only in pediatric genetics and rare diseases, but also in cancer genetics, common complex disorders (e.g., cardiac disease and diabetes), and adult onset diseases.

- Exposure to comprehensive genetic testing services and technologies through the Mount Sinai biochemical, cytogenetic, and molecular genetics laboratories.
- Education in individual whole-genome sequence analysis taught by world-class bioinformatics faculty utilizing state-of-the-art supercomputers.

**Laboratory Training and Funding:**
Trainees may join the laboratory of any research training faculty member (basic science or clinical) in the Mount Sinai Graduate School of Biomedical Sciences (http://www.mssm.edu/education/graduate-school/faculty-and-staff). A listing of potential faculty mentors whose research is relevant to child health is available in the *Child Health Research at Mount Sinai booklet* (available in the related resource section at http://www.mssm.edu/departments-and-institutes/pediatrics/programs-and-services/pediatric-research-residency). As appropriate for the individual career development plan, trainees may take courses in the Graduate School of Biomedical Sciences, which oversees coursework leading to the PhD in Biomedical Sciences, Masters of Public Health, Masters of Science in Genetic Counseling, and Masters of Science and PhD in Clinical Research.

Funding is available to Research Pathway residents to support research work during training.

**Eligibility and Application Process:**
Research residency applications will be accepted by candidates whose future subspecialty areas of interest include:

- Allergy/Immunology
- Cardiology
- Endocrinology
- Gastroenterology/Hepatology
- Genetics
- Neonatology
- Nephrology
- Pulmonology

We encourage individuals who have completed MD/PhD training or who have exceptionally strong basic or translational science research experience (Doris Duke, Howard Hughes, MD/MPH, MD/MSCR) to apply to our program. Successful applicants are expected to have demonstrated outstanding performance in their medical school clinical training.

Both the Pediatric Research Residency Program and the Combined Pediatric/Medical Genetic Residency Programs have clearly delineated separate tracks within the Mount Sinai Pediatrics Group in ERAS. Both of these programs have unique National Residency Match Program (NRMP) numbers that differ from Mount Sinai's other programs, Categorical Pediatrics, our 2-year Pediatric Neurology Preliminary program, and our 1-year Preliminary Program. Applicants may apply through NRMP to one of the research programs and the categorical program and may rank multiple programs if they choose.

Applications to the Research Residency are reviewed by the Directors of the Research Residency Programs as well as the Director of Pediatric Residency Training Program. Selected applicants will be invited to interview at Mount Sinai with both clinical and research faculty, the Division Chief and Fellowship Director of the applicant's future subspecialty area of interest, and other research trainees at Mount Sinai.

**Key Faculty:**
- Lisa M. Satlin, M.D.
  Professor and Chair, Department of Pediatrics
- Rosalind J. Wright, M.D. MPH
  Vice Chair for Clinical/Translational Research
  Department of Pediatrics
- Joel Forman, M.D.
  Pediatric Residency Program Director
  Vice Chair for Education
  Department of Pediatrics
- George Diaz, M.D., Ph.D.
  Medical Genetics Residency Program Director
  Department of Genetics and Genomic Sciences
- Bruce D. Gelb, M.D.
  Director, Mindich Child Health and Development Institute
  Professor, Departments of Pediatric and Genetics and Genomic Sciences

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The Mount Sinai Kravis Children's Hospital was named among the nation's top 50 best children's hospitals in the 2013-14 edition of the *U.S. News & World Report* annual “Best Children's Hospitals” guidebook. Mount Sinai is ranked in diabetes & endocrinology, gastroenterology & GI surgery, nephrology, urology, pulmonology, cancer, and cardiology & heart surgery.
Mount Sinai Medical Center (MSMC): The MSMC encompasses the Mount Sinai Hospital (MSH), Kravis Children’s Hospital, and Icahn School of Medicine at Mount Sinai (ISMMS). MSH, founded in 1852, serves one of the most diverse and complex patient populations in the world. ISMMS, which opened its doors in 1968, has a long and distinguished tradition of excellence in clinical/translational and basic research, as well as in innovative patient care, professional education, and community involvement. With a faculty of 4000+ in 33 clinical and basic science departments and 16 multidisciplinary institutes, ISMMS ranks among the top 20 U.S. medical schools in NIH funding and was ranked 18th in the most recent (2013-14) U.S. News and World Reports survey of America's Best Graduate Schools. As one of the few U.S. medical schools to be created from a hospital, ISMMS has continuously fostered the concept of the physician-scientist as the model of excellence for medical care, research and education. The proximity of clinicians, clinical/translational investigators and basic scientists on campus facilitates frequent interactions, collaboration, use of core facilities and training opportunities. This generates an extraordinary environment for physician-scientists at every stage of their career.

