



ADITEC MEETING 2018

Advanced Immunization Technologies

Siena, 1-3 October 2018

Aula Magna Rettorato, University of Siena
Via Banchi di Sotto 55

Agenda

1st October 2018 – Day 1

14:00 – 15:30 Registration and Buffet Lunch

15:30 - 16:30 Opening Session

15:30 Welcome Address

Francesco Frati
Rector of the University of Siena

Luisa Bracci
Director Department of Medical Biotechnology

15:45 IMI 2 Prospective

Pierre Meulien
IMI 2 Executive Director

16:00 Vaccines 2030

Rino Rappuoli
GlaxoSmithKline

16:15 Impact and perspectives of the ADITEC network

Donata Medaglini
University of Siena, SVA

16:30 - 18:10 Vaccine Adjuvants

Chairs: Ali Harandi, University of Gothenburg; **Peter Andersen**, Statens Serum Institute

16:30 Introduction

Peter Andersen
Statens Serum Institute

16:40 Multi-Omics Systems Analysis of Clinically Tested Vaccine Adjuvants

Ali Harandi
University of Gothenburg

16:55 The Science and Progress of Vaccine Adjuvants

Steven Reed
IDRI Infectious Disease Institute

17:10 Systems Analysis of GSK Vaccine Adjuvants

Emilio Siena
GlaxoSmithKline

17:25 A novel cationic based adjuvant formulation containing two delivery systems, with the ability to induce mucosal IgA following a parenteral immunization

Dennis Christensen
Statens Serum Institute

17:40 Opportunities from the Nanobiotechnology JRC-ISPRA for characterization of adjuvants

Arnd Hoeveler
JRC-ISPRA

17:55 General Discussion

18:30 Welcome Cocktail- Cortile Palazzo del Rettorato, University of Siena

2nd October 2018 – Day 2

8:30 - 09:45 Vaccine Delivery

Chairs: Alfredo Nicosia, Nouscom/Reithera; Steven Reed, IDRI

- 08:30 Novel Viral Vectors for cancer vaccines
- 08:45 Integrase defective lentiviral vector (IDLV) as a vaccine platform for delivering viral antigens
- 09:00 RNActive®- An mRNA-based vaccine technology for next generation prophylactic vaccines
- 09:15 Preclinical evaluation of a new therapeutic vaccine based on immunostimulant nanoparticles against chronic HBV infections
- 09:30 General Discussion

Alfredo Nicosia
Nouscom, Reithera

Andrea Cara
Istituto Superiore di Sanità

Edith Jasny
Curevac

Myriam Lamrayah
CNRS

09:45 - 10:15 Coffee Break

10:15 - 11:45 Priming the Immune System

Chairs: Thomas Lehner, King's College London; Robin Shattock, Imperial College

- 10:15 Positively Primed
- 10:30 Modulation of primary immune response by different adjuvants to design heterologous prime-boost combinations
- 10:45 Differential imprinting of CD4+ T cell lung-homing capacity by conventional dendritic cells from inguinal and mediastinal lymph nodes
- 11:00 Innate responses to vaccine differ at each immunization
- 11:15 Blood transcriptomic analysis shows how recall innate responses are modulated by the use of an adjuvant at priming
- 11:30 General Discussion

Robin Shattock
Imperial College

Annalisa Ciabattini
University of Siena

David Pejowski
University of Geneva

Jean Louis Palgen
CEA Atomic Energy Commission

Elena Pettini
University of Siena

11:45 - 13:00 Challenge Models

Chair: Roger LeGrand, CEA Atomic Energy Commission

- 11:45 Human Challenge Models
- 12:00 Bordetella pertussis challenge fails to recall vaccine- and pre-exposure-induced circulating memory B cells
- 12:15 Airway T cells protect against RSV infection in the absence of antibody
- 12:30 Vaccination of susceptible 129S2 mice with BCG reveals that female mice are better protected after vaccination than males.
- 12:45 General Discussion

Andrew Pollard
University of Oxford

Marie Ballester
University of Geneva

John Tregoning
Imperial College

Natalie Nieuwenhuizen
Max Planck

13:00 - 14:00 Lunch

13:00 - 14:00 Steering Committee Meeting Lunch

14:00 - 14:45

Poster Session

14:45 - 15:45

Systems Biology and Mathematical Models for the Analysis of Vaccine Responses

Chairs: **Andrew Pollard**, University of Oxford; **Simone Furini**, University of Siena

- 14:45 Transcriptomic analysis of the blood immune response to the rVSV-ZEBOV Ebola vaccine
- 15:00 Direct RNA Sequencing for Genome-wide Expression and Transcriptional Landscape analysis
- 15:15 AGACY: A python tool for Automating Gating and Analysis of flow Cytometry data
- 15:30 General Discussion

