

21st ADVANCED COURSE OF VACCINOLOGY- 2021

MONDAY 10 MAY 2021		
08:45	Briefing	Bénédicte Pansier , Director, Les Pensières Center for Global Health
09:00	Opening	Alain Mérieux , President, Fondation Mérieux
09:20	Presentation of the Course and objectives	Philippe Duclos , Director, ADVAC
SESSION 1a - THE MULTIFACETED NATURE OF VACCINOLOGY		Chairperson: Adam Finn , University of Bristol, UK
09:50-10:20	Opening Lecture: How to develop a new program of immunization	David Salisbury , former Director of Immunisation, Department of Health, UK, Centre on Global Health Security, UK
10:20-10:40	Discussion	
10:40-11:10	Break	
11:10-11:40	Access to vaccination in GAVI countries and at global level	Aurelia Nguyen , GAVI Alliance, Geneva
11:40-12:00	Discussion	
12:00-12:10	Time for students to reflect personally on the learnings of the morning	
12:10-13:40	Lunch	
13:40-14:10	A global perspective on the regulation of vaccines	Norman Baylor , Biologics Consulting Inc., USA
14:10-14:30	Discussion	
14:30-15:00	The challenge of malaria vaccines and of their potential introduction	Mary Hamel , WHO, Geneva
15:00-15:20	Discussion	
15:20-15:40	Break	
15:40-17:20	Session 1b: Special lectures from Industry	
17:20-17:30	Time for students to reflect personally on the learnings of the afternoon	
17:30-19:30	Self-presentation of individual participants (background, interests in life...) & Welcome reception	

SESSION 1b - Special lectures from Industry		
15:40-16:10	Role of LMIC vaccine industry for meeting global needs	Suresh Jadhav , Executive Director, Serum Institute of India, Pune, India
16:10-16:30	Discussion	
16:30-17:00	Development and production of vaccines for global use: the role of vaccine industry	Luis Jodar , Chief Medical and Scientific Affairs Officer, Pfizer Inc. USA
17:00-17:20	Discussion	

TUESDAY 11 MAY 2021		
SESSION 2 - HOW VACCINES WORK		Chairperson: Paul-Henri Lambert, University of Geneva
09:00-09:30	How are vaccine responses elicited? What a vaccinologist should know about the basic aspects of immunological responses (a) B-cell responses	Claire-Anne Siegrist, University of Geneva
09:30-09:50	Discussion	
09:50-10:20	Break	
10:20-10:50	What a vaccinologist should know about the basic aspects of immunological responses (b) T-cell responses	Claire-Anne Siegrist, University of Geneva
10:50-11:10	Discussion	
11:10-11:40	Use and limitations of correlates of immunity in vaccinology	Andrew Pollard, University of Oxford, UK
11:40-12:00	Discussion	
12:00-12:10	Time for students to reflect personally on the learnings of the morning	
12:10-13:40	Lunch	
13:40-14:10	Vaccines and mucosal immunity	Adam Finn, University of Bristol, UK
14:10-14:30	Discussion	
14:30-15:25	Vaccines and immunological memory Quiz and general discussion	Claire-Anne Siegrist, University of Geneva
15:25-15:55	Break	
15:55-16:25	Immunological memory	Rafi Ahmed, Emory University, USA
16:25-16:45	Discussion	
16:45-17:15	Advances in vaccine and immunization technologies	Cristina Casetti, NIH-NIAID, USA
17:15-17:35	Discussion	
17:35-17:45	Time for students to reflect personally on the learnings of the afternoon	
17:45-18:45	Debate on mandatory vs voluntary vaccination	Chaired by Hanna Nohynek, National Institute for Health and Welfare, Helsinki Adam Finn, University of Bristol, UK & Saad Omer, Yale University, USA

