

23rd ADVANCED COURSE OF VACCINOLOGY, Veyrier-du Lac, France, 08/05/2023 - 19/05/2023

MONDAY 08 MAY 2023		
09:00	Opening and setting the stage about the different contributions and actors and programme orientation	Kamel Senouci , Director, ADVAC, University of Geneva
09:30	Briefing	Bénédicte Pansier , Director, Les Pensières Center for Global Health, Fondation Mérieux
SESSION 1a - THE MULTIFACETED NATURE OF VACCINOLOGY		Chair: Adam Finn , University of Bristol, UK
09:40-10:05	How to implement and roll-out a new program of immunization	Pradeep Haldar , Strategic Advisor, John Snow, Inc. (JSI), India
10:05-10:25	Discussion	
10:25-10:55	Break	
10:55-11:20	Access to vaccination in Gavi-eligible countries and at global level	Aurelia Nguyen , Gavi, The Vaccine Alliance, Geneva
11:20-11:40	Discussion	
11:40-11:50	Time for students to reflect personally on the learnings of the morning	
11:50-13:20	Lunch	
13:20-13:45	A global perspective on the regulation of vaccines	Norman Baylor , Biologics Consulting Inc., USA
13:45-14:05	Discussion	
14:05-14:30	Impact of vaccination on disease epidemiology	Roy Anderson , London Centre for Neglected Tropical Disease Research, Imperial College, UK
14:30-14:50	Discussion	
14:50-15:20	Break	
15:20-16:50	Session 1b: Special lectures from Industry	
16:50-17:00	Time for students to reflect personally on the learnings of the afternoon	
17:00-19:00	Self-presentation of individual participants (background, interests in life...) & Welcome reception	

TUESDAY 9 MAY 2023		
SESSION 2 - HOW VACCINES WORK		Chair: Arnaud Didierlaurent, University of Geneva
09:00-09:25	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
09:25-09:45	Discussion	
09:45-10:15	Break	
10:15-10:40	What a vaccinologist should know about the basic aspects of immunological responses (b) T-cell responses	Claire-Anne Siegrist, University of Geneva
10:40-11:00	Discussion	
11:00-11:25	Use and limitations of correlates of immunity in vaccinology	Andrew Pollard, University of Oxford, UK
11:25-11:45	Discussion	
11:45-11:55	Time for students to reflect personally on the learnings of the morning	
11:55-13:25	Lunch	
13:25-13:50	Vaccines and mucosal immunity	Adam Finn, University of Bristol, UK
13:50-14:10	Discussion	
14:10-14:55	Vaccines and immunological memory Quiz and general discussion	Claire-Anne Siegrist, University of Geneva
14:55-15:25	Break	
15:25-15:50	Immunological memory	Rafi Ahmed, Emory University, USA
15:50-16:10	Discussion	
16:10-16:35	How do vaccines cause adverse events?	Narendra Arora, INCLEN, India
15:35-16:55	Discussion	
16:55-17:05	Time for students to reflect personally on the learnings of the afternoon	
17:05-18:30	Mandatory vs voluntary vaccination a round table debate	Chair: Hanna Nohynek, Finnish Institute for Health and Welfare, Finland Adam Finn, University of Bristol, UK

WEDNESDAY 10 MAY 2023		
SESSION 3 – VACCINE DEVELOPMENT		Chair: Emily Erbelding, Director, DMID, NIH, USA
09:00-09:25	Landscape in vaccine and immunization technologies	Cristina Casetti, NIH-NIAID, USA
09:25-09:45	Discussion	
09:45-10:10	Vaccine adjuvants	Arnaud Didierlaurent, University of Geneva
10:10-10:30	Discussion	
10:30-11:00	Break	
11:00-11:25	From pre-clinical research to vaccine development: Examples of go-no-go decisions	Veronica Gambillara, GlycoEra AG, Switzerland
11:25-11:45	Discussion	
11:45-11:55	Time for students to reflect personally on the learnings of the morning	
11:55-13:25	Lunch	
13:25-15:05	Regulatory considerations A round-table debate	Chair: Emily Erbelding, Director, DMID/NIAID, NIH, USA Norman Baylor, Biologics Consulting Group, Inc., USA, Pieter Neels, Vaccine-advice, Belgium, Saeedeh Fakhrzadeh, Food and Drug Administration, Iran, Ozzie Berger, GSK and David Greenberg, Sanofi
15:05-15:35	Break	
15:35-16:00	The complexity of quality control in vaccine manufacturing	Philippe Juvin, Sanofi Pasteur, Lyon, France
16:00-16:20	Discussion	
16:20-16:30	Time for students to reflect personally on the learnings of the afternoon	
16:30-18:00	Interactive session: From ideas to implementation - the realities of funding for vaccine research and development	Emily Erbelding, DMID, NIH, USA (Chairperson), Veronica Gambillara, GlycoEra AG, Switzerland, Penny Heaton, J&J, and selected ADVAC students

