

SESSION 10 : SHIGELLA

Moderator: Armelle Phalipon (*Institut Pasteur, Paris, France*)

08.30–08.45

'Protection against *Shigella* in mice by a novel approach using outer membrane particles'

Christiane Gerke, Francesco Berlanda Scorza, Anna Maria Colucci, Luana Maggiore, Isabella Pesce, Mariaelena Caboni, Vito Di Cioccio, Kristin Bloink and Allen J. Saul
(*Novartis Vaccines Institute for Global Health, Siena, Italy*)

08.45–09.00

'On the road to a synthetic carbohydrate-based vaccine against endemic shigellosis'

Laurence A. Mulard, Charles Gauthier, Tae Hee Kim, Pierre Chassagne, Francoise Thouron, Catherine Guerreiro, Francoise-Xavier Theillet, Muriel Delepierre, Philippe J. Sansonetti and Armelle Phalipon
(*Institute Pasteur, Paris, France*)

09.00–09.15

'Development of a multivalent, inactivated whole cell vaccine for Shigellosis'

R. Kaminski, M. Wu, R. Turbyfill, D. Au, K. Clarkson, K. Chen, B. Tai, L. Ven de Verg, L. Bourgeois, G. Robertson, R. Walker and E. Oaks
(*WRRAIR, Silver Spring, Maryland, USA*)

09.15–09.30

'Evaluation of live, attenuated oral *Shigella dysenteriae* 1 vaccine candidates WRSd3 and WRSd5 in rhesus monkeys (*Macaca mulatta*)'

Dilara Islam, Nattaya Ruamsap, Ajchara Aksomboon, Patchariya Khantapura, Boonchai Wongstitwilairoong, Rawiwan Imerbsin, Malabi M. Venkatesan, Ladaporn Bodhidatta and Carl J. Mason
(*Armed Forces Research Institute of Medical Sciences, Bangkok, Thailand*)

09.30–09.45

'In inverse and independent association between *Helicobacter pylori* infection and the incidence of shigellosis and other diarrheal diseases'

Dani Cohen, Ofra Baida, Nadav Orr, Khitam Muhsen
(*Tel Aviv University, Tel Aviv, Israel*)

09.45–10.00

'Safety, immunogenicity and efficacy of WRSS1 oral live attenuated *Shigella sonnei* vaccine in Thai adults'

Ladaporn Bodhidatta, Punnee Pitisuttithum, Supat Chamnanchan, Dilara Islam, Malab M. Venkatesan and Carl J. Mason
(*Armed Forces Research Institute of Medical Sciences, Bangkok, Thailand*)

10.00–10.15

'A broadly protective *shigella* vaccine based on type III secretion system proteins'

Wendy L. Picking (*Oklahoma State University, Oklahoma, USA*) and M. Pasetti
(*University of Maryland School of Medicine, Baltimore, Maryland, USA*)

10.15–10.30

'Clinical evaluation of a novel bioconjugate vaccine against *Shigella dysenteriae* 01: A step towards a universal *Shigella* vaccine'

Daniel Desgrandchamps, Michael Wacker et al.
(*GlycoVaxyn AG, Schlieren, Switzerland*)

10.30–11.00 Coffee Break

SESSION 11 : MUCOSAL

Moderator: Jan Holmgren (*University of Gothenburg, Sweden*)

11.00–11.30

'The continuous problem of developing a non-invasive readout for intestinal immune induction after oral/enteric vaccine administration'

Per Brandtzaeg (*University of Oslo, Oslo, Norway*)

11.30–11.50

'Exploration of biologic basis for OPV and rotavirus vaccine failure'

B.D Kirkpatrick, R. Haque, F. Qadri, J. Mychaleckyj, C. Czerkinsky, D. Sur, J. Gordon, E.R. Colegate, U. Nayak, M. Davis, C. Snider, M. Carmoli and W.A. Petri (*University of Vermont, Burlington, Vermont, USA*)

11.50–12.10

'ADP-ribosylating enterotoxins as antigens and adjuvants for enteric vaccines'

John D. Clements (*Tulane University, New Orleans, Louisiana, USA*)

12.10–12.30

'Sublingually administered tetanus C expressing *Bacillus subtilis* induces protective systemic and mucosal antibodies against tetanus toxin in mice and piglets'

