

Terry Gaasterland Bio

Dr. Gaasterland trained as a computer scientist with emphasis in databases, automated reasoning and reasoning with uncertain information.

Dr. Gaasterland transitioned into the application of methods in databases and AI to the interpretation and analysis of genomic sequence and gene expression data and currently leads a research program aimed to develop and apply methods to identify genes and the impact of their genetic and evolutionary variation on regulation of transcription and on protein domain structure and function.

Since receiving the Presidential Early Career Award in Science and Engineering (PECASE) in 2000, she has been continuously funded by the National Science Foundation to develop methods in computational genomics, and has participated as PI or co-PI on a series of biomedical grants from the NIH.

Dr. Gaasterland's experience with genome and exome sequencing, software tools to detect horizontally transferred genes in microbes, the management and analysis of large next-generation high-throughput sequencing datasets, and the sequencing and analysis of marine microbial, eukarotic, and human genomes as well as her early career work in deductive databases is reflected in over 90 refereed publications.

Rob Knight Bio

Rob Knight is the founding Director of the Center for Microbiome Innovation, an Agile Center in the Jacobs School of Engineering with the School of Medicine and the Division of Biological Sciences as founding partners, and is a Professor in UC San Diego's Departments of Pediatrics and Computer Science & Engineering. Before that he was Professor of Chemistry & Biochemistry and Computer Science in the BioFrontiers Institute of the University of Colorado at Boulder, and an HHMI Early Career Scientist. He is a Fellow of the American Association for the Advancement of Science and of the American Academy of Microbiology. In 2015 he received the Vilcek Prize in Creative Promise for the Life Sciences. He is the author of "Follow Your Gut: The Enormous Impact of Tiny Microbes" (Simon & Schuster, 2015) and spoke at TED in 2014. His lab has produced many of the software tools and laboratory techniques that enabled high-throughput microbiome science, including the QIIME pipeline (cited over 5000 times as of this writing) and UniFrac (cited over 3000 times including its web interface). He is co-founder of the Earth Microbiome Project, the American Gut Project, and the company Biota, Inc., which uses DNA from microbes in the subsurface to guide oilfield decisions. His work has linked microbes to a range of health conditions including obesity and inflammatory bowel disease, has enhanced our understanding of microbes in environments ranging from the oceans to the tundra, and made high-throughput sequencing techniques accessible to thousands of researchers around the world. Rob can be followed on Twitter (@knightlabnews) or on his web site <http://knightlab.ucsd.edu/>.

Ray Veeraraghavan Bio

Narayanan “Ray” Veeraraghavan is the Director of IT for Research, Genomics and Systems Medicine at Rady Children’s Hospital at San Diego, and directs IT and analytics efforts at Rady Children’s Institute for Genomic Medicine.

Previously Ray led the CAP/CLIA compliant clinical bioinformatics enterprise at the Human Genome Sequencing Center at Baylor College of Medicine and the Whole Genome Laboratory (WGL), Houston. During this time, Ray also led the largest ever biomedical compute on Amazon cloud, for the CHARGE consortium – a 10+ site consortium focused on identifying biomarkers that influence risk in many heart and aging related diseases; which won the BioIT- World award in 2014 and was made a Amazon cloud case-study for ultra-large scale collaborative genomic analyses. He has been a co-investigator in many NIH funded clinical next-gen sequencing based grants such as the Undiagnosed Disease Network (UDN) and eMERGE programs, and provided his expertise on FDA panels for metrics and evaluation in genomic medicine.

Ray earned his PhD in Chemical Biology from Penn State, a MS in Industrial Engineering and a BS in Mechanical Engineering.

Olivier Harismendy Bio

Dr. Harismendy graduated with an M.S. in Process Engineering from ENSTA-ParisTech (France) and a joint M.S. in Microbiology from the Pasteur Institute and Paris 7 University. He obtained his PhD in Microbiology from the same university, studying RNA polymerase III transcriptional regulation in yeast using ChIP-chip at Dr Sentenac’s laboratory (CEA-Saclay, France). He then joined Dr. Edelman’s Department of Neurobiology at The Scripps Research Institute (La Jolla, CA), where he developed ChIP-Seq approaches to study Neuron Restrictive Silencing Factor DNA binding in mouse developing brains.

Under the mentorship of Dr Kelly Frazer, Dr. Harismendy went on to develop applications of high throughput sequencing for translational research : evaluating methods for targeted sequencing, exploring the role of regulatory variants in common diseases, and detecting and studying the role of somatic mutations in cancer. He joined the UC San Diego Moores Cancer Center in 2009 where he is currently leading the Oncogenomics laboratory. His current research focuses on the development of assays and computational approaches to study tumor heterogeneity predict drug response and understand the contribution of gene regulatory elements in cancer etiology and progression. Strong of his experience in the molecular analysis of clinical samples and the interpretation of the data for cancer care, Dr Harismendy participates in the molecular tumor board and the protocol monitoring and review committee to review and advise on the design and execution of molecularly guided clinical trials.