THURSDAY 11 MAY 2023		
SESSION 4 - ASSESSING VACCINES IN CLINICAL TRIALS (I)		Chair: Hanna Nohynek , Finnish Institute for Health and Welfare, Finland
09:00-09:25	Clinical trials: an overview of issues to be considered	Myron Levine , University of Maryland, USA
09:25-09:45	Discussion	
09:45-10:10	Introduction to statistical aspects of clinical trials 1- Defining sample size	Peter Smith , London School of Hygiene and Tropical Medicine, UK
10:10-10:30	Discussion	
10:30-10:40	Time for students to reflect personally on the learnings of the first part of the morning	
10:40-11:10	Break	
11:10-13:50	How to design, recruit volunteers for, and analyze the results of selected phase II trials Small group exercise 1: Seven Groups - Themes: Group 1 <i>S. aureus</i> Group 2 Ebola Group 3 Dengue Group 4 RSV Group 5 Monkeypox Group 6 Typhoid conjugate vaccines Group 7 Coronavirus	Facilitators: Veronica Gambillara Pieter Neels Norman Baylor Edwin Asturias Kari Johansen Kamel Senouci Emily Erbeling
12:40-13:10 Buffet lunch		
13:50-14:15	Assessing herd protection and vaccine effectiveness (and use for licensure)	John Clemens , Senior Scientific Advisor to the Director General, International Vaccine Institute (IVI), Republic of Korea
14:15-14:35	Discussion	
14:35-15:00	Clinical trials: role of a Data Safety Monitoring Board (DSMB) (with several examples of intervention)	Robert Heyderman , University College London, UK
15:00-15:20	Discussion	
15:20-15:50	Break	
15:50-16:15	Introduction to Human Challenge Trials	Chris Chiu , Imperial College London
16:15-17:10	Dealing with Human Challenge Trials: Panel discussion and questions	Chairperson: Penny Heaton , J&J Joris Vandeputte , IABS, Pieter Neels , Vaccine-advice, Belgium, Chris Chiu , Imperial College London
Special lecture: THE 7th LAMBERT LECTURE		
17:10-17:50	Perspectives for CD8+ T cell-based vaccines	Daniel Pinschewer , University of Basel, Switzerland
17:50-18:10	Discussion	
18:10-18:20	Time for students to reflect personally on the learnings of the morning	

FRIDAY 12 MAY 2023		
SESSION 5 - VACCINE SAFETY - ASSESSMENT OF ADVERSE EFFECTS		Chair: Kari Johansen, Public Health Agency, Sweden
09:00-09:25	Lessons from previous adverse effects of vaccination and assessment of causal relationships	Madhav Balakrishnan, WHO, Geneva
09:25-09:45	Discussion	
09:45-10:10	Vaccination and immune-mediated diseases	Christiane Eberhardt, University of Geneva
10:10-10:30	Discussion	
10:30-10:50	Break	
10:50-11:15	Population-based post-licensure surveillance	Nick Andrews, Public Health England, UK
11:15-11:35	Discussion	
11:35-11:45	Time for students to reflect personally on the learnings of the morning	
11:45-13:15	Lunch	
13:15-13:40	Thrombotic Thrombocytopenia Syndrome (TTS) following vaccination with COVID-19 non-replicant adenovirus vector-based vaccines	Kawsar Talaat, Johns Hopkins Bloomberg, School of Public Health, Baltimore, USA
13:40-14:00	Discussion	
14:00-14:25	Immunization safety in low- and middle-income country vaccination programs	Philippe Duclos, ADVAC
14:25-14:45	Discussion	
14:45-15:10	Addressing vaccine hesitancy and acceptance	Noni McDonald, Dalhousie University, Halifax, Canada
15:10-15:30	Discussion	
15:30-15:50	Break	
SESSION 6 – ASSESSING VACCINES IN CLINICAL TRIALS (II)		Chair: Hanna Nohynek, Finnish Institute for Health and Welfare, Finland
15:50-16:15	Introduction to statistical aspects of clinical trials 2- Statistical assessment and reporting of phase 3 trials	Peter Smith, LSHTM, UK
16:15-16:35	Discussion	
16:35-18:50	Small group exercise 2: Designing and analyzing the results of selected phase 3 trials Seven Groups	Facilitators: Nick Andrews, Brad Gessner, Penny Heaton, Kari Johansen, Pieter Neels, Hanna Nohynek, Peter Smith
18:50-19:00	Time for students to reflect personally on the learnings of the afternoon	