WEDNESDAY 12 MAY 2021		
	SESSION 3 - DECISION-MAKING IN VACCINE RESEARCH AND PRECLINICAL DEVELOPMENT	Chairperson: Emily Erbelding , Director, DMID, NIH, USA
09:00-09:30	How do vaccines cause adverse events?	Saad Omer , Yale University, New Haven, USA
09:30-09:50	Discussion	
09:50-10:20	Vaccine adjuvants	Martin Friede , WHO, Geneva
10:20-10:40	Discussion	
10:40-11:10	Break	
11:10-11:40	From pre-clinical research to vaccine development: Examples of go-no-go decisions	Veronica Gambillara , Limmatech Biologics, Switzerland
11:40-12:00	Discussion	
12:00-12:10	Time for students to reflect personally on the learnings of the morning	
12:10-13:40	Lunch	
13:40-14:10	The complexity of quality control in vaccine manufacturing	Philippe Juvin , Sanofi Pasteur, Lyon, France
14:10-14:30	Discussion	
14:30-15:00	Break	
15:00-16:50	Regulatory considerations A round-table debate	Chair: Carole Heilman ; former Director, DMID/NIAID, USA Norman Baylor , Biologics Consulting Group, Inc., USA, Pieter Neels , Vaccine-advice, Belgium, Saeedeh Fakhrzadh , Food and Drug Administration, Iran, Ozzie Berger , GSK and David Greenberg , Sanofi Pasteur
16:50-17:00	Time for students to reflect personally on the learnings of the afternoon	
17:00-18:30	Debate: From ideas to implementation: The realities of funding for vaccine research and development	Carole Heilman (Chair) , Emily Erbelding , DMID, NIH, USA, Veronica Gambillara , Limmatech Biologics, Switzerland, Penny Heaton , Bill & Melinda Gates Medical Research Institute, Seattle (USA) and selected ADVAC students

THURSDAY 13 MAY 2021		
	SESSION 4 - ASSESSING VACCINES IN CLINICAL TRIALS (I)	Chairperson: Hanna Nohynek , National Institute for Health and Welfare, Helsinki, Finland
09:00-09:30	Clinical trials: an overview of issues to be considered	Myron Levine , University of Maryland, USA
09:30-09:50	Discussion	
09:50-10:20	Introduction to statistical aspects of clinical trials 1- Defining sample size	Peter Smith , London School of Hygiene and Tropical Medicine, UK
10:20-10:40	Discussion	
10:40-10:50	Time for students to reflect personally on the learnings of the morning	
10:50-11:10	Break	
11:10-13:50	How to design, recruit volunteers for, and analyze the results of selected phase II trials Small group exercise 1: Six Groups- Themes: Group 1 <i>S. aureus</i> Group 2 Ebola Group 3 Dengue Group 4 GBS Group 5 RSV Group 6 Men B Group 7 Coronavirus	Facilitators: Veronica Gambillara Pieter Neels Norman Baylor Edwin Asturias Kari Johansen Adam Finn Emily Erbeling
12:40-13:10 Buffet lunch		
13:50-14:20	Assessing herd protection and vaccine effectiveness (and use for licensure)	John Clemens , International Centre for Diarrheal Disease Research, Bangladesh (icddr,b)
14:20-14:40	Discussion	
14:40-15:10	Clinical trials: role of a Data Safety Monitoring Board (DSMB) (with several examples of intervention)	Penny Heaton , Bill & Melinda Gates Medical Research Institute, Seattle, USA
15:10-15:30	Discussion	
15:30-15:50	Break	
15:50-16:30	THE 5th LAMBERT LECTURE Interactions between the immune system and the microbiota	Yasmine Belkaid , NIH/NIAID, USA
16:30-16:50	Discussion	
16:50-17:00	Time for students to reflect personally on the learnings of the morning	
17:00-18:20	Debate: Dealing with human challenge studies.	Introduction on Challenge trials by Penny Heaton 20 mins. Debate between Joris Vandeputte , IABS and Pieter Neels , Vaccine-advice, Belgium

