



AT THE INTERSECTION OF TECHNOLOGY PROGRESS, HEALTH, AND LIFE SCIENCES

Wednesday, March 25, 2015 | Computer History Museum | Mountain View, CA

### FINAL CONFERENCE PROGRAM

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7:45am	<b>Registration Opens</b>
8:30 – 8:40am	<b>Welcome</b> David Kirkpatrick, Chief Technomist, Techonomy Media
8:40 – 9:30am	<b>You Say You Want a Revolution?</b> Tech is super-powering the life sciences. What sectors are best primed to be disrupted by the burgeoning power of bio? Is the increasingly symbiotic relationship between tech and bio the perpetual energy source that will drive our future? <i>Speakers:</i> <b>Drew Endy</b> , Associate Professor, Bioengineering, Stanford University; President, The BioBricks Foundation <b>David Glazer</b> , Director of Engineering, Google <b>Steve Jurvetson</b> , Partner, DFJ <b>Chris Waller</b> , Director, Scientific Modeling Platforms, Merck  <i>Moderator:</i> <b>David Kirkpatrick</b> , Chief Technomist, Techonomy Media
9:30 – 9:35am	<b>Targeting Pathogens to Treat the Brain</b> Casey Lynch, Co-founder and CEO, Cortexyme
9:35 – 9:40am	<b>Can You Teach an Old Doc New Tricks?</b> Greg Matthews, Founder & Managing Director, MDigitalLife
9:40 – 10:25am	<b>The Internet of (Bio)Things</b> We're swimming in bio-data, from the human genome to the human microbiome, the steps we take to the hours we sleep. Companies and organizations provide tools that allow us to collect troves of data, the likes of which we've never seen. What does that data teach us about ourselves? And how do we use it to make smart decisions? <i>Speakers:</i> <b>Steve Axelrod</b> , CEO, G-Tech Medical <b>Walter De Brouwer</b> , Founder and CEO, Scanadu <b>Ajay Royyuru</b> , Director, Computational Biology Center, IBM Research <b>Jennifer Tye</b> , Vice President, Marketing and Partnerships, Glow  <i>Moderator:</i> <b>Stephanie Lee</b> , Senior Technology Reporter, <i>BuzzFeed News</i>
10:25 – 10:50am	<b>Break</b>

10:50 – 11:25am

**Bio At the Scale of Architecture**

New materials of construction are literally growing around us. From mycelium buildings to bio-masonry and cities that engage with the natural world around them, our structural, habitative interaction with the world around us is rapidly changing.

*Speakers:* **Ginger Krieg Dosier**, Founder and CEO, bioMASON

**Danil Nagy**, Associate Designer, The Living; Adjunct Assistant Professor of Architecture, Graduate School of Architecture, Planning and Preservation, Columbia University

**Joe Tarantino**, Fermentation Biologist, Ecovative

*Moderator:* **Andrew Hessel**, Distinguished Research Scientist, Autodesk

11:25 – 11:30am

**Bio-origami: Building at the Nanoscale**

**Shawn Douglas**, Principal Investigator, The Douglas Lab, UCSF

11:30 – 11:55am

**The Brain: Decoding the World's Greatest Computer**

What are we learning about the brain, thinking, and learning that's already being applied to people and machines?

*Speakers:* **Terrence J. Sejnowski**, Professor and Laboratory Head, Salk Institute for Biological Studies

**Richard Socher**, Co-founder and CTO, MetaMind

*Facilitator:* **Hemai Parthasarathy**, Scientific Director, Breakout Labs

11:55am – 12:05pm

**Stem Cells: What We Know and What We Don't**

*A presentation by* **Jeanne F. Loring**, Professor and Director, Center for Regenerative Medicine, Department of Chemical Physiology, The Scripps Research Institute

12:05 – 12:45pm

**The Future of F & B**

What happens when synthetic biology and biotech combine with food and beverage science? Is growing things smarter the pathway to global sustenance?

*Speakers:* **Jim Flatt**, President, Genovia Bio, Synthetic Genomics

**Andras Forgacs**, Co-founder and Chief Executive, Modern Meadow

**Randy Komisar**, Partner, Kleiner Perkins Caufield and Byers

**Reshma Shetty**, Co-founder, Ginkgo Bioworks

*Moderator:* **Paul Gurney**, Associate Partner, McKinsey & Company

12:45 – 1:45pm

Lunch

1:45 – 2:00pm

Switch Break

2:00 – 2:55pm

## Techonomy Labs

### **Policy: Makers, Shakers, and Breakers**

How can government better promote and assist biological progress? How can we bridge the gap between policy-makers and innovators to maintain our position at the forefront of the life-sciences?

