# Program

# IPNC2025

24<sup>th</sup> International Pathogenic Neisseria Conference

Palazzo dei Congressi Piazza Adua, 1 - Florence (Italy)

www.ipnc2025.com

30 MARCH 4 APRIL



### 30/03/2025

17:30-18:30 Auditorium

#### **Opening Lecture**

Chair: C. AZZARI (ITALY)

**Vaccine technologies** 

R. RAPPUOLI

Fondazione Biotecnopolo di Siena, Siena (ITALY)

18.30-20.00 Welcome Reception

#### 31/03/2025

09:00-15:15 Auditorium

#### Neisseriae: Clinical relevance and epidemiology in 2025

Chair: D. CAUGANT (NORWAY), N. E. BASTA (CANADA)

09:00-09:30 Keynote Lecture

Evolution of the pathogenic Neisseria: links to clinical presentations and pathogenesis

D. STEPHENS

Emory University School of Medicine, Atlanta (USA)

09:30-09:50 A manually curated pathway and genome database for Neisseria Gonorrhoeae FA 1090

B. WILSON-MORTIER

Macquarie University, Department of Natural Sciences,

Sydney (AUSTRALIA)

09:50-10:10 LIN code: a robust approach for defining and exploring gonococcal lineages

A. UNITT

NDPH, University of Oxford, Oxford (UNITED KINGDOM)

10.10-11.10 Coffee Break

11:20-11:40 A large outbreak of Neisseria meningitidis serogroup C and the first global use of Men5CV –

Nigeria, October 2023—June 2024

A.L. MOHAMMED

Nigeria Centre for Disease Control and Prevention, Abuja (NIGERIA)

#### **Flash Poster Presentations**

Chairs: S. JACOBSSON (SWEDEN), C. VIPOND (UNITED KINGDOM)

11:40-11:45 High Neisseria meningitidis oropharyngeal carriage trends in men who have sex with men: a public health warning

A. MEMON

University of Oxford, Nuffield Department of Population Health, Oxford (UNITED KINGDOM)

11:45-11:50 Update on the epidemiology of invasive meningococcal disease: Canada 2002-2023

J. BETTINGER

Vaccine Evaluation Center British Columbia Childrens Hospital Research Institute UBC, Vancouver (CANADA)

11:50-11:55 Assessing maternal contributions to the prevention and control of sporadic meningitis in rural communities: a growing concern of geographic risk dynamics and migration from

high-burden regions

C.A. IWU

Imo State University/Teaching Hospital, Owerri (NIGERIA)

11:55-12:00 Assessing the use of point of care diagnostic testing for invasive meningococcal disease and the impact of this on the implementation of essential public health actions

F. HFYMFR

Immunisation and Vaccine Preventable Diseases Division, UK Health Security Agency, Colindale, London (UNITED KINGDOM)

12:00-12:05 Turbo, an adjuvant for multivalent meningococcal glycoconjugate vaccines

K. ALUGUPALLI

TurboVax Inc, Philadelphia (USA)

12:05-12:10 Insights into the epitope-specific roles of Neisseria gonorrhoeae reduction modifiable

protein (Rmp) in modulating bactericidal activity

V. KASIMOV (1,2)

Institute for Biomedicine and Glycomics, Griffith University, Southport, QLD (AUSTRALIA), Gold Coast Sexual Health Clinic, Southport Community Health Precinct, Southport, QLD (AUSTRALIA)

12:10-12:15 A combination native outer membrane vesicle (NOMV) vaccine to prevent

meningococcal and gonococcal disease

S. GIUNTINI

OMVAX INC., OAKLAND, CALIFORNIA (USA)

The importance of selecting outer membrane antigens from Neisseria meningitidis strains 12:15-12:20

associated with different meningococcal polysaccharides for an effective protection

N. SIMOES DE MELO

Adolfo Lutz Institute, Immunology Center, São Paulo (BRAZIL)

# 12:25-12:30 Estimating the impact of immunization against Neisseria meningitides with a pentavalent conjugate vaccine compared to monovalent serogroup A conjugate vaccine in the African meningitis belt

A. HABIB

Bayero University Kano, Kano (NIGERIA)

