardiology to medical students, interns, residents, fellows, nurses and sonographers, both in the classroom and at the bedside. Our cardiac sonographers are involved in the clinical training of students from the Rutgers Cardiac Sonography Program.

Awards

Arnold Gold Humanism Honor Society 2020

Dr. Joseph Gaffney and Dr. Benjamin Lentzner

Division Response to COVID-19:

BMSCH-RWJUH protocol for treatment of Multi-system Inflammatory Syndrome (MIS-C) in children related to Covid-19. *Dr. Joseph Gaffney*

RWJBarnabas Health System protocol for treatment of MIS-C. *Dr. Joseph Gaffney*

AAP of New Jersey webinar on MIS-C. *Dr. Joseph Gaffney*

RWJBarnabas Health System protocol for treatment of MIS-C. *Dr. Monica Chugh and Dr. Joseph Gaffney*

Faculty

Joseph Gaffney, MD
Associate Professor and Division Director

Monica Chugh, MD
Assistant Professor

Benjamin Lentzner, MD
Associate Professor

Robert Manduley, MD
Associate Professor

Staff

Nadia Clarke
Ultrasonographer

Christina Cole
Ultrasonographer

Eric Gozun
Ultrasonographer

Mary Homan, RN-BC
Staff Nurse

Staff (cont'd)

Ann Marie McCann
Management Assistant

Damaris Messam
Secretary II

Carmen Rosado
Secretary II

Tamar Thurm, BSN
Staff Nurse

Je'Nelle Tompkins
*Acting Pediatric Echocardiography
Lab Supervisor*

Left to right (front): C. Cole, B. Lentzner, D. Messam, J. Conner, A. McCann, C. Rosado;
Left to right (back): T. Thurm, N. Clarke, E. Gozun, J. Gaffney, M. Homan, M. Chugh



Critical Care Medicine (PICU)



Vicki L. Craig, MD, FCCM
Associate Professor,
Interim Division Director (FY20)



Simon Li, MD
Associate Professor,
Division Director (FY21)

The **Pediatric Intensive Care Unit (PICU)** at the Bristol-Myers Squibb Children's Hospital at Robert Wood Johnson University Hospital (BMSCH) is a 20-bed, state-of-the-art multidisciplinary inpatient service that provides a full range of services to critically ill and injured children from birth to the age of 21 in a patient- and family-centered environment. The PICU is committed to patient and family centered care.

The family and patient are invited to join the PICU multidisciplinary team during patient care rounds. Families and patients have the opportunity to participate in the child's care plans, ask questions of the team, and contribute to patient information. Our families and patients partner with us in achieving the best possible outcomes.

Our PICU is staffed twenty-four hours a day, seven days a week, by on-site, highly trained intensive care physicians, nurses, and respiratory therapists. Our faculty includes seven board-certified pediatric intensivists, and three acute care advanced practice nurses.

- Provides immediate specialized care to children with life-threatening, complex medical and surgical problems.
- One of only three nationally accredited pediatric trauma centers in New Jersey, the PICU at BMSCH is uniquely equipped to handle pediatric traumatic injury.
- Active pediatric transport service staffed by trained nurses provides advice and safe transfer via a specialized mobile ICU for children.

- Pediatric Critical Care physicians serve as medical control for critical transports and are available for consultation to referring physicians and emergency departments.
- The PICU provides technologically advanced organ support, such as high-frequency oscillatory mechanical ventilation, continuous renal replacement therapy, hemodialysis, plasmapheresis, and extracorporeal membrane oxygenation (ECMO) to support children with a wide variety of critical illness, including:
 - Heart and lung disease
 - Kidney disease/renal failure
 - Gastrointestinal tract disease
 - Neurologic disease/epilepsy
 - Brain tumors/vascular malformations/brain injury
 - Disorders of blood and cancer
 - Metabolic disorders
 - Severe traumatic injury
 - Sepsis and shock
 - Post-surgical care
- Pediatric Intensive Care faculty members also run a busy Pediatric Moderate Sedation service, which provides sedation and analgesia for children undergoing scheduled inpatient and outpatient procedures.

2019-2020 Division Highlights New Faculty

The division conducted a successful national search for a new Chief of Pediatric Critical Care Medicine and welcomed Simon Li, MD, in that role - July 2020. Two Advance Practice Nurses, Christine Reustle, RN, MSN, CPNP-AC, and Meghan Faulkner, RN, MSN, CPNP-AC, joined the division and are part of the PICU team.

New Clinical Service

Successful treatment continues of ECMO patients in the PICU now in its second year. The ECMO program is led by the divisions of pediatric surgery, pediatric critical care, and neonatology. Our ECMO program was recognized and given Silver designation on the Pathway to Excellence by the Extracorporeal Life Support Organization (ELSO).

COVID-19 Response

The challenges that COVID-19 brought during 2020 were actively met by the division. We engaged with department and hospital leadership and extended the age of admission to the PICU up to age 25 years to make greater capacity in the adult ICUs. Division faculty cared for many COVID positive patients from infancy through young adult. Transport services from BMSCH were extended with the addition of additional transport

Critical Care Medicine (PICU)

teams to facilitate system wide pediatric transfers to maximize capacity at system hospitals for inpatient and ICU beds.

A new patient population emerged in pediatrics presenting with shock and heart failure, recently named multisystem inflammatory syndrome in children (MIS-C). The Division of Critical Care Medicine was engaged in treating several of these patients. Faculty have been sought out to educate the community through multiple television, newspaper, and radio interviews.

Patient Safety

The Bristol-Myers Squibb Children's Hospital and PICU are members of Solutions for Patient Safety. A national organization devoted to eliminating preventable harm in children's health care. The PICU faculty and staff participate and lead many safety and quality teams including pediatric sepsis workgroup, medication error prevention, venous thromboembolism reduction, and hospital acquired infection prevention. Faculty have presented at national and regional Solutions for Patient Safety meetings.

Education

The faculty are actively involved in education of pediatric and emergency medicine residents, as well as medical students and advanced practice nursing students. They are involved in all aspects and levels of medical education from PCM course facilitators, mentors for the core pediatric clerkship, and the pediatric critical care clerkship. In addition, faculty are lecturers for the core residency educational curriculum, run simulation scenarios, and are talented bedside clinical educators. Hariprem Rajasekhar, MD, has been awarded the Lawrence T. Taft MD Excellence in Clinical Teaching Award twice.

Faculty Highlights

Dr. Sirisha Yalamanchi earned a master's degree in Health care Administration from Columbia University Mailman School of Public Health in October 2019.

Dr. Hariprem Rajasekhar contributed to data collected by the International COVID-19 PICU Collaborative information leading to publication: Characteristics and Outcomes of Children with Coronavirus Disease 2019 (COVID-19) Infection Admitted to US and Canadian Pediatric Intensive Care Units. *JAMA Pediatrics*, May 11, 2020.

Dr. Steven Horwitz is working in the Overcoming COVID study which is funded by the U.S. Centers for Disease Control and Prevention for the Pediatric Acute Lung Injury and Sepsis Investigator's (PALISI) Network.

Dr. Jennifer Owensby interviewed as a medical expert for Multisystem Inflammatory Syndrome in Children including television appearances on ABC, NBC, and PBS, and interviews for articles published in *U.S. News and World Reports* and the *Washington Post*.

Faculty

Vicki L. Craig, MD, FCCM

*Associate Professor and Interim Division Director (FY20)
Attending Physician*

Simon Li, MD

*Associate Professor and Division Director (FY21)
Attending Physician*

Rene Chalom, MD

*Clinical Assistant Professor
Attending Physician*

Meghan Faulkner, RN, MSN, CPNP-AC

Advanced Practice Nurse, RWJUH

Steven Horwitz, MD

*Assistant Professor
Director-Transport Services
Attending Physician*

Michael Kelly, MD

*Assistant Professor
Associate Dean for Graduate Medical
Education
Attending Physician*

Maureen Madden, MSN, RN, CPNP-AC

*Associate Professor
Advanced Practice Nurse*

Minnette Markus-Rodden, MSN, RN, CPNP-AC

*Assistant Professor
Director - Patient Experience,
Safety and Quality*

Kalgi Mody, MD

*Assistant Professor
Attending Physician*

Jennifer Owensby, MD

*Assistant Professor
Associate Director -
Pediatric Intensive Care Unit
Attending Physician*

Hariprem Rajasekhar, MD

*Assistant Professor
Clerkship Director, 4th year
Pediatric Critical Care Clerkship
Attending Physician*

Christine Reustle, RN, MSN, CPNP-AC

*Clinical Instructor
Advanced Practice Nurse*

Natalie Torres-Feliz, MD

*Assistant Professor
Attending Physician*

Sirisha Yalamanchi, MD

*Assistant Professor
Attending Physician*

Staff

Diana Brantley

Secretary I

Left to right: C. Reustle, N. Torres-Feliz, S. Li,
J. Owensby, K. Mody, H. Rajasekhar



Education Residency Program



Indira Amato, MD
Associate Professor
Director of the Pediatric Residency Program

The development of the pediatric residency program at Robert Wood Johnson Medical School parallels the dramatic growth of the medical school's clinical and research programs. The Department of Pediatrics, including faculty and resident rotations, is primarily based at Bristol-Myers Squibb Children's Hospital. The pediatric faculty, with over 90 members, and residents provide a full range of clinical services. There are 11 pediatric residents and two chief residents. Fellowships are offered in neonatology, developmental disabilities, and pediatric endocrinology, the only accredited fellowships of their type in New Jersey.

Residents serve as the primary providers at all sites, supervised by attending physicians. The wide breadth of clinical experiences allows the resident to be involved with all aspects of the care of a child, from a well child visit to the management of respiratory failure to the care

of a child or infant recovering from a prolonged illness. Our graduates are well positioned to become primary care providers or to move on to pediatric fellowships.

In the past year, we have been working hard to strengthen resident education. We began a new lecture series on Quality Improvement led by Sirisha Yalamanchi, MD. For our resident block lecture, we diligently worked to improve the content and ensure residents were getting the protective time they needed to study. Each of the subspecialties worked with us to create curriculums for block lecture to ensure they are covering board specific topics. We continue to improve our board preparation and are using small groups in order to help increase accountability for studying and provide faculty mentorship. We also are taking advantage of the NEJM innovation platform for board questions. For morning conferences, we have added more general case presentations to strengthen clinical knowledge. The faculty is also taking on an active role in these conferences which has made these sessions even more valuable.

With regards to program leadership, Dr. Carlson was promoted to Associate Professor of Pediatrics. Both Dr. Amato and Dr. Carlson continue to be involved in leadership in national organizations. Dr. Amato

was appointed vice president of the NJ chapter of the American Academy of Pediatrics (AAP). Dr. Carlson served as chair of the member education committee for the American Society of Pediatric Nephrology (ASPN). Starting in July 2020, Dr. Amato has decided to take on a position as program director of a new pediatric hospital medicine fellowship. Dr. Carlson will be taking over as interim program director and Elizabeth (Beth) Goodman, MD, will serve as associate program director. Dr. Goodman serves as director of the pediatric medical student clerkship and has been a strong resident advocate. Both Drs. Carlson and Goodman are excited to take on their new roles and are committed to the education and mentorship of the residents.

On the research side, all of our residents have been activity involved in scholarly activity projects. The graduating third year residents all presented their research projects during grand rounds in the spring of 2020. We are also proud to announce two of them had their work accepted at national conferences. Dr. Jalil had a poster accepted to the American Academy of Allergy, Asthma and Immunology National conference in March 2020. Dr. Ochoa's work on infections in patients with lupus was accepted as a platform presentation at the Eastern Pediatric Research Society's annual conference. All together the graduating class of 10 residents published over 10 articles during their residency.

During the pandemic, we worked diligently to both support residents who needed it and continue to help in clinical care in the hospital. We decided early on to change our conferences to virtual platforms so that resident education would continue. Additionally, we developed a surge schedule to help residents rotate between inpatient and electives at home. All the subspecialties worked with us to quickly develop guidelines and collect high yield articles for virtual curriculums. Additionally, we provided frequent wellness check with residents and organized virtual happy hours so they would continue to have social events.



Left to right: M. Matta,
K. Moore, I. Amato, J. Carlson

Education

Residency Program

Program Leadership

Indira Amato, MD

Associate Professor

Director of the Pediatric Residency Program

Joann Carlson, MD

Associate Professor

Associate Director of the Pediatric Residency Program

Interim Director of the Pediatric Residency Program (FY21)

Elizabeth Goodman, MD

Associate Professor

Associate Director of the Pediatric Residency Program (FY21)

Chief Residents

FY20

Elizabeth Barrington, MD

Allison Kelly, DO

FY21

Jaya Isaac, MD

Debra Zharnest, MD

Administrative Staff

Karen Moore

Residency Program Coordinator

Mona Matta

Program Support Specialist

We are very proud of this year's graduates. These residents are a strong group of dedicated, passionate pediatricians. Our graduates will be going on to the following practices and fellowship positions:

- Dr. Tolu Akinmade- General Pediatrics, Private Practice, Maryland
- Dr. Amy Cheng- General Pediatrics, Private Practice, Maryland
- Dr. Jaya Isaac- Chief Resident
- Dr. Maaz Jalil- Allergy/Immunology Fellowship, Case Western Reserve University
- Dr. Peter Jang- Radiology Residency, Cooper Medical School of Rowan University
- Dr. Carolyn Ochoa- Newborn Nursery Hospitalist, NYP Weill Cornell Medical Center
- Dr. Mehrin Sadiq- General Pediatrics, Private Practice, Virginia
- Dr. Shivani Shah- Pediatric Emergency Medicine Fellowship, Newark Beth Israel
- Dr. Karen Teoh- General Pediatrics, Private Practice, Brooklyn
- Dr. Debra Zharnest- Chief Resident

June 2020 Graduates



Education

Student Programs



Elizabeth Goodman, MD
*Associate Professor
Pediatric Clerkship Director
and Sub-Internship Director*

School-wide curriculum renewal and the COVID-19 pandemic has made for a busy and innovative year in **Undergraduate Medical Education**. Amidst the COVID-19 pandemic, there were 26 medical school students matching into a Pediatric, Triple Board, or Peds-Neuro residency program in 2020. They started internships across the US in July at Children's Hospital of Philadelphia, Yale, Children's National, Cornell, Columbia, Duke, and University of Arizona to name a few. We are very excited to have three Robert Wood Johnson Medical School graduates join

our Pediatric Residency Program: Yisha Cheng, Lori Fingerhut, and Sonia Pothraj. Ryan O'Sullivan was the recipient of the outstanding pediatric student award – he is now an intern at Rainbow Babies in Cleveland, OH. We wish all our graduates the very best as they move onward in their careers.

From March-August, due to COVID-19, the entire Pediatric Bootcamp course as well as portions of the clerkship, sub-internship and pediatric critical care rotations were converted into virtual activities. Directors of these rotations rewrote curricula in order to virtually meet the objectives of the courses. Multiple faculty members in our department led virtual teaching sessions. Course directors utilized online Aquifer cases, mock NBME questions from TrueLearn software, and WebEx to run many small-group teaching sessions. Certainly through this pandemic, our educators have found new, innovative ways to teach!

The COVID-19 pandemic has led to many curricular changes – all with the intent to ensure that our students receive an ample pediatric experience as well as complete all institutional requirements. The Pediatric Clerkship has shortened to a four-week clinical experience with a Pediatric Clinical Medical Science (CMS) week. The third-year clerks will still rotate at one of five different clinical sites: RWJUH, Saint Peter's University Hospital, JFK Medical Center, Monmouth Medical Center, and Princeton Medical Center. Our site directors, Michael Lucas, MD, Ranbir Kaur, DO, Jacqueline Brunetto, MD, and Koel Guha, MD, are extraordinary educators and we are fortunate to have them as leaders in our clerkship. For those students rotating at RWJUH, they will have their general pediatric outpatient experience at one of our wonderful, educational outpatient sites: Eric B. Chandler Health Center, Plainfield Health Center, Rutgers Health Group, Mid-Jersey Pediatric Group and Highland Park Pediatrics.

After being pulled out of clinical rotations in mid-March due to COVID-19, over 90 medical students voluntarily participated in telehealth sessions with outpatient providers, many in pediatrics. It was inspiring to have so many students willingly participating in this clinical capacity. The Boggs Center continued to run their elective "Health care for Children and Adults with Developmental Disabilities" virtually during the pandemic. With Drs. Deborah Spitalnik and Carrie Coffield, Michaela Domaratsky (MD Candidate Class of 2021) developed parent and patient education pamphlets including "I Can Stay Healthy by Wearing a Face Mask" that have been distributed in our outpatient offices. Multiple other students were productive with the help of our faculty in pediatric research during the pandemic.

The Pediatric Interest Group, composed of first and second-year medical students, is expanding its pediatric lecture series, volunteering and shadowing opportunities within our department and community. They started a Reach Out & Read chapter at the medical school. Talia Schwartz, a third-year student, serves as our student delegate to the American Academy of Pediatrics.

Three pediatric faculty members were inducted into the medical school's Alpha Omega Alpha chapter. Dr. Melissa Weidner was selected as an alumni inductee and Dr. Elizabeth Goodman and Dr. Lakshmi Moorthy were both selected as faculty inductees.

Six pediatric faculty members were recognized by the medical school

Chapter of The Gold Humanism Honor Society (GHHS). The GHHS recognizes medical students, residents, and faculty who practice patient-centered care by modeling the qualities of integrity, excellence, compassion, altruism, respect and empathy. Those faculty members recognized were Dr. Janice Cato-Varlack; Dr. Joseph Gaffney; Dr. Elizabeth Goodman; Dr. Benjamin Lentzner; Dr. Shilpa Pai; and Dr. Whitley-Williams.

