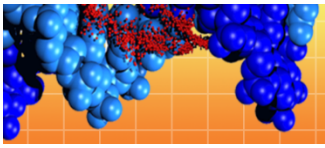

CENTER FOR BIOINFORMATICS & COMPUTATIONAL BIOLOGY

BIOINFORMATICS 2015 SPRING SEMINAR SERIES

Hosted by: Department of Computer and Information Sciences,
Department of Electrical and Computer Engineering &
Center for Bioinformatics and Computational Biology
http://bioinformatics.udel.edu/seminars

CIS Distinguished Speaker Series

Srinivas Aluru, Ph.D.

Professor, School of Computational Science and Engineering

Georgia Institute of Technology

Thursday, April 30, 2015 Gore Recital Hall 10:30-12:00pm

A light refreshment will be served at 9:30AM in Smith Hall 102A - All students are invited.

Genomes Galore: Big Data Challenges in the Life Sciences

Abstract: In just a little over a decade, the cost of sequencing a complex organism such as the human dwindled from the $100 million range to sub $1000 range. This rapid decline is brought about by the advent of a number of high-throughput sequencing technologies, collectively known as next generation sequencing. Their usage has become ubiquitous, enabling single investigators with limited budget to carry out what could only be accomplished by a network of major sequencing centers just a decade ago. This is leading to an explosive growth in the number of organisms sequenced, and in the number of individuals sequenced in search of important genetic variations. Next-gen sequencers enable diverse applications, each requiring its own class of supporting algorithms. This talk will highlight some of the big data challenges arising from these developments in the context of microbial communities, agricultural biotechnology, and human health.

Bio: Srinivas Aluru is a professor in the School of Computational Science and Engineering within the College of Computing at Georgia Institute of Technology. Earlier, he held faculty positions at Iowa State University, Indian Institute of Technology, New Mexico State University, and Syracuse University. He conducts research in high performance computing, bioinformatics and systems biology, combinatorial scientific computing, and applied algorithms. He pioneered the development of parallel methods in computational biology, and contributed to the assembly and analysis of complex plant genomes. Aluru is a recipient of the NSF career award, IBM faculty award, Swarnajayanti Fellowship from the Government of India, and the mid-career and outstanding research achievement awards from Iowa State University. He is a Fellow of the American Association for the Advancement of Science (AAAS) and the Institute for Electrical and Electronic Engineers (IEEE).

TO MEET THE SPEAKER, PLEASE CONTACT M. Taufer AT taufer@udel.edu