Most pathogens access the body through the mucosal membranes. Therefore, effective vaccines that protect at these sites are an important requirement. However, despite early success with the live attenuated oral polio vaccine over 50 years ago, only a few new mucosal vaccines have been subsequently launched. This is partly due to problems with developing safe and effective mucosal adjuvants. In the past decade, however, the successful development of live attenuated mucosal vaccines against influenza virus and rotavirus infections has boosted interest in this field, and the outlook for new mucosal vaccines looks to hold some promise.

There is therefore a major requirement to develop vaccines against many of the pathogens that infect mucosal tissues or have a mucosal port of entry. Parenteral vaccination may protect in some instances, but usually a mucosal vaccination route is necessary. Mucosal vaccines also have logistic advantages over injectable vaccines by being simpler to administer, having less risk of transmitting infections and potentially being easier to manufacture. Still, however, only relatively few vaccines for human use are available: oral vaccines against cholera, typhoid, polio, and rotavirus, and a nasal vaccine against influenza. For polio, typhoid and influenza, in which the pathogens reach the blood stream, there is also an injectable vaccine alternative. A problem with available oral live vaccines is their reduced immunogenicity when used in developing countries; for instance, the efficacy of rotavirus vaccines correlates closely with the national per capita income. Research is required to define the impact of factors such as malnutrition, aberrant intestinal microflora, concomitant infections, and pre-existing immunity as well as of host genetic factors on the immunogenicity of these vaccines.

MUCOVAD 2018 will be an opportunity for researchers to hear updates on new developments in the area of mucosal vaccines and associated adjuvantation and delivery mechanisms/platforms.

MUCOVAD 2018 will be of interest to researchers/contributors from academic programmes, industrial, governmental and regulatory groups.

**SCIENTIFIC ADVISORY PANEL**

Ted M. Ross (University of Georgia, Athens, Georgia, USA)  
Jan Holmgren (Gothenburg University, Gothenburg, Sweden)  
Edward Lavelle (Trinity College Dublin, Dublin, Ireland)  
Eric Cox (University of Ghent, Ghent, Belgium)  
Ali Harandi (Gothenburg University, Gothenburg, Sweden)  
Dexiang Chen (PATH, Seattle, Washington, USA)  
Rob Lambkin-Williams (hVIVO, London, UK)  
Dennis Christensen (Statens Serum Institut, Copenhagen, Denmark)  
Anna-Karin Maltais (Eurocine Vaccines AB, Solna, Sweden)  
Sean Tucker (Vaxart Inc., San Francisco, California, USA)  
Pearay L. Ogra (University of Buffalo, Buffalo, New York, USA)  
Milton Maciel Jr. (NMRC/WRAIR, Silver Spring, Maryland, USA)

**CONFERENCE SCOPE/TOPICS**

| Developmental aspects of mucosal environment and immunity |
| Approaches to the development of modern mucosal vaccines/adjuvants and delivery systems |
| Considerations of the routes of immunization (sublingual, oral, nasal, rectal, vaginal, intrapulmonary, ocular), antigens and genomics (different challenges at different mucosal sites) |
| Developmental aspects of human and veterinary mucosal vaccines/adjuvants currently in progress |
| Live vector vaccines/Particle-based vaccines (including VLPs)/Conjugate vaccines |
| Delivery systems and formats – new and future developments (conjugates/particles, liquids/sprays/dry powder/tablet/capsules/enteric coatings) |
| Regulatory and Safety requirements for mucosal vaccines/adjuvants |

**Sponsors**

- inovio PHARMACEUTICALS
- EUROCINE VACCINES
- VAXART
- hVIVO
- DNAvaccine.com
- NatureGeneTherapy
- aldevron
- atrivax
09.00-10.25
Registration

10.25-10.30
Welcome & Opening Remarks

SESSION 1: PLENARY SESSION I

Moderator: Dennis Christensen
(Statens Serum Institut, Copenhagen, Denmark)

