

DEPARTMENT OF
PEDIATRICS



RUTGERS

Robert Wood Johnson
Medical School

2018-2019

ANNUAL REPORT

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DEPARTMENT OF
PEDIATRICS



2018-2019 ANNUAL REPORT

*A special Thank You to our photographers:
Suzanne L. Anderson
Harry Chefitz
Steve Hockstein
Emily Yang*



Sally Radovick, MD

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, both 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. Dr. Radovick is a specialist in growth and development and pubertal disorders in children. Her research has focused on the developmental regulation of hypothalamic-pituitary function. 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 currently 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 been invited to write 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 115 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; Neonatology; Nephrology; Child Neurology and Neurodevelopmental Disabilities; Pediatric Hospital Medicine; 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, Child Health Sciences, and the Institute for the Study of Child Development. 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 has already recruited 39 new faculty with plans for hiring additional faculty, allowing us to expand our research and clinical programs and provide improved care to our patients. Our educational mission is focused on the development of the next generation of multitalented physicians who will become leaders in education, research and patient care. Our ACGME-accredited training programs continue to thrive. We have an outstanding pediatric residency and fellowship training programs.

Our practice offers exceptional healthcare 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.

Sincerely,



Sally Radovick, MD
Chair, Department of Pediatrics



The Department's 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.

Department Leadership



Division Directors/Faculty and Staff Leadership

Left to right: **Abdur Khan**, Business Manager, **Donna L. Weeks**, Program Administrator, **David Sorrentino**, MD, Director, Division of Neonatology, **Dalya Chefitz**, MD, Director, Division of Pediatric Hospital Medicine, **Vikram Bhise**, MD, Director, Division of Child Neurology & Neurodevelopmental Disabilities, **Joseph Gaffney**, MD, Director, Division of Cardiology, **Ernest Leva**, MD, Director, Division of Emergency Medicine, **Sunanda Gaur**, MD, Director, Pediatric Clinical Research Center, **Deborah Spitalnik**, PhD, Executive Director, The Boggs Center on Developmental Disabilities, **Sally Radovick**, MD, Professor and Chair, Department of Pediatrics, **Indira Amato**, MD, Director, Pediatric Residency Program, **Joann Carlson**, MD, Director, Division of Nephrology & Hypertension, Associate Director of Pediatric Residency Program, **Kathleen Faup**, Practice Manager, Practice Plan Support, **L. Nandini Moorthy**, MD, Director, Division of Rheumatology, **Soula Koniaris**, MD, Director, Division of Gastroenterology and Nutrition, **Wendy Neal**, MD, Director, Division of Adolescent Medicine, **Lawrence Kleinman**, MD, Director, Division of Population Health, Quality, and Implementation Sciences (PopQuIS) and Vice Chair for Academic Development, **Brittany Barkow**, Director of Development, Rutgers University Foundation

Not Pictured: **Peter Cole**, MD, Director, Division of Hematology/Oncology, **Vicki Craig**, MD, Interim Director, Division of Critical Care Medicine, **Philip Giampietro**, Director, Division of Medical Genetics, **Elizabeth "Beth" Goodman**, MD, Director, Pediatric Clerkship and SubInternship, **Michael Lewis**, PhD, University Distinguished Professor, Director, Institute for the Study of Child Development, **Ian Marshall**, MD, Director, Division of Endocrinology, **Derek Sant'Angelo**, PhD, Director, Division of Child Health Sciences, **Thomas Scanlin**, MD, Director, Division of Pulmonary Medicine and Cystic Fibrosis Center, **Tracey Sharp**, Program Administrator, **Neil Silver**, Senior Director of Administration, **Patricia Whitley-Williams**, MD, Director, Division of Allergy, Immunology and Infectious Diseases



Chair's Administration/Team

Left to right (front): **Sally Radovick**, MD, Professor and Henry Rutgers Term Chair, **Lawrence Kleinman**, MD, Professor and Vice Chair for Academic Development; Left to right (back): **Abdur Khan**, Business Manager, **Suzanne L. Anderson**, Program Assistant, **Tracey Sharp**, Program Administrator, **Donna L. Weeks**, Program Administrator, **Kathleen Faup**, Practice Manager, **Christine (Chrissie) Jurcsek**, Staff Assistant, **Neil Silver**, Senior Director of Administration

Vice Chair

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



Deans

Left to right (top row):

Dayla Chefitz, MD

*Associate 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*



Left to right (bottom row):

Sally Radovick, MD

*Professor and Henry Rutgers Term Chair
Department of Pediatrics
Senior Associate Dean for Clinical and Translational Research*

Janice Cato-Varlack, MD

*Assistant Professor of Pediatrics
Associate Dean of Multicultural Affairs*

Patricia Whitley-Williams, MD

*Professor of Pediatrics
Division Director, Allergy, Immunology and Infectious Diseases
Associate Dean for Inclusion and Diversity*



RUTGERS

Robert Wood Johnson
Medical School





Adolescent Medicine

The Division of Adolescent Medicine is dedicated to provide comprehensive, culturally sensitive medical care to preteens thru age 22 yrs. Consultative services are available at 3 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
Associate Professor and Division Director

Faculty

Wendy Neal, MD, MPHTM

Associate Professor and Division Director

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 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 (provide endoscopic gastric sleeve procedure to the appropriate patients) to expand services to patients struggling with obesity. The goal is to establish a comprehensive obesity management program that address the multiple areas that come to play when addressing this complex disease, in order to prevent the associated morbidities and mortality.



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

Staff

Lyneta (Nina) Blair

Secretary I

Melanie Sunkyung Lee, RD

Nutritionist I

Aura Velasco, RN

Staff Nurse

Allergy, Immunology and Infectious Diseases

The Division of Allergy, Immunology and Infectious Diseases currently has seven 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. Our inpatient services are conducted at BMSCH. 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 complication 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 **on-site rapid HIV testing program** since 2004 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. In 2018, the program secured additional funding from NJ DOH Division of HIV, STD and TB Services 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. 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, and participating in community health fairs. The South Asian Total Healthcare 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. 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 their commitment to the community.



Patricia Whitley-Williams, MD
Professor and Division Director

Allergy, Immunology and Infectious Diseases *(continued)*

Examples of institutional contributions by division members:

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

Amisha Malhotra, MD – Director of the Pediatric Antibiotic Stewardship Program

Sunanda Gaur, MD – Director of the Adult CRC and the Pediatric CRC; Director of SATHI

Anna Petrova, MD, PhD, MPH – member of IRB; Director of EBM (Evidence Based Medicine) for pediatric residency program; Research Day Committee; member of DIR (Distinction in Research) Committee

Examples of national contributions by division members:

Dr. Patricia Whitley-Williams – President Elect of the National Foundation of Infectious Diseases; Chair, USMLE Management Committee

Dr. Patricia Whitley-Williams – Liaison member for the National Medical Association to the CDC/Advisory Committee on Immunization Practices

Research: Some of our research interests include HIV medication and medical care compliance and immunizations.

Publications:

Petrova A, Karatas M, Mehta R. Features of serial cranial ultrasound detected neuropathology in very preterm infants. *J Neonatal Perinatal Med* 2019;12:65-71 PMID:30149481

Petrova A, Reddy S, Mehta R. Pattern of intracranial findings detected on magnetic resonance imaging in surviving infants born before 29 weeks of gestation. *PLoS One* 2019;14:e0214683 PMID: 30946769

Zhang Z, Amorosa LF, Petrova A, Coyle S, Macor M, Nair M, Lee LY, Haimovich B. TLR4 counteracts BVRA signaling in human leukocytes via differential regulation of AMPK, mTORC1 and mTORC2. *Sci Rep*. 2019;9:7020 PMID: 31065010

Manne S, Islam N, Frederick S, Khan U, Gaur S, Khan A. Culturally-adapted behavioral intervention to improve Colorectal Cancer Screening Uptake among foreign-born South Asians in New Jersey: The Desi Sehat Trial. *Ethnicity and health*. 2018 Nov 4:1-17. PMID: 30394106

Narayanan N, Gulati N, Ghoshal B, Feja K, Malhotra A, Bhavaraju R, Jindani A, Gaur S, Kalyoussef S. Latent tuberculosis infection Beliefs and Testing and Treatment Health Behaviors amongst Non-US-Born South Asians in New Jersey: A Cross-Sectional Community Survey. (2018) *J Community Health* 2018 Dec 17. [Epub ahead of print] doi: 10.1007/s10900-018-00607-4.

Faculty

Patricia Whitley-Williams, MD

Professor and Division Director
Associate Dean for Inclusion and Diversity
RWJMS

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

Anna Petrova, MD, PhD, MPH

Professor

Staff

Katharine Anatale, RN

Nurse Case Manager, RWJAP

Suzanne L. Anderson

Program Assistant



Left to right (front): A. Malhotra, P. Whitley-Williams; Left to right (back): V. Rios, K. Anatale, R. Marone, D. Fong, G. Burack, M. Tawe, F. Corona, S. Anderson

Gail Burack, PhD

Supervising Program Development Specialist, RWJAP

Brahian Erazo Castaneda

Public Health Rep III, PrEP Counselor, RWJAP

Fatima Corona

Medical Health Technician

Joanne Ekpeni, MPA

HIV Tester/Counselor, RWJAP

Donna Fong

Family Case Manager, RWJAP

Bishakha Ghoshal, MPH

Data Control Clerk II

Marie Lefort, RN

Nurse Case Manager, RWJAP

Antonio Quirindongo, MA

HIV Tester/Counselor, RWJAP

Vanessa Rios

Program Grants Coordinator, RWJAP

Mumah Tawe, MPH

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

N. Colleen Whelan, MSN, RN, PNP-BC

Pediatric Nurse Practitioner, RWJAP

The Boggs Center on Developmental Disabilities

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, 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.

