

# Message from the Chair

I am thrilled to serve as the Nancy C. Paduano Professor and Chair of the Department of Pediatrics at Weill Cornell Medicine. Improving children's health is at the core of everything we do, whether it is providing the latest therapies, collaborating on groundbreaking scientific discoveries, or mentoring the next generation of pediatrician-scientists. Our faculty and staff are experts and innovators in their fields, national leaders in education and patient safety initiatives, and engaged advocates for health equity on campus and beyond.

Exceptional family- and patient-centered care and support remain at the center of our mission. We provide inpatient and outpatient pediatric care in conjunction with NewYork-Presbyterian Komansky Children's Hospital, Alexandra Cohen Hospital for Women and Newborns and NewYork-Presbyterian Lower Manhattan Hospital.

Our department is committed to promoting basic, clinical, and quality research that will help us improve pediatric health, from bench to bedside. Working across specialties, our researchers tackle vital questions in fields such as immunology, pulmonology, cancer, genetics, neonatology, and other areas of focus in child, adolescent, and young adult health. We are enrolling a diverse population of pediatric patients across three boroughs of NYC with research partnerships at NYP Queens and NYP Brooklyn Methodist Hospital. Our faculty and trainees partner with colleagues at the Gale and Ira Drukier Institute for Children's Health, the Tri-Institutional (Tri-I) consortium (Weill Cornell Medicine, The Rockefeller University, and Memorial Sloan Kettering Cancer Center), Hospital for Special Surgery, Cornell University, and other institutions nationally and globally.

Through our superb Pediatric Residency Program and 13 Fellowships, we recruit and train diverse, exceptional pediatricians and physician-scientists who will become the next generation of leaders in children's health. In August 2021, our residency program launched the highly competitive Physician-Scientist Training Program (PSTP) in conjunction with our Tri-I partners. The PSTP aims to train pediatrician scientists to lead scientific discoveries that can be translated into the development, implementation, and evaluation of novel therapies for pediatric patients.

Interwoven in everything we do across our missions is our commitment to Diversity, Equity, and Inclusion. We have charged a Health Equity Task Force to break down healthcare disparities, increased the membership of our Pediatric Diversity Coalition, and increased our Diversity Grand Rounds and Town Halls, adding a Race, Equity and Social Justice series. We continue to expand the career pipeline through our pediatric minority house staff committee, networking mixers, and diversity open houses for

prospective trainees. We strive to make meaningful, transformative change in the

lives of children and families through equitable care.

Sallie Permar, M.D., Ph.D.

Nancy C. Paduano Professor and Chair Department of Pediatrics, Weill Cornell Medicine Pediatrician-in-Chief NewYork-Presbyterian/Weill Cornell Medical Center

Allie & Terman



The Department of Pediatrics at Weill Cornell Medicine is committed to providing exceptional family-centered care for patients, supporting innovative research, and educating the next generation of pediatricians and physician-scientists. The department is affiliated with NewYork-Presbyterian Queens and NewYork-Presbyterian Brooklyn Methodist Hospital.

The twelve subspecialty divisions within the department include dozens of associated programs, services, and outpatient care sites. The department provides subspecialty consultative services and facilities for the diagnosis and treatment of a wide range of pediatric disorders and remains a leading regional referral for high-risk neonates.

# By the numbers

Children's Hospital Serving NYC SINCE 1Q77



37 Medical & Surgical Specialties



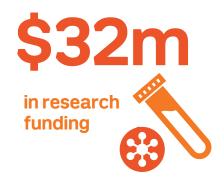
#1

Children's Hospital in New York 2023-24



named by

U.S.News & World Report



Residents
70
Fellows

2023-202



405 Employees 181 Faculty

# locations

# **Ambulatory Sites**

General Pediatrics
Neonatal Neurodevelopmental
Follow Up Clinic

505 E. 70th Street, 5th Floor (HT-5)

**Allergy and Immunology** 

505 E. 70th Street, 3rd Floor (HT-3)

**Cardiology Services** 

525 E. 68th Street, 6th Floor, F-677

**Hematology/Oncology Services** 

525 E. 68th Street, 6th Floor, P-695

**Pediatric Sleep Lab** 

425 E. 61st Street, 2nd Floor, Suite 202

# **Inpatient Sites**

Komansky Children's Hospital

525 East 68th Street

Emergency Room, 1st Floor

Inpatient Care, 6th floor

Pediatric Intensive Care Unit, 6th Floor

Pediatric Sedation Unit, 9th Floor

Alexandra Cohen Hospital for Women and Newborns

1263 York Avenue

Nursery, 16-19th Floor

Neonatal Intensive Care Unit, 15th Floor

**Lower Manhattan Hospital** 

170 William Street

Nursery, 6th Floor

Neonatal Intensive Care Unit, 6th Floor





**Sallie Permar, M.D., Ph.D.** Chair, Pediatrician-in-Chief



**Bruce Greenwald, M.D.**Executive Vice Chair, Operations



**Susan Bostwick, M.D., M.B.A.** Executive Vice Chair, Administration and Faculty



**Anita Mesi, M.B.A.** Chief Administrative Officer

# **Division Chiefs**



Bernhard Kühn, M.D. Cardiology



Juan Pascual, M.D., Ph.D Child Neurology



Bruce Greenwald, M.D. Critical Care Medicine



Zoltan Antal, M.D. Endocrinology



Robbyn Sockolow, M.D. Gastroenterology, Hepatology & Nutrition



Susan Bostwick, M.D., M.B.A. General Academic Pediatrics



Sujit Sheth, M.D.. Hematology/Oncology



Christine Salvatore, M.D. Infectious Diseases



Omar Abdul-Rahman, M.D. Medical Genetics



Camilia Martin, M.D., M.S. Neonatology



Natalie Uy, M.D. Nephrology



Stefan Worgall, M.D., Ph.D. Pulmonology, Allergy & Immunology

# Vice Chairs



Robbyn Sockolow, M.D. **Ambulatory Care Services** 



Jennifer I. DiPace, M.D. Education



Snezana Nena Osorio, M.D., M.S. Quality and Patient Safety



Pramod Narula, M.D. Site Chief of Pediatrics, NewYork-Presbyterian Brooklyn Methodist



Cori Green, M.D., M.S. Behavioral Health Integration and Innovation



Zachary Grinspan, M.D., M.S. Vice Chair of Health Data Science



Camilia Martin, M.D., M.S. Research



Joy Deanna Howell, M.D. Diversity, Equity, and Inclusion



Erika Abramson, M.D., M.S Health Equity and Medical **Education Research** 



Jennie Ono, M.D., M.S. Chief of Pediatrics, NewYork-Presbyterian Queens

# Resident and Fellowship Leaders

# **Pediatric Hospital Medicine**

Melanie Wilson-Taylor, M.D.

Director

Marianne Sharko, M.D.

**Associate Director** 

Adin Nelson, M.D., M.H.P.E.

**Associate Director** 

Snezana Nena Osorio, M.D.

**Associate Director** 

Melissa Rose, M.D.

**Associate Director** 

David Lyden, M.D., Ph.D.

Physician Scientist Training Program

(PSTP) Director

Oleh Akchurin, M.D.

Physician Scientist Training Program

(PSTP) Associate Director

## **Pediatric Fellowship**

Rebecca Epstein, M.D.

Cardiology

Associate Program Director

Christine Joyce, M.D.

Critical Care

Yaffa Vitberg, M.D.

**Emergency Medicine** 

Oksana Lekarev, D.O.

Endocrinology

Aliza Solomon, D.O.

Gastroenterology

Catherine McGuinn, M.D.

Hematology/Oncology

Brooke Spector, M.D.

Hospital Medicine

Associate Program Director

Lilian Cohen, M.D.

**Medical Genetics** 

Lauren K. Blatt, M.D.

Neonatology

Srishti Nangia, M.D.

Neurology

Katharina Graw-Panzer, M.D.

Pulmonology

Alexa Adams, M.D.

Rheumatology

Sameer Dixit, M.D.

Sports Medicine

Marianne Nellis, M.D.

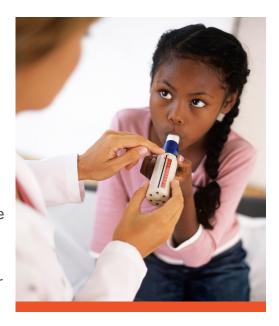
Fellows' Research Director



# Asthma Program

The Asthma Program's mission is to ensure that all children with asthma can heal, grow, learn, and thrive, and improve the lives of children, and subsequently adults, with asthma.

Improve access to high-quality, comprehensive asthma services to low-income children in New York City and promote lifelong asthma self-management skills to those children and their families. In addition, the program aims to expand knowledge of childhood asthma and support the development of novel therapeutics and strategies for prevention.



# **Three Components, Two Campuses**

The WCM Pediatric Asthma Program consists of three main components to improve, expand, and **coordinate** care that is provided to children with asthma at NYP/WCM and NYP-Queens:

- 1. A formalized asthma education program implemented in clinical (both outpatient and inpatient), home-based, and community settings using certified asthma educators, community health workers, and asthma specialists. Asthma education is delivered both inperson and remotely via video visits.
- 2. Coordinated, comprehensive clinical asthma care for high-risk asthma patients across two campuses.
- 3. Ongoing research in childhood asthma supported by a pediatric asthma research data and a longitudinal subject cohort and biobank, enrolling from three NYP campuses (NYP/WCM, NYP-Queens, and NYP-Brooklyn Methodist) across three separate boroughs of NYC.

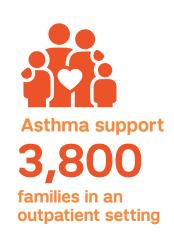
# **Program Organization and Bi-Campus Partnership**

The Pediatric Asthma Program team at Weill Cornell and NYP-Queens is composed of a multidisciplinary staff of pediatric physicians and nurses from general pediatrics, pulmonary, allergy, emergency, and inpatient services, as well as a dedicated Clinical Asthma Educator, two Pediatric pulmonary nurse practitioners specializing in asthma care, asthma trained community health workers, a program manager/community liaison, and the research and program evaluation team. Leadership and oversight of the Program includes the Program Director (Jennie Ono, M.D. M.S.) and the Chief of the Pediatric Pulmonology/Allergy Division at Weill Cornell (Stefan Worgall, M.D. Ph.D.), along with the Program Clinical Director (Kalliope Tsirilakis, M.D.) and research leadership (Perdita Permaul, M.D.).

The cross-campus partnership between the Pediatric Asthma Program at Weill Cornell and the Asthma Center at NYP-Queens was formalized in 2022, becoming one unified asthma program across the two campuses. Together, we established a highly successful collaboration with clinical, educational and research initiatives across the two sites. This unified asthma program enables each clinical site (Weill Cornell and NYP-Queens) to provide site-specific pediatric asthma and allergy care, while aligning clinical best-practices, quality improvement, research initiatives, and educational efforts across Manhattan and Queens. As a result, a pediatric asthma network of highly diverse patient population was developed, allowing patients to receive the same standard of high-quality comprehensive asthma care across both campuses.

## **Impact of our Asthma Program**

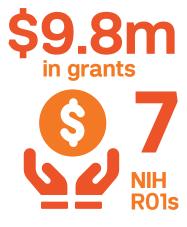
Asthma care is fragmented across many health care settings, leaving families to navigate on their own, so this integrated care model ensures families receive care and education to guide them from clinic to home.







nurses and hospital staff campuses



# Behavioral Health Integration and Innovation Program

The Integrated Behavioral Health Program aims to provide holistic care to all children who receive treatment at NYP/WCM by creating a culture where mental health is de-stigmatized, valued, and integrated into all aspects of care. The program aims to integrate behavioral and mental health into all patient care settings, educate pediatricians to become competent in caring for behavioral and mental health problems, and collaborate with behavioral and mental health specialists.

### **Patient Care**

Psychologists Corinne Catarozoli, Ph.D. and Anjana Jagpal, Ph.D. provide short-term mental health support to internally referred patients from general and specialty pediatricians.

# **Surgical Expansion**

The program recently expanded pediatric psychology to the WCM Pediatric Surgical Service, which allows patients undergoing surgery to access mental health care concurrently with their medical treatment. Parents experience significant stress and worry in advance of their child's surgery, both about the procedure itself as well as their child's future with a medical diagnosis. Families are able to meet with



a psychologist pre-operatively for support with preparing their child for surgery, managing anticipatory anxiety, and addressing potential behavioral concerns. The team offers parents guidance on how to speak to their child about the procedure,

age-appropriate language to use, and tailors discussions to specific medical conditions. Children and adolescents will pre-emptively learn coping techniques to help alleviate the stress of surgery.

Mental health support across the pediatric surgical continuum of care will provide comprehensive treatment to ease the emotional burden during a stressful time for children and families. During the surgical admission, a psychologist will also meet with the family to support concerns that arise at the time of the inpatient stay (e.g., adjusting to the hospital, coping with pain, sleep difficulties). Bedside psychology visits on the unit to both children and parents is an integral part of this service to provide in-the-moment mental health care. Post-operatively, families will be offered follow-up outpatient psychology sessions to address post-discharge concerns, such as recovery at home, school re-entry, and longer-term adjustment.

## **Pediatric Intensive Care Unit Follow Up Clinic**

The program is also newly accepting referrals from the Pediatric Critical Care follow up clinic and providing short-term support to children following admissions in the intensive care unit.

## **HealthySteps Expansion**

The program is overseeing the expansion of HealthySteps, an early intervention program for children 0 - 3, to new pediatric sites in the NYP-WCM sphere, including Jackson Heights, Queens, and Brooklyn Methodist Hospital.

## **Collaborative Care Program in General Pediatrics**

The Behavioral Health Program is in the process of implementing the collaborative care model in the General Pediatrics practice to provide evidence-based mental health care. This model focuses on collaboration among a child's pediatrician, a psychiatrist, and a care manager and has been shown to treat depression, anxiety, and ADHD in youth.