Three volunteer faculty were recognized for their contributions to Pediatric Education. They were Sabika Basu, MBBS, and Demetria Pennington, MD, of Plainfield Health Center; and Jacqueline Brunetto, MD, of Monmouth Medical Center.

The Rutgers Robert Wood Johnson Medical School Class of 2020 gave Dr. Elizabeth Goodman the faculty award for Excellence in Teaching.

Program Leadership

Elizabeth Goodman, MD
*Associate Professor
Pediatric Clerkship Director and Sub-Internship Director*

Hariprem Rajasekhar, MD
*Assistant Professor
Pediatric Intensive Care Unit Course Director*

Administrative Staff

Christine Jurcsek and Suzanne L. Anderson
Interim Pediatric Clerkship Coordinators

Left to right: C. Jurcsek, S. Anderson





Malia Beckwith, MD
Assistant Professor
DBP Fellowship Program Director

The **Developmental/Behavioral Pediatrics Fellowship Program** is a three-year fellowship training program accredited by the Accreditation Council for Graduate Medical Education (ACGME). The program is served by an experienced faculty with clinical, research and scholarly accomplishments. The fellow is expected to be trained to serve as an expert consultant to pediatricians in the clinical diagnosis and management of all developmental behavioral conditions commonly seen in children, as well as acquire the skills to teach trainees and engage in advocacy. In keeping with the ACGME requirements, research is a required component of the fellowship with the expectation that the fellow will publish a paper or do a poster presentation at the end of the training program.

Goals and Objectives

- To train fellows to provide patient care that is compassionate and effective for children with developmental/behavioral problems. The fellow will be taught to diagnose and manage children with

developmental/behavioral issues resulting from chronic illnesses, cognitive/adaptive disabilities, language and learning disorders, motor disabilities, autism spectrum disorders, attention deficit hyperactivity disorder, externalizing behavioral conditions, internalizing behavioral conditions, substance use/abuse, child abuse and neglect, somatoform disorders and pain, sleep problems, feeding/eating problems, elimination disorders, atypical behaviors, and behaviors related to sexuality.

- To help fellows acquire sound medical knowledge of the development of the central nervous system, the biological mechanisms of development and behavior and family and societal factors influencing development and behavior. The fellow will learn about normal milestones, normal behavioral patterns, the structure and functional diversity as well as socioeconomic diversities of various families, methods of screening children's development and behavior as well as methods of diagnostic assessment, and specific treatments and interventions including medications, behavioral therapies, counseling and technological interventions.

- To teach fellows to critically review scientific evidence related to the various developmental behavioral conditions and to learn to use this knowledge for ongoing learning and for improving patient care.

- To educate fellows about the systems of health care and resources in the community available to children and families with developmental/behavioral concerns, learn about the costs of evaluations and intervention, learn to evaluate the quality of patient care and learn to identify insufficiencies in health care delivery and ways of improving the inefficiencies.

- To teach fellows compassion, integrity and respect for others, to demonstrate sensitivity towards various diverse cultures and to be accountable to patients, society and the profession.

- To train fellows in methods of effective interpersonal communication with patients and colleagues and other providers involved in the care of children with developmental/behavioral concerns.

Program Leadership

Malia Beckwith, MD
Assistant Professor
DBP Fellowship Program Director

Administrative Staff

Mona Matta
Program Support Specialist





Mariam Gangat, MD
Associate Professor
Endocrinology Fellowship Program Director

Left to right: M. Gangat, O.Yeliosof

Rutgers Robert Wood Johnson Medical School has the first and only ACGME accredited **Pediatric Endocrinology Fellowship Program** in the state of New Jersey. This three-year program is designed to prepare trainees for a career in academic medicine through a structured curriculum focused on clinical care, teaching, and research skills.

Year one is focused on clinical training with the ultimate goal of expertly diagnosing and managing pediatric endocrine disorders through a comprehensive understanding of the underlying pathophysiology of hormonal regulation from infancy to young adulthood.

Training years two and three focus primarily on research and fellows are actively involved in the day-to-day activities of their translational project. Our current fellow, Olga Yeliosof, MD, continues to study the genetics of short stature in a collaborative U01 study with researchers at the NIH/NICHD and the NIH Clinical Center. She is characterizing the phenotype of patients with

growth disorders, and utilizing whole exome sequencing technology to identify the underlying molecular genetic etiology of short stature.

The goals of this training program include the following:

- Develop a comprehensive understanding of basic pediatric endocrine processes, and the mechanisms leading to common and rare disorders
- Demonstrate proficiency in patient evaluations including history-taking and physical examination skills
- Acquire the knowledge and skills to appropriately select and interpret laboratory and radiologic findings

- Acquire the knowledge and skills to provide effective management for a variety of common and rare endocrine disorders
- Be able to communicate effectively with patients and their families including disease counseling, as well as with other health care providers
- Have the skills to critically interpret published basic and clinical research
- Develop a commitment to life-long learning and continued professional growth

The Program Director, Mariam Gangat, MD, is dedicated to medical education and is actively involved in teaching and mentoring medical students, residents, and fellows. She serves on multiple committees related to education including the Resident Education Committee and Program Evaluation Committee for the Pediatric Residency program at the medical school as well as the national Pediatric Endocrine Society Training Committee.

Program Leadership

Mariam Gangat, MD
Associate Professor
Endocrinology Fellowship Program Director

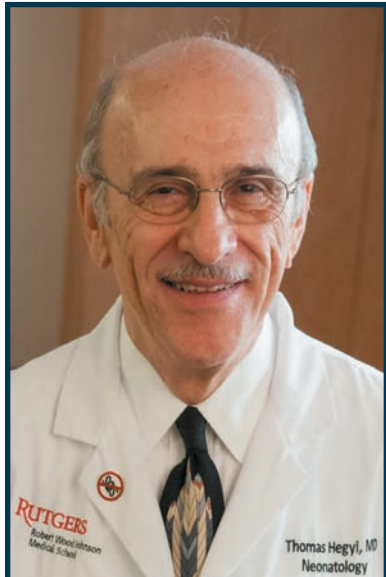
Administrative Staff

Mona Matta
Program Support Specialist



Education

Neonatal-Perinatal Medicine Fellowship Program



Thomas Hegyi, MD
Professor
Neonatal-Perinatal Medicine
Fellowship Program Director

The **Neonatal-Perinatal Medicine (Neonatology) Fellowship Program** in the Division of Neonatology at Rutgers Robert Wood Johnson Medical School was established in 1980 as an ACGME-approved program that has maintained its ACGME accreditation since then. Now in its fourth decade, the program has graduated nearly 100 neonatologists, over 39 of whom care for the infants in New Jersey. The training program continues to be a regional one, sending the fellows to several Level III NICUs in New Jersey and NewYork-Presbyterian Morgan Stanley Children's Hospital in New York for comprehensive clinical training.

The continuing advancement of technology in neonatology has led to vastly improving outcomes for newborns with prematurity, infections, and numerous congenital and genetic anomalies. The care of critically ill newborns requires specialized training over a three year period during which trainees gain expertise in neonatal resuscitation at birth, use of conventional and high frequency ventilators to optimize survival and outcomes, and hands-on skills such as airway management and umbilical/percutaneous line placement. Fellows become expert in new technologies,

and recent examples include the use of head cooling to improve long-term outcomes for asphyxiated babies and our ECMO program for infants with severe cardiopulmonary disorders. Practices regarding infection control, fluid management, and nutrition for compromised newborns are constantly evolving, so fellows are trained in evaluating and applying evidence-based criteria in their practice.

The result of this clinical experience is the graduation of highly skilled fellows who have many opportunities for a position as attending neonatologists. The most recent graduating class in the 2019-2020 academic year found positions at level III institutions in New York and Virginia. Other recent graduates from the program have acquired positions in prestigious medical systems including Emory, Tufts, Wayne State, Northwell Health, New York Medical College and New Jersey Medical School, in addition to more local institutions such as Hackensack, Morristown, and Monmouth Medical Centers. The 2019-2020 trainee-recruiting program was successful in attracting new fellows from our catchment area.

An integral part of the training program is the scholarly effort that has led to successful presentations by the trainees at regional and national meetings and publications in peer-reviewed journals.

The scholarly activities of the trainees also include required quality improvement projects focusing on improving the care of the high-risk infants admitted to the NICU. This past year the trainees have worked on improving parent communication, reducing the rate of pneumothorax, increasing the rate of delayed cord clamping, and reducing hospital infection, to name a few. These projects have succeeded in many areas, including the excellent record of the NICU in the incidence of nosocomial and CLABSI infections.

In summary, the Neonatology Fellowship continues its commitment to excellence in its missions of clinical care, education and scholarly endeavors and, during the past year, has continued to expand its clinical and scholarly activities.

Program Leadership

Thomas Hegyi, MD
Professor
Neonatal-Perinatal Medicine Fellowship Program Director

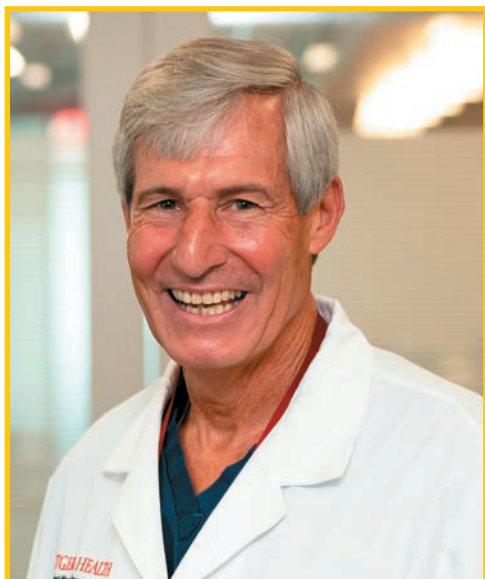
Administrative Staff

Mona Matta
Program Support Specialist

Left to right (front): J. Horne, M. Shim, E. Hanna, O. Sudol, K. Engelhardt, K. Suri; Left to right (back): J. Monzano, S. Haleem, T. Hegyi, A. Reddy, M. Matta



Emergency Medicine



Ernest Leva, MD
Professor and Division Director

The Division of Pediatric Emergency Medicine comprises specialty trained pediatric physicians with expertise in pediatric emergency medicine. These specialists staff the emergency department at the Bristol-Myers Squibb Children's Hospital at Robert Wood Johnson University Hospital. The division is charged with caring for the most severely injured and sick children as well as those with minor problems.

This academic year our division was pleased to add three new faculty members. James Luckey, MD, and Prerna Trivedy, MD, joined our division and have in a short time made tremendous inroads. Mark Douglas Baker, MD, has also joined our division. Dr. Baker's national and international prominence lends itself to our plan of providing the utmost clinical and educational experiences for our learners and patients. We are proud to say that the feedback in their behalf has been overwhelmingly positive from

peers, staff, and young learners. We are particularly proud of the academic progress that both Niel Miele, MD, and Richard Brodsky, MD, accomplished this year. Dr. Miele has been promoted to Professor of Pediatrics and Dr. Brodsky as an Associate Professor of Pediatrics. We applaud their accomplishments.

COVID and the World Pandemic

The Division of Pediatric Emergency Medicine was on the frontline in battling the world pandemic against our invisible foe, the Coronavirus - COVID-19. Realizing the need to navigate risk and produce a safe environment for our patients under the leadership of Ernest Leva, MD, and Dr. Brodsky, a pre-hospital triage system along with complete evaluation was quickly designed and implemented. The system consisted of series of tents in which patients with symptomatology reminiscent of COVID-19 were evaluated using a robot and telemedicine technique by providers inside the hospital. In providing this service, hundreds of patients were seen quickly, efficiently, and with little or no risk to themselves and providers. We are proud of the fact that no patient seen in this system returned for further care. The patient satisfaction was extremely positive and the time



spent in our emergency service was half that of the normal patient. Along with the service also has come research involved in this novel technique; most notably Drs. Richard Brodsky, Rachael Grieco, Matthew Pepper, Anna Petrova and Ernest Leva are in the process.

Members of our division spent hours in personal protective equipment and have become fluent in the nuances of infectious protection both for themselves and staff.

Educational Programs

The division orchestrates the teaching program for the Robert Wood Johnson Medical School, Department of Pediatrics, Department of Emergency Medicine and Department of Family Medicine and Community Health. First-, second-, and third-year residents rotate through the Emergency Department, as well as medical students. Educational opportunities are also offered to residents from other programs and medical students who wish to partake in the educational activities of the division.

Uchechi Azubuine, MD, has taken on the responsibilities of educational director. Under her tutelage all aspects of education has been coalesced. Most notably Dr. Azubuine won an educational award for her incorporation of electronic learning tools into the curriculum. The award is referred to as OAT, Open Affordable Textbook Program.

Physician assistant students and nursing students are also offered educational opportunities in the Pediatric Emergency Department. The division is intimately involved in research and academic pursuits pertinent to pediatric emergency medicine.

Emergency Medicine

Express Care Medicine Program

The section in Express Care Medicine offers the opportunities of patients with minor illnesses and injuries to be quickly attended to by board certified pediatricians at the busiest time of the day. Rachael Grieco, MD, section director, has initiated endeavors that have expedited the care of these patients and significantly decreased their time spent in the emergency department.

Telemedicine Program

The Division of Pediatric Emergency Medicine has developed a section of Telemedicine. Under the direction of Richard Brodsky, MD, expertise in pediatric emergency medicine is offered to other emergency departments in central Jersey through tele technology. In doing so, our academic and clinical expertise is able to be shared with our colleagues, facilitating children's care and offering the ability for patients to be transferred to our hospital and emergency department.

Pediatric Point of Care Ultrasound

Under the guidance of Marinelle Quim, MD, director, Point of Care Pediatric Emergency Ultrasound, the division now incorporates the newer ultrasound capabilities for use by our physicians. Through the addition of ultrasound techniques, the emergency physicians are able to quickly diagnose problems, acting to reduce costs and time spent in our emergency department. Dr. Quim was awarded a three-year grant from the R Baby Foundation in which she has continued to incorporate the newest computer technology to teach 18 learners per year techniques in point of care.

Dr. Quim was awarded a three-year grant from the R Baby Foundation in which she has continued to incorporate the newest computer technology to teach 18 learners per year techniques in point of care

Emergency Medical Service Program

The section of Emergency Medical Services is involved in the establishment and oversight of pre-hospital care for children in

Central Jersey. Ernest Leva, MD, has been the chair of Emergency Medical Services for Children's Committee of the State of New Jersey for many years, and now acts as its vice chair. Under his guidance, Minh-Tu Do, MD, now leads the section in assuring the best possible care for the pre-hospital pediatric patient.

Office Preparedness Course

The division also affords to pediatricians in central Jersey an Office Preparedness course. The course consists of mock code scenarios performed in physician's offices to access and help in the preparation of significant problems that could take place in an office setting. After the course, there is a feedback session in which equipment and physician knowledge is updated to meet the practice's needs.

Faculty

Ernest Leva, MD
Professor and Division Director

Uchechi Azubuine, MD
Assistant Professor

M. Douglas Baker, MD
Professor

Richard Brodsky, MD
Associate Professor

Minh-Tu Do, MD
Assistant Professor

Rachael Grieco, MD
Assistant Professor

James Luckey, MD
Instructor of Pediatrics

Niel Miele, MD
Professor

Matthew Pepper, MD
Assistant Professor

Marinelle Quim, MD
Assistant Professor

Prerna Trivedy, MD
Instructor of Pediatrics

Staff

Collette Williams
Staff Assistant

Seated l-r: U. Azubuine, C. Williams, R. Grieco

Standing l-r: M. Quim, J. Luckey, M. Do, R. Brodsky, E. Leva, N. Miele, M. Pepper, P. Trivedy





Ian Marshall, MD
Associate Professor
and Division Director

The Division of Pediatric Endocrinology provides expert diagnostic and therapeutic services to patients ranging in age from birth to greater than 21 years for a variety of endocrine issues. These consist of disorders of growth, puberty, obesity, polycystic ovarian disease, thyroid, bone, vitamin D and calcium. Our physicians with our certified diabetes educators also provide care to patients and families with types 1 and 2 diabetes, as well as other rare forms of diabetes. In addition, we manage patients with

rare disorders including congenital adrenal hyperplasia (CAH), Turner, Noonan and Prader Willi syndromes, as well as differences in sexual development. Further, we now have the largest transgender program for hormonal affirmation treatment in NJ providing care to transgender children, youth, and young adults.

Ian Marshall, MD, was instrumental in the development of this multidisciplinary transgender care program, which has not only raised awareness of the unique health concerns in this population, but also has provided a supportive environment to optimize health and well-being in a comprehensive manner. We continue to grow our clinical programs. Sadana Balachandar, MD, developed a collaboration with the oncology division to cohesively address the endocrine complications in pediatric cancer survivors.

The Chair of the Department of Pediatrics Sally Radovick, MD, is a leader in the field of pediatric endocrinology. With her extensive

clinical and teaching experience and expertise in research, Dr. Radovick has transformed the landscape of the Pediatrics department by recruiting superb academic faculty and expanding research opportunities throughout the division.

