Integrating Multisite Electronic Health Records and Human Subject Protection for Clinical Research

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Electronic health records afford great potentials to improve patient care and facilitate clinical research. Initial research use of electronic health records primarily focuses on observational studies, pragmatic trials, post-marketing, and comparative effectiveness research. Recent push extends it to support randomized clinical trials. The richness and the power of the clinical data can be greatly enhanced if multiple institutions can work together, abide by mutually agreed rules, and share research infrastructure including clinical expertise, research design, informational technology, and health service research/analytic capabilities.

Dr. Wenke Hwang is one of the leading investigators in a large scale collaborative effort between multiple academic medical centers including Penn State, Temple, Johns Hopkins, Pittsburg, Utah, and Geisinger. Together, these institutions form a clinical data research network called PaTH. Since its inception in 2015, PaTH has received over $14 million to build the network infrastructure (in two phases) and has helped secure over $30 million in other research funding. Great promises almost always come with great challenges. PaTH has encountered and overcome many barriers in building a multisite federated data network, standardizing clinical data, synchronizing information technology, organizing clinical expertise, forming data governance structure, and addressing human subject protection. In this presentation, Dr. Hwang will share the vision of the research network, the challenges he has faced, and the lessons he has learned in the past 2.5 year.

Dr. Hwang is Associate Professor in the Department of the Public Health Sciences at the Penn State University College of Medicine. He is Co-PI to the Penn State PaTH team and a member to the Penn State Medical Center Data Governing Council. Dr. Hwang is active in his education role. He regularly teaches the medical school and public health graduate programs. He has served as Director of the Penn State Master of Public Health Program since 2014 and is currently the primary representative and a member to the Public Health Education Council in the Association of Schools and Programs of Public Health.