

## 19th ADVANCED COURSE OF VACCINOLOGY- 2018

MONDAY 7 MAY 2018		Theme Coordinator : Adam Finn (Bristol, UK)
08 :15	<i>Briefing session on the iPad based system of information during ADVAC</i>	
09 :00	<b>Opening</b>	Alain Mérieux, President, Fondation Mérieux
09 :20	Definition of the course objectives	Paul-Henri Lambert, Director of the ADVAC Course
<b>SESSION 1a - THE MULTIFACETED NATURE OF VACCINOLOGY</b>		Chairperson: Edwin Asturias (USA)
09:50-10:35	<i>Opening Lecture:</i> Impact of vaccination on disease epidemiology	Roy Anderson, Director LCNTDR Imperial College, London, UK
10:35-10:55	Discussion	
10:55-11:25	Break	
11:25-12:00	Access to vaccination in GAVI countries and at global level	Jon Pearman, GAVI Alliance
12:00-12:20	Discussion	
12:20-13:50	Lunch	
13:50-14:30	How to develop a new program of immunization	David Salisbury, former Director of Immunisation at the Department of Health , UK
14:30-14:50	Discussion	
15:00-17:00	<b>SESSION 1b - Special lectures from Industry</b>	
17:00-18:00	Debate on mandatory vs voluntary vaccination	Adam Finn with Hanna Nohynek
18:00-19:00	Self-presentation of individual participants ( background, interests in life...) & Welcome reception	

<b>SESSION 1b - Special lectures from Industry</b>		
15:00-15:30	Role of DC vaccine industry for meeting global needs	<b>Suresh Jadhav</b> , Executive Director, Serum Institute of India,
15:30-15:50	Discussion	
15:50-16:20	Development and production of vaccines for global use: the role of vaccine industry	<b>Luis Jodar</b> , Vice president, Global Vaccines, Medicines Development Group and Scientific Affairs at Pfizer Inc
16:20-16:40	Discussion	

<b>TUESDAY 8 MAY 2018</b>		Theme Coordinator : Adam Finn (Bristol, UK)
<b>SESSION 2 - HOW VACCINES WORK</b>		<b>Chairpersons: Adam Finn and Daniel Pinschewer (University of Basel)</b>
09:00-09:30	<b>How are vaccine responses elicited?</b> What a vaccinologist should know about the basic aspects of immunological responses a- B-cell responses	Claire-Anne Siegrist, University of Geneva
09:30-10:00	Discussion	
10:00-10:30	<u>Break</u>	
10:30-11:00	What a vaccinologist should know about the basic aspects of immunological responses b- T-cell responses	Claire-Anne Siegrist, University of Geneva
11:00-11:30	Discussion	
11:30-12:10	<b>Use and limitations of correlates of immunity in vaccinology:</b>	Andrew Pollard, University of Oxford
12:10-12:40	Common discussion	
	<u>Lunch</u>	
14:15-14:45	<b>Vaccines and Mucosal immunity</b>	Adam Finn, University of Bristol
14:45-15:05	Discussion	
15:05-16:00	<b>Vaccines and Immunological memory</b> Quiz and general discussion	Adam Finn, University of Bristol & Claire-Anne Siegrist
16:00-16:20	Break	
16:20-17:00	<b>Advances in vaccine and immunization technologies</b>	Christina Casseti (NIH-NIAID)
17:00-17:20	Discussion	
17:20-18:10	3 <sup>rd</sup> Paul-Henri Lambert Lecture <b>Immunological memory</b>	Rafi Ahmed, Emory University
18:10-18:30	Discussion	