Dr. Marshall serves on the medical advisory board for CARES Foundation, a national non-profit organization that seeks to advance quality health care in patients and families with congenital adrenal hyperplasia in the community through support, advocacy, education and research. He was also recently invited to serve on Governor Murphy's Transgender Equality Task Force for the State of New Jersey, and continues to serve as a member on the Pediatric Endocrine Society's Transgender Special Interest Group. Mariam Gangat, MD, is the program director for the first and only ACGME-accredited Pediatric Endocrinology Fellowship Program in the state of New Jersey, with the first fellow starting in October, 2018. Ahmed Khattab, MD, has extensive experience in adrenal disorders specifically congenital adrenal hyperplasia (CAH), has authored multiple manuscripts in the field of CAH and disorders of sexual differentiation; he also has been serving as director of the CAH Comprehensive Center at the medical school, the 5th of nationally recognized CAH Comprehensive Centers, through collaboration with the CARES foundation.

Faculty

Ian Marshall, MD
Associate Professor and Division Director

Sadana Balachandar, MD
Assistant Professor

Mariam Gangat, MD
Associate Professor

Ahmed Khattab, MD
Associate Professor

Sally Radovick, MD
Professor and Henry Rutgers Term Chair

Research Faculty

Andy Babwah, PhD
Associate Professor

Staff

Diane Cambareri, LPN
Licensed Practical Nurse

Rachel Fowlie, RD, CDE
Registered Dietician

Jo Nuzzo, RN, MSN, CDE
Staff Nurse

Edna Reyes-Rodriguez
Secretary I

Megan Romano, LCSW
Social Worker I

Rachel Siegel, APN, CDE
Advanced Practice Nurse

Postdoctoral Research Fellows

Bahaa Aloqaily, PhD

Sarmed Al-Samerria, PhD

Vanessa De Oliveira, PhD

Left to right: A.Khattab, R. Fowlie, D. Cambareri, S.Balachandar, J. Nuzzo, M. Gangat, E. Reyes-Rodriguez, O. Yeliosof, R. Siegel, I. Marshall



Gastroenterology and Nutrition



Soula G. Koniaris, MD
Associate Professor and Division Director

The Division of Pediatric Gastroenterology and Nutrition consists of five full-time pediatric gastroenterologists, and a full complement of nutritionists, nurses, social worker and support staff. We fully evaluate and treat pediatric patients with intestinal, hepatobiliary and nutrition related disorders.

We routinely treat children with conditions such as complicated inflammatory bowel disease, celiac disease, dysphagia, feeding disorders, chronic diarrhea, constipation/encopresis, failure to thrive, abdominal pain, vomiting, gastroesophageal reflux, eosinophilic disorders, food allergies, hepatitis, portal hypertension and short bowel syndrome.

Specific attention is paid to nutritional requirements through the full assessment of patients with chronic illnesses so that normal

growth and development may be achieved. A team approach, including physicians, specialized pediatric nutritionists and social worker is used. Education materials and instruction are provided to the patient and their families. There are multidisciplinary clinics in dysphagia/feeding disorders, failure to thrive, inflammatory bowel disease, as well as an aerodigestive conference held monthly. Participants are from pediatric gastroenterology, pulmonology, otolaryngology, nutrition, speech pathology and social work.

There are three full-time pediatric nutritionists in the division. As part of interdisciplinary team, the nutritionists continue to provide medical nutritional therapy to infants, children and adolescents with a wide array of acute and chronic diseases including gastrointestinal diseases, neuromuscular disease, developmental disabilities and pulmonary diseases including cystic fibrosis and bronchopulmonary dysplasia. In addition, nutritionists also help manage patients with home parenteral and enteral nutrition, eating disorders, food allergy, short gut syndrome, hyperlipidemia, celiac disease, feeding disorders, renal disease, diabetes, and obesity.

Procedures available include:

Esophagogastroduodenoscopy; colonoscopy; capsule endoscopy; rectal suction biopsy; removal of foreign body and polypectomy; liver biopsy; 24-hour esophageal pH probe/impedance testing; hydrogen breath testing; total parenteral nutrition; enteral tube feeding and percutaneous endoscopic gastrostomy (PEG) placement.

Provide clinical social work services to patients and families as they manage and navigate having a child with chronic illness:

Services include individual counseling, family counseling, address and identify barriers to care, advocate on behalf of the patient and family, and link families to community resources for additional supports. This is a shared position with the Division of Pediatric Endocrinology.

Research Interests:

Our division cares for many children with special medical needs such as gastrostomy feeding tubes (G-tubes). Given recent interest in blenderized tube feedings (BTF), which are pureed table foods that can be given via G-tubes, our division has been involved in on-going research projects evaluating the efficacy and safety of this nutritional option. This nutritional option is individualized and done under the supervision of a gastroenterologist and nutritionist. Our group has completed a retrospective study of 35 children followed by the pediatric gastroenterology division with G-tubes who were transitioned from standard formula diets to BTF. Our results demonstrated greater than 50 percent of the children had improvement in GI symptoms such as GERD and constipation and 37 percent of children were able to wean or stop GI related medication for these conditions. We are continuing to pursue further research regarding this nutritional option in hopes of understanding, which children may benefit from BTF.

SEE WHAT OUR PATIENTS ARE SAYING!

“ Dr. Capone is excellent. I wish she was my daughter's primary care practitioner. Will definitely recommend. She's exceptional.



KRISTIN CAPONE, MD
PEDIATRIC GASTROENTEROLOGY

Gastroenterology and Nutrition

Faculty

Soula G. Koniaris, MD
Associate Professor and Division Director

Kristin Capone, MD
Assistant Professor

Yen Ping Chen, MD
Assistant Professor

Elizaveta Iofel, MD
Assistant Professor

Melissa Weidner, MD
Assistant Professor

Staff

Sonal Argarwal, RD
Nutritionist I

Michele Colin, RD
Nutritionist I

Donna-Jean D'Angelo
Staff Assistant

Sandra Ann Gartelmann, RN, BSN
Staff Nurse

Melanie Sunkyung Lee, RD
Nutritionist I

Katherine E. McMahon, RN
Staff Nurse

Daria N. Mintz, RD
Nutritionist I

Megan Romano, MSW
Social Worker I



Left to right: S. Koniaris, E. Iofel, M. Weidner, K. Capone

Left to right: D. D'Angelo, S. Gartelmann, D. Mintz, E. Iofel, S. Koniaris, M. Weidner, S. Agarwal, M. Colin, K. Capone, M. Romano





Philip Giampietro, MD, PhD,
FACMG
Professor and Division Director

The Division of Pediatric Medical Genetics continues its commitment to provide high quality, state of the art genomic medicine to the residents of New Jersey and surrounding region. The genetics team consists of board-certified medical and biochemical geneticists: Philip Giampietro, MD, PhD, FACMG, and Susan Sklower Brooks, MD, FACMG; three licensed genetic counselors, Christina Botti, MS, LCGC, Ji-Sun Kim, MS, LCGC, and Sara Welner, MS, LCGC, and advanced practice nurse, Sharon Anderson, DPN, APN-C.

Drs. Brooks and Anderson serve on the NJ Department of Health (NJ DOH) Newborn Screening Committees.

We welcome Ji-Sun Kim, MS, a genetic counselor who recently graduated from the Sarah Lawrence University Genetic Counseling Training Program. Ji-Sun hails from Toronto, Canada and graduated with distinction with a major in human biology, specializing in genetics. She has two Master of Science degrees, the first in physiology from the University of Toronto and the second, Master of Science in genetic counseling. Her thesis work was entitled: "Genetic and Pathologic Profiles of Male and Young Female Breast Cancer Populations in Canada".

The division is the recipient of a Genetic and Newborn Screening service grant from the NJ Department of Health. Dr. Brooks is the Principal Investigator of the grant and works closely with

Dr. Anderson to diagnose and provide medical management for patients with inborn errors of metabolism.

Despite adverse conditions posed by the COVID-19 pandemic making clinical service a challenge, all facets of our Program were operational with the help of Telehealth. We were able to see both new and follow-up patients with genetic concerns using a telemedicine platform supported by the medical school. For some patients we were able to proceed with a genetic evaluation and offer genetic testing if they had clinical evaluations that disclosed cardiac abnormalities such as a congenital heart defect, rhythm disturbance or aortic root enlargement, or family history of a specific genetic concern. For patients experiencing delays in acquisition of motor and speech milestones, we were able to begin the evaluation and initial genetic testing. Since a percentage of medical genetic evaluations rely heavily on features identified on physical examination, some evaluations needed to be postponed. As many members of our division telecommuted, we have continued to perform genetic evaluations with the patient, genetic counselor, geneticist, advanced practice nurse, translator, pediatric resident, and medical and genetic counseling students in different locations.

Dr. Giampietro was recently awarded the following grant from NIH: National Institutes of Health, Functional Analysis of Whole Exome Sequence Variants Identified in Patients with Vertebral Malformations, 1 R03 HD099516.

In addition, he is recipient of Busch Award: Utilization of Hold Out Testing as a Means of Predicting Surgical Need in Patients with Idiopathic Scoliosis. Dr. Giampietro is engaged in research related to understanding the genetic basis of arthrogryposis multiplex congenita, and he is a co-investigator on a Shriners Hospital grant entitled: "Registry for Arthrogryposis: Epidemiology, Etiology, Intervention and Genomics"

Faculty

Philip Giampietro, MD, PhD, FACMG
Professor and Division Director

Christina Botti, MS, LCGC
Assistant Professor

Susan Brooks, MD, FACMG
Professor

Staff

Sharon Anderson, DNP, APN-C
Advanced Practice Nurse

Ji-Sun Kim, MS, LCGC
Genetics Counselor

Damaris Soto
Secretary I

Sara Welner, MS, LCGC
Genetics Counselor

Left to right: S. Welner, S. Brooks, C. Botti, D. Soto, P. Giampietro, S. Anderson



Hematology/Oncology

Rutgers Cancer Institute of New Jersey



Peter Cole, MD
Tenured Professor of Pediatrics
Embrace Kids Foundation - Endowed Chair
Division Director for Pediatric
Hematology/Oncology

The Division of Pediatric Hematology/Oncology, practicing at Rutgers Cancer Institute of New Jersey, has long provided comprehensive, compassionate care for children, adolescents, and young adults with cancer or blood disorders. Our team consists of 14 faculty members, including clinicians and researchers, representing a broad spectrum of backgrounds and interests within pediatric hematology and oncology.

As part of our ongoing efforts to improve care through research, we offer participation in clinical research, testing innovative treatment strategies to patients with cancer, sickle cell anemia, bleeding or clotting disorders. In addition to investigator-initiated clinical trials, we offer trials sponsored by industry partners as well as cooperative clinical trial groups such as the Children's Oncology Group and the Dana Farber Cancer Institute Acute Lymphoblastic Leukemia Consortium. This year, we are particularly excited to begin offering clinical

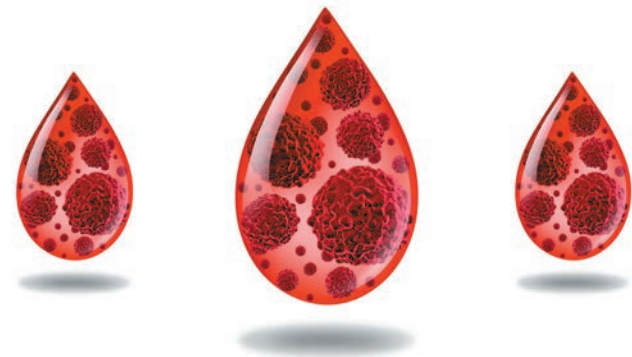
trials of cell-based therapies, including an industry-sponsored trial of chimeric antigen receptor T-cells (CAR-T) targeting CD30 for patients with refractory Hodgkin lymphoma, as well as an expanded access protocol testing umbilical cord blood infusions for children with brain injuries or autism.

Our group continues to bring in additional funding to support expansion of our laboratory and clinical research efforts. Peter Cole, MD, will be leading a new NIH/NCI R01-funded, multi-PI project titled "Characterization of Brain Dysfunction during Development in Survivors of Acute Lymphoblastic Leukemia" in collaboration with colleagues at Rutgers University in Newark and Albert Einstein College of Medicine. The collaborators involved will be using a combination of methods, including cognitive testing, electrophysiology, and functional MRI to characterize the impact of chemotherapy on brain functions among survivors of childhood acute lymphoblastic

leukemia. In addition, Katie Devine-Recuay, PhD, received notification from the NIH that her first R01 was awarded, titled "Bright IDEAS-Young Adults: Problem-Solving Skills Training to Reduce Distress among Young Adults with Cancer." Notably, the NIH converted her submission into an R37 MERIT Award for Early Investigators, making Dr. Devine-Recuay eligible to apply for two additional years of funding through an expedited NCI review. Finally, Richard Drachtman, MD, has improved care for children with sickle cell anemia, using an award from the NJ Department of Health and Senior Services to support a nurse navigator to help remove barriers to care, educate families about the disease and treatment and any clinical trials the patient might be eligible and to work with those patients transitioning into the adult heme setting.

The division remains committed to the education of the next generation of clinicians and scientists. Archana Sharma, DO, and Scott Moerdler, MD, lead our Pediatric Hematology and Oncology Education Program, continually revising and updating our curriculum to reflect the most current data and to meet the needs of medical students and pediatric residents. All of our faculty are actively involved in mentoring students and residents in clinical care as well as research endeavors. Students and residents received recognition for their work with authorship on over two dozen posters, oral presentations, or manuscripts.

We look forward to continuing our existing interactions with our colleagues in the Department of Pediatrics, as well as to exploring and developing new clinical, research, and teaching collaborations.



Hematology/Oncology

Rutgers Cancer Institute of New Jersey

Faculty

Peter Cole, MD
*Tenured Professor of Pediatrics
Embrace Kids Foundation -
Endowed Chair
Division Director for Pediatric
Hematology/Oncology*

Katie Devine-Recuay, PhD
Assistant Professor

Richard Drachtman, MD
Professor and Clinical Section Chief

Meenakshi Goyal-Khemka, MD
Assistant Professor

Karen Long-Traynor, PhD
Assistant Professor

Advaita Madireddy, PhD
Assistant Professor, Research Lab

Nicole Mallory, MD
Assistant Professor

Margaret Masterson, MD
Associate Professor

Scott Moerdler, MD
Assistant Professor

Susan Murphy, MD
Assistant Professor

Beth Savage, PhD
Assistant Professor

Archana Sharma, DO
Assistant Professor

Maxim Yankelevich, MD
Associate Professor

Staff

Kayla Baker
*Laboratory Technician
Peter Cole Research Lab*

Dawn Carey, APN
Advanced Practice Nurse

Rosemary Carreno
Medical Technician

Lauraine Celestin
Scheduler

Deena Centofanti, RN
Nurse Manager

Susan Christ
Program Administrator

Shayna Cornelius, RN
Treatment Nurse

Dora Delsordo, APN
Advanced Practice Nurse

Frank Diglio
Lab Tech, Peter Cole Research Lab

Paulette Forbes, MPH, MS, APN-BC
Advanced Practice Nurse

Teresa Gallardo
Financial Counselor

Helene Greenberg, RN
Treatment Nurse

Audrea Henry
Administrative Research Associate

Claudia Junchaya-Jenssen, RN
Nurse Navigator - Sickle Cell Program

Evenly Lewis, RN
Clinical Research Nurse

Shengguo Li, PhD
*Research Associate
Peter Cole Research Lab*

Lori Magoulas, PhD, RD
Nutritionist

Marilyn Mundy, RN
Treatment Nurse

Michelle Olk
Medical Technician

Veronica Ortiz
Scheduler

Susan Pillet, APN
Advanced Practice Nurse

Donna Plaxe, APN
*Advanced Practice Nurse
BMSCH*

Stephanie Samuels
Medical Records

Jennifer Savarese
Senior Scheduler/Patient Liaison

Priscilla Scheiner
Counselor

Susan Stephens, LCSW
Licensed Clinical Social Worker

Kathleen Welsh
Secretary I

Jing Wen, PhD,
*Post-doctoral Fellow
Peter Cole Research Lab*

Dawn Yuhas, RN
Treatment Nurse

S. Moerdler
Assistant Professor



Left to right (front): A. Sharma, S. Cornelius, S. Pillet;
Left to right (back): D. Carey, P. Cole, D. Del Sordo, D. Centofanti, S. Christ



Pediatric Hospital Medicine



Dalya Chefitz, MD, FAAP
Professor and Division Director
Assistant Dean, Clinical Learning Environment



Alan Weller, MD, FAAP
Associate Professor and Associate Division Director

The Division of Pediatric Hospital Medicine provides inpatient care for newborns and children in the Bristol-Myers Squibb Children's Hospital (BMSCH) on the Robert Wood Johnson University Hospital campus. The division faculty serve as the in-house physicians to provide care in the well-newborn nursery and on the pediatric and adolescent floors. These child health experts care for both acute and chronic illness, including previously healthy children and those with high levels of medical complexity. The division is committed to providing state of the art, high quality and safe care to the continuum of children who come from throughout the state of New Jersey and beyond to BMSCH.

As a part of our commitment to clinical excellence the division plays a central role in the education and development of physicians in training, ranging from medical students to resident physicians. The division maintains primary responsibility for teaching the role of the generalist physician in coordinating and managing the inpatient care of children with acute and chronic illness. Integral to these activities is leadership in practice and education, developing scholarly projects and quality improvement activities. At our best, we model community service, compassion, and humanism with good humor when caring for our patients. We promote positive patient outcomes and a superior patient and family experience. We value patient- and family-centered care for our patients. We offer community physicians the opportunity to have their patients managed by onsite experts who have established relationships with the pediatric and surgical specialists that some patients require. We remain engaged with our specialist and community colleagues and are available

to help to enhance physician-patient and physician-family communications. We work with our community physicians' offices to promote a seamless continuum of care.

