Dear Colleague,

For the past 75 years, Kennedy Krieger Institute has been a national leader in providing patient care for children and young adults with disorders and injuries of the brain, spinal cord, and musculoskeletal system. Our medical staff of more than 200 physicians, representing more than 50 specialties, and a support staff of more than 2,400 dedicated employees provide your patients unique access to the latest in research and treatment models in the areas of neurorehabilitation, behavioral disorders, and other developmental disorders.

To ensure that your patients receive the best care possible, we take an interdisciplinary team approach that starts with you, the referring physician. Our staff works closely with you and your patient’s family to develop a comprehensive and individualized treatment plan. Depending on their needs, we can offer your patients care in a variety of settings, including a 70-bed inpatient unit, outpatient programs that see more than 18,000 patients each year, day treatment services, and home- and community-based programs.

For your convenience and future reference, we’ve provided an overview of our programs and services as well as clinical and research updates. If you have any questions or would like to learn more about any of our patient care programs, please call our Physician Referral Line at 443-923-9403 or email us at findaspecialist@kennedykrieger.org.

Sincerely,

Gary W. Goldstein, MD

PROGRAM NEWS & UPDATES:

• Innovative neurogenetic testing for cerebral palsy and other developmental disorders
• New Barth syndrome and tuberous sclerosis clinics launched
• Research Briefs: autism, ADHD, and brain injury
• Brain injury program for low levels of responsiveness

INSIDE POTENTIAL MAGAZINE:

• Research Frontiers: Simple “pull-to-sit” test at 6 months may predict ASD.
• Neurorehabilitation: How video games aid therapy and recovery.
• Traumatic Brain Injury: A father and son’s story of recovery.

Visit potentialmag.kennedykrieger.org to access articles and search publication archives.

Referring Your Patients

To support the needs of physicians and healthcare professionals, our care management team is available to identify and provide information on appropriate clinical programs, handle referrals, obtain consultations with Institute specialists, and schedule appointments for patients and families.

Call 443-923-9403 to reach our Physician Referral Line or visit referrals.kennedykrieger.org for information and resources for physicians and healthcare professionals.

For general information, call 1-888-554-2080.
Clinic opens to treat Barth syndrome
Kennedy Krieger Institute announces the opening of the Barth Syndrome Clinic, led by Richard Kelley, MD. This interdisciplinary clinic is dedicated to the diagnosis and treatment of Barth syndrome, a rare X-linked genetic disorder caused by the deficiency of cardiolipin. Because cardiolipin is the major phospholipid of mitochondria—the elements of all cells that make energy—many systems in the body can be affected.

Treating a patient with Barth syndrome requires the collaboration of specialists in a wide range of disciplines, including:

- Metabolism
- Genetic counseling
- Cardiology
- Physical therapy
- Hematology
- Nutrition

The full interdisciplinary clinic is held on a quarterly basis. However, individual appointments with clinic physicians can be scheduled as needed.

For more information or to make an appointment, call 443-923-9403 or visit referrals.kennedykrieger.org.

Clinical Connection

Gene Sequencing Playing an Increasing Role in Diagnosing Developmental Disorders
Recent technological advances have paved the way for the Institute to become one of the few in the country to offer neurogenetic evaluations of patients with developmental disabilities. Experts at the Institute use a combination of imaging and gene sequencing to identify the genetic cause of previously undiagnosed neurological disorders that up until now have fallen into a general diagnostic category, such as cerebral palsy, intellectual disability, epilepsy, developmental delay, and autism.

Making a definitive diagnosis and understanding the etiology of these disorders paves the way for genomically-guided therapeutic interventions that could lead to answers for patients and families, help target treatments, and guide future research. Kennedy Krieger provides a true interdisciplinary approach to neurogenetic evaluation in which experts from a variety of fields meet weekly to discuss a patient’s test results and the implications for treatment options, outcomes, and prognosis.

Physicians who wish to find out more information or who have a patient that might benefit from a neurogenetic evaluation should call 443-923-9403.