SATURDAY 13 MAY 2023		
SESSION 7 - ETHICAL ISSUES		Chair: Kari Johansen, Public Health Agency, Sweden
09:00-09:25	Principles, guidelines and frameworks for ethical considerations in clinical trials of vaccines	Catherine Slack, University of KwaZulu-Natal, South Africa
09:25-09:45	Discussion	
09:45-10:10	Applied ethics in immunization programs and practice	Noni McDonald, Dalhousie University, Halifax, Canada
10:10-10:30	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 COVID-19 vaccine trials Seven Groups	Facilitators: Edwin Asturias, Betty Dodet, Noni McDonald, Kari Johansen, Pieter Neels, Catherine Slack, Romina Libster
13:00-13:10	Time for students to reflect personally on the learnings of the morning	
13:10-14:10	Lunch	
14:10-15:40	Parallel working group sessions (1) 1. AEFI: Causality assessment 2. Monitoring and evaluation of vaccine programs	Madhav Balakrishnan, WHO, Geneva Carolina Danovaro, WHO, Geneva and Marta Gacic-Dobo, WHO Geneva

MONDAY 15 MAY 2023		
08:50-09:00	Ethical considerations in COVID-19 vaccine trials: Recap	Catherine Slack , University of KwaZulu-Natal, South Africa
SESSION 8 - INTRODUCING NEW VACCINES INTO VACCINATION PROGRAMMES		Chair: Anna Durbin , Johns Hopkins B. School of Public Health, Baltimore, USA
09:00-09:25	Disease burden and the public health value of vaccines	Annelies Wilder-Smith , Consultant, WHO
09:25-09:45	Discussion	
09:45-10:10	Health economics (including modelling) as a tool in analyzing vaccine policy options	Ramanan Laxminarayan , One Health Trust (OHT), USA
10:10-10:30	Discussion	
10:30-11:00	Break	
11:00-11:25	Non-specific effects of vaccines	Nigel Curtis , The Royal Children's Hospital, Melbourne
11:25-11:45	Discussion	
11:45-11:55	Time for students to reflect personally on the learnings of the morning	
11:55-13:25	Lunch	
13:25-13:50	Dengue vaccines	Anna Durbin , Johns Hopkins Bloomberg School of Public Health, Baltimore, USA
13:50-14:10	Discussion	
14:10-14:35	Response to polysaccharide and conjugate vaccines	David Goldblatt , University College London, UK
14:35-14:55	Discussion	
14:55-15:25	Break	
15:25-16:05	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
16:05-16:35	Discussion	
16:35-17:00	Challenges and solutions in making evidence-based national vaccination policies and recommendations	Philippe Duclos , ADVAC
17:00-17:20	Discussion	
17:20-19:20	Small group exercise 4: Decision-making for the evaluation and impact assessment of new vaccines introduced in selected countries: safety and effectiveness Part 1: Preparation and data analysis Group 1 Rotavirus Group 2 HPV Group 3 Coronavirus LMIC Group 4 Coronavirus HIC Group 5 Malaria Group 6 Shingles Group 7 RSV	Facilitators: Umesh Parashar Kamel Senouci Brad Gessner & Hanna Nohynek Kari Johansen Kathy Neuzil Keipp Talbot Janet Englund
19:20-19:30	Time for students to reflect personally on the learnings of the afternoon	