### 12:30-12:35 Identification and control of an outBreak of serogroup Y invasive meningococcal disease in Ouebec

P.D.W. DE WALS

Laval University, Québec (CANADA)

### 12:35-12:40 Extracellular vesicles carrying complement inhibitors enhance Neisseria gonorrhoeae serum resistance

N. WEYAND

Ohio University, Athens (USA)

#### 12.40-14.15 Lunch break

Chairs: C. BAYLISS (UNITED KINGDOM), B. BØRUD (NORWAY)

### 14:15-14:35 Genomic analysis uncovers multiple strains in Umrah- and travel-related outBreak of serogroup W invasive meningococcal disease ahead of Hajj 2024

J. LUCIDARME

UK Health Security Agency - Meningococcal Reference Unit, Manchester (UNITED KINGDOM)

### 14:35-14:55 Fluctuations in serogroup B meningococcal vaccine antigens prior to routine MenB vaccination in France

A.-E. DEGHMANE

Institut Pasteur, Paris (FRANCE)

#### **Testimonies of life after disease**

Chairs: C. AZZARI (ITALY), F. MARTINON TORRES (SPAIN)

15:00-15:30 Talk: Gonorrhea in LMIC and impacts on women and children

S. DELANY-MORETLWE

Wits RHI, University of the Witwatersrand, Johannesburg (SOUTH AFRICA)

15:30-16:00 Advocates driving change to defeat meningitis

V. SMITH

*Meningitis Research Foundation (UNITED KINGDOM)* 

16:00-16.45 Coffee Break

16:45-18:00 Poster session: Poster viewing

#### 01/04/2025

09:00-14:00 Auditorium

#### **Meningococcal and gonococcal vaccines**

Chairs: J. DERRICK (UNITED KINGDOM), G. POLLOCK (AUSTRALIA)

09:00-09:30 Keynote Lecture

Gonorrhea vaccines: status and challenges in 2025

A. JERSE

Uniformed Services University of the Health Sciences, Bethesda (USA)

09:30-10:00 Keynote lecture

Meningococcal Vaccines: Where We Are and Where We're Headed

F. MARTINON TORRES

Hospital Clínico Universitario, Santiago de Compostela (SPAIN)

10:00-10:20 Long-term protection against invasive meningococcal disease and gonorrhoea, 5 years after

implementation of an infant and adolescent 4CMenB vaccine program in South Australia

H. MARSHALL

Women's and Children's Health Network and The University of Adelaide, Adelaide (AUSTRALIA)

10:20-10:40 Impact of 4CMenB and MenB-fHbp on pharygneal carriage in UK adolescents: The 'Be on

the TEAM' randomised controlled trial

J. CARR

University of Oxford, Oxford (UNITED KINGDOM)

10.40-11.20 Coffee Break

Chairs: K.SEIB (AUSTRALIA), P. T. BEERNINK (USA)

11:20-11:40 Immunogenicity and functionality of a N. gonorrhoeae vaccine (LTB-NG6) in animals

P. CARRANZA

LimmaTech Biologics AG, Schlieren (SWITZERLAND)

11:40-12:00 Mucosal and serum immune responses against Neisseria gonorrhoeae (Ng) outer

membrane vesicle antigens following meningococcal 4CMenB immunization in

healthy adults

V. PHADKE

Hope Clinic of Emory University, Atlanta (USA)

12:00-12:20 Characterising the genetic diversity of the Neisseria gonorrhoeae outer-membrane protein

PorB for improved vaccine development and surveillance

O. HARRISON

University of Oxford, Nuffield Department of Population Health, Oxford (UNITED KINGDOM)

12:20-12:40 Expression of gonococcal 2C7 lipopolysaccharide on meningococcal outer membrane

vesicles

P.V.D.L. VAN DER LEY

Intravacc, Bilthoven (THE NETHERLANDS)

## **Lunch Roundtable I - Defeating meningitis by 2030: a global roadmap**

Chairs: Ziad Memish (SAUDI ARABIA), Mariagrazia Pizza (UNITED KINGDOM)

12:50-12:55 Introduction

Ziad Memish (SAUDI ARABIA), Mariagrazia Pizza (UNITED KINGDOM)

