



Koninklijke  
Nederlandse  
Vereniging voor  
Microbiologie

# Scientific Spring Meeting KNVM & NVMM 2018

## Final programme



nl.nvmm.nl

**Tuesday 27 & Wednesday 28 March 2018**  
Papendal Hotel and Conference Centre, Arnhem



**Download the  
Meeting App**



QR-code to [get.networkapp.eu](http://get.networkapp.eu)

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1. Download the App (**networkapp**) in the App Store or Google Playstore or via [get.networkapp.eu](http://get.networkapp.eu)
2. Register by using your LinkedIn-account or e-mail address
3. Use the event code: **SSM18**
4. In the App you can find the programme, abstracts and you can get in direct contact with other participants and make appointments

 **#SSM18**

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Prof. dr. Stanley Brul  
Dr. Birgitta Duim  
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Dr. Aldert Zomer  
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### **Poster committee**

Dr. Jetta Bijlsma  
Prof. dr. Stanley Brul  
Dr. Aldert Zomer

The Scientific spring meeting is organized by the Royal Dutch Society of Microbiology (KNVM) and the Dutch Society of Medical Microbiology (NVMM).

### **Meeting secretariat:**



**congress  
company**

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### **Accreditation**

The Scientific Spring Meeting 2018 is accredited by the MMM and NVMM with 6 points for Tuesday 27 March and 5 points for Wednesday 28 March.  
Please note that in order to receive accreditation you need to supply the congress secretariat with your BIG-number AND scan your name badge on the day(s) you attend the meeting.

### **Certificate of attendance**

Certificates of attendance will be send via e-mail in the week after the conference. Please note that you should scan your name badge on the day(s) you attended to receive a certificate for those day(s).

### **Registration desk opening hours**

Tuesday 8:45 – 18:00 hrs  
Wednesday 8:15 – 16:30 hrs

### **Hotel rooms**

If you have reserved a hotel room in Papendal Hotel and Conference Centre you may collect the room key as of 13:00 hours at the front desk of the hotel. Please make sure to check out before 10:00 hours.

## Programme at a glance

Legend:	Clinical	General	Intermediate
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Tuesday 27 March 2018						
	Athene C	Athene B	Sydney	Room 4/5	Room 6/7	Room 8/9
08:45 - 09:30	Registration & coffee @ Exhibition hall					
09:30 - 11:00	Plenary session & Kiem Award ceremony					
11:00 - 11:30	Coffee/tea break					
11:30 - 13:00	Surveillance of antimicrobial resistance, pathogens and plasmids in the clinic and the environment		The public health risk of Hepatitis E virus in a Dutch perspective	Climate change microbiology	Fundamentals of Clostridia	Maternal and neonatal vaccination against viruses and bacteria
13:00 - 14:00	Lunch @ Exhibition hall					
13:00 - 14:00				KNVM Business Meeting <i>Lunch included</i>		
14:00 - 15:30	Everything you want to know about urinary tract infections, infection control and infection challenges in Dutch nursing homes	New developments in the treatment of HCV infections	Eukaryote-microbe symbiosis beyond the human body	Microbial ecology: colonization resistance through host-microbiota communication	Geographical variation in vaccine response	Clinical microbiology
15:30 - 16:00	Coffee/tea break @ Exhibition hall					
16:00 - 17:30	Clinical significance of microbiota changes and Clostridium difficile infections	Epidemiology and pathogenesis of emerging flaviviruses and orthohantaviruses	General microbiology	Human microbiota throughout life	Speeding up vaccine development: about human challenge studies and correlates of protection	On microbiome education & citizen science, and scientific citizenship
17:30 - 18:30	Drinks @ Exhibition hall					
18:30 - 20:30	Dinner @ restaurant					
20:30 - 22:00			Poster session			
22:00 - 22:15			Poster Award ceremony			
22:15 - 01:30			Party			

Wednesday 28 March 2018						
	Athene C	Athene B	Sydney	Room 4/5	Room 6/7	Room 8/9
08:15 - 09:00	Registration & coffee @ Exhibition hall					
09:00 - 10:30	Plenary session & Westerdijk & Van Leeuwenhoek Award ceremony					
10:30 - 11:15	Coffee/tea break @ Exhibition hall					
11:15 - 12:45	The do's and don't's of infection prevention	Environmental microbiology	Pathogenesis	Microbial Darwinian Medicine	Antimicrobial Resistance	BaMa
12:45 - 14:00	Lunch @ Exhibition hall					
12:45 - 13:45				BBC-MMO Business Meeting <i>Lunch included</i>		
14:00 - 15:30	Clinical cases in medical microbiology: an interactive session (WAMM, NWKV, NVP, NVMY)	Bacteriophages - Improving the quality of life	Host-microbe interaction	General microbiology	New insights in bacterial meningitis	BaMa
15:30 - 16:00	Coffee/tea break @ Exhibition hall					BaMa Poster session and Award Ceremony
16:00 - 18:00	NVMM Business meeting					

## Scientific programme

The **O-numbers** in the programme correspond to the abstracts which can be found on the society websites [www.knvm.org](http://www.knvm.org) & [www.nvmm.nl](http://www.nvmm.nl). The abstracts can also be found in the Meeting App.

