

# **INNOVATIONS IN HPV RESEARCH AND GLOBAL CANCER SOLUTIONS** AN INTERNATIONAL COLLABORATIVE CONFERENCE

Congress Presidents | Hans Berkhof (Netherlands) • Miriam Elfström (Sweden)

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**CS 05** Use of genotyping for management

CS 06 Persistent HPV without HSIL lesions in colposcopy

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**HN 02** Epidemiology and prevention of HPV-OPC

HN 07 Molecular diagnosis and surveillance

HN 08 Recurrent respiratory papillomatosis (RRP)

### LW • LOCAL WORKSHOP - THE NORDIC SESSION

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Wednesday, March 13

# **SS - SCIENTIFIC SESSIONS**

### SS 01

Newest insights into oncogenesis Chair: Doorbar J. (UK) • Steenbergen R. (Netherlands) Auditorium Al 10.30 • 12.00

This session will highlight some of the latest insights into the development of cancers caused by HPV. These insights essentially contribute to both our understanding of cancer biology and improving the clinical management of patients affected by HPV. Recent discoveries into virus-host interactions and viral gene activity will be discussed, such as the target cells for HPV infection, the role of host cell coding and non-coding genes in malignant transformation, and the genetic landscape of HPVinduced cancers.

| SS 01-1 | • Introduction  | Doorbar J. (UK)<br>& Steenbergen R. (Netherlands) |
|---------|---|---|
| SS 01-2 | • Cellular origins of HPV-induced neoplasia at the cervical transformation zone                     | Doorbar J. (UK)                                   |
| SS 01-3 | • Exploring and exploiting miRNAs as oncogenic drivers and therapy sensitizers                      | Xu M. (Netherlands)                               |
| SS 01-4 | • Viral gene transcription regulation and its deregulation during oncogenesis                       | Schwartz S. (Sweden)                              |
| SS 01-5 | <ul> <li>Viral-host protein interactions perturbing cell<br/>proliferation and migration</li> </ul> | Tomaic V. (Croatia)                               |
| SS 01-6 | • The role of viral integration in oncogenesis  | Fenton T. (UK)                                    |
|         | • Discussion and Q&A  | Doorbar J. (UK)<br>& Steenbergen R. (Netherlands) |

### **SS - SCIENTIFIC SESSIONS**

SS 02

Validation of HPV assays Chair: Arbyn M. (Belgium) • Poljak M. (Slovenia) Auditorium A2 10.30 • 12.00

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Only validated HPV assays should be used in primary screening. Validation and regulatory requirements vary over countries. Whereas the so-called Meijer guidelines were pivotal in defining the minimal requirements that high-risk HPV tests had to fulfil in order to accept them in screening, more extended principles and concepts are needed to validate HPV tests on self-samples, for point-of-care tests and for genotyping. An internationally acceptable framework for test validation will contribute in having sufficient, affordable and accurate HPV tests to cover the world need.

| <br> | <br> |
|------|------|

| SS 02-1 | Introduction   | Arbyn M. (Belgium)<br>& Cuschieri K. (UK) |
|---------|--|---|
| SS 02-2 | <ul> <li>How to assess the HPV type-specific performance of<br/>HPV assays?</li> </ul>                 | Dillner J. (Sweden)                       |
| SS 02-3 | <ul> <li>Ranking of HPV genotypes, extended genotyping</li> </ul>                                      | Wentzensen N. (USA)                       |
| SS 02-4 | • Standard comparator HPV tests accepted<br>in validation studies                                      | Poljak M. (Slovenia)                      |
| SS 02-5 | VALGENT-5 and 6 study designs  | Dhillon S. (Belgium)                      |
| SS 02-6 | Specifications regarding storage/transport media   | Cocuzza C. E. (Italy)                     |
| SS 02-7 | <ul> <li>New guidelines for HPV test validation and current list<br/>of validated HPV tests</li> </ul> | Arbyn M. (Belgium)                        |
|         | Discussion and Q&A   | Arbyn M. (Belgium)<br>& Cuschieri K. (UK) |

SS 03

Innovations in HPV Research and Global Cancer Solutions: An International Collaborative Conference

# **SS - SCIENTIFIC SESSIONS**

| What role of cytology in HPV screening: |
|---|
| are we really ready to abandon          |
| morphological data completely and use   |
| only virological data?                  |
| Chair: Carozzi F. (Italy)               |

Auditorium A4 10.30 • 12.00

Cervical cancer prevention is evolving rapidly with the introduction of new technologies and with the arrival of vaccinated women. So what will be the role of cytology in the coming years? The Pap test has already changed its role in HPV-based screening: from primary screening test to triage test to increase the specificity of HPV testing. Now the HPV screening protocol is further evolving with the introduction of full genotyping as a triage test for management of HPV-positive women. Equally, the arrival of vaccinated women will further modify protocols with the introduction of molecular testing to detect infections at high risk of progression. The ultimate performance of cytology in this context and its utility as part of cervical cancer screening algorithms will have to be evaluated. But are we really ready to move away from morphological data? Where is it important to associate morphological data with molecular data? In this session we will try to explore these issues.

|                      |   | • • • • • • • • |
|----------------------|---|-----------------|
| Carozzi F. (Italy)   | 3-1 • Introduction  | SS 03-1         |
| Bergeron C. (France) | <ul> <li>The different role of cytology from screening test<br/>to triage test: what changes?</li> </ul>  | SS 03-2         |
| Franco E. (Canada)   | <ul> <li>Is there a role for cytology in primary HPV screening?</li> <li>Will morphology complement molecular data?</li> </ul>                        | SS 03-3         |
| Elfström M. (Sweden) | <ul> <li>What role for cytology in programs using extended genotyping in real-word screening</li> </ul>   | SS 03-4         |
| Andersson K. (Italy) | <ul> <li>Virology-based screening and management:<br/>are clinicians ready to have no Pap test results?</li> </ul>                                    | SS 03-5         |
| Cuschieri K. (UK)    | <ul> <li>Implications of vaccination on the future clinical<br/>relevance of "high grade" lesions-insights from a series<br/>of 1700 cases</li> </ul> | SS 03-6         |
| Carozzi F. (Italy)   | Discussion and Q&A  |                 |

SS 04

Innovations in HPV Research and Global Cancer Solutions: An International Collaborative Conference

### **SS - SCIENTIFIC SESSIONS**

One-dose vaccination: what do we know, what will we know and what are the remaining evidence gaps?

Room C1/C2 10.30 • 12.00

Chair: Brisson M. (Canada) • Jit M. (UK)

In 2022, WHO reported that a single dose of HPV vaccine is comparable to two or three doses in conferring robust protection against vaccine-type infection. Subsequently, WHO updated its recommendations to include a one-dose schedule. Since then, several countries have transitioned from a two-dose to a one-dose schedule, while others have utilised this simplified regime to introduce HPV vaccination with a one-dose schedule. Still, other countries have chosen to maintain current two dose programmes. Additionally, new evidence from trials, observational studies and modelling has emerged since WHO's recommendations, offering further insight into one-dose schedules and strategies for optimising vaccination programmes. This session aims to assess the evidence that has emerged since the post-WHO's 2022 recommendations, and the experiences of different countries as they reviewed this evidence and deliberated over dosing schedules to use.

| SS 04-1 | Introduction  | Brisson M. (Canada)<br>& Jit M. (UK) |
|---------|---|--------------------------------------|
| SS 04-2 | New evidence from immunology                                      | Pinto L. (USA)                       |
| SS 04-3 | New evidence from trials and observational studies                | Watson-Jones D. (UK)                 |
| SS 04-4 | New evidence from modelling                                       | Drolet M. (Canada)                   |
| SS 04-5 | • Country experiences: going from 2 to 1 dose<br>(United Kingdom) | Crofts J. (UK)                       |
| SS 04-6 | • Country experiences: going from 0 to 1 dose (Nigeria)           | Morhason-Bello I. (Nigeria)          |
| SS 04-7 | • Country experiences: staying at 2 doses (Netherlands)           | Bogaards H. (Netherlands)            |
|         | Discussion and Q&A  | Brisson M. (Canada)<br>& Jit M. (UK) |

### **CS - CLINICAL SESSIONS**

# CS 01

HPV genital diseases and treatment during pregnancy Chair: Louvanto K. (Finland) • Siegler E. (Israel)

Auditorium A4 12.00 • 13.30

Managing HPV during pregnancy requires careful consideration of the potential risks and benefits of various diagnostic and treatment approaches. The risk of progression of CIN 2-3 to cancer should be balanced against the fear of complications of conization.

Here are some key points that will be discussed during that session:

- The transmission of HPV from mother to foetus is a concern. It's essential to understand the risk factors, the likelihood of transmission, and how it may impact the newborn.
- Investigation of abnormal PAP Smear during pregnancy will be discussed, the challenge of colposcopy, which requires expertise, and the indication for performing cervical biopsy.
- We will present controversies about conization during pregnancy and studies that describe the outcome of those operations.
- We will share the options available for treating cervical cancer while considering the well-being of both the pregnant woman and the foetus.

| • |   | •••••   |
|---|---|---------|
| Louvanto K. (Finland)                   | 1 • Introduction                                  | CS 01-1 |
| & Siegler E. (Israel)                   |   |         |
| Louvanto K. (Finland)                   | 2 • HPV transmission                              | CS 01-2 |
| Grigore M. (Romania)                    | • Management of abnormal screening                | CS 01-3 |
| Siegler E. (Israel)                     | • How to manage CIN 3 discovered during pregnancy | CS 01-4 |
| Haran G. (Israel)                       | • Management strategies of invasive cancer        | CS 01-5 |
| Louvanto K. (Finland)                   | Discussion and Q&A                                |         |
| & Siegler E. (Israel)                   |   |         |

