The Truth About Genetics

By Amy Bentley

Dr. Neda Zadeh
CHOC Medical Geneticist

Dr. Zadeh is a medical geneticist in the division of genetics at CHOC and the associate director of the Molecular Diagnostic Laboratory at Genetics Center. She specializes in diagnosing and caring for patients with genetic syndromes and birth defects. Some of her interests include muscular dystrophies, familial Mediterranean fever, genetic nerve and skin conditions, and the advancement of molecular genetic testing in the clinical diagnostic laboratory setting. Dr. Zadeh joined the CHOC medical staff after completing her pediatric residency at CHOC, her clinical genetics fellowship at Stanford University and a clinical molecular genetics fellowship at UCLA.

Dr. Zadeh's philosophy of care: "I have a passion for both clinical and molecular genetics and I am dedicated to providing care for my patients and their families."

EDUCATION:
Medical degree from UCLA School of Medicine
Genetics training from Stanford University

BOARD CERTIFICATIONS:
Clinical Genetics
Clinical Molecular Genetics
Pediatrics

THE FIELD OF MEDICAL GENETICS

Medical genetics involves the study of inherited diseases. The field includes genetic counseling and testing, and their application to patient care in the practice of medicine. Genetic factors play a role in causing certain diseases, birth defects or an inherited predisposition to a health problem, says Dr. Neda Zadeh, CHOC medical geneticist. "It's one of the most rapidly advancing areas of medicine," she says of the field of medical genetics.

GENETIC OR INHERITED DISEASES AND CONDITIONS

"Genetic disorders overall make up a huge number of hospital admissions nationwide, about 20 to 40 percent. Most likely that number will get bigger as our knowledge expands," says Dr. Zadeh. She placed genetic conditions into three main categories: chromosome abnormalities such as Down syndrome; single-gene disorders like cystic fibrosis; and multifactorial disorders in which there is a combination of both genetic and environmental factors.

19,000
NUMBER OF SINGLE-GENE DISORDERS KNOWN TO DATE

GENETIC TESTING

Genetic testing is the analysis of chromosomes, DNA and other cellular components to find the cause of a genetic disorder, says Dr. Zadeh. "Genetic testing is used in making a diagnosis and providing the patient and family with more information about the disease process, if treatments are available, and what to expect. It also provides information about inheritance and the risk for future pregnancies." Exome sequencing and whole genome sequencing are newer types of genetic testing that are very helpful in identifying rare genetic conditions, says Dr. Zadeh.

1 in 150
CHILDREN BORN EACH YEAR WITH A CHROMOSOME ABNORMALITY

1 in every 691 babies
IN THE U.S. IS BORN WITH DOWN SYNDROME, MAKING IT THE MOST COMMON CHROMOSOME ABNORMALITY

CHOC Children's

50 YEARS OF EXPERT CARE

For over 50 years, CHOC Children's physicians, nurses and staff have been devoted to improving the lives of children and families in our community. As home to the region's only dedicated pediatric emergency department and other world-class services and programs, from cardiology and neurosurgery to neonatology and orthopedics, CHOC is committed to being the leading destination for children's health by providing exceptional and innovative care.

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