

# MALARIA VACCINES FOR THE WORLD

2-4 May 2016, Leiden University Medical Center LUMC, Leiden, The Netherlands



## SECOND CIRCULAR AND PROVISIONAL CONFERENCE PROGRAMME FOR MVW 2016

With more than an estimated 200 million clinical cases annually, resulting in more than 580,000 deaths, malaria is not only an important global health problem but also a major factor limiting economic development in developing countries. Interventions that deploy an effective malaria vaccine are regarded as being one of the most cost-effective and reliable means to limit and ultimately eradicate the disease. In recent years, due to increased funding and research, malaria vaccine development has greatly accelerated. The MVW 2016 conference will look at different aspects of vaccine development, assessment and deployment, as well as funding and regulatory aspects of vaccine implementation and testing. The conference will also highlight research on the use of animal models and (controlled) clinical trials to study the immunological basis of protection and to identify novel candidate vaccine antigens.

The MVW 2016 meeting will be of interest to scientists, physicians and other professionals from the academic, industrial/commercial and governmental/policy/regulatory sectors that have an interest in vaccine development and global health.

The meeting will include talks on: Malaria vaccine candidate discovery · Novel pre-clinical screening assays/models · Vaccine immunology including system-based approaches · Correlates of protection after vaccination · Pre-erythrocytic vaccines and vaccination · Vaccines for interrupting malaria transmission: role in elimination strategies · RTS,S implementation and refinements · Vaccines against blood stage of malaria infection and multi-stage vaccines · Clinical trials of malaria vaccines controlled human malaria infections (CHMI) and field trials · Relevance and issues related to first in man trials and CHMI studies in endemic countries · Modelling and measuring long-term malaria vaccine impact.

The fourth conference in the series, **MALARIA VACCINES FOR THE WORLD – MVW 2016** is the follow-up to the successful MVW meetings held in London, Washington DC and Lausanne and will again offer researchers an international forum to discuss the current status of new malaria vaccines initiatives, vaccine candidates and clinical trials. MVW 2016 will focus attention on Vaccine Issues in relation to Malaria as a worldwide disease.

## SCIENTIFIC STEERING COMMITTEE

Shahid Khan (*LUMC, Leiden University, Leiden, The Netherlands*)

Rick King (*MVI-PATH, Washington DC, USA*)

Adrian V.S. Hill (*University of Oxford, Oxford, UK*)

Stephen L. Hoffman (*Sanaria Inc., Rockville, Maryland, USA*)

## SCIENTIFIC SESSION LEADERS

Ogobara Doumbo (*University of Bamako, Bamako, Mali*)

Chris Ockenhouse (*PATH, Seattle, Washington, USA*)

Simon Draper (*University of Oxford, Oxford, UK*)

Bob Seder (*NIH, Bethesda, Maryland, USA*)

Odile Leroy (*European Vaccine Initiative, Heidelberg, Germany*)

Salim Abdulla (*Ifakara Health Institute, Dar Es Salaam, United Republic of Tanzania*)

Pedro Alonso (*WHO Global Malaria Programme, Geneva, Switzerland*)

Kevin Marsh (*University of Oxford, Oxford, UK*)

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Registration & Coffee

**Welcome Address**

Dean of LUMC, Leiden

**SESSION 1:  
GENERAL PLENARY SESSION I**

Session Leader: Ogobara Doumbo (*University of Bamako, Bamako, Mali*)

**'Title to be confirmed'**

Adrian Hill (*The Jenner Institute, University of Oxford, Oxford, UK*)

**'PfSPZ Vaccine: The March Toward Licensure'**

Steve Hoffman (*Sanaria Inc., Rockville, Maryland, USA*)

**'PATH Malaria Vaccine Initiative transmission-blocking vaccine strategy: Challenges and recent progress'**

C. Richter King (*PATH Malaria Vaccine Initiative, Washington DC, USA*)

Coffee Break & Poster Set-Up

**SESSION 2:  
RTS,S**

Session Leader: Chris Ockenhouse (*PATH, Seattle, Washington, USA*)

**'Session Introduction'**

Chris Ockenhouse (*PATH, Seattle, Washington, USA*)

**'Benefit-risk balance of the RTS,S/AS01 malaria vaccine candidate and plans to address remaining questions'**

Lode Schuerman, Elodie Garric, Pascale Vandoolaeghe and Yolanda Guerra Mendoza (*GSK Vaccines, Wavre, Belgium*)