### TUESDAY 27 MARCH 2018

08:45 - 09:30

**Registration & coffee/tea**

*Athene B/C*

#### PLENARY SESSION

*Chairs: Wilbert Bitter & Brigitta Duim*

09:30 - 09:35

**Opening**

09:35 - 10:15 **0001**

**Bacterial spore germination: "Still surprises after all these years"**

*Peter Setlow (USA)*

10:15 - 10:50 **0002**

**Bacterial communication with the brain**

*Elaine Tuomanen (USA)*

10:50 - 11:00

**Kiem Award ceremony**

**General Microbiology - Structure of the mycobacterial ESX-5 type VII secretion system membrane complex by single-particle analysis**

*Catalin Bunduc*

**Medical Microbiology: Highly pathogenic influenza A (H5Nx) viruses with altered H5 receptor-binding specificity**

*Hongbo Guo*

**Microbial Ecology - Community composition and ultrastructure of a nitrate-dependent anaerobic methane-oxidizing enrichment culture**

*Lavinia Gambelli*

**Exhibition hall**

11:00 - 11:30

**Coffee/tea break**

11:30 - 13:00

#### PARALLEL SESSIONS

*Athene B/C*

**Surveillance of antimicrobial resistance, pathogens and plasmids in the clinic and the environment**

*Chairs: Mark van Passel & Anita Schürch*

11:30 - 12:00 **0003**

**Epidemiology of plasmids conferring carbapenem resistance in a multi-species KPC outbreak**

*Anna Sheppard (UK)*

12:00 - 12:30 **0004**

**Quantifying environmental transmission of AMR**

*William Gaze (UK)*

12:30 - 12:45 **0005**

**Using Nanopore to unravel the plasmidome content of 1644 *Enterococcus faecium* strains**

*Sergio Arredondo-Alonso*

12:45 - 13:00 **0006**

**Occurrence of antibiotic resistant bacteria along a wastewater chain**

*Ilse Verburg*

**Sydney**

**The public health risk of Hepatitis E virus in a Dutch perspective**

*Chairs: Henk Aarts & Ingeborg Boxman*

11:30 - 12:00 **0007**

**Detection, quantification and typing of HEV RNA in food products including these on the Dutch market**

*Ingeborg Boxman*

12:00 - 12:15 **0008**

**Clinical implications of hepatitis E**

*Suzan Pas*

- 12:15 - 12:30 **O009** **Sources and Risk factors for acute hepatitis E in the Netherlands**  
*Agnetha Hofhuis*
- 12:30 - 12:45 **O010** **Hepatitis E virus exposure from swine reservoirs**  
*Wim van der Poel*
- 12:45 - 13:00 **O011** **Hepatitis E virus sequence and metadata sharing in HEVnet**  
*Harry Vennema*
- Room 4/5** **Climate change microbiology**  
*Chairs: Cornelia Welte & Paul Bodelier*
- 11:30 - 12:00 **O012** **Microbial controls on the methane release from thawing permafrost**  
*Susanne Liebner (Germany)*
- 12:00 - 12:15 **O013** **Smart residue amendments to improve greenhouse gas uptake by agricultural soil**  
*Kristof Brenzinger*
- 12:15 - 12:30 **O014** **The effects of warming on methane cycle microorganisms in Arctic thermokarst lake sediments**  
*Michiel in 't Zandt*
- 12:30 - 12:45 **O015** **Novel mesocosm set-up reveals methane oxidizers in submerged sphagnum moss as major methane filter in peatlands**  
*Martine Kox*
- 12:45 - 13:00 **O016** **Characterization of a methanotroph hydroxylamine oxidoreductase: How methanotrophs achieve growth under high ammonia concentrations**  
*Wouter Versantvoort*
- Room 6/7** **Fundamentals of Clostridia**  
*Chair: Wiep Klaas Smits*
- 11:30 - 12:00 **O017** **Understanding *Clostridium botulinum* neurotoxin production**  
*Miia Lindström (Finland)*
- 12:00 - 12:15 **O018** **Production of chemicals by *Clostridium* sp in biorefineries**  
*Ana López Contreras*
- 12:15 - 12:30 **O019** **Transcriptional response of *Clostridium difficile* to sub-inhibitory concentrations of antimicrobial compounds**  
*Ilse Boekhoud*
- 12:30 - 12:45 **O020** **Heat resistance of *Clostridium perfringens* spores**  
*Marjon Wells-Bennik*
- 12:45 - 13:00 **O021** **From men to mice and back again – an innovation cycle with armed Clostridia as safe and specific weapons to fight cancer**  
*Jan Theys*
- Room 8/9** **Maternal and neonatal vaccination against viruses and bacteria**  
*Chairs: Puck van Kasteren & Rik de Swart*
- 11:30 - 12:00 **O022** **Infant's immune response to vaccination after maternal pertussis vaccination**  
*Nynke Rots*
- 12:00 - 12:30 **O023** **Vaccination against measles and respiratory syncytial virus**  
*Rik de Swart*
- 12:30 - 12:45 **O024** **Measles vaccination before 9 months of age results in impaired humoral immune responses**  
*Iris Brinkman*
- 12:45 - 13:00 **O025** **Respiratory Syncytial Virus directly infects NK cells and affects anti-viral effector functions**  
*Liz van Erp*