#### Teach

This year, the program continued Pediatric Psychology and Integrated Care fellowship and recruited a new fellow for 24-25 academic year. The department continued to implement novel suicide prevention training to residents.

Additionally, the program is piloting Youth Cope with Pediatrics residents for training in brief mental health treatment. A new ACGME-mandated mental health rotation for pediatrics residents will begin in 2025. The department is currently developing a mental health training curriculum with plans to pilot this with residents in Summer 2024.

# Perinatal Intergenerational Research Institute

The Perinatal Intergenerational Research Institute (PIRI) at Weill Cornell Medicine is at the forefront of enhancing maternal-infant health research. The primary investigators are Camilia R. Martin, M.D. M.S., Division Chief of Neonatology and Vice Chair of Research, Department of Pediatrics and Lauren M. Osborne, M.D., Vice Chair of Research, Department of Obstetrics and Gynecology. PIRI is developing cross-disciplinary infrastructures and innovative methodologies, leveraging advancements in data acquisition and bio sample collections within our clinical programs. PIRI's role in addressing the challenges of small study and sample sizes and unreliable mother-baby linkage is crucial. This infrastructure fosters interdisciplinary research partnerships, enabling state-of-the-art biological analyses and data science, and positions PIRI as a leader in the field. PIRI has received IRB approval to begin maternal-infant enrollment, continues to build and sustain its comprehensive maternal-infant medical databases, and has officially launched its website.

# Center for Early Life Epilepsy Study, Treatment, and **Education (CELESTE)**

Zachary Grinspan, M.D.M.S. (Department of Pediatrics) and Caitlin Hoffman, M.D. (Department of Neurosurgery) are collaborating to grow our comprehensive pediatric epilepsy program through an initiative called CELESTE (Center for Early Life Epilepsy Study, Treatment, and Education). Via a multidisciplinary approach, the team offers comprehensive care for children with epilepsy, using advanced medical therapies like the ketogenic diet, novel medications, and gene therapies, along with advanced surgical treatments like stereo EEG, seizure focus resection, and hemispherectomy.

In addition to state-of-the-art clinical care, the team is advancing epilepsy research through our NIH-funded projects and clinical trials portfolio, and is dedicated to training the next generation of clinicians in epilepsy and its treatments.

# civersity, equity, and inclusion

# Mission

To champion diversity in all its forms, embracing race, ethnicity, gender, gender identity, sexual orientation, age, ability, socioeconomic strata, religious belief, and culture.

# Vision

We aspire to cultivate a team with a profound understanding of the health impacts of historical and contemporary institutional and societal forces, markets, and healthcare delivery systems essential for caring comprehensively for the children and families of New York City and beyond.

# Diversity, Equity, and Inclusion

The Department of Pediatrics is unwavering in its commitment to fostering Diversity, Equity, and Inclusion (DEI) across all its endeavors. Dr. Joy Howell, serving as Vice Chair of Diversity,

Equity, and Inclusion is at the helm of the department's expansive DEI mission. She also serves as Assistant Dean of Diversity and Student Life at Weill Cornell Medicine.

# **The Pediatric Diversity Coalition**

(PDC), comprised of individuals from underrepresented as well as majority backgrounds, is committed to advancing diversity, equity, inclusion, and belonging (DEIB) within the Pediatrics community.

The Pediatric Minority Housestaff, is comprised of residents and fellows from backgrounds that are



underrepresented in medicine (URiM) and supported by underrepresented faculty.

#### **Grand & Professors Rounds**

In 2023-2024, the department maintained its focus on education and climate, workforce development, community engagement, and health equity. In addition to the longitudinal education embedded within the Race, Equity, and Social Justice Learning Series, diversity grand rounds series included screening for social determinants of health, climate and environmental justice, refugee health, as well as The Case for Diversity.

- Integrating climate and environmental justice into pediatric medicine
- Advancing an equity lens in research
- DEI in healthcare associated infections
- Considerations in language barriers

Our Professor Rounds centered around the Race, Equity, and Social Justice Learning Series, discussing subjects like Cultural Humility, Collective Trauma, Antisemitism, Anti-Muslim Bias, Gender Affirming Care, Child-Trafficking and Exploitation, Allyship, and the operationalization of Antiracism.

# Recruitment, Retention, and Professional Development

In line with the commitment to workforce development, the department sponsored visiting electives for fourth-year medical students from underrepresented backgrounds in medicine. In 2023, the department welcomed visiting scholars as first-year residents and doubled our capacity in 2024. The department's efforts around diversity residency recruitment includes mixers and participation institutional and national recruitment conferences such as Latino Medical Student Association (LMSA) and the Student National Medical Association (SNMA).

In terms of recruitment, underrepresented communities' representation has increased.



# Community Engagement, Clinical Care, and Health Equity

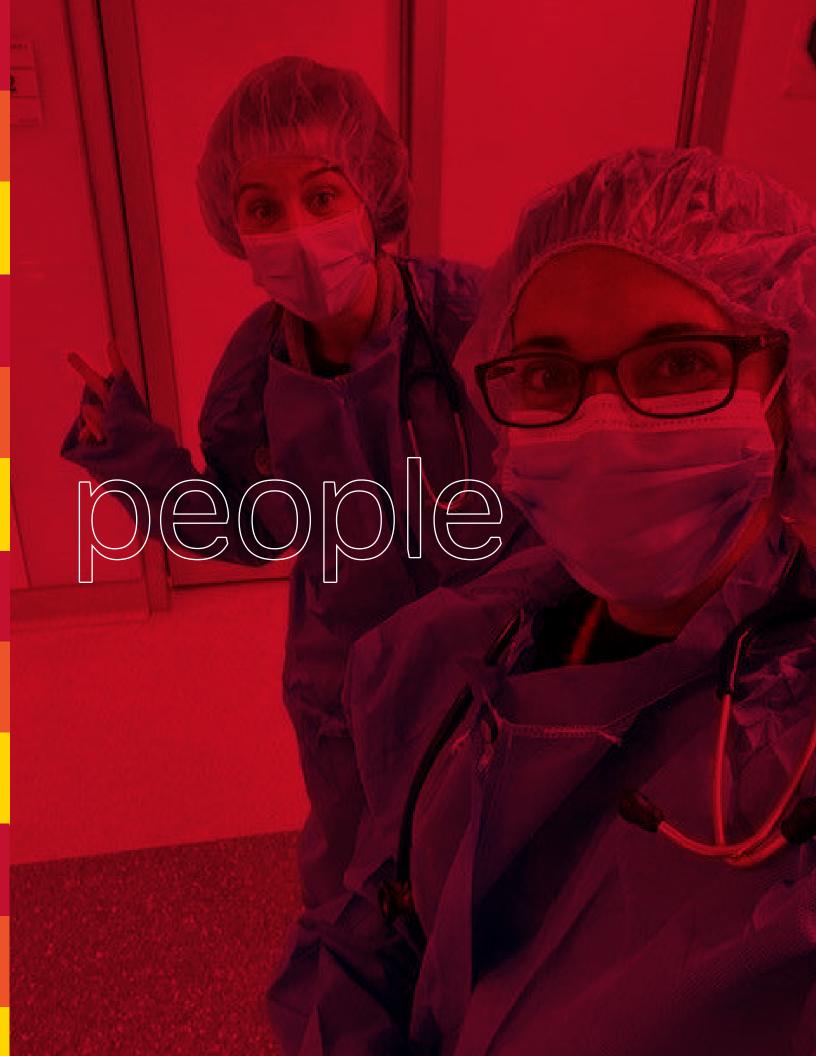
The Health Equity Taskforce transitioned to a working group focusing on developing the infrastructure to track healthcare outcomes and promoting health equity and health equity research in pediatric sub-specialties.

A notable initiative is a study on the effects of practice integration to enhance ambulatory care. The department also engages with local schools, including Middle School 302's Annual Career Fair, and runs the Health Professionals In Training (HPIT) program. This program began in 2022 and has grown to four interns in 2024. The HPIT program offers students invaluable exposure to various healthcare professionals, including clinical exposure, simulation, anatomy, and ambulance experiences, and mentorship opportunities.

## **Investment in Postbac Programs**

In June 2023, the team proudly introduced the Pediatric Postbaccalaureate Program (P3), an innovative initiative designed to offer professional development opportunities to postbaccalaureate scholars, particularly those from underrepresented or socioeconomically disadvantaged backgrounds. P3 scholars successfully benefit from an array of resources, including MCAT preparation materials, workshops on educational success strategies, mock interviews, personal statement reviews, and personalized mentorship from our dedicated faculty.

This year, the department's community engagement included recruiting an additional faculty member (Julen Harris, M.D., MPH) to the leadership team of Health Professionals in Training, incorporation of on-campus visits into the longitudinal program, participation in Middle School 302 Career Week, and a departmental book fair benefiting Innovation High School, Success Academy and Manhattan East Schools.



# **New Faculty**

In the academic year 2022-2023 and half of 2024, our department welcomed **56** new faculty members, while **27** of our existing members received promotions and new appointments.

# Cardiology

Manoj Chhabra, M.D. (NYPBMH)

Denis Donovan, M.D.
Rebecca Epstein, M.D.
Grace Kong, M.D.
Bernhard Kühn, M.D.
Honghai Liu, Ph.D.
Justin Pick, M.D. (NYPQ)
Ankur Shah, M.D.(NYPBMH)

Hanano Watanabe, M.D.

## **Child Neurology**

Zuhal Ergonul, M.D.

Juan Pascual, M.D. Qian Ma, Ph.D. Asim Shahid, M.D. (NYPBMH) Katherine Travis, Ph.D.

#### Critical Care Medicine

Charles Bergman, M.D. Matthew Nelligan, M.D. Juliana Romano, M.D. George Ru, M.D.

#### Endocrinology

Alyson Weiner, M.D.

# **General Pediatrics**

Nonyerem Acholonu, M.D.

Hadley Brighton, M.D.

Julen Harris, M.D., M.P.H.

Rachel Helm, M.D. Alexandra Huttle, M.D. Jimin Lee, M.D., MS

Theresa Scott, D.O. Teresa Vente, DO

# Gastroenterology Hepatology & Nutrition

Arielle Grossman Bergman, M.D. Kenny Castro-Ochoa, M.D. Emilie Grasset, Ph.D. Adriana Perez, M.D. Melissa Rose, M.D.

# General Pediatrics – Child Development

Alyson Gutman, M.D.

## Hematology/Oncology

Nitya Gulati, M.D.

Mohamad Hamieh, Ph.D. Jaclyn Rosenzweig, M.D.

### Infectious Diseases

Melanie Dubois, M.D, M.P.H. Genevieve Fouda, M.D., Ph.D. Ashley Nelson, Ph.D.

#### **Medical Genetics**

Omar Abdul-Rahman, M.D.

## Neonatology

Emily Ahn, M.D.

Sean Cullen, M.D., Ph.D. Nina DeBenedictis, M.D. Victoria Eckels, M.D.

Giselle Gozum, M.D. (NYPBMH)

Camilia Martin, M.D., M.S.

Jayasree Nair, M.D. Hannah Pee, M.D. Tarik Zahouani, M.D.

## Nephrology

Hannah Kim, M.D. Natalie S. Uy, M.D.

# Pulmonology, Allergy & Immunology

Ryan Kahanowitch, M.D.
Priya Katari, M.D.
Rashi Kochhar, M.D.
Pramod Narula, M.D.
Dana O'Toole, M.D.
Miriam Samstein, M.D.

# Psychology

Anjana Jagpal, Ph.D.

# **Promotions**

Alexander Chou, M.D.

Professor of Clinical Pediatrics

Kimberley Chien, M.D.

Associate Professor of Clinical Pediatrics

Ria Goswami, Ph.D.

Assistant Professor of Virology in Pediatrics

Karen Lin Su, M.D.

Clinical Professor of Pediatrics

Catherine McGuinn, M.D.

Associate Professor of Clinical Pediatrics

Jennie Ono, M.D.

Associate Professor of Clinical Pediatrics

Jayasree Nair, M.B., B.S

Associate Professor of Clinical Pediatrics

Diane Lee, Psy.D.

Assistant Professor of Psychology in Pediatrics

Oleh Akchurin, M.D., Ph.D.

Associate Professor of Pediatrics

Oksana Lekarev, D.O.

Associate Professor of Clinical Pediatrics

# **Awards**

Faculty and staff receive recognition for their contributions at departmental, institutional, and national levels. This represents and celebrates a sample of the many awards our colleagues have received.

## **Department Awards**

Vivien Yap, M.D. Master Clinician Award

Ashley Nelson, Ph.D.
Junior Faculty Research Award

Nitya Gulati, M.D. Junior Faculty Research Award

Kalliope Tsirilakis, M.D. Quality and Patient Safety Award

Diane Murray
Employee Recognition Award in Education

Amy Tan Employee Recognition Award

Elise Rentas
Employee Recognition Award

Nicole Kelly, M.D.
David H. Komansky Senior Fellows
Research Award

Elliott Gordon, M.D.

David H. Komansky Senior Fellows Research

Award

Hera Mahmood, M.D. David H. Komansky Senior Fellows Research Award







#### **Institutional Awards**

Joy Deanna Howell, M.D. Senior List

Joy Deanna Howell, M.D. Leonard P. Tow Humanism Award

Mark M. Souweidane, M.D. Dean's Award for Excellence in Mentorship

Theresa Scott, D.O.
Excellence in Medical Education Award

Adin Nelson, M.D., MHPE
Excellence in Medical Education Award

Thanakorn Jirasevijinda, M.D.
Jeanne and Herbert Siegel Award for Excellence in Medical Education

Thanakorn Jirasevijinda, M.D.
Cornell University – Chulalongkorn University
Global Strategic Collaboration Award

Jennifer Goldsmith, R.N. Annual Nursing Award

Narissa Williams, M.D.