12:55–13:10 The WHO global roadmap: we will defeat meningitis by 2030

-The WHO roadmap and progress updates since last IPNC

-The business case for defeating meningitis

-The five pillars of the roadmap

-Pillar I: prevention and epidemic control: new vaccines will meet the roadmap's goal

to eliminate bacterial meningitis epidemics

Marie-Pierre Preziosi

World Health Organization, Geneva (SWITZERLAND)

13:10-13:20 Global epidemiology of N. meningitidis

**Caroline Trotter** 

*University of Cambridge (UNITED KINGDOM)* 

13:20-13:30 Global landscape of meningococcal vaccine use policies and practice

Nicole Basta

Mcgill University, Montréal-Québec (CANADA)

Regional and national implementation plans for defeating meningitis

13:30–13:40 The Eastern Mediterranean regional implementation plan

Messeret Eshetu Shibeshi

WHO Eastern Mediterranean Regional Office (EGYPT)

13:40–13:50 The Brazil national plan

Caroline Gava Alves
Ministry of Health (BRAZIL)

13:50-14:00 Q&A

# GSK Symposium: Evolution of Neisseria meningitidis serogroup B strain coverage methods: the prospects of harnessing machine learning technology to further improve strain coverage predictions

14:00-14:05 Opening remarks

M.-K. TAHA

Institut Pasteur, Paris (FRANCE)

14:05-14:20 Classic principal laboratory methods

J. LUCIDARME

UK Health Security Agency, Manchester-Greater Manchester (UNITED KINGDOM)

14:20-14:35 Estimation of strain coverage with different methods and how it compares to RWE

M.-K. TAHA

*Institut Pasteur, Paris (FRANCE)* 

14:35-14:50 GeCoPred - Machine learning in strain coverage prediction

M. BODINI

GSK, Siena (ITALY)

14:50-15:00 Closing Remarks, Q&A, Discussion

M.-K. TAHA

Institut Pasteur, Paris (FRANCE)

# Serum Institute of India Symposium: Can Men5CV the novel pentavalent meningococcal conjugate vaccine play a key part in "Defeating Meningitis by 2030 - Global road map"

15:00-15:10 Welcome: Can Men5CV Help Defeat Meningitis by 2030? S. BERKLEY Serum Institute of India Pvt Ltd, Pune (INDIA) Advances in vaccine technology and the development of MenFive® 15:10-15:20 P. KULKARNI Serum Institute of India Pvt Ltd, Pune (INDIA) Perspectives from MenAfriVac and Men5CV clinical trials; how research can shape 15:20-15:30 vaccine policy and uptake M. TAPIA Centre for Vaccine Development, University of Maryland, (USA) Turning evidence into policy: WHO SAGE recommendations and Men5CV's role in 15:30-15:40 defeating meningitis by 2030 A. HABIB Bayero University, Kano (NIGERIA)

15:40-16:00 Moderated Panel Discussion + Audience Q&A

Moderator: S. BERKLEY

Serum Institute of India Pvt Ltd, Pune (INDIA)

16.00-16.30 Coffee Break

#### 16:30-18:00

#### Policy regulation/ Cost-effectiveness Roundtable II - Defeating Meningitis in the African Meningitis Belt

Chair: Marie-Pierre Preziosi (SWITZERLAND)

16:30–16:42 Epidemiology of N. meningiditis in the African Meningitis Belt

Caroline Trotter

University of Cambridge (UNITED KINGDOM)

16:42–16:54 Use of new MMCVs to put African countries on the path to elimination of epidemics

Abdulrazaq Habib

Bayero University, Kano (NIGERIA)

16:54-17:06 Gavi's Vaccine Support Programmes: MMCVs in the Gavi Vaccine Investment Strategy

Marta Tufet

Gavi, the Vaccine Alliance, Geneva (SWITZERLAND)

17:06–17:18 Assessing impact of MMCVs use strategies- Need for Continued Surveillance

and Carriage Studies

**Dominique Caugant** 

Norwegian Institute Of Public Health, Oslo (NORWAY)

17:18–17:30 Policy Considerations for the Use of MMCVs in the African meningitis belt and globally