WEDNESDAY 9 MAY 2018		Theme Coordinator : Hanna Nohynek (THL, Helsinki)
	<b>SESSION 3 – DECISION-MAKING IN VACCINE RESEARCH AND PRECLINICAL DEVELOPMENT</b>	Chairpersons: <b>Carole Heilman ( former Director, DMID/NIAID)</b>
09:00-09:40	<b>How do vaccines cause adverse events?</b>	<b>Neal Halsey</b> , Johns Hopkins B. School of Public Health, Baltimore
09:40-10:00	Discussion	
10:00-10:30	<b>Vaccine adjuvants</b>	<b>Martin Friede</b> , WHO, Geneva
10:30-10:50	Discussion	
10:50-11:10	Break	
11:10-11:40	<b>From pre-clinical research to vaccine development: Examples of go-no-go decisions</b>	<b>Georges Thiry</b> , France
11:40-12:00	Discussion	
12:00-12:40	<b>HIV vaccines</b>	<b>Pascal Poinard</b> , Grenoble-Alpes-University, France
12:40-13:00	Discussion	
	Lunch	
14:30-16:00	<b>Regulatory considerations</b> A round table debate	Chair: <b>Carole Heilman</b> <b>Norman Baylor</b> (BCG), <b>Pieter Neels</b> (Vaccine-advice, Belgium), with discussants from Industry and DC regulators
16:00-16:20	Break	
16:20-16:50	<b>The complexity of quality control in vaccine manufacturing,</b>	<b>Fabrice Geoffroy</b> , Lyon
16:50-17:10	Discussion	
17:30-18:30	Special debate <b>How to build a vaccine biotech development plan towards initial proof of concept and have it funded by investors?</b>	<b>Carole Heilman</b> (chair), <b>Veronica Gambillara</b> (Zurich), <b>Georges Thiry</b> (France) and selected ADVAC students

		Theme Coordinator : Hanna Nohynek (THL, Helsinki)															
	<b>THURSDAY 10 MAY 2018</b>																
	<b>SESSION 4 - ASSESSING VACCINES IN CLINICAL TRIALS (I)</b>	Chairpersons: <b>Hanna Nohynek</b>															
09:00-09:40	Clinical trials: an overview of issues to be considered	<b>Myron Levine</b> , University of Maryland															
09:40-09 :55	Discussion																
09:55-10:25	<b>Introduction to statistical aspects of clinical trials</b> 1- Defining sample size: practical approaches and examples	<b>Peter Smith</b> , LSTMH, UK															
10:25:10:40	Discussion																
10:40-11:00	<b>Break</b>																
11:00-13:45	<b>How to design, recruit volunteers for, and analyze the results of selected phase II trials</b> <b>Small group exercise #1:</b> Six Groups- Themes and Facilitators:																
<i>12:40-13:10 lunch buffet</i>	<table border="0"> <tr> <td>Group 1</td> <td>Rota</td> <td>Georges Thiry</td> </tr> <tr> <td>Group 2</td> <td>S.aureus</td> <td>Pieter Neels</td> </tr> <tr> <td>Group 3</td> <td>dengue</td> <td>Norman Baylor</td> </tr> <tr> <td>Group 4</td> <td>Zika</td> <td>Edwin Asturias</td> </tr> <tr> <td>Group 5</td> <td>Respiratory syncytial v</td> <td>Adam Finn</td> </tr> </table>	Group 1	Rota	Georges Thiry	Group 2	S.aureus	Pieter Neels	Group 3	dengue	Norman Baylor	Group 4	Zika	Edwin Asturias	Group 5	Respiratory syncytial v	Adam Finn	
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13.50-14.20	Assessing herd protection and vaccine effectiveness (& use for licensure)	<b>John Clemens</b> , ICCDR-B, Bangladesh															
14:20-14:40	Discussion																
14:40-15:10	<b>Clinical trials: role of a DSMB (with several examples of intervention)</b>	<b>Penny Heaton</b> , Bill & Melinda Gates Foundation															
15:10-15:30	Discussion																
15:30-15:50	<b>Break</b>																
15:50-16:20	<b>Challenges and prospects for new tuberculosis vaccines</b>	<b>Helen McShane</b> , University of Oxford															
16:20-16:40	Discussion																
17:00-18:30	<b>Dealing with human challenge studies.</b> A debate with introduction by Joris Vandeputte (IABS) (5 min)	<b>Joris Vandeputte (IABS)</b> , Pieter Neels															