TUESDAY 16 MAY 2023		
SESSION 8 (Ctd) - INTRODUCING NEW VACCINES INTO VACCINATION PROGRAMMES		Chair: Anna Durbin , Johns Hopkins B. School of Public Health, Baltimore, USA
08:30-08:55	HPV vaccines	Margaret Stanley , Cambridge University, UK
08:55-09:15	Discussion	
09:15-09:40	Vaccine responses and efficacy in the elderly	Keipp Talbot , Vanderbilt University, USA
09:40-10:00	Discussion	
10:00-10:25	Break	
10:25-10:50	Meningococcal vaccines	Shamez Ladhani , Public Health England, UK
10:50-11:10	Discussion	
11:10-11:35	Pathogen evolution and population immunity: methods and applications for vaccine development and policy	Martin Maiden , University of Oxford, UK
11:35-11:55	Discussion	
11:55-12:05	Time for students to reflect personally on the learnings of the morning	
12:05-13:35	Lunch	
13:35-14:00	Success and challenges with rotavirus and norovirus vaccines	Umesh Parashar , Centers for Disease Control, Atlanta, USA
14:00-14:20	Discussion	
14:20-14:45	Cancer vaccines	Patrick Ott , Harvard University, USA
14:45-15:05	Discussion	
15:05-15:35	Break	
15:35-16:35	<p>Small group exercise 4: Decision-making for the evaluation and impact assessment of new vaccines introduced in selected countries: safety and effectiveness</p> <p>Part 2: Presentations, discussion and conclusions</p> <ul style="list-style-type: none"> Group 1 Rotavirus Group 2 HPV Group 3 Coronavirus LMIC Group 4 Coronavirus HIC Group 5 Malaria Group 6 Shingles Group 7 RSV 	<p>Facilitators:</p> <p>Umesh Parashar Kamel Senouci Brad Gessner & Hanna Nohynek Kari Johansen Kathy Neuzil Keipp Talbot Janet Englund</p>
16:35-17:00	COVID Vaccines	Melanie Saville , CEPI, UK
17:00-17:20	Discussion	
17:20-17:30	Time for students to reflect personally on the learnings of the afternoon	
17:40	Soccer game North vs South of the World	
19:30	<p>Alumni session</p> <p>Bill & Melinda Gates Foundation's perspective on immunization</p>	<p>Violaine Mitchell, Director Immunization, Bill & Melinda Gates Foundation</p> <p>Two alumni presentation from diverse background: Samba Sow, Director General, Center for Vaccine Development, Ministry of Health, Mali and Deepa</p>

	Impact of ADVAC and vision on future of vaccinology	Gamage , Ministry of Health, Sri Lanka.
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WEDNESDAY 17 MAY 2023		
SESSION 9 - SELECTING APPROPRIATE VACCINATION STRATEGIES		Chair: Janet Englund , Children's Hospital and Regional Medical Center, Seattle, USA
09:00-09:25	Vaccination and pregnancy: Scientific basis, main issues and applications	Janet Englund , Children's Hospital and Regional Medical Center, Seattle, USA
09:25-09:45	Discussion	
09:45-10:10	Vaccination in early life	Christiane Eberhardt , University of Geneva
10:10-10:30	Discussion	
10:30-11:00	Break	
11:00-11:25	Vaccination schedules: Past, present and future - is there some rationale?	Edwin Asturias , Children's Hospital Colorado, USA
11:25-11:45	Discussion	
11:45-12:10	Influenza biology, new vaccines and vaccination strategies for different age groups	Kathy Neuzil , Center for Vaccine Development, University of Maryland, Baltimore,
12:10-12:30	Discussion	
12:30-12:40	Time for students to reflect personally on the learnings of the morning	
12:40-13:10	Buffet lunch	
13:10-15:40	Parallel working group sessions (2)	
	1.National decision-making for immunization programmes	Christoph Steffen , WHO & Kamel Senouci , University of Geneva
	2.Clinical vaccinology: patients' problem solving	Alessandro Diana , University of Geneva and Christiane Eberhardt , University of Geneva
	3. New approaches towards vaccination e-registries	Julia Stowe , Public Health England, UK, Carolina Danovaro , WHO Geneva, and Kari Johansen , Public Health Institute, Sweden
	4. Cold Chain management	Souleymane Kone , WHO Geneva and Collins Tabu , Immunization Manager, Kenya
15:40-16:00	Break	
16:00-16:25	Vaccination in immuno-compromised individuals, including HIV positive patients	Janet Englund , Children's Hospital and Regional Medical Center, Seattle, USA
16:25-16:45	Discussion	
Special lecture: THE 15TH PLOTKIN LECTURE		
16:45-16:55	Introduction	Edwin Asturias , Children's Hospital Colorado, USA
16:55-17:35	Monkeypox	Adesola Yinka-Ogunleye , Nigeria Centre for Disease Control, Abuja
17:35-17:55	Discussion	
17:55-18:05	Time for students to reflect personally on the learnings of the afternoon	