Ziad Memish

King Saud medical city, Riyadh (SAUDI ARABIA)

17:30–18:00 Fireside Chat: Looking Ahead: Renewing the Research Agenda in the

Context of New MMCVs - Q&A

#### 02/04/2025

09:00-18:00 Auditorium

## Clinical studies and translational research and correlates of protection

Chairs: R. READ (UNITED KINGDOM), A. SCHUBERT-UNKMEIR (GERMANY)

09:00-09:30 Keynote Lecture

Controlled Human Infection with N. gonorrhoeae, role of this model in understanding

pathogenesis and immunity

J.A. DUNCAN

University of North Carolina School of Medicine, Chapell Hill (USA)

09:30-09:50 A randomised controlled trial of 4CMenB vaccine against gonorrhoea incidence

C.C.M. THNG

Gold Coast Sexual Health Service, Gold Coast University Hospital, Gold Coast (AUSTRALIA),

09:50-10:50 Coffee Break

10:50-11:10 ANRS 174 DOXYVAC: a randomized trial to prevent STI in MSM using antibiotic

prophylaxis or 4CMENB vaccine

M. MOLINA

University of Paris School of Medicine, Paris (FRANCE)

11:10-11:30 Ability of MENB-FHBP-containing vaccines to provide immune protection against

serogroup B sequence TYPE 1161 UK University outbreak strains

J. FINDLOW

Vaccines/Antivirals and Evidence Generation, Pfizer Ltd, Tadworth (UNITED KINGDOM)

#### Flash Poster Presentations

Chairs: M. P. MAHLANGU (SOUTH AFRICA), A. UNITT (UNITED KINGDOM)

A Bioluminescence-based high-throughput Serum Bactericidal Assay to detect bactericidal 11:30-11:35 antibodies against N. meningitis in human sera

G. FANTONI

University of Siena, Siena (ITALY)

11:35-11:40 Evaluation of the impact of insecurity and the COVID-19 pandemic on meningitis surveillance in Burkina Faso, 2015-2021

A.-G. SAWADOGO

Jhpiego Corporation, Ouagadougou (BURKINA FASO)

11:40-11:45 Two decades of Neisseria gonorrhoeae evolution in Western Kenya

O. HARRISON

University of Oxford, Nuffield Department of Population health, Oxford (UNITED KINGDOM)

Clinical management of gonorrhoea contacts: evaluation of a change from universal to 11:45-11:50 selective treatment

E. CHOW

Melbourne Sexual Health Centre, Alfred Health, Melbourne (AUSTRALIA)

11:55-12:00 Female sex hormones enhance gonococcal colonization at the endocervix by modifying cervical mucus

W. SONG

University of Maryland, College Park - Department of Cell Biology and Molecular Genetics, College Park (USA)

12:00-12:05 Neutrophil-Derived catecholamines support gonococcal resistance to nutritional immunity

C. WESTLAKE

University of Virginia - Department of Microbiology, Immunology, and Cancer Biology, Charlottesville (USA)

12:05-12:10 Initiation of Gonococcal Pilus Assembly by PilC: the licensing model

A. MERZ

University of Washington, Seattle (USA)

12:10-12:15 Macrophage infectivity potentiators are important in pathogenic Neisseria spp. for host innate defences and antibiotic resistance.

T.J. HOOTON

University of Western Australia - Marshall Centre for Infectious Disease Research and Training, Perth (AUSTRALIA)

12:15-12:20 Evolution and phylogeny of the newly characterized ssn protein family of site-specific single-stranded DNA endonucleases in Neisseriae and beyond

F. VERYRIER

Armand-Frappier Santé Biotechnologie Research Centre, INRS, Laval (CANADA)

12:20-12:25 Impact of the L421P mutation in the ponA1 gene, encoding Penicillin-Binding Protein 1, on fitness and antibiotic resistance in Neisseria gonorrhoeae

R. NICHOLAS

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

The central role of the beta3-beta4 loop of penicillin-binding protein 2 in the cephalosporin 12:25-12:30 resistance of N. gonorrhoeae

C. DAVIES

University of South Alabama, Mobile (USA)