Saul Tzipori, Sangun Lee, Hellen Amuguni, Gerald Keusch and Abraham Sonenshien (*Tufts University, North Grafton, Massachusetts, USA*)

12.30–12.50

'Mimopath™ – a versatile vaccine technology for the development of oral vaccines'

Kees Leenhouts (*Mucosis BV, Groningen, The Netherlands*)

12.50–14.00 Lunch Break

SESSION 12 : SALMONELLA

Moderator: Myron M. Levine

(*University of Maryland School of Medicine, Baltimore, Maryland, USA*)

14.00–14.20

'Attenuated non-typhoidal *Salmonella* strains that can serve as attenuated live oral vaccines and as reagent strains for conjugate vaccine production'

Sharon M. Tennant, Jin-Yuan Wang, James E. Galen, Raphael Simon, Marcela Pasetti, Orit Gat and Myron M. Levine
(*University of Maryland School of Medicine, Baltimore, Maryland, USA*)

14.20–14.40

'*Salmonella* enteritidis core-O polysaccharide (COPS) conjugated to enteritidis flagellin (H:g,m) as a candidate vaccine for protection against *Salmonella* enteritidis infection'

Raphael Simon, Sharon M. Tennant, Jin Y. Wang, Robert K. Ernst, Marcella Pasetti, Andrew Lees, James E. Galen and Myron M. Levine
(*University of Maryland School of Medicine, Baltimore, Maryland, USA*)

14.40–15.00

'Mechanisms underlying secretory IgA-mediated immunity to *salmonella* and *shigella*: Implications for enteric vaccine design and evaluation'

Nicholas J. Mantis, Richelle Reid, Stephen J. Forbes, Jayaleka Amarsinghe and Blaise Corthesy
(*Wadsworth Center, Albany, New York, USA*)

15.00–15.20 Tea Break

SESSION 13 : LATE BREAKERS, NEW DEVELOPMENTS & CLOSING LECTURE

Moderator: Duncan Steele (*PATH, Seattle, Washington, USA*)

15.20–15.35

'Pre-clinical choices affecting clinical and commercial manufacturing at CMOs'

Marcel Thalen (*SynCo Bio Partners B.V., The Netherlands*)

15.35–15.50

'Campylobacter jejuni challenge model development: Assessment of homologous protection'

C.E. Lyon, D.R. Tribble, A. Maue, C. Porter, P. Guerry, M. Riddle, M. Carmolli, A. Fingar D. Hawk and B.D. Kirkpatrick
(*University of Vermont, Burlington, Vermont, USA*)

15.50–16.05

'The need and the challenges of a *Cryptosporidium* vaccine'

Eric Houpt and Gagandeep Kang
(*University of Virginia, Charlottesville, Virginia, USA*)

16.05–16.35

'The Gates Foundation vision for enteric vaccines'

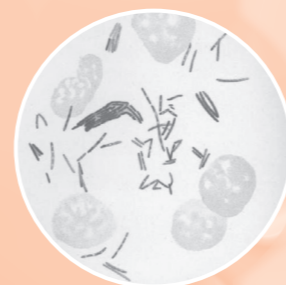
Thomas G. Brewer (*Bill & Melinda Gates Foundation, Seattle, Washington, USA*)

16.35–16.40

Closing remarks

Duncan Steele (*PATH, Seattle, Washington, USA*)

**This final programme is correct at the time of printing, however the organizers reserve the right to make any alterations that may be required in the interests and integrity of the final conference programme.*



VACCINES FOR ENTERIC DISEASES

FINAL ORAL & POSTER PROGRAMMES

The 6th International Conference on

Vaccines for Enteric Diseases

VED 2011 14–16 SEPTEMBER 2011

THE NOVOTEL CANNES MONTFLEURY, CANNES, FRANCE

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07.45 am Registration

SESSION 1: OPENING PLENARY SESSIONModerator: Duncan Steele (*PATH, Seattle, Washington, USA*)

09.00–09.30

'Evaluation of vaccines against enteric infections: a clinical and public health research agenda for developing countries'John Clemens (*IVI, Seoul, South Korea*)

09.30–10.00

'The NIAID Programe for enteric vaccine development'Robert H. Hall (*NIAID/NIH, Bethesda, Maryland, USA*)

10.00–10.30

'StopEnterics Initiative'Philippe Sansonetti (*Institut Pasteur, Paris, France*)