**'Designing epidemiological studies for the post approval plan of the RTS,S/AS01 malaria vaccine in sub-Saharan African countries'**

Laurence Baril<sup>1</sup>, Jean-Yves Pirçon<sup>1</sup>, Marie-Cécile Bozonnat<sup>2</sup>, Valérie Haine<sup>3</sup>, Effua Usuf<sup>4</sup>, Elodie Garric<sup>1</sup> and Yolanda Guerra<sup>1</sup> on behalf of the RTS,S Safety Post Approval Plan Partnership Committee (*1 GSK Vaccines, Wavre, Belgium; 2 4 Clinics, Paris, France, 3 Keyrus Biopharma, Lasne, Belgium; 4 Consultant for GSK Vaccines*)

**'Addressing the methodological and logistical challenges of performing malaria vaccine effectiveness studies in sub-Saharan African countries'**

Jean-Yves Pirçon and Laurence Baril (*GSK Vaccines, Wavre, Belgium*)

**'Mathematical modelling to prioritize second generation malaria vaccines: Insights following from mathematical modelling prior to RTS,S recommendation'**

Melissa A. Penny and Thomas A. Smith (*Swiss Tropical and Public Health Institute, Basel, Switzerland and University of Basel, Basel, Switzerland*)

**'Decreasing RTS,S vaccine efficacy with degree of genetic mismatch of malaria, yet some protection remains for highly mismatched malaria'**

Michal Juraska<sup>1</sup>, Daniel E. Neafsey<sup>2</sup>, Trevor Bedford<sup>1</sup>, David Benkeser<sup>1</sup>, Marc Lievens<sup>3</sup>, Bronwyn MacInnis<sup>2</sup>, Sarah K. Volkman<sup>2,4</sup>, Christian F. Ockenhouse<sup>5</sup>, Peter B. Gilbert<sup>1</sup> and Dyann F. Wirth<sup>2,4</sup>

(*1 Vaccine and Infectious Disease Division, Fred Hutchinson Cancer Research Center; 2 Broad Institute of MIT and Harvard; 3 GlaxoSmithKline Vaccines; 4 Harvard T.H. Chan School of Public Health; 5 PATH Malaria Vaccine Initiative, Washington DC, USA*)

**Session Discussion**

Lunch Break & Posters

**SESSION 3:  
PRE-ERYTHROCYTIC VACCINES I**

Session Leader: Steve Hoffman (*Sanaria Inc., Rockville, Maryland, USA*)

**Session Introduction**

Steve Hoffman (*Sanaria Inc., Rockville, Maryland, USA*)

**'A unique collaborative approach to successful malaria vaccine development: Lessons from the international PfSPZ Consortium'**

Peter F. Billingsley for the International PfSPZ Consortium

**'Long term heterologous protection: The pot of gold at the end of the malaria vaccine rainbow'**

Thomas L. Richie for the International PfSPZ Consortium

**'Successful establishment of a PfSPZ vaccine immunization regimen that protects non-immune, short-term travellers against Pf malaria'**

J. E. Epstein for the International PfSPZ Consortium

**'Manufacturing PfSPZ vaccines for malaria elimination'**

B.K.L. Sim, A. Manoj, A. Eappen, T. Li, E.R. James, S. Chakravarty, M. Li, R. Stafford, A. Ruben, Y. Wu, P.F. Billingsley and S.L. Hoffman (*Sanaria Inc., Rockville, Maryland, USA and Protein Potential LLC, Rockville, Maryland USA*)

**'Identification of protection associated HLA-allele specific epitopes within standard and novel Plasmodium falciparum antigens in human research subjects immunized with radiation attenuated sporozoites'**

Martha Sedegah<sup>1</sup>, Santiago Carmona<sup>2</sup>, Maria Belmonte<sup>1</sup>, Arnel Belmonte<sup>1</sup>, Harini Ganeshan<sup>1</sup>, Jun Huang<sup>1</sup>, Sandra Inoue<sup>1</sup>, Rachael Velasco<sup>1</sup>, Bradley Hickey<sup>1</sup>, Nimfa Teneza-Mora<sup>1</sup>, Joanne Lumsden<sup>1</sup>, Bjoern Peters<sup>2</sup> and Eileen Villasante<sup>1</sup> (*1 Naval Medical Research Center, Silver Spring, Maryland, USA; 2 La Jolla Institute for Allergy and Immunology, La Jolla, California, USA*)