**Room 4/5**

13:00 - 14:00

KNVM Business Meeting - *lunch included***Exhibition hall**

13:00 - 14:00

Lunch

14:00 - 15:30

**PARALLEL SESSIONS****Athene C****Everything you want to know about urinary tract infections, infection control and infection challenges in Dutch nursing homes***Chairs: Ine Frénay & Ellen Stobberingh*14:00 - 14:30 **0026****Problem behaviour in patients with dementia is not always an urinary tract infection! New insights from the Verenso guideline***Sytse Zuidema*14:30 - 14:45 **0027****State of the art of infection control in Dutch nursing homes***Andreas Voss*14:45 - 15:00 **0028****Spread and control of CPE *E. coli* in a long term care facility***Sylvia Debast*15:00 - 15:15 **0029****The role of urine cultures in diagnosis and treatment of urinary tract infections in a long-term care facility: time for improvement***Jobje Haaijman*15:15 - 15:30 **0030****The Dordrecht model : regional laboratory, and municipal health service (MHS) for infection control in Dutch nursing homes***Ine Frénay***Athene B****New developments in the treatment of HCV infections***Chairs: Janke Schinkel & Jean-Luc Murk*14:00 - 14:30 **0031****Update on HCV treatment in the Netherlands: who and how ((w)ho(w)!***Rob de Knegt*14:30 - 15:00 **0032****HCV resistance testing, how, when and why (not)***Janke Schinkel*15:00 - 15:15 **0033****HCV infection among HIV-negative MSM who use PreP to prevent HIV infection***Roel Achterbergh*15:15 - 15:30 **0034****Persistence and risk of transmission of the hepatitis C virus NS5B S282T substitution in a HIV-positive man who has seks with men***Astrid Newsum***Sydney****Eukaryote-microbe symbiosis beyond the human body***Chairs: Cornelia Welte & Detmer Sipkema*14:00 - 14:30 **0035****Chemosynthetic symbioses in marine bivalves: Getting to the bottom of microbe-host relationships***Jillian Petersen (Austria)*14:30 - 14:45 **0036****Shellfish microbiome analysis: in search for tetrodotoxin producing bacteria***Reindert Nijland*14:45 - 15:00 **0037****Bacteria can help maggots to survive dangerous veggies***Tijs van den Bosch*15:00 - 15:15 **0038****Characterization of growth of lipid-dependent *Malassezia* yeast species, members of the skin mycobiome***Hans Cock*15:15 - 15:30 **0039****Development of cecal microbiota biodiversity during a broiler production round at two farms***Annelies Kers*

- Room 4/5**
- Microbial ecology: colonization resistance through host-microbiota communication**  
*Chairs: Nina van Sorge & Clara Belzer*
- 14:00 - 14:15 **0040** **Host and Environmental Factors Affecting the Intestinal Microbiota in Chickens**  
*Annelies Kers*
- 14:15 - 14:45 **0041** ***Pseudomonas aeruginosa* eradicates *Staphylococcus aureus* by manipulating host immunity**  
*Lhousseine Touqui (France)*
- 14:45 - 15:15 **0042** **Molecular mechanisms behind pathological host-microbiota interactions**  
*Marcel de Zoete*
- 15:15 - 15:30 **0043** **Impact of Bile Acids on Bacterial Colonization**  
*Niels van Best*
- Room 6/7**
- Geographical variation in vaccine response**  
*Chair: Maria Yazdanbakhsh*
- 14:00 - 14:30 **0044** **Population differences in vaccine response: immune modulation**  
*Alison Elliott (UK)*
- 14:30 - 14:45 **0045** **Controlled human infections: detecting population differences**  
*Meta Roestenberg*
- 14:45 - 15:00 **0046** **Differences in the immune responses of populations living in different geographical areas**  
*Karin de Ruiter*
- 15:00 - 15:15 **0047** **The Hookworm vaccine**  
*Martin Grobusch*
- 15:15 - 15:30 **0048** **Trained immunity and malaria**  
*Robert Sauerwein*
- Room 8/9**
- Clinical microbiology**  
*Chairs: Jaco Verweij & Anne Reuwer*
- 14:00 - 14:15 **0049** **Hepatitis E virus screening of Dutch blood donors**  
*Boris Hogema*
- 14:15 - 14:30 **0050** **IcTyping: rapid universal bacterial strain typing for real-time infection control**  
*Dries Budding*
- 14:30 - 14:45 **0051** **Low-level viremia during dolutegravir-containing regimens in two HIV-infected patients**  
*Marije Hofstra*
- 14:45 - 15:00 **0052** **Two years of experiences of the Netherlands Donor Feces Bank**  
*Karuna Vendrik*
- 15:00 - 15:15 **0053** **Pitfalls of metagenomic next-generation sequencing for viral respiratory infections**  
*Anneloes Rijn*
- 15:15 - 15:30 **0054** **Thirty cases of Enterovirus-D68 associated acute flaccid myelitis in Europe 2016; a case series and epidemiological overview**  
*Marjolein Knoester*
- Exhibition hall**
- 15:30 - 16:00 **Coffee/tea break**