10.30–11.00

'Vaccination strategies for cholera'Ira M. Longini (*University of Florida, Florida, USA*)

11.00–11.20 Coffee Break & Poster Set-Up (For Posters 101– 125)

SESSION 2: SPECIAL PLENARY SESSION:**Preventable Burden of Enteric Diseases**Moderator: Mark Riddle (*NMRC, Bethesda, Maryland, USA*)**'Introductory Remarks'**Mark Riddle (*NMRC, Bethesda, Maryland, USA*)

11.20–11.40

'The global burden of diarrheal diseases'Hope L. Johnson (*Johns Hopkins University, Baltimore, Maryland, USA*)

11.40–12.00

Etiology and outcomes of acute moderate and severe diarrheal infections in young children in developing countries: Insights from the Global Enteric Multi-Center Study (GEMS)

Myron M. Levine

(University of Maryland School of Medicine, Baltimore, Maryland, USA)

12.00–12.20

'Chronic consequences of acute enteric infections in the developing world: Physical and cognitive development'Richard Guerrant (*University of Virginia, Virginia, USA*)

12.20–12.40

'Post-infectious sequelae of infectious diarrhea: utilization of DoD medical encounter databases to describe risks in a healthy travel population'Chad Porter (*NMRC, Bethesda, Maryland, USA*)

12.40–13.00

'Patho-etiological mechanisms of functional bowel disorders: The example of Campylobacter and SIBO'

Christopher Chang

(Cedars-Sinai Medical Center, Los Angeles, California, USA)

13.00–14.00 Lunch & Posters (Posters 101–125)

SESSION 3 : ROTAVIRUS VACCINES: Studies in Developing Countries

Moderator: Harry Greenberg

(Stanford University School of Medicine, Stanford, California, USA)

14.00–14.20

'Global mortality associated with rotavirus disease among children in 2008'Jacqueline E. Tate, Anthony Burton, Cynthia Boschi-Pinto, Duncan Steele, Mary Agocs and Umesh D. Parashar (*CDC, Atlanta, Georgia, USA*)

14.20–14.40

'Global impact of routine rotavirus vaccination'Umesh D. Parashar (*CDC, Atlanta, Georgia, USA*)

14.40–15.00

'Identification of Rotateq® vaccine in paediatric patients with acute gastroenteritis following routine vaccination'

C.D. Kirkwood, C. Donato, L.S. Ch'ng, K. Boniface and N. Crawford

(Murdoch Childrens Research institute, Royal Children's Hospital, Melbourne, Victoria, Australia)

15.00–15.20

'Re-admissions to hospital within 30 days of hospital discharge with rotavirus gastroenteritis: a UK study on children under 5 years of age'

D.I. Campbell, R. Pockett, N. Adlard, F. Rajoriya and S. Carroll

(Sheffield Children's Hospital, Sheffield, Sanofi Pasteur MSD, Maidenhead, UK)

15.20–15.40

'Explaining reduced rotavirus vaccine efficacy in low socio-economic settings: a mathematical modelling study'Ben Lopman, Manish Patel, Umesh Parashar, Christina Atchison, John Edmunds, Virginia Pitzer, Rajiv Sarkar, Beryl Gladstone and Gagandeep Kang (*CDC, Atlanta, Georgia, USA*)

15.40–16.00

'Evaluation of the human rotavirus vaccine early after introduction at three sentinel sites in South Africa (2009–2010)'Nicola Page et al. (*NICD, Johannesburg, South Africa*)

16.00–16.20 Tea Break & Posters (Posters 101–125)

SESSION 4 : ROTAVIRUS VACCINESModerator: Umesh D. Parashar (*CDC, Atlanta, Georgia, USA*)

16.20–16.40

'Rotavirus vaccines: Continuing challenges to achieve a common, if elusive goal'Roger Glass (*Fogarty Center, NIH, Bethesda, Maryland, USA*)

16.40–17.00

'Determinants of rotavirus (RV) host range restriction and pathogenesis: Key factors regulating the safety and immunogenicity of Jennerian RV vaccines'

Harry Greenberg

(Stanford University School of Medicine, Stanford, California, USA)

17.00–17.20

'Stable liquid and quick dissolving oral thin film formulations for live attenuated bovine rotavirus vaccines'

L. Yee, S. Ohtake, A. Saxena, E. Patzer and V. Truong-IE

(Aridis Pharmaceuticals, San Jose, California, USA)