A community health program of the Department of Pediatrics, the Center has continued to provide community training to address emerging issues in services and supports to people with developmental disabilities across the lifespan. Through its Community Based Instruction (CBI) and Person-Centered Thinking in Schools and Transition (PCAST) projects undertaken in partnership with New Jersey's Department of Education, Office of Special Education, the Center created new training opportunities to promote successful transition from school to adult life for students with developmental disabilities. The New Jersey Positive Behavior Supports in Schools (NJ PBSIS) initiative provided training to improve school climate and promote positive approaches to managing problem behaviors in 19 of the most challenged schools in the state during the 2018-2019 school year. Both the CBI and NJ PBSIS projects were expanded this year to meet increased demand from schools for instruction and assistance related to school climate and inclusive school practices.

In collaboration with New Jersey's Department of Human Services, Division of Developmental Disabilities, the Center launched a two-day orientation training for Supports Brokers, training and technical assistance to introduce the Council on Quality and

Leadership's Personal Outcome Measures® to provider agencies, and intensive technical assistance in the area of behavior and mental health supports. The Center also launched the second training in its Frontline Supervision Series, focused on creating career pathways for Direct Support Professionals.

In addition to this and other ongoing training and technical assistance within New Jersey, Boggs Center faculty and staff contributed to state, regional, and national conferences with presentations on topics including: early intervention and detecting developmental concerns, process and outcomes of positive behavior support in schools, transition to adult life and adult health care, employment, autism research, dual diagnosis, end-of-life care, and working with state agencies to influence policy and practice.

Boggs Center faculty provided Grand Rounds in the department in honor of Lawrence Taft, MD, MPH, founding Chair of Pediatrics, as well as contributed to the 5th Evidence Based Pediatric Update Symposium (CME/ CE), with a lecture on "Emerging Adults with Autism Spectrum Disorder: The Challenge of Transitioning Care from Pediatric to Adult Providers." The Boggs Center's Leadership Education in Neurodevelopmental and Related Disabilities program, completed its third year. The program has enabled the Center to significantly expand upon its preservice training and continuing education efforts, while broadening the Center's reach and relationships within and beyond the University. This year, 13 long-term trainees from five disciplines, including family members, participated in NJLEND, and one Rutgers undergraduate Exercise Science major and one Rutgers Honors College undergraduate completed The Boggs Center's traineeship program. An additional 169 third-year medical students completed the Seminar on Family Centered Care and Developmental Disabilities, a required component of the pediatric rotation at Rutgers RWJMS. The NJLEND program also provided continuing education opportunities for professionals serving children with ASD, related disabilities, and

other maternal and child health populations. In recognition of her significant contributions, Caroline Coffield, PhD, Director of Pre-service Training at The Boggs Center on Developmental Disabilities, NJLEND Training Director, and Assistant Professor of Pediatrics was appointed as a Faculty Affiliate to the Rutgers School of Social Work.

The Boggs Center's efforts to support the advocacy of individuals with developmental disabilities and families was greatly enhanced through a third year of funding from the New Jersey Council on Developmental Disabilities to coordinate New Jersey Partners in Policymaking. Through the eight-month leadership development and advocacy education program, 10 self-advocates and 15 family members learned about best practices and important areas for advocacy from nationally-known experts. These



Deborah Spitalnik, PhD
Professor and Executive Director, Boggs Center

The Boggs Center on Developmental Disabilities *(continued)*

Partners graduates are prepared to advocate for meaningful change, work alongside policymakers and state agencies, and serve on advisory boards and committees.

A number of publications for people with disabilities, their families, and the professionals who support them were developed by the Center this year. These can be accessed on the publications page of The Boggs Center's website (see below). "Supporting social/sexual challenges at the workplace," an article by Bethany Chase, MSW, LSW, CESP, Training and Consultation Specialist, was published in a special issue of the Journal of Vocational Rehabilitation covering the proceedings of the 2018 Annual APSE National Conference. The Boggs Center also launched a new web-based video series, "DDLs From Your Desk," to broaden the reach of its long-standing Developmental Disabilities Lecture Series (DDLs). DDLs From Your Desk features nationally-known experts in the field of developmental disabilities and allows viewers to learn about pressing topics, emerging trends, and innovative approaches in services and supports in 15 minutes or less.

The Center's faculty and staff serve on statewide and national boards and committees, offer information and guidance to policymakers, and provide technical assistance to state agencies responsible for services and supports to people with developmental disabilities. In February, Deborah Spitalnik, PhD, Executive Director of The Boggs Center and Professor of Pediatrics, spoke at Senator Bob Menendez' press conference about the reauthorization of the Autism CARES Act along with Jonathan Kratchman, Rutgers University and Partners in Policymaking graduate, and Genevieve Kumapley, PharmD, NJLEND Family Fellow, Partners in Policymaking graduate, and Founding Executive Director of MyGOAL Autism. Dr. Spitalnik chairs New Jersey's Medical Assistance Advisory Council, a gubernatorial appointment. Boggs Center faculty and staff participate in a variety of state workgroups and committees, including: State Rehabilitation



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

Council, Commission on National Service and Volunteerism, Governor's Council on the Prevention of Developmental Disabilities, NJ Advisory Council on End of Life Issues, MLTSS Quality Workgroup, and DSP Task Force. Margaret Gilbride, JD, Director of Transition, Employment, and Aging & Disability and Assistant Professor of Pediatrics, was elected President of the New Jersey Association of People Supporting EmploymentFirst (NJAPSE) chapter. Nationally, Boggs Center faculty and staff serve on a number of committees, special interest groups, and workgroups for the Association of University Centers on Disabilities, NADD, National APSE, the National Alliance for Direct Support Professionals, and the American Association on Intellectual and Developmental Disabilities.

To learn more about The Boggs Center on Developmental Disabilities and the programs featured in this article, visit: <http://rwjms.rutgers.edu/boggscenter/>. Publications for people with disabilities, families, and professionals can be found on the website's Publications page: http://rwjms.rutgers.edu/boggscenter/publications/publications_list.html.

The Boggs Center on Developmental Disabilities *(continued)*

Faculty

Deborah Spitalnik, PhD
Professor and 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

Beth Ann Custer, PhD
Training and Consultation Specialist

Shelly Ann Dacres, MA
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

Jessica Mayfield, MEd
Training and Consultation Specialist

Colleen Ann McLaughlin, MEd
Program Director

Scott McMahan, 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

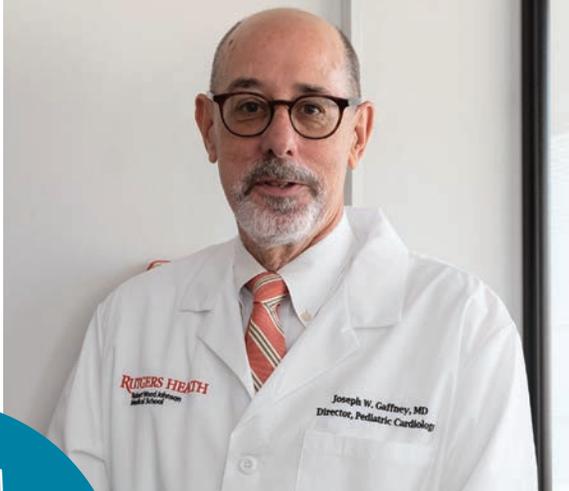
Jaime Zahid
Health Educator II

Cardiology

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

Joseph Gaffney, MD
Associate Professor and Division Director



- Family history of sudden cardiac death and early heart disease
- Hypercholesterolemia and hyperlipidemia
- Fetal Cardiology

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.

Faculty

Joseph Gaffney, MD
Associate Professor and Division Director

Monica Chugh, MD
Assistant Professor

Benjamin Lentzner, MD
Associate Professor

Robert Manduley, MD
Associate Professor

Sharon Weinberger, MD
Assistant Professor



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

Staff

Nadia Clarke
Ultrasonographer

Christina Cole
Ultrasonographer

Jane Conner
Ultrasonographer

Eric Gozun
Ultrasonographer

Mary Homan, RN

Ann Marie McCann
Management Assistant

Damaris Messam
Secretary II

Carmen Rosado
Secretary II

Tamar Thurm, BSN

Je'Nelle Tompkins
Lead Ultrasound Technologist

Child Health Sciences

The mission of the Division of Child Health Sciences is to perform outstanding research to identify the causes, treatment, and prevention of important childhood diseases. Over the past year, Division Members pursued important 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. New collaborations and research directions have developed in areas such as the identity of novel protein-protein interactions that regulate the immune response, the roles of novel regulators of protein synthesis in T cell function, search for the identity of receptors for the Zika virus, and the development of novel sensor molecules to study nerve cell function in real-time. Division members have published several important papers and obtained significant new extramural research funding. The Division has continued to be highly active in research training and education, including the training of fellows, residents, and graduate, medical and undergraduate students.

Through its interactions with the Child Health Institute of New Jersey (CHINJ), the Division has also actively participated in the recruitment of new faculty to Rutgers, the CHINJ and the Department. In particular, the CHINJ recruited M. Chiara Manzini, PhD, as Associate Professor of Neurosciences and Cell Biology. Dr. Manzini is a superb neurogeneticist whose laboratory studies the functions of a gene implicated in the male predominance of autism, and the identification of new genes leading to defects at the neuromuscular junction, and muscular dystrophy syndromes. Our expectation is that Dr. Manzini will become a member of this Division over the coming year. Additional recruitment for up to two new immunologists is on-going, with outstanding candidates currently being invited to CHINJ and the Department of Pediatrics. Again, our expectation is that these recruits would also join the Division, pending their successful recruitment.

Key highlights of the year include:

Derek Sant'Angelo, PhD, continues his research exploring the genetic control of immune cells in health and disease. Current studies emphasize the control of metabolism, obesity, colitis and onset of labor 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. 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).

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 investigators 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. Most recently, Dr. Denzin was invited to present her research in Paris and Berlin. 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.

