



11th Vaccine Congress

17-20 September 2017 • Paradise Point, San Diego, CA, USA



ORAL PROGRAM

Sunday, 17 September, 2017

Room	Sunset Foyer
13:00-18:30	Registration
Room	Sunset I-V
15:00-15:10	Opening remarks Gregory A. Poland, <i>Editor in Chief, Vaccine and Mayo Clinic, USA</i>
15:10-17:00	PLENARY SESSION 1 <i>Session Chair: Gregory A. Poland, Editor in Chief, Vaccine and Mayo Clinic, USA</i>
15:10-16:00	[PL01] Investigational vaccines that should be licensed: 1. Pertussis 2. Malaria Winner of the Schneerson-Robbins Prize – Rachel Schneerson, <i>National Institutes of Health, USA (Retired)</i>
16:00-16:50	[PL02] Investigational vaccines that should be licensed: 1. Meningococcus group B/E. coli K1 2. Haemophilus influenza type a Edward Jenner and Vaccine Journal Prize – John B Robbins, <i>National Institutes of Health, USA (Retired)</i>
Room	Sunset Pavilion/Terrace
17:00-18:30	Drinks Reception and Posters Session I

Monday, 18 September, 2017

Room	Sunset I-V
08:30-10:30	PLENARY SESSION 2: Zika Vaccines <i>Session Chair: Gregory A. Poland, Mayo Clinic, USA</i>
08:30-09:10	[PL03] From A(edes) to Z(ika): Where are we in our vaccine development efforts? Gregory A. Poland - <i>Editor in Chief, Vaccine and Mayo Clinic, USA</i>
09:10-09:50	[PL04] Prior Dengue virus exposure shapes T cell immunity to Zika virus in humans Daniela Weiskopf, <i>La Jolla Institute for Allergy and Immunology, USA</i>
09:50-10:30	[PL05] Zika Vaccine Accelerated Clinical Development Grace L Chen, <i>National Institutes of Health, USA</i>
Room	Sunset Pavilion/Terrace
10:30-11:00	Refreshment break
Room	Sunset I-V
11:00-13:00	ORAL SESSION 1: Vaccines Against Emerging Viruses <i>Session Chairs: Tony Fooks & Ab Osterhaus</i>
11:00-11:30	[INV01] How to deliver new vaccines under very short timelines: the ZAPI project Jean Christophe Audonnet, <i>Boehringer Ingelheim Animal Health, France</i>
11:30-11:45	[O1.01] Efficient immunization and full protection from lethal challenge by PLLAV-YF17D, a novel thermostable and readily scalable plasmid-launched life-attenuated yellow fever vaccine candidate produced in E. coli K. Dallmeier* ¹ , N. Mishra ¹ , R.E. Marques ^{1,2} , J. Ae-Choi ³ , D.B. Kum ¹ , L. Sanchez Felipe ¹ , J.G. Julander ³ , J. Neyts ¹ ¹ University of Leuven, Belgium, ² Laboratório Nacional de Biociências (LNBio), Brazil, ³ Utah State University Logan, USA
11:45-12:00	[O1.02] Development of a Novel Vaccine for Zika F. Guirakhoo* ¹ , A. Domi ¹ , N. McCurley ¹ , R. Basu ¹ , M. Hellerstein ¹ , H. Robinson ¹ , A. Brault ² ¹ Geovax, USA, ² CDC, USA
12:00-12:15	[O1.03] Evaluation of candidate chimeric influenza hemagglutinin vaccines for induction of broad immunity within the influenza virus H1N1 subtype S. Zaiser ¹ , Z. Li ² , P. Shang ³ , P. Katwal ¹ , Y. Li ³ , S.Y. Sunwoo ³ , J.A. Richt ³ , Y. Fang ³ , B. He ² , V.C. Huber* ¹ ¹ University of South Dakota, USA, ² University of Georgia, USA, ³ Kansas State University, USA
12:15-12:30	[O1.04] Development of live-attenuated arenavirus vaccines based on codon deoptimization of the viral glycoprotein.