The evolution of a distinct Division of Pediatric Hospital Medicine from Academic General Pediatrics promotes our capacity to serve as clinicians and scholarly leaders regarding care of the sick child. We serve our patients and our community, promoting a higher standard of care for the whole child in the context of both their family and their community. We are flourishing and continuing to grow. The elevation of Hospital Medicine to a Division promotes our ability to recruit and retain top-level inpatient specialists, including those interested in enhancing our understanding of care for children and adolescents via clinical and health services research.

The primary care practices, located in the Division of Population Health, Quality and Implementation Sciences (PopQuIS) coordinate closely with the Division of Pediatric Hospital Medicine (PHM) and allow Rutgers Health to support the full continuum of care for those patients seen in our practices. We further partner with PopQuIS to develop and advance research, education and advocacy that extends beyond the walls of BMSCH. Secondary appointments in PopQuIS may be available for candidates with scholarly interests in areas that range from public or population health to health services research to Quality and Safety or Implementation research.

With the COVID pandemic, the hospitalist division took the lead in education and safety of patients, staff and doctors. Our group saw the first pediatric patient in our hospital now described as MIS-C, a COVID related inflammatory process that has features of Kawasaki Disease and in this case, heart failure. The child recovered and we soon had a crash course in this newly-described condition. We participated in the daily department-wide calls to fine-tune patient care and coordinate between not only our divisions, but hospitals within our system. With other hospitals converting to COVID-only centers for adults, we managed many of the pediatric inpatients for our entire hospital system. We coordinated with our colleagues in obstetrics and neonatology to manage newborns born to COVID positive mothers. As we look forward to a new academic year, we share our highlights.

Every year we welcome two chief residents as junior faculty in our division. We thank Elizabeth Barrington, MD, and Allison Kelly, DO, for their hard work and dedication for the academic year 2019-20. This year, in addition to the role as chief residents, Jaya Isaac, MD, and Debra Zharnest, MD, will be teaching and seeing patients as hospitalists.

Indira Amato, MD, FAAP, is charged with developing a pediatric hospitalist fellowship program. She has considerable ACGME and residency training experience. In 2004, noting the importance of healthy residents, she developed a Residents Wellness Curriculum. She has since been appointed to run this curriculum for the entire medical school graduate education program. She serves as vice-president of the NJ Chapter of the American Academy of Pediatrics.

Pediatric Hospital Medicine

Also, in education, is Elizabeth (Beth) Goodman, MD, who was recently appointed (FY21) as the associate residency program director and continues to be the director of the Pediatric Clerkship. She is an integral educator in the continuum from undergraduate to graduate education. During COVID, she re-imagined clinical clerkships and quickly created virtual clerkships for the students. Her devotion to patients and education earned her the prestigious induction into Alpha Omega Alpha as a faculty member.

Janice Cato-Varlack, MD, is also the assistant dean of students and multicultural affairs. In this role, she is the chair of the Access-Med and Biomedical Careers program and oversees all aspects of the five programs designed to increase access to underrepresented minorities to our medical school. She oversees all the multicultural affairs student groups and serves on the admissions committee and Alpha Omega Alpha selection committee. This year she was selected as the convocation speaker.

The newborn nursery doctors; Aazim Hussain, MD, an accomplished teacher, established a 24-hour newborn discharge protocol during the COVID pandemic, Aimee LaRiviere, MD, was awarded for the fourth time, the Ruth Ellen Steinman, MD, resident teaching award and Shunli Hou, MD, led a community effort to collect PPE for hospital workers during the COVID crisis.

Our newest hospitalist member, Paula Lucuara Revelo, MD, a member of the Gold Humanism and Honor Society (GHHS), worked with medical students during GHHS solidarity week to create thank you cards for nurses. She mentors monitory undergraduates at Rutgers interested in medicine, and this year received the Lawrence Taft, MD Teaching Award from the pediatric residents.

Dalya Chefitz, MD, FAAP, and Alan Weller, MD, FAAP, serve as the division and associate division chief, respectively. Together, they are working on quality improvement projects with the pediatric residents on asthma and complex pneumonia. Their work with Thomas Hegyi, MD's, project on unbound bilirubin in term and preterm infants was presented at the annual Pediatric Academic Society Meeting in the spring.

Both Drs. Chefitz and Weller are working on child health and education outside of the university. Dr. Weller, in his role with NJAAP Governor's Affairs Committee, testified in front of the legislature and in closed-door sessions on children and vaccinations. He just completed his two-year term as president of the NJ Chapter of the American Academy of Pediatrics, where he has focused on making CME available to pediatricians state-wide through webinars. He was instrumental in COVID education and preparation. His weekly webinars had record attendance and greatly improved pediatric care around the state. He was awarded the "Health Care Hero" title for his exemplary work for the hospital and community during the COVID crisis.

We are happy to announce that Dr. Dalya Chefitz has been promoted to professor. She is the assistant dean of the learning environment and chair of the Professionalism Committee. In this role, she is working to improve the relationship among students, residents, faculty and staff. She continues to volunteer on the state committee for newborn screening. She continues to be chosen as one of the "Top Docs" in New Jersey.

Faculty

Dalya Chefitz, MD, FAAP
Professor and Division Director
Assistant Dean, Clinical Learning
Environment

Alan Weller, MD, FAAP
Associate Professor and
Associate Division Director

Indira Amato, MD, FAAP
Associate Professor
Director, Pediatric
Residency Program
Director, Pediatric Hospitalist
Fellowship Program (FY21)

Elizabeth Barrington, MD
RBHS Instructor

Janice Cato-Varlack, MD
Associate Professor
Assistant Dean of Students
and Multicultural Affairs

Elizabeth Goodman, MD
Associate Professor
Director, Pediatric Clerkship
Associate Director,
Pediatric Residency Program (FY21)

Shunli Hou, MD,
Assistant Professor

Aazim Hussain, MD
Assistant Professor

Jaya Isaac, MD
RBHS Instructor (FY21)

Aimee LaRiviere, MD
Assistant Professor

Paula Lucuara Revelo, MD
Assistant Professor

Debra Zharnest, MD
RBHS Instructor (FY21)

Staff

Allison Kelly, DO
Physician Specialist

Collette Williams
Staff Assistant

Left to right: A. Weller, E. Goodman, D. Chefitz, I. Amato, C. Williams





Derek Sant'Angelo, PhD

*Harold L. Paz, M.D. Endowed Professor
of Developmental Biology
Associate Director of Basic Science
Child Health Institute of New Jersey
Professor, Department of Pediatrics and
Pharmacology
Division Director, Immunobiology*

For nearly ten years, Derek Sant'Angelo, PhD, has served as head of the **Division of Child Health Sciences**. This division served as a liaison between the basic and translational research being done at the Child Health Institute of NJ (CHINJ) and the Department of Pediatrics. The mission of CHINJ, under the leadership of the Director, Arnold Rabson, MD, is to perform outstanding research to identify the causes, treatment, and prevention of important childhood diseases. Members of CHINJ pursue research projects in diverse areas including type 1 diabetes, the neonatal immune system, cancer immunology, the neurobiology of feeding disorders, autism and addiction, and metabolic regulation including childhood obesity.

This year, with the goal of further developing an important area of research and clinical need, the division was renewed with a new focus on immunology. The new division of Immunobiology will continue to be headed by Dr. Sant'Angelo. "Immunobiology" is the study

of the biological basis for the immune response to disease, such as infection, but also for health, such as the maintenance of tissue homeostasis. The immune system is involved in every disease; sometimes it protects, sometimes it causes and rarely it is just along for the ride. Therefore, understanding the biology of immunity will enable scientists to find the causes and physicians to find the cures for the ailments that make children not able to just be kids.

The Division of Immunobiology is small; other than Dr. Sant'Angelo, the only other card-carrying immunologist is Lisa Denzin, PhD, associate professor, CHINJ scientist. Many other physicians and scientists, however, are included as "honorary" members, including Ian Marshall, MD; Abdelfattah El Ouaamari, PhD; Arnold Rabson, MD; Max Tischfield, PhD; and Patricia Whitley-Williams, MD, to name a few. Furthermore, active searches to bring in new research scientists and physician-scientists are underway.

Key highlights of the year include:

Dr. Sant'Angelo continues his research exploring the genetic control of immune cells in health and disease. Current NIH funded studies emphasize the control of inflammatory bowel disease by T cells and the control of metabolism and obesity by T cells. The study of neonatal lymphocytes, which was a collaboration with Thomas Hegyi, MD, professor, Division of Pediatric Neonatology, involved the training of three neonatology fellows and was supported by The Hudson-Shea Foundation and the Department of Pediatrics via the Pediatric Research Pilot Support (PRePS) program. In addition to directing his research program and his role as associate director of CHINJ, Dr. Sant'Angelo chairs the Biomedical Advisory Committee, directs the Genome Editing Shared Resource, serves on advisory committees for both the Flow Cytometry and Immune Monitoring Shared Resources and teaches graduate and medical students. He also directs the Child Health Institute Research Program (CHIRP). Externally he serves as chair of the Program Steering Committee of the City College of NYC/Memorial Sloan-Kettering U54, which has several goals including the encouragement and support of research on health disparities and cancer burden in minority populations, and he is also a member of the external review board for the Research Center in Minority Institutions at City College of NY.

Lisa Denzin, PhD, an internationally recognized expert in the field of immune antigen presentation, continued her collaborative studies with Janssen Pharmaceuticals. This research focused the dynamic expression of proteins that control antigen presentation as a potential biomarker for children at high risk for onset of clinically significant type 1 diabetes. Dr. Denzin also works with world experts in virology at the University of Chicago to define the mechanism by which an antigen presentation protein, HLA-DO, controls the immune response to infections including retroviruses and hepatitis viruses. Dr. Denzin also continues to serve on the American Association of Immunologists' Committee on the Status of Women. She also co-directs CHIRP, leads the curriculum committee for M1 immunity and teaches graduate students. Her expertise in immune responses to viruses has led to impressive effort to educate the scientific and general public on vaccine strategies to Covid-19. Dr. Denzin has presented to the Eagleton Science and Politics Fellows, the Department of Pediatrics, the NJ Chapter of the American Academy of Pediatrics, the Rutgers Collaborative Curriculum Development program for high school teachers and the national American Association for Laboratory Animal Science. Dr. Denzin, working with co-investigators from the Rutgers Center for Advanced Technology and Medicine, was also awarded a grant to develop new vaccine strategies from the Rutgers Center for COVID-19 Response and Pandemic Preparedness.

Other Child Health Institute Research accomplishments:

Arnold Rabson, MD, continues to direct one of the most successful institutes at Rutgers University.

Immunobiology

Dr. Rabson's long history of research in virology has led him to help lead a new research multi-investigator project concerning HIV infection of microglia in brain organoids, focusing particularly on effects on synaptic transmission. This study was submitted to the NIH and is under consideration for funding. Additionally, Dr. Rabson, in collaboration with the Sant'Angelo lab, seeks to understand how the nuclear protein, PDCD2, controls RNA biogenesis in the context of T cells. Dr. Rabson presented the Keynote Address at the 2019 Annual Retreat on Cancer Research in NJ hosted by The Rutgers Cancer Institute of NJ and New Jersey Commission on Cancer Research (NJCCR) held on May 20, 2019. Presentation titled, "Retroviruses, Transcription Factors and Cancer, and Some Lessons Along the Way."

Davide Comoletti, DVM, PhD, a joint member of CHINJ and Victoria University of Wellington, New Zealand, continues his studies of how the synaptic proteins control brain function and can contribute to autism. Dr. Comoletti and his collaborators published an article in the journal *Science*, titled "Secreted amyloid- β Precursor Protein Functions as a GABABR1a Ligand to Modulate Synaptic Transmission." *Science*, 2019. Jan 11; 363(6423). Dr. Comoletti continues a collaboration with Dr. Sant'Angelo to use a new and powerful tool to identify novel ligand-receptor pairs that may control immune system responses to cancer and infection.

Chiara Manzini, PhD, joined CHINJ as associate professor of neuroscience and cell biology and director of the neurobehavioral core facility. Her laboratory studies neurodevelopmental genetics and is currently focused on genes that contribute to autism and to disorders of neuromuscular development. Dr. Manzini received a second NIH R01 grant to study genetic and molecular pathways in congenital disorders affecting brain and muscle function. She was recently selected to participate in the Rutgers Leadership Academy.

Abdelfattah El Ouaamari, PhD, received an award from the New Jersey Health Foundation in the amount to support his project titled,

"Preclinical Validation of Novel Neuropharmacological Targets for Diabetes" in January, 2019. He recently was awarded a five-year, nearly \$2M grant from the National Institute of Diabetes and Digestive and Kidney Diseases to study aspects of sensory neuromodulation of pancreatic beta cells in health and disease.

Max Tischfield, PhD, a new investigator at CHINJ models biological processes related to human development and the pathogenesis of disease. His interests primarily lie in brain development and physiology, craniofacial development and complex tissue interactions that pattern the skull, underlying blood vessels, and surrounding neural tissue. He was awarded a New Jersey Health Foundation grant to support his project "Validating Tourette Disorder Mouse Models Using Advanced Machine Learning Technology." Most recently he was awarded the Tourette's Career Development grant.

Faculty

Derek Sant'Angelo, PhD

*Harold L. Paz, M.D. Endowed Professor of Developmental Biology
Associate Director of Basic Science
Child Health Institute of New Jersey
Professor, Department of Pediatrics and Pharmacology
Division Director, Immunobiology*

Davide Comoletti, DVM, PhD

*Assistant Professor
Scientist, Child Health Institute of New Jersey
Department of Neuroscience and Cell Biology
Victoria University of Wellington, New Zealand*

Lisa Denzin, PhD

*Associate Professor
Resident Scientist, Child Health Institute of New Jersey
Department of Pediatrics and Pharmacology*

Chiara Manzini, PhD

*Associate Professor
Resident Scientist, Child Health Institute of New Jersey
Department of Neuroscience and Cell Biology
Director of the Neurobehavioral Core facility*

Abdelfattah El Ouaamari, PhD

*Assistant Professor
Resident Scientist, Child Health Institute of New Jersey
Department of Medicine*

Arnold Rabson, MD

*Director, Child Health Institute of New Jersey
Laura Gallagher Endowed Chair of Developmental Biology
Professor of Pediatrics, Pharmacology, and Pathology and
Laboratory Medicine*

Max Tischfield, PhD

*Assistant Professor
Resident Scientist,
Child Health Institute of New Jersey
Department of Neuroscience and Cell Biology*

Staff

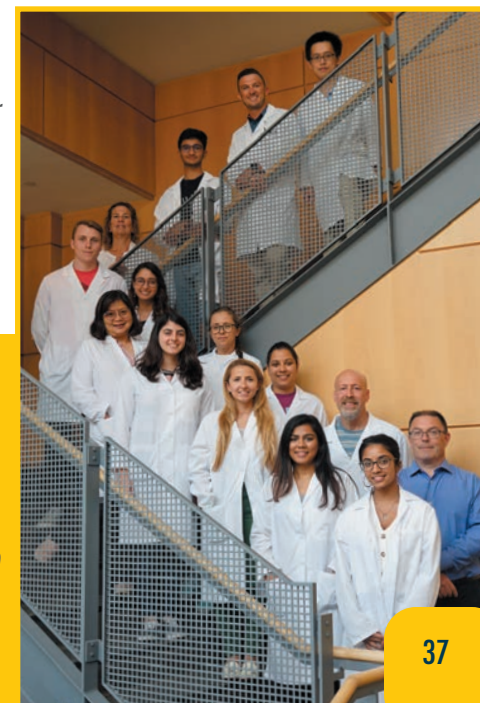
Kathleen M. Semler

Program Administrator

Christine Mahedy

Secretary I

*From the bottom step up
(front): S. Kaloth, N. Desai,
D. Millick, Y. Abbo, H. Lin,
A. Boreland, L. Denzin,
A. Modi, M. Scarnati,
Q. Yu; from the bottom step
up (back): D. Sant'Angelo,
L. Osorio, N. Oswal, D.
Popova, D. Robles*



The Institute for the Study of Child Development



Michael Lewis, PhD
University Distinguished Professor and Director

The Institute for the Study of Child Development (ISCD) has as its goals: 1) research designed to understand the processes leading to healthy children, 2) translation of research findings into useful products and services, and 3) education.

Health of children and families involves their emotional, social, and psychological functioning, as well as their physical/medical well-being. For a complete understanding of children's health, research is necessary at all levels of functioning, from the molecular processes underlying behavior to the behavior of the whole child. In addition to understanding the different levels of functioning, it is important to measure the environmental context in which the child is raised. Indeed, to understand development at any level of functioning, from the molecular to the whole child, understanding the role of environment is critical to understanding the developmental process itself. The understanding of the

environmental context in which the child is raised involves for the Institute not only the measurement of the social environment, but also the physical environment, including environmental toxins. Ultimately, it is the underlying belief that the study of children's development will lead to innovative intervention strategies that will benefit children in their everyday lives.

To accomplish the research goals of the Institute, studies necessarily must include multiple levels of analysis. These levels range from characterizing the environment, whether it be the physical environment of toxins or the social environment of caregivers, to studying the relation between brain and behavior using brain-imaging technology. Our current research work includes studies of behavioral teratology, as well as studies of the long-term effects of drugs and other toxic exposures during pregnancy. It includes identifying factors that affect the behavioral and physiological reaction to stress and the capacity to cope with stress, including measures of the autonomic nervous system, such as heart rate and heart variability,

as well as the study of children's adrenal cortical functioning. Research also includes the impact of deviant caregiving and traumatic events, such as maltreatment or sexual abuse, that occur in the child's life, and how these experiences affect the development of the child's emotions and cognitions and, therefore, mental health, including depression and post-traumatic stress disorders.