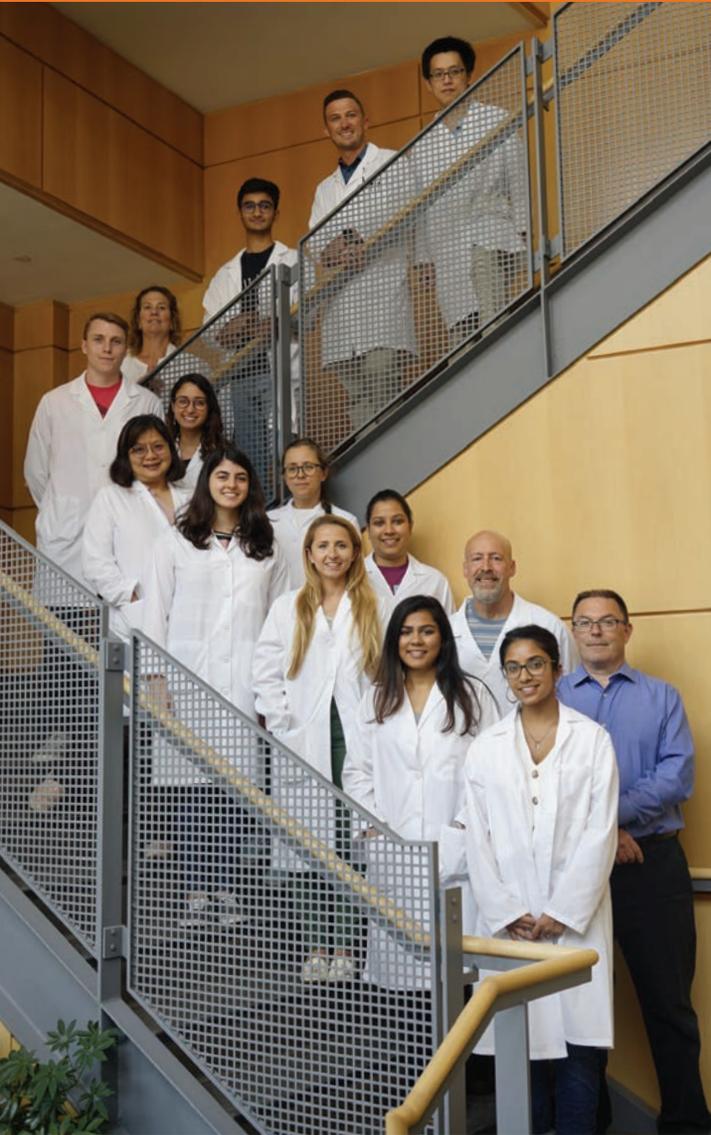
Zhiping Pang, PhD, a joint member of the Division and the Robert Wood Johnson Medical School (RWJMS) Department of Neuroscience and Cell Biology, received several new grants this past year, including a new

NIH R01 to develop novel sensors to detect specific pathways of brain activation. These sensors will assist in the understanding of the brain circuits that regulate feeding and satiety, and reward impacting the understanding of obesity and anorexia nervosa and addiction. Dr. Pang's six publications over the last year included a characterization of variants of the opioid receptor in reward signaling, which may help to explain the differential sensitivity to addiction; identification of microRNAs encoded on chromosome 21, that are amplified in Down Syndrome, directly regulate the functions of neuronal synapses; and developed new technologies to model brain circuitry using patient-derived cells, opening up a new realm of personalized medicine for brain disorders. Dr. Pang is an active participant in teaching both graduate and medical students.

Derek Sant'Angelo, PhD
*Harold L. Paz, M.D. Endowed Professor
of Developmental Biology
Associate Director of Basic Science
Child Health Institute of NJ
Professor, Department of Pediatrics and Pharmacology
Division Director, Child Health Sciences*



Child Health Sciences *(continued)*



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

Davide Comoletti, DVM, PhD, a joint member of the Division and the RWJMS Department of Neuroscience and Cell Biology, received a new NSF grant, in collaboration with Gabriella D'Arcangelo, PhD, Department of Cell Biology and Neuroscience, Rutgers School of Arts and Sciences, to study the structure and partners of the Reelin protein in brain development and function. Dr. Comoletti's four papers in the last year included data that showed that the unfolded protein response mediates neuronal damage in autism; a demonstration that the Alzheimer's disease-associated protein, serum amyloid precursor protein can modulate synaptic transmission; a new and powerful tool to identify new ligand-receptor pairs; and a description of the structural features of a new class of protein-protein interactions play critical roles at the neuronal synapse. In collaboration with Dr. Sant'Angelo, this tool was used to identify new receptor-ligand pairs that may control immune system responses to cancer and infection.

Arnold Rabson, MD, in addition to leading the Child Health Institute of NJ, initiated new collaborative research efforts with Drs. Pang, as well as Ronald Hart, PhD, and Peng Jiang, PhD, Cell Biology and Neuroscience, Rutgers School of Arts and Sciences, to study the effects of HIV infection of microglia on brain organoids, focusing particularly on effects on synaptic transmission. This work was submitted as part of a large, multi-investigator grant application to NIH and is under consideration for funding. Dr. Rabson also initiated studies of the nuclear protein, PDCD2, in immune system development and function in collaboration with Dr. Sant'Angelo. Finally, Dr. Rabson participates in teaching medical students.

The Division is expected to significantly expand in the coming year by the anticipated addition of Max Tischfield, PhD, Abdelfattah El Ouaamari, PhD, and Dr. Chiara Manzini. Each leads laboratory research groups with a focus on childhood health. In addition, we are actively recruiting two new immunologists who also will be candidates for the Division. These new members are expected to increase collaborations with other pediatric divisions, including clinical researchers

and the pediatric Clinical Research Center, as well as the newly expanded population sciences and primary care research activities under the direction of Lawrence Kleinman, MD, MPH, Professor of Pediatrics and Division Director, Population Health, Quality, and Implementation Sciences (PopQuIS).

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, Child Health Sciences*

Arnold Rabson, MD

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

Davide Comoletti, DVM, PhD

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

Lisa Denzin, PhD

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

Zhiping Pang, PhD

*Associate Professor
Resident Scientist, Child Health Institute of New Jersey
Division of Neuroscience and Cell Biology*

Staff

Christine Mahedy

Secretary 1

Kathleen M. Semler

Program Administrator

Critical Care Medicine (PICU)

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 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 one acute care advanced practice nurse.

- 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.

2018-2019 Division Highlights

New Faculty

The division welcomed two new faculty members: Sirisha Yalamanchi, MD, and Kalgi Mody, MD. In addition, Natalie Torres, MD, joined the division in September 2019.

A search for a new Chief of Pediatric Critical Care Medicine is underway.

New Clinical Service

Successful treatment of first ECMO patients in the PICU. 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).

Patient Safety

The PICU celebrated two years without a catheter associated blood stream infection (CLABSI). This is a huge accomplishment for the entire children's hospital. The prevention of these hospital acquired infections has impact on patient outcomes, families, and the cost of care. This milestone achievement was possible only through the hard work, diligent attention to detail, resilience, and team work of the medical and nursing staff.

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 healthcare. The PICU faculty and staff participate and lead many safety and quality teams

Vicki L. Craig, MD, FCCM
Associate Professor
Interim Division Director, Critical Care
Attending Physician



Critical Care Medicine (PICU) *(continued)*

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

Vicki L. Craig, MD, FCCM

Associate Professor
Interim Division Director, Critical Care
Attending Physician

Rene Chalom, MD

Clinical Assistant Professor

Steven Horwitz, MD

Assistant Professor
Director, Transport Services
Attending Physician

Michael Kelly, MD

Assistant Professor
Associate Dean for Graduate Medical Education
Attending Physician

Gary Kohn, MD

Clinical Assistant Professor

Maureen Madden, MSN, RN, CPNP-AC

Associate Professor
Advanced Practice Nurse

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

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

Assistant Professor
Director, Patient Experience, Safety and Quality

Sirisha Yalamanchi, MD

Assistant Professor
Attending Physician

Staff

Diana Brantley

Secretary I

Left to right: M. Markus-Rodden, H. Radjasekhar, K. Mody, V. Craig, S. Horwitz, M. Madden, S. Yalamanchi



Education

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 about 11 pediatric residents in each class (32 total) 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 are proud to announce we had a high pediatric board pass rate at 92%. This is a result of a lot of hard work from our residents and a great deal of support and teaching from our faculty. We also had a number of incredible fellowship matches listed below. In addition, Indira Amato, MD, was promoted to Associate Professor of Pediatrics. Dr. Amato continues to be very involved in pediatrics both locally and regionally as the Vice President Elect of the NJ chapter of the American Academy of Pediatrics (AAP). Joann Carlson, MD's, main focus has been education. She was appointed the chair of the member education committee of the American Society of Pediatric Nephrology (ASPN).

This year's graduates have gone on to the following practices and fellowship positions:

- Tina Banzon, MD – Fellowship in Allergy and Immunology at Children's Hospital Boston

- Elizabeth Barrington, MD – Chief resident
- Marissa Botwinick, DO – Fellowship in Hematology and Oncology at New York Medical College, Westchester Medical Center
- Stephanie Cheang, MD – Fellowship in Cardiology at Louisiana State University School of Medicine, New Orleans
- Charlotte Chen, DO – Fellowship in Endocrinology at Children's Hospital Boston
- Marianne Jacob, DO – Fellowship in Endocrinology at Weill Cornell at New York Presbyterian
- Jack Ju, MD – General Pediatrics in Las Vegas, NV
- Allison Kelly, DO – Chief resident
- Kapila Marepelli, MD – General Pediatrics at Watchung Pediatrics in New Jersey
- Jeffrey Nafash, MD – Emergency Medicine at Jacobi Medical Center, Bronx, NY
- Estherline Thoby, DO – Fellowship in hospital medicine at Nemours/Al Dupont in Delaware

Program Leadership

Indira Amato, MD

Associate Professor
Director of the Pediatric Residency Program

Joann Carlson, MD

Assistant Professor
Associate Director of the Pediatric Residency Program

Chief Residents

FY20:

Elizabeth Barrington, MD

Allison Kelly, DO

FY19:

Laura Diaz, MD

Peta-Gaye Peterson, DO



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

Administrative Staff

Karen Moore

Residency Program Coordinator

Mona Matta

Program Support Specialist

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



Education *(continued)*

Student Programs

We are gearing up for another exciting academic year. We are expecting a record number –over 30– fourth-year students to be applying to pediatric residency! Our pediatric faculty members are busy advising them during the application and interview process. Elizabeth Goodman, MD, and Dr. Amato will be hosting an annual pediatric interview workshop in October for all of the prospective applicants.

