

Minutes

TC-TEHI Teleconference Meeting

January 26, 2016

12.00 PM-1.00 PM

The TC members were introduced with a brief introduction on the vision and scope of the TC. It was discussed that the medical application domain involves many stakeholder groups in the pathway from laboratory research to clinical use and acceptance of new solutions to address clinical challenges and unmet needs. The TC is focused on bringing the stakeholders groups together to identify, facilitate and promote translation aspect of development of innovative solutions to clinical problems.

The historical perspective of EMBS initiative on translational engineering, healthcare innovation and point-of-care technologies was presented with the NIH, Gate Foundation and industry partnerships behind organizing three conferences and the open-access Journal of Translational Engineering in Health and Medicine (JTEHM). The NIH-IEEE Strategic Conference on Point-of-Care Technologies for Precision Medicine (<http://hipt.embs.org/2015/>) brought leaders and representatives from all stakeholder groups and discussed clinical needs and enabling technologies towards POC technologies providing solutions to improve global healthcare. The priority issues through panel discussions are summarized in the white paper (to be released and posted soon). The major suggestions and recommendations from the conference towards co-inventing the future technologies for personalized, preventive and precision medicine are summarized as following:

1. Develop a task force to identify and prioritize clinical needs with specific details on potential enabling POC technologies and required specifications.
2. Develop an open-access database with priority clinical needs and required specifications of potential enabling POC technologies.
3. Develop an open forum for researchers and entrepreneurs to address clinical needs with potential technological solutions and to discuss challenges of the required clinical response.
4. Develop training protocols and means at multiple levels to educate end users to adapt technological solutions for clinical applications.
5. Develop data standards and interoperability requirements, including policies for data quality, integrity, consistency, connectivity, and data sharing for translation of enabling technologies and potential solutions in different environments including under-resourced, rural, and remote clinical facilities.
6. Encourage interoperable devices and data exchange and integration among systems, specifically with EHR/EMR systems which impact the potential users of the POC devices.
7. Establish POC translational pipelines to bring new technologies to market.
8. Develop training protocols and means at multiple levels to educate end users to adapt technological solutions for clinical applications.

The resources and synergistic platform available with cluster of institutions, hospitals and industries at the following locations were discussed:

1. CIMIT with Co-Lab interactive environment for clinical needs (Steven Schachter): <http://www.cimit.org/>
2. Texas Health Sciences Center at Houston: Gene Lab/NASA with Catalog of biological experiments (Clifford Dacso)
3. Emory University, Georgia Institute of Technology: Interactive models of collaborative information and Clinical Translation Institute (Srin Tridandapani)
4. NIH-NIBIB Point-of-Care Research Network (Tiffani Lash) <http://www.nibib.nih.gov/research-funding/point-care-technologies-research-network>
5. Global healthcare: Hospital network and translational program in Germany (Thomas Penzel)
6. Global healthcare: Hospital network and translational program in Italy (Silvestro Micera and Christian Cipriani)
7. Global healthcare: Hospital network and translational program in Brazil (Arturo Forner-Cordero)
8. (Need to add from Chicago, Seattle, SF/LA/Bay, India and China)

To develop an interactive and dynamically evaluating information network/database, we need to discuss the available resources and connect them to develop a common platform that can be accessed through various stakeholder groups. The interactions should lead to review and evaluate clinical priority needs and enabling technologies for potential solutions, and help facilitate translational pathway.

We also discussed TC's role to help organize EMBS and HI-POCT conferences as well as promoting and steer strategic directions of IEEE JTEHM for prominence in publication of translational papers. TC will also be involved in evaluating JTEHM papers for Best Paper awards and other related activities.

The next teleconference meeting will be held in about 4 weeks. Scott is requested to send out a poll for the date and time to set-up a teleconference call.

Cc: Scott Woodhouse