THURSDAY 18 MAY 2023		
SESSION 10: VACCINES UNDER DEVELOPMENT		Chair: Edwin Asturias, Children's Hospital Colorado, USA
08:30-08:55	Vaccines against epidemic and orphan diseases: How new technologies can change vaccine development	Barney Graham, formerly Vaccine Research Center, NIAID, NIH, Bethesda, USA
08:55-09:15	Discussion	
09:15-09:40	The challenges of malaria vaccines	Mary Hamel, WHO, Geneva
09:40-10:00	Discussion	
10:00-10:30	Break	
10:30-10:55	Global challenges of cholera vaccines	Alejandro Cravioto, National Autonomous University of Mexico
10:55-11:15	Discussion	
11:15-11:40	HIV vaccines	Roger Le Grand, Center for Immunology of Viral, Auto-immune, Hematological and Bacterial Diseases, France
11:40-12:00	Discussion	
12:00-12:10	Time for students to reflect personally on the learnings of the morning	
12:10-13:10	Buffet lunch	
13:10-13:35	Challenges and prospects for new tuberculosis vaccines	Helen McShane, University of Oxford, UK
13:35-13:55	Discussion	
SESSION 11: OUTBREAKS' CONTROL: ELIMINATION AND ERADICATION STRATEGIES		Chair: Kamel Senouci, University of Geneva
13:55-14:20	Immunization coverage gaps: overcoming the chronic challenges	Kate O'Brien, WHO, Geneva
14:20-14:40	Discussion	
14:40-15:05	Polio	Ananda Bandyopadhyay, Bill & Melinda Gates Foundation, USA
15:05-15:25	Discussion	
15:25-15:55	Break	
15:55-16:20	Measles and rubella	Ann Lindstrand, WHO, Switzerland
16:20-16:40	Discussion	
16:40-16:50	Time for students to reflect personally on the learnings of the afternoon	
18:30	Departure to Château de Menthon Visit and special reception	

FRIDAY 19 MAY 2023		
SESSION 12: FACING THE MEDIA: WHAT THE VACCINOLOGIST SHOULD KNOW IN THE CONTEXT OF VACCINE HESITANCY AND ANTI-IMMUNIZATION LOBBY		Chair: Kamel Senouci , University of Geneva
08:30-10:30	Interactive session: Introduction to media dynamics: How to best deliver vaccinology-related messages to different interest groups	Deborah Hall , Broadcaster and Media Affairs Consultant, London, UK
10:30-10:50	Break	
10:50-13:00	Introduction to media dynamics: How to best deliver vaccinology-related messages to different interest groups (continued)	
13:00-14:00	Lunch	
SESSION 13: RECAP		Chair: Kamel Senouci , University of Geneva
14:00:15:50	Panel: Answers to questions from participants	Pieter Neels , Hanna Nohynek , Finnish Institute for Health and Welfare, Finland (TBC), Arnaud Didierlaurent , University of Geneva, Randa Hamadeh , Immunization and Essential Drugs Program, Ministry of Public Health, Lebanon, Ilesh Jani , National Institute of Health, Mozambique, Ann Lindstrand , WHO Geneva, Firdausi Qadri , icddr,b.
15:50-16:30	Highlights from ADVAC 2023	Romina Libster , Fundación INFANT/ National Scientific and Technical Research Council/ Vanderbilt University
16:30	Diploma ceremony, awarding of CME credits and closure of the Course	Alain Mérieux , President, Fondation Mérieux and Kamel Senouci , University of Geneva

SESSION 1B - SPECIAL LECTURES FROM INDUSTRY		
15:20-15:45	Role of LMIC vaccine industry for meeting global needs	Sunil Gairola , Executive Director, Serum Institute of India, Pune, India
15:45-16:05	Discussion	
16:05-16:30	Development and production of vaccines for global use: the role of vaccine industry	Luis Jodar , Senior Vice President and Chief Medical Officer, Vaccines, Pfizer Inc., USA
16:30-16:50	Discussion	