Wednesday, March 13

| FC 01    | HPV Vaccines I<br>Chair: Palmer T. J. (UK) • Sundström K. (Sweden)   | Auditorium A2<br><b>8.30 • 10.15</b> |
|----------|--|--------------------------------------|
| FC 01-1  | • A systematic review of factors associated with high coverage of HPV vaccination programs in the EU   | Feldman A. (Sweden)                  |
| FC 01-2  | • Implementation of HPV vaccination programs - lessons learned from the Scandinavian countries   | Nygard S. (Norway)                   |
| FC 01-3  | <ul> <li>Targeted HPV vaccination for gay, bisexual and other<br/>men who have sex with men attending specialist<br/>sexual health services in England 2016-2022:<br/>characteristics of those declining offer of vaccination</li> </ul> | Slater L. (UK)                       |
| FC 01-4  | • The effect of a national HPV vaccination program<br>targeting girls on the incidence of CIN2+ and cytology<br>screening performance: five-year cervical screening<br>results from Slovenia   | lrzaldy A. (Netherlands)             |
| FC 01-5  | <ul> <li>Effectiveness of single dose or two doses of bivalent<br/>HPV vaccine (cervarix) in female school students in<br/>Thailand</li> </ul>   | Jiamsiri S. (Thailand)               |
| FC 01-6  | <ul> <li>Analysis of indirect effectiveness of the bivalent<br/>human papillomavirus vaccination program in the<br/>Netherlands: preliminary results of a cohort study</li> </ul>  | Middeldorp M. (Netherlands)          |
| FC 01-7  | HPV vaccinations impact on preterm birth rates   | Koivisto T. (Finland)                |
| FC 01-8  | <ul> <li>Association between HPV vaccination and anal HPV<br/>infections in gay, bisexual, and other men who have<br/>sex with men</li> </ul>  | Kassam P. (Canada)                   |
| FC 01-9  | <ul> <li>The impact of Germany's human papillomavirus<br/>vaccination program on anogenital diseases among<br/>28–32-year-old women</li> </ul>   | Reuschenbach M. (Germany)            |
| FC 01-10 | • HPV types and variants among women who developed HSIL/LSIL in sixteen years post HPV vaccination   | Pimenoff V. (Sweden)                 |
| FC 01-11 | • Post-marketing surveillance of human papillomavirus<br>(HPV)-related high-grade cervical disease in a cohort of<br>Chinese women who received the 4-valent HPV vaccine   | Yang Y. (China)                      |
| FC 01-12 | Induced abortion rates among HPV vaccinated women  | Taavela K. (Finland)                 |



EUROGIN 2024

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# **FC - FREE COMMUNICATIONS**

| FC 02    | <b>Self-sampling I</b><br>Chair: Nygård M. (Norway) • Winer R. (USA)   | Auditorium A4<br>8.30 • 10.00 |
|----------|--|-------------------------------|
| FC 02-1  | • Improving communication and management following a positive home HPV self-sampling kit result: data from the U.S. home and step trials   | Winer R. (USA)                |
| FC 02-2  | <ul> <li>A survey to assess beliefs and attitudes towards HPV<br/>self-sampling as part of the national cervical screening<br/>programme in the Republic of Ireland</li> </ul>               | Woods S. (Ireland)            |
| FC 02-3  | <ul> <li>Acceptability of self-sampling vs. routine clinician<br/>sampling for cervical cancer screening in two rural<br/>settings of Cuenca, Ecuador.</li> </ul>                            | Vega B. (Ecuador)             |
| FC 02-4  | <ul> <li>Women's reasoning and experience in the cervical<br/>cancer screening program when offered a self-<br/>sampling HPV-test: a qualitative study</li> </ul>                            | Hellsten C. (Sweden)          |
| FC 02-5  | <ul> <li>He tapu te whare tangata - a model for empowering<br/>rural solutions: point of care testing for human<br/>papillomavirus in Aotearoa (New Zealand)</li> </ul>                      | Lawton B. (New Zealand)       |
| FC 02-6  | • HPV self-sampling within national cervical cancer screening program: an implementation project in Estonia 2022   | Hallik R. (Estonia)           |
| FC 02-7  | <ul> <li>Catch-up screen: offering an at-home urine HPV test to<br/>women aged &gt;65 in the UK</li> </ul>   | Gilham C. (UK)                |
| FC 02-8  | <ul> <li>Self-collection for cervix screening in never and<br/>under-screened in British Columbia's organized<br/>cervix screening population-based program: program<br/>findings</li> </ul> | Smith L. (Canada)             |
| FC 02-9  | <ul> <li>Clinical evaluation of HPV DNA detection in urine<br/>collected at home using a new generation first-void<br/>urination device</li> </ul>   | Van Keer S. (Belgium)         |
| FC 02-10 | <ul> <li>Can vaginal self-collect match cervical sampling? –<br/>New learnings and optimized workflow for precancer<br/>screening</li> </ul>   | Vaughan L. (USA)              |

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Wednesday, March 13

| FC 03   | Health education and public health<br>Chair: Gerlich M. (Germany) • Osazuwa-Peters N. (USA)  | Room C1/C2<br><b>8.30 • 10.00</b> |
|---------|--|-----------------------------------|
| FC 03-1 | • National survey on knowledge, attitude and perception among Italian dental students toward HPV disease: are they ready?  | Musella G. (Italy)                |
| FC 03-2 | <ul> <li>Knowledge and understanding of cervical screening<br/>and human papillomavirus by socio-economic group in<br/>Ireland: findings from a national survey</li> </ul> | McCarthy R. (Ireland)             |
| FC 03-3 | <ul> <li>Surveillance hesitancy poses a serious weakness in cervical screening</li> </ul>  | Tay S. K. (Singapore)             |
| FC 03-4 | • How much do Polish students know about HPV vaccination?  | Sonja. M. K. (Poland)             |
| FC 03-5 | • Stop HPV- all in one place, all in one side  | Naszvadi V. (Hungary)             |
| FC 03-6 | • Knowledge regarding human papillomavirus and cervical cancer prevention among medical students in <b>P</b> Thailand  | Phoolcharoen N. (Thailand)        |
| FC 03-7 | • Rural-urban divides and cultural dynamics: the effects of rurality, race, and ethnicity on HPV and COVID-19 vaccine hesitancy in the United States                       | Kepka D. (USA)                    |

SS 05

Innovations in HPV Research and Global Cancer Solutions: An International Collaborative Conference

# **SS - SCIENTIFIC SESSIONS**

| Multi-sector partnerships to           |
|--|
| accelerate HPV vaccination: real world |
| implementation impact from low-        |
| middle-high-income countries           |
| Chair: Fisher-Borne M. (USA)           |

Auditorium Al 13.30 • 15.00

Successful HPV vaccination programs benefit from strong cross-sectoral collaboration and integration into adolescent health platforms. In fact, multi-sector collaborations are often described as one of the most vital implementation strategies to HPV vaccination program success. Despite compelling evidence that working together works, it is often difficult for countries and partners to know where to start or how to involve key traditional stakeholders (i.e. adolescent health program, MOHs, cancer control) as well as non-traditional partners (industry, universities, provider associations) to accelerate HPV vaccination delivery. These partnerships are often seen as "soft skills" or "intuitive" and take considerable work to yield considerable rewards. Ensuring cross-sectoral coordination and integration of HPV vaccination into broader partnerships including cancer partnerships help achieve program targets and strengthen the ability of countries to build, maintain and advance HPV vaccination programs even during health system disruptions.

| ••••                | •   | •••••                  |
|---------------------|---|------------------------|
| 5-1 • A             | systematic literature review and session overview   | Fisher-Borne M. (USA)  |
| 5-2 • P<br>ir<br>la | Provider education and engagement as an mplementation strategy pre-NIP HPV vaccination aunch in India | Biswas S. (India)      |
| 5-3 • S<br>v        | caling behaviorally tested messages to address<br>accine trust in Colombia                            | Martinez D. (Columbia) |
| 5-4 •⊢<br>e         | low a national HPV vaccination roundtable mobilizes<br>widence for action                             | Hull P. C. (USA)       |
| • C                 | Discussion and Q&A  | Fisher-Borne M. (USA)  |
|                     |   |                        |

Coffee Break

15.00 • 15.30

### **SS - SCIENTIFIC SESSIONS**

### SS 06

HPV epidemiology: state of the science to inform cancer prevention

Auditorium Al 15.30 • 17.00

Chair: Franceschi S. (Italy) • Kreimer A. (USA)

Epidemiology provided the first clues on the sexual transmission of the then unknown cause of cervical cancer and the shared aetiology of cancers of the ano-genital tract and oropharynx. Once equipped with accurate molecular tools, large epidemiological studies and clinical trials pointed to unique opportunities for primary and secondary prevention of HPV-related tumors. Today, these types of investigations are not only essential to monitor the progress in global prevention but also to reveal new characteristics of the natural history of HPV infection that can improve the effectiveness of mass vaccination against HPV and screening for cervical precancer vaccination. This session will provide the state-of-science in the field and highlight recent discoveries on the efficacy of onedose vaccination and the consequences of HPV vaccination on HPV-based cervical screening. Progresses in advancing understanding of the epidemiology and early diagnosis and prevention of cancers of the ano-genital tract and oropharynx will also be discussed.

|   | • • • • • • • • •  |  |
|---|--|--|
| Introduction  | SS 06-1  |  |
| <ul> <li>Global picture of HPV vaccination and cervical<br/>cancer screening</li> </ul>     | SS 06-2  |  |
| Single-dose HPV vaccination - from discovery to policy                                      | SS 06-3  |  |
| <ul> <li>Cervical precancer - unmasking in HPV vaccinated<br/>populations</li> </ul>        | SS 06-4  |  |
| <ul> <li>Anal cancer, from epidemiology to prevention</li> </ul>                            | SS 06-5  |  |
| <ul> <li>Oropharyngeal cancer by world region – changing<br/>etiologic fractions</li> </ul> | SS 06-6  |  |
| Discussion and Q&A  |  |  |
|   |  |  |
| olicy   | <ul> <li>Introduction</li> <li>Global picture of HPV vaccination and cervical cancer screening</li> <li>Single-dose HPV vaccination - from discovery to poolations</li> <li>Cervical precancer - unmasking in HPV vaccinated populations</li> <li>Anal cancer, from epidemiology to prevention</li> <li>Oropharyngeal cancer by world region – changing etiologic fractions</li> <li>Discussion and Q&amp;A</li> </ul> | <ul> <li>SS 06-1 • Introduction</li> <li>SS 06-2 • Global picture of HPV vaccination and cervical cancer screening</li> <li>SS 06-3 • Single-dose HPV vaccination - from discovery to possible of the structure of</li></ul> |

# **SS - SCIENTIFIC SESSIONS**

# SS 07

How effective is HPV genotyping in screening? Chair: Bonde J. (Denmark) - Dillner J. (Sweden)

Auditorium Al 17.00 • 18.30

Thirteen human papillomavirus (HPV) genotypes are established as oncogenic. However, there are huge differences in cancer risk among the different oncogenic HPV genotypes. Screening assays that allow separate detection for the highest risk oncogenic types HPV16 and 18 ("partial genotyping") have been in clinical use for many years. Today, there are several extended genotyping assays that can report 8 or more of the individual HPV genotypes and are suitable for large-scale primary screening. The risk information from extended genotyping can be used e.g. to guide screening intensity (intervals) or for optimising management algorithms. Furthermore, genotyping is a simple method to distinguish clearance/acquisition versus same genotype persistence. But how effective is it to use HPV genotyping in screening programs? And which use of extended genotyping is the most important one? This session outlines the scientific basis and international perspective of HPV genotyping. There are also reports on the experiences of practical use of extended genotyping from 2 countries (Denmark and Sweden) which have implemented extended genotyping algorithms in routine screening programs.