Min Lee Bio

Dr. Min Seob Lee is a founder and President of Diagnostics, Inc. in San Diego California, and is currently taking a responsibility of Chief Executive Officer. Diagnostics is developing solutions for personalized medicine based on genome information utilizing advanced bioinformatics capability and diagnostic development.

Dr. Lee has extensive global experience in the life sciences business arena including bio-tech, pharmaceutical and diagnostics companies with expertise in personal genomics, pharmacogenomics, bioinformatics and molecular diagnostic. Prior to Diagnostics, he was a vice president of Theragen's Bio Institute and the CTO of GenomeCare. He started as an entrepreneur by establishing Precision Biocount Inc, - a next generation diagnostics company located in San Diego (2009). Prior to this, he held several positions of increasing responsibility from 2005 to 2009 at Sequenom in San Diego within the Diagnostic Development Department and Center for Molecular Medicine. Sequenom is a successful company committed to providing the best genomic and genetic analysis solution for genome research and molecular diagnostics. Before Sequenom, Dr. Lee was in charge of a CLIA (Clinical Laboratory Improvement Amendments) molecular diagnostic laboratory performing high-throughput genome sequencing and genotyping at Genaisance Pharmaceuticals in Connecticut. Genaisance was acquired by Clinical Data, a bio-pharmaceutical company focuses on personalized therapeutics and diagnostics development from genomics. He also gained bioinformatics industry experience through his involvement with DoubleTwist Inc. in 2000.

Dr. Lee published numerous articles and has been granted several US and international patents in the area of personalized medicine, genomics and diagnostics. He conducted his post-doctoral fellowship at the Genomics and Proteomics Center at Harvard Medical School, and received a Ph.D. in Molecular Medicine from City of Hope National Medical Center of the Beckman Research Institute in California.

Ilkay Altintas Bio

Ilkay Altintas is the Chief Data Science Officer at the San Diego Supercomputer Center (SDSC), UC San Diego, where she is also the Founder and Director for the Workflows for Data Science Center of Excellence. Since joining SDSC in 2001, she has worked on different aspects of scientific workflows as a principal investigator and in other leadership roles across a wide range of cross-disciplinary NSF, DOE, NIH and Moore Foundation projects. She is a co-initiator of and an active contributor to the popular open-source Kepler Scientific Workflow System, and the co-author of publications related to computational data science and e-Sciences at the intersection of scientific workflows, provenance, distributed computing, bioinformatics, observatory systems, conceptual data querying, and software modeling. Ilkay is the recipient of the first SDSC Pi Person of the Year in 2014, and the IEEE TCSC Award for Excellence in Scalable Computing for Early Career Researchers in 2015.

Brady C. Davis Bio

Senior Director, Strategy & Market Development

Brady heads strategy & market development for Illumina's Enterprise Informatics Business Unit (EIBU). Brady works with the commercial and product development leads in order to help accelerate new market opportunities with a focus on using Genetics data as a clinical utility. Brady is also responsible for building strategic partnerships with both technology and services based organizations as well as working with Illumina's Corporate Development Business Unit to identify investment and acquisition opportunities.

Prior to Illumina Brady led healthcare business development, strategy and innovation for Oracle Health Sciences Global Business Unit with an emphasis on Enterprise Data Warehouse, Translational Research, Health Analytics, Health Information Exchange and Health Sciences Collaboration Network along with supporting Oracle's personalized medicine, patient engagement & mobile health strategies. He has been an innovator and leader in the hospital ACO space as well as the consumer health and wellness industry for over 15 years. Brady has a unique ability to merge perspectives from multiple healthcare ecosystem viewpoints including but not limited to: payers, providers, hospital/clinic, life sciences, employers, retail, mobile and consumer.

Prior to Oracle, Brady was President of AnswersMedia Health Division – a leading consumer health and wellness engagement and communications platform integrating game play mechanics with financial incentives, powerful rich media-based personalized health content and mobile to help drive positive behavior change in individuals. AnswersMedia acquired a care-coordination software platform called Shared Care Plan (SCP) where Brady was the co-founder of the platform as well as leading the commercialization efforts. SCP was built through funding from Robert Wood Johnson Foundation grants and the State of Washington to become an industry leading "Health Record Bank" and to help coordinate care between all healthcare stakeholders caring for a patient (providers, family members, care managers, etc).

Ashley Van Zeeland Bio

Chief Technology Officer

Dr. Van Zeeland joined HLI as part of the acquisition of Cypher Genomics, a leading genome interpretation company, where she was co-founder and CEO. Prior to founding Cypher Genomics, she served as Director, Strategic Partnerships at the Scripps Translational Science Institute where she focused on novel public-private partnerships to accelerate translational research. Before transitioning to her role as Director, Strategic Partnerships she was a research fellow at the Scripps Translational Science Institute working on multiple projects leveraging human genome sequencing to identify disease causative variants and biomarker signatures for various conditions. Dr. Van Zeeland has significant experience leading innovative scientific programs, including groundbreaking work in the genetics of autism, neurodevelopmental disorders and other rare genetic pediatric diseases. She received a Ph.D. in Neuroscience from the University of California, Los Angeles and MBA from the University of California, San Diego.