

6th International mRNA Health Conference

AGENDA

Day 1: Monday, November 12

- 7:00 - 8:30 Breakfast
- 8:30 Welcome and meeting organization (Melissa & Stephane)
- 8:45 - 10:15 **Ben Zander**, Boston Philharmonic Orchestra Director
<http://benjaminzander.com/>
https://en.wikipedia.org/wiki/Benjamin_Zander
- 10:15 - 10:30 Coffee Break
- 10:30 - 11:30 **Session I: Platform Overviews** [2 x (20 min talk + 5 min questions) = 50 min]

Ugur Sahin - BioNTech
Dan Menichella - CureVac
- 11:30 - 12:30 **Session II: Delivery I** [3 x (15 min talk + 5 min questions) = 60 min]

Daniel Siegwart - UT Southwestern
"Chemical design of carriers for delivery long RNAs: From mRNA-mediated protein replacement therapy to CRISPR/Cas gene editing"
Tom Madden - Acuitas
"Characterizing the therapeutic application of messenger RNA-lipid nanoparticles"
Andreas Wagner - Polymun
"Guiding RNA formulations from laboratory into clinical trials. Lessons learned from development and optimization of liposomal formulations"
- 1:00 - 2:00 **Lunch**
- 2:00 - 4:00 **Session III: Vaccines and Cancer Therapy** [5 x (15 min talk + 5 min questions) = 100 min]

Norbert Pardi - Univ. Pennsylvania
"Vaccination with nucleoside-modified mRNA"
Dong Yu - GSK
"Vaccine development using self-amplifying RNA"
Andrew Bett - Merck
"An mRNA-based vaccine expressing RSV F is immunogenic and protective in non-human primate models of Respiratory Syncytial Virus infection"
Hangwen Li - Stemirna
"Development of mRNA based cancer vaccines in China"
Tim Wagenaar – Sanofi
"From cold to hot: Using mRNA to alter the tumor microenvironment"

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Day 1: Monday, November 12 (cont.)

Session III (cont):

Short Talks: [2 x (8 min talk + 2 min questions) = 20 min]

Lien Van Hoecke - Ghent Univ

“Therapeutic anti-tumor immunity directed against neo-epitopes by intratumor delivery of mRNA encoding MLKL, a mediator of necroptosis”

Colin Pouton - Monash University

“Self-crosslinking lipopeptide/nucleic acid/polymer particles: a new platform for nucleic acid vaccination enabling assembly in aqueous solution”

4:00 - 4:15

Coffee Break

4:15 - 5:45

Session IV: Controlling mRNA and Protein Synthesis

[3 x (15 min talk + 5 min questions) = 60 min]

Georg Seelig - University of Washington

“Human 5'UTR Design and Variant Effect Prediction from a Massively Parallel Translation Array”

Sun Hur - Harvard Medical School

“An Origin of the Immunogenicity of In Vitro Transcribed RNA”

Anton McCaffrey - Trilink

“Exploring the Messenger RNA Capping Code: CleanCap Co-transcriptional Capping Allows One Pot Synthesis of Previously Inaccessible Types of Caps”

Short Talks:

[3 x (8 min talk + 2 min questions) = 30 min]

Craig Martin - UMass Amherst

“3' end additions by T7 RNA polymerase are RNA self-templated, distributive, and diverse in character – RNA-Seq analyses”

Stefano Gustincich – Istituto Italiano di Tecnologia

“SINEUPs: a new antisense, long non-coding RNA-based platform to increase endogenous protein levels for therapy”

Scott Tenenbaum - SUNY Polytech

“sxRNA: Controlling the expression of a therapeutic mRNA based on the unique microRNA profile of a cell”

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Day 1: Monday, November 12 (cont.)