	A. Nogales* ¹ , B. Y.H. Cheng ¹ , J.C. de la Torre ² , L. Martinez-Sobrido ¹ ¹ University of Rochester, USA, ² The Scripps Research Institute, USA	
12:30-12:45	[O1.05] Determining the effects of JUNV L Polymerase Mutations on Replication Activity and Regulation S.J. Hallam* ¹ , J.T. Manning ¹ , T. Koma ² , S. Paessler ¹ ¹ University of Texas Medical Branch, USA, ² Tokushima University Graduate School of Medical Science, Japan	
12:45-13:00	[O1.06] An mRNA-based vaccine technology for next generation prophylactic vaccines J. Lutz, S. Rauch, S. Lazzaro, E. Jasny*, K. Schmidt, P. Baumhof, R. Heidenreich, B. Petsch, M. Fotin-Mleczek CureVac AG, Germany	
Room	Sunset Pavilion/Terrace	
13:00-14:30	Lunch	
Room	Sunset V	
13:30-14:30	Author and Reviewer Workshop Donna Wilson, Pablo Secades, Elsevier and Gregory A. Poland	
Room	Sunset I-IV	Sunset V
14:30-16:30	BREAKOUT SESSION 2: Novel Vaccines against Respiratory Pathogens Session Chair: Danny Altmann	BREAKOUT SESSION 3: Bacterial vaccines Session Chair: Richard Titball
14:30-15:00	[INV02] Gut microbiota is associated with the immune response to HIV-1 envelope vaccination in newborn rhesus macaques. Sallie Permar ^{1,2,3} , ¹ University of California at Davis, USA, ² University of North Carolina at Chapel Hill, USA, ³ Duke University Medical Center, USA	[INV03] The development of low-cost recombinant glycoconjugate vaccines Brendan W. Wren, London School of Hygiene & Tropical Medicine, UK
15:00-15:15	[B2.01] Tim-3, galectin-9 and activation of human NK cells by Trypanosoma cruzi A. Zucchi, N. Segueni*, C. Truyens, Université Libre de Bruxelles, Belgium	[B3.01] Vaccination against Neisseria gonorrhoeae in a mouse model M.W. Russell, University at Buffalo, USA
15:15-15:30	[B2.02] Systems vaccinology reveals superior protection after pulmonary administration of an outer membrane vesicle pertussis vaccine R.H.M. Raeven* ^{1,4} , J. Brummelman ^{2,3} , J.L.A. Pennings ² , W. van Eden ³ , W. Jiskoot ⁴ , E. van Riet ¹ , C.A.C.M. van Els ² , G.F.A. Kersten ^{1,4} , W.G.H. Han ² , B. Metz ¹ ¹ Intravacc, The Netherlands, ² National Institute for Public Health and the Environment, The Netherlands, ³ Utrecht University, The Netherlands, ⁴ Leiden Academic Centre for Drug Research, The Netherlands	[B3.02] Novel TLR adjuvant system elicits unique immune responses in Q fever vaccine candidates A. Gilkes* ¹ , T.J. Albin ¹ , S. Manna ¹ , J.K. Tom ¹ , S. Ruiz ² , C. Rooney ² , A. Jain ¹ , A. Jasinskas ¹ , M. Supnet ¹ , A.M. Burkhardt ¹ ¹ University of California, Irvine, USA, ² The United States Army Medical Research Institute for infectious diseases, USA
15:30-15:45	[B2.03] The field evaluation of three subunit vaccine formulas to protect dairy calves against respiratory tract infections caused by Gram-negative bacteria* J. Bajzert ¹ , A. Rzasz ¹ , M. Kuczaj ¹ , P. Jawor ¹ , T. Stefaniak* ¹ , W. Jachymek ² , S. Przybyl ² , C. Lugowski ² , F. Jelen ³ , R. Kolodziejczyk ³ ¹ Wroclaw University of Environmental and Life Sciences, Poland, ² Institute of Immunology and Experimental Therapy Polish Academy of Science, Poland, ³ Pure Biologics Ltd., Poland	[B3.03] Reprogramming the innate immune system against bacterial pathogens using a biomaterial based vaccine E. Doherty Harvard University, USA, Boston Children's Hospital and Harvard Medical School, USA
15:45-16:00	[B2.04] Preclinical assessment of virus-like particle-associated pre- and post-fusion forms of respiratory syncytial virus F protein in maternal vaccination J.C.G. Blanco* ¹ , L.M. Pletneva ¹ , L. McGinnes ² , R.O. Oue ¹ , M.C. Patel ¹ , M.S. Boukhvalova ¹ , T.G. Morrison ² ¹ Sigmovir Biosystems Inc., USA, ² University of Massachusetts Medical School, USA	[B3.04] Pivotal role of cellular necrosis in residual cytotoxicity of a recombinant vaccine against Clostridium Difficile L. Hong Merck, USA

