

SESSION 12: NON-PARENTERAL/MUCOSAL VACCINE POTENTIATION

Moderator: Virgil Schijns
(CrossBeta Biosciences, Utrecht, The Netherlands)

14.45-15.15
'Mucosal adjuvants for genital immunity: From buzz to reality'

Ali Harandi (University of Gothenburg, Sweden)

15.15-15.35
'Targeting lymph node-resident and mucosal DCs with ultrasmall nanoparticles in vaccines'

Jeffrey A. Hubbell, Melody A. Swartz, Sachiko Hirose, Eleonora Simeoni, Chiara Nembrini, Armando Stano, Iraklis Kouritis, Susan N. Thomas, Marie Ballester, Alexandre de Titta, Jack Eby, Karen Y. Dane, André van der Vlies, Conlin P. O'Neil and Diana Velluto
(Ecole Polytechnique Fédérale de Lausanne (EPFL), Lausanne, Switzerland)

15.35-15.55
'Topical adjuvant that is independent of the vaccine'
Carol Cowing (Lancell LLC, San Diego, California, USA)

15.55-16.15
'Mimopath: a versatile vaccine technology'
Bert Jan Haijema
(Mucosis B.V., Groningen, The Netherlands)

16.15-16.35
'Association of different immunopotentiators as promising mucosal adjuvants in future'

Olga Borges, Sandra Jesus, Dulce Bento, Filipa Lebre and Gerrit Borchard (University of Coimbra, Coimbra, Portugal)

16.35-16.40 Closing Remarks Et Departure

**This 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.*

Conference Programme – Poster Session

Poster 101
'Platform for the harmonisation of vaccine adjuvant testing'

Rigitze Louise Thogersen et al.
(European Vaccine Initiative, Heidelberg, Germany)

Poster 102
'Immunomodulatory effects of two heat-labile toxin (LT) natural variants produced by enterotoxigenic Escherichia coli (ETEC) strains following intradermal and subcutaneous administration'

L.C.S. Ferreira et al.
(University of Sao Paulo, San Paulo, Brazil)

Poster 103
'Combination of the TLR4 agonist adjuvant CIA05 and alum promotes the immune responses to vaccine antigens'

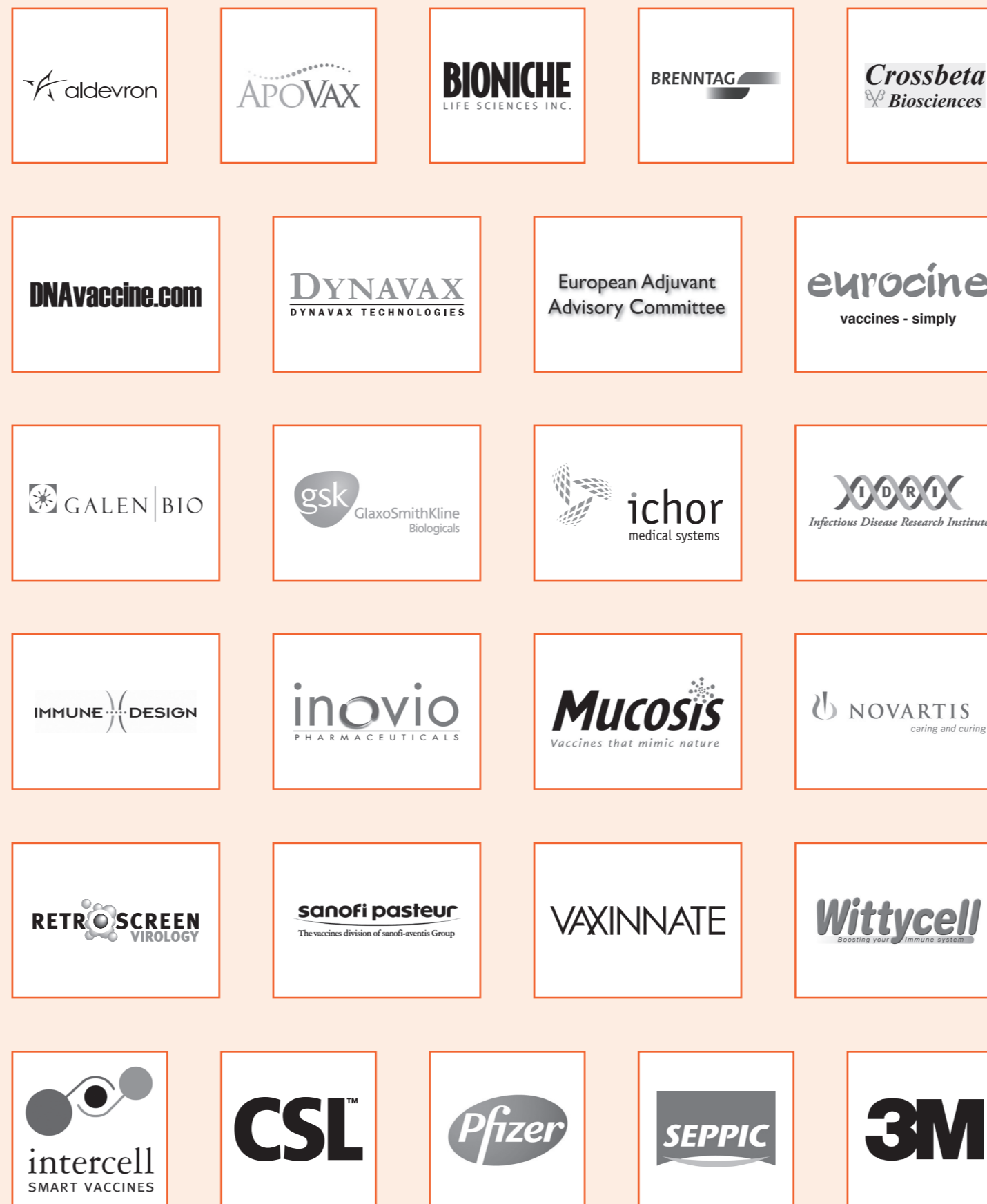
Na Gyong Lee et al.
(Sejong University, Seoul, Republic of Korea)