	FRIDAY 14 MAY 2021	
	SESSION 5 - VACCINE SAFETY - ASSESSMENT OF ADVERSE EFFECTS	Chairperson: Kari Johansen, EDCD
09:00-09:30	Lessons from previous adverse effects of vaccination and assessment of causal relationships	Madhav Balakrishnan, WHO, Geneva
09:30-09:50	Discussion	
09:50-10:20	Vaccination and immune-mediated diseases	Paul-Henri Lambert, University of Geneva
10:20-10:40	Discussion	
10:40-11:00	Break	
11:00-11:30	Population-based post-licensure surveillance	Nick Andrews, Public Health England, UK
11:30-11:50	Discussion	
11:50-12:00	Time for students to reflect personally on the learnings of the morning	
12:00-13:20	Lunch	
13:20-13:50	Vaccination and narcolepsy	Hanna Nohynek, National Institute for Health and Welfare, Helsinki, Finland
13:50-14:10	Discussion	
14:10-14:40	Immunization safety in low and middle income country vaccination programs	Philippe Duclos, ADVAC
14:40-15:00	Discussion	
15:00-15:30	Addressing vaccine hesitancy	Noni McDonald, Dalhousie University, Halifax, Canada
15:30-15:50	Discussion	
15:50-16:10	Break	
	SESSION 6- ASSESSING VACCINES IN CLINICAL TRIALS (II)	Chairperson: Hanna Nohynek, National Institute for Health and Welfare, Helsinki, Finland
16:10-16:40	Introduction to statistical aspects of clinical trials 2- Statistical assessment and reporting of phase 3 trials - including new methods to measure efficacy e.g. Ebola-VSV, LAIV	Peter Smith, LSHTM, UK
16:40-17:00	Discussion	
17:00-19:00	Small group exercise 2: Designing and analyzing the results of selected phase 3 trials	
	Introduction to the Group Work Exercise	Hanna Nohynek, National Institute for Health and Welfare, Helsinki, Finland
	Six Groups	Facilitators: Nick Andrews, Brad Gessner, Penny Heaton, Kari Johansen, Pieter Neels, Peter Smith
19:00-19:10	Time for students to reflect personally on the learnings of the afternoon	

	SATURDAY 15 MAY 2021	
	SESSION 7 - ETHICAL ISSUES Ethical considerations related to vaccine trials and implementation of vaccines in organized programs - available principles, guidelines and frameworks	Chairperson: Kari Johansen, ECDC
09:00-09:30	Principles, guidelines and frameworks for ethical considerations in clinical trials of vaccines	Catherine Slack , University of KwaZulu-Natal, South Africa
09:30-09:45	Discussion	
09:45-10:15	Applied ethics in immunization programs and practice	Noni McDonald , Dalhousie University, Halifax, Canada
10:15-10:30	Discussion	
10:30-10:40	Pick up and bring coffee/tea/fruit to group exercise	
10:40-13:00	Small group exercise 3: ETHICAL CONSIDERATIONS IN MALARIA VACCINE TRIALS	Coordinated by Kari Johansen, Betty Dodet and Catherine Slack
	Five Groups	Facilitators: Catherine Slack, Betty Dodet (Dodet Bioscience, France), Noni McDonald, Kari Johansen, Pieter Neels
13:00-13:10	ETHICAL CONSIDERATIONS IN MALARIA VACCINE TRIALS: Recap	Catherine Slack , University of KwaZulu-Natal, South Africa
13:10-13:20	Time for students to reflect personally on the learnings of the morning	
13:20	Lunch	

MONDAY 17 MAY 2021		
	SESSION 8 - INTRODUCING NEW VACCINES INTO VACCINATION PROGRAMMES	Chairperson: Anna Durbin , Johns Hopkins B. School of Public Health, Baltimore, USA
09:00-09:30	Disease burden and the public health value of vaccines	Annelies Wilder-Smith , Consultant, WHO
09:30-09:50	Discussion	
09:50-10:20	Health economics (including modelling) as a tool in analyzing vaccine policy options	Mark Miller , NIH, USA
10:20-10:40	Discussion	
10:40-11:00	Break	
11:00-11:30	Challenges and solutions in making evidence-based national vaccination policies and recommendations	Philippe Duclos , ADVAC
11:30-11:50	Discussion	
11:50-12:00	Time for students to reflect personally on the learnings of the morning	
12:00-13:30	Lunch	
13:30-14:00	Dengue vaccines	Anna Durbin , Johns Hopkins B. School of Public Health, Baltimore, USA
14:00-14:20	Discussion	
14:20-14:50	Response to polysaccharide and conjugate vaccines	David Goldblatt , University College London, UK
14:50-15:10	Discussion	
15:10-15:30	Break	
15:30-16:30	Pneumococcal conjugate vaccines: Efficacy and limitations of available vaccines and existing and potential vaccination strategies	Ron Dagan , Soroka Medical Center, Beer Sheva, Israel Keith Klugman , Bill & Melinda Gates Foundation, USA
16:30-16:50	Discussion	
16:50-17:10	Non-specific effects of vaccines	Nigel Curtis , The Royal Children's Hospital, Melbourne
17:10-17:30	Discussion	
17:30-17:40	Time for students to reflect personally on the learnings of the afternoon	
17:40-18:40	Debate: Does a vaccine have to protect against a VPD that kills to matter to politicians and parents?	Chair: Ron Dagan , Soroka Medical Center, Beer Sheva, Israel Presenters: Keipp Talbot , Vanderbilt University, USA, Kari Johansen , ECDC, and Mark Miller NIH, USA
18:40	Alumni presentations	Ann Lindstrand , WHO Shabir Madhi , University of the Witwatersrand , South Africa Benoit Soubeyrand , Blossom Vaccinology , France