| • • • • • • • • • • |  | •••••                |
|---------------------|--|----------------------|
| SS 07-1             | Introduction   | Dillner J. (Sweden)  |
| SS 07-2             | <ul> <li>The scientific basis of HPV genotyping in screening</li> </ul>                                    | Wentzensen N. (USA)  |
| SS 07-3             | <ul> <li>The different importance of screening for HPV types –<br/>an international perspective</li> </ul> | Andrews J. (USA)     |
| SS 07-4             | • A national HPV screening program mandating extended genotyping   | Elfström M. (Sweden) |
| SS 07-5             | <ul> <li>Real-life experiences of extended HPV genotyping<br/>in screening</li> </ul>                      | Bonde J. (Denmark)   |
| SS 07-6             | • Round table  | Dillner J. (Sweden)  |

### **SS - SCIENTIFIC SESSIONS**

SS 08

Microbiome

Chair: Bouchard C. (Canada) • Ogilvie G. (Canada)

Auditorium A2 13.30 • 15.00

This session is aimed at the health care provider interested in learning about the relationship of the microbiome and the development of pre-cancerous and cancerous lesions. The microbiome, whether in the vagina or the mouth, seems to interact with the host through multiple interactions, either physiological or pathological. The impact of the microbiome on cancer development is in its infancy scientifically. This state-of-the-art session will review new data. This educational session will be presented by subject matter experts who have in-depth knowledge of the microbiome and its impact on cancer.

| SS 08-1 | • Introduction  | Bouchard C. (Canada)<br>& Ogilvie G. (Canada) |
|---------|---|---|
| SS 08-2 | • Evidence for vaginal microbiome and development of CIN 2 and cancer   | Moscicki A. B. (USA)                          |
| SS 08-3 | <ul> <li>Penile microbiome influence on the vaginal<br/>microbiome (and vice versa)</li> </ul>                            | Mehta S. (USA)                                |
| SS 08-4 | <ul> <li>Associations between the oral microbiome and head<br/>and neck cancer risk</li> </ul>                            | Vogtmann E. (USA)                             |
| SS 08-5 | <ul> <li>Gaps and future needed studies to establish<br/>the relationship between vaginal microbiome and CIN 2</li> </ul> | Kyrgiou M. (UK)                               |
|         | Discussion and Q&A  | Bouchard C. (Canada)<br>& Ogilvie G. (Canada) |

Coffee Break

15.00 • 15.30

### **SS - SCIENTIFIC SESSIONS**

### SS 09

Global HPV laboratory network

Chair: Arroyo Mühr L. S. (Sweden) • Cuschieri K. (UK)

Auditorium A2 15.30 • 17.00

The global HPV laboratory network (LabNet) was originally organised by the WHO in 2007 to promote internationally standardised and quality-assured laboratory services for HPV DNA and HPV antibody detection. A large number of countries have since then officially appointed National HPV Reference Laboratories (NRL) and in 2021 the Global Network of National HPV Reference Laboratories was formed to continue promoting the standardised and quality-assured HPV testing services that will be required for optimal HPV and cervical cancer elimination strategies. The purpose of this session with participation of NRLs from Australia, Belgium, France, Germany, Scotland, Slovenia, Sweden and Norway is to report on activities and exchange scientific and practical information. Major topics are:

- (1) Role of NRL for cervical cancer elimination
- (2) Proficiency for HPV screening
- (3) Confirmatory testing for HPV negative HSIL+
- (4) Joint resources for E-learning resources and joint written standards.

The session is targeted to all laboratories interested in HPV testing, with the hope that the support from the NRLs can be increasingly effective for contributing to advancement of HPV testing services.

| SS 09-1 | Introduction   | Arroyo Mühr L. S. (Sweden)<br>& Cuschieri K. (UK) |
|---------|--|---|
| SS 09-2 | • Role of national reference laboratories for purchasing cervical cancer elimination | Garland S. (Australia)                            |
| SS 09-3 | Proficiency for HPV screening  | Yilmaz E. (Sweden)                                |
| SS 09-4 | Confirmatory testing for HPV negative HSIL+  | Lagheden C. (Sweden)                              |
| SS 09-5 | The HPV laboratory manual  | Cuschieri K. (UK)                                 |
| SS 09-6 | NRL country updates: Germany   | Silling S. (Germany)                              |
| SS 09-7 | NRL country updates: Belgium   | Padalko E. (Belgium)                              |
| SS 09-8 | NRL country updates: Slovenia  | Poljak M. (Slovenia)                              |
| SS 09-9 | NRL country updates: Norway  | Søreng K. (Norway)                                |
|         | Discussion and Q&A   | Arroyo Mühr L. S. (Sweden)                        |
|         |  | & Cuschieri K. (UK)                               |

SS 10

Innovations in HPV Research and Global Cancer Solutions: An International Collaborative Conference

### **SS - SCIENTIFIC SESSIONS**

### Cervical cancer screening: harms and benefits ratio in the changing world of cervical cancer screening

Room C1/C2 13.30 • 15.00

Chair: Rebolj M. (UK) • Van Dijk S. (Netherlands)

The world of cervical cancer screening is changing. How do we maintain - or even improve - the balance of harms and benefits in the future? Risks, and also benefits, will be reduced in a vaccinated population. Could new techniques be able to reduce harms, for example by risk-stratification? We will have several perspectives on this topic in this exciting workshop

|                               |   | CC 10 1 |
|-------------------------------|---|---------|
|                               | • Introduction  | 55 10-1 |
| & van Dijk S. (Netherlands)   |   |         |
| O'Mahony J. (Ireland)         | <ul> <li>• How to weigh harms and benefits on a population<br/>level, an health economist's view</li> </ul> | SS 10-2 |
| Hunt M. (UK)                  | <ul> <li>0-3 • How to weigh harms and benefits on an individual level, a patient's view</li> </ul>          | SS 10-3 |
| Giorgi Rossi P. (Italy)       | <ul> <li>• How to maintain the harms and benefits ratio<br/>in a vaccinated population?</li> </ul>          | SS 10-4 |
| Bogaards H. (Netherlands)     | <ul> <li>• Impact of risk-stratification in screen-intervals<br/>on the harms and benefits ratio</li> </ul> | SS 10-5 |
| De Kok I. (Netherlands)       | 0-6 • Impact of self-sampling in the harms and benefits ratio   | SS 10-6 |
| Cloostermans L. (Netherlands) | 0-7 • Impact of triage on referrals and the harms<br>and benefits ratio                                     | SS 10-7 |
| Rebolj M. (UK)                | Discussion and Q&A  |         |
| & Van Dijk S. (Netherlands)   |   |         |
|                               |   |         |

Coffee Break

15.00 • 15.30

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Wednesday, March 13

### **CS - CLINICAL SESSIONS**

CS 02

Putting anal cancer screening into practice: implementation science, biomarker development, and self-sampling Chair: Burchell A. (Canada) • Nyitray A. (USA)

Room C1/C2 15.30 • 17.00

The development of successful anal cancer screening programs is dependent upon the discovery of efficient biomarkers that identify persons at highest risk for disease. But it is also dependent upon the delivery of screening programs that are acceptable to health care providers and communities at increased risk for anal cancer. This session will address the intersection of biomarker development and implementation research for anal cancer screening and the potential impact on screening uptake.

| CS 02-1 | • Introduction   | Burchell A. (Canada)<br>& Nyitray A. (USA) |
|---------|--|--|
| CS 02-2 | • What is the epidemiology of anal cancer with a focus on disparities by HIV, race, and sexual orientation?  | Deshmukh A. (USA)                          |
| CS 02-3 | • What is implementation research in the context of anal cancer screening?                                   | Burchell A. (Canada)                       |
| CS 02-4 | • What is the current state of biomarker development for anal cancer screening?                              | Clarke M. (USA)                            |
| CS 02-5 | <ul> <li>How might siloed biomarker development impact<br/>engagement with anal cancer screening?</li> </ul> | Nyitray A. (USA)                           |
| CS 02-6 | <ul> <li>Anal cancer screening among women with HIV:<br/>provider and patient perspectives</li> </ul>        | Higashi R. (USA)                           |
| SS XX-X | • Discussion and Q&A   | Burchell A. (Canada)<br>& Nyitray A. (USA) |

### **CS - CLINICAL SESSIONS**

### CS 03

Implementation of anal cancer screening: challenges and solutions Chair: Palefsky J. (USA)

Room C1/C2 17.00 • 18.30

Data from the ANCHOR Study show that treating anal high-grade squamous intraepithelial lesions (HSIL) is effective in reducing the incidence of anal cancer among people living with HIV (PLWH). Based on these results it is expected that treatment of anal HSIL will be standard of care among PLWH, and possibly other groups in the future who are also at increased risk of anal cancer compared to the general population. Current challenges include technical barriers to performing high quality high resolution anoscopy (HRA); extensive HRA training requirements; limited HRA capacity; very high prevalence and incidence of anal HSIL in the proposed screening populations; limited data on optimal screening algorithms and need for improved HSIL treatment options. This session will focus on these challenges and will include discussion of screening guidelines, challenges in performing HRA and treatment of anal HSIL, and new approaches to screening for anal HSIL.