16:00 - 17:30

## PARALLEL SESSIONS

**Athene C****Clinical significance of microbiota changes and *Clostridium difficile* infections***Chair: Ed Kuijper*16:00 - 16:30 **O055****The role of microbiota in health and diseases***Jingyuan Fu*16:30 - 17:00 **O056****Place of fidaxomicin and bezlotoxumab in the treatment of *Clostridium difficile****Oliver Cornely (Germany)*17:00 - 17:15 **O057****Standardised diagnostics of CDI in The Netherlands and Europe***Monique Crobach*17:15 - 17:30 **O058****When and how to use Feces Microbiota Transplantations for severe *Clostridium difficile* infections***Bram Goorhuis***Athene B****Epidemiology and pathogenesis of emerging flavi- and orthohantaviruses***Chairs: Barry Rockx & Carla van Tienen*16:00 - 16:30 **O059****Epidemiology and pathogenesis of orthohantaviruses and Tick-Borne Encephalitis Virus in Europe***Olli Vapalahti (Finland)*16:30 - 16:45 **O060****Clinical aspects of hantavirus infection***Marco Goeyjenbier*16:45 - 17:00 **O061****Pet and feeder rat-associated Seoul hanta virus infections in the Netherlands***Tabitha Hoornweg*17:00 - 17:15 **O062****Usutuivirus: a prelude to West-Nile Virus in the Netherlands***Chantal Reusken*17:15 - 17:30 **O063****Yellow fever: re-emergence in the world and case in the Netherlands***Marjolein Knoester***Sydney****General microbiology***Chairs: Dennis Claessen & Dino van Dissel*16:00 - 16:15 **O064****New Compounds against Tuberculosis: Targeting Type VII Secretion in *Mycobacteria****Alexander Speer*16:15 - 16:30 **O065****Seed endophytes and their potential as novel antimicrobial reservoirs***Chunxu Song*16:30 - 16:45 **O066****Investigating bacterial spore germination and stress resistance***Stanley Brul*16:45 - 17:00 **O067*****Bacillus subtilis* 168 as heterologous production host for lantibiotics***Amanda Tilburg*17:00 - 17:15 **O068****Gelatin nanospheres deliver vancomycin intracellularly into macrophages of zebrafish embryos and protect against *Staphylococcus aureus* infection***Xiaolin Zhang*17:15 - 17:30 **O069*****Streptomyces* morphology engineering by manipulating the extracellular matrix and the effects on antibiotic production***Dino van Dissel*