10.30-11.15
‘Systems analysis of human vaccines and adjuvants: Back to the drawing board’
Ali Harandi
(University of Gothenburg, Gothenburg, Sweden)

11.15-12.00
‘Oral bacterial enteric vaccines and adjuvants: Update and prospects’
Jan Holmgren
(University of Gothenburg, Gothenburg, Sweden)

12.00-12.45
‘A 30-year journey of trial and error towards a tolerogenic AIDS vaccine’
Jean-Marie Andrieu and Wei Lu
(Institut de Recherche sur les Vaccins et l’Immunothérapies Cancers et du SIDA, Centre Universitaire des Saints Pères, Université de Paris-Descartes, Pères, France)

12.45-14.00
Lunch Break

SESSION 2: PLENARY SESSION II

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

14.00-14.45
‘ADP-ribosylating enterotoxins as vaccine adjuvants’
Nils Lycke
(University of Gothenburg, Gothenburg, Sweden)

14.45-15.15
‘Triggering induction of mucosal IgA following parenteral immunization with subunit vaccines’
Dennis Christensen
(Statens Serum Institut, Copenhagen, Denmark)

15.15-15.45
‘Distinct mechanisms regulate induction of mucosal versus systemic IgA responses’
Martin Bachmann
(University of Bern, Bern, Switzerland)

15.45-16.15
Tea Break

SESSION 3:

Moderator: Nils Lycke
(University of Gothenburg, Gothenburg, Sweden)

16.15-16.45
‘Dual-isotope SPECT/CT imaging of the tuberculosis subunit vaccine H56/CAF01: Induction of strong mucosal and systemic T-cell and IgA responses upon subcutaneous priming and intrapulmonary boost immunization’
Aneesh Thakur1, Cristina Rodríguez-Rodríguez2,3, Katayoun Saatchi2, Fabrice Rose1, Tulio Esposito2, Zeynab Nosrati2, Peter Andersen5, Dennis Christensen5, Urs O. Häfeli1,2 and Camilla Foged1
(1 Department of Pharmacy, Faculty of Health and Medical Sciences, University of Copenhagen, Copenhagen, Denmark; 2 Faculty of Pharmaceutical Sciences, The University of British Columbia, Vancouver, Canada; 3 Centre for Comparative Medicine, The University of British Columbia, Vancouver, Canada; 4 Department of Physics and Astronomy, The University of British Columbia, Vancouver, Canada; 5 Department of Infectious Disease Immunology, Statens Serum Institut, Copenhagen, Denmark)

16.45-17.15
‘Recognition of the microbiota by Nod2 contributes to the oral adjuvant activity of cholera toxin through the induction of IL-1β’
Sang-Uk Seo
(Seoul National University, Gangwon Do, South Korea)

17.15-17.45
‘Molecular basis of innate protection from early chick mortalities following in ovo administration of innate immune stimulants/immuno-adjuvants’
Mishal Sarfraz, Brenda Allian, Wolfgang Köster, Colette Wheler and Arshud Dar
(Vaccine and Infectious Disease Organization-International Vaccine Centre, University of Saskatchewan, Saskatoon, Saskatchewan, Canada)

LATE-BREAKER ORAL AND POSTER ABSTRACTS

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Late-Breaker Oral and Poster Abstracts should be submitted by Monday 5th November 2018.
SESSION 4:

Moderator: Ali Harandi
(University of Gothenburg, Gothenburg, Sweden)
09.00-09.30
‘The role of Strong Genital Immunity in vaccine induced protection against Chlamydia trachomatis’
Dennis Christensen
(Statens Serum Institut, Copenhagen, Denmark)
09.30-10.00
‘Influenza Virus Like Particles: An amazing candidate for the development of a mucosal vaccine’
Sophie Buffin, Daria Chirita, Isabelle Peubez and Isabelle Legastelois
(Research Department, Sanofi Pasteur, Marcy l’Etoile, France)
10.00-10.30
‘Influenza virus-like particles: An amazing candidate for the development of a mucosal vaccine’
Isabelle Legastelois
(Sanofi Pasteur, Marcy l’Etoile, France)
10.30-11.00
‘A Vibrio cholerae biofilm matrix-based vaccine platform’
Julie Liao, Jacob Gibson and Paula I. Watnick
(Boston Children’s Hospital, Boston, Massachusetts, USA)
11.00-11.30
Coffee Break