Poster 104
'Cationic DDA/TBD liposomes as protein vaccine adjuvants'

A. Milicic et al.
(University of Oxford, Oxford, UK)

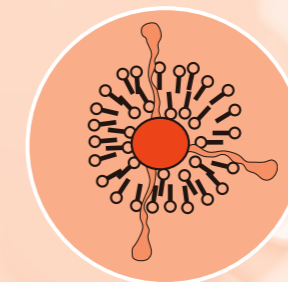
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IMMUNOPOTENTIATORS IN MODERN VACCINES 2011

FINAL ORAL & POSTER PROGRAMMES

The Fourth International Conference on
Immunopotentiators in Modern Vaccines

IMV 2011 6-8 APRIL 2011, TIARA PARK ATLANTICO HOTEL, PORTO, PORTUGAL

Scientific Advisory Panel/Moderators

Conference Co-Chairmen:
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Derek O'Hagan (Novartis Vaccines, USA)
Philippe Moingeon (Stallergenes SA, Antony, France) · Filippo Belardelli (ISS, Rome, Italy)
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Geert van den Bossche (Gates Foundation, Seattle, USA) · Niranjan Sardesai (INOVI0, San Diego, USA)



IMV 2011 Conference Secretariat, Meetings Management

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08.15 Registration

09.25-09.30

Welcome & Opening Remarks

Virgil Schijns

*(CrossBeta Biosciences, Utrecht, The Netherlands)***SESSION 1: OPENING PLENARY**

Moderator: Jim Brewer

(University of Glasgow, Scotland, UK)

09.30-10.00

'Immunology of vaccine adjuvants'

Virgil Schijns

(CrossBeta Biosciences, Utrecht, The Netherlands)

10.00-10.30

'Advancing adjuvant technologies in modern vaccinology: Needs and opportunities'

Geert van den Bossche

(Gates Foundation, Seattle, Washington, USA)

10.30-11.00 Coffee Break & Posters Set-Up

SESSION 2: PLENARY SESSION

Moderator: Virgil Schijns

(CrossBeta Biosciences, Utrecht, The Netherlands)

11.00-11.30

'Investigating adjuvant function *in vivo*'Jim Brewer *(University of Glasgow, Scotland, UK)*

11.30-12.00

'Toll-free immunity – Toll free vaccines?'