| CS 03-1 | Introduction   | Palefsky J. (USA)    |
|---------|--|----------------------|
| CS 03-2 | Anal cancer screening guidelines: reading the tea leaves   | Palefsky J. (USA)    |
| CS 03-3 | <ul> <li>Role of high resolution anoscopy and digital anorectal<br/>examination in diagnosing anal cancer</li> </ul> | Dunlevy H. (USA)     |
| CS 03-4 | Current treatment approaches for anal HSIL   | Goldstone S. (USA)   |
| CS 03-5 | • Expanding the HRA workforce: can we train providers faster?  | Rosa-Cunha I. (USA)  |
| CS 03-6 | <ul> <li>Artificial intelligence-based approaches to diagnosis<br/>of HSIL</li> </ul>                                | Zhang L. (Australia) |
|         | Discussion and Q&A   | Palefsky J. (USA)    |



| FC 04    | HPV vaccination and public health<br>Chair: Bogaards H. (Netherlands) • Hanley S. (UK)  | Auditorium A2<br>17.00 • 18.45 |
|----------|---|--------------------------------|
| FC 04-1  | <ul> <li>Attitudes towards HPV vaccination - how to achieve<br/>better vaccination coverage in Finland?</li> </ul>  | Kero K. (Finland)              |
| FC 04-2  | • Sociodemographic factors associated with non-uptake<br>of HPV vaccination in high-income countries with<br>school-based vaccination programmes: a systematic<br>review  | Dema E. (UK)                   |
| FC 04-3  | <ul> <li>Increasing HPV vaccination rates among adult women<br/>in Manitoba</li> </ul>  | Coulter L. (Canada)            |
| FC 04-4  | <ul> <li>Uptake of HPV vaccination among women treated for<br/>HPV-related cervical lesions in the province of Ancona,<br/>Italy</li> </ul>   | Acuti Martellucci C. (Italy)   |
| FC 04-5  | • Barriers and facilitators to the HPV vaccine: a multicenter qualitative study   | Gilberg S. (France)            |
| FC 04-6  | <ul> <li>Increasing HPV vaccination in pediatric settings:<br/>motivators, barriers and facilitators in a quality<br/>improvement intervention</li> </ul>   | Hull P. C. (USA)               |
| FC 04-7  | • Estimating the time required to reach HPV vaccination targets across Europe   | Sabale U. (Lituania)           |
| FC 04-8  | <ul> <li>Partnering with social media influencers to increase<br/>confidence in the HPV vaccine for children and<br/>adolescents: a mixed method study</li> </ul>   | Burke-Garcia A. (USA)          |
| FC 04-9  | • Measures of the behavioural and social drivers of HPV vaccination: a review   | Shapiro G. (Canada)            |
| FC 04-10 | <ul> <li>No increased risk of infectious disease hospitalization<br/>after receipt of human papillomavirus vaccine:<br/>nationwide register-based cohort studies among<br/>Danish, Finnish, Norwegian, and Swedish girls</li> </ul> | Laake I. (Norway)              |
| FC 04-11 | • Healthcare provider perspectives on HPV vaccination among 27-45 year olds in the United States  | Thompson E. (USA)              |
| FC 04-12 | • Attitudes of Dutch yhcws regarding HPV and MenACWY vaccines for adolescents   | Van Wijk J. (Netherlands)      |

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| FC 05   | <b>Cervical neoplasia and cancer</b><br>Chair: Khan M. J. (USA) • Villa L. (Brazil)   | Room C1/C2<br><b>12.00 • 13.30</b> |
|---------|---|------------------------------------|
| FC 05-1 | • HPV type-specific regression in women untreated for cervical intraepithelial neoplasia grade 2  | Hammer A. (Denmark)                |
| FC 05-2 | • HPV status as a triage mechanism in the follow-<br>up of patients with adenocarcinoma in situ and<br>microinvasive adenocarcinoma of the uterine cervix - a<br>retrospective study            | Dostalek L. (Czech Republic)       |
| FC 05-3 | • Prognostic implications of HPV-related<br>histopathological variants in adenocarcinoma in situ of<br>the cervix: a retrospective analysis   | Matozzo C. M. M. (Italy)           |
| FC 05-4 | • Four novel DNA methylation marker regions are able<br>to reliably detect CIN3+ lesions in cervical swabs in a<br>cytology-screened referral population  | Boers R. (Nertherlands)            |
| FC 05-5 | • A promising new model: the establishment of patient-<br>derived organoids model covering HPV-related cervical<br>precancerous lesions and corresponding cancer                                | Hu B. (China)                      |
| FC 05-6 | • High-throughput microRNA screen using 3D cell cultures identifies potent thermoradiation sensitizers for cervical cancer  | Xu M. (Netherlands)                |
| FC 05-7 | • Circulating cell-free HPV DNA is a strong marker for disease severity in cervical cancer  | Bonlokke S. (Denmark)              |
| FC 05-8 | • Vvax001, an alphavirus-based therapeutic cancer<br>vaccine, against HPV-induced premalignant cervical<br>lesions: a phase 2 clinical trial  | Eerkens A. (Netherlands)           |
| FC 05-9 | • Unraveling the role of surgery in the prognosis of small<br>cell carcinoma of the cervix patients: a representative<br>study based on the SEER database and a Chinese<br>multicenter registry | Chu T. (China)                     |

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# **FC - FREE COMMUNICATIONS**

| FC 06    | HPV Screening I<br>Chair: Kaufmann A. (Germany) • Saville M. (Australia)  | Room C3<br>12.00 • 13.45    |
|----------|---|-----------------------------|
| FC 06-1  | <ul> <li>Randomized noninferiority trial of the effectiveness of<br/>frequent versus infrequent cervical cancer screening<br/>among 22-to-28-year-old human papiloma virus-<br/>vaccinated Finnish women</li> </ul> | Ortega Llobet M. (Sweden)   |
| FC 06-2  | <ul> <li>Nationwide multi-laboratory HPV screening using<br/>extended genotyping and near realtime quality<br/>assurance monitoring in the Netherlands</li> </ul>   | Schuurman R. (Netherlands)  |
| FC 06-3  | • HPV testing versus cytology for cervical cancer<br>screening among those 50 years and older: evidence<br>from HPV focal randomized controlled trial   | Alam S. (Canada)            |
| FC 06-4  | <ul> <li>Quality assurance of HPV screening services using<br/>confirmatory testing of "HPV- negative" HSIL</li> </ul>  | Lagheden C. (Sweden)        |
| FC 06-5  | <ul> <li>Risk of cervical cancer after positive human<br/>papillomavirus test with negative cytology triage by<br/>HPV genotype: long-term follow-up from a randomized<br/>healthcare policy trial</li> </ul>       | Wang J. (Sweden)            |
| FC 06-6  | • Evaluation of the Tata MD check HPV HR genotype test<br>for the detection of high-risk HPV in cervical cancer<br>screening  | Salunke G. (India)          |
| FC 06-7  | • A negative HPV test is associated with long-term<br>protection against invasive cervical cancer for post-<br>menopausal women: evidence from a registry-based<br>cohort study                                     | Yao Q. (Sweden)             |
| FC 06-8  | • HPV screening with extended genotyping in cytologically negative women aged 35, and 45 years from the Czech Republic – large-scale study  | Nemcova J. (Czech Republic) |
| FC 06-9  | • The risk of vaginal, vulvar, and anal precancer and cancer according to high-risk HPV status in cervical cytology samples   | Lindquist S. (Denmark)      |
| FC 06-10 | <ul> <li>Performance comparison between the innovative<br/>dysplasia detection test Quantigene-Molecular-<br/>Profiling-Histology and 5 guideline-compliant HPV<br/>screening tests</li> </ul>                      | Kaufmann A. (Germany)       |
| FC 06-11 | • Modeling the cost-effectiveness of cervical cancer screening with HPV self-sampling and molecular triage for women 60-69 years  | Fridljung J. (Sweden)       |
| FC 06-12 | • Modeling feasibility and effectiveness of point-of-care limited HPV genotype screening  | Khan S. (Switzerland)       |

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| FC 07    | <b>Anus</b><br>Chair: Burchell A. (Canada) • Nyitray A. (USA)  | Room C3<br>13.45 • 15.25                |
|----------|--|---|
| FC 07-1  | <ul> <li>Risk factors for anal cancer in women in a large<br/>integrated health system, 2006-2020</li> </ul>   | Khan M. J. (USA)                        |
| FC 07-2  | • The influence of home versus clinic anal human papillomavirus sampling on high-resolution anoscopy attendance in the Prevent Anal Cancer Self-Swab Study | Nitkowski J. (USA)                      |
| FC 07-3  | <ul> <li>Inter-observer agreement in the interpretation of anal cytology</li> </ul>  | Rollo F. (Italy)                        |
| FC 07-4  | <ul> <li>Onclarity performance in HPV DNA detection of anal samples</li> </ul>   | Bottari F. (Italy)                      |
| FC 07-5  | <ul> <li>Host and viral genome methylation in detection of anal<br/>high-grade squamous intraepithelial lesions</li> </ul>                                 | Scibior-Bentkowska D. (UK)              |
| FC 07-6  | • HPV E6/E7-mRNA testing for the detection of anal high-<br>grade dysplasia in HIV-positive men  | Silling S. (Germany)                    |
| FC 07-7  | <ul> <li>Receptive anal intercourse is associated with<br/>seropositivity for high-risk HPV among young men who<br/>have sex with men</li> </ul>           | Schim Van Der Loeff M.<br>(Netherlands) |
| FC 07-8  | • Anal self-sampling is suitable for anal cancer screening among men who have sex with men in Togo   | Ferré V. M. (France)                    |
| FC 07-9  | • Detection of patients with recurrent HPV-driven anal cancer using circulating tumor HPV DNA  | Lloyd S. (USA)                          |
| FC 07-10 | • Use of a carrageenan-based gel had no impact on anal<br>HPV16/18 viral loads in gay, bisexual, and other men<br>who have sex with men                    | Kassam P. (Canada)                      |
| FC 07-11 | • Exploration of biomarkers in multizonal intraepithelial<br>neoplasia: understanding epithelial transformation<br>(MINUET)                                | Nedjai B. (UK)                          |
| FC 07-12 | • Circulating tumor tissue modified viral-human<br>papillomavirus DNA (TTMV-HPV DNA) is a biomarker of<br>response to pembrolizumab in anal cancer         | Huffman B. (USA)                        |

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| FC 08   | <b>Epidemiology I</b><br>Chair: Drolet M. (Canada) • Lynge E. (Denmark)   | Room C3<br><b>15.30 • 17.00</b> |
|---------|---|---------------------------------|
| FC 08-1 | <ul> <li>Global burden of cervical HPV infections among older<br/>women with normal cytology (a systematic review and<br/>meta-analysis)</li> </ul>                               | Osmani V. (Germany)             |
| FC 08-2 | • Routine program audit of cervical cancer to identify remaining risks and guide elimination efforts  | Karrberg C. (Sweden)            |
| FC 08-3 | • High-risk HPV and cervical dysplasia in intrauterine devices users and controls: a cross sectional study  | Jans L. (Sweden)                |
| FC 08-4 | <ul> <li>Association between female lower genital tract<br/>pathogen infection and the persistence of cervical<br/>high-risk HPV</li> </ul>                                       | Zhao Y. (China)                 |
| FC 08-5 | • HPV16/18 viral clearance and progression to CIN2+<br>among women aged 18-25 years enrolled in the Costa<br>Rica HPV vaccine trial   | Sierra M. (USA)                 |
| FC 08-6 | <ul> <li>Analysis of human papillomavirus (HPV) genotype-<br/>specific viral loads associated with severity of cervical<br/>intraepithelial neoplasia (CIN)</li> </ul>            | Martinelli M. (Italy)           |
| FC 08-7 | <ul> <li>Reconstructing patterns of human papillomavirus age-<br/>specific prevalence in Europe</li> </ul>  | Bonjour M. (France)             |
| FC 08-8 | <ul> <li>High prevalence of human papillomavirus at different<br/>steps of assisted reproduction technology procedures:<br/>a multicenter prospective study –ampamavir</li> </ul> | Bourlet T. (France)             |
| FC 08-9 | • Time trends in human papillomavirus prevalence and genotype distribution in vulvar carcinoma in Norway  | Lie A. K. (Norway)              |