- 5:45 - 6:00 **Session V: Flash Poster Talks** [4 x (2 min talk) = 8-10 min]
- Bijoyita Roy - New England Biolabs
"High-temperature transcription generates synthetic RNA with reduced immunogenicity"
- Chinping Chng - Codexis
"Enzyme engineering for effective mRNA therapeutics: T7 RNA Polymerase and Actives"
- Dal-Hee Min - Lemonex
"DegradaBALL® : New RNA delivery platform technology for sustained release inside target cells"
- Xavier de Mollerat du Jeu - Thermo Fisher Scientific
"Invivofectamine™ Reagents: Novel Lipid Nanoparticles (LNPs) for Therapeutic In Vivo mRNA delivery to the Liver, Lung, Spleen and Topical applications"
- 6:00 - 7:45 **Poster Session**
Cocktails, Appetizers and Buskers from Berkeley College of Music & New England Conservatory
- 7:45 - **Dinner** with Music and Dancing

Day 2: Tuesday, November 13

- 7:00 - 8:30 Breakfast
- 8:30 Welcome and Keynote Introduction: Stephane Bancel
- 8:35 - 9:15 **Keynote:** John Maraganore, CEO, Alnylam
(30 min talk + 10 min questions) = 40 min
- 9:15 - 10:30 **Session VI:** Regulatory Questions and Public Perception of mRNA Therapies [75 min]
- Discussion of key questions relevant to mRNA therapeutics by industry regulatory affairs officers and representatives from European and US regulatory agencies
- Panelists: Thomas Hinz (PEI), Andreas Kuhn (BioNTech), Otmar Pfaff (CureVac), Christine Swenson (Moderna), Wellington Sun (Moderna, Former FDA), Mark Tracy (Tracy Bioconsulting)
- 10:30 - 10:45 Coffee Break

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Day 2: Tuesday, November 13 (cont.)

10:45 - 12:35 **Session VII: Delivery II** [5 x (15 min talk + 5 min questions) = 100 min]

Paula Hammond - MIT

“Designer Polypeptides and Electrostatic Assembly for RNA-protein Enhanced Delivery”

Yhizou Dong - Ohio State

“Development of nanomaterials for mRNA therapeutics and genome editing”

Pad Chivikula - Arcturus

“LUNAR®: Enabling Delivery of mRNA Therapeutics and Vaccines”

James Heyes - Genevant

“Developing mRNA Therapeutics with LNPs”

John Androsavich - Translate Bio

“Advancing the development of mRNA therapeutics to restore protein function”

Short Talk:

[1 x (8 min talk + 2 min questions) = 10 min]

Piotr Kowalski - MIT

“Ionizable amino-polyesters synthesized via ring opening polymerization with tertiary amino-alcohols for tissue selective mRNA delivery”

12:35 - 1:45 **Lunch**

1:45 - 3:45 **Session VIII: Therapeutic Proteins**

[5 x (15 min talk + 5 min questions) = 100 min]

Adam Resnick - Children’s Hospital of Philadelphia

“Translating large-scale data to novel therapeutic platforms on behalf of childhood diseases”

Christian Plank - Ethris

“Messenger RNA therapeutics for bone regeneration”

Keiji Itaka - Tokyo Medical and Dental University

“mRNA as a New Paradigm of Gene Therapy for Intractable Diseases and Regenerative Medicine”

Romesh Subramanian - Atlas Venture

“Promise of mRNA therapies in rare disease and dimensions of optimization”

Anna Collén - AstraZeneca

“VEGF-A mRNA: A novel therapeutic for treatment of ischemic heart disease”

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Day 2: Tuesday, November 13 (cont.)

Session VIII (cont.):

Short Talks: [2 x (8 min talk + 2 min questions) = 20 min]

Ajit Magadum - Mount Sinai

"Ablation of a single N-glycosylation site in human FSTL1 induces cardiomyocyte proliferation and cardiac regeneration"

Sonia Golombek - University Hospital Tübingen

"Intradermal delivery of synthetic tropoelastin mRNA by microinjection results in production of elastin in the skin"

3:45 - 4:00

Awards and Poster Prizes

Closing Remarks by Organizing Committee