Nick Valiante

(Novartis Vaccines & Diagnostics, Cambridge, Massachusetts, USA)

12.00-12.30

'New immunopotentiators for new vaccines'Alex von Gabain *(InterCell AG, Vienna, Austria)*

12.30-13.00

'Virus like particles past and future – Clinical success based on current antigen delivery and immune stimulation'Greg Glenn *(Novavax Inc., Rockville, Maryland, USA)*

13.00-14.00 Lunch Break & Posters

SESSION 3: PLENARY SESSION

Moderator: Martin Bachmann

(Cytos Biotechnology, Zurich, Switzerland)

14.00-14.30

'Potentiation of TB vaccines; are we making a fatal mistake?'

Ian Orme

(Colorado State University, Fort Collins, Colorado, USA)

14.30-15.00

'History and development of TLR agonists, next generation TLR 4 agonists and their role in development of new vaccines'

Steve Reed

(IDRI, Seattle, Washington, USA)

15.00-15.30

'Development of ISCOMATRIX adjuvant: science, supply, safety and strategy'

Debbie Drane

(CSL Ltd, Melbourne, Australia)

15.30-16.00 Tea Break & Posters

SESSION 4: SPECIAL SESSION: IMMUNOPOTENTIATOR SAFETY EVALUATION & REGULATION ASPECTS

Moderator: Nathalie Garcon

(GSK Biologicals, Rixensart, Belgium)

16.00-16.30

'Adjuvant safety evaluation: what have we learned? AS04 as an example'

Nathalie Garcon

(GSK Biologicals, Rixensart, Belgium)

16.30-17.00

'Safety of vaccines and the production of adjuvants'

Stein Lokstad

(Brenntag Biosector, Copenhagen, Denmark)

17.00-17.30

'Nonclinical safety evaluation of adjuvanted vaccines'

Claudia Wrzesinski

(CBER/FDA, Rockville, Maryland, USA)

17.30-18.00

'TOWARDS HARMONISED ADJUVANT TESTING: Platform on the Harmonisation of Adjuvant Vaccine Testing (PHARVAT)'EJ Remarque ⁽¹⁾, Patrice Dubois ^(2,3), Regitze Thoergersen ⁽⁴⁾, Martin Friede ⁽⁵⁾ and Nicolas Collin ⁽³⁾.⁽¹⁾ Biomedical Primate Research Centre, Rijswijk, The Netherlands⁽²⁾ ImmunoVac Consulting, Uccle, Belgium⁽³⁾ University of Lausanne, Lausanne, Switzerland⁽⁴⁾ European Vaccine Initiative, Heidelberg, Germany⁽⁵⁾ World Health Organisation, Geneva, Switzerland

18.00-19.00

IMV 2011 Welcome Drinks & Poster Session

SESSION 5: ADJUVANT DEVELOPMENT I

Moderator: Geert van den Bossche

(Gates Foundation, Seattle, Washington, USA)

09.00-09.30

'Fluad – an enhanced efficacy flu vaccine for young children'

Derek O'Hagan

(Novartis Vaccines & Diagnostics, Cambridge, Massachusetts, USA)

09.30-10.00

'Human gamma/delta T cells : promising target for immunotherapy of infectious and oncological diseases'Marc Bonneville *(INSERM, Nantes, France)*

10.00-10.20

'Co-stimulation as a novel platform for the development of vaccines'

Haval Shirwan

(ApoVax Inc., Louisville, Kentucky, USA)

10.20-10.40

'Innovative vaccine adjuvants for induction of cellular and humoral immunity'Vincent Serra *(Wittycell, Reims, France)*

10.40-11.00

'Montanide ISA 51 water-in-oil adjuvant in non small cell lung cancer therapeutic vaccine : from preclinical to phase III trials'Stephane Ascarateil *(SEPPIC, Paris, France)*

11.00-11.15 Coffee Break & Posters

SESSION 6: ADJUVANT DEVELOPMENT II

Moderator: Debbie Drane

(CSL Ltd, Melbourne, Australia)

11.15-11.45

'Inflammasome activating particulate adjuvants for mucosal and parenteral vaccination'Ed Lavelle *(Trinity College Dublin, Ireland)*

11.45-12.15

'Pharmaceutical development of nanoparticle-based antigen & adjuvant delivery systems'