12:30-12:35 Accelerated antimicrobial resistance testing of Neisseria gonorrhoeae in sexual health

samples

A. DHANJAL

School of Clinical Dentistry, University of Sheffield, Sheffield (UNITED KINGDOM)

12.40-14.00 **Lunch Break** 

Chairs: E. CHOW (AUSTRALIA), K. POLYAC (USA)

14:00-14:20 A potent monoclonal antibody against gonococcal lipooligosaccharide with enhanced

effector function and plasma half-life

D. GILL

StiRx Inc, Cambridge (USA)

14:20-14:40 Human monoclonal antibodies targeting subdominant meningococcal antigens reveal

cross-protection against gonococcus

E. ANDREANO

Fondazione Toscana Life Sciences, Siena (ITALY)

14:40-15:00 Strain selection for the development of an oropharyngeal gonorrhoea controlled human

infection model

G. POLLOCK

The University of Melbourne - Department of Infectious Diseases, Melbourne (AUSTRALIA)

15:00-15:20 Unctional impact of novel properdin variants in patients with invasive meningococcal disease

Department of Paediatric Infectious Diseases, St Mary's Hospital, Imperial College,

London (UNITED KINGDOM)

15.20-16.00 Coffee Break

#### 24<sup>th</sup> International Pathogenic Neisseria Conference



#### 16:00-17:00 Round table on Preventing Gonococcal Infection Utilizing the 4CMenB Vaccine

Chairs: C. DEAL (USA), S. LADHANI (UNITED KINGDOM)

Speakers: H. MARSHALL

University of Adelaide (AUSTRALIA)

K. SEIB

Institute for Biomedicine and Glycomics, Gold Coast, (AUSTRALIA)

P. WHITE

Modelling & Economics Unit, UK Health Security Agency, London (UNITED KINGDOM)

17:00-18:00 Poster session: poster viewing

#### 03/04/2025

09:00-12:35 Auditorium

### Bacterial physiology and virulence, and in vivo & in vitro models

Chairs: A. CRISS (USA), E. BILLE (FRANCE)

09:00-09:30 Keynote Lecture

Gc plasmids

C. TANG

University of Oxford, Oxford (UNITED KINGDOM)

09:30-09:50 Phase-Variable LOS epitopes of Neisseria gonorrhoeae and their role in sex-specific

epithelial adherence

L.M.B. DE DEUS PONCES DE CARVALHO

University of Sheffield, School of Clinical Dentistry, Sheffield (UNITED KINGDOM)

09:50-10:10 Exploring the metabolism of Neisseria gonorrhoeae during infection through genome scale

metabolic modelling

D. CARRUTHERS-LAY

University of Toronto, Department of Molecular Genetics, Toronto (CANADA)

10:10-10:30 Interaction of human macrophages with Neisseria gonorrhoeae

A.-M. DRAGOI

LSU Health Shreveport - Department of Molecular and Cellular Physiology, Shreveport (USA)

10.30-11.15 Coffee Break

Chairs: K. WALDRON, (POLONIA), M. REGAN (USA)

11:15-11:35 Gonococcal outer membrane vesicles induce porB-dependent epithelial cell mitophagy to

enhance intracellular survival

S. VAN DER VEEN

Department of Microbiology, School of Medicine, Zhejiang University, Hangzhou (CHINA)

11:35-11:55 Neisseria gonorrhoeae suppresses inflammation at the human cervix by spatially regulating

the initial local cytokine responses

W. SONG

University of Maryland, College Park - Department of Cell Biology and Molecular Genetics, College Park (USA)

11:55-12:15 The role of CD9 across the meningococcal infective pathway

P. WOLVERSON

University of Sheffield, School of Clinical Dentistry, Sheffield (UNITED KINGDOM)

#### 24<sup>th</sup> International Pathogenic Neisseria Conference

### **IPNC**2025

12:15-12:35 Neisseria meningitidis Induces Dihydroceramide Accumulation and Alters Lipid Trafficking in Brain Endothelial Cells

A. WEINMANN

Julius-Maximilians-Universität Würzburg, Institute for Hygiene and Microbiology, Würzburg (GERMANY)