Clinic Opens to Treat Tuberous Sclerosis
The new Tuberous Sclerosis Clinic at Kennedy Krieger Institute is one of only 30 clinics in the United States dedicated specifically to the care of individuals and their families affected by tuberous sclerosis. Tuberous Sclerosis is a genetic disorder that can cause intellectual disability, autism, seizures, brain tumors, and behavioral disorders. The clinic, led by Tanjala Gipson, MD, includes an interdisciplinary team of health care professionals trained and experienced in treating patients with tuberous sclerosis who may have multiple complexities, including developmental, psychological, behavioral, and rehabilitative needs. Services include evaluation and treatment to successfully manage symptoms. The Institute’s clinical care is driven by its ongoing research, which ensures that patients receive the most innovative therapies available. Current research is shedding light on how the disorder can be effectively treated.

For more information or to make an appointment, call 443-923-9403 or visit referrals.kennedykrieger.org.

New Physician Joins Kennedy Krieger
Kennedy Krieger Institute is pleased to announce the addition of Ranjit Varghese, MD, to its medical staff. Dr. Varghese specializes in orthopaedics and cerebral palsy.

Dr. Varghese comes to Kennedy Krieger from Gillette Children’s Specialty Hospital in Minnesota, where he was a fellow in pediatric orthopaedics. He was also a fellow in pediatric orthopaedic tumors at Boston Children’s and Massachusetts General Hospital.

Dr. Varghese completed his medical degree and orthopaedic surgical residency at Kasturba Medical College in India, and then completed a fellowship in Pediatric Orthopaedic Service at British Columbia’s Children’s Hospital.

At Kennedy Krieger, Dr. Varghese will see children with orthopaedic concerns related to cerebral palsy and related congenital disorders. To make an appointment or to learn more, call 443-923-9403 or email findaspecialist@kennedykrieger.org.
**CLINICAL TRIALS CENTER: New Center to Advance Scientific Knowledge of Neurological Disorders**

As a complement to the Institute’s commitment to research, Kennedy Krieger has established a Clinical Trials Center to serve as a critical resource for investigators seeking to advance the understanding of neurological disorders and test promising new treatments.

Led by Drs. Michael Johnston, Tanjala Gipson, and Dejan Budimirovic, the Clinical Trials Center was created to serve the development, coordination, and implementation of clinical trials designed to advance the scientific knowledge of a wide range of neurologic disorders. The innovative feature of the center focuses on investigation of drug therapies with potential to modify diseases previously considered untreatable, such as Fragile X syndrome, tuberous sclerosis, and autism.

For more information about currently active trials, please contact the Center at 443-923-7619 or ResearchTrials@kennedykrieger.org.

**ASD FINDING: Simple “Pull-to-Sit” Test May Predict Risk at Six Months**

A study of six-month-old infants at high genetic risk for autism identified weak head and neck control as a red flag for autism spectrum disorder (ASD) and language and/or social developmental delays. Researchers at the Kennedy Krieger Institute concluded that a simple “pull-to-sit” task could be added to existing developmental screenings at pediatric well visits to improve early detection of developmental delays.

**MOTOR CONTROL: Is it ADHD or Typical Toddler Behavior?**

Dr. Mark Mahone and his colleagues at Kennedy Krieger are among the first to use neuroimaging to study the brains of preschool children with symptoms of ADHD. They recently discovered that children with ADHD have a smaller caudate nucleus—a small structure in the brain that is associated with cognitive and motor control—than their typical peers. They hope this finding will lead to earlier interventions to facilitate better educational outcomes. Dr. Mahone has also identified 10 early signs of ADHD risk in preschool age children for parents, educators, and physicians.

**Tool Has Potential to Help Patients Relearn to Walk After Brain Injury**

In a step towards improving rehabilitation for patients with walking impairments, researchers from the Kennedy Krieger Institute found that non-invasive stimulation of the cerebellum, an area of the brain known to be essential in adaptive learning, helped healthy individuals learn a new walking pattern more rapidly. The findings suggest that cerebellar transcranial direct current stimulation (tDCS) may be a valuable therapy tool to aid people in relearning to walk following a stroke or other brain injury.

For more details about these and other research initiatives, visit kennedykrieger.org/research.