**'Safety and efficacy of immunization by mosquito bite with radiation attenuated sporozoites evaluated in a phase 1 clinical trial: Final results'**

Nimfa Teneza-Mora<sup>1</sup>, Bradley Hickey<sup>1</sup>, Sharina Reyes<sup>2</sup>, Joanne Lumsden<sup>2</sup>, Jo Glenna Banania<sup>2</sup>, Charlotte Fedders<sup>2</sup>, Yolanda Alcorta<sup>2</sup>, Anatalio Reyes<sup>2</sup>, Carlos Vasquez<sup>2</sup>, Santana Maiolatesi<sup>2</sup>, Harini Ganeshan<sup>2</sup>, Jun Huang<sup>2</sup>, Maria Belmonte<sup>2</sup>, Arnel Belmonte<sup>2</sup>, Esteban Abot<sup>2</sup>, Alexandra Singer<sup>1</sup>, Cindy Tamminga<sup>2</sup>, James Moon<sup>3</sup>, Michelle Spring<sup>3</sup>, Patrick Twomey<sup>3</sup>, Megan Dowler<sup>3</sup>, Lindsay Garver<sup>3</sup>, Silas Davidson<sup>3</sup>, Martha Sedegah<sup>1</sup>, Thomas Richie<sup>1</sup>, Eileen Villasante<sup>1</sup> and Judith Epstein<sup>1</sup> (*1 Naval Medical Research Center, Silver Spring, Maryland, USA; 2 Henry M. Jackson Foundation, Bethesda, Maryland, USA; 3 Walter Reed Army Institute of Research, Silver Spring, Maryland, USA*)

**Session Discussion**

Tea Break & Posters

**SESSION 4:  
PRE-ERYTHROCYTIC VACCINES II**

Session Leader: Adrian Hill (*University of Oxford, Oxford, UK*)

**Session Introduction**

Adrian Hill (*University of Oxford, Oxford, UK*)

**'Title to be confirmed'**

Muhammed Afolabi (*Medical Research Centre, The Gambia*)

**'Induction of high levels of liver-resident CD8+ T-cells that protect against liver-stage malaria'**

Anita Gola<sup>1</sup>, Adam A. Walters<sup>1</sup>, Benedict R. Halbroth<sup>1</sup>, Ahmed M. Salman<sup>1,2</sup>, Shahid M. Khan<sup>2</sup>, Chris J. Janse<sup>2</sup>, Alexandra J. Spencer<sup>1</sup> and Adrian VS Hill<sup>1</sup> (*1 Jenner Institute, University of Oxford, Oxford, UK; 2 Leiden University Medical Center, Leiden, The Netherlands*)

**'Clinical evaluation of the cell-traversal protein for ookinetes and sporozoites from Plasmodium falciparum (pfceltos) vaccine in a phase 1 trial with controlled human malaria infection'**

Jason W. Bennett<sup>1</sup>, Donna Tosh<sup>1</sup>, Elke S. Bergmann-Leitner<sup>1</sup>, Kristopher Paolino<sup>1</sup>, Jason A. Regules<sup>1</sup>, Elizabeth Duncan<sup>1</sup>, Patrick Twomey<sup>1</sup>, James E. Moon<sup>1</sup>, April Kathcart<sup>1</sup>, Heather E. Hosie<sup>1</sup>, Casey K. Storme<sup>1</sup>, Michele D. Spring<sup>1</sup>, Kevin Hauns<sup>1</sup>, Jack Komisar<sup>1</sup>, Aziz Qabar<sup>1</sup>, Silas Davidson<sup>1</sup>, Christian F. Ockenhouse<sup>4</sup>, Johan Vekemans<sup>2</sup>, Lorraine Soisson<sup>3</sup>, Ripley Ballou<sup>2</sup>, Carter Diggs<sup>3</sup>, Norman C. Waters<sup>1</sup>, Robert M. Paris<sup>1</sup> and Evelina Angov<sup>1</sup> (*1 Walter Reed Army Institute of Research, Silver Spring, Maryland, USA; 2 GSK Vaccines, Rixensart, Belgium; 3 United States Agency for International Development, Washington DC, USA; 4 PATH Malaria Vaccine Initiative (MVI), Washington DC, USA*)

**'Why high numbers of CD8+ T cells are required to mediate protection against liver-stage malaria'**

Alexandra J. Spencer, Rhea J. Longley, Anita Gola, Teresa Lambe and Adrian V.S. Hill (*The Jenner Institute, University of Oxford, Oxford, UK*)