Wednesday, March 13

| FC 09    | <b>Epidemiology II</b><br>Chair: Franceschi S. (Italy) • D'Souza A. (USA)   | Room C3<br>17.00 • 18.45             |
|----------|---|--------------------------------------|
| FC 09-1  | • Sex-specific directionality of transmission of HPV infection in recently formed heterosexual couples  | Moore A. (Canada)                    |
| FC 09-2  | <ul> <li>Other HPV related cancers are increasing and now<br/>exceeds cervical cancer incidence rates in Norway: a<br/>population-based registry study</li> </ul>           | Falkenthal Hetland T. E.<br>(Norway) |
| FC 09-3  | • Longitudinal analysis of cervical intraepithelial<br>neoplasia progression and regression among women<br>with HIV in Zambia   | Andoh J. A. (Switzerland)            |
| FC 09-4  | • Changes in the disease burden of HPV-related cancers in the Nordic countries  | Makitie A. (Finland)                 |
| FC 09-5  | • Estimated number of cases of high-grade cervical lesions diagnosed in the United States by histological grade, 2008 and 2019  | Vigar M. (USA)                       |
| FC 09-6  | • The influence of EBV antibody levels on oral and genital HPV infection outcome  | Rinne S. (Finland)                   |
| FC 09-7  | <ul> <li>Mycoplasma genitalium antibody levels impact on<br/>persistent oral and genital HPV infection among<br/>women</li> </ul>   | Koskela N. (Finland)                 |
| FC 09-8  | <ul> <li>Global HPV prevalence among women 50 years and<br/>older with unknown cytology</li> </ul>  | Klug S. J. (Germany)                 |
| FC 09-9  | Molecular epidemiology and ultrastructural cell morphology of human papillomavirus in Brazil  | Simoes R. (Brazil)                   |
| FC 09-10 | • Cumulative incidence of high grade CIN2+ and CIN3+<br>lesions in Slovenian non-attenders of the organised<br>cancer screening programme ZORA: a 7-year follow up<br>study | lvanus U. (Slovenia)                 |
| FC 09-11 | • Community-based study to assess cytological pattern<br>in combination with schistosomiasis infestation,<br>among women of White Nile State / Sudan                        | Abd Elhaleem N. (Sudan)              |
| FC 09-12 | • The distribution of HR-HPV genotypes of vaginal self-<br>sampling based on internet   | Li J. (China)                        |



### WS - SPECIALIZED WORKSHOP

### WS 01 - Colposcopy Course

Room C3 8.30 • 12.00

### Coordinator: Bornstein J. (Israel) • Singer A. (UK)

Welcome to the EUROGIN colposcopy course. Taking care of cervical precancer has evolved significantly in recent years. However, the basis remains – Colposcopy. Performing colposcopy necessitates knowledge and experience. In this course, you will learn the fundamentals of the use of the colposcope and the essentials of diagnosing and treating precancerous cervical lesions.

The EUROGIN course has traditionally been led by professor Albert Singer, and we have the great pleasure of having him with us again this year, co-sharing the leadership of this course with Professor Jacob Bornstein, who headed the IFCPC Nomenclature Committee that produced the contemporary colposcopy terminology.

Colposcopy is the visual examination of the epithelial cervix using either uni - or binocular vision. Specific abnormalities associated with both squamous and glandular precancer can be identified especially after the application of a 5% acetic acid solution. After this application, the abnormalities become visible as a result to changes in the epithelium and blood vessels in the stroma.

These changes occur within an area of the cervix called the transformation zone, an area bounded by the junction of the vaginal epithelium and the glandular epithelium arising from the endocervix (canal). Within this area, a change occurs in which glandular epithelium changes to squamous by a process of transformation, called metaplasia. The upper border of this metaplastic change is called the new squamocolumnar junction. The inability to see this junction means that abnormality may exist higher up in the endo cervix. A sample of any abnormality within the transformation zone can be taken by a simple punch biopsy.

Colposcopy is an essential part of the diagnosis and treatment of cervical precancer. It is indicated in the presence of abnormal cytology or in the finding of certain types of HPV and also when there are clinical symptoms and signs of early invasive cancer.

### **Educational Objectives**

Upon completion of this educational activity, participants should be able to:

- Describe the anatomy, cytology, histology, and colposcopic findings of the normal and abnormal cervix;
- Define the pathophysiology of lower genital tract neoplasia, including the role of HPV in preinvasive and invasive diseases of the cervix;
- Define the IFCPC colposcopy terminology;
- Recognize the diagnostic characteristics of cervical abnormalities (minor-grade and major-grade cervical lesions as well as glandular lesions and cervical cancer) on the cytologic, colposcopic, and histologic examination;
- Interpret and correlate cytologic, colposcopic, and histologic results;
- Describe treatment options to include cryosurgery and large loop excision of the transformation zone (LLETZ) of the cervix;
- Provide appropriate patient education and support.

| <b>S - SPI</b><br>S 01 - (                   | Colposcopy Course   | Room C3<br>8.30 • 12.00  |
|--|---|--|
| WS 01-A                                      | Part A  | 8.30 • 10.05   |
| WS 01-A1                                     | • Opening   | Singer A. (UK)   |
| WS 01-A2                                     | • The normal cervix and the colposcopy examination  | Singer A. (UK)   |
| WS 01-A3                                     | <ul> <li>Update in pathology and cytology for colposcopists</li> </ul>  | Regauer S. (Austria)   |
| NS 01-A4                                     | Colposcopy of «abnormal» cervix, colposcopy terminology   | Bornstein J. (Israel)  |
| Coffee Bred                                  | ak  | 10.05 • 10.35  |
| VS 01-B                                      | Part B  | 10.35 • 12.00  |
|  |   |  |
| WS 01-B1                                     | Management protocols of abnormal screening findings     and the value of biomarkers   | Bonde J. (Denmark)   |
| WS 01-B1<br>WS 01-B2                         | <ul> <li>Management protocols of abnormal screening findings<br/>and the value of biomarkers</li> <li>Treatment of cervical precancer and treatment's<br/>complications</li> </ul>  | Bonde J. (Denmark)<br>Bornstein J. (Israel)  |
| WS 01-B1<br>WS 01-B2<br>WS 01-B3             | <ul> <li>Management protocols of abnormal screening findings<br/>and the value of biomarkers</li> <li>Treatment of cervical precancer and treatment's<br/>complications</li> <li>What is your diagnosis? (Interactive session)</li> </ul>                         | Bonde J. (Denmark)<br>Bornstein J. (Israel)<br>Singer A. (UK)                          |
| WS 01-B1<br>WS 01-B2<br>WS 01-B3<br>WS 01-B4 | <ul> <li>Management protocols of abnormal screening findings<br/>and the value of biomarkers</li> <li>Treatment of cervical precancer and treatment's<br/>complications</li> <li>What is your diagnosis? (Interactive session)</li> <li>Course Summary</li> </ul> | Bonde J. (Denmark)<br>Bornstein J. (Israel)<br>Singer A. (UK)<br>Bornstein J. (Israel) |

# LW - LOCAL WORKSHOP

### The Nordic Session

Auditorium A4 13.30 • 17.00

### Coordinators: Bonde J. (Denmark) • Dillner J. (Sweden)

The Nordic countries have ambitious cervical cancer elimination strategies backed by strong, comprehensive registers, organised screening and have been early movers on organised vaccination programs and HPV self-sampling for primary screening.

### LW 01

Part 1 - Next level for HPV vaccine in the Nordic Countries Chair: Bonde J. (Denmark) • Dillner J. (Sweden)

13.30 • 15.00

This session will provide a comprehensive update on Nordic HPV vaccination, including reports of registry-based assessment of the impact of the HPV vaccinations, how the vaccine is changing clinical management and present data on faster cervical cancer elimination using concomitant HPV vaccination and HPV screening.

| Lei J. (Sweden)           | Impact of HPV vaccination in Sweden  | LW 01-1 |
|---------------------------|--|---------|
| Krüger Kjaer S. (Denmark) | <ul> <li>Impact of HPV vaccination in Denmark</li> </ul>                                 | LW 01-2 |
| Strander B. (Sweden)      | Vaccination after treatment for CIN2+  | LW 01-3 |
| Dillner J. (Sweden)       | <ul> <li>Concomitant vaccination and screening<br/>for faster HPV elimination</li> </ul> | LW 01-4 |
| Bonde J. (Denmark)        | • Round table: "What is next in Nordic vaccination?"                                     | LW 01-5 |

LW 02

Innovations in HPV Research and Global Cancer Solutions: An International Collaborative Conference

### LW - LOCAL WORKSHOP

### The Nordic Session

Auditorium A4 13.30 • 17.00

### Part 2 - Next level for cervical screening in the Nordic Countries Chair: Bonde J. (Denmark) • Dillner J. (Sweden)

15.30 • 17.00

This session will provide a comprehensive update on Nordic HPV screening, including reports of the joint open online system for monitoring cervical screening in the Nordic countries, how the predictive value of HPV screening changes after multiple rounds of HPV screening and experiences of how the organised screening programs have used primary self-sampling in Denmark and Sweden. Finally, results from a nationwide trial of organised, risk-stratified screening will be reported.

LW 02-1 • Nordscreen – an interactive visualisation of screening Partanen V. M. (Finland) quality indicators in the Nordic countries LW 02-2 • How the predictive value of HPV test differs **Engesæter B. (Norway)** with new infections - implications for design of screening algorithms LW 02-3 • Primary self-sampling in Sweden Elfström M. (Sweden) LW 02-4 • Danish experiences with primary self-sampling Bonde J. (Denmark) LW 02-5 • Nationwide registry-based cohort study of risk-Arroyo Mühr L. S. (Sweden) stratified cervical screening LW 02-6 Round table: "Can screening programs adapt fast Dillner J. (Sweden) enough to encompass new technologies?"