17.20–17.40

'Inactivated rotavirus vaccine: An update and pathway forward'Baoming Jiang, Yuhuan Wang, Sungsil Moon, Houping Wang, Umesh Parashar, Jon Gentsch and Roger I. Glass (*CDC, Atlanta, Georgia, USA*)

17.40–18.00

'RV3 rotavirus vaccine – the development of a human, neonatal rotavirus vaccine for the global community'

Julie E. Bines, C.D. Kirkwood, J.P. Buttery, M. Danchin, E. watts, R.F. Bishop, G. Barnes, J. Carlin, K. Lee, F. Justice, V. Clifford, J. Standish and D. Strong

(The University of Melbourne, Melbourne, Australia)

18.00–18.20

'Intussusception update'Julie Bines (*University of Melbourne, Melbourne, Australia*)

18.20–18.40

'Intussusception risk and health benefits of rotavirus vaccination in Mexico and Brazil'Manish M. Patel, Vesta Richardson Lopez-Collada, Marilia Mattos Bulhoes, Aurora bautista Marquez, Brendan Flannery, Lucia Helena De Oliveira and Umesh D. Parashar (*CDC, Atlanta, Georgia, USA*)

18.40–19.30

VED 2011 Welcome drinks and Poster Session (Posters 101–125)

SESSION 5 : SPECIAL SESSION:**The Coalition against Typhoid (CaT) and Progress with the Introduction of Typhoid Vaccines**

Moderators:

Ciro A. De Quadros (*Albert B. Sabin Vaccine Institute, Washington DC, USA*)Zulfi Bhutta (*The Aga Khan University, Karachi, Pakistan*)

09.00–09.15

'The coalition against typhoid'Christopher B. Nelson (*Albert B. Sabin Vaccine Institute, Washington DC, USA*)

09.15–09.30

'Addressing the burden of typhoid fever in Pakistan: An evidence-based implementation agenda'Zulfi Bhutta, R.L. Ochiai, G.M. Khan, R. Tahir, S.B. Soofi, M.I. Khan, I. Ul-Haq, W.A. Bhutta and A.G. Billoo (*The Aga Khan University, Karachi, Pakistan*)

09.30–09.45

'Vi-polysaccharide vaccine introduction and financing in Nepal'D.C. Bajracharya, M.I. Khan, C. Thapa, A. Poudyal, S. Sahastrabuddhe, R. Pudasaini, A. Pach III, S. Dhakal, R.L. Ochiai, R.P. Lamichhane and Y.B. Pradhan (*MITRA Samaj, Lalitpur, Nepal*)

09.45–10.00

'Methods and early results of the typhoid fever surveillance project in sub-Saharan Africa'Florian Marks, F. Konings, K. Thrieme, B. Ley, U. Panzer, S. Arakelov, J.D. Clemens and T.F. Wierzbza (*IVI, Seoul, Korea*)

10.00–10.15

'Typhoid fever–neglect and opportunity in Africa'

RF Breiman, L. Cosmas, H. Njuguna, B. Olack, A. Audi, JB Ochieng, N. Wamola, GM Bigogo, G. Awiti, CW Tabu, H. Burke, J. Williamson, JO Oundo, ED Mintz, and DR Feikin

(Centers for Disease Control and Prevention–Kenya, KEMRI, Nairobi, Kenya)

10.15–10.30

'Overview of live oral vaccines against S. Typhi and S. Paratyphi'Myron M. Levine (*University of Maryland, Baltimore, Maryland, USA*)

10.30–10.45

'The global investment case for vaccines against typhoid fever'

Brian Maskery, Y.E. Kim, R.L. Ochiai, T.F. Wierzbza and J.D. Clemens

(IVI, Seoul, Korea)

10.45–11.00

'Closing remarks'Zulfi Bhutta (*The Aga Khan University, Karachi, Pakistan*)

11.00–11.30 Coffee Break & Posters Set-Up (For Posters 126–150)

SESSION 6 : TYPHOID FEVER AND TYPHOID VACCINESModerator: Kevin Killeen (*Matrivax Inc., Boston, Massachusetts, USA*)

11.30–11.50

'Effectiveness of Vi capsular polysaccharide vaccine: a cluster randomized trial in children 2 to 16 years old in Karachi, Pakistan'Zulfiqar A. Bhutta et al. (*Aga Khan University, Karachi, Pakistan*)

