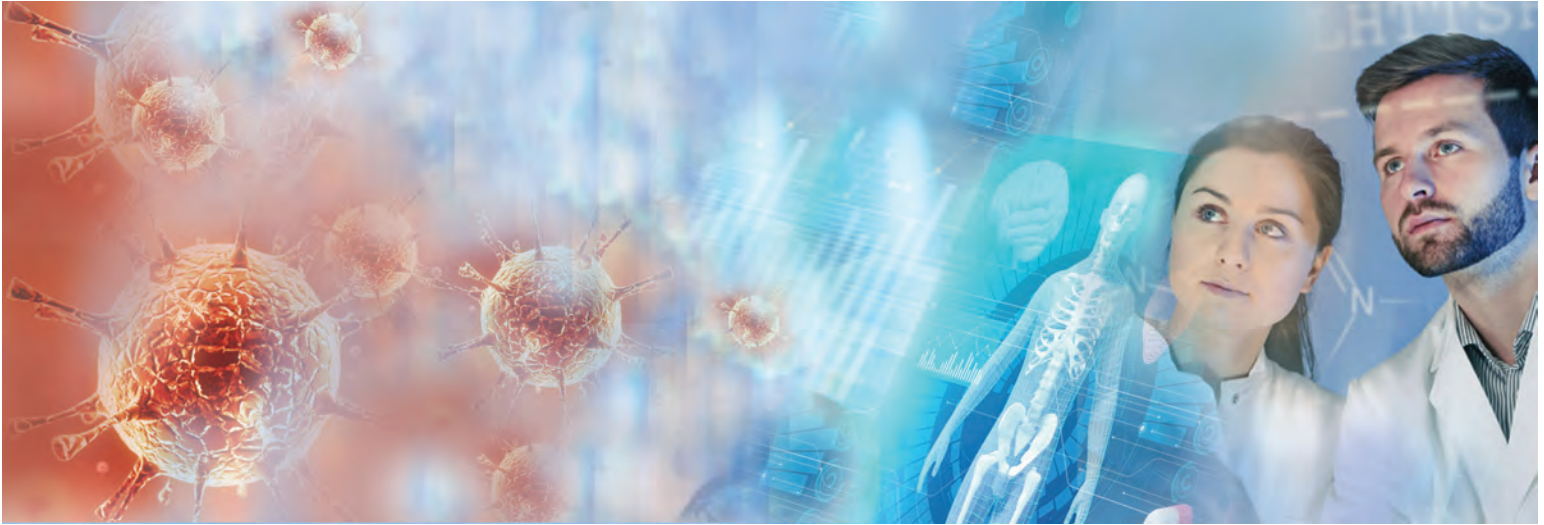# Special Topics Conference on
Healthcare Innovations and Point of Care Technologies
November 20-22, 2019

NIH Natcher Conference Center, 9000 Rockville Pike, Bethesda, MD 20892

Call For Papers

The NIH-IEEE Special Topics Conference on Healthcare Innovations and Point of Care Technologies (HI-POCT) will focus on technologies for personalized health, disease detection and real-time patient monitoring to address pressing unmet medical needs. This conference will provide a scientific forum for collaboration among biomedical researchers, engineering and computer scientists, students and industry to explore potential technology solutions for research and clinical needs.

Panel discussions and open forum sessions along with research presentations will focus on the development, testing and implementation of POCT and healthcare innovations in medical (hospital, emergency, acute, chronic and primary care) and non-clinical settings. The overall goal of the strategic conference is to provide opportunities for stakeholders to explore collaborations, define needs across fields and identify synergies to HI-POCT development, validation, dissemination and implementation.

This year's conference will include keynote presentations, panel discussions, breakout sessions with leaders in the field, and diverse stakeholders addressing clinical needs, enabling technologies, regulatory protocols, funding opportunities, and business models. Additionally, we invite oral and poster presentation abstracts to be submitted for potential inclusion in the final program.

Important Submission Dates

Four-page paper Submission Deadline
July 17, 2019
Notification Deadline
August 16, 2019
Final Submission of Accepted Four-page Papers
September 5, 2019

One Page-paper Abstract Submission Deadline
August 8, 2019
Notification Deadline
August 29, 2019
Final Submission of Accepted Abstracts
September 12, 2019

Please see our conference website for full details on submissions and other updates.

https://hipt.embs.org/2019/

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There are two (2) paths to presenting your work at HI-POCT:

1. Full papers (4 pages) can be submitted for an acceptance review and will be considered for either an oral or poster presentation as well as a demo presentation. Full papers accepted to the conference will be published in the conference proceedings and in IEEE Xplore.

For publication in a special issue of IEEE Journal of Translational Engineering in Health and Medicine **(http://health.embs.org/)** please see the conference website for details

2. Research abstracts (one page papers) can be submitted for an acceptance review and will be considered for either an oral or poster presentation as well as a demo presentation. One-page papers accepted to the conference will be visible in the conference proceedings but not in IEEE Xplore.

[A trans-disciplinary technical committee will review all contributions. Submissions must contain original material that has neither been previously published nor is currently under review by another conference or journal.]

Detailed instructions for submissions of papers and abstracts are available at our conference website: https://hipt.embs.org/2019/

Conference Themes for Paper Submissions

- Health and wellness across the lifespan (including pain management, disease prevention, immunosenescence, frailty, fatigue, sarcopenia)
- Tools for real-time patient monitoring for chronic disease or health conditions (e.g., re-emergence of disease or infection, measuring responses to treatment)
- Earlier diagnosis of infection and rapid drug susceptibility testing to enable effective initiation of treatment, reduce transmission, and reduce the development of anti-microbial resistance
- Earlier detection/prediction of disease or toxicity to facilitate earlier intervention

   Papers Focused on the following technologies that address the conference themes are encouraged
- Wearable/implantable technology
- Microphysiological systems, Tissue- or Organ-on-chip platforms
- Nanotechnology
- Omics technologies - identify needs for moving these capabilities to point of care level
- RNA/DNA detection (stem-loop probes, CRISPR/Cas, synthetic biology)
- Biosensors – physiological, chemical, molecular, non-blood biospecimens (sweat/skin, hair, urine, oral fluid, interstitial fluid), exosomes
- Environmental sensors
- Imaging - whole body PET, retinal imaging
- Deployable tools for in-home or remote monitoring
- Data integration, predictive analytics, EHR interoperability and aggregators
- Artificial Intelligence, machine learning applications
- Paper-based diagnostics
- Multiplexing – consideration of rationale (i.e. what makes sense to test together)
- Systems engineering

https://hipt.embs.org/2019/