### **SS - SCIENTIFIC SESSIONS**

# SS 11

HPV type replacement Chair: Franco E. (Canada) Auditorium Al 8.00 • 9.00

With the advent of prophylactic HPV vaccination, there is a concern that the decrease in the incidence and prevalence of infections by vaccine-targeted HPV types has created the opportunity for other HPV types to become more common, taking up the ecological niches previously occupied by HPVs 16, 18, and others. While a public health precedent exists for the «type replacement» phenomenon (e.g., shifts in serotype distribution post-pneumococcal vaccination), the comparison is not a suitable biological analogue for HPV vaccination. HPVs are DNA viruses with very low mutation rates, unlike the situation with pneumococci, which are highly adaptable to changes in immune status in populations. Yet, surveillance of what happens post-HPV vaccination is warranted because detecting HPV and its association with lesions creates challenging scenarios specific to different vaccination implementation conditions. Speakers will provide empirical evidence for whether type replacement is a justifiable concern.

| Franco E. (Canada)   | <ul> <li>Introduction: Should we worry about HPV type replacement post-vaccination?</li> </ul>  | SS 11-1 |
|----------------------|---|---------|
| Pimenoff V. (Sweden) | <ul> <li>Type replacement by non-vaccine-targeted HPVs after gender-based community vaccination</li> </ul>  | SS 11-2 |
| Markowitz L. (USA)   | <ul> <li>HPV genotypes before and after introduction of HPV vaccination in the United States</li> </ul>   | SS 11-3 |
| Tota J. (USA)        | <ul> <li>Evaluation of type replacement following HPV16/18</li> <li>vaccination: Pooled analysis of two randomized trials</li> </ul>  | SS 11-4 |
| Shing J. Z. (USA)    | <ul> <li>Clinical unmasking of cervical precancers caused<br/>by non-vaccine-preventable HPV types following HPV<br/>vaccination: A proof-of-concept in the Costa Rica HPV<br/>Vaccine Trial</li> </ul> | SS 11-5 |
| Franco E. (Canada)   | Discussion and Q&A  |         |

SS 12

Innovations in HPV Research and Global Cancer Solutions: An International Collaborative Conference

### **SS - SCIENTIFIC SESSIONS**

# Gender-neutral vaccination: impact on speed of elimination and subsequent need for screening

Auditorium Al 9.30 • 11.00

Chair: Franco E. (Canada) • Lehtinen M. (Finland)

This session provides an update on the progress made with gender-neutral HPV vaccination (GNV). Dr. Lehtinen will present the superb pace and power of GNV in generating strong herd protection in the population. Drs. Elfström and Vänskä, will respectively present the Swedish and Finnish experiences with the elimination of cervical cancer and oncogenic HPV-types. Drs. Baussano and Berkhof will review the importance of different screening strategies for cervical cancer in a post-HPV vaccination world.

|   |  | •••••   |
|---|--|---------|
| Franco E. (Canada)<br>& Lehtinen M. (Finland) | Introduction   | SS 12-1 |
| Lehtinen M. (Finland)                         | • Finnish trial evidence on the impact of gender-neutral HPV vaccination                     | SS 12-2 |
| Elfström M. (Sweden)                          | • Prospects for accelerated elimination of cervical cancer in Sweden                         | SS 12-3 |
| Vänskä S. (Finland)                           | • Rapid eradication of the most important oncogenic HPV types                                | SS 12-4 |
| Baussano I. (France)                          | <ul> <li>Changing HPV prevalence changes the optimal<br/>screening program to use</li> </ul> | SS 12-5 |
| Berkhof H. (Netherlands)                      | <ul> <li>Self-sampling and HPV-independent means of<br/>screening and triage</li> </ul>      | SS 12-6 |
| Franco E. (Canada)<br>& Lehtinen M. (Finland) | Discussion and Q&A   |         |

SS 13

Innovations in HPV Research and Global Cancer Solutions: An International Collaborative Conference

### **SS - SCIENTIFIC SESSIONS**

### Self-sampling

Chair: Ogilvie G. (Canada) • Saville M. (Australia)

Auditorium A2 8.00 • 9.30

Self-collection will be a game-changing tool in achieving WHO strategic target 2, that coverage of screening, with a high precision test, reaches 70% by 2030. Provided that a PCR based assay is used and the collection device, transport conditions and resuspension protocols are validated and controlled, equivalent sensitivity and specificity for detection of CIN2+ are expected. On this basis our session will focus on the socio-cultural and logistical aspects of implementation of self-collection based screening programs that aim to reduce inequities in access to screening, follow-up treatment and cancer outcomes in a variety of global settings.

| SS 13-1 | Introduction  | Ogilvie G. (Canada)<br>& Saville M. (Australia) |
|---------|---|---|
| SS 13-2 | Urine vs vaginal self collection for cervical cancer screening  | Van Keer S. (Belgium)                           |
| SS 13-3 | • Self-collection deployment/outcomes (Australia,<br>Canada)  | Ogilvie G. (Canada)<br>& Saville M. (Australia) |
| SS 13-4 | Self collection for under-screened women (cultural groups)  | Lawton B. (New Zealand)                         |
| SS 13-5 | Self collection in Papua New Guinea   | Saville M. (Australia)                          |
| SS 13-6 | Self-collection for disabled women  | Sherman S. (UK)                                 |
| SS 13-7 | • Health care provider considerations in the transition from clinician to self-collection for cervical cancer screening | Smith L. (Canada)                               |
|         | Discussion and Q&A  | Ogilvie G. (Canada)<br>& Saville M. (Australia) |

### SS 14 Chair: Poljak M. (Slovenia) • Bonde J. (Denmark)

Auditorium A2 9.30 • 11.00

To improve equitable access to screening, women in many cervical cancer screening programs or projects are now given the option of providing a self-collected sample. Self-taken samples for HPV testing have a similar accuracy to that of clinician-collected samples for the detection of high-grade cervical intraepithelial lesions when a validated PCR-based assay is used. The session will provide an overview of self-sampling implementation status and implementation studies in various high and middle-income countries, the associated challenges and the way forward.

| Poljak M. (Slovenia<br>& Bonde J. (Denmark) | 14-1 • Introduction  | SS 14-1 |
|---|--|---------|
| Inturrisi F. (Netherlands)                  | • Worldwide use of HPV self-sampling for cervical cancer screening | SS 14-2 |
| Van Dijk S. (Netherlands)                   | • Self-sampling implementation: example from<br>the Netherlands    | SS 14-3 |
| Bonde J. (Denmark)                          | • Self-sampling implementation: example from Denmark               | SS 14-4 |
| Hawkes D. (Australia)                       | • Self-sampling implementation: example from Australia             | SS 14-5 |
| Arroyo Mühr L. S. (Sweden)                  | • Self-sampling implementation: example from Sweden                | SS 14-6 |
| Poljak M. (Slovenia)                        | Discussion and Q&A   |         |
| & Bonde J. (Denmark)                        |  |         |

### **SS - SCIENTIFIC SESSIONS**

### SS 15

Screening for HPV-related cancer in sexual and gender minority adults Chair: Jackson S. (USA) • Kreimer A. (USA)

Room C3 9.30 • 11.00

Sexual and gender minority (SGM) individuals refer to members of the lesbian, gay, bisexual, transgender, queer, and other (LGBTQ+) populations. SGM individuals often face barriers to health care due to discrimination and stigma resulting in lower utilization of cancer prevention services. Further, many providers lack of knowledge about HPV prevalence and the appropriate screening tests for HPV-associated cancers in this population. Trans men and nonbinary patients assigned female at birth are just as likely as cisgender women to be exposed to HPV but may be less likely to have ever undergone cervical cancer screening. Trans men may also avoid pelvic exams due to pain or worsening of gender dysphoria (distress associated with the disconnect between identity and sex assigned at birth). Men who have sex with men (MSM) and transgender women with and without HIV are at increased risk of HPV-associated anal cancer

though no formal screening guidelines exist. The session aims to summarize the current state of research on screening for HPV-related cancers among SGM individuals worldwide. Content proposed will include an overview of the unique needs of this population, attitudes towards urinary HPV screening among LBT individuals; cervical screening and vaccination among trans men and nonbinary people with a cervix; anal cancer screening among MSM with and without HIV; and a summary of screening recommendations for HPV-related cancers among SGM individuals.

Learning Objectives: Participants should understand the needs of the SGM community pertaining to HPV testing, cervical and anal cancer screening, and screening recommendations.

- Introduction to SGM populations
- HPV testing with urine in LBT individuals
- Cervical screening among trans men
- Anal cancer screening among MSM with and without HIV

• Recommendations for screening and prevention of HPV-associated cancers in the SGM population

| SS 15-1 | Introduction   | Jackson S. (USA)                       |
|---------|--|--|
| SS 15-2 | <ul> <li>Understanding sexual and gender minority<br/>populations and organ-based screening<br/>recommendations for HPV-related cancers</li> </ul> | Khan M. J. (USA)                       |
| SS 15-3 | <ul> <li>Acceptability of a urine self-test for cervical screening<br/>in the lesbian, bisexual, and trans men population</li> </ul>               | Davies-Oliveira J. (UK)                |
| SS 15-4 | <ul> <li>Anal cancer risk and screening strategies in MSM with<br/>and without HIV</li> </ul>  | Haas C. (USA)                          |
| SS 15-5 | <ul> <li>Cervical cancer screening among trans men<br/>and non-binary people in the United Kingdom</li> </ul>                                      | Jackson S. (USA)                       |
|         | Discussion and Q&A   | Jackson S. (USA)<br>& Kreimer A. (USA) |

### **CS - CLINICAL SESSIONS**

CS 04

Use of genotyping for management Chair: Carozzi F. (Italy) Auditorium A4 8.00 • 9.30

As each of the high-risk HPV genotypes carries a different risk of progression to cervical cancer, genotyping can be used to manage HPV-positive women accordingly. The use of HPV genotyping for triage and management is gaining importance worldwide because, as other risk-based strategies, it offers the possibility to maximize screening efficiency by better allocating available resources and directing them to women at highest-risk. Positivity for HPV16/18 is currently being included in several clinical algorithms as an indication of high-risk supporting direct referral for colposcopy and the inclusion of extended genotyping is being piloted. In the near future it is likely that more countries, also LMICs, will adopt similar strategies as more HPV tests used for primary screening will be able to provide extended/full genotyping information without additional costs. The organization of risk groups and laboratory considerations for using genotyping in screening will also be discussed.

| Carozzi F. (Italy)       | Introduction  | CS 04-1 |
|--------------------------|---|---------|
| Wentzensen N. (USA)      | <ul> <li>Rationale of using genotyping for management<br/>of cervical cancer</li> </ul>   | CS 04-2 |
| Bonde J. (Denmark)       | <ul> <li>Laboratory considerations for using a genotyping test<br/>in screening settings</li> </ul>   | CS 04-3 |
| Elfström M. (Sweden)     | <ul> <li>Use of extended genotyping in real-word screening<br/>in Sweden</li> </ul>   | CS 04-4 |
| Berkhof H. (Netherlands) | Use of extended genotyping: a longitudinal perspective  | CS 04-5 |
| Giorgi Rossi P. (Italy)  | <ul> <li>Genotyping by single genotype vs genotyping in risk<br/>groups: advantages and limitations.</li> <li>An example from Italian data</li> </ul> | CS 04-6 |
| Wentzensen N. (USA)      | <ul> <li>Novel extended genotyping HPV test for screening<br/>and management in low-resource settings</li> </ul>                                      | CS 04-7 |
| Carozzi F. (Italy)       | Discussion and Q&A  |         |