11.50–12.10

'Development of a conjugate vaccine for enteric fever'Laura B. Martin, F. Micoli, S. Rondini, M. Gavini, L. Lanzilao, A.M. Colucci, L. Sollai, I. Pisoni, C. Giannelli, F. Marques, S. Sanzone, V. Di Cioccio and A. Saul (*Novartis Vaccines Institute for Global Health, Siena, Italy*)

12.10–12.30

'Vi based typhoid fever protein capsular matrix vaccine'Kevin Killeen (*Matrivax Inc., Boston, Massachusetts, USA*)

12.30–13.30 Lunch & Posters (Posters 126–150)

SESSION 7 : NOROVIRUS VACCINESModerator: Mary K. Estes (*Baylor College of Medicine, Houston, Texas, USA*)

13.30–13.50

'Norovirus vaccines: A update'Mary K. Estes (*Baylor College of Medicine, Houston, Texas, USA*)

13.50–14.10

'Nasal vaccination with an adjuvanted Norwalk virus-like particle vaccine elicits antigen-specific B memory responses in adult volunteers'Marcela F. Pasetti, Rezwanul Wahid, Karina Ramirez, Robert Bargatze, Paul Mendelman, Charles Richardson, Carol O. Tacket and Marcelo B. Szein (*University of Maryland School of Medicine, Baltimore, Maryland, USA*)

14.10–14.30

'Phase 1 dose escalation, safety and immunogenicity of a human calcivirus (Norovirus) bivalent VLP vaccine by the intramuscular route'Charles Richardson, Sharon E. Frey, John J. Treanor, Robert L. Atmar, David Topham, Wilbur H. Chen, Jennifer Ferreira, Robert Bargatze and Paul M. Mendelman (*LigoCyte Pharmaceuticals Inc., Bozeman, Montana, USA*)

14.30–14.50

'Development of a combined norovirus–rotavirus vaccine'Timo Vesikari, S. Lappalainen, K. Nurminen, L. Huhti and V. Blazevic (*University of Tampere, Tampere, Finland*)

14.50–15.10

'Incidence and characteristics of norovirus gastroenteritis associated with hospitalizations in children less than five years of age in Israel'Khitam Muhsen, Dani Cohen, Eias Kasem, Uri Rubinstein, Adi Kremer, Shachter Jacob, Ilana Zilberstein, Sophy Goren, Moshe Ephros and Lester Shulman (*Tel Aviv University, Tel Aviv, Israel*)

15.10–15.30 Tea Break & Posters (Posters 126–150)

SESSION 8 : UPDATE ON ETEC VACCINE DEVELOPMENTModerators: Lou Bourgeois (*PATH, Washington DC, USA*) andDavid Sack (*Johns Hopkins University, Baltimore, Maryland, USA*)

15.30–15.50

'ETEC vaccine development- insights gained from studies of natural infection and clinical trials'Ann-Mari Svennerholm (*University of Gothenburg, Gothenburg, Sweden*)

15.50–16.10

'Volunteers receiving live attenuated ETEC vaccine (ACE527) have reduced severity of illness following H10407 challenge'Clayton Harro, David Sack, Michael Darsley, August Bourgeois, Barbara DeNearing, Andrea Feller, Subhra Chakraborty, Alicia Marcum, Ruval Comendador, Charlotte Buchwaldt and Richard Walker (*The Johns Hopkins University, Baltimore, Maryland, USA*)

16.10–16.30

'Preclinical evaluation of inactivated ETEC vaccine +/- dmlT adjuvant'Jan Holmgren (*University of Gothenburg, Gothenburg, Sweden*)

16.30–16.50

'Clinical trial of inactivated whole cell prototype vaccine'Anna Lundgren (*University of Gothenburg, Gothenburg, Sweden*)

16.50–17.10

'Transcutaneous immunization and the travelers' diarrhea vaccine system: A phase III pivotal efficacy study'Larry Ellingsworth (*Intercell USA, Gaithersburg, Maryland, USA*)

17.10–17.30

'Advancement of an adhesin-based ETEC vaccine into clinical trials'Stephen Savarino (*NMRC, Silver Spring, Maryland, USA*)

17.30–18.30 Drinks Break & Posters 126–150

SPECIAL EVENING SESSION**SESSION 9 : SPECIAL SYMPOSIUM****Update on Cholera Vaccines**Moderator : Alejandro Cravioto (*ICDDR, Dhaka, Bangladesh*)