**Unique Traumatic Brain Injury Program Treats Patients with Low Levels of Responsiveness**

The Brain Injury Responsiveness Program at Kennedy Krieger Institute evaluates and treats children and adolescents with a history of injury to the brain who exhibit altered arousal or ability to interact with their environment. The program includes detailed interdisciplinary evaluations and state-of-the-art treatment techniques for acute and chronic patients designed to provide the best outcomes possible. Patients are initially evaluated by a team of physicians, neuropsychologists, behavioral psychologists, and rehabilitation therapists on medical issues, including medication regimen, sleep, sensory and motor functioning, responsiveness, and motivational stimuli.

Following the evaluation, appropriate patients will either be admitted to the inpatient neurorehabilitation unit or receive intensive outpatient coordinated care.

The Responsiveness Program at Kennedy Krieger is part of an extensive, coordinated brain injury clinical program backed by more than thirty years of expertise in the field of brain injury that includes services for individuals in all phases of recovery, including a 24-hour inpatient hospital unit, day treatment, home- and community-based services, and outpatient specialty programs.

For more information, call 443-923-9403 or visit referrals.kennedykrieger.org.
Patient Care Programs & Services

Inpatient Pediatric Units
Feeding Disorders Unit
Neurobehavioral Unit (NBU)
Rehabilitation Unit—Brain Injury, Pain Rehabilitation, Post-orthopedic Surgery, and Spinal Cord Injury

Outpatient Centers, Programs, and Services
International Adoption Clinic
Albright Clinic
Aquatic Therapy Program
Assistive Technology Clinic
Audiology Program
Center for Autism and Related Disorders
Barth Syndrome Clinic*
Behavior Management Clinic
Bone Disorders Program
Botulinum Toxin Treatment Program
Brachial Plexus Clinic
Interdisciplinary Brain Injury Clinic
Brain Injury Program
Phelps Center for Cerebral Palsy and Neurodevelopmental Medicine
Child and Family Support Program
Child and Family Therapy Clinic
Community Rehabilitation Program
Constraint-Induced and Bimanual Therapy Program
Craniocervical Clinic
Deafness-Related Evaluations Clinic
Center for Development and Learning
Developmental Cognitive Neurology Clinic
Pediatric Developmental Disorders Clinic
Down Syndrome Clinic and Research Center
Family Center
Pediatric Feeding Disorders Program
Fetal Alcohol Spectrum Disorders Program
Focused Interdisciplinary Therapy Program
Fragile X Clinic
Healthy Lifestyles Therapy Program
Center for Holoprosencephaly and Related Malformations
Intrathecal Baclofen Program

Limb Difference Clinic
Military Behavioral Health Services
Movement Disorders Program
Center for Genetic Muscle Disorders
Neurobehavioral Outpatient Program
Neurology and Developmental Medicine Program
Neurology and Neurogenetics Clinic
Clinical Neurophysiology Clinic
Clinical Neurophysiology Laboratory
Neuropsychology and Developmental Outpatient Clinics
Neurorehabilitation Concussion Clinic
NICU Follow-up Clinic
Nutrition Clinic
Occupational Therapy Clinic
Orthopedic Clinic
Osteogenesis Imperfecta Clinic
Pediatric Pain Rehabilitation Program
Physical Therapy Clinic
Psychiatry Clinic
Pediatric Psychology and Consultation Clinic
Pediatric Rehabilitation Clinic
Seating Clinic
Sleep Disorders Clinic and Laboratory
Social Work Outpatient Mental Health Clinic
Specialized Transition Program (STP)
Speech and Language Clinic
Philip A. Keeley Center for Spina Bifida and Related Conditions
International Center for Spinal Cord Injury
Hunter Nelson Sturge-Weber Center
Tuberous Sclerosis Clinic*

Continuums of Care
Continuums allow patients to be seen through all stages of care, including 24-hour inpatient programs, day treatment, home- and community-based services, and outpatient programs. They include Pediatric Feeding Disorders, Neurobehavioral Disorders, and Pediatric Rehabilitation (brain injury, pain management, post-orthopedic surgery, spinal cord injury).

*Indicates new programs, clinics, and services.

For a complete listing of all diagnoses, disorders, programs, and services, visit kennedykrieger.org/patientcare or call 888-554-2080, TTY 443-923-2645, or Maryland Relay 711.