### **CS - CLINICAL SESSIONS**

### CS 05

Vaccination in women with CIN treatment Chair: Nieminen P. (Finland) • Strander B. (Sweden) Auditorium A4 14.00 • 15.30

We will give an overview of the field and summarise the scientific evidence, including and comparing the meta-analyses that have been made. The time-point for vaccination in general will be discussed as well as challenges in formulating endpoints when making randomised trials on vaccination at the time of treatment for high grade CIN. We will further discuss several topics, e.g. what level of evidence is required for clinical guidelines and for changing of public financed policies, how soon should recommendations be made when awaiting results from randomized studies, what are the ethical questions involved issuing recommendations that are costly for the patients and what are the policies in Europe at present? Also basic data, not yet divided by arms, from the randomised NOVEL-trial will be presented.

| CS 05-1 | Introduction   | Nieminen P. (Finland)                           |
|---------|--|---|
|         |  | & Strander B. (Sweden)                          |
| CS 05-2 | • The role of vaccination after treatment: an overview of the data   | Kyrgiou M. (UK)                                 |
| CS 05-3 | Challenges in analysis and endpoints   | Sasieni P. (UK)                                 |
| CS 05-4 | <ul> <li>Looking into the impact of vaccine on different kind<br/>of infections</li> </ul>                   | Dillner J. (Sweden)                             |
| CS 05-5 | <ul> <li>Clinical recommendations and ethics - survey<br/>of practices across Europe from the EFC</li> </ul> | Nieminen P. (Finland)                           |
| CS 05-6 | • The NOVEL study: basic data up to 18 months after recruitment  | Strander B. (Sweden)                            |
|         | Discussion and Q&A   | Nieminen P. (Finland)<br>& Strander B. (Sweden) |

EUROGIN 2024

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# **FC - FREE COMMUNICATIONS**

| FC 10   | Colposcopy / Management I<br>Chair: Del Pino M. (Spain) • Joura E. (Austria)  | Auditorium A4<br>9.30 • 11.00 |
|---------|---|-------------------------------|
| FC 10-1 | <ul> <li>A prospective cohort study of active surveillance<br/>of CIN2 in young women – predicting factors for<br/>progression and regression</li> </ul>  | Bergqvist L. (Finland)        |
| FC 10-2 | • Can adequate follow-up of women treated for high<br>grade squamous intraepithelial lesions prevent the<br>development of invasive cervical and vaginal cancer?  | Milerad H. (Sweden)           |
| FC 10-3 | • Underdiagnosis of cervical intraepithelial neoplasia by colposcopy and its association with thin high-grade squamous intraepithelial lesions  | Li M. (China)                 |
| FC 10-4 | <ul> <li>Evaluation of the diagnostic performance of<br/>colposcopy in the diagnosis of histologic cervical<br/>intraepithelial neoplasia (CIN2+) in a tertiary-level<br/>hospital in Madeira, Portugal – a quality control survey</li> </ul> | Leal I. T. (Portugal)         |
| FC 10-5 | • Active surveillance of CIN2 is not associated with lower risk of preterm birth  | Hammer A. (Denmark)           |
| FC 10-6 | • Endocervical brush after cervical conization as an alternative to endocervical curettage for predicting high-grade squamous intraepithelial lesion persistence  | Del Pino M. (Spain)           |
| FC 10-7 | <ul> <li>Predicting the follow up regimen three years after<br/>treatment of cervical intra-epithelial neoplasia: does<br/>dual staining add to the equation?</li> </ul>  | Packet B. (Belgium)           |
| FC 10-8 | • A new approach in the conservative management of cervical HSIL  | Nassar N. (Spain)             |

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Thursday, March 14

| FC 11    | HPV Vaccines II<br>Chair: Beddows S. (UK) • Lehtinen M. (Finland)   | Room C1/C2<br><b>8.00 • 9.30</b> |
|----------|---|----------------------------------|
| FC 11-1  | • Durability of single-dose HPV vaccine immune<br>responses up to 5 years post-vaccination in girls<br>participating in the DoRIS trial in Tanzania   | Changalucha J. (Tanzania)        |
| FC 11-2  | <ul> <li>Comparison of seroprevalence of 9-valent human<br/>papillomavirus vaccine types using CLIA and<br/>multiplexed M9ELISA assays, United States, 2005-2006</li> </ul>                                       | Lewis R. (USA)                   |
| FC 11-3  | <ul> <li>Vaccine effectiveness of bivalent HPV vaccination:<br/>comparison of routine vaccination versus catch-up<br/>campaign for 13-16 year old girls</li> </ul>  | Klusters J. (Netherlands)        |
| FC 11-4  | <ul> <li>Vaccine effectiveness against anal HPV infection<br/>among men who have sex with men ages 18-45 -<br/>United States, 2018-2022</li> </ul>  | Desisto C. (USA)                 |
| FC 11-5  | • Evaluation of possible human papillomavirus (HPV)<br>type replacement after vaccine introduction, overall<br>and by race and ethnicity, United States   | Brewer S. (USA)                  |
| FC 11-6  | <ul> <li>Risk of CIN2 progression by HPV vaccination status</li> <li>Reduction of precancerous lesions and cancer in</li> </ul>   | Randrup T. (Denmark)             |
| FC 11-7  | the cervix among the Japanese HPV vaccination<br>generations: national data suggests the effectiveness<br>of the vaccine  | lto M. (Japan)                   |
| FC 11-8  | • Human papillomavirus type-specific distribution in<br>cervical intraepithelial neoplasia and cancer in The<br>Gambia prior to HPV immunization programme: a<br>baseline for monitoring the quadrivalent vaccine | Bah H. (The Gambia)              |
| FC 11-9  | • Mortality trends from human papillomavirus (HPV)-<br>related cancers and vaccination coverage in Brazil   | Fernandes G. A. (Brazil)         |
| FC 11-10 | Healthcare workers' sentiments on recommending the     HPV vaccine: a systematic review   | Herzig Van Wees S. (Sweden)      |
| FC 11-11 | <ul> <li>Cross-sectional study to estimate HPV vaccine<br/>coverage rate in a specific high-risk population in<br/>Spain, COVAR study</li> </ul>  | Villarejo Botija M. (Spain)      |


| FC 12   | <b>Economics and modelling</b><br>Chair: Brisson M. (Canada) • Jit M. (UK)   | Room C3<br><b>8.30 • 9.30</b>      |
|---------|--|------------------------------------|
| FC 12-1 | <ul> <li>Cost-effectiveness analysis of single-dose or 2-dose<br/>of 2vHPV, 4vHPV, or 9vHPV vaccine in a low/middle<br/>income country setting</li> </ul>                                | Termrungruanglert W.<br>(Thailand) |
| FC 12-2 | • Cost-effectiveness analysis of HPV vaccination<br>for women with cervical intraepithelial neoplasia<br>treatment   | Cherif A. (USA)                    |
| FC 12-3 | • Modelling the impact of concomitant human<br>papillonavirus (HPV) vaccination and HPV-based<br>screening for an even faster elimination of HPV in<br>Sweden                            | Gini A. (France)                   |
| FC 12-4 | <ul> <li>Under which realistic circumstances is hrHPV self-<br/>sampling increasing cervical screening effectiveness in<br/>a partly vaccinated population? A modelling study</li> </ul> | Jansen E. (Netherlands)            |
| FC 12-5 | <ul> <li>Cost-effectiveness analysis of alternative screening<br/>srategies for the detection of cervical cancer among<br/>poor women in Western Kenya</li> </ul>                        | Lobin C. (Germany)                 |
| FC 12-6 | • Cervical cancer elimination in the UK  | Daniels V. (USA)                   |

### **SS - SCIENTIFIC SESSIONS**

#### SS 16

#### Partnerships with Nordic registries

Auditorium Al 14.00 • 16.00

Chair: Saah A. (USA)

Working with health registries is generally a positive and fruitful endeavor. The Nordic Registries, in particular, take the experience to a new level by maintaining constant contact with each member of the population through the health care system for their lifetime. In such an environment, many different types of studies can be done, as demonstrated by the variety of presentations in this session. In this session, you will hear reports of long-term follow-up studies from HPV vaccine clinical trials that were accomplished while women went about their lives and had routine cervical cancer screening. Epidemiological, health economic, and outcomes research studies were also conducted using registry data to answer important questions on impact and effectiveness of vaccination on a variety of other HPV-mediated diseases.

| SS 16-1 | The use of Nordic registries in performing long-term<br>follow-up studies of efficacy and immunogenicity of the<br>quadrivalent and 9-valent human papilloma (HPV) vaccines                                | Saah A. (USA)              |
|---------|--|----------------------------|
| SS 16-2 | Assessing the impact of HPV vaccination on population,<br>the VIP-study: insights on HPV epidemiology, cervical<br>cancer incidence, vaccination coverage, and lifestyle<br>factors in the Nordic region   | Nygård M. (Norway)         |
| SS 16-3 | Assessment of long-term effectiveness of the quadrivalent and 9-valent vaccines through national registries of Nordic countries  | Luxembourg A. (USA)        |
| SS 16-4 | HPV vaccination uptake and effectiveness in Sweden:<br>evidence from population-based studies  | Sundström K. (Sweden)      |
| SS 16-5 | Population impact and real-world effectiveness of human papilloma virus (HPV) vaccination in Denmark   | Krüger Kjaer S. (Denmark)  |
| SS 16-6 | Systematic literature review of RW impact and effectiveness in Nordic countries (HPV infection [oral and anogenital], AGW, etc.)   | Wang V. (USA)              |
| SS 16-7 | Public health impact and cost-effectiveness of switching<br>from bivalent to nonavalent vaccine for human<br>papillomavirus in Norway: incorporating the full health<br>impact of all HPV-related diseases | Diakite I. (USA)           |
| SS 16-8 | HPV vaccine safety in more than 500,000 males and<br>females who received close to 900,000 doses: findings<br>from 3 observational studies of the 4- and 9-valent<br>vaccines                              | Tota J. (USA)              |
| SS 16-9 | Even faster cervical cancer elimination in Sweden:<br>Concomitant human papillomavirus (HPV) vaccination<br>and HPV screening + risk stratified cervical screening   | Arroyo Mühr L. S. (Sweden) |
|         | Discussion and Q&A   | Saah A. (USA)              |

#### **SS - SCIENTIFIC SESSIONS**

# SS 17

Research to advance prevention of cervical and HPV-related cancers among women living with HIV