<b>Room 4/5</b>	<b>Human microbiota throughout life</b> <i>Chair: Clara Belzer</i>
16:00 - 16:15 <b>O070</b>	<b>The Nature and Nurture of our Microbiome</b> <i>Clara Belzer</i>
16:15 - 16:45 <b>O071</b>	<b>Microbiota and immunoregulation in reproductive tissues</b> <i>Renate van der Molen</i>
16:45 - 17:15 <b>O072</b>	<b>Gastrointestinal function and microbiota development during the early life of preterm infants</b> <i>Romy Zwittink</i>
17:15 - 17:30 <b>O073</b>	<b>Gut microbial composition and diversity in young children with recurrent asthma-like symptoms: a case-control study</b> <i>Liene Bervoets</i>
<b>Room 6/7</b>	<b>Speeding up vaccine development: about human challenge studies and correlates of protection</b> <i>Chairs: Dimitri Diavatopoulos &amp; Marien de Jonge</i>
16:00 - 16:15 <b>O074</b>	<b>The use of controlled human challenge models: opportunities for vaccine development and understanding host-pathogen interactions</b> <i>Dimitri Diavatopoulos</i>
16:15 - 16:30 <b>O075</b>	<b>Protection after whole parasite immunization in the controlled human malaria infection model</b> <i>Robert Sauerwein</i>
16:30 - 17:00 <b>O076</b>	<b>Controlled human co-infection with pneumococcus and live attenuated influenza virus</b> <i>Simon Jochems (UK)</i>
17:00 - 17:30 <b>O077</b>	<b>Developing 'difficult' controlled human challenge models</b> <i>Hans de Graaf (UK)</i>
<b>Room 8/9</b>	<b>On microbiome education &amp; citizen science, and scientific citizenship</b> <i>Chairs: Girbe Buist &amp; Guus Roeselers</i>
16:00 - 16:30 <b>O078</b>	<b>The human microbiome: education, communication, collaboration</b> <i>Alan Walker (UK)</i>
16:30 - 17:00 <b>O079</b>	<b>REBLAB: Open Kitchen Science on metabolism of vaginal microbes</b> <i>Rosanne Hertzberger</i>
17:00 - 17:30 <b>O080</b>	<b>Emerging sampling and microbiota analysis tools that simplify and facilitate citizen science</b> <i>Tom van den Bogert</i>
<b>Exhibition hall</b>	
<b>17:30 - 18:30</b>	<b>Drinks</b>
<b>Restaurant</b>	
<b>18:30 - 20:30</b>	<b>Dinner</b>
<b>Sydney</b>	
20:30 - 22:15	<b>POSTER SESSION</b>
20:30 - 21:15	Poster session - Even poster numbers
21:15 - 22:00	Poster session - Odd poster numbers
22:00 - 22:15	Poster award ceremony
<b>Sydney</b>	
<b>22:15 - 01:30</b>	<b>Party</b>

WEDNESDAY 28 MARCH 2018

The **O-numbers** in the programme correspond to the abstracts which can be found on the society websites [www.knvm.org](http://www.knvm.org) & [www.nvmm.nl](http://www.nvmm.nl). The abstracts can also be found in the Meeting App.

<b>08:15 - 09:00</b>		<b>Registration &amp; coffee/tea</b>
<i>Athene B/C</i>		<b>PLENARY SESSION</b>
		<i>Chairs: Nina van Sorge &amp; Paul Savelkoul</i>
09:00 - 09:35	<b>0085</b>	<b>Mechanisms of mAb Protection against Ebola</b> <i>Nancy Sullivan (USA)</i>
09:35 - 10:10	<b>0086</b>	<b>Type VI secretion system: From the discovery to the mode of action of a dynamic bacterial nanomachines</b> <i>Marek Basler (Switzerland)</i>
10:10 - 10:30		<b>Westerdijk &amp; Van Leeuwenhoek Award ceremony</b> <b>Westerdijk Award Winners:</b> <b>Medical Microbiology - Stress to progress</b> <i>Maikel Boot</i> <b>Molecular and General Microbiology – Untangling the piRNA pathway in Arbovirus vector mosquito Aedis aegypti</b> <i>Pascal Miesen</i> <b>Microbial Ecology - On the ecology of dissemination of nitrate reduction to ammonium</b> <i>Eveliëne van den Berg</i> <b>Van Leeuwenhoek Award Winner:</b> <b>Mutations in ppe38 block PE_PGRS secretion and increase virulence of Mycobacterium tuberculosis</b> <i>Louis Ates</i>
<i>Exhibition hall</i>		
<b>10:30 - 11:15</b>		<b>Coffee/tea break</b>
11:15 - 12:45		<b>PARALLEL SESSIONS</b>
<i>Athene C</i>		<b>The do's and don't's of infection prevention</b> <i>Chair: Margreet Vos</i>
11:15 - 11:45	<b>0087</b>	<b>Post-operative surgical infection – is it all in the air?</b> <i>Hilary Humphreys (Ireland)</i>
11:45 - 12:15	<b>0088</b>	<b>Airflow simulations of the OR; design principles and fairytales</b> <i>Mike van der Heijden</i>
12:15 - 12:30	<b>0089</b>	<b>(Inter)national guidelines on prevention of SSI; one step forward and two steps back?</b> <i>Jan Kluytmans</i>
12:30 - 12:45	<b>0090</b>	<b>Surgical site infections - Insights into practice</b> <i>Lonneke Bode</i>
<i>Athene B</i>		<b>Environmental Microbiology</b> <i>Chairs: Guus Roeselers &amp; TBA</i>
11:15 - 11:30	<b>0091</b>	<b>A novel functional link between comammox and anammox bacteria</b> <i>Maartje van Kessel</i>
11:30 - 11:45	<b>0092</b>	<b>A novel tool for the in situ detection of ammonia and methane oxidizing bacteria</b> <i>Dimitra Sakoula</i>