Our Rutgers RWJMS students had great success in the 2019 Residency Match. Our recently graduated students have started pediatric internships at Stanford, Cornell, Cincinnati Children's, Columbia, Northwell Cohen's, NYU, UNC, Westchester, Montefiore, and University of Pittsburgh. Tom Kuriakose won this year's award for outstanding Pediatric student and he started his

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



internship at Boston Children's Hospital. We wish them the very best and know that they will be wonderful representatives of Rutgers RWJMS as they move onward in their careers.

For this academic year, our third-year clerkship students will rotate at one of five different clinical sites: RWJUH, St. 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 RWJ, they will get their general pediatric outpatient experience at one of our wonderful, educational outpatient sites: Eric B. Chandler Health Center, Plainfield Health Center, Rutgers Health Group – and new additions of Mid-Jersey Pediatric Group and Highland Park Pediatrics.

There are new pediatric courses being added to the list of electives for our students including the Health Care for Children and Adults with Developmental Disabilities elective at the Boggs Center as well as a sub-internship on the Hematology-Oncology unit in Bristol-Myers Squibb Children's Hospital.

The Pediatric Interest Group, comprised of first- and second-year medical students, is expanding its pediatric lecture series, volunteering and shadowing opportunities within our department and community. They are starting a Reach Out and Read chapter at the medical school as well as actively taking part in Reach Out and Read at Chandler by reading to patients there and getting book donations. Zachary Berlant, a fourth-year student, serves as our Student Delegate to the American Academy of Pediatrics.

The Pediatric Bootcamp course is a required elective for fourth-year students held annually in the Spring before graduation. In this course, Dr. Goodman is researching the assessment of Entrustable Professional Activities for medical students.



Left to right: A. Hornsby, E. Goodman

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

Angela Hornsby

Pediatric Clerkship Coordinator

Education *(continued)*

Developmental and Behavioral Pediatrics (DBP) Fellowship Program

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 healthcare 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 healthcare 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.



Malia Beckwith, MD
*Assistant Professor
DBP Fellowship Program Director*

Program Leadership

Malia Beckwith, MD
*Assistant Professor
DBP Fellowship Program Director*

Administrative Staff

Mona Matta
Program Support Specialist

Education *(continued)*

Endocrinology Fellowship Program

Rutgers RWJMS 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, is studying the genetics of short stature in a collaborative U01 study with researchers at the NIH/NICHHD 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 healthcare 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 Rutgers RWJMS 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

Left to right: M. Gangat, O.Yeliosof



Education *(continued)*

Neonatal-Perinatal Medicine Fellowship Program

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 Babies 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, a recent example being the use of head cooling to improve long-term outcomes for asphyxiated babies. 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 2018-2019 academic year, found positions at Lehigh Valley Hospital in Allentown, PA, Marshfield Clinic in Marshfield, WI, and Arnold Palmer Hospital in Miami, FL. Other recent graduates from the program have acquired positions

in prestigious medical systems including Emory, Tufts, Wayne State, New York Medical College and New Jersey Medical School, in addition to more local institutions such as Hackensack, Morristown, and Monmouth Medical Centers. The 2018-2019 trainee-recruiting program was successful in attracting three new fellows from New York, New Jersey and Maryland.

An integral part of the training program is the scholarly effort that has led to a 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

The Division of Pediatric Emergency Medicine is comprised of 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.

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 Practice. First-, second-, and third-year residents rotate through the Emergency Department, as well as medical students from RWJMS. 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.

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 grant from the "R' Baby Foundation" in which she has incorporated the newest computer technology to teach 18 learners per year over the next 3 years, techniques in point of care.

Dr. Quim has also won acceptance to the OASIS, Women in Leadership Program. This program is orchestrated by Rutgers University to help prepare early career female faculty members for leadership positions.

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.



Ernest Leva, MD
Professor and Division Director

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.

Emergency Medicine *(continued)*

Faculty

Ernest Leva, MD

Professor and Division Director

Uchechi Azubuine, MD

Assistant Professor

Richard Brodsky, MD

Assistant Professor

Vasudha Chundru, MD

Clinical Assistant Professor

Minh-Tu Do, MD

Assistant Professor

Rachael Grieco, MD

Assistant Professor

Maria Kim, MD

Clinical Instructor

Niel Miele, MD

Associate Professor

Matthew Pepper, MD

Assistant Professor

Marinelle Quim, MD

Assistant Professor

Staff

Awilda Santiago

Secretary I

Collette Williams

Staff Assistant



Left to right (front): R. Grieco, C. Williams; Left to right (back): N. Miele, E. Leva, U. Azubuine, M. Pepper

Endocrinology



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 disorders of sexual development. Further, we now have the largest transgender program for hormonal affirmation treatment in NJ providing care to transgender children, youth and adults into their thirties.

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



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, has developed a collaboration with the oncology division to cohesively address the endocrine complications in pediatric cancer survivors.

The Department of Pediatrics chair, Dr. Sally Radovick, 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. This past academic year, Ahmed Khattab, MD, joined the division. He has extensive experience in adrenal disorders specifically congenital adrenal hyperplasia (CAH), and has authored multiple manuscripts in the field of CAH and disorders of sexual differentiation. He is currently developing a nationally recognized CAH Comprehensive Center at Rutgers through a collaboration with the CARES foundation.

Dr. Marshall serves on the medical advisory board for CARES Foundation, a national non-profit organization that seeks to advance quality healthcare in patients and families with congenital adrenal hyperplasia in the community through support, advocacy, education and research. He has also recently been asked 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. Dr. Balachandar serves as a consultant on the NJ Newborn Screening Task Force for disorders of congenital hypothyroidism and congenital adrenal hyperplasia. 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.

Faculty

Ian Marshall, MD

Associate Professor and Division Director

Sadana Balachandar, MD

Assistant Professor

Mariam Gangat, MD

Associate Professor

Ahmed Khattab, MD

Assistant 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

Certified Diabetes Educator

Postdoctoral Research Fellows

Bahaa Aloqaily, PhD

Vanessa De Oliveira, PhD

Gastroenterology and Nutrition

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.

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% of the children had improvement in GI symptoms such as GERD and constipation and 37% 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.



Soula G. Koniaris, MD
Associate Professor and Division Director

Gastroenterology and Nutrition *(continued)*



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

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



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

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

Medical Genetics

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; and licensed genetic counselors, Christina Botti, 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.

Dr. Philip Giampietro, a board-certified pediatrician and clinical geneticist, was recruited to serve as the Division Director to succeed Dr. Susan Brooks. Dr. Giampietro has 30 years of experience in clinical genetics. Prior to coming to RWJMS he held positions as Director of the Section of Clinical Genetics at St. Christopher's Hospital for Children and Professor of Pediatrics at Drexel School of Medicine; University of Wisconsin-Madison; Marshfield Clinic, Wisconsin and Weill Medical College of Cornell University. He holds a Doctorate in Biomedical Sciences from the City University of New York. The addition of Dr. Giampietro to the Division will enable Rutgers Robert Wood Johnson Medical School and RWJBarnabas Health to provide increased genetic services for its catchment area. Dr. Giampietro has research interests in congenital, idiopathic scoliosis, vertebral malformations and arthrogyposis.

On May 19, 2019, the Genetic Counseling Master's Program at Rutgers University graduated its first class of six students. Genetic counselors work together with physicians to help diagnose and manage patients with genetic conditions. The Genetic Counseling program encompasses 22 months of rigorous didactics and clinical training in human genetics and genetic counseling internships in a variety of settings. Dr. Brooks, Medical Director of the Program, collaborated with genetic counselors and Rutgers University officials to address the nationwide shortage of genetic

counselors, by playing a major role in the establishment of this joint program of Rutgers Biomedical and Health Sciences and the Rutgers School of Graduate Studies. Dr. Brooks and Ms. Botti serve on the leadership team and teach two semesters of medical genetics. The Division faculty supervises students rotating in genetics for their clinical internships. All six of the inaugural class students have obtained jobs as genetic counselors with three of the six obtaining employment in New Jersey. Each year approximately 170 people apply for admission to the Program. With continued breakthroughs in the field of medical genetics, we expect the numbers of applicants to increase. Dr. Brooks gave the closing remarks for the 2019 Rutgers Genetic Counseling Program graduation ceremony.

The Division is the recipient of a Genetic and Newborn Screening service grant from the NJ DOH. Dr. Brooks is the Principal Investigator of the grant and works closely with Dr. Sharon Anderson to diagnose and provide medical management for patients with inborn errors of metabolism.

The Division has been collaborating on a telemedicine initiative with Dr. Richard Brodsky, RWJMS, Pediatric Emergency Medicine, and Dr. Ameth Aguirre from Jersey City Medical Center. As part of this initiative, consultative genetic services will be provided to babies in the neonatal intensive care unit and admitted children who need urgent consults involving suspected genetic conditions and abnormal newborn screen results. It is anticipated these efforts will help to increase ties between both centers, now operating under Barnabas Health.

Faculty in the Division continue to be active in academic pursuits. Ms. Botti and Dr. Brooks presented a poster entitled "Atypical Angelman Syndrome Secondary to a 23kb Deletion within SNRPN Affecting Imprinting," at the 2019 American College of Medical Genetics in Seattle, WA. Dr. Giampietro presented a paper entitled: "KIAA1217: Evidence for a Novel Gene Associated with Cervical Segmentation Defects," at

the Pediatric Academic Research Societies Meeting, Baltimore, MD.