18.30–18.45

'Global burden of cholera'Eric Mintz (*CDC, Atlanta, Georgia, USA*)

18.45–19.00

'AMP – surveillance in Africa'Martin Mengels (*Institut Pasteur, Paris, France*)

19.00–19.15

'Endemic situation in Zanzibar'Mohamed Saleh Jiddawi (*Ministry of Health and Social Welfare, Zanzibar*)

19.15–19.30

'Improving vaccine availability in emergency context: a manufacturer perspective'Valerie Oriol (*CruceII Switzerland A.G., Bern, The Netherlands*)

19.30–19.45

'Three year efficacy results from a randomized, controlled trial of a whole-cell oral cholera vaccine'Dipika Sur, Suman Kanungo, Bomkesh Manna, G.B. Nair, Mohammad Ali, John D. Clemens and Anna Lena Lopez (*National Institute of Cholera and Enteric Diseases, Kolkata, India*)

19.45–20.00

'Studies on oral inactivated whole cell bivalent cholera vaccine, ShanChol, in Bangladesh: Experience from the mass vaccination program in high risk population in an urban setting'Firdausi Qadri et al. (*ICDDR, Dhaka, Bangladesh*)

20.00–20.15

'CVD103–HgR – a single, oral, fast acting cholera vaccine suitable for epidemics'Andre Collioud (*PaxVax Inc., San Diego, California, USA*)

20.15–20.30

'CholeraGarde new clinical data'Kevin Killeen (*Matrivax Inc., Boston, Massachusetts, USA*)

Poster 101

'Pharmaceutical and immunological evaluation of mucoadhesive nanoparticles based delivery system(s) administered intranasally'

Sharad Mangal and K. S. Jaganathan
(Shantha Biotechnics Ltd, Hyderabad, India)

Poster 102

'Molecular epidemiologic analysis of protective antigen ECOK1_3385 in pathogenic and faecal *E. coli* isolates for the development of a universal vaccine'

Roberto Rosini et al.
(Novartis Vaccines and Diagnostics Research Center, Siena, Italy)

Poster 103

'Characterization of *S. Flexneri* 2a vaccine strain CVD1401 containing a functional pic locus'

Eileen M. Barry et al. (University of Maryland, Baltimore, Maryland, USA)

Poster 104

'Molecular characterization of rotavirus strains detected during a clinical trial of a human rotavirus vaccine in Blantyre, Malawi'

Nigel A. Cunliffe et al. (University of Liverpool, Liverpool, UK)

Poster 105

'β-glucan microparticles as mucosal delivery system in oral vaccine development'

Rebecca De Smet et al. (Ghent University, Ghent, Belgium)

Poster 106

'Protection induced by a broadly conserved vaccine candidate against different *E. coli* pathotypes using different animal model of infection'

Angela Spagnuolo et al. (Novartis Vaccines & Diagnostics, Siena, Italy)

Poster 107

'Setting of an in vitro correlate of protection for a vaccine against pathogenic *Escherchia coli*'

Rossella Mattera et al. (Novartis Vaccines & Diagnostics, Siena, Italy)

Poster 108

'Molecular characterization of rotavirus species A P[8]G1 strains from children vaccinated with Rotarix® vaccine'

Jose Paulo G. Leite et al. (Oswaldo Cruz Institute, Rio de Janeiro, Brazil)

Poster 109

'CalciNet: A novel norovirus outbreak surveillance network in the United States'

Jan Vinje et al. (CDC, Atlanta, Georgia, USA)

Poster 110

'A flow cytometry-based assay to assess inhibition of Shigella invasion of heLa cells'

David Poncet et al. (Sanofi Pasteur Discovery, Marcy l'Etoile, France)

Poster 111

'Rotavirus strains surveillance in Europe: EuroRotaNet'

Miren Iturriza-Gomara and Sameena Nawaz
(Health Protection Agency, London, UK)

Poster 112

'The under-recognized burden of severe norovirus gastroenteritis in US children'

Daniel C. Payne et al. (CDC, Atlanta, Georgia, USA)

Poster 113

'Atomic resolution model for assembly, architecture, and function of ETEC colonization factor SC6'

Anton Zavialov et al. (University of Turku, Turku, Finland)