**'Evaluation of Plasmodium falciparum SPECT-1 as a novel pre-erythrocytic vaccine candidate'**

Ahmed M. Salman<sup>1,2</sup>, Ana Rodríguez-Galán<sup>1</sup>, Naif Khalaf Alharbi<sup>1</sup>, Florian Brod<sup>1</sup>, Aadil El Turabi<sup>1</sup>, Paulo Bettencourt<sup>1</sup>, Alexandra J. Spencer<sup>1</sup>, Chris J. Janse<sup>2</sup>, Shahid M. Khan<sup>2</sup> and Adrian V.S. Hill<sup>1</sup> (*1 The Jenner Institute, University of Oxford, Oxford, Oxfordshire, UK; 2 Leiden Malaria Research Group, LUMC, Leiden, The Netherlands*)

**Session Discussion**

MVW 2016 Poster Session & Welcome Drinks

## SESSION 5: TRANSMISSION BLOCKING VACCINES

Session Leader: C. Richter King (*PATH Malaria Vaccine Initiative, Washington DC, USA*)

### Session Introduction

C. Richter King (*PATH Malaria Vaccine Initiative, Washington DC, USA*)

#### 'Pre-clinical and clinical development of novel virus-like-particles for induction of high titre functional antibody responses against the transmission-blocking candidate antigen, Pfs25'

Yuanyuan Li<sup>1</sup>, Darren Leneghan<sup>1</sup>, Karl D. Brune<sup>2</sup>, Jing Jin<sup>1</sup>, Iona Brian<sup>1</sup>, Kazutoyo Miura<sup>3</sup>, Carole A. Long<sup>3</sup>, Simon J. Draper<sup>1</sup>, Adrian V.S. Hill<sup>1</sup>, Mark Howarth<sup>2</sup>, Fergal Hill<sup>4</sup> and Sumi Biswas<sup>1</sup>

(1 *The Jenner Institute, University of Oxford, Oxford, UK*; 2 *Department of Biochemistry, University of Oxford, Oxford, UK*; 3 *NIAID/NIH, MD 20852, USA*; 4 *Imaxio SA, Lyons, France*)

#### 'Clinical development of a Pfs48/45-based transmission blocking malaria vaccine'

Robert Sauerwein<sup>1</sup>, Will Roeffen<sup>1</sup>, Susheel Kumar Sing<sup>2</sup>, Sanjay Singh<sup>3</sup> and M. Theisen<sup>2</sup>

(1 *Radboud University Medical Center, Nijmegen, The Netherlands*; 2 *SSI, Copenhagen, Denmark*; 3 *Gennova, Pune, India*)

#### 'Assessment of the potential effectiveness of transmission blocking vaccines by the use of an experimental lab-based transmission population model'

Andrew Blagborough (*Imperial College, London, UK*)

#### 'Analysing TBV vaccine efficacy in the field'

Sara Healy (*NIAID/NIH, Bethesda, Maryland, USA*)

### Session Discussion

## SESSION 6:

## BLOOD STAGE AND COMBINATION VACCINES

Session Leader: Simon Draper (*University of Oxford, Oxford, UK*)

### Session Introduction

Simon Draper (*University of Oxford, Oxford, UK*)

#### 'Development of a PfrH5-based vaccine against the *Plasmodium falciparum* merozoite'

Simon Draper (*University of Oxford, Oxford, UK*)

#### 'Development of a semi-synthetic whole parasite vaccine'

Ashwin Kumar Giddam<sup>1</sup>, Jennifer M. Reiman<sup>2</sup>, Mehruz Zaman<sup>2</sup>, Mariusz Skwarczynski<sup>1</sup>, Istvan Toth<sup>1,3,4</sup> and Michael F. Good<sup>2</sup>

(1 *The University of Queensland, School of Chemistry and Molecular Biosciences, Australia*; 2 *Griffith University, Institute for Glycomics, Australia*; 3 *The University of Queensland, School of Pharmacy, Australia*; 4 *The University of Queensland, Institute for Molecular Bioscience, Australia*)