SESSION 5:

Moderator: Anna-Karin Maltais
(Eurocine Vaccines, Stockholm, Sweden)
11.30-12.00
‘The effect of diarrheal disease on bivalent oral polio vaccine (bOPV) immune response in infants in Nepal’
Ondrej Mach
(WHO, Geneva, Switzerland)
12.00-12.30
‘Title to be confirmed’
Daniel Dory
(ANSES – Laboratory of Ploufragan/Plouzane, Ploufragan, France)
12.30-13.00
‘Boosting of mucosal immunity after fractional-dose inactivated poliovirus Vaccine’
Ondrej Mach
(WHO, Geneva, Switzerland)
13.00-14.00
Lunch Break

SESSION 6:

Moderator: Ondrej Mach
(WHO, Geneva, Switzerland)
14.00-14.30
‘Adjuvanted whole cell vaccines for enteric bacterial diseases’
Edward Lavelle
(Trinity College Dublin, Dublin, Ireland)
14.30-15.00
‘Mucosal adjuvants, intranasal delivery and respiratory vaccines. The way forward?’
Rob Lambkin-Williams
(NVIVO Ltd, London, UK)
15.00-15.30
‘Riboflavin supplementation enhances antigen specific humoral and cellular immune responses to oral vaccines’
A. Albutti1,2, C.P. McEntee3, S. Longet1, J. Holmgren2 and E.C. Lavelle1
(1 Trinity College Dublin, Dublin, Ireland; 2 Qassim University, Saudi Arabia; 3 University of Manchester, Manchester, UK; 4 University of Gotenburg, Gotenburg, Sweden)
15.30-16.00
Tea Break

SESSION 7:

Moderator: Edward Lavelle
(Trinity College Dublin, Dublin, Ireland)
16.00-16.30
‘Proteomic analysis identifies Thrombospondin 1 and Integrin beta 1 as strongly upregulated molecules involved in the adjuvant action of cholera toxin’
Manuela Terrinoni1, Jan Holmgren1, Michael Leb’s1 and Maximilian Larena1,2
(1 Department of Microbiology and Immunology, University of Gothenburg, Gothenburg, Sweden; 2 Department of Organismal Biology, Uppsala University, Uppsala, Sweden)
16.30-17.00
‘Obligatory requirement for cAMP/PKA-dependent canonical NFκB signaling in the adjuvant action of CT and toxic-free related adjuvant (mmCT)’
Maximilian Larena
(University of Gotenburg, Gothenburg, Sweden)
17.00-17.20
‘Development of an intranasal DNA vaccine in swine’
Laurent Souci1, Tristan Monteie2, Herve Jaunet1 and Daniel Dory1
(1 ANSES (French Agency for Food, Environmental and Occupational Health and Safety), Viral Genetics and Biosafety Unit, Ploufragan/Plouzané Laboratory, France; 2 INSERM UMR 1078, Faculté de médecine et des sciences de la santé, Brest, France; 3 Zoopôle Développement (Technical Center of Animal Productions), Ploufragan, France)

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Late-Breaker Oral and Poster Abstracts should be submitted by Monday 5th November 2018.
SESSION 8:

Moderator: To be confirmed

09.00-09.30
'Title to be confirmed'
Sylvain Fleury
(MyMetics SA, Epalinges, Switzerland)

09.30-10.00
'Polymer and microemulsion adjuvants enhance the immune response conferred by mucosal vaccines in mice and chicken'
Heloise Imbault, Juliette Ben Arous, Nicolas Versillé, Sebastien Deville and Maria Lazaro
(SEPPIC, Paris La Défense Puteaux, France)

10.00-10.30
'Mucosal delivery of inactivated polio vaccine'
Speaker to be confirmed
(IntraVacc, Bilthoven, The Netherlands)

10.30-11.00
Coffee Break

SESSION 9:

LATEBREAKER SESSION

Moderator: To be confirmed

11.00-12.30
Authors interested in submitting latebreaker oral abstracts should submit their abstracts direct to John Herriot at Meetings Management (MUCOVAD 2018 Organizers).