Department of Pediatrics: A formal pediatric service was first established in MSH in 1878 and was the first pediatric service in New York City in a general hospital and one of the first in the United States. The Pediatric Residency Program has been continuously accredited by the Accreditation Council for Graduate Education (ACGME) since 1927. Extramural research funding exceeds $20 million at present, placing the Department in the top 15% of pediatric departments nationwide. The children's health research initiative at Mount Sinai is further extended by close collaboration with:

- The Mindich Child Health and Development Institute, led by Dr. Bruce Gelb, with core research focused on the prevention and treatment of diabetes/obesity, cardiovascular diseases, neurodevelopmental disorders, and allergy/asthma.
- The Department of Preventive Medicine, chaired by Dr. Philip Landrigan, which has played a pioneering role in planning and developing the NIH-funded National Children's Study.
- The Department of Genetics and Genomic Sciences and the Institute for Genomics and Multiscale Biology, chaired by Dr. Eric Schadt. In order to fundamentally understand human biology and the root causes of human disease, the Institute has developed computational and bioinformatics resources to analyze vast amounts of multidimensional data and to create predictive models that include the intimate links between every level of a biological system (e.g., DNA, cell, tissue, organs, individuals, community).
- Conduits, the Institutes for Translational Sciences (supported by a Clinical and Translational Science Award from the NIH National Center for Research Resources), whose major programs (Center for Patient- and Population-Oriented Research Training, Education, and Development; Clinical Research Center) are directed by pediatricians.

Research areas of particular note within the Department include the molecular genetics of congenital heart disease, the molecular physiology and ontology of epithelial transport, epigenetic regulation of the gene underlying cystic fibrosis, the immunopathogenesis of food allergy, the effect of prenatal and early childhood stress on asthma and allergy development in urban children, and environmental programming of pediatric disorders.

Overall Program Structure: The Mount Sinai Pediatric Research Residency Program and the Combined Pediatrics/Medical Genetics Residency Program are designed to provide diverse opportunities for promising graduates of M.D./Ph.D. or M.D. programs, with extensive research experience, to continue their development as biomedical investigators during and after their formal clinical residency training. Our goal is to train future academic leaders committed to careers in basic or clinical/translational research and clinical care.

Highlights of both Programs:
- Oversight of trainees by a special committee of senior research advisors within the Departments of Pediatrics and Genetics and Genomic Sciences, as appropriate, that assists the resident in identifying mentors and research opportunities from the time of entry into the program.
- Access to a wide array of basic science and clinical research laboratories and investigators at ISMMS (see below, “Laboratory Training and Funding”) from whom residents can select a research mentor and project.
- Exposure to cutting edge genomic sequencing technologies and informatics through the ISMMS Institute for Genomics and Multiscale Biology and their application in Mount Sinai clinics.
- Participation in departmental and institution-wide seminars and unique career-development workshops targeted to future physician-scientists.

Pediatric Research Residency Program: Individuals in this program complete either a traditional 3-year training program in General Pediatrics (followed by a 3-year Sub-Specialty Fellowship) or a condensed 2-year clinical training in General Pediatrics followed by a 4-year Sub-Specialty Fellowship that protects 2 years for a concentrated research experience. During the initial years of pediatric training, residents are encouraged to establish relationships with research mentors in their chosen field of study to learn about ongoing research activities. In addition, they are integrated into the educational and research conferences within their Sub-Specialty of interest. On completion of training the resident is board-eligible for certification in both Pediatrics and the Sub-Specialty.

Highlights of the Pediatric Research Residency Program include:
- A custom Research Track that fully leverages the Individualized Training Curriculum to provide a full 6 months of dedicated research time beginning in the PL1 year with a Scholarly Oversight Committee for each trainee. This is in addition to the 7 months of required subspecialty experience for each trainee.
- Flexible scheduling of calls and other duties during clinical training to accommodate early integration into the educational and research conferences in the resident’s chosen Sub-Specialty.
- For those trainees that choose the condensed 2-year clinical training in General Pediatrics followed by a 4-year Sub-Specialty Fellowship pathway, full compliance with the ABP Accelerated Research Pathway and an institutional track record of successfully training residents in ABP approved accelerated pathways in the past.

Combined Pediatrics/Medical Genetics Residency Program: The combined 4-year Pediatrics/Medical Genetics residency program is structured in accordance with the special agreement between the American Board of Pediatrics (ABP; www.abp.org) and the American Board of Medical Genetics (www.abmg.org). The integrated 4-year training program is divided equally between the Pediatrics and Medical Genetics Residencies, both of which are independently accredited by the ACGME (www.acgme.org). Trainees spend their first year in Pediatrics. The second and third years of training are split between Pediatrics and Medical Genetics, and the entire fourth year is devoted to Medical Genetics. On completion of training the resident is board eligible for certification in both specialties.

Highlights of the Combined Pediatrics/Medical Genetics Residency include:
- Flexible scheduling of calls and other duties during the initial year of clinical training to accommodate early integration into the educational and research conferences in Genetics.
- Exposure to clinical and educational training not