Rutgers Robert Wood Johnson Medical School hosted the May 14, 2019 meeting of the Human Genetics Association of New Jersey (HGANJ), a tri-annual meeting attended by membership of genetic counselors and clinical geneticists practicing in New Jersey. The meeting provides a forum to foster interaction among genetic professionals in New Jersey and for discussion of practice related issues. Ms. Botti and Dr. Brooks assisted in the coordination of this effort. The keynote speaker was Ronald Wapner, MD, Professor of Obstetrics and Gynecology at Columbia University, who discussed "Evolving Diagnoses and Management of Fetal Genetic Conditions."

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



Medical Genetics *(continued)*

In collaboration with the Shriners Hospitals, Dr. Giampietro is a consultant on a 4-year grant entitled: "Registry for Arthrogyposis: Epidemiology, Etiology, Intervention and Genomics."

Faculty

Philip Giampietro, PhD, MD, 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

Damaris Soto

Secretary I

Camille Vanderzee

Secretary 1

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)

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. We are also at the cutting edge, constantly improving our therapeutic strategies through innovative clinical research. As members of the Children's Oncology with other consortia and industry, we are offering participation in a broad array of clinical trials testing novel interventions for patients with benign blood disorders, such as sickle cell anemia and hemophilia.

The Division of Pediatric Hematology/Oncology has lots of exciting news to report for the new academic year!

The Division has experienced continued expansion. Two new faculty started in 2018: Scott Moerdler, MD, and Advaita Madireddy, PhD. While rapidly building his clinical practice and contributing to the education of medical students and pediatric residents, Dr. Moerdler has also secured funding for a translational project, studying a novel immune checkpoint in Hodgkin lymphoma. He has also been accepted into the prestigious American Society of Hematology's Medical Educators Institute, in recognition of his commitment to medical education. Dr. Madireddy, an NIH-funded scientist studying molecular mechanisms driving genomic instability in hematologic malignancies, has been assembling a team of talented scientists in her laboratory. She recently secured pilot funding from the American Cancer Society to study genomic instability in T-cell leukemia/lymphoma.

In addition, we have hired four additional faculty, who started in 2019. Karen Long-Traynor, PhD, is a clinical psychologist who came to us from the Children's Hospital at Montefiore, and leads our newly constituted Pediatric Psychosocial Support Team, addressing the complex needs of patients and their families as they go through treatment for cancer or blood disorders. Maxim Yankelevich, MD, was recruited from the

Children's Hospital of Michigan in September 2019 to lead our Neuro-oncology Program. He has also secured support for a translational project studying a novel therapeutic intervention using histone deacetylase inhibitors and DNA demethylating agents for children with brain tumors. Finally, we have recruited two clinical hematologist/oncologists, Nicole Mallory, MD, and Meenakshi Goyal-Khemka, MD. Both will divide their time between Monmouth Medical Center and the Rutgers Cancer Institute, providing clinical care and contributing to the education of pediatric residents and medical students.

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.

Faculty

Peter Cole, MD

*Professor of Pediatrics
Embrace Kids Foundation Endowed Chair
Division Director, Hematology/Oncology*

Richard Drachtman, MD

*Professor
Clinical Section Chief, Hematology/Oncology*

Joselyn Lewis, DO

*Assistant Professor
Hematology/Oncology*

Advaita Madireddy, PhD

*Assistant Professor
Research Lab
Hematology/Oncology*

Margaret Masterson, MD

*Associate Professor
Hematology/Oncology*

Scott Moerdler, MD

*Assistant Professor
Hematology/Oncology*

Susan Murphy, MD

*Assistant Professor
Hematology/Oncology*

Archana Sharma, DO

*Assistant Professor
Hematology/Oncology*

Karen Long-Traynor, PhD

*Assistant Professor
Hematology/Oncology*

Maxim Yankelevich, MD

*Associate Professor
Hematology/Oncology*

Staff

Kayla Baker

*Lab Tech – Peter Cole Research Lab
Peds H/O Division*

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



Hematology/Oncology (Rutgers Cancer Institute of New Jersey) *(continued)*

Dawn Carey, APN
Advanced Practice Nurse
Peds H/O Clinic

Rosemary Carreno
Medical Technician
Peds H/O Clinic

Deena Centofanti, RN
Nurse Manager
Peds H/O Clinic

Susan Christ
Program Administrator
Peds H/O Division

Shayna Cornelius, RN
Treatment Nurse
Peds H/O Clinic

Dora Del Sordo, APN
Advance Practice Nurse
Peds H/O Clinic

Frank Diglio
Lab Tech – Peter Cole Research Laboratory
Peds H/O Division

Paulette Forbes, MPH, MS, APN-BC
Advance Practice Nurse
BMSCH Pediatric H/O Unit

Teresa Gallardo
Financial Counselor
Peds H/O Clinic

Helene Greenberg, RN
Treatment Nurse
Peds H/O Clinic

Audrea Henry
Administrative Research Associate

Claudia Junchaya-Jenssen, RN
Nurse Navigator – Sickle Cell Program
Peds H/O Clinic

Evenly Lewis, RN
Clinical Research Nurse for Pediatric
Peds H/O Division

Shengguo Li, PhD
Research Associate – Peter Cole Research Lab
Peds H/O Division

Lori Magoulas, PhD, RD
Nutritionist
Peds H/O Clinic

Marilyn Mundy, RN
Treatment Nurse
Peds H/O clinic

Michelle Olk
Medical Technician
Peds H/O Clinic

Veronica Ortiz
Scheduler
Peds H/O Clinic

Susan Pillet, APN
Advance Practice Nurse
Peds H/O Clinic

Donna Plaxe, APN
Advance Practice Nurse
BMSCH Pediatric H/O Unit

Stephanie Samuels
Medical Records
Peds H/O Clinic

Jennifer Savarese
Senior Scheduler/Patient Liaison
Peds H/O Clinic

Priscilla Scheiner
Counselor
Peds H/O Clinic

Susan Stephens, LCSW
Licensed Clinical Social Worker
Peds H/O Clinic

Kathleen Welsh
Secretary I
Peds H/O Division

Karen Wyckoff
Counselor – BMSCH
Peds H/O Unit

Dawn Yuhas, RN
Treatment Nurse
Peds H/O Clinic

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



The Institute for the Study of Child Development

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.

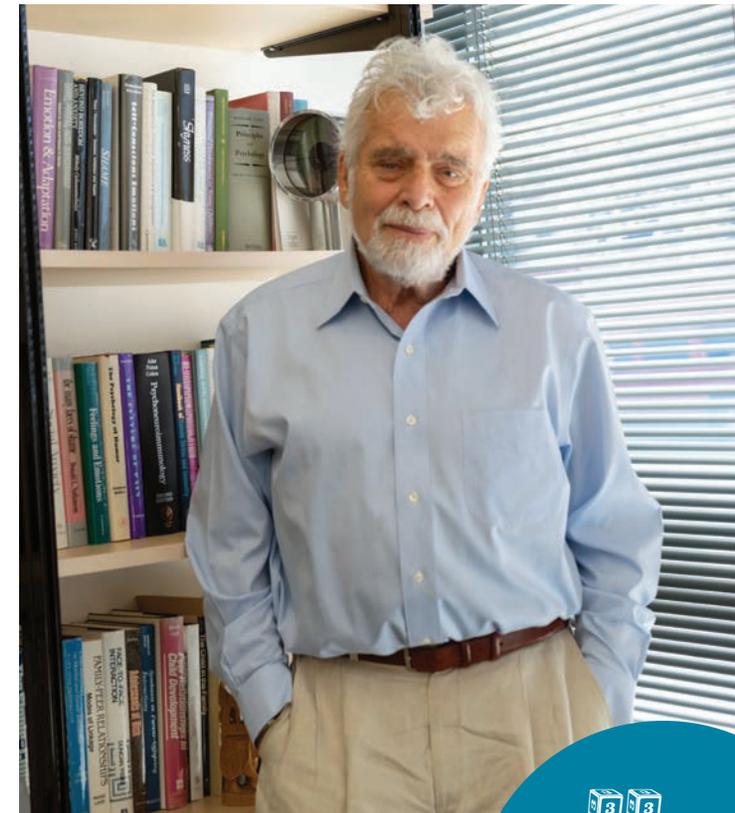
In order to accomplish the research goals of the Institute, studies necessarily must include multiple levels of analysis. These levels range from characterizing the environment, whether it be the physical environment of toxins or the social environment of caregivers, to studying the relation between 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. In addition, the Institute studies the emergence of consciousness - the development of the mental representation that the child comes to have about itself - and the ability to utilize that knowledge in forming social relationships. Moreover, the 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, 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. In addition, the Institute has been involved in the development and use of intersensory procedures to examine the development of language in children who have received cochlear implants. Also, 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. Furthermore, methodologies now widely used in the study of autism have been developed, including the mirror self-recognition task, a laboratory and now clinical procedure to determine whether self-

recognition is present by 24 months of age. The failure to demonstrate self-recognition has been related in studies to the delay in cognitive development in Down syndrome, ASD, and preterm infants.

The Institute works both within RBHS and with Rutgers University wide students. As part of the activities of the Fellowship Program in Developmental and Behavioral Pediatrics, the Institute conducts research studying a variety of methodological and research questions with children suffering from ASD and attention deficit disorders, as well as children who have been abused and neglected. A master's level course in the Rutgers School of Graduate Studies

Michael Lewis, PhD
University Distinguished Professor and Director



The Institute for the Study of Child Development *(continued)*

(Neurons to Neighborhoods – Human Development in Context: Rethinking Nature vs. Nurture) has been taught for the last four years. A Pediatric Psychology & Social Work Practicum Training Program for psychology and social work students continues to be taught, where graduate students are assigned to both outpatient units as well as inpatient hospital units. Students from the School of Social Work and Graduate School of Applied and Professional Psychology have been learning about Pediatrics and at the same time helping in the clinics and hospital units.

