Big Data Training for Cancer Research

Special Lecture Series

Biomedical Digital Twins: A Collaborative Landscape of Incredible Opportunity with Exciting Challenges
Dr. Eric Stahlberg

May 20, 2022, 1:00 – 2:30 PM (EDT)

Abstract:

Research into applications for biomedical digital twins is taking off as a new frontier for precision medicine. With early efforts commencing in Europe and now with established programs initiatives and programs globally, the promise of biomedical digital twins creates an extremely exciting direction to bring focus to predictive medicine. Fueled by the growth of available data, the pervasiveness of computing and AI, and success of digital twin approaches in other disciplines, reaching the goal of effective biomedical digital twins appears achievable in the foreseeable future. The presentation will provide a foundation for biomedical digital twin efforts, share insights from existing efforts globally, highlight initiatives to advance cancer patient digital twins, and exciting future applications for biomedical digital twins. The presentation will also discuss lessons learned, anticipated challenges and the corresponding opportunities to make progress in this exciting new area for biomedical research.

Speaker Bio:

Eric Stahlberg serves as the director of Cancer Data Science Initiative at the Frederick National Laboratory for Cancer Research (FNLCR). Joining the team at Frederick in 2011 to establish and lead the bioinformatics core supporting the NCI Center for Cancer Research, Dr. Stahlberg shifted his attention in 2014 to lead a new NCI CBIIT initiative to accelerate cancer research through applications of high-performance computing. Working collaboratively with NCI leadership Dr. Stahlberg helped established the Joint Design of Advanced Computing Solutions for Cancer (JDACS4C) collaboration between the NCI and the US Department of Energy as well as Accelerating Therapeutics for Opportunities in Medicine (ATOM), a public-private collaboration to dramatically increase the pace and success of new treatments. Driven to drive advances at the intersection of leading-edge science and computing, Dr. Stahlberg continues to build the cross-disciplinary community through efforts with the Computational Approaches for Cancer and HPC Applications of Precision Medicine workshops. In 2017, he was recognized as one of FCW's Federal 100. Stahlberg holds a Ph.D. in computational chemistry from the Ohio State University and bachelor's degrees in computer science, chemistry and mathematics.

Register at: https://purdue-edu.zoom.us/webinar/register/WN_ruEDXUMbSA6Po89tMmfC_A