Guest Lecture

Interactive Tools for Translational Bioinformatics: Preliminary Lessons from the FaceBase Coordination and Management Hub

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Abstract

Translational science challenges biomedical researchers to establish broader collaborations involving increasingly diverse data and scientific perspectives, with the goal of using basic research to advance clinical practices. Information tools - particularly interactive systems and visualizations - play a key role in this work, helping researchers find otherwise unknown collaborators from unfamiliar fields, and build connections between disparate data sets.

The FaceBase Consortium is a group of research projects focusing on the syste-

matic compilation of the genetics underlying human midfacial development. Our ongoing work on the FaceBase coordination and management hub (www.facebase.org) provides a case study of the informatics opportunities and challenges associated with translational bioinformatics. Preliminary work in user requirements analysis, visualization probes, and open technological questions will be discussed, with a focus on lessons learned todate and challenges anticipated in the near future.

Short Bio

Harry Hochheiser is an Assistant Professor in the Department of Biomedical Informatics at the University of Pittsburgh. He received his Ph.D. in Computer Science from the University in Maryland, with a dissertation focusing on interactive visualization of time series data sets. Dr. Hochheiser's research has covered a range of topics, including human-computer interaction, information visualization, bioinformatics, universal usability, security, privacy, and publicpolicy implications of computing systems. Dr. Hochheiser has published more than 25 peer-reviewed journal and conference papers, two book chapters, and he is a co-author of Research Methods in Human-Computer Interaction.

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