Poster 114

'Childhood diarrhea etiologies following rotavirus vaccine introduction in Nicaragua: A prospective, population-based study'

Sylvia Becker-Dreps et al.
(University of North Carolina at Chapel Hill, Chapel Hill, North Carolina, USA)

Poster 115

'Attenuated, live Ty21a-vectored multivalent shigella oral vaccine development'

D.Q. Xu et al. (CBER, Bethesda, Maryland, USA)

Poster 116

'Pathogen-specific risk of post-infective functional gastrointestinal disorders, gastroesophageal reflux disease and celiac disease following acute enteric infection'

Chad K. Porter et al.
(Naval Medical Research Center, Silver Spring, Maryland, USA)

Poster 117

'A case control study of post-infective sequelae following outbreaks of norovirus in US military populations'

Chad K. Porter et al.
(Naval Medical Research Center, Silver Spring, Maryland, USA)

Poster 118

'Role of matrix metalloproteinase in pathogenesis of acute gastroenteritis in children'

Ken Sugata et al.
(Fujita Health University School of Medicine, Aichi, Japan)

Poster 119

'Genotype distribution a year prior to and a year after rotavirus vaccine introduction into the national expanded program of immunization in South Africa'

Nicola Page et al. (NICD, Johannesburg, South Africa)

Poster 120

'Estimates of benefits and potential risks of rotavirus vaccination in the United States'

Margaret M. Cortese et al. (CDC, Atlanta, Georgia, USA)

Poster 121

'Development and testing of heat-labile holotoxin-like adhesion-toxoid chimeras for an adhesion-based enterotoxigenic *Escherchia coli* vaccine'

Stephen Savarino et al.
(Naval Medical Research Center, Silver Spring, Maryland, USA)

Poster 122

'Safety and immunogenicity of a prototype enterotoxigenic *Escherchia coli* fimbrial tip adhesion vaccine administered by transcutaneous immunization in rabbits'

Stephen Savarino et al.
(Naval Medical Research Center, Silver Spring, Maryland, USA)

Poster 123

'Immunogenicity and protective efficacy of enterotoxigenic *Escherchia coli* adhesion-based vaccines given with LT-based adjuvants by intradermal injection'

Stephen Savarino et al.
(Naval Medical Research Center, Silver Spring, Maryland, USA)

Poster 124

'Differential profiles of non-immune components in breast milk from mothers in developing and developed countries'

Sung-Sil Moon et al. (CDC, Atlanta, Georgia, USA)

Poster 125

'Dose sparing of and enhanced immune response to inactivated rotavirus vaccine by skin vaccination using a microneedle patch in mice'

Yuhuan Wang et al. (CDC, Atlanta, Georgia, USA)

Poster 126

'Quantifying the incidence and burden of post-infectious enteric sequelae and well established deployment related health outcomes'

Wendy M. Munera et al.

(Naval Medical Research Center, Silver Spring, Maryland, USA)

Poster 127

'A new live attenuated *Shigella flexneri* 2a strain WRSf2G15: A combination of gene deletions designed to enhance the safety of live *Shigella* vaccines'

Ryan T. Ranallo et al. (WRAIR, Silver Spring, Maryland, USA)

Poster 128

'Immunogenicity and protective efficacy after sublingual immunization of mice with *Shigella* InvaplexAR'

Robert W. Kaminski et al. (WRAIR, Silver Spring, Maryland, USA)

Poster 129

'Construction of a non-toxicogenic and immunogenic *E. coli* strain expressing high amounts of CS6 for use as vaccine against enterotoxigenic *Escherchia coli*'

Joshua Tobias et al. (University of Gothenburg, Gothenburg, Sweden)

Poster 130

'Pre-existing immunity to norovirus GII does not impair de novo immune responses to norovirus GII-12 genotype'

Kirsi Nurminen et al. (University of Tampere, Tampere, Finland)

Poster 131

'Cross-reactive immune responses induced by the two norovirus subviral structures, virus-like particles (VLPs) and P-particles'

Kirsi Nurminen et al. (University of Tampere, Tampere, Finland)

Poster 132

'Combination vaccine of norovirus virus-like particles (VLPs) and rotavirus VP6 protein for childhood gastroenteritis'

Suvi Lappalainen et al. (University of Tampere, Tampere, Finland)

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'Comparison of B cell and T cell immune responses induced by two rotavirus oligomeric subviral structures'

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