An important area of study at the institute is the emergence of consciousness - the development of the mental representation that children come to have about themselves, and their ability to utilize that knowledge in forming social relationships. We study of the emergence of the self-conscious emotions of embarrassment, shame, pride, and guilt, something that occurs in the first three years of life, as it affects both normal and atypical cognitive, social, and emotional development. Longitudinal studies of abused and neglected children provide the opportunity to explore the emotional development of children living in toxic environments. The institute's work also has focused on emotional regulation and inhibitory control, two processes that have serious impact on the child's social and emotional development, as well as on its peer relationships and school performance. It is the underpinning of clinical problems such as ADHD, LD, and ASD.

One recent product of the institute involves the development and use of intersensory integration procedures to examine these capacities as a tool to identify infants at-risk for an ASD diagnosis earlier than current ASD diagnostic procedures. Grants from the Governor's Council for Medical Research and Treatment of Autism have funded this development. In addition, these audio-visual integration testing procedures can be used with other clinical conditions, and in fact we are using them studying children who have received cochlear implants.

Along with Tara Matthews, MD, developmental and behavioral pediatrician at Children's Specialized Hospital, we have developed and copyrighted an app called EARLYThree which pediatricians and parents can use to detect developmental delays in children from eight months to three years of age. This app is in the process of being evaluated and the agreement between parents and pediatricians has been good. Another experimental procedure we developed and which is now used in the study of autism is a clinically useful test using mirror self-recognition. Recognition in mirrors should be accomplished by 24 months, and delays to that are related to clinical conditions such as Down syndrome, ASD, and prematurity.

Our educational programs work with both RBHS and Rutgers University-wide students. As part of the educational mission, the institute supervises the research of: fellows in the Developmental and Behavioral Pediatrics Fellowship Program; first and second year medical students conducting independent research projects; and master's level students in the Rutgers School for Graduate Studies Capstone Program working on the Institute's many research projects. The students' research is presented at many national

The Institute for the Study of Child Development

and international meetings, including those of the Society for Developmental and Behavioral Pediatrics, Association for Psychological Science, Pediatric Academic Societies, Eastern Society for Pediatric Research, International Congress of Infant Studies, and Eastern Psychological Association.

A master's level course in the Rutgers Graduate School of Biomedical Sciences ("Neurons to Neighborhoods - Human Development in Context: Rethinking Nature vs. Nurture") has been taught for the last five years. Moreover, a Pediatric Psychology & Social Work Practicum Training Program for psychology and social work graduate students continues to operate. Students are assigned to both outpatient units as well as inpatient hospital units in the Department of Pediatrics. The program teaches students from the School of Social Work and Graduate School of Applied and Professional Psychology about Pediatrics, and at the same time they help hospital and clinical staff with psychological and behavioral problems of patients and their families.

Faculty

Michael Lewis, PhD
University Distinguished Professor and Director

Jason Gold, PhD
Adjunct Assistant Professor

Barbie Zimmerman-Bier, MD
Clinical Associate Professor

Staff

Stacey Napoli
Research/Administrative Assistant

Affiliated Research Faculty

Malia Beckwith, MD
*Developmental & Behavioral Pediatrics
Fellowship Program Director
Rutgers Rutgers Robert Wood Johnson Medical School*

David Bennett, PhD
*Professor
Drexel University College of Medicine*

Alan Leslie, PhD
*Distinguished Professor
Rutgers School of Arts and Sciences*

Anu Venkat, MD
*Clinical Associate Professor of Pediatrics
Rutgers Robert Wood Johnson Medical School
and Saint Peter's University Hospital*

John Worobey, PhD
*Professor
Rutgers School of Environmental
and Biological Sciences*

Dake Zhang, PhD
*Associate Professor
Rutgers Graduate School
of Education*

Left to right (front): K. Suri, M. Lewis, S. Napoli; Back: N. Karpova



Neonatology (NICU)

Life is always better in the NICU! Our NICU at BMSCH continues to lead the pack in patient safety and quality. It has been the most compliant units in the hospital (adult and pediatric) in terms of hand hygiene compliance over the last three years, with the improved hospital acquired infection data to show it! Our quality data when benchmarked against national data is excellent and our patient outcomes reflect this. Our Press Ganey data consistently places us at 95% for patient satisfaction. All of these good things are a result of the hard work of all of our care providers. We have excellent nursing care and paraprofessional staff. The residents and fellows all are passionate about the care we provide, and they are led by an enthusiastic attending staff.

Over the last years we have initiated a few fledgling programs: neonatal ECMO, a fetal evaluation service, an infant cuddler program, and most recently the SIDS Center has developed a SIDS application for the general population. In development, we have a donor breast milk program and we plan to grow out a neuroscience and lung center.

Our fellows, the only neonatal fellows in the state, continue to actively research new topics in conjunction with our colleagues in CHI and other sites. They help staff a neonatal developmental follow-up clinic in partnership with Children's Specialized Hospital. They are constantly looking for new ways to aid in quality improvement in the NICU and have run many QI projects to improve our unit commitment to quality. Our fellows are committed to participating in the educational experience for our residents. We look forward to the three new fellows starting next year!

We are also happy to have in our ranks a nonclinical provider, Barbara Ostfeld, PhD, program director of the SIDS Center of NJ, who works with Thomas Hegyi, MD, medical director of the Center. She is a great contributor to the department and patients in the region and state.

Faculty

David Sorrentino, MD
Associate Professor and Division Director (FY20)

Deepak Jain, MD
Associate Professor and Interim Division Director (FY21)

Waseem Akhter, MD
RBHS Instructor

Mayoor Bhatt, MD
Assistant Professor

Swapna Borole, MD
Assistant Professor

Alexander Feldman, DO
Assistant Professor

Thomas Hegyi, MD
Professor
Director, Neonatal and Perinatal Medicine Fellowship Program

Arun Kashyap, MD
Assistant Professor

Rajeev Mehta, MD
Professor

Joseph Napolitano, MD
Clinical Assistant Professor

Barbara Ostfeld, PhD
Professor

Surasak Puvabandisin, MD
Associate Professor

Jeffrey Suell, MD
Assistant Professor

Staff

Diana Brantley
Secretary I

Puja Kalia, PA
Physician Assistant

Ellen Leone, APN
Advanced Practice Nurse

Norma Lewis
Data Control Clerk I

Mona Matta
Program Support Specialist



David Sorrentino, MD
Associate Professor and Division Director (FY20)



Deepak Jain, MD
Associate Professor and Interim Division Director (FY21)

Left to right (front): A. Kashyap, D. Jain, A. Feldman, S. Puvabanditsin



Nephrology and Hypertension



Joann Carlson, MD
Associate Professor
and Division Director
Associate Program Director of
Pediatric Residency Program
Interim Program Director of
Pediatric Residency Program (FY21)

The Division of Pediatric Nephrology and Hypertension provides current, compassionate, comprehensive care to infants, children and teenagers (birth to 21 years) with kidney disease and elevated blood pressure. We follow patients from chronic kidney disease stage 1 to end-staged renal disease.

We are continuing to look for ways to expand our clinical services. We now have satellite clinics in Edison and Somerset. We are continuing to look for opportunities to expand to other areas, and are working on starting a new nephrology/urology combined clinic in Somerset in coordination with Joseph Barone, MD, professor of pediatric urology. We hope this will make it easier for patients who need to see both

subspecialties. We will see patients with a range of diagnoses including kidney stones, congenital abnormalities and reflux.

We also continue to help patients with end-staged kidney disease. We have an active and growing hemodialysis and peritoneal dialysis program at Davita. Valeriya Feygina, MD, will be the pediatric medical director at Davita for both dialysis programs in the fall 2020. Additionally, Dr. Feygina continues to serve as pediatric medical director of kidney transplantation. Even though transplants were on hold due to the pandemic, she worked closely with their staff to review patients, protocols and outcomes.

For education, Joann Carlson, MD, began her new position as interim program director of the pediatric residency program in July 2020. She is excited to continue to work with administration on continuing to improve

our program. In the next year, we will work on strengthening recruitment and the educational experience for residents. Dr. Feygina continues to serve as the director of the nephrology elective for the medical students. We continue to enjoy many students and residents on nephrology elective both virtually and in person.

On the research side, we continue to be involved in CKiD, a prospective, longitudinal study of patients with chronic kidney disease. Our focus has been on chronic kidney disease and quality of life. Dr. Carlson published a manuscript in *Pediatric Nephrology* in April 2020 entitled, "A longitudinal analysis of the effect of anemia on health related quality of life in children with mild-to-moderate chronic kidney disease." This study showed anemia has an adverse effect on quality of life which persists over time but does not appear to be progressive. Dr. Carlson is now beginning a new study looking at the effect of anemia on neurocognition in chronic kidney disease. We continue to look for opportunities for case reports among the interesting and complex patients that we follow.

Our response to COVID-19

We have been working hard during the pandemic to accommodate and support our patients. Once the pandemic started, we changed the majority of our clinics to telemedicine. We used both video and phone encounters to connect to our patients in any way possible. Telemedicine allowed us to continue to provide care to patients from the safety of their home. As the year proceeds, we will continue to accommodate patients to ensure they get the care they need.

Our outpatient dialysis center at Davita did a wonderful job ensuring the safety of our dialysis patients when the pandemic started, and we continue to work with them to ensure the health and safety of our hemodialysis and peritoneal dialysis patients.

On the research side, we collaborated with L. Nandini Moorthy, MD, MS, on a grant that looks at the impact of the pandemic on patients on immunosuppressant medications. In nephrology, we will focus on the impact on our lupus, nephrotic syndrome and kidney transplant patients. The grant has been submitted and we are waiting for it to be reviewed.

We also continue to work with Embrace Kids and our subspecialty nurse navigator to help and support our patients. Our nurse navigator has been a tremendous help, orienting patients to telemedicine and ensuring patients are getting the appointments they need.

Nationally, both Dr. Carlson and Dr. Feygina are active members of American

Society of Pediatric Nephrology. Dr. Carlson has served as chair of the member education committee for the last year. She also leads a bimonthly pathology webinar for ASPN members. Both physicians are also members of

SEE WHAT OUR PATIENTS ARE SAYING!

“

Dr. Carlson is excellent, professional -- truly a gem. Would highly recommend her.



JOANN CARLSON, MD
PEDIATRIC NEPHROLOGY

the International Pediatric Nephrology Association (IPNA) and the American Society of Nephrology (ASN).

We are proud to announce Dr. Carlson was promoted to an Associate Professor in July 2020.

Faculty

Joann Carlson, MD
Associate Professor and Division Director
Associate Program Director
of Pediatric Residency Program
Interim Program Director
of Pediatric Residency Program (FY21)

Valeriya Feygina, MD
Assistant Professor of Pediatrics

Staff

Lyneta (Nina) Blair
Secretary I

Cheryle Ludwig, RN
Staff Nurse

Aura Velasco, RN
Staff Nurse

Aviva Wohlgemuth, RN
Staff Nurse

Left to right: L. (Nina) Blair, V. Feygina, J. Carlson, C. Ludwig



Child Neurology and Neurodevelopmental Disabilities



Vikram Bhise, MD
Associate Professor
and Division Director

The Division of Child Neurology and Neurodevelopmental Disabilities consists of two full-time pediatric neurologists, one part-time pediatric neurologist, two neurodevelopmental pediatricians, one advanced nurse practitioner, one pediatric nurse, one pediatric mental health provider, and support staff. We fully evaluate and treat pediatric patients with neurological and developmental disorders.

We routinely treat children with conditions such as seizures, tics, headaches, spasticity, low tone, microcephaly, macrocephaly, concussion, stroke, neurodegenerative disorders, demyelinating disease, and much more.

Specific attention is paid to the developmental status of a child as they deal with a chronic medical condition. A team approach is used, coordinating the physicians, nurse practitioners, and community services. We also coordinate with adult neurological services when needed.

As part of our specialty services, all the physicians are epileptologists and specialize in the care of children with complicated epilepsy. We have long-term video EEG monitoring services available to identify seizure disorders in children. Children with intractable epilepsy also have the option to engage in the ketogenic diet, vagal nerve stimulation, and state medicinal marijuana program. Our program consists of a collaborative monthly epilepsy surgery conference to discuss complicated cases where surgical intervention may be of benefit.

Vikram Bhise, MD, also specializes in pediatric neuroimmunology, and runs the program for the evaluation, diagnosis, and management of children with demyelinating disorders such as multiple sclerosis, neuromyelitis optica, autoimmune encephalopathy, and related diseases. Early diagnosis

and treatment are key to best outcomes. We work in collaboration with pediatric-specific ophthalmology, rehabilitation, physical therapy, psychology, urology, nephrology, and cognitive specialists to provide cutting-edge therapies, patient and family education, and offer access to clinical trials.

Abdolreza Esfahanizadeh, MD, also specializes in concussion and has a sports brain injury program for the rapid access, diagnosis, and management of children with acute head injury, specially designed to identify and care for children who have experienced a concussion, from mild to the most severe. We provide comprehensive evaluation and treatment of children who have sustained a concussion.

Emanuel M. DiCicco-Bloom, MD, specializes in basic science focused on autism models in animals. He studies the growth and development of the nervous system, as well as the roles of growth factors, genes, environmental factors and microRNAs on neural precursor proliferation, survival and differentiation. Dr. DiCicco-Bloom is a well-established national expert in the field and publishes numerous research articles and book chapters, including his recent Springer *Nature* volume on iPSCs in neurodevelopment. (DiCicco-Bloom E., Millonig J. (eds) *Neurodevelopmental Disorders. Advances in Neurobiology*, vol 25. Springer, Cham, 2020. DOI: <https://doi.org/10.1007/978-3-030-45493-7>)

Manuel Jimenez, MD, MS, FAAP, a developmental and behavioral pediatrician, is an Alpha Omega Alpha Honor Medical Society alumni inductee who co-leads a Rutgers' University-Community Partnership Grant to promote school readiness through developmental monitoring and language promotion. His research, largely supported by the Robert Wood Johnson Foundation Harold Amos Medical Faculty Development Program, helps assure patient-centered literacy promotion for underserved children. Dr. Jimenez publishes multiple articles and conducts frequent presentations at national meetings. He is the investigative PI or co-PI for multiple ongoing studies.

We have several research endeavors looking at epilepsy in kids with autism, sleep disorders, quality of life in children with multiple sclerosis, and central sleep apnea. Additionally, Dr. Bhise and Dr. Esfahanizadeh participate in a multicenter active comparator trial looking at fingolimod in the pediatric MS population. Dr. Bhise receives grant support for a pilot study through the National Multiple Sclerosis Society looking at incidental imaging abnormalities suggestive of multiple sclerosis in children.

Dr. Jimenez, Dr. Esfahanizadeh, Dr. DiCicco-Bloom and Dr. Bhise all work closely in the education of pediatric residents, medical students, neurology residents, child psychiatry fellows, and neurodevelopmental pediatric fellows as part of the Robert Wood Johnson Medical School.

Child Neurology and Neurodevelopmental Disabilities

Faculty

Vikram Bhise, MD
Associate Professor and Division Director

Conducts office-based and hospital child neurology consultations. He runs a CNS demyelinating diseases program for children.

Anna Malia Beckwith, MD
Assistant Professor
Fellowship Program Director,
Developmental and Behavioral Pediatrics

Emanuel M. DiCicco-Bloom, MD
Professor of Neuroscience and Cell Biology and Pediatrics
Conducts off-based child neurology consultations and focuses on neurodevelopmental research.

Abdolreza Esfahanizadeh, MD
Associate Professor
Conducts office-based and hospital child neurology consultations. He runs a Concussion program for children.

Manuel Jimenez, MD, MS, FAAP
Assistant Professor
Focuses on office-based pediatric neurodevelopmental care and neurodevelopmental research.

Staff

Corrine McCarthy, PsyD
Psychologist
Newly joined our Division and provides outpatient child neurology mental health consultation and therapy services, in collaboration with our headache, demyelinating disease, epilepsy, and concussion programs.

Deborah O'Brien, RN
Staff Nurse

Stacy Quinn
Staff Assistant

Shauday Rodney, APN
Advanced Practice Nurse

Practices outpatient and inpatient child neurology consultation, focusing on our pediatric Headache program.



Left to right: A. Esfahanizadeh, S. Quinn, S. Rodney, V. Bhise



Population Health, Quality and Implementation Sciences



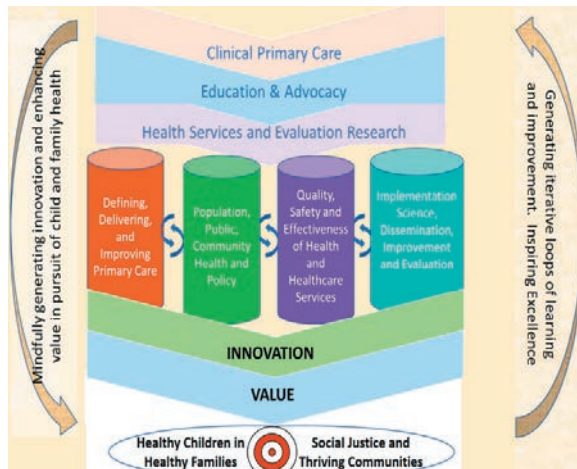
Lawrence Kleinman, MD, MPH
Professor and Division Director
Vice Chair for Academic Development

The Division of Population Health, Quality and Implementation Sciences (PopQuIS in Pediatrics) was newly constituted in 2019 with the arrival of founding director, Lawrence C. Kleinman, MD, MPH, FAAP.