12:35-12:50 **POSTER AWARDS** 

#### 04/04/2025

10:00-13:00 Auditorium

#### Antimicrobial resistance: clinical relevance and how to address it

Chairs: B. BERÇOT (FRANCE), J. HICKS (NEW ZEALAND)

10:00-10:30 Keynote Lecture

Antimicrobial resistance in Neisseria gonorrhoeae globally: Clinical relevance and how to address it

M. Unemo

WHO Collaborating Centre for Gonorrhea and Other STIs, Örebro University, Örebro (SWEDEN)

10:30-10:50 An Investigation of drug-drug interactions and resistance mutation interactions involving

the Neisseria gonorrhoeae replisome
B. BOWCUTT

Harvard University - Department of Immunology and Infectious Disease, Boston (USA)

10:50-11:10 A novel solution for combating multi-drug resistance in Neisseria gonorrhoeae

F. JEN

Griffith University, Gold Coast (AUSTRALIA), The Ohio State University, Ohio (USA)

11:10-11:30 Genome reorganization can contribute to antibiotic resistance in Neisseria gonorrhoeae

D. STEIN

Univeristy of Maryland, College Park (USA)

11.30-12.00 Coffee Break

Chairs: S. SAROJ (INDIA), M. P. MAHLANGU (SOUTH AFRICA)

12:00-12:20 Vaccine potential of the Neisseria gonorrhoeae MafA 2/3 adhesin protein

M. GIRGIS

Neisseria Research Group, Molecular Microbiology, School of Clinical and Experimental Sciences, Southampton (UNITED KINGDOM)

12:20-12:40 Pharyngeal carriage study of UK adolescents reveals wide-spread carriage of genetically

diverse Neisseria species harbouring various antimicrobial resistance mechanisms

L. WALSH

Meningococcal Reference Unit, UK Health Security Agency, Manchester (UNITED KINGDOM)

12:40-13:00 Antimicrobial resistance determinants associated with azithromycin resistance in South

African Neisseria gonorrhoeae, 2017-2021

M.P. MAHLANGU

Centre for HIV and STIs, National Institute for Communicable Diseases, National Health Laboratory Service, Johannesburg (SOUTH AFRICA)

13:00-13:30 CLOSING REMARKS

C. AZZARI, M. PIZZA, R. RAPPUOLI

#### **ANTIMICROBIAL RESISTANCE, THERAPEUTICS AND DIAGNOSTICS**

P001 Identifying a minimal set of mutations in penicillin-binding protein 2 from the ceftriaxoneresistant strain H041 that confer a majority of cephalosporin resistance

**BIVINS MARISSA** 

Department of Pharmacology, University of North Carolina at Chapel Hill, Chapel Hill, USA

P002 The GyrA-mediated in vivo fitness advantage in ciprofloxacin-resistant Neisseria gonorrhoeae is reproduced in media that mimics the thiamine- and iron-limited microenvironment of the genital tract

LE VAN ADRIANA

Henry M. Jackson Foundation for the Advancement of Military Medicine, INC, Bethesda, USA

FP004 The central role of the beta3-beta4 loop of penicillin-binding protein 2 in the cephalosporin resistance of N. gonorrhoeae

**DAVIES CHRISTOPHER** 

University of South Alabama, Mobile, USA

FP005 Accelerated antimicrobial resistance testing of Neisseria gonorrhoeae in sexual health samples

DHANJAL ANISHA

School of Clinical Dentistry, University of Sheffield, Sheffield, UNITED KINGDOM

P006 Three cases of XDR ST16406 in Norway, 2024

**ELDHOLM VEGARD** 

Norwegian Institute of Public Health, Oslo, NORWAY

P007 GonoGate: a modular vector assembly system for the expression of genes in Neisseria gonorrhoeae

FLEMMING CHLOE

University of Waikato, Hamilton, NEW ZEALAND

P008 Targeting cysteine biosynthesis for new antimicrobials

HICKS JOANNA

University of Waikato, Hamilton, NEW ZEALAND

P010 Artificial Intelligence-driven functional annotation and reverse vaccinology based approach to identify novel vaccine candidates against Neisseria gonorrhoeae