#### 'DEKnull: A rational design for a strain-transcending vaccine against vivax malaria'

Francis B. Ntumngia<sup>1</sup>, Edwin Chen<sup>2</sup>, Miriam T. George<sup>1</sup>, Camilla Valente Pires<sup>1</sup>, Lenore Carias<sup>3</sup>, Nichole D. Salinas<sup>2</sup>, Samantha J. Barnes<sup>1</sup>, Christopher L. King<sup>3</sup>, Niraj H. Tolia<sup>2</sup> and John H. Adams<sup>1</sup>

(1 *Center for Global Health & Infectious Diseases Research, College of Public Health, University of South Florida, Tampa, USA*; 2 *Departments of Molecular Microbiology & Microbial Pathogenesis, and Biochemistry & Molecular Biophysics, Washington University School of Medicine, Saint Louis, USA*; 3 *Center for Global Health and Diseases, Case Western Reserve University, Cleveland, USA*)

#### 'Development of efficacious targetted DNA vaccines against malaria'

Ganesh Ram Visweswaran<sup>1</sup>, Ranveig Braathen<sup>1</sup>, Louise Bjerkan<sup>1</sup>, Genevieve Labbe<sup>2</sup>, Simon J. Draper<sup>2</sup> and Bjarne Bogen<sup>1</sup>

(1 *University of Oslo, Oslo, Norway*; 2 *University of Oxford, Oxford, United Kingdom*)

### Session Discussion

## SESSION 7: VACCINE IMMUNOLOGY

Session Leader: Robert A. Seder (*NIH, Bethesda, Maryland, USA*)

### Session Introduction

Robert A. Seder (*NIH, Bethesda, Maryland, USA*)

#### 'Immune correlates of durable protection'

Robert A. Seder for the International PfSPZ Consortium (*NIH, Bethesda, Maryland, USA*)

#### 'Establishing Luminex assay for measuring human serum anti-malarial IgG subclasses'

Christian Darko, Aziz Qabar, Christina McCray, Kingsley Jarret, Nancy Richie, Tanmaya Atre, Sheetij Dutta, Norman Walters and James Moon (*Walter Reed Army Institute of Research, Silver Spring, Maryland, USA*)

#### 'Protection and immune responses after whole sporozoite immunization in humans'

Robert Sauerwein (*Radboud University Medical Center, Nijmegen, The Netherlands*)

#### 'Decoding the immunological basis of protective efficacy with PfSPZ vaccines against malaria'

Sumana Chakravarty and Stephen L. Hoffman (*Sanaria Inc., Rockville, Maryland, USA*)

#### 'Vaccine specific cellular immune correlates induced by RTS,S/AS01E in children and infants from a phase III trial in Africa'

G. Moncunill<sup>1,2</sup>, M. Mpina<sup>3</sup>, A.J. Nhabomba<sup>2</sup>, R. Aguilar<sup>1</sup>, A. Ayestaran<sup>1</sup>, H. Sanz<sup>1</sup>, J.J. Campo<sup>1,2</sup>, C. Jairoce<sup>2</sup>, D. Barrios<sup>1</sup>, Y. Dong<sup>4</sup>, N. Díez-Padrís<sup>1</sup>, J.S. Fernandes<sup>5</sup>, S. Abdulla<sup>3</sup>, J. Sacarlal<sup>2</sup>, P.L. Alonso<sup>1,2</sup>, N.A. Williams<sup>1</sup>, J. Harezlak<sup>4</sup>, B. Mordmüller<sup>6,5</sup>, S.T. Agnandji<sup>5,6</sup>, J.J. Aponte<sup>1,2</sup>, J.J. Daubenberger<sup>3,7</sup>, C. Valim<sup>8</sup>, C. Dobaño<sup>1,2</sup>

(1 *ISGlobal*, 2 *CISM*, 3 *IHI*, 4 *IUPI*, 5 *CERMEL*, 6 *UKT*, 7 *SwissTPH*, 8 *HSPH-MSU*)

## SESSION 8: NEW VACCINE TECHNOLOGIES

Session Leader: Shahid Khan (*LUMC, Leiden University, Leiden, The Netherlands*)

### Session Introduction

Shahid Khan (*LUMC, Leiden University, Leiden, The Netherlands*)

#### 'The use of transgenic parasites in malaria vaccine research'

Shahid Khan (*LUMC, Leiden University, Leiden, The Netherlands*)

#### 'A human immune system (HIS) mouse model for a malaria vaccine research'

Moriya Tsuji

(*Aaron Diamond AIDS Research Center, The Rockefeller University, New York, USA*)