FRIDAY 11 MAY 2018		Theme Coordinator : Neal Halsey (Baltimore)
	<b>SESSION 5- VACCINE SAFETY - ASSESSMENT OF ADVERSE EFFECTS</b>	<b>Chairpersons: Kari Johansen and Neal Halsey</b>
09:00-09:30	Lessons from previous adverse effects of vaccination and Assessment of causal relationships	<b>Neal Halsey</b> , Johns Hopkins B. School of Public Health, Baltimore
09:30-09:50	Discussion	
09:50-10:20	Vaccination and autoimmune diseases	<b>Paul-Henri Lambert</b> , Director ADVAC
10:20-10:40	Discussion	
10:40-11:00	Break	
11:00-11:30	Population-based post-licensure surveillance	<b>Nick Andrews</b> , HPA, UK
11:30-11:50	Discussion	
11:50-12:20	Immunization safety in developing country vaccination programs	<b>Philippe Duclos</b> , ADVAC
12:20-12:40	Discussion	
12:40-14:00	<u>Lunch</u>	
14:00-14:30	Addressing vaccine hesitancy and risk communication through the lens of HPV vaccine	<b>Noni McDonald</b> , Dalhousie Univ, Halifax Canada
14:30-14:50	Discussion	
14:50-15:20	Vaccination and narcolepsy	<b>Hanna Nohynek</b> , THL Finland
15:20-15:40	Discussion	
	<b>SESSION 6- ASSESSING VACCINES IN CLINICAL TRIALS (II)</b>	<b>Chairperson: Hanna Nohynek</b>
15:40-16:20	Introduction to statistical aspects of clinical trials 2- Statistical assessment of phase 3 trials - Incl new methods to measure efficacy eg ebola-vsv, LAIV	<b>Peter Smith</b> , LSTMH, UK
16:20-16:40	Discussion	
16:40-19:00	<b>Small group exercise #2: Designing and analyzing the results of selected phase III trials</b>	<b>Objective: To understand how to critically appraise and compare phase III trial results</b>
	Introduction to the group work Exercise:	<b>Hanna Nohynek</b>
	Six Groups	<b>Facilitators:</b> Edwin Asturias, Hanna Nohynek, Penny Heaton, Peter Smith, Kari Johansen

SATURDAY 12 MAY 2018		Theme Coordinator : Kari Johansen (ECDC)
	<b>SESSION 7- ETHICAL ISSUES</b> Ethical considerations related to vaccine trials and implementation of vaccines in organized programs – available principles, guidelines and frameworks	Chairperson: Kari Johansen.
09:00-09:45	Principles, guidelines and frameworks for ethical considerations in clinical trials of vaccines	Catherine Slack, University of KwaZulu-Natal, South Africa
09:45-10:30	Applied ethics in immunization programs and practice	Noni McDonald, Dalhousie University, Halifax, Canada
10:30-10:40	Pick-up and bring coffee/tea/fruit to group exercise	
10:40-13:00	Small group exercise 3: <b>ETHICAL CONSIDERATIONS IN MALARIA VACCINE TRIALS</b>	Coordinated by Kari Johansen, Betty Dodet and Catherine Slack
	Six Groups Facilitators: Catherine Slack, Betty Dodet, Noni McDonald, Kari Johansen, Pieter Neels,	
13:00	Lunch	

