

UCSD Announces Chief of Division of Genome Information Sciences in Pediatrics

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Kelly A. Frazer, PhD

Kelly A. Frazer, PhD, has been hired as the founding chief of the new Division of Genome Information Sciences for the Department of Pediatrics at the UCSD School of Medicine. In this role, she will work closely with physicians in the Department of Pediatrics, the UCSD Moores Cancer Center and Rady Children's Hospital as well as with scientists in the Health Sciences.

The main function of the new division is to focus on predisposition for diseases starting in childhood but spanning the whole age spectrum, using genomic information. Such diseases include cancer, congenital heart disease, asthma and obesity. Under Frazer's direction, researchers will work to understand a child's genetic predisposition to disease or to better understand individual responses to treatment, such as the ability to tolerate or safely metabolize drugs. She will play an important role in the newly established Institute of Genomics and will also lead efforts to analyze patient data from Rady Children's Hospital.

Frazer was formerly a professor of Molecular and Experimental Medicine at the Scripps Research Institute and director of genomic biology at The Scripps Genomics Medicine Program at Scripps Health. There she established Next Generation Sequencing capabilities and advanced sample preparation methods for population-based, targeted sequencing studies. She also conducted functional genomics studies to characterize genetic markers associated with human diseases.

She joined Scripps from Perlegen Sciences in Mountain View, where she served as vice president of genomics. She focused on array-based re-sequencing of 50 human genomes in order to map out the common elements of genetic diversity. During this time, Frazer worked with other scientists there to develop the content now publicly available in the "HapMap," or human haplotype map. She also directed several whole genome association scans to identify genetic markers associated with human diseases and human variance in drug response.

Frazer earned undergraduate degrees in chemistry and biology at UC San Cruz. She then went to UCSF where she received her PhD degree in genetics in 1993. From 1993 to 1997, she was a post-doctoral fellow at Lawrence Berkeley Laboratory in the Life Sciences Division and then worked as a staff scientist in the Genome Sciences Department there until 2000. During this time, she directed implementation of the cross-species comparative DNA visualization tool, VISTA.

A frequent reviewer on NIH-review panels, she is also a member of the NIH Genome Research Resources Committee and presently serves on the Expert Scientific Panel for the genome-wide association program being led by the National Human Genome Research Institute.

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