#### 'A rodent Plasmodium platform for immunization against human malaria'

Miguel Prudencio (*Instituto de Medicina Molecular, Lisbon, Portugal*)

#### 'A Phase 1 trial to assess the safety, attenuation and immunogenicity of triple gene deletion-attenuated *Plasmodium falciparum* (PfGAP3KO) strain'

James G. Kublin<sup>1,2</sup>, Sebastian A. Mikolajczak<sup>1</sup>, Brandon K. Sack<sup>1</sup>, Matt Fishbauger<sup>1</sup>, Annette Seillie<sup>3</sup>, Lisa Shelton<sup>1</sup>, Tracie VonGoederdt<sup>1</sup>, Melike Firat<sup>1</sup>, Sara Magee<sup>1</sup>, Emma Fritzen<sup>1</sup>, Will Betz<sup>1</sup>, Heather S. Kain<sup>1</sup>, Ryan Steel<sup>1</sup>, Dorender A. Dankwa<sup>1</sup>, Ashley M. Vaughan<sup>1</sup>, D. Noah Sather<sup>1</sup>, Sean C. Murphy<sup>1,3,4,5</sup>, and Stefan H.I. Kappe<sup>1,2</sup>

(1 *Center for Infectious Disease Research, formerly Seattle Biomedical Research Institute, Seattle, Washington, USA*; 2 *University of Washington, Seattle, Washington, USA*; 3 *Vaccine and Infectious Disease Division, Fred Hutchinson Cancer Research Center, Seattle, Washington, USA*; 4 *Department of Laboratory Medicine, Seattle, Washington, USA*; 5 *University of Washington, Seattle, Washington, USA*)

#### 'Vaccination approaches that protect humanized HLA transgenic mice against *Plasmodium falciparum*'

Sai Majji<sup>1</sup>, Wathsala Wijayalath<sup>1</sup>, Luis Pow Sang<sup>2</sup>, Soumya Shashikumar<sup>1</sup>, Timothy King<sup>1</sup>, Eileen Villasante<sup>1</sup>, Teodor-Doru Brumeanu<sup>2</sup> and Sofia Casares<sup>1</sup>

(1 *Naval Medical Research Center / Walter Reed Army Institute of Research, Silver Spring, Maryland, USA*; 2 *Uniformed Services University of Health Sciences, Bethesda, Maryland, USA*)

#### 'Inference of parasite genetic determinants of PfSPZ Vaccine efficacy from field trial samples'

J.C.Silva<sup>1</sup>, K.A. Moser<sup>1</sup>, A. Ouattara<sup>2</sup>, A. Dara<sup>2</sup>, E.F. Drábek<sup>1</sup>, M. Adams<sup>2</sup>, B.K. Sim<sup>3</sup>, K.E. Lyke<sup>2</sup>, M.A. Travassos<sup>2</sup>, M.B. Laurens<sup>2</sup>, S. Takala-Harrison<sup>2</sup>, S.L. Hoffman<sup>3</sup> and C.V. Plowe<sup>2</sup>

(1 *Institute for Genome Sciences, University of Maryland School of Medicine, Baltimore, Maryland, USA*; 2 *Institute for Global Health, University of Maryland School of Medicine, Baltimore, Maryland, USA*; 3 *Sanaria Inc., Rockville, Maryland, USA*)

#### '*Plasmodium falciparum* infections in humanized DRAG mice upon challenge with sporozoites delivered by the intravenous route or by mosquito bites'

Wathsala Wijayalath<sup>1</sup>, Sai Majji<sup>1</sup>, Timothy King<sup>1</sup>, Soumya Sashikumar<sup>1</sup>, Megan Dowler<sup>2</sup>, Eileen Villasante<sup>1</sup>, Teodor D Brumeanu<sup>3</sup> and Sofia Casares<sup>1</sup>

(1 *Naval Medical Research Center / Walter Reed Army Institute of Research, Silver Spring, Maryland, USA*; 2 *Entomology Branch, Walter Reed Army Institute of Research, Silver Spring, Maryland, USA*; 3 *Uniformed Services University of Health Sciences, Bethesda, Maryland, USA*)

### Session Discussion

**SESSION 9:  
GENERAL PLENARY SESSION II**

Session Leader: Odile Leroy (*European Vaccine Initiative, Heidelberg, Germany*)

**Session Introduction**

Odile Leroy (*European Vaccine Initiative, Heidelberg, Germany*)