		Theme Coordinator : Mark Miller (NIH)
	<b>MONDAY 14 MAY 2018</b>	
	<b>SESSION 8.1- INTRODUCING NEW VACCINES INTO VACCINATION PROGRAMMES (1)</b>	Chairperson: Hanna Nohynek, THL, Finland
09:00-09:30	Disease burden and the public health value of vaccines	<b>Annelies Wilder-Smith, WHO</b>
09:30-09:50	Discussion	
09:50-10:20	Health economics (incl modelling) as a tool in analyzing Vaccine Policy Options	<b>Mark Miller, NIH</b>
10:20-10:50	Discussion	
10:50-11:10	Break	
11:10-11:40	Challenges and solutions in making evidence-based national vaccination policies and recommendations	<b>Philippe Duclos, ADVAC</b>
11:40-12:00	Discussion	
12:00-12:30	Immunization coverage gaps: overcoming the chronic challenges	<b>Philippe Duclos</b>
12:30-12:50	Discussion	
12:50-14:00	Lunch	
14:00-14:30	Response to polysaccharides and conjugates vaccines: basic aspects	<b>David Goldblatt, University College London</b>
14:30-14:50	Discussion	
14:50-16:15	<b>Pneumococcal conjugate vaccines:</b> 1- Available Vaccines: Efficacy and limitations (i) in children, 35 min + 10 min specific discussion (ii) in adults, 30 min+ 10 min specific discussion	<b>Moderator: Hanna Nohynek</b>  <b>Ron Dagan, Soroka Medical Center, Beer Sheva</b> <b>Kate O'Brien JHSPH</b>
16:15-16:35	Break	
16:35-17:25	2- Existing and potential Vaccination strategies, 40 min + 10 min specific discussion	<b>Keith Klugman, Bill &amp; Melinda Gates Foundation</b>
17:30-18:30	Debate: should we vaccinate elderly with Pneumococcal vaccines Keith Klugman, David Goldblatt & Kate O'Brien	<b>Chair: Hanna Nohynek</b>

<b>TUESDAY 15 MAY 2018</b>		Theme Coordinator : Mark Miller (NIH)
	<b>SESSION 8.2 - INTRODUCING NEW VACCINES INTO VACCINATION PROGRAMMES (2)</b>	Chairperson: Bernard Fritzell, Bordeaux
09:00-09:40	Influenza biology, new vaccines and vaccination strategies for different age groups	Kathy Neuzil, CVD, Baltimore
09:40-10:00	Discussion	
10:00-10:40	Vaccine responses and efficacy in the elderly	Keipp Talbot (Vanderbilt University,)
10:40-11:00	Discussion	
11:00-11:20	Break	
11:20-12:00	<b>Special lecture: The population biology of bacterial pathogens and its importance for vaccination strategies</b>	Richard Moxon, Oxford University
12:00-12:20	Discussion	
12:20-13:30	Lunch	
13:30-14:10	Meningococcal vaccines (including the MenA-conjugate experience)	Ray Borrow, PHE UK
14:10-14:30	Discussion	
14:30-15:00	Success and challenges with Rotavirus and Norovirus vaccines	Umesh Parashar, CDC
15:00-15:20	Discussion	
15:20-16:50	<b>Small group exercise 4: Decision-making for the evaluation and impact assessment of new vaccines introduced in selected countries: safety and effectiveness</b>	Chairperson: Bernard Fritzell, Bordeaux Organized by Kari Johansen, ECDC and Hanna Nohynek
	Objective: To learn what facts are needed in a decision-making process and how other factors influence the outcome 6 Groups Vaccines: Rotavirus, HPV, Influenza, Dengue, Mening	Facilitators: Mark Miller, Hanna Nohynek, Kari Johansen, Edwin Asturias, Brad Gessner, Keipp Talbot, Umesh Parashar, Kathy Neuzil, Will Schluter
16:30-17:20	<b>History of Vaccines and Vaccination</b>	Stanley Plotkin, University of Pennsylvania
17:20-17:30	Discussion	
17:30	Soccer game North vs South of the World	