Faculty

Michael Lewis, PhD

University Distinguished Professor and Director

Jason Gold, PhD

Adjunct Assistant Professor

Staff

Stacey Napoli

Research/Administrative Assistant

Affiliated Research Faculty

Malia Beckwith, MD

Developmental & Behavioral Pediatrics Fellowship Program Director, RWJMS

David Bennett, PhD

Professor, Drexel University College of Medicine

Barbie Zimmerman-Bier, MD

Clinical Associate Professor, RWJMS

John Worobey, PhD

Professor, Rutgers School of Environmental and Biological Sciences

<https://go.rutgers.edu/8yphc2rc>



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

Neonatology (NICU)



David Sorrentino, MD
Associate Professor and Division Director

Life is always better in the NICU! Our NICU at BMSCH continues to lead the pack in patient safety and quality, as we have been CLABSI free for almost three years. It has been among the highest units in the hospital (Adult and Pediatric) in terms of hand hygiene compliance over the last two 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 the 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 three 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 breast milk scanning system 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 few non clinical providers, Barbara Ostfeld, PhD, who works in the SIDS Center with Thomas Hegyi, MD, and our resident epidemiologist, Nancy Reichman, PhD! They are great contributors to the department and patients in the region and state.

Faculty

David Sorrentino, MD
Associate Professor and Division Director

Waseem Akhter, MD
RBHS Instructor

Swapna Borole, MD
Assistant Professor

Alexander Feldman, DO
Assistant Professor

Thomas Hegyi, MD
Professor

Deepak Jain, MD
Associate Professor

Arun Kashyap, MD
Assistant Professor

Rajeev Mehta, MD
Professor

Joseph Napolitano, MD
Clinical Assistant Professor

Barbara Ostfeld, PhD
Professor

Surasak Puvabandisin, MD
Associate Professor

Nancy Reichman, PhD
Professor

Danitza Velazquez, MD
Assistant Professor

Staff

Diana Brantley
Secretary I

Puja Kalia, PA

Ellen Leone, APN

Norma Lewis
Data Control Clerk I

Mona Matta
Program Support Specialist



Left to right: R. Mehta, A. Feldman, D. Sorrentino, P. Kalia, D. Jain

Nephrology and Hypertension

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-stage renal disease. We have an active pediatric kidney transplant program that has two qualified surgeons. Additionally, Joann Carlson, MD, serves as pediatric medical director at Davita Dialysis in New Brunswick where we care for our pediatric dialysis patients.

Our department is very committed to education. Dr. Carlson serves as associate director of the pediatric residency program. Valeriya Feygina, MD, is our clerkship director for the medical students. We have been excited to welcome many residents and students on electives to help inspire new interest in Nephrology. Nationally, Dr. Carlson has become chair of the member education committee for the American Society of Pediatric Nephrology (ASPN).

In the past year, we have been working hard to find new ways to help serve our patients. We have started enrolling patients in our pediatric peritoneal dialysis program through Davita Dialysis. As a result, we have



more options for patients with end-stage renal disease. We also have been working hard with our pediatric transplant center. In June, we had an altruistic donor decide to donate a kidney to someone she did not know. Luckily, one of our pediatric patients was a match. We were honored to be there when the two met for the first time (photo above). Finally, we continue to expand our 24-hour blood pressure monitor program in order to perform comprehensive testing for patients with elevated blood pressure.

We continue to work with the Embrace Kids Foundation to help our patients. They have provided comprehensive emotional and monetary support for many of our patients throughout the year. Embrace Kids is also providing funding for a new position in the Department of Pediatrics. This nurse navigator will be a RN whose main job will be to help our patients “navigate” the medical system including appointments, helping with medications and disease specific education. She started in the fall 2019.

Our department also continues to be involved in research. We have been involved in the Chronic Kidney Disease in Children (CKiD) study which is a multicenter, longitudinal study for patients with chronic kidney disease (CKD). Dr. Carlson is working on two clinical studies looking at quality of life in

patients with CKD. She presented an abstract at the Pediatric Academic Society national meeting in May 2019 and won an excellence in research award at the Department of Pediatrics Research Day. We have also published two papers in the AAP publication, *NJ Pediatrics*.

Please call us if you have any Nephrology questions!
732-235-7880

Faculty

Joann Carlson, MD

*Assistant Professor and Interim Division Director
Associate Program Director of Pediatric Residency Program*

Valeriya Feygina, MD

Assistant Professor of Pediatrics

Staff

Lyneta (Nina) Blair

Secretary I

Cheryle Ludwig, RN

Staff Nurse

Helen Mundy, LPN

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



Joann Carlson, MD

*Assistant Professor and Interim Division Director
Associate Program Director of Pediatric
Residency Program*

Child Neurology and Neurodevelopmental Disabilities

The Division of Child Neurology and Neurodevelopmental Disabilities consists of two full time pediatric neurologists, two neurodevelopmental pediatricians, one advanced nurse practitioner, one pediatric nurse, 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 white matter disease, and has a 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 the best outcomes. So, it's vital to enlist a team specially trained to care for children with MS. The only dedicated pediatric MS program in the state, 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 access to clinical trials.

Abdolreza Esfahanizadeh, MD, also specializes in concussion and has a concussion and brain sport's program for the rapid access, diagnosis, and management of children with acute head injury, specially trained 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.

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 center literacy promotion for underserved children. Dr. Jimenez publishes multiple articles and conducts multiple 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 NMSS looking at incidental imaging abnormalities suggestive of multiple sclerosis in children.

Dr. Jimenez, Dr. Esfahanizadeh, 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.



Vikram Bhise, MD
Associate Professor and Division Director

Child Neurology and Neurodevelopmental Disabilities *(continued)*

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.

Abdolreza Esfahanizadeh, MD

Assistant 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.

Barbie Zimmerman-Bier, MD

Clinical Associate Professor

Focuses on office-based pediatric neurodevelopmental care and neurodevelopmental research.

Staff

Deborah O'Brien, RN

Staff Nurse

Stacy Quinn

Staff Assistant

Shauday Rodney, APN

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

Nahiyan Taufiq

Work Assistant



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

Pediatric Hospital Medicine

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 and resident physicians. The Division maintains primary responsibility for teaching the role of the generalist physician in coordinating and managing the care of children with acute and chronic illness. Integral to these activities is leadership in developing scholarly projects (for example, collaborating on research projects), the design and conduct of quality improvement activities, and practice and education regarding child advocacy. 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 colleagues and our community, 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 Pediatric Hospital Medicine from Academic General Pediatrics allows us to serve as inpatient specialists to our patients and our community, promoting an even higher level of care. We are both an established and a growing practice. Our newly defined Division will allow us 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 Hospital Medicine (DHM) 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.

Every year we welcome two chief residents as junior faculty in our division. We thank Laura Diaz, MD, and Peta-Gaye Peterson, DO, for their hard work and dedication for the academic year 2018-19. This year, Elizabeth Barrington, MD, and Allison Kelly, DO, will be teaching and seeing patients as hospitalists in the primary care office. We also recruited Paula Lucuara Revelo, MD, from University of Connecticut, where she served as chief resident, to our hospitalist team.

We are happy to announce that three of our faculty have been promoted from assistant to associate professor. Congratulations to Indira Amato, MD, Janice Cato-Varlack, MD, and to Elizabeth Goodman, MD. All three of these doctors are integral in the continuum of education from undergraduate to graduate medical education.

Dr. Indira Amato is the Pediatric Residency Director. She oversees all aspects of graduate medical education implementing the latest ACGME recommendations and is constantly creating innovative ways for the pediatric residents to have career-specific training,

developing curricula in Residents as Teachers and a Primary Care Elective. 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 helped develop a training program in behavioral health for residents and recently published preliminary outcomes. She serves as vice-president elect of the NJ Chapter of the American Academy of Pediatrics.

Dr. Janice Cato-Varlack was recently appointed to 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

Dalya Chefitz, MD
Associate Professor and Division Director



Pediatric Hospital Medicine *(continued)*

the five pipeline programs designed to increase access to underrepresented minorities to our medical school. She oversees all the Multicultural Affairs Student Groups and has been a keynote speaker at the ODASIS High Academic Achievement Awards for Rutgers students and American Medical Women's Association events. She serves on the admissions committee and Alpha Omega Alpha selection committee.

Also, in undergraduate education, is Dr. Goodman, who was recently appointed to Director of the Pediatric Clerkship. She is an integral educator in the continuum from undergraduate to graduate education. As Dr. Goodman participates in both DHM and PopQuIS more details about her achievements can be found in the description of PopQuIS.

Dalya Chefitz, MD, and Alan Weller, MD, 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 Dr. Thomas

Hegyí's project on unbound bilirubin in term and preterm infants was presented at the annual Pediatric Academic Society Meeting in the spring. Aazim Hussain, MD, and Aimee LaRiviere, MD, support Dr. Weller's role as director of the newborn nursery. They both have received stellar evaluations from the residents and students who rotate with them.

Both Drs. Chefitz and Weller are working on child health and education outside of the university. Dr. Weller is serving a 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 and having a record attendance at the annual CME meeting in the spring.

Dr. Chefitz has recently been appointed to be an 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 has completed her

six-year term on the ACGME Resident Review Committee and continues to volunteer on the state committee for newborn screening. She was recognized as a role model by graduating pediatric residents and continues to be chosen as one of the "Top Docs" in New Jersey.

Dr. Weller was the inaugural recipient of the "Clinical Award for Excellence in Quality and Safety" being nominated and selected.