NYP/Cornell Graduate Staff of the
Month Award

Krithika Karthigeyan, Ph.D. 2024 Ritu Banga Healthcare Disparities Research Award

Revathy Sundaram, M.D.

Nursing Award for Physician of the Year

Melanie Wilson-Taylor, M.D.

Educational Academic Development
(LEAD) Cohort

Asim Shahid, M.D.
Pediatric Neurology Teaching Award

# Wellness

The department's wellness committees play a pivotal role in providing support, organizing activities, and fostering a culture of well-being among our faculty and staff.

# **Faculty**

The Faculty Wellness Committee, a collaborative effort that includes members from NewYork-Presbyterian/Weill Cornell Medical Center, NewYork-Presbyterian Brooklyn Methodist Hospital, NewYork-Presbyterian Queens, and Hospital for Special Surgery, actively engages with faculty to enhance their well-being and professional growth. This year, the committee provided faculty members with emblemed and embroidered fleeces. Additionally, in partnership with the Staff Wellness Committee, the committee launched a monthly snack distribution program across multiple locations.

Ongoing initiatives have continued to receive positive feedback, including:

- Quarterly book clubs
- Biannual wine and cheese mixers
- Softball and kickball games with our residents, fellows, and APPs in Central Park
- A guided visit to the Metropolitan Museum of Art
- 'No-meeting Summer Fridays' throughout the department
- Wellness topics incorporated into department's Grand Rounds schedule

#### Staff

The Staff Wellness Committee has introduced an array of engaging initiatives aimed at promoting healthy lifestyles, networking, and overall well-being among our staff members. One of the earliest endeavors was the establishment of the Walking Club, which encourages staff to join bi-monthly



strolls along the FDR to 59th Street and back to the main hospital.

Throughout the year, the committee organized various events to strengthen a sense of community and well-being, including an autumn potluck, a holiday treat exchange, and the distribution of Valentine's Day candy across the main hospital sites and in Helmsley Medical Tower. The committee also participated in national awareness events, hosting a wine and dessert happy hour for Administrative Professionals Day and a pizza party for National Pizza Party Day.

# Patient Quality and Safety in Pediatrics

The Department of Pediatrics has steadfastly dedicated itself to enhancing patient quality and safety, striving to ensure the well-being of both our patients and employees. Dr. Snezana Nena Osorio serves as Vice Chair for Quality and Patient Safety and Professor of Clinical Pediatrics in the Department of Pediatrics, Weill Cornell Medicine.

## Solutions for Patient Safety: Safety Culture and Hospital Acquired Conditions

The Department initiated Proactive Safety Huddles to help reduce Serious Harm Events, moving closer to our goal of zero harm. This includes all all areas where pediatric patients receive care. The main goals of Proactive Safety Rounds are to engage with staff, observe work processes, and identify potential risks impacting operations. The department completed 10 Safety rounds January 2023 through May 2024.

- At the National SPS Learning session in October 2023, Dr. Osorio was a speaker on Psychological Safety. In addition, Caitlin Ehret shared the Komansky Children's Hospital (KCH) success establishing Proactive Safety Huddles. Regionally, our Unplanned Extubation team continues to lead the UE PDSA Challenge team along with colleagues from Morgan Stanley Children's Hospital and New York University.
- In the SPS's "Shine Report," KCH was included for outstanding results in Falls and ADEs
  prevention, outperforming SPS in CLABSI, CAUTI, SSI and High-Grade Pressure Injuries,
  Stages 3, 4 and Unstageable. NICU UE significantly improved but not yet at the SPS level.
- Courtney Nataraj, former KCH Family Advisory Council Chair, was elected as a member of the NYPH Quality and Safety Board.
- In 2023, RRT and cardiac arrest codes were introduced as two primary ways to obtain help in medical emergencies. The goal is to reduce/eliminate cardiac arrest codes in areas outside of the ER and ICU's. To date, the department had 116 RRTs and one cardiac arrest code on 6N/6C, down from four cardiac arrest codes in 2022.

# **QPS Clinical Programs**

## **Simulation Discharge Program**

MacKenzi Nicole Preston, M.D., MHPE and FAC member Courtney Nataraj lead the successful "Simulation Discharge Program" (SDP). Dr. Preston expanded the SDP program to include Gastrostomy Tube (GT) training for parents/legal guardians of children with newly placed GT tubes. Almost all family members of children with newly placed tracheostomies and GT received SDP training since the program started. The team is adding a new training module to address tracheostomy emergencies. Additionally, Dr. Preston is developing a study using 3D models to enhance SBE and to improve medical providers' comfort in caring for children

with medical devices. Lastly, the team presented well received workshops at several national meetings, including the Pediatric Hospital Medicine - August 2023, APA Region II/III Annual Meeting – March 2023, and the PAS 2024.

## **Behavioral Program**

The department is currently developing this much needed program to address the safety needs of the growing population of patients with behavioral issues and to address safety needs of the medical staff. Goals of this program include an implementation of universal screening for aggressive behavior upon admission and a development of behavioral safety plan for each high-risk patient. As a first step in developing this program, the department activated the universal screen for aggressive behavior (Violence Rating Scale for Medical Surgical Units) and designed the "Behavioral Order Set" currently under development. In the mean time, the nursing team will receive education regarding behavioral screening and how to use the VRE tool. The program launched in September 2024.

# **Ambulatory Safety**

Collaborating with Cook Children's Hospital and Kentucky Children's Hospital, the department participated in the SPS ambulatory incubator project on vaccine safety aiming to reduce errors of administration, timing, and missed opportunities. This WCM led project has expanded across the NYP Enterprise, engaging key stakeholders at all our campuses.

In the summer of 2023, the department submitted a "staff emergency safety plan" to the Weill Cornell Medicine Physician Organization, which included training for managing challenging patients and practicing emergency and security plans. The clinical staff completed BLS certification, Team STEPPS refresher training, and emergency response simulation training.

The department also joined the ABP's learning collaborative "Roadmap for Emotional Health" to increase mental health screening for children with chronic conditions in our subspecialty clinics and established mental health resources, as well as office-based interventions for these highrisk patients.

The department's expanded influenza vaccine campaign resulted in improved vaccination rates among our highest risk patients with chronic illnesses.

We initiated a new proactive safety tool introduced by SPS, Learning Teams. Ambulatory safety leadership completed a Learning Team with the Subspecialty Medical Assistants with the aim of reducing lab work-related errors by standardizing patient verification practices. This work will be presented at the fall SPS learning session.

# Family Advisory Council

The NewYork-Presbyterian Komansky Children's Hospital Family Advisory Council (FAC) is a dedicated collective of parents, caregivers, and hospital staff committed to improving the hospital environment for children, their families, and caregivers. The primary objective of the FAC is to foster the safest and highest quality medical care within an environment that is family-friendly and child-centered.

During 2023 and 2024, the FAC excelled in supporting families across four key areas of focus:

# Family Support Group - FY 23-24 Stats









## Diversity, Equity, and Inclusion (DEI)

The Diversity, Equity, and Inclusion (DEI) Group worked tirelessly to create an inclusive environment and enhance the experiences of our diverse community of patients and families. The DEI group continues to evolve The Extra Mile Program (TEMP). The FAC partners with the Social Work team to offer access to food, transportation, and clothing for our families in most immediate need. DEI representatives joined resident-led QI project to improve Social Determinants of Health screening in the inpatient setting, as well as a research study funded by the Dalio Center to improve medical staff's cultural competency. In partnership with Dr. Melanie Wilson Taylor, DEI and Family Faculty Group (see below) members created a DEI Teaching Case to be included in residents' curriculum. The FAC members attended the Dalio Center 1000-day conference and The Institute for Patient and Family Centered Care Conference: "More Than Checking a Box: Strengthening DEI in Children's Hospital PFACs." Lastly, Kanisha Dolsingh who leads the DEI group, represented our hospital at an IPFCC national DEI panel. The panel was well received and inspired Lucille Packard to create a fund for a National Project Advisory Committee Board to create a toolkit to improve policies and practices to advance DEI track, assess the progress, and engage PFACs across national hospitals. Kanisha will represent the KCH FAC on this board.

## **Family Faculty Group**

The Family Faculty Group partnered FAC members with WCM Faculty and nursing staff to coeducate medical students, fellows, residents, and nurses using interactive case studies based on real-life events. These collaborative sessions provided Patient and Family-Centered Care (PFCC) education to over 160 medical students, 75 residents and fellows, and more than 210 nurses. This group created a DEI Teaching Case and Video that will to be rolled out as part of resident curriculum in 2025.







The team also expanded the program internationally by partnering with Dr. TJ Jirasevijinda to deliver the "Case of Bao" to medical students in Bangkok, Thailand.

This year marks important achievements for the Family Faculty Group, including their participation as advisors on the Institutional Review Board (IRB) and the Health Equity Research team led by Dr. Erika Abramson.

## **Quality and Safety & Patient Experience**

The Quality, Safety, and Patient Experience Group collaborated closely with staff to develop programs that educate parents and caregivers on how to keep their child safe during a hospital stay. FAC members currently participate in more than 20 Hospital Committees.

FAC members actively participated in both Regional and National SPS learning sessions. At the local level, FAC members engaged in all Hospital-Acquired Condition (HAC) Teams. They also played vital roles in the Safety Event Review Committee, Safety Leadership Rounds, and the Operations Committee. A notable achievement this year was FAC's participation in the Regional Patient Engagement webinar, where members shared FAC's path to success with New York State Regional Hospitals. This year, FAC members joined the Pressure Injury (PI) HAC lead, Ariel Rudd, and have taken an active role in assessing the use of Pressure Injury Safety Card in the inpatient setting. Courtney Nataraj continues her active engagement at the SPS as a member of the SPS Ambulatory CLABSI team.

This marks an important achievement for the FAC, as Courtney Nataraj was appointed for the very first time to serve on the NYP Board of Trustee Safety and Quality Committee. This appointment is critical to recognizing FAC's contributions to patient safety at the NYP and SPS.

At large, FAC members were invited to meet evaluators for the Magnet Redesignation. Magnet Designation recognized excellence in nursing care at the NYPH. This year also marks the initiation of FAC activities in the Ambulatory setting. In partnership with Child Life, FAC distributed holiday gifts in this setting.

# Child Life

The Child Life and Creative Arts Therapy team at NewYork-Presbyterian Komansky Children's Hospital achieved significant milestones, working diligently to provide comprehensive support for patients and their families.

- Successfully filled all vacant positions, expanding its workforce to include 17 child life specialists, 2 music therapists, 1 art therapist, and 1 playroom assistant.
- Covered over 30 pediatric clinical areas, offered consultations at additional locations, provided support to approximately 600 pediatric patients each month, and extended consult care to nearly 200 families of critically ill adult patients with children.

The Child Life team continued to foster impactful programming through enduring partnerships. Project Sunshine, a collaboration initiated over a decade ago, acknowledged NewYork-Presbyterian with its Partner in Play award, highlighting the hospital's dedication to promoting child well-being through play and art. The EnCourage Kids Foundation granted the Child Life and Creative Arts Therapy Department \$35,000 to support music therapy in March 2023.

We introduced an emotional safety initiative as a multidisciplinary approach to enhance resiliency, healing, and trust of pediatric patients and their families during medical experiences. This practice encompassed proactive screening and assessment, intervention, environment, education, training, and communication to address the emotional needs of pediatric patients. The initiative was shared with various groups and forums throughout 2023, leading to several goals for better patient and family support, such as standardizing caregiver accompaniment to the operating room and enhancing pain management strategies, ensuring greater access to local anesthetics for venipuncture.

## Noteworthy contributions:

- Ms. Nina Friedman, senior child life specialist in Pediatric Emergency, completed a research study on "Quality of Life for Children with Mental and Behavioral Health Emergencies in the Pediatric Emergency Department" and presented it at conferences, including the Society for Academic Emergency Medicine, the Pediatric Academic Societies, and Weill Cornell's Emergency Medicine Research Symposium. Nina joined the core steering committee and national advisory panel for the Emergency Department Screening and Treatment Options for Pediatric Suicide Quality Improvement Collaborative, representing the field of child life.
- Ms. Sarah Fine, ematology/Oncology art therapist, embarked on a research journey by
  enrolling in a Drexel University study entitled "Art Therapy in a Hematology/Oncology/Bone
  marrow transplant clinic for Pediatric, Adolescent, and Young Adult Patients: A pilot mixed
  methods observational study." Her study explored the impact of open studio art therapy on
  psychosocial well-being among pediatric, adolescent, and young adult hematology/oncology
  patients, families, and healthcare providers.



# Cardiology

The Division of Pediatric Cardiology excels in clinical care and innovation, achieving exceptional patient outcomes. This division is an integral part of the Congenital Heart Center at NewYork-Presbyterian Hospital, the region's top-ranked facility for pediatric and adult congenital heart care. Our focus areas include transcatheter interventions, non-invasive imaging, and ongoing quality enhancement with transparent outcome reporting. Our team specializes in the pre-natal and post-natal diagnosis, surgical, transcatheter, clinical management, and treatment of a wide range of cardiac conditions. Our extended team of pediatric cardiologists also provide care for adult patients whose heart disease is either congenital in origin or acquired during childhood.