KANT RAVI

Dr.B.R.Ambedkar Center for Biomedical Research, University of Delhi, New Delhi, INDIA

P011 MOFs as novel antibacterial agents: a computational, material science and experimental investigation of their potential against Neisseria gonorrhoeae

KANT RAVI

Dr.B.R.Ambedkar Center for Biomedical Research, University of Delhi, New Delhi, INDIA

P012 Phenotypic and genomic characterization of multi-drug resistant gonococcal isolates from the global surveillance GEIS antimicrobial resistance program

LE VAN ADRIANA

Henry M. Jackson Foundation for the Advancement of Military Medicine, INC, Bethesda, USA

#### P013 In vitro activity of an aqueous allicin extract against Neisseria gonorrhoea

MAHARJAN SUNIL

Medicines And Healthcare Products Regulatory Agency, Potters Bar, UNITED KINGDOM

### P014 Combatting antibiotic resistance in Neisseria gonorrhoeae by targeting CysK, the final enzyme in cysteine biosynthesis

MCGARVIE JACK

School of Science, University of Waikato, Hamilton, NEW ZEALAND

### P015 Active-site tyrosine-422 is crucial for acylation and transpeptidation in penicillin-binding protein 2 from multi-drug resistant Neisseria gonorrhoeae H041

MONTEIRO-PAI JUANITA

University of South Alabama, Mobile, USA

### FP016 Impact of the L421P mutation in the ponA1 gene, encoding Penicillin-Binding Protein 1, on fitness and antibiotic resistance in Neisseria gonorrhoeae

**NICHOLAS ROBERT** 

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

### P017 In vivo-selected gentamicin-resistant Neisseria gonorrhoeae exhibits a fitness cost in vitro and in vivo, and compensatory mutations may support spread of resistance

LE VAN ADRIANA

Henry M. Jackson Foundation for the Advancement of Military Medicine, Bethesda, USA

#### P018 RNase HI as a drug target in Neisseria gonorrhoeae

PENNYCUICK KATE

School of Biological Sciences, University of Auckland, Auckland, NEW ZEALAND

### P020 Identification of two expanded-spectrum cephalosporins that target penicillin-binding protein 1 (PBP1) in Neisseria gonorrhoeae

ROBERT A NICHOLAS

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

### P021 Re-evaluating the potential impact of doxycycline post-exposure prophylaxis (Doxy-PEP) on the selection of resistance in Neisseria commensals

**ROBINSON LEAH** 

Rochester Institute of Technology - College of Science, Rochester, USA

### P022 High reliability and specificity of agglutination tests in the laboratory diagnosis of bacterial meningitis at the subnational level in Togo, from 2016 to 2024

SADJI ADODO YAO

National Institute of Hygiene, Lome, Togo

# P025 Botanical extract-guided discovery of phenethyl caffeate as antimicrobial compound with in vitro and in vivo anti-gonococcal activity through inhibition of elongation factor Tu VAN DER VEEN STUN

Department of Microbiology, School of Medicine, Zhejiang University, Hangzhou, CHINA

### BACTERIAL PHYSIOLOGY AND VIRULENCE, AND IN VIVO & IN VITRO MODELS

### P026 Biochemical studies of Type IV pilus tip-located proteins of Neisseria gonorrhoeae support a licensing model for fiber initiation

APPLEGATE JUSTIN

University of Washington, Seattle, USA

### P027 Decoding bacterial epigenetic regulation via phase-variable methyltransferases in pathogenic Neisseria species

**ASCARI ALICE** 

Institute for Biomedicine and Glycomics, Griffith University, Gold Coast, AUSTRALIA

#### P028 Rigidity dependent growth of Neisseria microcolonies

**BIAIS NICOLAS** 

Laboratoire Jean Perrin - Sorbonne Université, Paris, FRANCE

#### P029 Selection of a hyper adhesive meningococcal population by a filamentous phage

**BILLE EMMANUELLE** 

Université Paris Cité, INSERM U1151, CNRS UMR8253, Institut Necker-Enfants Malades, Paris, FRANCE

