

CARNEGIE MELLON UNIVERSITY BME 2023 FALL SEMINAR SERIES

Information Technology for the Health Care Enterprise

PRESENTED BY

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SCHEDULE

Porter Hall (PH) 100

**Thursday,
September 14, 2023
(9:30-10:30AM)**



According to a report by the Center for Medicare and Medicaid Services [CMS] (<http://www.cms.gov>), the United States spent nearly \$4.3 trillion dollars on health care in 2021, which is about 18% of the nation's GDP. Several studies have pointed out that properly implemented health information technology (HIT) could result in significant savings and improved health care. We use the term "health care informatics" for all software aspects of the healthcare enterprise: health information technology, modeling and simulation, bioinformatics, medical devices integration, and bioimaging. In this talk, I will discuss our work (at NIST) on health care informatics, focusing on the following topics: 1) The concept of P9 medicine; 2) A framework for Smart Health Care; 3) Testing the nationwide health information network; 4) Medical device interoperability; 5) Pathways for Alzheimer's disease with in-silico experiments; and 6) Machine learning techniques for medical imaging, with specific reference to Age-Related Macular Degeneration.