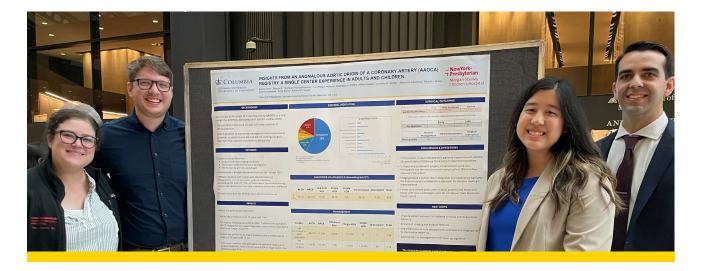
#### Care

In 2024, the department successfully recruited Bernhard Kühn, M.D. as the new Chief of the Division of Pediatric Cardiology and co-director of the NewYork-Presbyterian Children's Heart Center. Dr. Kühn is a leading physician-scientist who specializes in heart regeneration, and has made notable contributions to the field. During the 2023-2024 academic year, the division restarted the congenital MRI program via the recruitment of Grace Kong, M.D., a subspecialty trained pediatric cardiac MRI expert; expanded the exercise stress test program, offering weekly cardiopulmonary exercise testing, via the recruitment of Denis Donovan, M.D., and initiated a Transition Program for Adolescents/Young Adults with Congenital Heart Disease (CHD), led by Rebecca Epstein, M.D. The division also increased fetal and outpatient capacity by increased presence at the WCM Pediatric Cardiology William Street Office. Shelia Carroll, M.D. launched a combined morbidity and mortality conferences with Pediatric Cardiac Surgery along with a Pediatric Cardiology Visiting Lecture Series.

#### **Discover**

Pediatric Cardiology engaged in several exciting projects, including a multi-center study on cardiac CT in vascular rings, and recently initiated NIH-funded randomized controlled trials for beta blocker administration in tetralogy of Fallot. In 2024, the division also recruited Honghai Liu, PhD, marking a milestone, and placing the division among a few Pediatric Cardiology divisions nationally that have research faculty within the division.

In partnership with Columbia, Denis Donovan, M.D. published an article in 2023 highlighting his research regarding cardiovascular screenings in young athletes to prevent Sudden Cardiac Death (SCD), the leading cause of death in athletes under age 35. SCD related deaths are most commonly caused by underlying cardiac problems that can go undiagnosed, as the athletes have never presented with any symptoms. This research stresses the importance of cardiovascular screening to help protect young athletes and find these heart issues before cardiac events.



Additionally, in partnership with the Division of Pediatric Critical Care, Patrick Flynn, M.D. and Sheila Carroll, M.D. published the article "Annexin A2 Loss After Cardiopulmonary Bypass and Development of Acute Postoperative Respiratory Dysfunction in Children" in Critical Care Explorations. Sheila Carrol, M.D. and Denis Donovan, M.D. also published "Chylous pericardial effusion with cardiac tamponade in a child treated with imatinib" in Cardiology in the Young.

## **Teach**

The division runs a joint pediatric cardiology fellowship with Columbia/Cornell and trains five pediatric cardiology fellows per year with the plan to expand to six per year in 2025. The division also teaches medical students and residents through didactics, in the office and on hospital rounds as well as trains Maternal Fetal Medicine Fellows in fetal echocardiography. The division has hosted several educational meetings that expand beyond WCM and include the larger community, including the June meeting of The New York Pediatric Echocardiography Society (NYPES), bringing together pediatric cardiology imaging faculty and trainees from around NYC to review exceptional cases. In January 2024 the division hosted the annual Sylvia Griffiths Lecture for the Pediatric Society of Greater New York and invited Laura Oliveri, MD from the University of Pittsburgh to speak on cardiac MRI in pediatric patients.

## Community

Dr. Donovan spoke to physicians at the NYC Department of Education office about exercise testing and clearance for sports in school age children.

# **Critical Care**

The Division of Pediatric Critical Care provides state-of-the-art care to critically ill infants, children, and adolescents. The multidisciplinary team of intensivists, critical-care nurses, and healthcare professionals specializes in delivering comprehensive care for a wide range of critical conditions.



#### Care

The team faced significant challenges in 2023 as the division managed unprecedented surges in respiratory viral illnesses and associated respiratory failure in many of the affected children. The multidisciplinary team worked tirelessly to accommodate these cases and provide the highest level of care to every patient. The PICU continues to maintain close collaboration with all pediatric medical, surgical, and interventional sub-specialties, offering innovative therapies, and highlighting our dedication to outstanding multi-specialty intensive care.

The Pediatric Cardiac Intensive Care program expanded through collaboration with the NewYork-Presbyterian Pediatric Heart Center, resulting in increased surgical volumes, particularly in neonatal cardiac cases. Outstanding coordination among PICU, NICU, Pediatric Cardiology, Cardiothoracic Surgery, and Cardiac Anesthesia led to superb outcomes for these patients. The Pediatric Extracorporeal Membrane Oxygenation (ECMO) Program achieved remarkable growth and received national recognition with an Extracorporeal Life Support Organization (ELSO) designation as a Gold Center of Excellence.

The team successfully introduced innovative ventilation techniques, such as high-frequency percussive ventilation for severe hypoxemic and hypercarbic respiratory failure, and intrapulmonary percussive ventilation for airway clearance in patients with obstructive respiratory conditions.

The physicians led efforts to create standardized enterprise-wide approaches to pediatric diabetic ketoacidosis and severe traumatic brain injury, improving pediatric care across all NYP campuses. The division established a PICU Follow-up Clinic, focusing on monitoring the long-term social, emotional, and cognitive effects of PICU admissions, and ensuring timely identification and referral for needed post-PICU treatment.

## **Discover**

The Weill Cornell Delirium Work Group (DWG), under the leadership of Chani Traube, M.D. continues to lead groundbreaking research on delirium in critically ill children, expanding its focus to long-term outcomes. The division serves as the data coordinating center for a National Cancer Institute-funded study on delirium epidemiology and long-term cognitive outcomes in children post-stem cell transplantation. Additionally, the division is part of a National Institute of Child Health and Development-funded study exploring the link between sedative pharmacokinetics and delirium.

The faculty is actively involved in multi-site studies aimed at preventing and treating bleeding in critically ill children. The division led the first NIH-funded randomized clinical trial of platelet transfusions for children on extracorporeal membrane oxygenation (ECMO) and spearheaded a 25-center international study to determine optimal resuscitative measures for children with cancer and severe bleeding.

The team achieved significant breakthroughs in children's health by developing web-based calculators to standardize and simplify emergency and resuscitation medication calculations, as well as fluid and insulin management for diabetic ketoacidosis, refining care and reducing calculation errors.

#### Teach

Our fellowship program prioritizes developing technical and cognitive competencies in managing critically ill children and emphasizes research skills. Educational offerings include flipped classroom physiology conferences, multidisciplinary simulation sessions, and



a longitudinal ultrasound curriculum. Our curriculum incorporates patient case conferences, PICU Grand Rounds, and journal clubs to ensure well-rounded training for our fellows.

The Pediatric Critical Care Medicine fellowship focuses on developing skills for managing critically ill children and research expertise. The program includes weekly Grand Rounds with top lecturers, patient case conferences, flipped classroom physiology sessions, a research curriculum, journal clubs, multidisciplinary simulations, and a longitudinal ultrasound curriculum. Notable additions are a Health Equity in the ICU (HEICU) series and a weekly fellowrun simulation program for residents.





# Endocrinology

The Division of Pediatric Endocrinology provides state-of-the-art care for children and adolescents dealing with diabetes and a comprehensive range of pediatric endocrine disorders. We are the first nationally recognized comprehensive care center for Congenital Adrenal Hyperplasia (CAH). Additionally, the division maintains a close partnership with colleagues at the Hospital for Special Surgery and provide the highest level of medical care for children with osteogenesis imperfecta and various other bone disorders.



## Care

Throughout 2023 and 2024, we achieved several significant milestones in our commitment to providing exceptional care to children and adolescents. Alyson Weiner, M.D., Emily Coppedge N.P., Elizabeth Gunckle N.P., Isabel Reckson R.D., and Lauren Sam, L.C.S.W. collaborated to establish a comprehensive protocol of care and follow-up for high-risk patients with type 1 diabetes requiring more intensive monitoring. They also championed the implementation of universal mental health screening for all children with diabetes, recognizing the critical role mental health plays in overall well-being to address the high prevalence of anxiety and depression. A mental health care team that includes a psychologist and social worker are embedded within the endocrine division and other subspecialties for rapid engagement and intervention.

For our children and families with osteogenesis imperfecta, we have streamlined our infusion protocols to provide infusions safely and more efficiently, both inpatient and outpatient. Oksana Lekarev, D.O. made a notable contribution by spearheading an industry-sponsored new drug trial for CAH. Such trials are rare for this condition, underscoring our dedication to

advancing treatments. Dr. Lekarev also played a pivotal role in formalizing an endocrine care plan as part of Compass, a program designed to support transgender and gender-diverse children and adolescents.

Karen Lin Su, M.D. serves on various college and hospital committees who advise on the complex care of children with differences in sexual development. Marisa Censani, M.D. has continued to lead and grow the pediatric program focused on healthy weight management. Together with Dr. Weiner, they have addressed the significant recent interest in pharmaceutical management of obesity and metabolic syndrome in children and adolescents.

### **Discover**

The team has been diligently pursuing several vital research projects. Zoltan Antal, M.D. is spearheading a study contributing to a nationwide Quality Improvement (QI) collaborative database, focusing on Quality Assurance and Quality Improvement measures for type 1 diabetes. Along with Emily Coppedge N.P., Isabel Reckson R.D., and Elizabeth Gunckle, N.P., they are utilizing the collaborative to unravel the profound impact on the Quality of Life (QoL) and psychosocial distress experienced by individuals with this condition, recognize persistent disparities in diabetes care, and assess the potential benefits of diabetes technology to mitigate these disparities. Dr. Antal is also involved in a study aimed at measuring endocrine-disrupting chemicals (EDCs) in meconium and making comparisons between healthy controls and individuals with hypospadias, providing critical insights into environmental influences.

Dr. Oksana Lekarev, is leading a project designed to develop alternative treatments to daily oral steroid regimens for children with congenital adrenal hyperplasia. This research has the potential to significantly enhance the care and well-being of young patients with this condition.

Dr. Marisa Censani and colleagues are investigating the feasibility and utility of interventions via telehealth. This endeavor is poised to improve access to care for pediatric endocrinology patients, as well as assess various factors that may lead to future interventions aiming to enhance metabolic outcomes in children with prediabetes and diabetes.

Lastly, Dr. Alyson Weiner is leading a team investigating the utility and benefits of monitoring bone turnover markers in children with osteogenesis imperfecta. This research initiative holds the promise of advancing our understanding and clinical management of children who require lifelong management for this condition.

### **Teach**

We are committed to continuing education and regularly provide training opportunities for fellows, residents, and medical students in the field of pediatric endocrinology, contributing to the advancement of knowledge and expertise in this specialty. Our pediatric diabetes team actively collaborates with the NYC Department of Education to enhance and update the care provided to children with type 1 diabetes in New York City public schools.

### Gastroenterology, Hepatology & Nutrition

The Division of Pediatric Gastroenterology Hepatology & Nutrition offers specialized, multidisciplinary care for pediatric and adolescent patients. The division collaborates with the Center for Advanced Digestive Care (CADC), an institution dedicated to diagnosing and treating childhood digestive diseases, and is committed to providing comprehensive and therapeutic services, catering to children with a wide spectrum of conditions, including esophageal, gastrointestinal, liver, pancreatic, and nutritional disorders.

Additionally, the team actively collaborates with Aerodigestive, Hepatology transplant, Craniofacial programs, and Jill Roberts Institute for Research in Inflammatory Bowel Disease, fostering a collaborative approach to patient care to ensure our young patients receive the best possible treatment.

### Care

Additionally, the division launched two crucial patient care initiatives in the past year, including the introduction of a dedicated pediatric hepatology program and the implementation of a comprehensive program addressing eosinophilic disorders and food intolerance program.

### In 2023 and 2024, the division has achieved various milestones.

- Added a new pediatric hepatologist strengthening the expertise in biliary and hepatic care.
- Expanded services at NYP Brooklyn Methodist Hospital broadening the reach to provide specialized GI care to more children.
- Advanced the motility program with the introduction of new equipment and plans for increased staffing, ensuring maintaintenance of leading-edge diagnostic and treatment capabilities.
- Invested in state-of-the-art endoscopy equipment for non-sedated procedures, trans nasal, endoscopy for esophageal, promoting patient comfort and, efficient diagnostics.



### **Discover**

The division maintains a strong collaborative relationship with the Jill Roberts Institute, which is dedicated to translating bench research into clinical practice. Through this partnership, the team reached a significant milestone, amassing over 1,000 pediatric biopsy samples in the live cell bank. This unique facility has facilitated numerous research studies and publications, including those in prestigious journals like Nature. It stands as the sole live cell bank employing specialized preservation techniques for pediatric GI samples, essential for investigating the origins of pediatric inflammatory bowel disease. Since joining in January 2023, Dr. Emilie Grasset has been a pivotal contributor to this collaboration, with her lab's long-term objective of uncovering novel mechanisms underlying the pathology of Crohn's disease.

### Teach

The division faculty remains actively engaged in medical school teaching, as well as mentoring residents and fellows. In May 2024, we hosted the annual Updates in Pediatric GI conference, aimed at educating pediatricians, nurse practitioners, fellows, residents, and pediatric gastroenterologists on leading-edge diagnostics and therapies.

### Community

The division implemented two programs aimed at providing support and guidance. The first initiative is our Transition to College Night for pediatric IBD patients, an event for high school juniors and seniors and their families, offering valuable insights into the considerations they need to make when navigating the college selection process. From dorm room accommodations to food options, and accessibility under the Disabilities Act, we address various aspects to ensure a smooth transition to college life. By equipping patients and their families with this knowledge, we empower them to navigate this significant life transition with confidence and success.

The team also offers the Food Allergy and InTolerance (FAIT) Program, which focuses on children with food allergies and celiac disease. This program provides tailored support, both in-person and via virtual sessions, through collaboration with a dietitian, social worker, and various specialists. As part of the program, the division recently hosted a session where a chef demonstrated how to prepare tasty, healthy gluten-free, and allergy-free meals, equipping participants with practical skills to manage their dietary needs effectively. Through initiatives like the FAIT Program, we aim to enhance the quality of life for children with food-related health concerns and empower them to thrive despite their dietary restrictions.