		Theme Coordinator : Edwin Asturias
<b>WEDNESDAY 16 MAY 2018</b>		
	<b>SESSION 9 - SELECTING APPROPRIATE VACCINATION STRATEGIES</b>	Chairperson: <b>Edwin Asturias and Janet Englund</b>
	<b>1. Vaccination and pregnancy</b>	
08:45-09:30	Scientific basis, main issues and applications	<b>Janet Englund</b> , Children's Hospital and Regional Medical Center, Seattle
09:30-09:50	Discussion	
	<b>2. Vaccination in early life</b>	
09:50-10:20	Advantages and limitations	<b>Claire-Anne Siegrist</b> , University of Geneva
10:20-10:40	Discussion	
10:40-11:00	Break	
	<b>3. Vaccination schedules</b>	
11:00-11:30	Past, present and future – is there some rationale?	<b>Edwin Asturias</b> , Children's Hospital Colorado
11:30-11:50	Discussion	
	<b>Special lecture</b>	
11:50-12:20	The challenge of malaria vaccines and of their potential introduction	<b>Vasee Moorthy</b> , WHO
12:20-12:40	Discussion	
12:40-16:00	<b>Parallel working group sessions (with sandwich lunch)</b>	
	1. Opportunities and challenges for assessing new vaccines in Developing Countries	<b>Orin Levine</b> (Bill & Melinda Gates Foundation) and <b>Pauline Beattie</b> (EDCTP)
	2. National decision-making for immunization programmes	<b>Will Schluter</b> , CDC, and <b>Philippe Duclos</b>
	3. Clinical vaccinology: patients' problem solving	<b>Claire-Anne Siegrist</b> and <b>Alessandro Diana</b> (UNIGE)
	4. New approaches towards vaccination e-registries	<b>Kari Johansen</b> (ECDC) and <b>Carolina Danovaro</b> (WHO)
16:00-16:20	Break	
	<b>Special lecture: THE 11<sup>th</sup> PLOTKIN LECTURE:</b>	
16:20-16:30	<b>Introduction and Chair</b>	<b>Edwin Asturias</b>
16:30-17:15	<b>Precision Vaccines: Bringing Precision Medicine to Vaccinology</b>	<b>Ofer Levy</b> , Harvard Medical School
17:15-17:45	Discussion	
18:00	<b>Departure to Château de Menthon visit and special reception</b>	

THURSDAY 17 MAY 2018		Theme Coordinator : Edwin Asturias
		Chairperson: Edwin Asturias
09:00-09:40	Vaccination in immune-compromised individuals, including HIV positive patients	Janet Englund, Children's Hospital and Regional Medical Center, Seattle
09:40-10:00	Discussion	
	<u>Special lectures: New vaccines</u>	
10:00-10:30	HPV vaccines	Margaret Stanley, Cambridge University
10:30-10:50	Discussion	
10:50-11:10	Break	
11:10-11:40	CMV vaccines in development	Stanley Plotkin, University of Pennsylvania
11:40-12:00	Discussion	
12:00-12:30	Dengue vaccines	Anna Durbin, Johns Hopkins B. School of Public Health, Baltimore
12:30-12:50	Discussion	
12:50-13:45	<u>Buffet Lunch</u>	
13:45-14:15	Special lectures: Global challenges for pertussis vaccines	Kathy Edwards, Vanderbilt University School of Medicine
14:15-14:45	Discussion	
14:45-15:30	Progress with RSV and Zika vaccines: how new technologies can change viral vaccine development	Barney Graham (NIH)
15:30-15:50	Discussion	
	<u>Elimination and Eradication strategies : the future</u>	Chair: Stanley Plotkin
15:50-16:15	Polio	Ananda Bandyopadhyay, Bill & Melinda Gates Foundation
16:15-16:40	Measles, and rubella	Katrina Kretsinger, WHO
16:40-17:00	Discussion	
17:00-17:25	Vaccination in areas of conflict and humanitarian emergencies	Rana Hajjeh, WHO
17:25-17:40	Discussion	
17:40	CME credits Diploma ceremony	Stanley Plotkin and Paul Henri Lambert

	<b>FRIDAY 18 MAY 2018</b>	
	<b>SESSION 10: FACING THE MEDIA</b>	Chairperson: <b>Edwin Asturias</b>
08:45-13:00	<b>Interactive session</b>	<b>Deborah Hall</b> , Broadcaster and media affairs consultant, London,
	Introduction to media dynamics: How to best deliver vaccinology-related messages to different interest groups  Lunch	(organized by Edwin Asturias)
14:30	<b>Closure of the Course</b>	