Francesco Santoro
University of Siena
Intawat Nookaew
University of Arkansas
Simone Furini
University of Siena

15:45 - 16:15

Coffee Break

16:15 - 17:30

Vaccination in Elderly and Early Life

Chair: **Claire-Anne Siegrist**, University of Geneva

- 16:15 Vaccine response in very young
- 16:30 The early life lymph node barrier is permeable and may result into the systemic diffusion of antigens and adjuvants
- 16:45 Impaired immune response to primary but not to booster vaccination against hepatitis B in older adults
- 17:00 Inhibitory influence of maternal antibodies on T and B cell vaccine responses: how is it mediated?
- 17:15 General Discussion

Claire-Anne Siegrist
University of Geneva
Floriane Auderset
University of Geneva
Marielle Haks
University of Leiden
Maria Vono
University of Geneva

17:30 - 18:30

Round-table: Fostering Vaccine Research in Europe

Chair: **Rino Rappuoli**, GlaxoSmithKline

Panelists:

Pierre Meulien	Innovative Medicines Initiative 2
Arun Kumar	Coalition for Epidemic Preparedness Innovation (CEPI)
Arnd Hoeveler	JRC ISPRA
Philippe Denoel	Vaccine Europe

18:30 – 18:40

Concluding Remarks

Monica Barni
Vice-President of the Tuscan Region

19:15

Guided Tour Collection of Art Works, Palazzo Sansedoni

20:00

Social Dinner- Palazzo Sansedoni, Fondazione Monte dei Paschi di Siena

3rd October 2018 – Day 3

08:30 - 10:00 Biomarkers of Human of Immune-response to Vaccination

Chairs: Tom Ottenhoff, University of Leiden; Sheri Dubey, Merck

- 08:30 Comparison of Ebola Vaccine Responses in Non-Human Primate Studies and Human Clinical Trials
- 08:45 Exploring new markers of innate responses to the VSV-ZEBOV EBOLA vaccine
- 09:00 Characterization of avidity and functional epitope targeting properties of rVSV-Ebola vaccine-induced antibodies in humans
- 09:15 Safety and immunogenicity of chlamydia vaccine candidate CTH522 adjuvanted with Alum or CAF01: a first-in-human, randomised, double-blind, placebo-controlled, phase 1 study
- 09:30 Safety and memory response of a booster vaccination with GVGH Shigella sonnei 1790GAHB in healthy adults previously primed with three doses of the same vaccine compared to naïve individuals vaccinated for the first time.
- 09:45 General Discussion

Sheri Dubey
Merck

Paola Martinez Murillo
University of Geneva

Sravya Sowdamini Nakka
University of Gothenburg

Frank Follmann
Statens Serum Institute

Augustin Ndiaye
GSK Vaccines Institute
for Global Health

10:00 - 10:45 Biomarkers of Vaccine safety

Chairs: Giuseppe Del Giudice, GlaxoSmithKline, Ingelief Jonsdottir, DeCODE Genetics

- 10:00 Main achievements of the Biovacsafe Project
- 10:15 Biomarkers of vaccine safety - What can gene expression analysis add to the picture?
- 10:30 Cross-species transcriptomic signatures in blood, muscle and draining lymphnodes after administration of licensed vaccines

Giuseppe Del Giudice
GlaxoSmithKline

Geert Leroux-Roels
University of Gent

Paul McKay
Imperial College

10:45 - 11:15 Coffee Break

11:15 - 12:30 Synergies with other EU Vaccine Projects

Chair: Pierre Meulien, Innovative Medicine Initiative 2

- 11:15 Vaccine Safety and Immunogenicity Signatures of Adult and Pediatric Responses to the rVSV-ZEBOV Ebola Vaccine ((VSV-EBOVAC and VSV-EBOPLUS)
- 11:25 TuBerculosis Vaccine Initiative (TBVAC2020)
- 11:35 Innovation Partnership for a Roadmap on Vaccines in Europe (IPROVE)
- 11:45 European Network of Vaccine Development and Research (TRANSVAC II)
- 11:55 Novel Vaccine Vectors to Resist Pathogen Challenge (VacPath)
- 12:05 Standardization and development of assays for assessment of influenza vaccine correlates of protection (FLUCOP)
- 12:15 General Discussion

Claire-Anne Siegrist
University of Geneva

Tom Ottenhoff
University of Leiden

Donata Medagliani
University of Siena, SVA

Stefan Jungbluth
European Vaccine Initiative

Alice Sijts
Utrecht University

Emanuele Montomoli
University of Siena

12:30 - 12:45 Concluding Remarks

Rino Rappuoli
GlaxoSmithKline

13:00 - 14:00 Lunch

14:00 – 15:00 SVA Associate Member Assembly (SVA Members only)

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