PopQuIS in pediatrics benefits from the department's strong and deep roots in primary care (formerly housed in the Division of Academic General Pediatrics) to consider the health and well-being of the whole child in the family, community, and policy contexts. PopQuIS will continue to deliver first-rate primary care, develop multi- and trans-disciplinary teams to conduct research into maternal, child and community health, work to evaluate and improve programs that support health and health care, contribute at the front of the Department's educational mission, and advance the science of providing high quality, safe, and highly reliable health care.

We illustrate below a strategic vision for PopQuIS' growth and development. The primary goal of PopQuIS in pediatrics is to improve the health of children and their families in New Jersey and across the field of pediatrics. We incorporate evidence informed practices

to elevate the quality of primary care that we provide to our diverse patient populations.



PopQuIS will be a national and global leader that advances the development and application of science to shape the delivery of health services for children and their families. As innovators, we partner with our communities to develop and apply tools to improve quality and ensure the safety of our patients, educate health professionals, and advocate for policies and practices that benefit children and their families, reducing inequities and advancing health. We bring value to our patients, our communities, and our institution.

Our goals include:

- PopQuIS' primary goal is to improve the health of children and their families, not only in New Jersey, but across the field of pediatrics.
- PopQuIS will be a national and international leader that advances the development and application of science to improve primary care.
- PopQuIS will partner with our communities and other stakeholders to stimulate innovation to work for social justice and improve maternal child health.
- PopQuIS brings value to our patients, our communities, and our institution.

The COVID-19 pandemic has challenged and disrupted all of us. PopQuIS has been a thoughtful leader in our department's response. We have pioneered the integration of telehealth into our pediatric practices, thoughtfully and safely met the needs of our patients and families, and continue to provide world-class care. Our doctors contribute to our community in a variety of ways, including helping to staff primary care pediatrics at CHEMED, a large federally qualified community health center in Lakewood, NJ.

Dr. Kleinman stepped up as a point person to help to coordinate the Department of Pediatrics research response to the pandemic, and Daniel Horton, MD, MSCE, and Manuel Jimenez, MD, MS, FAAP, are playing significant leadership roles in the medical school research efforts to combat COVID.

The vision for PopQuIS in Pediatrics is to develop and maintain a culture of generosity so that:

- Children flourish, families thrive, and communities provide healthy environments and support;
- Children develop in beneficial relationships with loving adults, free of toxic stress and trauma and not exposed to bias, discrimination, and inequity;
- World-class primary care is accessible for all families. Our primary care practice remains highly engaged with patients, families and communities, with colleagues from a wide variety of professional disciplines at Rutgers and beyond;
- We conduct science to generate new knowledge for our colleagues and we incorporate existing science into practices that benefit our patients and their families;
- We educate the next generation of clinical and scholarly leaders in the science and practice of pediatric primary care;
- We share our work with our community and those whom we serve;
- We listen to our patients and our communities to learn how we can continue to improve.

Population Health, Quality and Implementation Sciences

Primary care pediatrics is offered at two primary sites. We offer comprehensive, family-centered care to children from birth to 21 years of age¹, including well child care (“check ups”), health and developmental screening, vaccinations, and treatment for acute and chronic illnesses. Care is personalized to each child’s physical, developmental, social, and emotional needs, and referrals to Rutgers Health specialists, dental, and behavioral health clinicians are available as needed.

¹Primary care pediatricians provide services to children, adolescents, and young adults through 21 years of age at the Somerset location. The Eric B. Chandler Health Center seamlessly transitions the care of older adolescents and young adults from pediatricians to family physicians after their high school graduation or 18th birthday.

SEE WHAT OUR PATIENTS ARE SAYING!

“Not only is Dr. Lerner an excellent doctor, he speaks directly to the children and engages them in conversation. Always a top-notch staff.”



EMANUEL LERNER, MD
PEDIATRICS

The Rutgers Health primary care pediatric practice at 1 Worlds Fair Drive in Somerset was founded 23 years ago by Emanuel Lerner, MD, who still oversees care provided there. The practice has grown to a nine physician group and is the site of training in primary care for more than half of the pediatric residents in the department. It utilizes a private practice model to serve a diverse population from Middlesex and Somerset counties and accepts a wide range of private and public insurance plans, including Medicaid insurances. The Eric B. Chandler Health Center is a federally qualified community health center that primarily serves the New Brunswick area. Chandler Health Center accepts Medicaid insurances.

PopQuIS celebrates our faculty and staff and our outstanding roles and achievements, examples of which are highlighted here.

PopQuIS clinicians are also leaders: Primary Care Services

Dr. Emanuel Lerner has seamlessly assumed the mantle of leadership in the division as director of primary care services and is an exemplar clinical leader, developing the section and steering us all through the clinical and logistical disruptions of COVID, as well as leading the CHEMED primary care initiative.

Jacqueline Fleming, MD, serves as medical director for pediatrics at the Eric B. Chandler site and continues to work to improve preventive dental services delivered in primary care.

Elizabeth Goodman, MD, has reduced her presence in the primary care clinic in order to take on a new role as associate director for the pediatric residency (FY21) while maintaining her leadership of undergraduate medical education in pediatrics. Dr. Goodman was acknowledged this year with the AOA honor medical society’s Alumni Award.

Shilpa Pai, MD, continues to work with the NJ Chapter of the American Academy of Pediatrics including as co-chair of the Immigrant Child Health Committee, and chair of the Diversity, Equity & Inclusion Committee. She was awarded the Gold Humanism Honor Society – Letter of Recognition and the Clinical Award for Excellence in Collaboration & Teamwork by the medical school. Dr. Pai is also an active leader regionally and nationally for the AAP and is co-lead of the NJ Pediatric Residency Advocacy Collaborative. Dr. Pai continues her outstanding leadership (funded by the Nicholson Foundation) to a statewide initiative to enhance advocacy education for pediatric residents, serves as the hub lead for Adverse Childhood Experiences (ACES) outreach under the medical school’s Project ECHO (Extension for Community Health Care Outcomes) hub, and is a member of the Anti-Racism Task Force at RBHS. She also has been very visible in the medical school’s response to COVID-19, giving talks to

professional and community audiences regarding the impact of the pandemic on people’s lives.

Usha Ramachandran, MD, serves as medical director for NJ Reach Out and Read (ROR) - a leading national early childhood literacy program, worked on the ROR response to COVID-19 and helped create an online training for pediatricians nationwide on providing ROR via telehealth. For the sixth year in a row, Dr. Ramachandran has been awarded Best Doctors in America.

Michelle Takyi, MD, is the practice lead for a departmental asthma-related quality improvement project and serves on the residency recruitment committee.

Dawn Thompson, MD, is continuing her work on the development and implementation of a new pediatric primary care curriculum for residents.

Shoshana Zitter, MD, has stepped up to serve as a key clinician in our service to CHEMED and has worked at the Worlds Fair Drive practice to help to develop enhanced office systems to improve the quality of preventive service delivery at the practice.

Elsie Roca-Piccini, MD, who speaks fluent Spanish, is recognized by *NJ Family* magazine as a “Favorite Kids Doc.” She also developed a Medical Spanish rotation for remote learning during the early months of the pandemic and continues to be a mainstay of the Worlds Fair Drive practice.

Research and Scholarship

Dr. Lawrence Kleinman directs PopQuIS and serves as vice chair for academic development in the department. Dr. Kleinman has coordinated the department’s research response to COVID-19 and is co-principal investigator with L. Nandini Moorthy, MD, on an intramural grant funded from the Rutgers Center for Covid-19 Response and Pandemic Preparedness (CCRP2). He also leads the federal Health Services and Research Administration’s Maternal Child Health Measurement Research Network. Dr. Kleinman is a part of several national collaborations elucidating the COVID-19 pandemic in children and has been an author on several

Population Health, Quality and Implementation Sciences

landmark publications in that area. Dr. Kleinman has assumed an additional role as associate director for Population and Prevention Sciences of the Child Health Institute of NJ. Dr. Kleinman is principal investigator for the federally funded Maternal Child Health Measurement Research Network. At the outset of the pandemic, Dr. Kleinman participated as faculty on the weekly and then biweekly calls conducted by the NJ Chapter of the American Academy of Pediatrics to keep doctors and nurses throughout NJ up to date on the latest news and guidance for managing the fast breaking situation. Dr. Kleinman frequently served as a face for the department in media coverage of the pandemic.

Dr. Daniel Horton is principal investigator for a new National Institute of Health (NIH) large research grant. He further serves as co-Investigator for three newly awarded COVID-19-related supplements from NIH, one foundation grant from the Rheumatology Research Foundation, and on Dr. Moorthy and Kleinman's CCRP2 grant.

Dr. Manuel Jimenez is conducting innovative research in literacy development and promotion in Spanish speaking households and recently received an NIH grant to support this important research. He is also one of multiple principal investigators on the NIH supplement to the Clinical and Translational Sciences Award for NJ HEROES TOO, a RAD-X UP project to improve COVID-19 testing for underserved and vulnerable populations in areas where Rutgers academic medical centers are deeply rooted.

Drs. Horton and Jimenez each continue to receive funding through mentored career development awards, with Dr. Jimenez funded by the Robert Wood Johnson Foundation as a Harold Amos Scholar and Dr. Horton by the NIH on a K23 award.

Dr. Anna Petrova is an important contributor to research education including providing a series of sessions on "Research Study Design and Statistics" as well as participating in education of MS students in the Rutgers School of Graduate Studies as director of the course "Ethics and Regulation in Clinical and Translational Research." She has published original articles in *Journal of Asthma*, *Indian Journal of Youth and Adolescent Health*, *Journal of Neonatal-Perinatal Medicine* and MDPI (Multidisciplinary Digital Publishing Institute) Journals *Nutrients* and *Children*.

Dr. Nancy Reichman continues as an NIH-funded researcher and has accepted leadership roles in the newly funded New Jersey Alliance for Clinical and Translational Science (NJ ACTS), funded by the NIH. We are especially proud that Professor Reichman received the Chancellor Distinguished Health Sciences Investigator Award from Rutgers Biomedical Health Sciences, Rutgers University in October 2020. Congratulations!

Researchers in PopQuIS have had another exceptional year with the faculty continuing to contribute peer-reviewed abstracts and publications in prestigious and highly-cited journals. Work across the division has been picked up by professional and lay news outlets. Key research interests in the division include measurement, pharmacoepidemiology, the delivery of enhanced primary care, literacy, outcomes and survey research, enhancing thriving, and reducing the negative health consequences of nonmedical (i.e. social determinants) and medical vulnerability. Responding to the COVID-19 pandemic, the division is helping to coordinate and conduct important high impact studies locally and nationally.

Goals for 2020-2021 include continuing to deliver and promote first-class primary care practices. The 1 Worlds Fair Drive practice has begun a program to integrate behavioral health services into point of service care delivery. We will look to increase and expand our capacity to provide pediatric office-based preventive oral health care. We always seek to improve our connections and commitment to the community and look to build opportunities to enhance our capacity to promote resilience to various unfavorable non-medical ("social") determinants of health, trauma and stress.

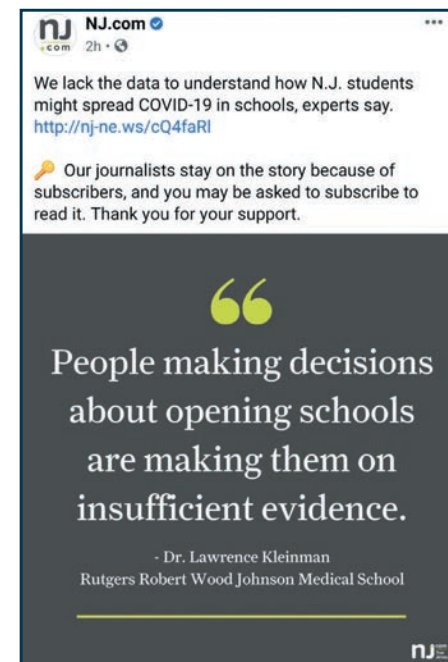
PopQuIS in pediatrics is a willing collaborator with the clinical specialties within the Department of Pediatrics and across RBHS and Rutgers University. We cherish our roots in Academic General Pediatrics and our close relationship with the Division of Pediatric Hospital Medicine.

We look to build upon the individuals of the division to increase our role in education and to develop postdoctoral research educational programs. We further intend for the division to develop a community of practice to support research development, health and quality improvement, and other research and service activities that benefit our faculty, our communities, and our institutions.

Faculty

Lawrence Kleinman, MD, MPH, FAAP
Professor and Director of PopQuIS
Vice Chair for Academic Development
Department of Pediatrics

Emanuel Lerner, MD
Associate Professor
Director of Primary Care Services



Population Health, Quality and Implementation Sciences

Provide Clinical Primary Care at the Rutgers Health Pediatric Practice, 1 Worlds Fair Drive

Elizabeth Goodman, MD
Associate Director of Pediatric Residency Program (FY21)

Lawrence Kleinman, MD, MPH, FAAP
Professor and Director of PopQuIS

Emanuel Lerner, MD
Associate Professor
Director of Primary Care Services

Elsie Roca-Piccini, MD
Associate Professor

Michelle Takyi, MD
RBHS Instructor

Dawn Thompson, MD
Assistant Professor

Shoshana Zitter, MD
RBHS Instructor

Provide Clinical Primary Care at the Eric B. Chandler Health Center

Jacqueline Fleming, MD
Associate Professor
Medical Director for Pediatrics at EBCHC

Shilpa Pai, MD, FAAP
Associate Professor

Usha Ramachandran, MD
Associate Professor
Associate Director, South Asian Total Health Initiative

Research and Scholarship Leadership

Lawrence Kleinman, MD, MPH, FAAP
Professor and Director of PopQuIS

Faculty

Daniel Horton, MD, MSCE
Assistant Professor

Manuel Jimenez, MD, MS, FAAP
Assistant Professor

Anna Petrova, MD, PhD, MPH
Professor

Nancy Reichman, PhD
Professor

Staff

Sandee Moroso-Fela, MA
Program Manager

Maricel Quiñones
Staff Assistant



Left to right: J. Fleming, L. Kleinman, U. Ramachandran



Left to right (front): S. Zitter, D. Griffin, M. James; Left to right (back): C. Tran, T. Cooper, C. Gregory, E. Lerner, M. Takyi, R. Thornton, S. Hou



Left to right: L. Kleinman, M. Quiñones

Pulmonary Medicine and Cystic Fibrosis Center



Thomas F. Scanlin, MD
*Professor and Division Director
Director of the Cystic Fibrosis Center*

The Division of Pediatric Pulmonary Medicine and Cystic Fibrosis Center provides comprehensive, interdisciplinary care for children with a variety of chronic lung diseases including asthma, cystic fibrosis, bronchopulmonary dysplasia, primary ciliary dyskinesia, chronic respiratory failure, and a variety of sleep disorders.

Our CF Center also has an adult program that is directed by Sabiha Hussain, MD, along with a complete interdisciplinary care team. Since January 2015, the Cystic Fibrosis Center has been a designated center in the Cystic Fibrosis Foundation Therapeutics Development Network, which is a national consortium to study new therapies for cystic fibrosis. We currently have three grants from the CF Foundation that help to support our work in research. The primary grant to support the research center, the ARC award, which increased support for research coordinators, and the PIPE award, which supports primary investigators and protects time for research. Thomas Scanlin, MD, had a PIPE for three years and Dr. Hussain has this award now.

In late 2019, the new drug Trikafta was made available for prescription and our Clinical Research Center participated in the Phase III trials of this drug. Since the approval of Trikafta, our center has continued to participate in an extension of this trial (Vx445 Rollover) as well as enrolling more patients in an observational study called PROMISE (PROMISE-OB-18). These two studies provide us the opportunity to follow patients' long term on Trikafta.

The following is a list of the additional studies we have been involved in over the last year:

- TOBI Podhaler – long term post approval study on the effects of TOBI Podhaler in patients
- APPLAUD-LAU-14-01 (Laurent Pharma) – Phase III – Anti-inflammatory drug study
- CORBUS JBT101-CF-002 – Phase II – anti-inflammatory drug study

- SAVARA – Phase II – Anti-MRSA inhaled drug therapy
- GALAXY – Study of GI complication in CF using an app and patient feedback
- STOP2 – IP-15 – Interventional study examining differences in duration of therapy for patients requiring IV antibiotic therapy for a pulmonary exacerbation

We have also been actively pursuing new clinical trials but that process has been slowed by COVID. We are currently site selected for the following:

SIMPLIFY-IP-19 - This study will examine the effects of patients on Trikafta reducing certain therapies. The goal is to safely reduce the treatment burden for CF patients taking Trikafta. This study is scheduled to begin in January 2021.

ARMATA (Armata Pharma) – Interventional study of phage therapy for pseudomonas in CF.

There are several more studies that our team is currently considering for 2021.