- 11:45 - 12:00 **O093** **Induction and suppression of secondary metabolite production in competing Actinomycetes**  
*Sanne Westhoff*
- 12:00 - 12:15 **O094** **An expanded dissimilatory sulfur cycle in the anoxic and sulfidic Black Sea revealed by gene-centric metagenomics**  
*Daan Vliet*
- 12:15 - 12:30 **O095** **How do coal degrading methanogens make biogas? Unravelling central metabolism of *Methermicoccus shengliensis***  
*Julia Kurth*
- 12:30 - 12:45 **O096** **Phenotypic and genetic heterogeneity among isolates of *A. fumigatus* from humans, dogs and the environment**  
*Ivan Valdes*
- Sydney** **Pathogenesis**  
*Chairs: Jetta Bijlsma & Susanna Commandeur*
- 11:15 - 11:30 **O097** **Staphylococcal superantigen-like protein 13 activates neutrophil via Formyl Peptide Receptor 2**  
*Yuxi Zhao*
- 11:30 - 11:45 **O098** **Macrophage Galactose C type lectin (MGL) interacts with *Staphylococcus aureus* and coagulase negative staphylococci through wall teichoic acid modifications**  
*Malgorzata Mnich*
- 11:45 - 12:00 **O099** **Mycobacterium bovis BCG does not export PE\_PGRS and PPE-MPTR proteins and induces an impaired antigenic repertoire.**  
*Louis Ates*
- 12:00 - 12:15 **O100** **An unusual prohibitin regulates malaria parasite mitochondrial membrane potential**  
*Taco Kooij*
- 12:15 - 12:30 **O101** **Identification of a mycobacterial PE-protease that cleaves secreted surface proteins**  
*Maroeska Burggraaf*
- 12:30 - 12:45 **O102** **Fatty acid processing affects survival of mycobacteria**  
*Susanna Commandeur*
- Room 4/5** **Microbial Darwinian Medicine**  
*Chairs: Marjon de Vos & Christina Vandenbroucke-Grauls*
- 11:15 - 11:45 **O103** **The evolution of seasonal influenza viruses and the immune responses that control them**  
*Colin Russell*
- 11:45 - 12:15 **O104** **The effect of antibiotic exposure on resistance development and plasmid transfer**  
*Benno Ter Kuile*
- 12:15 - 12:30 **O105** **Within host-adaptation of *Bordetella pertussis* under vaccine immune pressure**  
*Evi Schuppen*
- 12:30 - 12:45 **O106** **Diverse evolutionary pathways to colistin resistance in *Klebsiella pneumoniae* and their impact on fitness and virulence characteristics**  
*Axel Janssen*
- Room 6/7** **Antimicrobial Resistance**  
*Chairs: Amelieke Cremers & Aldert Zomer*
- 11:15 - 11:30 **O107** **Carbapenemase producing Enterobacteriaceae in the Netherlands, 2014-2017**  
*Kim van der Zwaluw*

- 11:30 - 11:45 **O108** **Quantitative assessments of resistance gene reservoirs based on pan-genome analyses**  
*Rick Beelo*
- 11:45 - 12:00 **O109** **Reconstruction of plasmids carrying carbapenemase encoding genes using multiplexed nanopore sequencing on a MinION**  
*Fabian Landman*
- 12:00 - 12:15 **O110** **Ceftibuten plus amoxicillin-clavulanic acid for oral treatment of urinary tract infections with ESBL producing *E. coli* and *K. pneumoniae***  
*James Cohen Stuart*
- 12:15 - 12:30 **O111** **Genomic comparisons of antimicrobial resistance in canine and human *S. pseudintermedius***  
*Alice Wegener*
- 12:30 - 12:45 **O112** **Novel approaches to unlabel VRE-suspected labelled patients**  
*Judy Fonville*

**Room 8/9****BaMa***Chair: Marie-Monique Immink*

- 11:15 - 11:30 **BaMa-001** **Unravelling the specific interaction of wall teichoic acid with antibodies using a new WTA-bead model**  
*Michèle Molendijk*
- 11:30 - 11:45 **BaMa-002** **Enrichment of a novel sulfate-reducing bacteria from volcanic areas**  
*Laura Wilkendorf*
- 11:45 - 12:00 **BaMa-003** **The effect of mucin on the production of novel ganglioside mimicking structures by Guillain-Barré syndrome-related *Campylobacter jejuni* strains with the serotype HS:19**  
*Sanne van de Meerendonk*
- 12:00 - 12:15 **BaMa-004** **Identification of parasitic nematodes using 18S rDNA, 28S rDNA and 5s rDNA molecular markers**  
*Jasmijn Ebbers*
- 12:15 - 12:30 **BaMa-005** **The role of *Streptococcus pyogenes* LytR in resistance to human Group-IIA Secreted Phospholipase A2**  
*Lina Lankhorst*
- 12:30 - 12:45 **BaMa-006** **Variability of Salmonella during enrichment according to ISO 6579:1-2017**  
*Kevin de Carlo*