### **General Academic Pediatrics**

The Division of General Academic Pediatrics is committed to providing comprehensive care to children from birth through adolescence. The division's multifaceted mission encompasses research, education, clinical care, advocacy, and community outreach. We extend care across various units, including the inpatient units at the NewYork-Presbyterian Komansky Children's Hospital, well newborn nurseries at the Alexandra Cohen Women's and Newborns Hospital and Lower Manhattan Hospital, and the pediatric outpatient clinic at Helmsley Tower.





The division emphasizes the importance of continuity of care, forging connections among specialists and primary care doctors and addressing social determinants of health and risk factors for mental health disorders.

In 2023, our division collaborated with an interdisciplinary team, including nursing, PICU, and hospital administration, to revamp our emergency escalation procedures for general medsurg and Step-Down Units (SDU), culminating in the operationalization of Rapid Response and the integration of emergency responses from the SDU with the Emergency Medical Records. Moreover, we implemented the new AAP bilirubin guidelines in the nurseries, expanded the early onset sepsis calculator to our community campus, and introduced the use of glucose gel in the newborn nurseries to address hypoglycemia.

### Care

The division initiated the Medicaid Together (Integrated Pest Management) program for our asthma patients in collaboration with NewYork-Presbyterian and the NYC Department of Health.

Additionally, the Compass Program, designed for transgender and gender-diverse youth, expanded its services to all families, effectively doubling its volume over the past year and attracting patient inquiries from outside New York state. The Parent Simulation program, led by MacKenzi Nicole Preston, M.D., MHPE, also expanded to include a tracheostomy program. The division also expanded adolescent care to all payers, added an additional provider to the team and established an outpatient eating disorder clinic. The palliative care team expanded via a second provider, Teresa Vente, D.O., and received a grant in partnership with NYP from the Ho Chiang Foundation to support chaplaincy as a part of the team.

### **Discover**

The Division of General Academic Pediatrics is dedicated to integrating mental health considerations into clinical care, actively evaluating our educational programs and engaging in quality improvement initiatives to enhance patient outcomes. Key studies led by faculty members further the team's understanding of medical education, asthma and allergy care, and pediatric mental health. Ongoing key studies include:

- Adin Nelson, M.D. is studying the evidence-based approaches to medical education, with a
  particular focus on the strategies of retrieval practice, distributed practice, and interleaved
  practice.
- Jennie Ono, M.D., M.S. is actively involved in a portfolio of work that addresses critical knowledge gaps in caring for patients with asthma and allergies.
- Cori Green, M.D., M.S.C. engages in a series of studies designed to improve how providers, including trainees and primary care providers, care for pediatric patients with mental health disorders.
- Theresa Scott, D.O. is developing national curriculum around telehealth competency for pediatric residents, including a novel assessment tool used for evaluation purposes.
   Additionally, she has been concentrating on novel uses of artificial intelligence in medical education.
- Jimin Lee, M.D., M.S. is utilizing novel interventions to best support pediatric patients with complex medical conditions in the immediate post-discharge period.

#### Teach

The Pediatric Hospital Medicine (PHM) fellowship program, under the leadership of Associate Fellowship Director, Brooke Spector, M.D. ensures the training of experts in hospital medicine with a solid foundation in interprofessional collaboration and a health systems perspective. We are dedicated to promoting health equity among all children through advanced clinical training, scholarship advancement, and professional development.

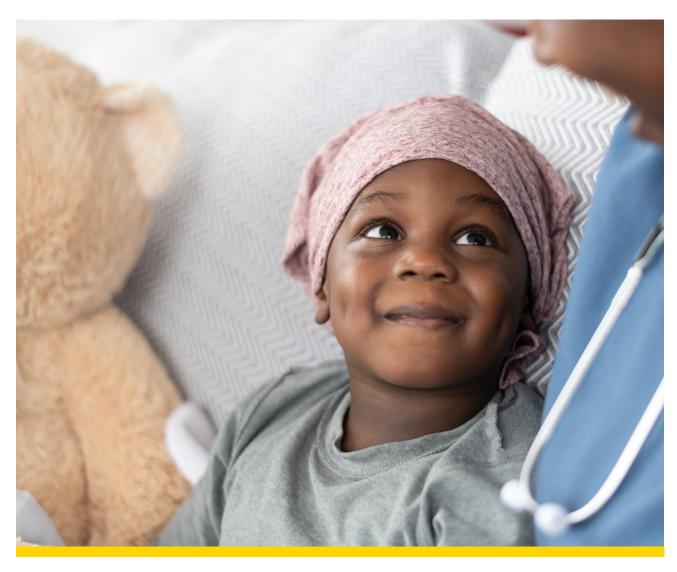
### Community

Our "Residents for Healthy City Kids" initiative plays a pivotal role in fostering healthy lifestyles and combating early childhood obesity. Through partnerships and community engagement, we aim to positively impact the well-being of young students and their families. Allison Gorman, M.D., through her role on the Lenox Hill Neighborhood House (LHNH) Early Childhood Education Health Advisory Committee, contributes her expertise to enhance the health of enrolled students. Our partnership with LHNH also extends to administering flu vaccinations to children enrolled in Head Start, promoting regular attendance and overall health.

### Hematology and Oncology

The Division of Pediatric Hematology and Oncology delivers outstanding, state-of-the-art care to children grappling with a diverse spectrum of blood disorders and cancers. The division stands as the most comprehensive center for the treatment of noncancerous (benign) blood disorders in children in the New York, New Jersey, and Connecticut tri-state region. Specific programs address platelet disorders, bleeding and clotting issues, as well as thalassemia and other red blood cell disorders. Each patient's care plan is approached with meticulous precision, tailoring it to their specific needs, with the overarching goal of reinstating children into lives that are as normal, healthy, and productive as possible.

Iln 2023, the division achieved significant milestones in clinical care and research. We expanded the oncology program, added faculty, and advanced practice providers from three to four teams. Shipra Kaicker, M.D. assumed the role of Program Clinical Lead for Sickle Cell Disease at the Pediatric Hematology-NYP-Cornell Sphere for the Dalio Center for Health Justice within



NewYork-Presbyterian's Sickle Cell Initiative. In research, the dedicated faculty contributed to impactful publications, and we successfully secured new grants, thanks to the efforts of Lisa Roth, M.D., Nicole Kucine, M.D., M.S., and David Lyden, M.D., Ph.D. Additionally, Dr. Kucine was honored with the Charles, Lillian, and Betty Neuwirth Pediatric Oncology Clinical Scholar Award for the second time.

#### Care

We broadened our oncology program and introduced new Children's Oncology Group's solid tumor protocols, streamlining patient enrollment and deepening our involvement in the Pediatric National Cancer Foundation consortium. Through the Dalio Center's Sickle Cell Initiative, we ensured our sickle cell patients gained access to a comprehensive suite of essential services, including a dedicated transition coordinator, Valera mental health services, and an enhanced electronic medical record system tailored to the specific needs of sickle cell patients. These developments significantly enhanced the quality of care and support we provide to our patients throughout the year.

#### Discover

We are committed to expanding our basic research led by Lisa Roth, M.D. and David Lyden, M.D., Ph.D., as well as our clinical research led by Nitya Gulati, M.D., M.S., Nicole Kucine, M.D., M.S., Shipra Kaicker, M.D., Alexander Chou, M.D., Catherine McGuinn, M.D., and Sujit Sheth, M.D. We actively seek additional funding from sources such as the NIH and other organizations to further bolster our research endeavors. Our current key projects encompass a gene therapy clinical trial overseen by Dr. Catherine McGuinn, as well as ongoing studies led by Drs. Lisa Roth and David Lyden, and a Blood Registry Project under the leadership of Dr. Nicole Kucine.

### Teach

Education is a cornerstone of our division's mission. Our fellowship program participants are equipped with comprehensive clinical education, enhancing their scholarly output through research, training, and delivering enriching learning experiences to residents and medical students during their rotations.

The three-year pediatric hematology and oncology fellowship program with Memorial Sloan Kettering Cancer Center (MSKCC) continues to attract excellent applicants and produce well-trained clinicians and researchers. While first year fellows are immersed in clinical activities, second and third year fellows participate in recognized research laboratory programs at Weill Cornell Medicine, Rockefeller University, or MSKCC.

### **Community**

Drs. Kucine and McGuinn participate in various community and foundation initiatives, while Dr. Sheth serves on the medical advisory board of the Cooley's Anemia Foundation, an advocacy organization dedicated to patients with thalassemia.

### Infectious Diseases

The Division of Pediatric Infectious Diseases provides comprehensive and specialized medical care for neonates, including preterm infants, children, and adolescents, addressing acute and chronic infectious diseases. A notable achievement in the past year involved expanding our clinical and basic science research teams by welcoming Dr. Melanie Dubois and enhancing our basic science research with Drs. Genevieve Fouda and Ashley Nelson.

#### Care

Our division continues to excel at several significant patient care initiatives:

### **Antimicrobial Stewardship Program:**

We are committed to promoting the responsible use of antimicrobials by pediatric healthcare providers at New York Presbyterian Hospital-Weill Cornell Medicine and New York Presbyterian-Lower Manhattan Hospital. This initiative, under the lead of Dr Jin-Young Han, seeks to improve patient outcomes, reduce drug-resistant organisms, and prevent infections caused by multidrug-resistant microorganisms, enhancing patient safety and healthcare quality.



Infection Control & Prevention Program: This program, led by Dr Karen Acker, provides evidence-based strategies and guidelines to mitigate the spread of preventable infections among patients and healthcare workers. By implementing rigorous infection control measures, we create a safe and hygienic environment for patient care, reducing healthcare-associated infections, and fostering a culture of safety.

In addition, new clinical programs were introduced to elevate patient care:

Congenital CMV Specialty Center Recognition: We received recognition from the New York State Department of Health as a Congenital CMV Specialty Center. With universal screening for congenital cytomegalovirus (CMV) for all newborns in New York State, we provide essential care to CMV-positive infants. Timely recognition and evaluation are crucial in preventing complications such as hearing loss. Dr. Christine M. Salvatore leads this center and serves as the Chief of Pediatric Infectious Diseases at NYPH-WCM.

In addition, new clinical programs were introduced to elevate patient care:

**Collaboration with NYP Brooklyn Methodist Hospital:** We established a collaborative partnership to provide clinical coverage and support for local Pediatric Infectious Diseases providers, enhancing our ability to offer comprehensive care and share expertise that benefits both medical staff and patients in Brooklyn.

#### Discover

The division focused on enhancing our research infrastructure, particularly in clinical research. We remain dedicated to obtaining grants and expanding research collaborations in clinical and translational research with other institutions and divisions. Key research projects include:

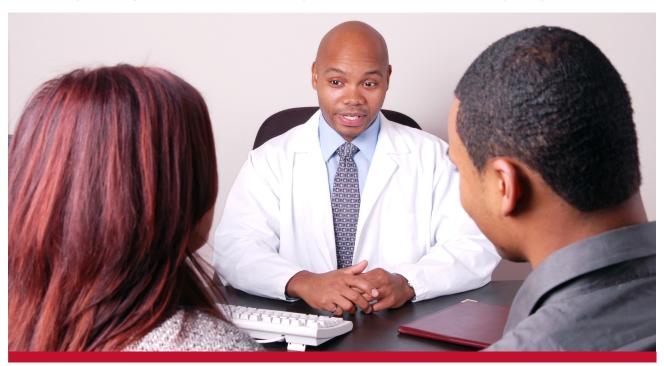
- Melanie Dubois, M.D., MPH leads the Friedman Family RSA in Pediatric Infectious Diseases, a study which analyzes gaps in HIV/TB care for children born to women living with HIV in Botswana.
- Ria Goswani, Ph.D. leads research into the gastrointestinal microbiome and potential interventions to reduce infant HIV acquisition via breastfeeding.
- Ashley Nelson, Ph.D. aims to identify NK cell transcriptional signatures associated with the development of HIV neutralization breadth in early life.
- Under the leadership of Christine M. Salvatore, M.D., this complex clinical trial investigates
  the effectiveness of a new antibiotic, aztreonam-avibactam, in the pediatric population.
  This study is an observational statewide registry that focuses on addressing unanswered
  questions about congenital CMV.
- Christine M. Salvatore, M.D. leads both the clinical aspect about newborns with congenital CMV and the research.
- **Karen Acker, M.D.** leads several Quality Improvement projects following evidence-based medicine to improve processes and practices at NYPH-WCM.
- Sallie Permar, M.D., Ph.D. runs lab that investigates the natural maternal and infant immune responses that contribute to impeding transmission of vertically transmitted viral pathogens, such as HIV, cytomegalovirus (CMV), and Zika, and how these effective immune responses can best targeted by vaccine approaches.
- Genevieve Fouda, M.D., Ph.D. does research focused on viral pathogens, specifically on antibody responses in children in comparison to adults following natural infection and vaccination.

### Teach

The division is committed to training the next generation of healthcare professionals. The division focuses on motivating and engaging residents and medical students to take an interest in infectious diseases through periodic lectures and personalized teaching sessions. The division offers in-person electives to domestic and international medical students, allowing them to gain hands-on experience by spending two weeks on the inpatient floors.

### **Medical Genetics**

The Division of Medical Genetics provides comprehensive care to patients with both rare and common genetic conditions, encompassing inpatient and outpatient consultation, genetic counseling, and medical care. The personalized genetic approach is designed to support our patients across their lifespan, offering expanded carrier screening for inherited disease risk, consultations for abnormal pregnancy findings, and guidance on adult-onset conditions. Collaboration extends to the craniofacial team a collaboration with Neurosurgery and ENT, where we provide genetic consultations for patients seen in the multidisciplinary clinic.