Mary Carayannopoulos, PhD, supervisor of our clinical laboratories (pathology and laboratory medicine at the medical school), who also serves as co-director of the newborn screening services for the State of New Jersey, partnered with our CF center to obtain a grant for the New Jersey Department of Health to improve the newborn screening program for cystic fibrosis. The NJ newborn screening was not as updated as many other neighboring states, including New York. As a result of this grant, a lower cut off of the immunoreactive trypsinogen (IRT) value in the first year and a 139 mutation panel DNA analysis was added in the second year for those who have a high IRT. These changes will clearly enhance the ability to detect cystic fibrosis at its earliest stages in newborns in New Jersey. We continue to meet with the statewide newborn screening coalition to fine tune NJ screening and make improvements. Most recently, we began the discussion of dropping the IRT to the national standard of 60. This change will likely take place after the initial changes are complete.

Lakshmi Uppaluri, MD, has launched a technology dependent program, which is active since fall 2019. This program will seek to centralize resources for the complex care of some of our most vulnerable patients by cohorting patients on the same day with multiple clinical services.

Annually, our CF program provides a Family Education Day. Unfortunately, due to COVID, we were forced to cancel our live Family Education day this past April 2020. However, with help from the CF Foundation, we plan to hold Family Education Day in 2021, either virtually or in person. In order to continue to

Pulmonary Medicine and Cystic Fibrosis Center

communicate, educate and support our families during COVID, we have sent eblasts to families with updated information, guidance and resources. These have been very well received and have helped families to feel secure that they are receiving good care and information during this time.

Every year, the CF team (adult and pediatric) also participates in the Great Strides Walk for Cystic Fibrosis. Unfortunately, this event was cancelled this year but our team members have participated in online awareness events.

Lastly, members of the CF clinical team as well as the research team, attend multiple conferences every year. To date, team members have attended a Vertex meeting in Dallas to launch the Vx659 trial, and an annual Therapeutics Development Network conference in April 2019 in Philadelphia. Members of the clinical team also attended the Annual North American Cystic Fibrosis Conference in Nashville in October 2019. This conference had an attendance of 5,000 multidisciplinary professionals from all over the world in Denver in 2018.

Faculty

Thomas F. Scanlin, MD
Professor and Division Director
Director of the Cystic Fibrosis Center

Aisha Baig, MD
Assistant Professor

Maya Ramagopal, MD
Associate Professor
Director of the Pediatric Sleep Center

Lakshmi Uppaluri, MD
Assistant Professor
Director, Technology Dependent Program



Left to right: E.McElroy-Barker, V. De Los Santos, E. Paredes, L. Uppaluri, M. Ramagopal, T. Scanlin, L. Saturria, D. Tortajada, A.Baig

Nursing Staff

Patrycja Koslowski, RN
Staff Nurse

Lillian Saturria, RN
Staff Nurse

Dawn Tortajada, PNP
Advanced Practice Nurse

Full-Time Staff

Shaishav Bhatt, RRT
Registered Respiratory Therapist

Vivian De Los Santos
Staff Assistant

Erin McElroy-Barker, LCSW
Coordinator of the CF Center

Eddy Paredes, RRT
Registered Respiratory Therapist

Part-Time Staff

*Eileen Harrington, RPh
Registered Pharmacist

Daria Mintz, RD
Registered Dietician

*Amanda Morales-Clarke, PsyD
Psychologist

*MaryJane Myslinski, DPT
Physical Therapist

**The three individuals have all been awarded grants to provide a full range of interdisciplinary services to patients with cystic fibrosis.*

Rheumatology



L. Nandini Moorthy, MD, MS
Professor and Division Director

The Bristol-Myers Squibb Pediatric Rheumatology Center at Rutgers Robert Wood Johnson Medical School is a leading, state-of-the-art rheumatology center for children and adolescents. Pediatric rheumatic diseases comprise a diverse array of chronic diseases with fluctuating courses that often are challenging to diagnose and manage. These diseases may lead to significant morbidity in children, affecting different aspects of growth, development, physical function and quality of life. Early diagnosis and treatment can be essential to control rheumatic diseases and prevent long-term complications. Our child-friendly and family-focused center provides comprehensive treatment, education and follow-up for pediatric patients with rheumatic diseases in New Jersey.

Our team consists of three pediatric rheumatologists: L. Nandini Moorthy, MD, MS, Daniel B. Horton, MD, MSCE, and Cynthia Salvant, MD; Nicole Perez, RN, a part-time

nurse and Damaris Soto, our administrative assistant. Dr. Salvant joined our division as a clinical pediatric rheumatologist in October 2019. She has completed her fellowship at Children's Hospital Los Angeles.

We responded to COVID-19 pandemic by adopting a hybrid of telehealth and in-person evaluations in order to continue to protect the best care for patients. Dr. Horton has worked on a variety of collaborative research projects studying the epidemiology, biology, and treatment of SARS-CoV-2 infections and COVID-19 focused on health care workers at Rutgers. I also submitted COVID-19 related grants and was funded the social sciences grant on determining the biopsychosocial impact of COVID-19.

I greatly appreciate each and every member of our team for their team spirit, hard work and creative ideas. Thank you for your support and help during these unprecedented times.

Lakshmi Nandini Moorthy, MD
Division Director, Pediatric Rheumatology

Our Mission

1. Provide the best possible care for children with rheumatic diseases
2. Teach trainees about caring for children with rheumatic diseases
3. Develop new research insights related to the cause and treatment of rheumatic diseases

Our C.O.R.E. Focus

C = Clinical Care Services

The center is involved in the diagnoses and management of complex rheumatic and musculoskeletal diseases, including juvenile idiopathic arthritis, reactive arthritis, systemic lupus erythematosus, vasculitis, mixed connective tissue disease, juvenile dermatomyositis, periodic fever syndromes, amplified musculoskeletal pain syndromes and other rare rheumatic diseases of childhood.

O = Outreach (Community Outreach)

The division serves the community by teaching in Community Medical Education programs for local pediatricians and at other hospitals.

R = Research

Division faculty are actively involved in research projects in pediatric rheumatology, with a focus on studies of systemic lupus erythematosus and juvenile idiopathic arthritis, some in collaboration with the Pediatric Clinical Research Center (PCRC).

Dr. Moorthy has focused on health related quality of life (HRQOL) and physical function outcomes in pediatric lupus and improving awareness of lupus. Dr. Moorthy has qualitatively explored the impact of lupus on HRQOL of children and parents, and developed and validated the Simple Measure of the Impact of Lupus Erythematosus in Youngsters (SMILEY), a measure of HRQOL, through a multicenter study. She has conducted translation and cross-cultural adaptation of SMILEY in several languages. Her work towards improving awareness among providers, patients and the community was made possible by funding OMH/OASH (Minority Health Community Programs). Dr. Moorthy received a special achievement award from the AAP for her contributions towards SLE. Dr. Moorthy has also been involved in evaluating outcomes of a subspecialty-wide inter-institutional mentoring program, the American College of Rheumatology (ACR) / Childhood Arthritis and Rheumatology Research Alliance (CARRA) Mentoring Interest Group (AMIGO). She received a grant on evaluating the biopsychosocial impact of COVID19. She participates in collaborative research in different areas of pediatric rheumatology including juvenile arthritis and vasculitis. In addition to clinical and research endeavors, Dr. Moorthy facilitates the PCMI course.

Dr. Horton is a member of the Division of Population Health, Quality, and Implementation Sciences (PopQuIS), and is a pediatric pharmacoepidemiologist in the Rutgers Center for Pharmacoepidemiology and Treatment Science, and holds an adjunct appointment in the Department of Biostatistics and Epidemiology at the Rutgers School of Public Health. His research focuses on the uses, effectiveness, and safety of medications in children, and the origins and management of childhood arthritis. He has funding from the National Institutes of Health to study the role of antibiotics and the microbiome on the development and activity of juvenile idiopathic arthritis, in collaboration with multiple pediatric rheumatology centers in the region, along with support from the PCRC and the Division of General Pediatrics. Dr. Horton's other research interests include deprescribing medicines for well-controlled juvenile idiopathic arthritis, the uses and effects of off-label medicines in children, and the epidemiology and biology of SARS-CoV-2 infection.

Dr. Salvant recently joined our practice in October 2019 and is in the process of building on her involvement in continuing the education of the pediatric community in NJ as well as the medical students and residents. Thus far, she is in the process of finalizing a welcome packet for general pediatricians in the community that provides basic knowledge on management of children with Rheumatic disease. She is currently in the process of completing an IRB for a retrospective study on Ehlers-Danlos Hypermobility subtype in patients diagnosed with hypermobility in Rheumatology clinic.

E = Education

Our faculty is committed to teaching medical students, residents and adult rheumatology fellows about caring for patients with pediatric rheumatic diseases. Faculty members give lectures, precept case discussions, teach physical diagnosis and mentor trainees. Dr. Moorthy also mentors junior faculty and facilitates the Patient Centered Medicine course (PCM) for first-year medical students.

Dr. Moorthy was nominated into the Alpha Omega Alpha Honor Society this year. Dr Moorthy also led a wellness art session for the residents at the end of the year. Dr Salvant has been involved in medical student and resident teaching and will begin co-facilitating the PCM 2 course for second year students starting in August 2020.

Clinic address:

Child Health Institute of New Jersey, 2nd floor
89 French Street
New Brunswick, NJ 08901

For Appointments: 732-235-6230

Faculty

L. Nandini Moorthy, MD, MS
Professor and Division Director

Daniel B. Horton, MD, MSCE
Assistant Professor

Cynthia Salvant, MD, MS
RBHS Instructor

Staff

Nicole Perez, RN
Staff Nurse

Damaris Soto
Secretary I



C. Salvant

Left to right: D. Soto, L. N. Moorthy, D. Horton



Faculty Practice



Left to right: M. Gomez-Mena, K. Faup, S. Morales, J. Montanez, J. Coker, M. Rojas, P. Travostino, D. D'Aiello, L. Georgevich, T. Disney, D. Davis

The multispecialty Faculty Practice comprises 57 Physicians providing comprehensive health care services for children from birth to age 21. The practice consists of 11 clinical divisions including primary care and 10 subspecialty divisions, which provided approximately 50,000 patient visits this fiscal year, including 5,000 telehealth visits between March and June 2020. Our out-patient practices are staffed with 39 central and 36 divisional staff all working in concert to support our faculty in providing quality health care while ensuring our patients have a positive experience. Our multidisciplinary team includes nurses, medical services assistants, clinical service representatives, social workers, certified diabetes educators, genetic counselors, nutritionists, ultrasonographers, respiratory therapists and administrative support staff. Our practice offers onsite services including laboratory testing, pulmonary function tests, echocardiograms, EKG, and holter monitors.

We continued expansion of our clinical services outside of New Brunswick by offering convenient appointments for nine of our subspecialties at our practices located in Edison and Somerset, and for two of our subspecialties at our multispecialty practice at Monroe.

This past year has been unprecedented as the COVID-19 pandemic fundamentally changed the way we provided health care services to our patients. Personal Protective Equipment (PPE), COVID screening stations and glass barriers became the new norm. Working remotely was also new for many of the faculty and staff whether scheduling appointments, triaging nursing calls or providing care for our patients via telemedicine. The faculty practice support staff worked collaboratively with our providers in responding to COVID related process changes while safely providing quality care to our patients in person and via telemedicine to ensure our patients felt safe at our practice sites.

Clinical Operations Support Staff

Faculty Practice Manager
Kathleen Faup

Supervisor, Ambulatory Care Services
Tracy Lynn Disney
Rita Thornton

Supervisor
Claire Gregory, LPN

Certified Medical Assistant (CMA)
Denisse Isaales

Clinic Services Representative I
Juliette E. Coker

Clinic Services Representative II
Doreen Davis
Rashonda N. Foxx
Maritza A. Gomez-Mena
Donna Griffin
Johanna Lee
Jenniffer Montanez
Samantha Morales
Sheila O'Reggio
Michelle Rojas
Julie Schaeffer
Jonathan Alexander Smith
Christina Tran

Financial Counselor I
Deborah A. Lordi

Management Assistant
Ann-Marie McCann

Medical Services Assistant (MSA)
Emma Melissa Castro Alvarez
Tiffany Cooper
Melissa Romero-Hurtado
Mushirah James
Betty Pazmino
Dyshira Wade

Secretary II
Christina Congiusta
Damaris Messam
Carmen Rosado

Licensed Practical Nurse
Lisa Basha, LPN
Diana A. D'Aiello, LPN
Luanne Georgevich, LPN
Hina Patel, LPN
Paritaben Patel, LPN
Sheena Paule, LPN
Lori Pomales, LPN
Patricia Travastino, Sr. LPN

Staff Nurse
Mary Homan, RN
Tamar Thurm, BSN

Laboratory of Human Growth and Reproductive Development



The major research interest of Sally Radovick, MD's laboratory is to determine the mechanisms of growth and development of children. Dr. Radovick's research is focused on determining the regulation of the gonadotropin-releasing hormone (GnRH) gene, which has a central role in controlling the onset of puberty. Her group was the first to generate GnRH-expressing neuronal cell-lines and in vitro map the cellular regulation of this critical gene by growth factors which has increased

knowledge of the relationship between growth, puberty and nutrition. She has progressed to development of genetically modified mouse models to elucidate mechanisms of in vivo regulation of GnRH secretion in response to neuroendocrine and growth factor stimulation and sex steroid feedback regulation. Of particular interest has been to determine the roles of neurotransmitter/ hormone receptors in mediating the large increase in GnRH secretion to adult levels at puberty, which results in the attainment of fertility. These studies will provide insights into pubertal disorders, polycystic ovary syndrome, as well as provide future therapies for infertility. She has been continuously funded for this work by the NIH since 1992.

The other major area of this research has been to characterize the transcription factors important for normal pituitary development. Her initial studies provided the first genetic mechanism of a child with short stature due to hypopituitarism; this involved a mutation in the Pit-1 gene that is necessary for pituitary cell lineage determination and differentiation. She has gone on to describe the mechanisms by which novel mutations in other pituitary-specific transcription factors responsible for pituitary hormone deficiencies in man. These studies are supported by a U01 collaborative agreement with investigators at the NIH at the NIH Clinical Center.

Dr. Radovick has remained clinically active during her career, precepting teaching clinics in pediatric endocrinology. She is the curator of a tissue repository for patients with hypopituitarism. She has trained more than 50 predoctoral students and postdoctoral fellows and junior faculty. Dr. Radovick's most notable teaching efforts have been in training individuals for scientific research.

Andy Babwah, PhD's laboratory studies the regulation of female fertility through a better understanding of pubertal development and early pregnancy events.

It is estimated that in the US alone, 10% or more than six million women of reproductive age suffer from infertility. Infertility is caused by many defects that may arise before or after the onset of puberty. To better understand the regulation of fertility, the Babwah laboratory has focused its attention on the uterus. Here



they study the roles of several estradiol- and/or progesterone-regulated factors in regulating the preimplantation and early post-implantation periods of pregnancy in both mice and women. Their studies specifically test how these factors regulate the acquisition of uterine receptivity, embryo implantation, decidualization and early placentation. Among their findings, they have identified critical roles for G protein-coupled receptors (GPCRs) in regulating progesterone receptor signaling and demonstrated that a lack of GPCR signaling blocks the acquisition of uterine receptivity. Their work has also focused on understanding the negative impact of gonadotropin-dependent ovarian stimulation, an important aspect of in vitro fertilization, on embryo implantation.

Dr. Babwah is committed to the training of highly qualified personnel through research mentorship and teaching, particularly in the area of continuing medical education. He currently holds appointments in the Department of Pediatrics and the Child Health Institute of New Jersey, both at the medical school, and several Rutgers School of Graduate Studies programs (endocrinology and animal biosciences, molecular biosciences and the joint graduate program in toxicology).

Laboratory of Human Growth and Reproductive Development



N. Nandankar



V. de Oliveira



Left to right: A. Negron, J. Schaefer, S. Al-Samerria, S. Radovick, A. Babwah, N. Nandankar, B. Aloqaily

Laboratory Team Members

Bahaa Aloqaily, PhD
Postdoctoral Fellow

Sarmed Al-Samerria, PhD
Postdoctoral Fellow

Andy Babwah, PhD
Associate Professor

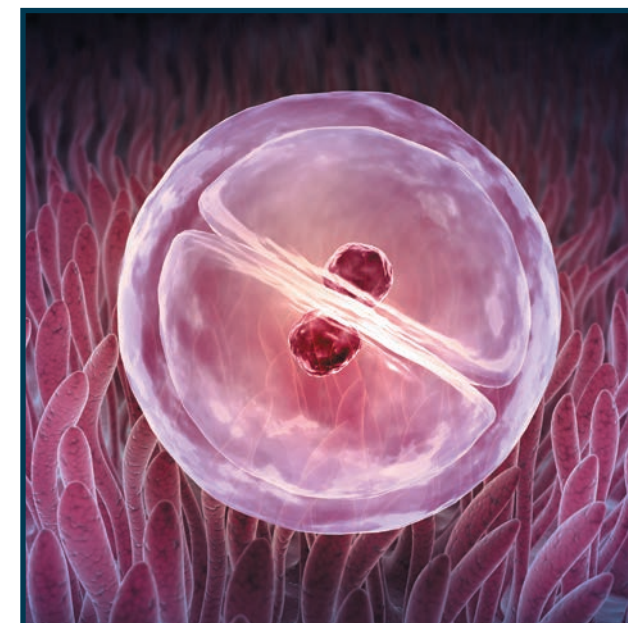
Nimisha Nandankar
PhD Candidate

Ariel Negron, PhD
Postdoctoral Fellow

Nataliya Parobchak
MS Candidate

Sally Radovick, MD
*Professor and
Henry Rutgers Term Chair*

Jennifer Schaefer
PhD Candidate



Pediatric Clinical Research Center



Sunanda Gaur, MD

Professor

Director, Clinical Research Center

Director, Robert Wood Johnson AIDS Program

Director, South Asian Total Health Initiative

The Pediatric Clinical Research Center (PCRC) at the Robert Wood Johnson Medical School was established in 2007 with the mission to provide a research environment to promote clinical and translational research in children. The center's goals are to facilitate investigator-initiated and externally sponsored clinical and translational research, to expand access to innovative phase I-IV clinical trials and novel treatments, and to establish and support a state-of-the-art research training environment for medical, nursing, and pharmacy students, residents and fellows. Housed in the Child Health Institute, in close proximity to the Pediatric Ambulatory Specialty outpatient clinics and the Bristol-Meyers Squibb Children's Hospital, the PCRC serves as a core facility to support the Department of Pediatrics. The PCRC at the medical school is the only dedicated academic pediatric clinical research Center in NJ. The facility is a 5,000 sq. ft., two-bed, child friendly unit equipped with a research pharmacy, on-site phlebotomy and laboratory facilities and examination room. Staffed with pediatric trained research personnel highly experienced in conducting clinical trials in compliance with FDA guidelines for safety and accuracy, the center

provides a broad range of management and quality control services, including trial development, activation, eligibility verification, monitoring, data and safety reporting, and assistance with regulatory issues. PCRC staff work closely with the faculty to assist in all aspects of the conduct of clinical trials in both inpatient and outpatient settings. Since inception, the scope of the studies conducted in the PCRC has been broad-based, encompassing multiple pediatric therapeutic areas with an emphasis on conducting studies involving children with chronic and rare diseases. This includes disease such as type 1 diabetes, sickle cell disease, cystic fibrosis, infectious diseases, chronic kidney disease, rheumatologic diseases and conditions related to prematurity such as bronchopulmonary dysplasia. Since 2007, nearly 120 studies have been conducted. In 2015, the PCRC was funded to develop a Cystic Fibrosis Therapeutic Drug Development Network (TDN) Center. Over the last four years the center has shown dramatic growth in the number of studies conducted, the proportion of CF center patient population enrolled in clinical trials and study launch timeline metrics.

