Advancing Genomics for Pediatric Orthopaedic Diseases

Shriners Hospitals for Children and The Jackson Laboratory announce research affiliation for genomic studies of pediatric patients

TAMPA, Florida (Jan. 30, 2020) – With the goal of identifying advanced treatment approaches for children with genetic orthopaedic conditions, <u>Shriners Hospitals for Children®</u> and <u>The Jackson</u> <u>Laboratory (JAX)</u> have entered into a research affiliation agreement.

The agreement is part of Shriners Hospitals for Children's new Genomics Institute. Based at its headquarters in Tampa, Florida, the Genomics Institute is focused on finding the genetic causes of orthopaedic conditions and disabilities such as clubfoot, scoliosis, and osteogenesis imperfecta, and easing – and, in some cases, perhaps even ending – the potential for a lifetime of medical care and personal struggle.

"We are excited to collaborate with the world-renowned Jackson Laboratory to advance precision medicine and specialized pediatric care for the more than 100,000 patients we treat every year," said Marc Lalande, Ph.D., vice president of research programs, Shriners Hospitals for Children.

The availability of individual genetic data can lead to the identification of disease-related variations, or gene alterations, which can further lead to better ways to diagnose and treat pediatric orthopaedic diseases and other conditions.

As part of this agreement, Shriners Hospitals will perform next-generation sequencing on DNA samples obtained from families at its 22 hospitals and outpatient locations in North America and from its international network of outreach clinics.

Investigators at JAX will provide expertise on genomic data analysis, specialized knowledge bases and algorithms, as well as the microbiome. JAX will also aim to develop mouse models carrying the same genetic variations as patients with these rare pediatric diseases, providing impactful research platforms for discovering new treatments and important clinical information.

"Harnessing the power of genomics to understand the basis for orthopaedic and other pediatric diseases is of the utmost importance," said <u>Charles Lee, Ph.D., FACMG</u>, scientific director and professor, The Jackson Laboratory for Genomic Medicine. "This research can bring hope to countless families, and we're looking forward to working with Shriners Hospitals to help children around the world."

About The Jackson Laboratory

The Jackson Laboratory is an independent, nonprofit biomedical research institution with more than 2,200 employees. Headquartered in Bar Harbor, Maine, it has a National Cancer Institute-designated Cancer Center, a genomic medicine institute in Farmington, Conn., and facilities in Ellsworth, Maine, Sacramento, Calif., and Shanghai, China. Its mission is to discover precise genomic solutions for disease and empower the global biomedical community in the shared quest to improve human health. For more information, please visit <u>www.jax.org</u>.

About Shriners Hospitals for Children

Shriners Hospitals for Children is changing lives every day through innovative pediatric specialty care, world-class research and outstanding medical education. Our health care system provides care for children with orthopaedic conditions, burns, spinal cord injuries, and cleft lip and palate. All care and services are provided regardless of the families' ability to pay. Since opening its first location in 1922, the health care system has treated more than 1.4 million children. For more information, please visit shrinershospitalsforchildren.org.