TUESDAY 18 MAY 2021		
SESSION 8 (Ctd) - INTRODUCING NEW VACCINES INTO VACCINATION PROGRAMMES		Chairperson: Roger Glass, Fogarty International Centre, NIH
08:30-09:00	HPV vaccines	Margaret Stanley, Cambridge University, UK
09:00-09:20	Discussion	
09:20-09:50	Vaccine responses and efficacy in the elderly (including the specific example of the Zoster vaccine)	Keipp Talbot, Vanderbilt University, USA
09:50-10:10	Discussion	
10:10-10:30	Break	
10:30-11:00	Meningococcal vaccines	Ray Borrow, Public Health England, UK
11:00-11:20	Discussion	
11:20-11:50	Population biology of bacterial pathogens and its importance for vaccination strategies	Richard Moxon, Oxford University, UK
11:50-12:10	Discussion	
12:10-12:20	Time for students to reflect personally on the learnings of the morning	
12:20-13:40	Lunch	
13:40-14:10	Success and challenges with rotavirus and norovirus vaccines	Umesh Parashar, Centers for Disease Control, Atlanta, USA
14:10-14:30	Discussion	
14:30-15:00	Special lecture: Cancer vaccines	Olivier Michielin, Centre hospitalier universitaire vaudois, Suisse
15:00-15:20	Discussion	
15:20-15:40	Break	
15:40-17:10	Small group exercise 4: Decision-making for the evaluation and impact assessment of new vaccines introduced in selected countries: safety and effectiveness Objective: To learn what facts are needed in a decision-making process and how other factors influence the outcome 7 Groups: Vaccines: Rotavirus, HPV, Influenza, Malaria, Shingles, Men B, Tdap	Organized by Kari Johansen and Hanna Nohynek Facilitators: Edwin Asturias, Ray Borrow, Janet Englund, Brad Gessner, Roger Glass, Kari Johansen, Mark Miller, Hanna Nohynek, Umesh Parashar, Keipp Talbot
17:10-17:40	Impact of vaccination on disease epidemiology	Roy Anderson, Director, London Centre for Neglected Tropical Disease Research, Imperial College, London
17:40-18:00	Discussion	
18:00-18:10	Time for students to reflect personally on the learnings of the afternoon	
18:10	Soccer game North vs South of the World	