16:00-16:15	[B2.05] Induction of protective immune responses against group A streptococcus following vaccination with lyophilized liposomes containing surface-expressed peptide and encapsulated carrier protein M. Zaman*, V. Ozberk, S. Eskandari <i>Institute for Glycomics, Griffith University, Australia</i>	[B3.05] Development of a Treponema denticola targeting chimeric vaccine for periodontal disease N.S.O. O'Bier* ¹ , L.D.O. Oliver ¹ , A.L.H. Hatke ¹ , D.T.P. Patel ¹ , J.R.I. Izac ¹ , R.T.M. Marconi ^{1,2} ¹ <i>Department of Microbiology and Immunology, USA,</i> ² <i>Virginia Commonwealth University, USA</i>
16:15-16:30	[B2.06] Vaccination targeting the 12 protease cleavage sites during ARV treatment improved CD4 counts of SIVmac251 infected rhesus monkeys M. Luo* ^{1,2} , J. Pinto ³ , M. Nykoluk ¹ , C. Czarnecki ¹ , J. Whitney ⁴ , M. Alonso ³ , T.B. Ball ^{1,2} , G. Kobinger ^{1,2} , F.A. Plummer ^{1,2} ¹ <i>National Microbiology Laboratory, Canada,</i> ² <i>University of Manitoba, Canada,</i> ³ <i>University of Santiago de Compostela, Spain,</i> ⁴ <i>Harvard Medical School, USA</i>	[B3.06] Targeting bacterial-extracellular matrix interactions to construct a mucosal Staphylococcus aureus vaccine for bovine mastitis N. Misra*, J.K. Tinker <i>Boise State University, USA</i>
Room	Sunset Pavilion/Terrace	
16:30-17:00	Refreshment break	
Room	Sunset I-V	
17:00-18:00	ORAL SESSION 4: New Influenza Vaccines <i>Session Chair: Kathy Neuzil</i>	
17:00-17:30	[INV04] From bench to bedside: the challenge to develop better influenza vaccines Ruben Donis, <i>Biomedical Advanced Research and Development Authority</i>	
17:30-17:45	[O4.01] Rearrangement of Influenza Virus Spliced Segments for the Development of Live-Attenuated Vaccines. A. Nogales*, M. L. DeDiego, L. Rodriguez, D. J. Topham, L. Martinez-Sobrido <i>University of Rochester, USA</i>	
17:45-18:00	[O4.02] The antibody response to influenza vaccine shows that humans have the capacity for wide breadth of protection S. Delagrave* ¹ , T. Alefantis ¹ , I. Nunez ² , S. Mundle ¹ , I. Ustyugova ¹ , T. Strugnell ¹ , J. DiNapoli ¹ , M. Carlock ² , S. Anderson ¹ , T.U. Vogel ¹ ¹ <i>Sanofi Pasteur, USA,</i> ² <i>Center for Vaccines and Immunology, USA,</i> ³ <i>University of Georgia, USA,</i> ⁴ <i>University of Pittsburgh, USA</i>	
Room	Sunset Pavilion/Terrace	
18:00-19:30	Drinks Reception and Poster Session II	

