

Making Cough Count: A TB Cough Consultation

June 2, 2021 (8:00 AM to 11:30 AM PDT)

Cough is a common manifestation of TB, and yet it is never actually measured. Advances in machine learning have made cough quantifiable and have the potential to make cough diagnostic, offering the opportunity to improve patient care, public health, and pharmaceutical product development.

In order to accelerate modernizing the role of cough in TB care and control and break conversational silos, we are holding a three-hour virtual interdisciplinary meeting of TB innovators, digital product developers, data scientists, funders, and AI/ML start-ups. The goal of the meeting is to discuss research for cough as an objective biomarker and identify actionable steps to develop, validate, and foster the uptake of related emerging digital tools for use in low- and middle-income countries.

Introduction: 8:00 – 8:10

Peter Small, Independent Acoustic Epidemiologist

- Will provide an overview of the meeting's goals, agenda, and ground rules.

Potentially impactful use cases: 8:10 – 8:40

Puneet Dewan, GH Labs (Presenter); David Dowdy, Johns Hopkins University (Discussion Moderator)

- Will describe potentially impactful use cases and the core capabilities required for those uses.

Scientific questions for validation: 8:40 – 9:15

Chris Benko, Koneksa (Presenter); Larsson Omberg, Sage Bionetworks (Discussion Moderator)

- Will discuss methodologic approaches to validating each of these remote digital monitoring capabilities, and how these proof points could accelerate clinical and regulatory acceptance of tools.

Alignment of ongoing clinical studies and data collection: 9:15 – 9:45

Rahul Pathri, Docturnal (Presenter); Simon Grandjean Lapierre, University of Montreal (Presenter); Adithya Cattamanchi, UCSF (Discussion Moderator)

- Will share experience developing a TB cough classification solution in one setting (India) and efforts to embed cough collection with minimal incremental effort into ongoing TB studies to generate a cough sounds database to advance algorithm development and validation.

Break: 9:45 – 10:00

Pathways to acceptance: 10:00 – 10:30

Andrew Trister, Gates Foundation (Presenter); Morten Ruhwald, FIND (Discussion Moderator)

- Will talk about the mechanism by which these research studies will lead to regulatory and clinical acceptance.

Steps for product implementation: 10:30 – 11:00

Bruce Thomas, Arcady Group (Presenter); Daniel Chin, BMGF (Discussion Moderator)

- Building on experience with prior technology, the talk will focus on how TB tools come to be used at scale.

Conclusion: 11:00 – 11:30

Peter Small (Moderator)

- Participants will be invited to briefly summarize their actionable takeaways from the conversation.