#### Care

In 2023, Omar Abdul-Rahman, M.D. was appointed Division Chief of Medical Genetics, leading to transformative enhancements in our services. The introduction of an inpatient genetic counseling service, where two additional genetic counselors were recruited to strengthen the inpatient consultation program was a major milestone. The inpatient service has grown by 30% in 2024 compared to the previous year. We are now offering virtual genetics consults to the Westchester Behavioral Health Center inpatient unit, enhancing care for individuals with genetic conditions through dedicated support and information resources. Additionally, we launched an outpatient genetic counseling virtual clinic staffed by experienced genetic counselors to improve access for patients referred for genetic counseling and testing. Providers for this clinic are now licensed in the tri-state area, and referrals from specialists are averaging 100 new patients per month.

Building on these developments, we instituted a fast-track service employing a genotyping-first approach for patients referred to genetics for indications qualifying for whole genome sequencing. This has resulted in wait time shortening from three months to about ten days. The selected patients are guided to complete a comprehensive questionnaire, provide photographs, and view an informative video on whole genome sequencing. Subsequently, after-hour visits are scheduled to facilitate the genome consent process and draw blood from the patient and their parents for testing.

### Discover

Our commitment to advancing precision medicine through genomics is unwavering. Genomics plays a pivotal role from conception through an individual's lifespan, and we continually seek innovative ways to integrate genomics into medical care. Our key projects are as follows:

**Lillian Cohen, M.D., MPH** serves as the site Principal Investigator for Weill Cornell for the GUARDIAN study, which harnesses whole genome sequencing to identify and provide treatment, surveillance, and access to clinical trials for 150-250 childhood-onset conditions before symptoms manifest. This study has now enrolled over 10,000 participants from all sites. The Englander Institute for Precision Medicine, in collaboration with Illumina, focuses on the utilization of whole genome sequencing to improve outpatient care and expedite the diagnostic journey for patients with suspected genetic conditions.

Recruitment has exceeded initial targets, and we are planning for phase two of the study. In partnership with Columbia, the Collective Power Study successfully completed a program on rapid genome sequencing for critically ill children at CUMC and WCM. This initiative demonstrated its potential to shorten hospital stays and reduce the time to diagnosis for patients, highlighting the collective power of genomics in healthcare. We presented the results from this study at the NY State Genetics Task Force meeting.



### Neonatalogy

The Division of Neonatology provides tailored care to approximately 800 babies annually, each with unique complexity, utilizing a comprehensive multidisciplinary team to ensure phenomenal outcomes.



### Care

The division has increased focus on providing consultation services to more expectant mothers, in conjunction with other subspecialists, to provide as much information as possible to families prior to delivery. The collaboration with the Department of OB/GYN has allowed for the growth of the Fetal Care Center with the addition of a dedicated nurse practitioner and coordinator. While not every infant will be admitted to the neonatal intensive care unit, this additional service enables the family to acquire a deeper understanding of their infant's healthcare requirements and treatment plan prior to delivery.

Alexandra Cohen Hospital for Women and Newborn's houses the NICU where physicians are equipped with the state-of-the-art technology to deliver efficient and effective care personalized to each patient's unique needs. Physicians are now exploring the use of bedside point-of-care ultrasounds (POCUS) to aid in bedside therapeutics and diagnostics, as well as targeted neonatal echocardiograms (tnECHO) to assess pulmonary-cardiac hemodynamics to guide precision medicine when supporting an infants' heart function.

After discharge, patients requiring close follow-up for neurodevelopment are followed by neonatologists to ensure wrap-around services are available if needed, and that each patient achieves optimal health and development. Appointment accessibility in the neurodevelopmental clinic is being enhanced by introducing a third day for virtual consultations, particularly benefiting patients soon after discharge and for those facing challenges traveling into the city.

### **Discover**

We are committed to advancing innovations in neonatal care and increasing positive outcomes locally and abroad. Our most recent studies include:

- James Kim, M.D. does work focused on the reduction of intermittent hypoxia in preterm infants with a smart bracelet.
- Liana Senaldi, M.D. does research focused on impact of fatty acid status in the immune response of extremely preterm infants.
- Emily Ahn, M.D.'s current work is about adherence to essential newborn care resuscitation through video validation.
- Camilia Martin, M.D., M.S.'s research program spans basic to clinical translational research to study neonatal nutrition and its impact on health and disease in the preterm infant establishing, through these efforts, the Infant Health Research Program at BIDMC. Dr. Martin's current research focus is on lipids and fatty acid metabolism, postnatal intestinal adaptation including the microbiome, and the nutritional impact on organogenesis, development of immune defenses, and regulation of the inflammation.
- Sean Cullen, M.D., Ph.D.'s research interests revolve around the role played by epigenetics in the inheritance of disease across generations. Specifically, he is interested in the pathophysiological mechanism of inheritance related to disease risk of obesity and metabolic disease. He is also interested in the use of quality improvement initiatives in the NICU to improve patient outcomes and to prevent harm.

### Teach

Beyond our diligence to clinical service and research, the Division of Neonatology provides superior educational experiences to interns, medical students, residents, and fellows. This is part of our ongoing effort to guarantee the sustained provision of high-quality medical care. Graduates of our fellowship program go on to practice as academic faculty nationally, and even teach internationally in low-resource settings.

### Community

Our dedication to the health and well-being of the community is evident in all aspects of our practice. Dr. Cynthia Perez has been elected as the Chair of Diversity, Equity and Inclusion (2023-2025) for the Trainees and Early Career Neonatologist section of the American Academy of Pediatrics. Drs. Vicki Sun and Dina Elachi and Yamile Rose, RN presented the preliminary results of their research project at the Dalio Center Symposium, "The development of a culturally responsive curriculum to improve communication with families in a Level IV NICU." Dr. Cynthia Perez and Dr. Miller have been working on their research project, "Exploring the role of traditional and technology-assisted translation during the discharge of high-risk NICU infants of Spanish-speaking parents with limited-English proficiency in a level IV NICU." Dr. Ericalyn Kasdorf is researching "Racial/ethnic disparities in parent's readiness for discharge in the NICU." With these research initiatives, we aim to enhance both the community and the quality of healthcare we can provide.

### Nephrology

The Division of Pediatric Nephrology has achieved significant milestones in 2023 and 2024, demonstrating our unwavering commitment to providing comprehensive, multidisciplinary care for children with complex kidney disease, electrolyte disorders, and hypertension, as well as, advancing research and advocating for the renal health of children and adolescents. We have extended care across various sites - Komansky Children's Hospital, NYP Queens, NYP Brooklyn Methodist Hospital, MSK, and HSS. Not only have we expanded our geographic footprint, but we also have also expanded our pediatric renal transplant program, under NYP Transplant, the largest living donor program in the country. Additionally, in partnership with the Rogosin Institute, we grew our outpatient pediatric dialysis program – peritoneal dialysis, chronic hemodialysis, and now with capability to provide home hemodialysis for children. All these exciting developments enabled us to have a significant increase in patient volume over the past year; inpatient consultations increased by 91% and outpatient visits increased by 75%.



In 2023, we witnessed an increase in new patient referrals and a rise in ambulatory visits at NewYork-Presbyterian Queens. Dr. Diane Liu played a pivotal role as the interim director of Pediatric Renal Transplantation, successfully restarting our pediatric kidney transplant program in collaboration with adult nephrology, transplant surgery, and NYP MSCH pediatric nephrology. Dr. Natalie Uy assumed the role of Division Chief, leading the multidisciplinary team and expanding nephrology care within the NewYork-Presbyterian enterprise. Dr. Oleh Akchurin secured NIH funding (R03 grant) for his work in iron metabolism and its role in pediatric chronic kidney disease. Dr. Hannah Kim, joined us in September 2023, with clinical expertise in pediatric dialysis, and focuses research on puberty and chronic kidney disease.

We are also excited to share that New York Times Magazine recognized Dr. Oleh Akchurin as one of the New York Super Doctors for 2023, and Dr. Natalie Uy received the New York Super Doctors Rising Stars distinction for 2023. Ariel Bowrosen N.P. was honored with the Rising Star APP Award by Weill Cornell Medicine in October 2023. Additionally, Jennifer Goldsmith, RN received the Rising Star RN Award from Weill Cornell Medicine in May 2024.

### Care

In patient care, we embarked on several noteworthy initiatives:

Introduced in 2022 and led by Ariel Bowrosen, N.P. and Sarah Roffe LCSW, the Transition of Care Program for Adolescent Patients in Pediatric Nephrology provides a multidisciplinary care team to assist adolescents with kidney disease in transitioning to adult care.

Prenatal consultative services: These services are offered at the Alexandra Cohen Hospital for Women and Newborns, NYP Lower Manhattan Hospital, and NYP Queens for fetal kidney abnormalities, with continuity of care after birth.

Pediatric Hypertension Program: This program offers advanced diagnostic testing for management of pediatric hypertension, with increased capability to provide 24-hour ambulatory blood pressure monitoring.

NAKI QI Initiative: Our division actively participates in a multidisciplinary Quality Improvement (QI) initiative focused on reducing preventable acute kidney injuries associated with nephrotoxic medications with the goal of decreasing kidney injury in hospitalized children, and decrease hospital stay and risk of CKD. This initiative addresses the underestimation of NAKI incidence, aiming to systematically monitor kidney function in patients exposed to these medications.

Influenza and Pneumococcal Vaccinations (PPSV23): We intensified our surveillance and tracking of vaccinations, particularly among immunocompromised patients, leading to increased vaccination rates among this high-risk group.

SCOPE (Standardizing Care to Improve Outcomes in Pediatric End Stage Kidney Disease) and NAPRTCS (North American Pediatric Renal Trial and Collaborative Studies): Our division is now involved in these national collaborative initiatives to improve patient care for children with ESKD.

#### Discover

The division received NIH funding for research in chronic kidney disease (CKD), with a specific focus on iron metabolism and its role in complications of CKD in children. Dr. Oleh Akchurin is spearheading four significant research endeavors in the field of pediatric nephrology. The first project focuses on unraveling the role of iron in the development of kidney fibrosis in juvenile chronic kidney disease. In the second project, the aim is to devise innovative biomarkers that enable the non-invasive monitoring of kidney fibrosis in children with kidney disease, utilizing

peripheral blood mononuclear cells. The third initiative involves an expansion of research efforts by extending the pediatric chronic kidney disease (CKD) registry and biorepository to Columbia University, with the goal of devising novel treatment strategies.

Lastly, Dr. Akchurin is leading a pilot clinical trial in collaboration with the Children's Hospital of Philadelphia to investigate the efficacy of oral iron therapy in children with chronic kidney disease. These research projects underscore his commitment to advancing our understanding of pediatric nephrology and improving patient care. Dr. Hannah Kim has received grant funding to evaluate the role of sex hormones and onset of puberty with changes in kidney function. We are also involved in ongoing CKD registry and biorepository, with the goal of developing novel treatment strategies to slow progression of CKD.

#### Teach

Our division offers a Pediatric Nephrology elective for residents to gain exposure in both inpatient and outpatient nephrology. Our commitment extends to training physician-scientists in pediatric research through Dr. Oleh Akchurin's role as the Associate Director for the Pediatric Physician Scientist Training Program at Weill Cornell Medicine.

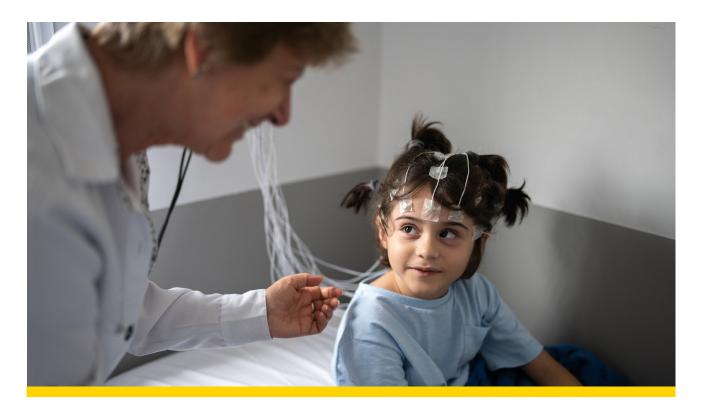
### Community

We participate in New York's 3rd Avenue Fair annually, where we provide education on renal topics to the local community. Our team, along with patient families, also engaged in the annual National Kidney Foundation Kidney Walk to raise funds and awareness about kidney disease. Our transplant team works with the National Kidney Registry to increase access for living donation through altruistic donors for our pediatric recipients. With philanthropic support from the Harboring Hearts Foundation, we were able to make a meaningful impact on our renal transplant patients and their families by providing financial support, transportation aid, and access to essential food resources.



### Neurology

Neurology has a long history of excellent patient care, providing both inpatient and outpatient management of all pediatric neurological problems, including epilepsy, concussion, and metabolic disorders. Our team of pediatric neurologists, nurse practitioners, and dieticians provide state-of-the-art, individualized care for children and their families.



### Care

Our division utilizes advanced, research-based brain imaging and neurogenetic testing methods to improve our ability to diagnose and treat patients Our state-of-the-art pediatric ICU and pediatric epilepsy monitoring unit allow us to provide optimal care for the most complex inpatient conditions. We emphasize a team approach, working closely with faculty in the Divisions of Medical Genetics, Psychiatry, Neuroradiology, Neurosurgery and Development, so we can provide coordinated care for a wide spectrum of developmental brain disorders through our multidisciplinary subspecialty outpatient clinics.

The pediatric epilepsy program under Dr. Zachary Grinspan's leadership in collaboration with Dr. Caitlin Hoffman from the Department of Neurosurgery. Highlights over the past year include continued growth of our epilepsy surgery volume, collaboration with Columbia through the NYP Collective Power program, and expansion of our clinical trials program.