Russ Mumper

(University of North Carolina at Chapel Hill, North Carolina, USA)

12.15-12.35

'ViscoGel , a novel chitosan-based adjuvant: proff of concept shown with a *Haemophilus influenzae* type b vaccine'

Guro Gafvelin, Theresa Neimert-Andersson,

Louise Zettergren, Joakim Langeback, Henry Franzen, Marianne van Hage, Alf Lindberg, Anne-Charlotte Hallgren,

Mats Andersson and Hans Gronlund

(Viscolgel AB, Solna, Sweden)

12.35-13.00

'Bacterial ghosts as adjuvant particles'

Werner Lubitz, Eva M. Riedmann, Jennelle M. Kyd and

Allan W. Cripps *(Bird-C GmbH, Vienna, Austria)*

13.00-14.00 Lunch Break & Posters

SESSION 7 : DELIVERY STRATEGIES

Moderator: Derek O'Hagan

(Novartis Vaccines & Diagnostics, Cambridge, Massachusetts, USA)

14.00-14.30

'Immunopotentiator delivery strategies – risks and rewards'Kevin Harper *(Sanofi Pasteur, Toronto, Canada)*

14.30-15.00

'Vaccine delivery: a matter of size, geometry and molecular patterns'

Martin Bachmann

(Cytos Biotechnology, Zurich, Switzerland)

15.00-15.30

'Adjuvants and delivery systems: Translating results from animals to humans'

Heather Davis

(Pfizer Vaccines, Ottawa, Ontario, Canada)

15.30-15.50

'Novel microneedle delivery systems and small molecule TLR 7/8 agonists for optimization of vaccine efficacy'

Mark Tomai and Kris Hansen

(3M Drug Delivery Systems, St Paul, Minnesota, USA)

15.50-16.10

'Mode of action of influenza virosomes'

M. Kaser and C. Moser

(Pevion Biotech Ltd, Ittigen, Switzerland)

16.10-16.30 Tea Break & Posters

SESSION 8 : LATE-BREAKER PRESENTATIONS

Moderator: Jim Brewer

(University of Glasgow, Scotland, UK)

16.30-16.50

'CAF01: Function and pre-clinical/clinical efficacy'

Dennis Christensen

(Statens Serum Institut, Copenhagen, Denmark)

16.50-17.10

'Stem cell reconstitution of functional human T and B lymphocytes in a newly-engineered HLA-DR4 transgenic NOD.Rag1KO.IL2RYcKO (DRAG) mice'

Rebecca Danner, Snehal N. Chaudhari, John Rosenberger,

Thomas L. Richie, Teodor-Doru Brumeanu and

Sofia Casares *(NMRC, Silver Spring, Maryland, USA)*

17.10-17.30

'Novel synthetic dsRNA-based TLR3 agonists enhance antigen-specific antibody and cellular immune responses to influenza vaccine'

Weiwen Jiang, Lakshmi Bhagat, Melissa Precopio, Tao Lan,

Jimmy X. Tang, Ekambar R. Kandimalla, Nicola La Monica and

Sudhir Agrawal

(Idera Pharmaceuticals, Inc., Cambridge, Massachusetts, USA)

17.30-17.50

'Use of low toxicity saponins isolated from plants indigenous to Kazakhstan for stimulation of immune response against whole virus inactivated H5N1 and H1N1 influenza vaccine'

Berezin, V.E., Bogoyavlenskiy, A.P., Zaitceva, I.A., Alexyuk, P.G.,

Korotetckiy, I.S., Sokolova, N.S. and Embergenoa A.A.

(Institute of Microbiology and Virology, Almaty, Kazakhstan)

Programme continued over the page

17.50-18.10

'Association with the adjuvant saponin reverts the disease-promoting effect of a crude leishmanial antigen and induces strong protective immunity in mice vaccinated with a serine peptidase-rich fraction against cutaneous leishmaniasis'

H.L. de Matos Guedes, S.G. de Simone and

B. Rossi-Bergmann

*(Universidade Federal do Rio de Janeiro, Brazil)***SESSION 9 : VACCINE DEVELOPMENT**

Moderator: Alan Shaw

(Vaxinnate Inc., Cranbury, New Jersey, USA)

09.00-09.30

'Engineering flagellin to improve safety and immunogenicity in humans'