**Room 4/5**

- 12:45 - 13:45 **BBC-MMO Business Meeting - lunch included**

**Exhibition hall**

- 12:45 - 14:00 **Lunch**

- 14:00 - 15:30 **PARALLEL SESSIONS**

**Athene C****Clinical cases in medical microbiology: an interactive session (WAMM, NWKV, NVP, NVMY)***Chair: Harold Thiesbrummel*

Moderators: Jaap van Hellemond, Ed Kuijper, Annelies Riezebos-Brilman, Paul Verweij

- 14:00 - 14:15 **An unfortunate cocktail: Mixing alcohol with an infection**

*Arjen Stam*

- 14:15 - 14:30 **Successful management of invasive aspergillosis in the ICU: a mission impossible?**

*Jochem Buil*

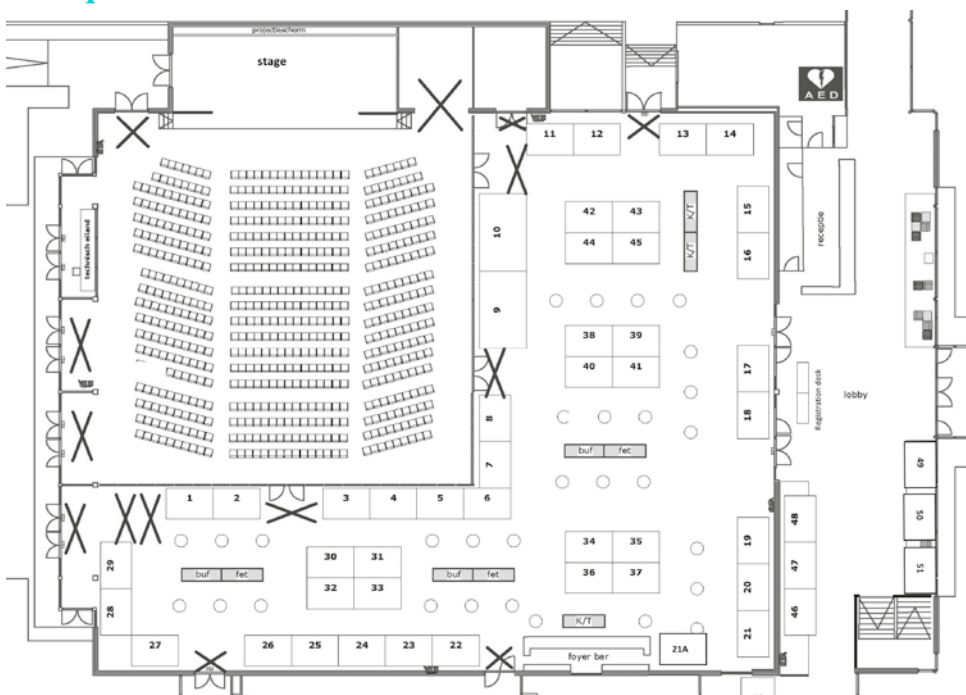
- 14:30 - 14:45 **Another case of ordinary Community Acquired Pneumonia (CAP)**  
*Rebecca van Grootveld*
- 14:45 - 15:00 **A Foxy Lady**  
*Femke Mollema*
- 15:00 - 15:30 Discussion
- Athene B**
- 14:00 - 14:30 **O113** **Bacteriophages - Improving the quality of life**  
*Chairs: Sanne van den Hengel & Caroline Plugge*
- 14:30 - 15:00 **O114** **The role of viruses in the ecology and evolution of natural systems**  
*Mark Young*
- 14:30 - 15:00 **O114** **Artilynsins, enzyme-based antibacterials derived from bacteriophages**  
*Yves Briers (Belgium)*
- 15:00 - 15:15 **O115** **Genome instability conditionsphage adaptation**  
*Cristian Aparicio Maldonado*
- 15:15 - 15:30 **O116** **Phages and CRISPR-Cas9: new antimicrobial approaches**  
*Thaysa Tagliaferri (Germany)*
- Sydney**
- 14:00 - 14:15 **O117** **Host-microbe interaction**  
*Chairs: Pieter-Jan Haas & Jeroen Langereis*
- 14:00 - 14:15 **O117** **Resistance of Group A Streptococcus to human phospholipase A2-IIA uncovers a missed structural modification on streptococcal Lancefield antigens**  
*Vincent van Hensbergen*
- 14:15 - 14:30 **O118** **Adaptation of *Bordetella pertussis* to the respiratory tract**  
*Lucille van Beek*
- 14:30 - 14:45 **O119** **Virulence associated gene 8 of *Bordetella pertussis* enhances contact system activity by inhibiting the regulatory function of C1esterase inhibitor**  
*Elise Hovingh*
- 14:45 - 15:00 **O120** **Human dendritic cells internalize *Staphylococcus aureus* more efficiently than *Staphylococcus epidermidis*, but the level of the ensuing T-cell proliferation predominantly depends on superantigens**  
*Payal Balraadsing*
- 15:00 - 15:15 **O121** **Visualization of *Haemophilus influenzae* sialic acid theft from primary human bronchial epithelial cells and selective inhibition with sialic acid-based inhibitor abrogates serum resistance**  
*Jeroen Langereis*
- 15:15 - 15:30 **O122** **Prevalence of sIgE to alpha-gal among patients with a tick bite or erythema migrans in a retrospective study in the Netherlands, 2007-2008**  
*Tamara van Gorkom*
- Room 4/5**
- 14:00 - 14:15 **O123** **General microbiology**  
*Chairs: Paul Savelkoul & Hauke Schmidt*
- 14:00 - 14:15 **O123** **Metabolic complementarity within microbial communities from global ecosystems**  
*Eric Hester*
- 14:15 - 14:30 **O124** **Environmental surveillance of *Francisella tularensis* holarctica in the Netherlands**  
*Ingmar Janse*
- 14:30 - 14:45 **O125** **Microbiota of the female urogenital tract – no evidence for a distinct urinary microbiome**  
*Martin Singer*