Please email your latebreaker abstracts to jherriot@meetingsmgmt.u-net.com

Closing date for latebreaker submissions is Monday 5th November 2018

12.30
Closing Remarks

Lunch & Departure

* This provisional programme is correct at the time of publication. However the organizers reserve the right to make any alterations that may be required in the interests and integrity of the conference programme.

LATE-BREAKER ORAL AND POSTER ABSTRACTS

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**REGISTRATION**

Delegates should register for MUCOVAD 2018 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 MUCOVAD 2018 Conference Manager – Caroline Sumner at Meetings Management. The MUCOVAD 2018 Conference Registration Desk will be open from 8.00am on Monday 12th November 2018.

Delegates can also register securely on-line at: www.meetingsmanagement.com/mucovad_2018

**VENUE & ACCOMMODATION**

MUCOVAD 2018 will be held at:

**CHUV, University of Lausanne, Lausanne, Switzerland**

Accommodation: there are numerous hotels in Lausanne to suit most budgets. For information details on accommodation in Lausanne and other useful information, please visit:

http://www.lausanne-tourisme.ch/en/

Please note that the MUCOVAD 2018 conference organizers will not be recommending any specific hotels in Lausanne.

November is a busy time in Lausanne and it is recommended that MUCOVAD 2018 delegates book their accommodation without delay.

**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 £1700. If you do not wish to attend the conference sessions, you can reserve a table for £2750 (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 MUCOVAD 2018 should be directed to John Herriot at Meetings Management (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 MUCOVAD 2018 delegate pack is priced at £450. 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 MUCOVAD 2018 should be directed to John Herriot at Meetings Management (jherriot@meetingsmgmt.u-net.com).

PLEASE NOTE: Literature for distribution to MUCOVAD 2018 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 MUCOVAD 2018. 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 MUCOVAD 2018 Scientific Advisory Panel and the MUCOVAD 2018 Conference Organizers reserve the right to alter any part of the published provisional 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 provisional 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 £395 (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, MUCOVAD 2018 Conference Manager:

**MUCOVAD 2018 Conference Secretariat, Meetings Management**

Forge Cottage, Bowlhead Green, Godalming, Surrey GU8 6NW, United Kingdom.

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

E-mail: csumner@meetingsmgmt.u-net.com

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**LATE-BREAKER ORAL AND POSTER ABSTRACTS**

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

Late-Breaker Oral and Poster Abstracts should be submitted by Monday 5th November 2018.
Please tick appropriate boxes and write clearly in BLOCK CAPITALS or type.

Surname ................................................................................................................................. First Name ............................................................................................................................. Title ........................................................................................................................................

Organization ........................................................................................................................ Address ........................................................................................................................................

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Country ................................................................................................................................. Telephone ................................................................................................................................. Fax ........................................................................................................................................

E-mail (plain type or print): ........................................................................................................

If you are an EC business please state your VAT registration number: ................................

Disabled (please state any special needs): ............................................................................ Special diet (please state requirements): .................................................................................