### **Discover**

Dr. Zachary Grinspan received an NIH R01 grant to focus on his work on Neonatal Seizures -Predicting Epilepsy and Assessing Comparative Effectiveness. This project will optimize care for neonatal seizures and their consequences, and will use observational methods to study: the best second-line anti-seizure medication for acute neonatal seizures (phenytoin/fosphenytoin vs levetiracetam), the potential for subsequent chronic use of sodium channel blockers (i.e., oxcarbazepine) to increase the risk for infantile spasms syndrome, and the reliability and validity of our published model to predict epilepsy among neonates with acute symptomatic seizures who survive into infancy.

Dr. Srishti Nangia is the Principal Investigator of "A Phase ½ Open-label, multiple-dose, dose-escalating clinical trial of the safety and tolerability of GTX-102 in pediatric patients with Angelman Syndrome. The primary objective of the study is to evaluate the safety and tolerability of multiple-ascending doses of GTX-102 administered by intrathecal (IT) injection to participants with Angelman Syndrome (AS). It is expected that there will be an improvement in multiple domains, including development, mobility, and sleep.

Dr. Zuhal Ergonul is working with our Pediatric Headache Program is participating two multicenter clinical trials: Phase 3, randomized, double-blind, group sequential, placebocontrolled study to assess efficacy and safety of Rimegepant (a small molecule against Calcitonin Gene Related Peptide Receptors) for the treatment of migraine with or without aura in children and adolescents 6 to < 18 years of age and Interventional, efficacy, and safety, phase 3 randomized, double-blind, placebo-controlled study with an open-label extension to investigate Rimegepant in migraine prevention in adolescents 12 to less than 18 years of age with chronic migraine.

Dr. Juan Pascual's laboratory research has been mostly funded by the NIH and generous patient advocacy organizations and virtually spans the entire field of neuroscience from molecular structure and function (including drug action) or neural physiology and metabolism at the cellular, circuit and whole-brain level, to neurogenetics, all of which are complemented with human studies and clinical trials. Laboratory research greatly influences Dr. Pascual's clinical activities, while patient observations guide his research. The laboratory is home to scientists from very diverse backgrounds and levels of training who devote their efforts to endow both neurology and developmental medicine with a strong scientific basis.

### Teach

Several of our medical students have received awards, including Ashwin Mahesh Child Neurology Foundation, Kenneth F Swaiman Fellowship Award 2023, Carson Gundlach David E. Rogers Fellowship Award 2023, and Katharine Cunnane SYNGAP Research Fund Medical Student of the Year Award 2023.

### Pulmonology, Allergy & Immunology

The Division of Pediatrics Pulmonology, Allergy, & Immunology specializes in the diagnosis and comprehensive treatment of various respiratory disorders, asthma, allergy, and immunology issues. We also extend our expertise to managing sleep disorders through the Weill Cornell Medicine Pediatric Sleep and Breathing Disorders Center, dedicated to infants, children, and adolescents.

### Care

In 2024, we expanded our Pediatric Allergy and Immunology Program to include:

- A broader range of specialized drug allergy testing; developed our pediatric Food Allergy program, which includes Nutrition and Psych services, and our collaboration with the Latitude Food Allergy group to offer oral immunotherapy services;
- · A robust biologic therapeutics program for asthma and other atopic disorders; and
- Growth of our clinical immunology program with strong collaborations with our NYP/Columbia Immunology and Memorial Sloan Kettering Cancer Center (MSKCC) colleagues. We also expanded our collaboration efforts with the MSKCC to provide specialized care for children dealing with chronic graft versus host disease, a severe complication following bone marrow transplantation.

Additionally, we continued to our collaboration with MSKCC kids by growing bronchoscopy evaluations before bone marrow transplants and the care of children with graft-versus host disease in a multi-disciplinary clinic. Furthermore, our combined pediatric sleep program with Columbia University Irving Medical Center, led by medical director, Dr. Katharina Graw-Panzer, provides continued to care for children facing sleep disorders.

### **Discover**

Our pediatric pulmonology team is at the forefront of investigating the complex mechanisms of viral-triggered asthma in children, with a primary emphasis on understanding the interplay between asthma and childhood obesity. Our research extends to the examination of primary human nasal epithelial cells and the utilization of mouse models of asthma to directly assess airway hyperreactivity, a pivotal characteristic of asthma. We are also venturing into the exploration of lung diseases in premature infants, leveraging tracheal aspirates, and collaborating with the Division of Pediatric Radiology to employ MRI imaging for neonatal lung disease studies.

**Dr. Stefan Worgall**, and his collaborators **Drs. Jennie Ono**, **Perdita Permaul**, and **Andrea Heras** and others from WCM, Columbia University, and Harvard University, continue their two RO1 studies into the role of sphingolipid metabolism in airway epithelial cells and its connection to asthma exacerbations triggered by rhinovirus infections as well as the impact of SARS-CoV-2 infections on common respiratory viruses in these children.

Dr. Heras has received a Burroughs Welcome Junior Investigator and Master Card awards to explore the impact of sphingolipids on bronchopulmonary dysplasia, inflammation, and the lung microbiome, analyzing racial/ethnic disparities and their effects on bronchopulmonary dysplasia in New York hospitals.

Other key research projects, led by Drs. Perdita Permaul, Andrea Heras, and Stefan Worgall, encompass:

- Investigating the influence of body mass index on allergic inflammation and asthma morbidity in an urban pediatric cohort
- Conducting immunologic surveillance for emerging pathogens using Enterovirus D68 (EV- D68)

#### Teach

We provide training for pediatric pulmonology fellows and offer educational opportunities for students and residents in pediatric allergy, immunology, and pulmonology. Our educational initiatives include a weekly joint Allergy/Immunology didactic conference in collaboration with the NYP/Columbia Pediatric Allergy/Immunology division.

### Community

Our commitment to community outreach is evident through the efforts of our pediatric asthma program, led by Dr. Jennie Ono, Chief of Pediatrics at NYP Queens, and Dr. Kalliope Tsirilakis, Director of Pediatric Pulmonology and the Pediatric Asthma Center at NYP Queens. They actively engage in asthma education initiatives within Manhattan and Queens, empowering our community with valuable knowledge and resources.

Drs. Tsirilakis, Permaul, and Ono received the Dalio Center for Health Justice/New York-Presbyterian Health Equity and Disparities Research Grant for their HANDY HELP study. This is a prospective cohort study to evaluate the effect of the HANDY HELP program, a nurse-liaison

homecare program to high-risk children with asthma, on symptom control and quality of life for low-income children in NYC with poorly controlled asthma.

Other noteworthy quality projects include:

- Dr. Miriam Samstein's collaborative QI work with the primary care resident clinic to improve screening and early introduction of peanut to infants at high risk for allergy.
- Dr. Priya Katari works on identifying children who could best benefit from oral immunotherapy.





### Residents

The Pediatric Residency Training Program at NewYork-Presbyterian Hospital/Weill Cornell Medical Center has introduced several new opportunities designed to enhance the educational experience and prepare our residents for the challenges of healthcare including: opportunities in global health with a focus on Tanzania and specialized telehealth electives. We also developed a robust simulation program featuring standardized patients, encompassing critical areas such as life support and resuscitation.

Community engagement and advocacy are integral aspects of our program. We have introduced several new initiatives that empower our residents to make a difference:

- Health Professions in Training: A 10-week after-school program designed to introduce students to healthcare careers, providing hands-on experiences, and facilitating career readiness.
- Residents for Healthy City Kids: A program dedicated to obesity-prevention training for parents of pre-school students, promoting healthy eating, and physical activity.
- Team KIPPOW: This program allows our residents to engage with elementary school children, focusing on nutrition, exercise, and healthy living in at-risk pediatric populations.
- West Side Campaign Against Hunger (WSCAH): Residents actively contribute to this program, addressing food insecurity, delivering meals, and learning about resources for community support.

Our commitment to community-based experiential learning has seen our residents actively participate in various sessions, including Department of Health inspections and visits to the Bronx Family Court. We continue to champion and expand on several important projects:

- Reproductive Health: Residents participated in SAFE training for pediatric residents to enhance their skills in managing sexual assault cases, emphasizing the importance of compassionate and effective care in such situations.
- Accident Prevention and Safety: The program places a strong emphasis on gun safety awareness and equips residents with the necessary tools to discuss gun safety with families, contributing to a safer community.
- Obesity and Healthy Eating: Residents have access to expanded educational materials to promote healthy eating in our clinics and community-based initiatives.
- NYS Pediatric Resident Advocacy Coalition (NYS-PRAC): Focusing on pediatric COVID vaccines, cannabis edibles regulations, and various advocacy efforts. Residents, Drs. Danny Birkhead and Melissa Rubin of NewYork-Presbyterian Columbia received recognition for their exceptional leadership in these initiatives.

### Resident Advocacy 2023-2024

Residents integrate advocacy and community engagement into their training to be prepared to not only serve as the next generation of pediatricians, but the next generation of champions for children. Their experience, expertise, and energy can influence policies and systems center children and families. Residents learn about social determinants of health and solutions to break cycles so that every child can thrive.

### **NYS-AAP Pediatric Resident Advocacy Coalition (PRAC)**

In 2021, as part of a project for the annual AAP National Advocacy Conference, Danny Birkhead, then a PGY-2, and Dr. Laurie Gordon initiated the NYS Pediatric Resident Advocacy Coalition (NY PRAC), focusing on using the resident voice and inspiration for advocacy. What started with nine residents in three programs now has more than 100 residents across 20 programs throughout the state, including many representing Weill Cornell.

The two faculty leaders, Dr. Laurie Gordon and Dr. Leora Mogilner at Mount Sinai, communicate regularly with residency directors through the APPD message board and to advocacy faculty at different institutions to share information about lectures, events, and advocacy opportunities.

In addition to the advocacy work, Dr. Laurie Gordon developed a "Leaders in Advocacy" lecture series via Zoom for pediatric resident programs throughout New York state. Year One focused on an introduction to advocacy. Year Two delved deeper into advocacy actions and skills. This year, the series focused on immigrant health.

**Pediatric Resident Training Programs** in New York State



Each year, PRAC has focused on one advocacy issue. In 2021-2022, focused on pediatric COVID vaccines. Resident advocates designed and distributed interactive, visually appealing posters throughout the state to encourage vaccine adoption. This creative work was presented at national meetings and is currently being prepared for publication.

During the 2022-2023 year, PRAC focused on cannabis edibles legislation in New York state and promoted safety for children. PRAC met with legislators and the Health Department to limit package sizing and advocate for other safety issues. Residents created and distributed a poster and informational brochures that were distributed throughout the state.

This year, PRAC is focusing on immigrant health and is working with multiple institutions to develop an EMR template for the first visit for a migrant child, a resource guide, and immigrant health toolkit to share between institutions.

### **Awards & Recognition**

The vaccine poster advocacy campaign earned the following awards:

### Special Achievement Award - Sept. 2022

Awarded to **Laurie Gordon** by District 2, American Academy of Pediatrics

### Anne Dyson Advocacy Award - Oct. 2022

Awarded by American Academy of Pediatrics to **Melissa Rubin** and **Daniel Birkhead**, Co-Chairs of AAP-NYS Pediatric Resident Advocacy

# **Inaugural Training Award in Child Health Advocacy - Dec. 2022**

Awarded by the NY/NJ APPD to **Melissa Rubin** and **Daniel Birkhead**, Co-Chairs of AAP-NYS Pediatric Resident Advocacy

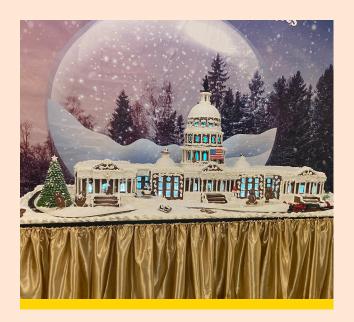
The resident class that graduated in 2023 worked on a QI project to screen for Food Insecurity, leading to two presentations and an honorable mention award, as well as implementing food insecurity screening in the RGP clinic.

# Oral poster presentation at the Pediatric Academic Societies Meeting, Washington, D.C., April 2023

Rabinow, L., Karampatsos, A., Lewis, K., Aspromonte, S., Berkanish, P., Langer, S., Groh, B., Jackvony, T., Lutrario, C., Doré, K., Cabido, V., Zablan, J., Patel, H., Osorio, S.N., Abramson, E. and Gordon, L. Improving Screening for Household Food Insecurity in a Pediatric Clinic.

### **Honorable mention**

Rabinow, L., Karampatsos, A., Lewis, K., Aspromonte, S., Berkanish, P., Langer, S., Groh, B., Jackvony, T., Lutrario, C., Doré, K., Cabido, V., Zablan, J., Patel, H., Osorio, S.N., Abramson, E. and Gordon, L. Improving Screening for Household Food Insecurity in a Pediatric Clinic. NYP House staff Quality Improvement Poster Session, May 2023



### **Group Advocacy & Community Outreach**

Each year the PGY-2 class participates in group advocacy and community engagement projects. The 2022-2023 projects centered around reproductive health, nutrition, and accident prevention. This year, 2023 -2024, residents chose to focus on maternal mental health, child mental health, and immigrant health. Residents presented results, outcomes, and learnings on Friday, June 14, 2024, for morning report.

A sampling 2023 -2024 outreach activities and participation rates are highlighted below.