Faculty

Dalya Chefitz, MD

*Associate Professor and Division Director
Assistant Dean, Clinical Learning Environment*

Alan Weller, MD

Associate Professor and Associate Division Director

Indira Amato, MD

*Associate Professor
Director, Pediatric Residency Program*

Elizabeth Barrington, MD

RBHS Instructor

Janice Cato-Varlack, MD

*Associate Professor
Assistant Dean of Students and Multicultural Affairs*

Laura Diaz, MD

RBHS Instructor

Elizabeth Goodman, MD

*Associate Professor
Director, Pediatric Clerkship*

Aazim Hussain, MD

Assistant Professor

Aimee LaRiviere, MD

Assistant Professor

Paula Lucuara Revelo, MD

Assistant Professor

Staff

Collette Williams

Staff Assistant

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



Population Health, Quality, and Implementation Sciences (PopQuIS)

The Division of Population Health, Quality and Implementation Sciences (PopQuIS in Pediatrics) has been newly constituted with the February 2019 arrival of founding Director, Lawrence C. Kleinman, MD, MPH, FAAP. This new Division is building 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, 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.

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 listen to our patients and our communities to learn how we can continue to improve.

PopQuIS celebrates our faculty and staff and a year of outstanding achievements:

Primary care pediatrics is offered at two 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.



Lawrence Kleinman, MD, MPH
Professor and Division Director

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.

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.

Population Health, Quality, and Implementation Sciences (PopQuIS) *(continued)*



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

Faculty

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

Lawrence Kleinman, MD, MPH

Professor and Director of PopQuIS
Director of IFH Survey | Data Resource Core

Elizabeth Goodman, MD

Associate Professor, Director of Pediatric Clerkship

Shunli Hou, MD

Assistant Professor

David Krol, MD, MPH

Clinical Associate Professor of Pediatrics, Medical Director of the New Jersey Healthy Kids Initiative at the Institute for Food, Nutrition and Health at Rutgers

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

Shilpa Pai, MD

Associate Professor

Usha Ramachandran, MD

Associate Professor, Associate Director of South Asian Total Health Initiative

Researchers and Educators who are not currently providing Clinical Primary Care in PopQuIS

Daniel Horton, MD, MSCE

Assistant Professor

Manuel Jimenez, MD, MS, FAAP

Assistant Professor

Anna Petrova, MD, PhD, MPH

Professor

Nancy Reichman, PhD

Professor

Staff

Maricel Quiñones

Staff Assistant

Hearty congratulations to PopQuIS faculty who received well deserved academic promotions this year: Drs. Elizabeth Goodman, Shunli Hou, Emanuel Lerner, Elsie Roca-Piccini, Jacqueline Fleming, Shilpa Pai, and Usha Ramachandran.

PopQuIS clinicians are also leaders: Dr. Emanuel Lerner is taking on a leadership role in the Division as the Director of Primary Care Services. Examples of other outstanding service and leadership include Dr. Shilpa Pai continuing to work with the NJ Chapter of the American Academy of Pediatrics including as Co-

Chair of the Immigrant Child Health Committee and as District Councilor at Large – Executive Council. She presented some of her NJ AAP work on food insecurity at the National WIC Association Annual Meeting. Dr. Usha Ramachandran is serving as Medical Director for NJ Reach Out and Read, a leading national early childhood literacy program. Drs. Jacqueline Fleming and David Krol have been working from their respective clinical sites to improve preventive dental services delivered in primary care. Dr. Elizabeth Goodman presented “An EPA-Based Curriculum for Pediatric Bootcamp” at the annual meeting of the Council on Medical Student Education in Pediatrics. Dr. Shoshana Zitter is developing enhanced documentation and communications office systems to improve the quality of preventive service delivery. Dr. Dawn Thompson is developing a new pediatric primary care curriculum for residents. Dr. Michelle Takyi is the practice lead for a departmental asthma-related quality improvement project, “Easy Breathing.” Dr. Shilpa Pai was funded by the Nicholson Foundation to lead a statewide initiative to enhance advocacy education for pediatric residents. Both Dr. Elsie Roca-Piccini, who speaks fluent Spanish, and Dr. Shunli Hou, who speaks fluent Mandarin, were recognized by *NJ Family* magazine as a “Favorite Kids’ Doc.”

Our faculty are active teachers and educational leaders. Many are also active researchers who present at regional and national meetings. Highlights of our academic research contributions include: Dr. Usha Ramachandran’s continued leadership of the South Asian Total Health Initiative, which includes federally funded research, Dr. David Krol’s leadership on the Cook College campus regarding the managing and preventing of childhood obesity in the context of the ongoing epidemic, Dr. Daniel Horton’s scientific work at the Institute for Health, Healthcare Policy, and Aging Research’s (IFH) Center for Pharmacoepidemiology and Treatment Science, and Dr. Kleinman assuming leadership of the IFH Survey/Data Core. Dr. Manuel Jimenez was acknowledged with the AOA honor

Population Health, Quality, and Implementation Sciences (PopQuIS) *(continued)*



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

medical society's Alumni Award. Dr. 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." In his role as Vice Chair for Academic Development, Dr. Kleinman has accepted the role of Chair of the Departmental Appointments & Promotions Committee.

Drs. Horton and Jimenez 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. These junior scholars are submitting competitive grants to federal and other agencies and we expect positive news soon. Dr. 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. Dr. Kleinman is finishing his work on a federal Agency for Healthcare

Research and Quality (AHRQ) grant studying medication use in children with behavioral illness who receive Medicaid. In July, 2019 Dr. Kleinman received word that his HRSA funded Maternal Child Health Measurement Research Network was funded as Rutgers PopQuIS will lead a national consortium to advance maternal child health.

Researchers in PopQuIS have had an exceptional year with Drs. Horton, Jimenez, Kleinman, Petrova and Reichman combining to contribute more than 20 peer-reviewed publications in excellent and highly-cited journals; many include the participation as authors of their trainees and mentees. Some 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.

Goals for 2019-2020 include continuing to deliver and promote first-class primary care practices. The 1

Worlds Fair Drive practice plans to develop 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. The Division is exploring a partnership to support statewide quality improvement efforts for clinicians who serve children who receive Medicaid.

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, especially postdoctoral research education. 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.

Left to right: L. Kleinman, M. Quiñones



Pulmonary Medicine and 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. Recently, the new drug Symdeko was made available for prescription and our CRC participated in the Phase III trials of this drug. The results were published in the *New England Journal of Medicine* (N Engl J Med 2017; 377:20242035).

Thomas Scanlin, MD
Professor and Division Director



DOI: 10.1056/NEJMoa1709847). Even more exciting is that we have been participating in the Phase II and Phase III trials of Vertex 659, which is a small molecule that will be combined with the existing dual molecule Symdeko. While this combination drug showed very positive results, a similar drug currently known as Vx445, will be submitted to the FDA for approval.

Mary Carayannopoulos, PhD, Supervisor of our clinical laboratories (Pathology and Laboratory Medicine at RWJMS), 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 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.

Maya Ramagopal, MD, Director of the Sleep Program, was invited to participate in a symposium in December of 2017 in India, and she presented at the RESPICON 2017, Respiratory Chapter of the Indian Academy of Pediatrics (IAP). Dr. Ramagopal also had an article published in the *Journal of Neonatal-Perinatal Medicine*, (2018) "Exhaled breath condensate nitrite in premature infants with bronchopulmonary dysplasia." (*Journal of Neonatal-Perinatal Medicine*, 11(4), 399-407. <https://doi.org/10.3233/NPM-17106>). This is the result of her research project which was a collaboration with Elizabeth Yen, MD, who was a former RWJMS student in pediatrics and was a Resident and Fellow subsequently in Neonatology at Bristol-Myers Squibb Children's Hospital.

Dawn Tortajada, PNP, has already completed a clinical pathway for treating complicated pneumonia. She led the team that developed the pathway and she is

planning to launch an asthma clinical improvement program for the Bristol-Myers Squibb Children's Hospital.

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. This past year, Family Education Day was held on Sunday, April 7, 2019. The theme of the keynote address was the inspiring story of a young man living with CF who turned his life around. All family members and friends of patients with CF were invited to attend. It was a full day event, which included a review of new research in CF and educational sessions on the benefits of physical therapy in CF.

Every year, the CF team (adult and pediatric) also participates in the Great Strides Walk for Cystic Fibrosis. This is a national event with walks in every state in the country. It is intended to spread awareness and raise funds for the Cystic Fibrosis Foundation. Many families who receive care in this center attend this walk and most of our staff attended to represent our program. The walk was held on Sunday, May 5, 2019 in Somerset.

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 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.

Pulmonary Medicine and Cystic Fibrosis Center *(continued)*

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*

Nursing Staff

Lillian Saturria, RN

Staff Nurse

Dawn Tortajada, PNP

Advanced Practice Nurse

Full-Time Staff

Erin McElroy-Barker, LCSW

Coordinator of the CF Center

Vivian De Los Santos

Staff Assistant

Eddy Paredes, RRT

Part-Time Staff

Daria Mintz, RD

Eileen Harrington, RPh

Amanda Morales-Clarke, PsyD

MaryJane Myslinski, DPT

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



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

Rheumatology

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.

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



Our team consists of two pediatric rheumatologists L. Nandini Moorthy, MD, MS, and Daniel B. Horton, MD, MSCE, a nurse, and an administrative assistant. In addition, we are delighted to announce that Cynthia Salvant, MD, joined our division as a clinical pediatric rheumatologist in October 2019. She completed her fellowship at Children's Hospital Los Angeles.

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 Drs. L. Nandini Moorthy and Daniel Horton 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). As PI of the OMH grant (Pediatric Alliance for Lupus -PAL), along with the New Jersey Chapter, American Academy of Pediatrics (NJAAP), she worked towards raising awareness and improving diagnosis and treatment of childhood-onset lupus among racial and ethnic minorities in three distinct geographic locations. The PAL initiative sought to achieve early diagnosis, effective management, and improved health outcomes and HRQOL for childhood-onset lupus patients nationwide and in the target areas using a two-pronged approach to improve health literacy among the patients and their caregivers, and enhancing their medical home by improving knowledge of the providers. Dr. Moorthy received a special achievement award from the AAP for her contributions towards Systemic Lupus Erythematosus.