REGISTRATION FEES

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<tr>
<th>Speaker/Delegate Registration Fees:</th>
<th>(NOTE THAT FEES ARE IN UK £ STERLING)</th>
<th>DELEGATE REGISTRATION FORMS NOT DULY &amp; FULLY COMPLETED WILL NOT BE VALID</th>
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<tr>
<td>□ Speaker Registration (submitted oral/poster papers)</td>
<td>£650.00</td>
<td>Amount Due (£ Sterling)</td>
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<td>(Payment must be received before Friday 21st September 2018)</td>
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<td>□ Reduced Early Bird Registration</td>
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<td>(Payment must be received before Friday 21st September 2018)</td>
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<td>□ Full Registration</td>
<td>£875.00</td>
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<td>(Payment received after Friday 21st September 2018)</td>
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Table Top Exhibits/Delegate Pack Inserts

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<td>□ Table Top Exhibit (if registering for one of the four options above)</td>
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<tr>
<td>□ Table Top Exhibit (I am NOT registered to attend)</td>
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<tr>
<td>□ Delegate Pack Insert</td>
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</table>

PLEASE NOTE: The above payments for Table Top Exhibits are for 1 company representative only. If you require additional representatives please contact the Conference Manager for a price.

For those Unable to Attend

<table>
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<tr>
<th>Set(s) of MUCOVAD 2018 materials</th>
<th>@ £395.00 (per set)</th>
<th>£</th>
</tr>
</thead>
</table>

Total Amount Payable

Regulation fees include admission to all conference sessions, morning and afternoon refreshments and lunches on the 12th, 13th and 14th November 2018.

PAYMENT

□ I enclose a cheque for £ __________ made payable to Meetings Management. (Delegates registering from outside the UK must ensure that cheques are drawn on a London Bank. Please quote MUCOVAD 2018 on the reverse of the cheque.)

□ I have made a payment by bank transfer (quoting MUCOVAD 2018 on the transfer documentation) to Barclays Bank, Barclays Business Centre, Guildford Branch, PO Box 33, Guildford, Surrey GU1 3AN, UK:

UK Pounds Sterling Account: Meetings Management 0040614335
IBAN: GB11BUKB20353S40614335 SWIFTBIC: BUKGBGB2

US Dollar Account: Meetings Management 53209211
IBAN: GB86BUKB20353S523209211 SWIFTBIC: BUKGBGB2

Euro Account: Meetings Management 59179600
IBAN: GB03BUKB2035359179600 SWIFTBIC: BUKGBGB2

All transfer charges must be paid by the sender. Delegates paying by this method are requested to send the Conference Manager a copy of the bank transfer. Payments made by bank transfer must have £15.00 added to the total, PLEASE NOTE THAT IT WILL NOT BE POSSIBLE TO PAY REGISTRATION FEES BY BANK TRANSFER AFTER FRIDAY 5TH OCTOBER 2018. LATE PAYMENT AFTER FRIDAY 5TH OCTOBER 2018 MUST BE MADE BY CREDIT CARD (VISA/MASTERCARD/AMEX).

□ I would like to pay £ __________ by credit card (VISA/MasterCard/American Express only accepted).

Card no. □□□□□□□□□□□□□□□□□□□□ 3 Digit Security Code (AMEX: 4 Digits) __________

Expiry Date □□□□□□□□□□□□□□□□□□□□ Registered Card Address □□□□□□□□□□□□□□□□□□□□

Please remember that any remittance sent but not received by the time of the conference must be paid again at the Registration desk. We will refund you after the conference. Cancellations received before Friday 5th October 2018 will be refunded in full less an administrative charge of £225 per person. Refunds will not be possible if a cancellation is received after Friday 5th October 2018. Substitutions can be made at any time prior to the conference. Please inform the Conference Manager of any changes. We strongly advise that delegates purchase travel insurance to cover any unforeseen circumstances and protect against loss of hotel deposits and registration fees.

VAT No. 591 617618

Signature ................................................................................................................................. Date.................................................................................................................................

PLEASE RETURN THIS FORM TO:

MUCOVAD 2018 CONFERENCE SECRETARIAT, MEETINGS MANAGEMENT
Forge Cottage, Bowlhead Green, Godalming, Surrey GU8 6NW, United Kingdom
Conference Manager: Caroline Sumner Telephone: +44 (0)1483 427770 Fax: +44 (0)1483 428516 E-mail: cssumer@meetingsmgmt.u-net.com

SECURE ON-LINE REGISTRATION IS NOW OPEN AT: www.meetingsmanagement.com/mucovad_2018