### **Community Engagement & Volunteerism**

### **Immigrant Health**

Coat drive - Fall 2023 School supply drive - Summer 2024 Visit to migrant shelter - February 2024 2 residents

### **West Side Campaign Against Hunger**

Thanksgiving meal distribution
January 2023 – June 2023
8 residents/8 visits.
July 2023 – June 2024
20 residents/20 visits

### Education - Lennox Hill Neighborhood House (Preschool), Luis Munoz Rivera School, PS 83 (Elementary School), Renaissance Charter High School for Innovation/ Innovation Charter High School

January 2023 – June 2023 14 residents/20 visits July 2023 – June 2024 19 residents/28 visits

### Community Partners - New York City

### **Department of Health and Family Court**

January 2023 – June 2023 20 residents/35 visits July 2023 – June 2024 21 residents, 65 visits

### **Educational Sessions**

## Peace, Trauma, Child Abuse Case Conferences

January 2023 – June 2023 12 residents/12 sessions July 2023 – June 2024 21 residents/35 sessions

# Presentations at Morning Report or Noon Conference

January 2023 – June 2023 11 residents/15 presentations July 2023 – June 2024 14 residents/14 presentations

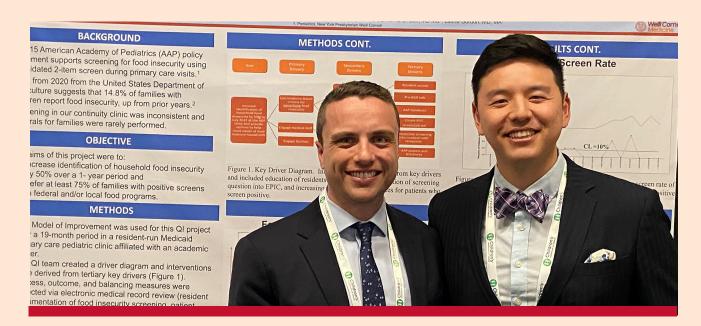
### **Advocacy**

### **Letters to Legislators**

PGY 2 residents chose a topic based on area of interest or exposure to an issue and crafted and sent a letter to a legislator about that issue. Topics of their letters include obesity prevention, mental health supports in schools, stricter gun laws, immigrant health, universal funding for 3-year-old pre-K, and racism and health inequities.

### **AAP-NYS Advocacy Day**

March 2023 and March 2024 2-3 residents participated in 23 and 24.



### **Fellowships**

Our pediatric fellowship programs offer advanced training in myriad specialty areas. Our programs also emphasize advanced research training, facilitated through initiatives like the Physician-Scientist Development Program, Clinical and Translational Science Center, Health Equity Research Fellowship, and multiple NIH-funded T32 programs within our medical college.

In the past year, our Fellowship program has achieved significant milestones:

- We launched a new format for the pre-fellowship research fair during which residents who have matched in pediatric fellowships could hear from experienced basic, translational and clinical researcher and begin to plan their fellowship research projects.
- All the fellows presented their work at the Department of Pediatrics Research Day and three fellows were awarded David Komansky Research Awards.
- We further refined our research curriculum for fellows and now have a year devoted to learning to write abstracts, manuscripts, and grants.

### **Community Advocacy**

Dr. Elliot Gordon, a Pediatric Gastroenterology, Hepatology, and Nutrition Fellow, was selected to serve on the Advocacy Committee for NASPGHAN, working on nutrition, food security, White House food security initiatives, and consumer product safety programs. As the Chair of the Fellows Food Subcommittee at NASPGHAN, he has overseen the development of educational review materials, a task that has not been undertaken for over a decade. Gordon also leads the Fellow Committee for the Crohn and Colitis Foundation, focusing on fellow engagement and organizing educational events.

 Dr. Cynthia Perez was elected to the TECaN Executive Council, where she will be serving as Diversity, Equity, and Inclusion Chair (2023-2025). 70
Fellows

13 **%** 

**Fellowship Programs** 

**70**Co-authored Publications



36
1st Person
Publications



21 Fellow Research Presentations

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### **Awards and Honors**

### **Residency Program Awards**

### Hera Mahmood, M.D.

Fellow Award for Teaching Excellence

### Christopher Mazzeo, M.D.

Senior Resident Award for Teaching Excellence

### Brienne Lubor, M.D.

Award for Teaching Excellence presented by Medical Students

### Charles Bergman, M.D.

Award for Teaching Excellence

### Fellowship & Residency Awards and Honors

Elliott Gordon, M.D., GI Fellow The David H. Komansky Annual Senior Fellow Research Award for Basic and Translational Science, for his study entitled "Evidence for altered gut microbiota in pediatric quiescent Crohn's disease patients with1 iron deficiency anemia." He was also the recipient of the GME Fellow Recognition Award. Dr. Gordon has published his work in the IBD Journal Editorial for Basic Research and is a member of the NASPGHAN National Advocacy Committee (2024-2027) and the Crohn's and Colitis Foundation National Scientific Advisory Committee - Advocacy and Government Affairs.

### Nicole Kelly, M.D., Hem/Onc Fellow

The David H. Komansky Annual Senior Fellow Research Award for Health Services Research for her study entitled, "Inpatient Burden of Pediatric Somatic Symptom and Related Disorders: A Retrospective National Database Study."

### Hera Mahmood, M.D.

The David H. Komansky Annual Senior Fellow Research Award for Clinical Research for her study entitled, "Epidemiology of Intracranial Hemorrhage (ICH) in children Supported by on Extracorporeal Membrane Oxygenation (ECMO): A PEDECOR Study."

### Rui Yang, M.D.

Senior Resident Award for Research Excellence

### Alexander Stephan, M.D.

Research Mentor Award for Research Excellence

### Rui Yang, M.D.

Senior Resident Award for Clinical Excellence

### Julia Buirkle, M.D.

Senior Resident Award for Primary Care Excellence

### Melanie Gao, M.D., Neonatology Fellow

2024 Marshall Klaus Award for her research on "Maternal and Social Determinants of the Preterm Human Breast Milk Lipidome." This is an American Academy of Pediatrics award given in honor of Dr. Marshall Klaus, an internationally known neonatologist and scientist.

### Justin Kotliar, M.D., Neonatology Fellow

First place for his poster at the Annual Weill Cornell Medicine Quality Improvement Patient Safety Poster Symposium 2024.

### Rebecca Miller, M.D., Neonatology Fellow

Best Educational Poster Award for her poster presented at Weill Cornell Pediatrics Research Day

### Zenna Solomon, M.D., Pulmonology Fellow

2024 Pediatric Pulmonary Training Directors Association (PEPTDA) Award at this year's ATS International Conference in San Diego, California.

### Summer Internship Program

The department has continued its full-time summer internship program, launched by the Chief Administrative Officer, Anita Mesi, MBA. This program offers high school, college, and graduate students invaluable exposure to the field of pediatric medicine and introduces them to various career opportunities in medicine and research. The 6- or 10-week internship allows students to gain hands-on experience in diverse areas such as research, education, quality care, community engagement, and administration.

In 2023, the program received 300 applications, with 75% from college students, 16% from high school students, and 9% from post-baccalaureate or graduate students. From these, 13 interns were selected to participate in the inaugural year across nine unique summer internship programs.

In 2024, the program expanded and received over 320 applications, with 79% from college students, 9% from high school students, and 11% from post-baccalaureate or graduate students. This year, twenty-one interns were chosen to participate in fourteen distinct summer internship programs.





Sallie Permar, M.D., Ph.D.'s lab focuses on the development of immunologic strategies to eliminate neonatal pathogens - with the goal of providing every child with a healthy start to life. The lab investigates the natural maternal and infant immune responses that contribute to impeding transmission of vertically transmitted viral pathogens, such as HIV, cytomegalovirus (CMV), and Zika, and how these effective immune responses can best be targeted by vaccine approaches.

Bernhard Kühn, M.D. and Honghai Liu, Ph.D lab's goal is to regenerate infant hearts. This involves developing therapies that can help the heart muscle, the myocardium, to heal itself — to restore a congenital heart defect to normal cardiac function — without heart transplantation.

David Lyden, M.D., Ph.D.'s lab researches the role of tumor-secreted exosomes in cancer metastasis (Nature Medicine, 2012; Nature Cell Biology, 2015; Nature, 2015; Cancer Cell, 2016). His lab's current studies are focused on the molecular pathways activated by tumor exosome uptake at the metastatic site and identifying potential therapeutic targets to thwart metastasis. The team has made significant contributions to the identification of the role of exosomes in melanoma, pancreatic, and breast cancer metastasis.

Lisa Roth, M.D.'s lab studies B-cell lymphomas with a focus on those lymphomas associated with Epstein Bar Virus (EBV), including Hodgkin lymphoma, Burkitt lymphoma, and diffuse large b-cell lymphoma. The lab focuses on the genomic and epigenomic process that lead to lymphoma and then use this to develop therapies that target those specific vulnerabilities. Researchers are interested in the role that EBV plays in the development of lymphoma and understanding how t o modulate the virus to generate a robust immune response against EBV+ tumors.

Genevieve Fouda, M.D., Ph.D.'s research program values inspiring mentorship navigating future generations of scientists. The research focuses on viral pathogens specifically on antibody responses in children in comparison to adults following natural infection and vaccination. Dr. Fouda is interested in developing pediatric vaccine strategies by investigating the foundation of early life immune system.

Chani Traube, M.D., FAAP, FCCM leads a multidisciplinary team focused on clinical research in the fields of sedation, delirium, and long-term outcomes in critically ill children. The lab investigates the pharmacogenomics of sedative medication in the evolution of delirium, and the epidemiology of delirium and long-term cognitive outcomes in children undergoing stem cell transplantation. Dr. Traube also serves as the Chair of the Steering Committee for the Collaborative Pediatric Critical Care Research Network (CPCCRN), the clinical research arm for the NIH's pediatric critical care research program.

**Camilia Martin, M.D., M.S.'s** research program spans basic to clinical translational research to study neonatal nutrition and its impact on health and disease in the preterm infant establishing, through these efforts, the Infant Health Research Program at BIDMC. She participates in multi-site cohort studies and clinical trials serving as the Principal Investigator evaluating nutrition, growth, and long-term neurodevelopmental outcomes in the extremely preterm infant. Dr. Martin's current research focus is on lipids and fatty acid metabolism, postnatal intestinal adaptation including the microbiome, and the nutritional impact on organogenesis, development of immune defenses, and regulation of inflammation.

**Zachary Grinspan, M.D.** is a national leader in pediatric epilepsy research, with more than 100 published research articles, including collaborations with international experts across multiple disciplines (epilepsy, emergency medicine, critical care, health services research, informatics, biostatistics, machine learning, engineering, and economics). He leads several large multicentered research projects supported including a CDC funded study of the epidemiology of rare epilepsies in New York City, a 25-center grant to build a national learning healthcare system for pediatric epilepsy, and an NIH study to study seizures in newborns.

Juan Pascual, M.D., Ph.D.'s laboratory research spans virtually the entire field of neuroscience, including medical neuroscience, from molecular structure and function (including drug action) to neural physiology and metabolism at the cellular, circuit, and whole-brain level and neurogenetics, all of which is complemented with human studies and clinical trials. Research greatly influences his clinical activities, and patient observations guide his research. Dr. Pascual has co-authored several dozen scientific and medical textbooks. He is the editor, together with Dr. Roger Rosenberg, of the leading text Rosenberg's Molecular and Genetic Basis of Neurological and Psychiatric Disease (from the 2015 5th edition to the present one, which comprises over 2,000 pages). He is also the author of the textbook Progressive Brain Disorders in Childhood (Cambridge University Press). He is currently working on a new philosophy book, provisionally entitled Sense & Nonsense in Medical Neuroscience: Inference & Fallacy, to be published also by Cambridge University Press.

**Perdita Permaul, M.D.**, is active in clinical/translational asthma research. Dr. Permaul has been named the Caryl and Israel A. Englander Clinical Scholar in Children's Health. She has received grant funding from the National Institutes of Health (NIH) to study the interaction between childhood obesity, the environment, and asthma. She has written many scientific papers, reviews, and book chapters and presented her research at regional, national, and international meetings. Dr. Permaul also participates in NIH funded multi-center asthma clinical trials.

**Stefan Worgall, M.D., Ph.D.** maintains an active research laboratory where his group studies the lung immune system in asthma and cystic fibrosis as well as new vaccine strategies against lung infections. As author or co-author of more than 70 research articles, Dr. Worgall has published his scientific work in journals such as Journal of Clinical Investigation, Blood, Nature Medicine, and Journal of Virology.

Marianne Nellis, M.D., M.S.'s research program focuses on improving hemostasis and transfusion medicine strategies in critically ill children. She is currently leading a multisite clinical trial testing platelet transfusion thresholds for children supported by extracorporeal membrane oxygenation (ECMO), leading a multisite observational study of massive bleeding in children with cancer, andin collaboration with the Martin lab, investigating the mechanisms of platelet dysfunction, particularly as it relates to lipid metabolism, in pediatric critically ill children.

Katherine Hajjar, M.D.'s lab studies the role of the annexin A2 system in human health and disease. Work in the Hajjar laboratory revealed the receptor-mediated assembly of the fibrinolytic zymogen, plasminogen, and its endothelial cell-derived activator, tissue plasminogen activator on the annexin A2 cell surface complex. Together, these molecules efficiently generate plasmin, a serine protease with broad substrate specificity. Recent studies have focused on the annexin A2 system in [1] the control of hemostasis and thrombosis, [2] angiogenesis in disorders such as diabetic retinopathy, and [3] fibrotic responses to tissue injury as in proliferative vitreoretinopathy. The overall goal is to use discoveries in basic biology to devise new approaches to the diagnosis and treatment of human disease.

Sujit Sheth, M.D.'s clinical research focuses on disorders of iron overload. He has completed work as Principal Investigator on one NIH grant, "Mentored Patient-Oriented Hematology Research Training," and as co-investigator on several other NIH funded studies. He is currently working on research projects and clinical trials related to disorders of red blood cells and iron metabolism. He was appointed Vice-Chair for Clinical Research in 2014, and has worked on improving infrastructure, internal funding and overall support for clinical research in the Department.

### **Department of Pediatrics**

525 East 68th Street, M-622 New York, NY 10065

(646) 962-5437 pediatrics.weill.cornell.edu

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