- 14:45 - 15:00 **O126** **Novel bacterial and human methanethiol oxidases widely distributed in the biosphere and involved in extra-oral halitosis**  
*Huub op den Camp*
- 15:00 - 15:15 **O127** **Mucolytic activity of *Akkermansia muciniphila* enables human milk oligosaccharides degradation**  
*Ioannis Kostopoulos*
- 15:15 - 15:30 **O128** **The polygonal cell shape and surface protein layer of anaerobic methane oxidising *Methylophilum* bacteria**  
*Lavinia Gambelli*
- Room 6/7**
- 14:00 - 14:30 **O129** **Cerebrospinal fluid-contacting neurons respond to bacterial invasion during bacterial meningitis**  
*Claire Wyart (France)*
- 14:30 - 15:00 **O130** **Developments in the treatment of bacterial meningitis**  
*Diederik van de Beek*
- 15:00 - 15:15 **O131** **Novel pneumococcal virulence factors identified with the zebrafish embryo infection model**  
*Kin ki Jim*
- 15:15 - 15:30 **O132** **Evolving epidemiology of bacterial meningitis in The Netherlands**  
*Arie van der Ende*
- Room 8/9**
- 14:00 - 14:15 **BaMa-O07** **BaMa**  
*Chair: Marie-Monique Immink*
- 14:15 - 14:30 **BaMa-O08** **Microbiological causes of untreated dysuria in men and women in South Africa: diverse aetiology and antimicrobial resistance**  
*Charlotte Hoffman*
- 14:30 - 14:45 **BaMa-O09** **Tn-seq as a method to discover new vaccine targets for nontypeable *Haemophilus influenzae***  
*Rienke Uijen*
- 14:45 - 15:00 **BaMa-O10** **Finding new strategies to improve *Trichoderma harzianum* lysing enzymes activity**  
*Auke de Jong*
- 15:00 - 15:30 **BaMa-P01-P25** **iGEM**  
*TBA*
- 15:00 - 15:30 **BaMa-P01-P25** **Poster pitches**
- Foyer in front of room 8/9**  
15:30 - 16:15 **BaMa Poster session - coffee/tea included**
- Exhibition hall**  
15:30 - 16:00 **Coffee/tea break**
- Athene C**  
16:00 - 18:00 **NVMM Business meeting**





## Floorplan exhibition



### Booth number Company

1 & 2	Hologic
3	Accelerate Diagnostics
4	Bodegro
5	Mediaproducts
6	Siemens Healthcare Nederland
7	Altona Diagnostics
8	R-Biopharm
9	Becton Dickinson
10	Roche Diagnostics Nederland
11 & 12	Alere Health
13	Clindia Benelux
14	bioMérieux
15	Diagenode diagnostics
16	Meridian Bioscience Europe
17	EWC Diagnostics
18	Nordic Pharma
19	bioTRADING Benelux
20	Axon Lab
21	GC biotech
21A	DaklaPack Europe
22	MLS
23	Pfizer
24	Accuramed
25	Dimensional Insight Netherlands

### Booth number Company

26	Mips Nederland
27	Bio-Rad Laboratories
28	QIAGEN
29	Goffin Molecular Technologies
30 & 31	DiaSorin
32	Beldico
33	Medical Wire
34	ELITechgroup Benelux
35	Analisis nv
36	Sanbio B.V.
37	Philips Nederland
38	Applied Maths
39	Bruker Nederland
40 & 41	Mediphos Medical Supplies
42	NovaVeth Bv
43	Luminex Corporation
44	Softmedex
45	UgenTec
46	NVMM
47	BaseClear
48	IDMC
49	Cepheid Benelux
50	Thermo Fisher Diagnostics



# Floorplan Papendal Hotel and Conference Centre

