



SENSE.nano Symposium
Environment, Water, and Agriculture

June 5, 2018
Broad Institute
Agenda

8:00AM Registration
8:30AM Brian Anthony
Introduction
8:35AM Vladimir Bulović
WELCOME
8:50AM Marcus Remmers
KEYNOTE

SESSION 1: ENVIRONMENT

Environmental Solutions Initiative (ESI)

9:30AM John Fernández
Introduction to Sensing: Environment
9:35AM Bradley Olsen
Nanostructuring Proteins for Improved Biosensors
9:50AM Jeremiah A. Johnson
Organic Contrast Agents for Magnetic Resonance Imaging
10:05AM Michael Triantafyllou
Biomimetic Sensors For Aquatic Environments
10:20AM **Q&A Panel with ESI Speakers**
10:35AM **NETWORKING BREAK**

SESSION 2: WATER, FOOD, AND AGRICULTURE

Abdul Latif Jameel World Water and Food Security Lab (J-WAFS)

10:50AM John Lienhard
Introduction to Sensing: Water, Food, and Agriculture
10:55AM Timothy Swager
Dynamic Droplets
11:10AM Zijay Tang
Engineering Living Functional Materials for Environmental Applications
11:25AM Rohit Karnik
Preservation and Transport of 'Dry' Water Samples for Centralized Analysis and Management of Water Quality
11:40AM **Q&A Panel with J-WAFS Speakers**

SESSION 3: STARTUP PRESENTATIONS

- 11:55AM Brian Anthony
Introduction to Startup Presentations
- 11:57AM Rachael Z. Miller
Rozalia Project for a Clean Ocean
- 12:00PM Marcus Dahllöf
Introduction to the MIT Startup Exchange
- 12:03PM **STEX presentation**
Merry Smith, C2Sense
Sampriti Bhattacharyya, Hydroswarm
Roger Nassar, RAN Biotechnologies
Anshuman Das and Julia Somerdin, Labby
Amit Gandhi, Sensen
- 12:15PM **LUNCH BREAK, NETWORKING, AND STARTUP DEMOS**

SESSION 4: CHEMISTRY, AGRICULTURE, AND INSTRUMENTATION

- 1:15PM Brian Anthony
Introduction to Sensing: Chemistry, Instrumentation, and Agriculture
- 1:20PM Craig Marvin
KEYNOTE
- 2:00PM Marin Soljacic
Nanophotonics Enabled Free-Electron THz to X-ray Sources
- 2:15PM Deepak Vasisht
FarmBeats: AI & IoT for Data-Driven Agriculture
- 2:30PM Gabriela Schlau-Cohen
Why don't plants get sunburn?
- 2:45PM **Q&A with Session 4 Speakers**
- 3:00PM **NETWORKING BREAK**

SESSION 5: PANEL DISCUSSION

- 3:15PM **Agriculture of the Future / Society Impact & Implications**
Heather Goldstone, Moderator
John Fernández
Paul Sellew
Michael Strano
Guest panelist

SESSION 6: SENSING APPLICATIONS AND ADVANCEMENTS

4:45PM **One-minute Poster Pitches**

5:15PM **2017 SENSE.nano Seed Grant Winners**

Brian Anthony

Introduction

5:16PM JJ Hu

Digital Fourier Transform Spectroscopy

5:23PM Michael Strano

Sensor.Hub: A Dynamic, Wireless, Energy-Autonomous Sensor Network for The MIT Campus and the World

5:30PM **Poster Session** (refreshments served)

6:15PM Brian Anthony

Closing Comments