Tuesday, 19 September, 2017

Room	Sunset I-V	
08:30-10:30	PLENARY SESSION 3: HIV Vaccines <i>Session Chairs: Robert Chen & Gregory A. Poland</i>	
08:30-09:10	[PL06] Progress toward a neutralizing antibody-based HIV vaccine Dennis R. Burton ^{1,2} , ¹ <i>The Scripps Research Institute, USA,</i> ² <i>Ragon Institute of MGH, MIT and Harvard, USA</i>	
09:10-09:50	[PL07] Germline-targeting vaccine design for HIV William Schief, <i>The Scripps Research Institute, USA, IAVI, USA</i>	
09:50-10:30	[PL08] Extracellular nucleic acids as a vaccine tool and an immune modulator Ken J. Ishii ^{1,2} , ¹ <i>National Institute of Biomedical Innovation, Health and Nutrition (NIBIOHN), Japan,</i> ² <i>Osaka University, Japan</i>	
Room	Sunset Pavilion/Terrace	
10:30-11:00	Refreshment break	
Room	Sunset I-V	
11:00-12:00	ORAL SESSION 5: Vaccines against emerging biothreats <i>Session Chair: Danny Altmann & Lisa Shollenberger</i>	
11:00-11:30	[INV05] Analysis of the innate and adaptive response in Ebola virus disease - delineating survival and fatal outcomes and correlates of protection. J.A. Hiscox <i>University of Liverpool, UK</i>	
11:30-11:45	[O5.01] Advances in next generation anthrax vaccines: development of capsule conjugate and live attenuated vaccines	