*Speakers:* **Antony Evans**, Co-founder and CEO, Glowing Plant

**Eri Gentry**, Technology Horizons Research Manager, Institute for the Future; Co-founder, BioCurious

**Gregory C. Simon**, CEO, Poliwogg

**Ed You**, Supervisory Special Agent, Weapons of Mass Destruction Directorate, Biological Countermeasures Unit, FBI

*Moderator:* **John Cumbers**, Founder, SynBioBeta; Planetary Sustainability Lead, NASA Ames Space Portal

### **Science, Fear, and the Communication Game**

Advances across the bio and life sciences are rocketing forward at a staggering rate, making it increasingly important to communicate them effectively. Unfortunately much of the conversation, both within society and the media, is driven by misguided fear and a lack of understanding. How do we prevent derailment of scientific progress and instead effectively communicate the remarkable, positive strides being made?

*Speakers:* **Ryan Bethencourt**, Program Director and Venture Partner, Indie.Bio

**Kristen Bole**, Assistant Director, Public Affairs, UCSF

**Erika Check Hayden**, Correspondent, *Nature*; Lecturer, Science Communication Program, University of California, Santa Cruz

**Ellen Jorgensen**, Co-founder and Executive Director, Genspace

*Moderator:* **Theral Timpson**, Host and Producer, *Mendelspod*

### **Who Owns Your Genetic Data?**

If people increasingly think their personal digital data belongs to them, surely personal genetic data must as well. How will that likelihood play out for individuals, business, and governments?

*Speakers:* **Linda Avey**, Co-founder and CEO, We Are Curious; Co-founder, 23andMe

**Henry T. Greely**, Dean F. and Kate Edelman Johnson Professor of Law; Director, Center for the Law and Biosciences, Stanford University

**Elissa Levin**, Head of Genomics and Integrative Health Solutions, Icahn School of Medicine at Mount Sinai

**Ajay Royyuru**, Director, Computational Biology Center, IBM Research

**Matt Wilsey**, President, Grace Wilsey Foundation

*Moderator:* **Meredith Salisbury**, Editorial Director, *Bioscribe*

2:55 – 3:10pm

## Switch Break

3:10 – 3:25pm

## Techonomy Lab Reports

Encapsulation and report back from the Techonomy Labs.

*Presented by McKinsey & Company*

3:25 – 4:10pm

**Sitting on a Can of Miracles**

What has so many in the investment community so excited about the remarkable pace of innovation they see today across the life sciences? What would they love to see more of? And what are the areas that are most critical to nurture in the long run?

*Speakers:* **Ryan Bethencourt**, Program Director and Venture Partner, Indie.Bio  
**Amy DuRoss**, Executive Director, New Business Creation, GE Ventures  
**Nancy Kelley**, President, NJKA; Former Executive Director, New York Genome Center  
**Gregory C. Simon**, CEO, Poliwogg

*Moderator:* **Samarth Kulkarni**, Partner, McKinsey & Company

4:10 – 4:15pm

**Growing Better Bones**

**Nina Tandon**, CEO, EpiBone

4:15 – 4:40pm

**Evolving Ourselves**

**Juan Enriquez**, Managing Director, Excel Venture Management; Co-author, *Evolving Ourselves*, interviewed by **David Kirkpatrick**, Chief Technologist, Techonomy Media

For billions of years life on Earth was guided by Darwin's two principles: natural selection and random mutation. Over the past century humans have become so powerful that they now select what lives and dies on half of the planet, and they genetically engineer viruses, bacteria, plants, animals, and even the next human generations. This un-natural state has doubled our life spans but rapid evolution and selection can also have side effects like autism, obesity and allergies. What are some of the consequences for health, ethics, and business when we take control of our own evolution?

4:40 – 4:45pm

**Quantifying Stress**

**Robert Goldberg**, Founder, Neumitra

4:45 – 5:25pm

**Advances, Opportunities, and Challenges**

How science is advancing human progress around the world, and where the greatest challenges still remain.

**Dr. Sue Desmond-Hellmann**, CEO of the Bill & Melinda Gates Foundation, interviewed by **Marc Benioff**, Chairman and CEO of Salesforce

5:25 – 5:30pm

**Closing Remarks**

5:30pm

**Reception**