Alan Shaw

(Vaxinnate Inc., Cranbury, New Jersey, USA)

09.30-09.50

'Self-assembling polypeptide nanoparticle – A potent platform for vaccine design'Peter Burkhard¹, David E. Lanar², Robert S. Hodges³ and Mazhar Khan¹⁽¹⁾ University of Connecticut, Connecticut, USA,⁽²⁾ Walter Reed Army Institute of Research, Silver Spring,

Maryland, USA,

⁽³⁾ University of Colorado Denver, Aurora, Colorado, USA)

09.50-10.10

'Carriers, adjuvants, immune potentiators are critical components in malaria vaccine development'Yimin Wu *(NIAID/NIH, Bethesda, Maryland, USA)*

10.10-10.30

'Liposomal vaccines for the treatment of Alzheimer's disease induce robust IgG responses independent of T cell help'

Maria Pihlgren, Alberto Silva, P. Johansen, R. Madani,

V. Giriens, Y. Waeckerle-Men, P. Reis, D. Hickman,

M.P. Lopez-Deber, D. Mlaki Ndao, V. Gafner, C. Theunis,

N. Crespo-Biel, P. Borghraef, F. Van Leuven, A. Pfeifer,

T.M. Kundig and A. Muhs

(AC Immune SA, Lausanne, Switzerland)

10.30-10.50 Coffee Break and Posters

SESSION 10 : VACCINES, VACCINATION & TECHNOLOGIESModerator: Debbie Drane *(CSL Ltd, Melbourne, Australia)*

10.50-11.20

'VLP-based transmission blocking vaccine against malaria'Vidadi Yusibov *(Fraunhofer USA, Newark, Delaware, USA)*

11.20-11.50

'Development of molecular adjuvants for DNA vaccines'

Amir Khan and Niranjan Sardesai

(INOVIO Inc., Blue Bell, Pennsylvania, USA)

Free Evening for Delegates

11.50-12.10

'Electroporation mediated delivery of DNA Vaccines: assessment of clinical feasibility for therapeutic and prophylactic immunization'

Drew Hannaman

(ICHOR Medical Systems Inc, San Diego, California, USA)

12.10-12.30

'Bordetella pertussis adenylate cyclase toxoid as a potent immunoadjuvant for CMV vaccine'

J. Michalek, J. Jelinek, I. Adkins and P. Sebo

(Masaryk University, Brno, Czech Republic)

12.30-13.30 Lunch Break & Poster Breakdown

SESSION 11 : LATE-BREAKING SHORT ORAL/ POSTER PRESENTATIONS

Moderator: Jim Brewer

(University of Glasgow, Scotland, UK)

13.30-13.50

'Immune stimulation by Parapoxvirus Orf leads to potent NK cell activation, and subsequent anti-tumour activity'Julia L. Rintoul^{1,2}, Theresa Falls², Byram Bridle³,Lee-Hwa Tai², Christiano Tanese de Souza²,Marianne Stanford², Yonhong Wan³, Brian Lichty³,Andrew Mercer⁴, Rebecca Auer² and John C. Bell^{1,2}⁽¹⁾ University of Ottawa, Ottawa Canada,⁽²⁾ Ottawa Hospital Research Institute, Ottawa Canada,⁽³⁾ McMaster University, Hamilton Canada,⁽⁴⁾ University of Otago, Dunedin New Zealand)

13.50-14.10

'Harnessing immunity during oncolytic virus therapy with small molecules'Chantal G Lemay^{1,2}, Byram Bridle³, Jean-Simon Diallo²,Theresa Falls², Jonathon Bramson³, Yonhong Wan³,John C Bell^{1,2} and Brian Lichty³⁽¹⁾ University of Ottawa, Ottawa Canada,⁽²⁾ Ottawa Hospital Research Institute, Ottawa Canada,⁽³⁾ McMaster University, Hamilton Canada,)

14.10-14.30

'Serine proteases of *Leishmania amazonensis* as immunomodulatory and disease-aggravating components of the crude LaAg vaccine'

H.L. de Matos Guedes, R.O. Pinheiro, S.P. Chaves,

S.G. de Simone and B. Rossi-Bergmann

(Universidade Federal do Rio de Janeiro, Brazil)

14.30-14.45 Tea Break

Programme continued over the page