	A.M. Friedlander ^{1,2} ¹ US Army Medical Research Institute of Infectious Diseases, USA, ² Uniformed Services University of the Health Sciences, USA	
11:45-12:00	[05.02] Induction of protective immune responses against group A streptococcus following vaccination with lyophilized liposomes containing surface-expressed peptide and encapsulated carrier protein M. Zaman*, V. Ozberk, S. Eskandari et al <i>Institute for Glycomics, Griffith University, Australia</i>	
12:00-13:00	Meet the Editors Speed Review Roundtable - All AEs	
Room	Sunset Pavilion/Terrace	
13:00-14:30	Lunch	
Room	Sunset V	
13.30-14.30	Roundtable <i>Session Chairs: Ab Osterhaus and Gregory A. Poland</i>	
Room	Sunset I-IV	Sunset V
14:30-16:30	BREAKOUT SESSION 6: Vaccine Safety <i>Session Chairs: Robert Chen & Steve Jacobsen</i>	BREAKOUT SESSION 7: Vaccine adjuvants and delivery systems <i>Session Chairs: Ken Ishii</i>
14:30-15:00	[INV06] A global vaccine safety data network: rationale, progress and remaining challenges Steve Black, <i>Cincinnati Children's Hospital, USA</i>	[INV07] New Generation of Mucosal Vaccines: Cationic Nanogel and MucoRice for the Control of Aero-digestive Infectious Diseases Hiroshi Kiyono ^{1,2} , ¹ <i>The University of Tokyo, Japan</i> , ² <i>Chiba University, Japan</i>
15:00-15:15	[B6.01] Vaccine safety in HIV-infected adults within the Vaccine Safety Datalink project R.C. Hechter* ¹ , L. Qian ¹ , S. Tartof ¹ , L. Sy ¹ , N.P. Klein ¹ , J. Glanz ¹ , C. Mercado ¹ , A. Naleway ¹ , E.R. Vickers ² , S.J. Jacobsen ¹ ¹ <i>Kaiser Permanente, USA</i> , ² <i>Marshfield Clinic Research Foundation, USA</i>	[B7.01] Infection-permissive immunity against influenza virus provided by vaccination prevents loss of alveolar macrophages and modulates virus-induced cross-reactive cellular immune responses during subsequent influenza infections. A.C. Choi ¹ , J.A.M.M. Morales Mina ¹ , J.S. Spitaels ² , A.G.S. Garcia-Sastre ¹ , M.S. Schotsaert* ¹ , ¹ <i>Icahn School of Medicine at Mount Sinai, USA</i> , ² <i>VIB medical biotechnology centre, Belgium</i> , ³ <i>Ghent University, Belgium</i>
15:15-15:30	[B6.02] Characterization of the genetic compatibility between Rift Valley fever virus MP-12 strain and Arumowot virus for the reassortant risk analysis H.J. Hallam*, N. Lokugamage, T. Ikegami <i>The University of Texas Medical Branch in Galveston, USA</i>	[B7.02] A new potent adjuvant / immunomodulatory protein of Trypanosoma cruzi acts through TLR4 S. Ait Djebbara* ¹ , K. Otis ^{1,2} , P. Lehebel ^{1,3} , V. Flamand ¹ , N. Segueni ¹ , C. Truyens ¹ ¹ <i>Université libre de Bruxelles (ULB), Belgium</i> , ² <i>INRS-Institut Armand-Frappier, Canada</i> , ³ <i>Scientific Institute of Public Health (WIV-ISP), Belgium</i>
15:30-15:45	[B6.03] HLA-Cw10 is strongly associated with tetanus vaccine and rabies vaccine cutaneous adverse drug reactions S. Yan <i>Fudan University, China</i>	[B7.03] Functionalizing reconstituted HDLs: versatile platform for co-localized delivery of adjuvant and antigen for tailored vaccine formulations N.O. Fischer*, A. Rasley, S.F. Gilmore, W. He <i>Lawrence Livermore National Laboratory, USA</i>
15:45-16:00	[B6.04] Human papillomavirus vaccination in pregnancy and adverse pregnancy outcomes A.T. Bukowinski* ¹ , R.N. Chang ¹ , A.M. Conlin ¹ , G.R. Gumbs ¹ , C.J. Sevick ² ¹ <i>The Henry M. Jackson Foundation for the Advancement of Military Medicine, USA</i> , ² <i>Naval Health Research Center, USA</i>	[B7.04] Nanolipoprotein particle (NLP) based vaccine formulations enhance innate and adaptive immune responses A. Rasley*, N.O. Fischer, D.R. Weilhammer <i>Lawrence Livermore National Lab, USA</i>
16:00-16:15	[B6.05] HPV Vaccine in Pregnancy and Adverse Infant Outcomes R. Chang* ^{1,2} , A. Bukowinski ^{1,2} , A. Conlin ^{1,2} , G. Gumbs ^{1,2} , C. Sevick ^{1,2} ¹ <i>The Henry M. Jackson Foundation for the Advancement of Military Medicine, USA</i> , ² <i>Naval Health Research Center, USA</i>	[B7.05] A combined carrier-adjuvant system of peptide nanofibers and toll-like receptor agonists potentiates robust CD8+T cell responses against herpes simplex virus J.S. Rudra*, G.N. Milligan <i>University of Texas Medical Branch, USA</i>
16:15-16:30	General Q&A	[B7.06] Pathogen mimicking nanovaccine platform technology: A new paradigm