### P031 Contributions of C4b-binding protein to interactions of Neisseria gonorrhoeae and primary human neutrophils

**BRODEN MARY** 

University of Virginia, Charlottesville, USA

# P032 Genotypic and phenotypic studies of gonococcal strains of different origins (Sexually Transmitted Infections, invasive infections and colonisations): focus on serum resistance BROUSSEAU JULIE

Institut Necker-Enfants Malades, INSERM U1151, CNRS UMR 8253, Paris, FRANCE

### P033 Neisseria gonorrhoeae infection in the genital tract alters the murine gut microbiome CHIEU RYAN

University of Toronto, Department of Molecular Genetics, Toronto, CANADA

### P034 Impact of intergenic region variation on gene expression among phylogenetically-related Neisseria meningitidis Isolates

CLARK JACK

University of Leicester - Department of Genetics, Genomics and Cancer Sciences, Leicester, UNITED KINGDOM

### P035 Complement C5b-C8 and C5b-C9 membrane attack complexes potentiate antimicrobial activity against drug-resistant Neisseria gonorrhoeae

CRISS ALISON

University of Virginia- Department of Microbiology, Immunology, and Cancer Biology, Charlottesville, USA

#### P036 Investigating the SLAM translocon throughout the Neisseria

**CURRAN DAVID** 

University of Toronto, Toronto, CANADA

### FP037 Female sex hormones enhance gonococcal colonization at the endocervix by modifying cervical mucus

DI BENIGNO SOFIA

University of Maryland, College Park - Department of Cell Biology and Molecular Genetics, College Park, USA

#### P038 Neisseria gonorrhoeae adaptation during vaginal colonization of CEACAM-humanized mice

DYZENHAUS SOPHIE

University of Toronto, Toronto, CANADA

#### P039 Pharyngeal colonization by Neisseria gonorrhoeae in humanized transgenic mice

FEGAN JAMIE

Department of Molecular Genetics, Temerty Faculty of Medicine, University of Toronto, Toronto, CANADA

#### P040 Ribosomal protein paralogs and zinc homeostasis in Neisseria gonorrhoeae

**FOREHAND AMY** 

University of Virginia, Department of Microbiology, Immunology, and Cancer Biology, Charlottesville, VA, USA

### P041 Gene co-expression between Neisseria gonorrhoeae and the genital tract microbiome during natural mucosal infection

**GENCO CAROLINE** 

Tufts University School of Medicine, Boston, USA

#### P042 Dynamism of the CD9 interactome during meningococcal infection

**GREEN LUKE** 

School of Clinical Dentistry, University of Sheffield, Sheffield, UNITED KINGDOM

### P044 Screening fatty acids as antimicrobial agents for treating oral gonorrhoea using a validated 2D human oral cell model

HAMZA SYED AMEER

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### FP045 Macrophage infectivity potentiators are important in pathogenic Neisseria spp. for host innate defences and antibiotic resistance.

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LIYAYI IAN

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MASSARI PAOLA

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MCLAUGHLIN STEPHANIE

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METAANE SELMA

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PILHEDEN SARAH

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**RODRIGUEZ EMILIO** 

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FREDERIC VEYRIER

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SAWADOGO ABDOUL -GUANIYI

Jhpiego Corporation, Ouagadougou, BURKINA FASO

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ALUGUPALLI KISHORE

TurboVax Inc, Philadelphia, USA

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ANCARANI LUDOVICA GSK Vaccines, Siena, ITALY

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BITA FOUDA ANDRE ARSENE

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**GIUNTINI SERENA** 

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HER HOWARD

EuBiologics Co., LTD, Seoul, SOUTH KOREA

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**HEYMER EMMA** 

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THOMAS CYNTHIA THOMAS

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Sanofi, Lyon, FRANCE

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EFRON ADRIANA MÓNICA

Instituto Nacional de Enfermedades Infecciosas-ANLIS Dr. Carlos G. Malbraán, Departamento Bacteriologia, Buenos Aires, ARGENTINA

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MUSAH SUALAH HARIS

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#### 24<sup>th</sup> International Pathogenic Neisseria Conference

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  TZENG YIH-LING
  Emory University School of Medicine, Atlanta, USA
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WEBSTER DEVEN

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