**'Development of a placental malaria vaccine'**

Arnaud Chêne<sup>1</sup>, Stéphane Gangnard<sup>1</sup>, Sebastien Dechavanne<sup>1</sup>, Anand Srivastava<sup>1</sup>, Nicola K. Viebig<sup>2</sup>, Nicolas Havelange<sup>2</sup>, Sophia Hundt<sup>2</sup>, Odile Leroy<sup>2</sup> and Benoît Gamain<sup>1</sup>  
(*1 Institut National de la Santé et de la Recherche Médicale, Paris, France; 2 European Vaccine Initiative, UniversitätsKlinikum, Heidelberg, Germany*)

**'Controlled Human Malaria Infection (CHMI) in Malaria Vaccine Development: A U.S. Food & Drug Administration (FDA) Perspective'**

Rana Chattopadhyay and Douglas Pratt  
(*Center for Biologics Evaluation & Research, US FDA, Silver Spring, Maryland, USA*)

**'Exploring *Plasmodium falciparum* diversity to inform development and efficacy of multi-strain whole-organism PfSPZ vaccines'**

K.A. Moser<sup>1</sup>, E.F. Drábek<sup>1</sup>, A. Ouattara<sup>2</sup>, C. Arze<sup>1</sup>, M.A. Travassos<sup>2</sup>, S. Takala-Harrison<sup>2</sup>, R.W. Sauerwein<sup>3</sup>, B.K.L. Sim<sup>4</sup>, S.L. Hoffman<sup>4</sup>, C.V. Plowe<sup>2</sup> and J.C. Silva<sup>1</sup>  
(*1 Institute for Genome Sciences, University of Maryland School of Medicine, Baltimore, Maryland, USA; 2 Institute for Global Health, University of Maryland School of Medicine, Baltimore, Maryland, USA; 3 Radboud Institute for Molecular Life Sciences, Radboud University Medical Center, Nijmegen, The Netherlands; 4 Sanaria Inc., Rockville, Maryland, USA*)

**'Developing a malaria vaccine for the military:**

**A multi-disciplinary collaborative effort'**

Eileen Franke Villasante (*Naval Medical Research Center, Silver Spring, Maryland, USA*) and Norman C. Waters (*Walter Reed Army Institute of Research, Silver Spring, Maryland, USA*)

**SESSION 10:  
LATE BREAKER PRESENTATIONS**

Session Leader: Salim Abdulla

(*Ifakara Health Institute, Dar Es Salaam, United Republic of Tanzania*)

Latebreaking oral abstracts are called for and should be submitted to John Herriot at Meetings Management. Please email latebreaker abstracts direct to John Herriot on [jherriot@meetingsmgmt.u-net.com](mailto:jherriot@meetingsmgmt.u-net.com)

Please submit your latebreaker abstract by Wednesday 20th April 2016.

**'*Plasmodium falciparum* virulence genes (*var*) expressed in severe pediatric malaria characteristically encode EPCR-binding PfEMP1'**

Thomas Lavstsen (*University of Copenhagen and Department of Infectious Diseases, Rigshospitalet, Copenhagen, Denmark*)

**SESSION 11:  
PANEL DISCUSSION**

**Strategy and Future Directions**

**Panel Leader:**

Pedro Alonso (*WHO Global Malaria Programme, Geneva, Switzerland*)

**POSTER SESSION**

**'How to achieve pre-defined objectives for reducing malaria burden at the lowest budget? Application of an outcome optimization approach to Ghana'**

Christophe Sauboin<sup>1</sup>, N. Van de Velde<sup>1</sup>, I. Van Vlaenderen<sup>2</sup> and L.-A. Van Bellinghen<sup>2</sup>  
(*1 GSK Vaccines, Wavre, Belgium; 2 CHESS in Health, Bonheiden, Belgium*)

**'Functional cross-reactive antibody responses to heterologous PvDBP-II variants: Implication for vivax malaria development'**

Vahideh Valizadeh (*Pasteur Institute of Iran, Tehran, Iran*)

\* *This provisional 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.*



## REGISTRATION

Delegates should register for MVW 2016 by completing the form provided on the back page of this brochure. The completed Conference Registration Form plus payment (payment in £ Pounds Sterling) should be sent to the MVW 2016 Conference Manager – Caroline Sumner at Meetings Management. The MVW 2016 Conference Registration Desk will be open from 7.30am on Monday 2nd May 2016.