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 participates in collaborative research in different areas of pediatric rheumatology including juvenile arthritis and vasculitis. Dr. Moorthy is delighted to collaborate and discuss about clinical and translational research projects with colleagues and trainees.

Dr. Horton is a pediatric pharmacoepidemiologist and founding member of the Rutgers Center for Pharmacoepidemiology and Treatment Science, established in 2017 at the Institute for Health, Health Care Policy and Aging Research. He also holds an

Rheumatology *(continued)*

adjunct appointment in the Department of Biostatistics and Epidemiology at the Rutgers School of Public Health. His research focuses on the utilization, effectiveness, and safety of medications in children, and the origins and management of childhood arthritis. He has funding from the National Institute of Arthritis and Musculoskeletal and Skin Diseases of the National Institutes of Health to study the role of antibiotics and the microbiome on the development and activity of juvenile idiopathic arthritis. This research includes collaboration with several other pediatric rheumatology centers in the region, along with support from the PCRC and the Division of Population Health, Quality, and Implementation Sciences (PopQuIS). Dr. Horton's other research interests include the uses and effects of off-label medicines in children as well as decision-making and treatment de-escalation for well-controlled juvenile idiopathic arthritis.

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 students. Dr. Moorthy also facilitates the Patient Centered Medicine course for first-year medical students.

Faculty

L. Nandini Moorthy, MD, MS

Professor and Division Director

Daniel B. Horton, MD, MSCE

Assistant Professor of Pediatrics and Epidemiology

Cynthia Salvant, MD

RBHS Instructor

Staff

Damaris Soto

Secretary I

Aura Velasco, RN

Staff Nurse



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

Faculty Practice

The multispecialty Faculty Practice is comprised of 40 Physicians and 4 Advanced Practice Nurses providing comprehensive healthcare services for children from birth to age 21. The practice consists of 11 clinical divisions including Primary Care and 10 subspecialty divisions providing approximately 40,000 patient visits each year. Our out-patient practices are staffed with 34 central and 39 divisional staff all working in concert to support our faculty in providing quality healthcare 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 welcomed ten additional faculty into the outpatient practice this past year and expanded our clinical services outside of New Brunswick offering convenient appointments at our newly renovated practice in Somerset, our multispecialty practice at Monroe and most recently at our new location in Edison. Most notably, our clinical practices in New Brunswick, was awarded Accredited Status for Ambulatory Health Care by the Joint Commission which recognized our group for setting high standards specific to quality and safety for our patients, faculty and staff.

Clinical Operations Support Staff

Kathleen Faup

Faculty Practice Manager

Lisa Basha, LPN

Juliette E. Coker

Clinic Services Representative I

Christina Congiusta

Secretary II



Left to right (front): D. D'Aiello, M. Gomez-Mena; Left to right (back): M. Rojas, D. Isales, D. Davis, J. Coker, K. Faup, C. Congiusta

Tiffany Cooper

Medical Services Assistant

Diana A. D'Aiello, LPN

Doreen Davis

Clinic Services Representative II

Tracy Lynn Disney

Supervisor, Ambulatory Care Services

Rashonda N. Foxx

Clinic Services Representative II

Maritza A. Gomez-Mena

Clinic Services Representative II

Claire Gregory, Supervisor, LPN

Donna Griffin

Clinic Services Representative II

Melissa Romero-Hurtado

Medical Services Assistant

Denisse Isales

Certified Medical Assistant

Mushirah James

Medical Services Assistant

Deborah A. Lordi

Financial Counselor I

Sheila O'Reggio

Clinic Services Representative II

Hina Patel, LPN

Paritaben Patel, LPN

Sheena Paule, LPN

Betty Pazmino

Medical Services Assistant

Lori Pomaes, LPN

Michelle Rojas

Clinic Services Representative II

Julie Schaeffer

Clinic Services Representative II

Jonathan Alexander Smith

Clinical Services Representative II

Rita Thornton

Supervisor, Ambulatory Care Services

Christina Tran

Clinic Services Representative II

Patricia Travostino, Sr. LPN

Dyshira Wade

Medical Services Assistant

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



Left to right (front): S. Radovick, N. Nandankar, M. Bhattacharya, S. Rao, A. Babwah; Left to right (back): A. Negron, B. Aloqaily

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

A. Negron



Laboratory of Human Growth and Reproductive Development *(continued)*

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).

B. Aloqaily



Laboratory Team Members

Bahaa Aloqaily, PhD

Postdoctoral Fellow

Andy Babwah, PhD

Associate Professor

Aishwarya Kumar

Research Assistant

Nimisha Nandankar

MS Candidate

Ariel Negron, PhD

Postdoctoral Fellow

Vanessa de Oliveira, PhD

Postdoctoral Fellow

Nataliya Parobchak

MS Candidate

Sally Radovick, MD

Professor and Henry Rutgers Term Chair

Shivani Rao

Research Assistant

Jennifer Schaefer

PhD Candidate



Left to right: S. Rao, A. Babwah, J. Schaefer



V. de Oliveira

Pediatric Clinical Research Center



Sunanda Gaur, MD
Professor
Director, Robert Wood Johnson AIDS Program
Director, Clinical Research Center
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 RWJMS 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, more than 100 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.

Over the past five years, on average, thirty-two studies actively enroll study participants each year. Currently, the PCRC is engaged in twenty-seven studies, supported through pharmaceutical industry, NIH and private foundations. In the near future, the center is planning to begin eight to nine additional studies.

Faculty

Sunanda Gaur, MD
Professor
Director, Robert Wood Johnson AIDS Program
Director, Clinical Research Center
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 Gzemski
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

Left to right (front): S. Gaur, L. Cerracchio, B. Ghoshal, C. Varghese; Left to right (back): M. Ramagopal, J. Kirby-Smith, S. Gzemski, S. Rodrigo, Y. Hao, N. Brennan



Employee of the Month Recognition

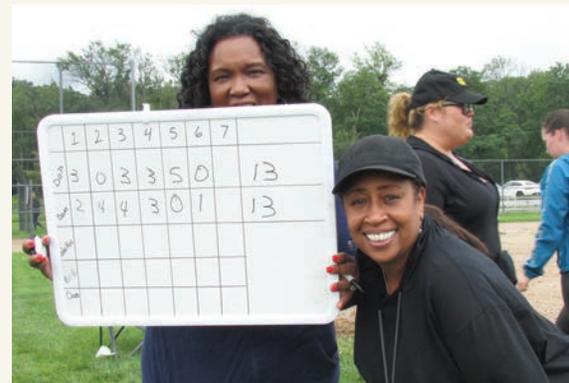


February 2019
Kate McMahon, RN
Division of Gastroenterology



May 2019
Stacy Quinn
*Division of Child Neurology
and Neurodevelopmental Disabilities*

Annual Softball Game



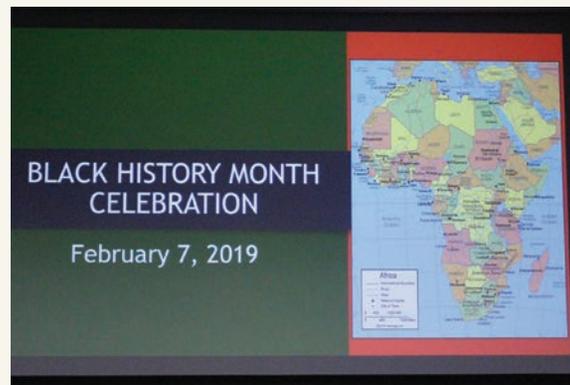
Diwali Celebration



Annual Holiday Party



Black History Month Celebration



Resident Wellness



Annual Pediatric Research Day

— June 13, 2019 —

This year's eighth annual Research Day featured keynote speaker Robert L. Johnson, MD, FAAP, Professor of Pediatrics, The Sharon and Joseph L. Muscarelle Endowed Dean, Rutgers New Jersey Medical School and Interim Dean of Rutgers Robert Wood Johnson Medical School, who discussed "Promoting Health Equity in Adolescent Population."

The event included a variety of poster presentations and highlighted four podium presentations and three poster session selected podium presentations, each of which earned Excellence in Research awards. Our Research Day booklet included 38 abstracts, as well as information on 83 articles, books, and chapters that were published between June 2018 and June 2019 by faculty in the department.



CME/CE Certified Activity

Benjamin Lentzner, MD
Symposium Director

Graduation and Awards



Third-Year Residents

Left to right: E. Thoby, K. Marepalli, A. Kelly, E. Barrington, J. Nafash, J. Ju, M. Botwinick, S. Cheang, C. Chen, M. Jacob, T. Banzon



Neonatology Fellows

Left to right: D. Valazquez, M. Shim, P. Kalia, A. Hedges, A. Joshi, T Hegyi, J. Mariduena, O. Choudry, A. Reddy



Left to right: L. Kleinman, M. Ramagopal, B. Lentzner, A. Weller, S. Radovick

Faculty Award Recipients

Clinical Award for Excellence
in Collaboration and Teamwork
Maya Ramagopal, MD

Clinical Award for Excellence
in Service and Professionalism
Benjamin Lentzner, MD

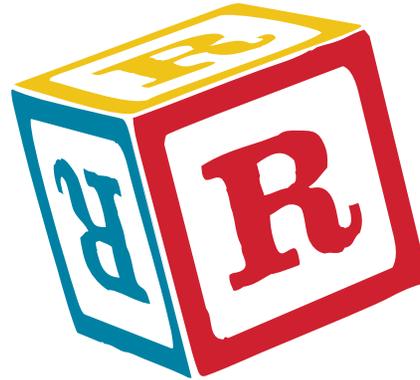
Clinical Award for Excellence
in Quality and Safety
Alan Weller, MD

DEPARTMENT OF

PEDIATRICS

Annual Report 2018–2019





RUTGERS

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<https://rwjms.rutgers.edu/departments/pediatrics/message-from-the-chair>