	Balaji Narasimhan, <i>Iowa State University, USA</i>
Room	Sunset Pavilion/Terrace
16:30-17:00	Refreshment break
Room	Sunset I-V
17:00-18:00	ORAL SESSION 8: New Vaccines - Old Diseases <i>Session Chair: Kathy Neuzil</i>
17:00-17:30	[INV08] New Polio Vaccines for the Post-Eradication Era <i>John F. Modlin, Gates Foundation, USA</i>
17:30-17:45	[O8.01] Safety and immunogenicity of the recombinant BCG vaccine VPM1002, in HIV-unexposed newborn infants in South Africa <i>A.G. Loxton^{*1}, L. Grode², A. Gutschmidt¹, C. Meller², B. Eisele², G. vd Spuy¹, S.H.E. Kaufmann³, A.C. Hesselting¹, G. Walzl¹, M. Cotton¹</i> <i>¹Stellenbosch University, South Africa, ²VPM, Germany, ³MPIIB, Germany</i>
17:45-18:00	[O8.02] A Vaccinomics Approach Using GWAS Results to Develop a Novel Measles-Mumps-Rubella (MMR) Vaccine <i>I. G. Ovsyannikova*, I. H. Haralambieva, R. B. Kennedy, G. A. Poland</i> <i>Mayo Clinic, United States</i>
19:30-22:00	Conference Dinner at San Diego Zoo (Ticket Required) <i>Coach departs for dinner at 18:45 from the lobby of the hotel</i>

Wednesday, 20 September, 2017	
07:30-08:30	YIP Session
Room	Sunset I-V
08:30-10:30	PLENARY SESSION 4 - Systems Biology and Vaccines <i>Session Chair: Gregory A. Poland</i>
08:30-09:10	[PL09] Differences in T cell responses to Bordetella Pertussis in adults as a function of whole cell versus acellular childhood vaccination <i>Alex Sette, La Jolla Institute for Allergy and Immunology, USA</i>
09:10-09:50	[PL10] Systems immunology of Mycobacterium tuberculosis infection <i>Bjoern Peters, La Jolla Institute for Allergy and Immunology, USA</i>
09:50-10:30	[PL11] Dissecting correlates of vaccine mediated protection using systems serology <i>Galit Alter, Harvard Medical School, USA</i>
Room	Sunset Pavilion/Terrace
10:30-11:00	Refreshment break
Room	Sunset I-V
11:00-12:30	ORAL SESSION 9: Synthetic Biology and Vaccines <i>Session Chair: Linda Lua</i>
11:00-11:30	[INV09] Synthetic Approaches to Viral Vaccine Development <i>Phil R. Dormitzer, Pfizer Vaccine Research and Development, USA</i>
11:30-11:45	[O9.01] Development of an multi-protein based chimeritope vaccine for human Lyme disease <i>J. Izac*, L. Oliver, C. Earnhart, R. Marconi</i> <i>Virginia Commonwealth University, USA</i>
11:45-12:00	[O9.02] The importance of RSV F protein conformation in stimulation of neutralizing antibody titers in mice previously infected with RSV <i>T.G. Morrison^{*1}, L.W. McGinnes¹, J. Blanco², M. Schmidt¹, S. Kenward¹, R. Woodland¹</i> <i>¹University of Massachusetts Medical School, USA, ²Sigmovir Biosystems, Inc., USA</i>
12:00-12:15	[O9.03] Characterization of the human antibody response to the 4CMenB meningococcal vaccine: detailed insights from structural biology <i>J. Lopez-Sagaseta¹, A. Liguori², L. Dello Iacono¹, G. Maruggi³, F. Bianchi¹, L. Santini¹, P. Lo Surdo¹, M. Pizza¹, E. Malito¹, M.J. Bottomley^{*1}</i> <i>¹GSK Vaccines Srl, Italy, ²The Scripps Research Institute, USA, ³GSK, USA</i>
12:15-12:30	[O9.04] Synthetic biology for molecular and bioprocess design of virus-like particle vaccine <i>L.H.L. Lua^{1*}, A.P.J. Middelberg²</i> <i>The University of Queensland, Australia, The University of Adelaide, Australia</i>
12:30-13:00	Closing Session
Room	Sunset V
14:00-17:00	Special workshop- The Intersection of Digital Health and Vaccines <i>Bruce Lee, Johns Hopkins, USA</i>