WEDNESDAY 19 MAY 2021		
	SESSION 9 - SELECTING APPROPRIATE VACCINATION STRATEGIES	Chairperson: Janet Englund , Children's Hospital and Regional Medical Center, Seattle, USA
09:00-09:30	Vaccination and pregnancy: Scientific basis, main issues and applications	Janet Englund , Children's Hospital and Regional Medical Center, Seattle, USA
09:30-09:50	Discussion	
09:50-10:20	Vaccination in early life: Advantages and limitations	Claire-Anne Siegrist , University of Geneva
10:20-10:40	Discussion	
10:40-11:00	Break	
11:00-11:30	Vaccination schedules: Past, present and future - is there some rationale?	Edwin Asturias , Children's Hospital Colorado, USA
11:30-11:50	Discussion	
11:50-12:20	Influenza biology, new vaccines and vaccination strategies for different age groups	Kathy Neuzil , Center for Vaccine Development, University of Maryland, Baltimore,
12:20-12:40	Discussion	
12:40-12:50	Time for students to reflect personally on the learnings of the morning	
12:50-15:45	Parallel working group sessions (with sandwich lunch)	
	1.National decision-making for immunization programmes	Christoph Steffen , WHO and Philippe Duclos , ADVAC
	2.Clinical vaccinology: patients' problem solving	Claire-Anne Siegrist and Alessandro Diana , University of Geneva
	3. New approaches towards vaccination e-registries	Nick Andrews , Public Health England, UK, Carolina Danovaro , WHO Geneva, and Kari Johansen , ECDC, Sweden,
	4. Cold Chain management	Suleymane Kone , WHO Geneva and Collins Tabu , Immunization Manager, Kenya
15:45-16:05	Break	
16:05-16:35	Vaccination in immuno-compromised individuals, including HIV positive patients	Janet Englund , Children's Hospital and Regional Medical Center, Seattle, USA
16:35-16:55	Discussion	
16:55-17:40	History of vaccines and vaccination	Stanley Plotkin , University of Pennsylvania, USA
17:40-18:00	Discussion	
18:00-18:10	Time for students to reflect personally on the learnings of the afternoon	
	Special lecture: THE 13TH PLOTKIN LECTURE	
18:10-18:15	Introduction and Chair	Edwin Asturias , Children's Hospital Colorado, USA
18:15-18:55	Yellow fever	Thomas Monath , Crozet BioPharma LLC
18:55-19:25	Discussion	

THURSDAY 20 MAY 2021		
	SESSION 10: VACCINES UNDER DEVELOPMENT	Chairperson: Edwin Asturias , Children's Hospital Colorado, USA
08:30-09:00	Vaccines against epidemic and orphan diseases: How new technologies can change vaccine development	Barney Graham , Vaccine Research Center, NIAID, NIH, Bethesda, USA
09:00-09:20	Discussion	
09:20-09:50	Global challenges for pertussis vaccines	Kathy Edwards , Vanderbilt Vaccine Research Program, USA
09:50-10:10	Discussion	
10:10-10:30	Break	
10:30-11:00	HIV vaccines	Brigitte Autran , INSERM, France
11:00-11:20	Discussion	
11:20-11:50	Challenges and prospects for new tuberculosis vaccines	Helen McShane , University of Oxford, UK
11:50-12:10	Discussion	
12:10-12:20	Time for students to reflect personally on the learnings of the morning	
12:20-13:30	Buffet Lunch	
	SESSION 11: OUTBREAKS' CONTROL: ELIMINATION AND ERADICATION STRATEGIES	Chairperson: Stanley Plotkin , University of Pennsylvania, USA
13:30-14:00	Immunization coverage gaps: overcoming the chronic challenges	Kate O'Brien , WHO, Geneva
14:00-14:20	Discussion	
14:20-14:50	Polio	Ananda Bandyopadhyay , Bill & Melinda Gates Foundation, USA
14:50-15:10	Discussion	
15:10-15:40	Diphtheria, measles and rubella	Ann Lindstrand , WHO, Switzerland
15:40-16:00	Discussion	
16:00-16:20	Break	
	SESSION 12: RECAP	
16:20-16:50	Answers to important questions received beforehand from participants	Panel session: Selected faculty members based on key questions raised by the participants
16:50-17:30	Highlights from ADVAC 2021	Romina Libster , Fundación INFANT/ National Scientific and Technical Research Council/ Vanderbilt University
17:30	DIPLOMA CEREMONY	Stanley Plotkin and Philippe Duclos
18:40	Departure to Château de Menthon: Visit and special reception	

	FRIDAY 21 MAY 2021	
	SESSION 13: FACING THE MEDIA: WHAT THE VACCINOLOGIST SHOULD KNOW IN THE CONTEXT OF VACCINE HESITANCY AND ANTI-IMMUNIZATION LOBBY	Chairperson: Philippe Duclos, University of Geneva
09:00-13:15	Interactive session	Deborah Hall, Broadcaster and Media Affairs Consultant, London, UK
	Introduction to media dynamics: How to best deliver vaccinology-related messages to different interest groups	
10:30-10:50	Break	
	Introduction to media dynamics: How to best deliver vaccinology-related messages to different interest groups (continued)	
13:15	Closure of the Course, CME credits, and Lunch	