Delegates can also register securely on-line at:

[www.meetingsmanagement.com/mvw\\_2016](http://www.meetingsmanagement.com/mvw_2016)

## VENUE & ACCOMMODATION

MVW 2016 will be held at:

### Leiden University Medical Center, Leiden, The Netherlands

Delegates attending the MVW 2016 meeting are advised to book accommodation at one of the following centrally and conveniently located hotels (please note that we do not have any special rates with any of these hotels):

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Early booking is recommended.

## PUBLICATION

A USB storage device containing the final programme and abstracts of all presentations, oral and poster, will be distributed to delegates when they register at the conference.

## TABLE TOP EXHIBITION

Table Top Exhibition space is available at the meeting. Exhibitors can showcase their products or services by reserving a table top exhibit. The exhibit area will be located where all refreshments breaks will be taken to ensure maximum traffic of conference delegates. If you are registering for the conference, you can reserve a table for £1400. If you do not wish to attend the conference sessions, you can reserve a table for £2400 (includes admission to all meals/receptions by one company representative).

**PLEASE NOTE: If you wish to have additional representatives on your table top exhibit there will be an additional charge for catering levied per head. Please contact the Conference Manager for this additional price.**

Please make your bookings and payment using the relevant section on the Delegates Registration Form on the back page of this brochure. All general enquiries regarding Table Top Exhibition facilities at MVW 2016 should be directed to John Herriot at Meetings Management (E-mail: [jherriot@meetingsmgmt.u-net.com](mailto:jherriot@meetingsmgmt.u-net.com)).

## DELEGATE PACK INSERT SERVICE

Company literature/brochures/conference brochures may be distributed to delegates as part of the documentation issued on arrival/registration. One insertion in the MVW 2016 delegate pack is priced at £425. Please make your booking and payment using the relevant section on the Delegates Registration Form on the back page of this brochure. All general enquiries regarding Delegate Pack Insertion services at MVW 2016 should be directed to John Herriot at Meetings Management (E-mail: [jherriot@meetingsmgmt.u-net.com](mailto:jherriot@meetingsmgmt.u-net.com)).

**PLEASE NOTE:** Literature for distribution to MVW 2016 delegates is subject to approval by the conference organizers.

## INSURANCE & CANCELLATION

The organizers cannot be held responsible for any personal accident or damage to their private property of participants at MVW 2016. The organizers strongly urge participants to ensure they have adequate travel and personal insurance cover before they depart for the conference. The organizers cannot be held liable for any costs incurred should the conference be cancelled for any reason. Maximum notice of cancellation will be given by the organizers to all pre-registered delegates.

## PROGRAMME

The MVW 2016 Scientific Advisory Panel and the MVW 2016 Conference Organizers reserve the right to alter any part of the published conference programme if this is necessitated by any circumstances outside their control. All efforts will be made to keep any such changes to a minimum. The programme published in the brochure was correct at the time of going to press.

## CANNOT ATTEND?

If you and your colleagues are unable to attend the conference, the conference materials (abstract booklet, speaker handouts, late abstracts, attendee list, pack materials and literature) are available for purchase. While not intended as a substitute for actual attendance, these materials would at least provide a documentary record of the event and allow you to keep you or your organization's library up to date. The cost of providing this non-attendee package is £325 (including postage and packing). To order this package from Meetings Management please use the relevant section in the Delegates Registration Form on the back page of this brochure.

## ANY QUESTIONS?

For further information and assistance, please contact: Caroline Sumner, MVW 2016 Conference Manager:

### MVW 2016 Conference Secretariat, Meetings Management

The Old Dairy Tower, Peper Harow Park, Godalming, Surrey GU8 6BD, United Kingdom.

Telephone: +44 (0)1483 427770 Fax: +44 (0)1483 428516

E-mail: [csumner@meetingsmgmt.u-net.com](mailto:csumner@meetingsmgmt.u-net.com)

## LATE-BREAKER ORAL AND POSTER ABSTRACTS

The Scientific Advisory Panel have set an extended deadline for Late-Breaker Oral and Poster Abstracts of Friday 1st April 2016. Prospective authors should submit one page Word documents to the Conference Organizers (Meetings Management) for consideration.

Please send submissions for the attention of John Herriot by e-mail to: [jherriot@meetingsmgmt.u-net.com](mailto:jherriot@meetingsmgmt.u-net.com)

**Late-Breaker Oral and Poster Abstracts should be submitted by Friday 1st April 2016.**