In January of 2020, PCRC was selected to be a participating center of the Institute for Advanced Clinical Trials for Children (I-ACT for children), a non-profit organization that serves as an independent voice on behalf of children dedicated to advancing new pediatric medicines and devices. It has built a network of US pediatric trial sites designed to accelerate and enhance the quality of pediatric clinical trials. PCRC is the only participating center in New Jersey.

COVID RESPONSE

With the advent to COVID-19 in New Jersey in March 2020, PCRC was integrally involved in the Rutgers rapid research response to the epidemic through participation in a myriad of studies that were rapidly operationalized in record time. Following is a list of studies that the PCRC staff and investigators were involved during the COVID pandemic:

Study Title/Summary	PI	Co-I
The pediatric COVID experience in central NJ	Dr. Lawrence Kleinman	Drs. Sunanda Gaur, Hariprem Rajashekhar, Patricia Whitley-Williams, Amisha Malhotra
The impact of social determinants of health on people living with HIV/AIDS during the COVID-19 epidemic	Dr. Gail Burack	Drs. Sunanda Gaur, Patricia Whitley-Williams, Lawrence Kleinman
Influenza and other emerging respiratory pathogens surveillance registry (PALISI)	Dr. Lawrence Kleinman	Drs. Hariprem Rajashekhar, Steven Horwitz, Sunanda Gaur
Seroprevalence of infection with SARS-CoV-2 virus	Dr. Maria Gennaro	Drs. Sally Radovick, Sunanda Gaur
Excessive inflammation in pediatric COVID-19 patients with perforated appendicitis	Dr. Yi-horng Lee	Drs. Sunanda Gaur, Sally Radovick, Maria Gennaro
Increased incidence of EVALI admissions at BMSCH during the COVID pandemic	Dr. Maya Ramagopal	Drs. Sunanda Gaur, Aisha Baig

Pediatric Clinical Research Center

Study Title/Summary	PI	Co-I
RCT Remdesivir in Children 12 y/o and above	Dr. Pinki Bhatt	Drs. Sunanda Gaur, Patricia Whitley-Williams, Amisha Malhotra
A Phase 2 double-blind placebo-controlled study investigating the safety and efficacy of EDP1815 in the treatment of patients hospitalized with SARS-CoV-2 Infection	Dr. Reynold Panettieri	Drs. Sunanda Gaur, Daniel Horton
NICU COVID Database	Dr. Deepak Jain	Drs. Arun Kashyap, Swapna Barole
Rutgers Corona Cohort Study of SARS-CoV-2 in health care workers and non-health care workers	Dr. Martin Blaser Dr. Jeffrey Carson Dr. Reynold Panettieri	Dr. Daniel Horton
A randomized, double-blind, placebo-controlled, multicenter study to evaluate the safety and efficacy of tocilizumab in patients with severe covid-19 pneumonia	Dr. Sabiha Hussain	Drs. Sugeet Jagpal, Tanaya Bhowmick, Pinki Bhatt, Deepali Dixit

Faculty

Sunanda Gaur, MD
Professor
Director, Clinical Research Center
Director, Robert Wood Johnson AIDS Program
Director, South Asian Total Health Initiative

Maya Ramagopal, MD
Associate Professor
Associate Director, Pediatric Clinical Research Center

Staff

Nicole Brennan
Research Assistant

Lisa Cerracchio, BSN, RN-BC, CCRC
Nurse Manager

Bishakha Ghoshal, MPH
Research Assistant

Sherri Gzemeski
Senior Financial Analyst

Yue Hao, MS
Regulatory Coordinator

Jessica Kirby-Smith, BSN, RN
Research Nurse Coordinator

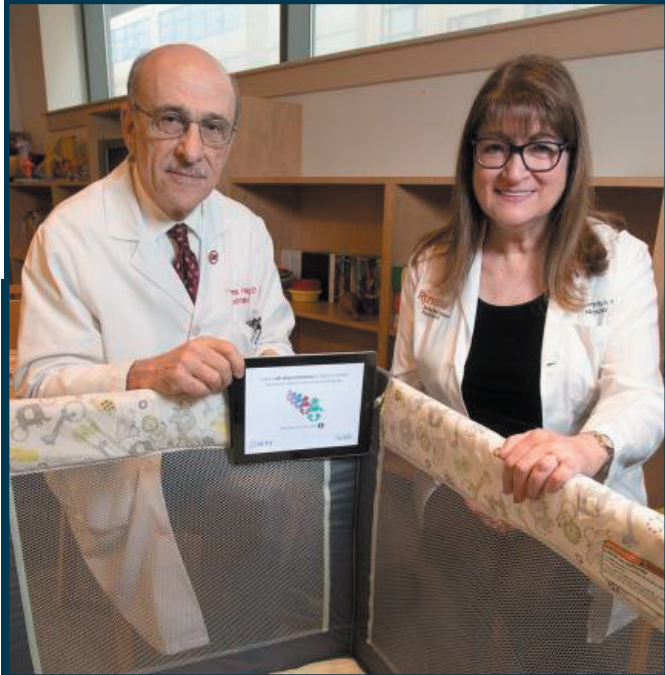
Sylvia Rodrigo
Program Support Specialist

Christina Varghese, MBS
Research Assistant



1st row l-r: Y. Hao, S. Gaur MD, M. Ramagopal MD, L. Cerracchio BSN-RN
2nd row l-r: S. Gzemeski, C. Varghese, S. Rodrigo, J. Kirby-Smith BSN-RN
3rd row l-r: N. Brennan, E. Rodriguez

The SIDS Center of New Jersey



Medical Director

Thomas Hegyi, MD
Professor of Pediatrics

Program Director

Barbara M. Ostfeld, PhD
Professor of Pediatrics

and promulgation of programs and tools to reduce risk and, in many instances, prevent death. Research by the SIDS Center into the role of the sleep environment has contributed to the risk reduction policy statements of the American Academy of Pediatrics. The role of adverse social

The SIDS Center of New Jersey was established in 1988 and operates under a grant from the New Jersey Department of Health. The program addresses a leading cause of infant mortality, Sudden Unexpected Infant Death, which is composed of Sudden Infant Death Syndrome and other sleep-related infant deaths. Its missions include meeting the unique bereavement needs of families experiencing the sudden death of a seemingly healthy infant, conducting research to identify etiologies, risk factors and effective interventions, and the development

and health determinants, including implicit bias, has also been studied and reported on by the SIDS Center as contributing to the birth of an infant more vulnerable to these deaths. To unify these foci, the SIDS Center recently developed an Infant's Bill of Rights that speaks to the need for a comprehensive approach to reducing infant mortality. Other examples of its research include studies of how messaging can more effectively be provided so that it increases not only knowledge but also compliance with risk reducing practices. The SIDS Center provides a range of education programs for physicians, nurses, social service providers, home visitors, first responders, faith-based communities and other groups who serve as trusted communicators to parents on risk reduction messaging. It also provides the public with direct access to this information, most recently via its free safe infant sleep education mobile phone app, SIDS Info, which received a Public Health Innovation award from the New Jersey Department of Health. The app is used by hospitals as a tool for educating parents and grandparents, one that can then be downloaded for parents. Voice-overs in English and Spanish overcome any literacy challenges. A second free app, Baby be Well, was developed in collaboration with Rutgers University and volunteers at AI for Good at Microsoft Corporation with the goal of increasing motivation to return to the app over the course of the first year to receive reminders about safe sleep. This was achieved by building in a feature that allows for uploading and sharing of photos and milestones. Both apps are now in wide use throughout the US. Other methods developed by the SIDS Center for provider and caregiver education include on-site lectures, webinars, videos, print material in multiple languages, baby clothing with safe sleep messaging, school-based curricula, and participation in community fairs. To amplify its impact, the SIDS Center collaborates with public health and research programs at both state and national levels with a shared focus on infant mortality, racial disparity, or adverse social and health determinants. The SIDS Center participates in the mission of Nurture NJ, the project developed by New Jersey's First Lady. In association with its many education initiatives, the CDC's newly released data indicate that New Jersey's rate of Sudden Unexpected Infant Death has fallen and is one of the lowest in the US. Barbara Ostfeld, PhD, program director of the SIDS Center, was honored this year as a Champion for Children by the American Academy of Pediatrics, New Jersey Chapter in recognition of her contributions to the missions of the SIDS Center.

Patricia Whitley-Williams, MD

Photo Unveiling



Annual Softball Game



	1	2	3	4	5	6	7	Total
DDP	0	III	II	0	0	1	0	12
DDM	0	IIII	II	II	0	1	1	10
Inches	II	II	/	/	/	/	/	



Annual Holiday Party



Events

NINTH ANNUAL PEDIATRICS RESEARCH DAY

June 18, 2020

This year's ninth annual Pediatrics Research Day was conducted online and featured two keynote speakers from the department's basic science faculty, and four platform presentations of departmental research.

Lisa Denzin, PhD, associate professor & resident scientist of the child health institute of NJ, Robert Wood Johnson Medical School, and Derek Sant'Angelo, PhD, associate director of basic science, Child Health Institute of NJ, professor and director of the immunobiology division, Department of Pediatrics, presented jointly on "COVID-19 Vaccine: State of the Art." The plenary session was moderated by Lawrence C. Kleinman, MD, MPH, FAAP, professor, vice chair for academic development and director of the PopQuIS Division and L. Nandini Moorthy, MD, FAAP, professor and director of the Division of Pediatric Rheumatology.

Students, residents, fellows, and faculty shared 19 high quality poster presentations, using the CANVAS online platform, which proved to be flexible and interactive. The poster and plenary sessions combined for a high-energy day helping to further establish the community of scholarship shared among our faculty and our learners. Our Research Day booklet accepted 36 abstracts from the Department, including all 17 that were presented during the day and a number of others that had been accepted for national presentation. The booklet includes also bibliographic information on 127 articles, books, and chapters that were published between June 2019 and June 2020 by faculty in the department. The planning committee included Joann Carlson, MD; Michael Lewis, PhD; Donna Weeks, BS, PHR; Suzanne L. Anderson; and Maricel Quinones, as well as Anna Petrova, MD, PhD, MPH, who once again edited our Research Day book.



RESIDENT WELLNESS SESSION

June 17, 2020



**AMY, SAMANTHA,
COURTNEY, SEHRISCH,
MADHUSHREE, DANIEL**

Graduation and Awards

Chief Residents

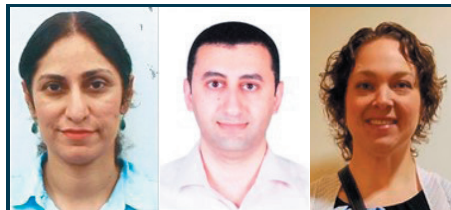


Elizabeth Barrington, MD



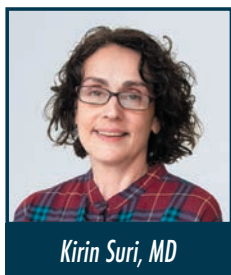
Allison Kelly, DO

Neonatology Fellows



Left to right: Sadia Haleem, MD, Emad Hanna, MD, Amanda Hedges, DO

Developmental Pediatrics Fellow



Kirin Suri, MD

Endocrinology Fellow



Olga Yelisoif, MD

Award Recipients

Faculty

- Clinical Award for Excellence in Collaboration and Teamwork: Shilpa Pai, MD
- Clinical Award for Excellence in Quality and Safety: Sirisha Yalamanchi, MD
- Clinical Award for Excellence in Service and Professionalism: Richard Brodsky, MD
- Lawrence T. Taft Award for Excellence in Clinical Teaching: Paula Lucuara Revelo, MD
- Ruth Ellen Steinman Award for Excellence as a Clinician, Teacher and Role Model: Aimee LaRiviere, MD

Third-Year Residents



Left to right: P. Jang, J. Isaac, K. Teoh, T. Akinmade, M. Sadiq, A. Cheng, S. Shah, C. Ochoa, D. Zharnest, M. Jalil

Tolu Akinmade, MD
Amy Cheng, MD
Jaya Isaac, MD

Maaz Jalil, DO
Peter Jang, MD
Carolyn Ochoa, MD
Mehrin Sadiq, MD

Shivani Shah, DO
Karen Teoh, MD
Debra Zharnest, MD

Residents

- David H. Carver Teaching Award: Debra Zharnest, MD
- Avrum Katcher, MD/Paul Winokur, MD Award for Excellence in Student Teaching: Michelle Gaglia, DO, and Marianne Armanious, MD
- Mercy Urgino, MD Compassionate Doctoring and Caring Award: Shivani Shah, DO

Faculty Induction into the Alpha Omega Alpha (AOA) Honor Medical Society

Beth Goodman, MD
Lakshmi N. Moorthy, MD, MS
Melissa Weidner, MD



Recognition and Awards



Honoree: Champion for Children by the NJ Chapter of the American Academy of Pediatrics

Barbara Ostfeld PhD, a professor in the department of pediatrics and program director of the SIDS Center of New Jersey, was honored on September 17th with the Champion for Children award by the American Academy of Pediatrics, NJ Chapter. Her co-honoree was NJ First lady Tammy Murphy. Dr. Ostfeld was recognized for her research on SIDS, which contributed to the AAP policies on risk-reducing practices, her innovative education programs and tools that bring this information to health care, social service and other providers, as well as directly to parents and other caregivers, her contributions to raising awareness

of the unique aspects of grief associated with a sudden unexpected infant death that practitioners need to recognize and address and her studies and initiative that have raised awareness of the role of adverse social determinants and implicit bias. These efforts as well as the close collaboration she has established with New Jersey's public health programs aligned with reducing infant mortality have had an impact. Newly released data from the CDC indicate that New Jersey's sudden unexpected infant death rate is among the lowest in the nation.

Congratulations, Dr. Ostfeld, on being honored by the NJAAP as a Champion for Children. Your contributions to the SIDS Center of New Jersey continue to make a difference!



Thank you!

Alan Weller, MD, MPH, FAAP, for your steady hand and inspired leadership through stormy waters as President of the NJ Chapter of the American Academy of Pediatrics (NJAAP). You remain an effective and tireless advocate for children and families. This winter and spring you developed new and critical mechanisms for the NJAAP to support the practice of pediatrics in New Jersey.



Congratulations!

Lawrence Kleinman, MD, MPH, FAAP, on your election to membership in the American Pediatric Society (APS) January 1, 2020



Health Care Heroes at Robert Wood Johnson Medical School, Department of Pediatrics During COVID-19 Crisis

- Sally Radovick, MD, *Professor and Chair*
- Seherisch Ahmad, MD, *Resident/PGY II*
- Dawn Tortajada, MSN, RN, PNP-BC, *Advanced Practice Nurse - Pulmonary Medicine and Cystic Fibrosis Center*
- Pediatric Cardiology Staff, *Administrators - AnnMarie McCann, Damaris Messam, Carmen Rosado; Nursing - Mary Homan, RN-BC, Tamar Thurm, BSN; Sonographers - Nadia Clarke, Christina Cole, Eric Gozun, Je'Nelle Tompkins*
- Sunanda Gaur, MD, *Professor - Allergy, Immunology and Infectious Diseases/Clinical Research Center*
- Tamar Thurm, RN, BSN, *Staff Nurse - Cardiology*
- Donna Weeks, PHR, *Program Administrator - Chair's Office*
- Kathleen Faup, *Practice Manager*
- Dawn Thompson, MD, *Assistant Professor - Population Health, Quality and Implementation Sciences (PopQuIS)*
- Alan Weller, MD, *Associate Professor - Pediatric Hospital Medicine*

Heroes work here.

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