Auditorium Al 16.30 • 18.00

Chair: Giuliano A. (USA) • Sahasrabuddhe V. (USA)

Cervical and HPV-related cancer incidence is disproportionately higher among persons living with HIV residing in low and middle-income countries as well as in low-resource communities in high income countries. Many of the challenges faced with reducing this health disparity relate to the need for tailored and optimized cervical and anogenital screening and triage modalities. Similarly, new and improved approaches are needed to increase precancer treatment efficacy and reduce rates of recurrence. To address these challenges, the US NCI Division of Cancer Prevention has developed two cooperative agreement networks with multiple US and LMIC institutions to evaluate the efficacy, effectiveness, and implementation of novel approaches for cervical cancer screening and precancer treatment approaches among persons with HIV. In this session the designs and results of these multiple research trials will be presented.

| Giuliano A. (USA)                             | 7-1 • Introduction   | SS 17-1 |
|---|--|---------|
| & Sahasrabuddhe V. (USA)                      |  |         |
| Sahasrabuddhe V. (USA)                        | <ul> <li>• Establishment of the 'ULACNet' and 'CASCADE'<br/>Networks for improving prevention of cervical and<br/>HPV-related cancers among persons living with HIV</li> </ul> | SS 17-2 |
| Palefsky J. (USA)                             | <ul> <li>7-3 • ULACNet-'CAMPO' Consortium trials on improving<br/>cervical and anal cancer screening and triage for<br/>persons with HIV</li> </ul>                            | SS 17-3 |
| Villa L. (Brazil)                             | <ul> <li>• ULACNet-'ROCCHHA' Consortium trials on improving<br/>HPV-related cancer prevention in persons with HIV</li> </ul>   | SS 17-4 |
| Madeleine M. (USA)                            | <ul> <li>7-5 • ULACNet-'Colaboración Evita' Consortium trials<br/>on improving HPV-related cancer prevention in<br/>persons with HIV</li> </ul>                                | SS 17-5 |
| Winer R. (USA)                                | <ul> <li>CASCADE-1001: Expanded use of thermal ablation<br/>for cervical cancer prevention in women living with HIV</li> </ul>   | SS 17-6 |
| Wilkin T. (USA)                               | <ul> <li>CASCADE-2001: HPV screening triage to treatment<br/>utilizing HPV type restriction + higher viral load<br/>threshold in women with HIV</li> </ul>                     | SS 17-7 |
| Smith J. S. (USA)                             | <ul> <li>CASCADE-3001: Community health worker facilitated<br/>screening promotion model in women living with HIV</li> </ul>   | SS 17-8 |
| Giuliano A. (USA)<br>& Sahasrabuddhe V. (USA) | Discussion and Q&A   |         |

| FC 13   | Screening methods & women difficult<br>to reach<br>Chair: Smith J. S. (USA)   | Auditorium A4<br><b>16.00 • 17.30</b> |
|---------|---|---------------------------------------|
| FC 13-1 | • Comparison and correlation of visual inspection with acetic acid and pap smear for cervical cancer screening  | Seshadri J. G. (India)                |
| FC 13-2 | <ul> <li>HPV genotyping for cervical cancer risk stratification in<br/>VIA-based primary cervical cancer screening program<br/>in India</li> </ul>  | Pimple S. (India)                     |
| FC 13-3 | <ul> <li>Cervical cancer screening by self-sampling for HPV and<br/>dysplasia molecular testing integrated in a women's<br/>health and well-being comprehensive approach</li> </ul>             | Fock M. C. (France)                   |
| FC 13-4 | • Exploring HPV self-sampling acceptability among<br>Moroccan and Pakistani women prior to the<br>implementation of a population based cervical cancer<br>screening program in Catalonia, Spain | Garcia Lurgain J. (UK)                |
| FC 13-5 | <ul> <li>Innovative urine-based HPV-DNA screening for cervical<br/>cancer prevention in a rural primary care centre in<br/>Eswatini</li> </ul>  | Tanzi E. (Italy)                      |
| FC 13-6 | <ul> <li>Impact of health-related behavioral factors on<br/>participation in a cervical cancer screening program:<br/>the LifeLines population-based cohort</li> </ul>                          | Castañeda K. (Netherlands)            |
| FC 13-7 | • The indigenous women of the Amazon rain forest -<br>true custodians - saving the planet   | Niamatali C. (Guyana)                 |
| FC 13-8 | <ul> <li>Turning the tide: recommendations to increase cervical<br/>cancer screening among women who are under-<br/>screened – a White Paper by the ACCESS consensus<br/>group</li> </ul>       | Descamps P. (France)                  |
| FC 13-9 | <ul> <li>A benchmark analytical validation of the COPAN<br/>universe<sup>®</sup> pre-analytical instrument integration on the<br/>riatol QPCR workflow for cervical cancer screening</li> </ul> | Pereira R. (Belgium)                  |

# AI - HPV AND ARTIFICIAL INTELLIGENCE FORUM

# Digital health transformation in progress – Artificial intelligence and HPV related diseases

Auditorium A2 14.00 • 18.00

Coordinator: Monsonego J. (France)

Welcome to the **Multidisciplinary Forum** on the Multifaceted Applications of **AI in precancerous and cancerous pathologies of the cervical, anal, and oropharyngeal regions linked to HPV!** 

We are delighted to have you join this enlightening discussion, where we'll delve into the world of AI's diverse roles in screening, prediction, diagnostic support, and management of HPV-related precancerous and cancerous conditions. Let's explore the incredible potential of artificial intelligence in improving healthcare outcomes and shaping the future of cervical, anal, and oropharyngeal cancer management. Your insights and contributions are essential in this endeavour.

| AI 01                     | <b>Artificial intelligence in health care</b><br>Chair: Franco E. (Canada)   | 14.00 • 14.40                                   |
|---------------------------|--|---|
| Al 01-1<br><i>14.00</i>   | Invited Talk<br>AI in health care: general considerations<br>Digital imaging and AI: state of the art and road<br>to clinical practice | Grabe N. (Germany)                              |
| AI 01-2<br><i>14.30</i>   | Discussion   | De Sanjosé S. (Spain)                           |
| AI 02-A                   | Al and HPV related neoplasia - Prediction<br>models, experiences and perspectives<br>Chair: Wentzensen N. (USA)                        | 14.40 • 16.00                                   |
| AI 02-A1<br><i>14.40</i>  | Clinical implementation of AI-based solutions<br>for cervical screening and management:<br>opportunities and challenges                | De Sanjosé S. (Spain)                           |
| AI 02-A2                  | Cervical screening   |   |
| Al 02-A2a<br>15.00        | Self sampling and role of molecular markers  | Smith J. S. (USA)<br>& Meijer C. (Netherlands)  |
| Al 02-A2b<br><i>15.15</i> | • Development and evaluation of Automated Visual<br>Evaluation in LMIC   | Egemen D. (USA)                                 |
| AI 02-A3                  | Al solutions for triage and colposcopy   |   |
| Al 02-A3a<br><i>15.30</i> | Colposcopy: enhancing image recognition of HG CIN  | Madathil S. (Canada)<br>& Monsonego J. (France) |
| Al 02-A3b<br><i>15.45</i> | <ul> <li>Automated detection of dual stain for triage<br/>of HPV-positives</li> </ul>  | Wentzensen N. (USA)                             |
|                           |  |   |

Coffee Break

# **AI - HPV AND ARTIFICIAL INTELLIGENCE FORUM**

# Digital health transformation in progress –Auditorium A2Artificial intelligence and HPV related diseases14.00 • 18.00

| AI 02-B           | Al and HPV related neoplasia - Prediction<br>models, experiences and perspectives<br>Chair: Wentzensen N. (USA)            | 16.30 • 17.15        |
|-------------------|--|----------------------|
| AI 02-B1          | Anus   |                      |
| 16.30             | • Detection of anal HSIL - Practical issues for AI solutions   | Zhang L. (Australia) |
| AI 02-B2          | Head and neck  |                      |
| 16.45             | Uncertainty quantification of AI-based prediction model and potential for clinical decision making                         | Madathil S. (Canada) |
| AI 02-B3<br>17.00 | <b>Conclusion</b><br>Moderators: Franco E. (Canada) • De Sanjosé S. (Spain)<br>Wentzensen N. (USA) • Monsonego J. (France) |                      |
| • Recapitula      | ition of key points discussed in the presentation  |                      |

• Emphasis on the potential role of artificial intelligence as a valuable complementary tool to improve the screening, diagnosis and treatment of cervical conditions

• Encouragement for collaboration between AI experts and healthcare professionals to foster the adoption and development of AI-based solutions in cervical pathology

| AI 03   | Free Communications (Submitted papers)<br>Chair: Madathil S. (Canada)   | 17.15 • 18.00              |
|---------|---|----------------------------|
| AI 03-1 | <ul> <li>Moving towards more personalised cervical cancer<br/>screening: determining differences in the risk of CIN2+<br/>by age and HPV-type in Norway</li> </ul>  | Thorsplass A. (Norway)     |
| AI 03-2 | <ul> <li>Machine learning model for cervical cancer<br/>risk prediction</li> </ul>  | Garcia Serrano A. (Sweden) |
| AI 03-3 | <ul> <li>Automated evaluation of p16/ki67 dual stain cytology<br/>as an artificial intelligence-based biomarker<br/>for detection of cervical intraepithelial neoplasia<br/>of grade 2 or worse in older HPV-positive women<br/>in cervical cancer screening - a cross sectional study</li> </ul> | Gustafson L. W. (Denmark)  |
| AI 03-4 | <ul> <li>Risk stratified management of cervical high-grade<br/>squamous intraepithelial lesions based on machine<br/>learning</li> </ul>  | Zhang L. (China)           |
| AI 03-5 | Cervix guide - a new artificial intelligence tool   | Pacheco A. (Portugal)      |

# YSA - YOUNG SCIENTISTS AWARD and WELCOME CEREMONY

Auditorium Al 18.15 • 19.30

#### Chairs: Bonde J. (Denmark) • Hawkes D. (Australia)

| J | u | rv |  |
|---|---|----|--|
|   | u | ·y |  |

| Megan Clarke (USA)         | Division of Cancer Epidemiology & Genetics, National Cancer Institute                                 |
|----------------------------|---|
| Belinda Nedjai (UK)        | Director of the Molecular Epidemiology Laboratory, Queen Mary<br>Hospital, University of London       |
| Laura Ellis (UK)           | Imperial Health Charity / NIHR Imperial BRC Fellow<br>Young Scientist Award Winner EUROGIN 2023       |
| Anja Ostrbenk (Slovenia)   | University of Ljubljana, Faculty of Medicine  |
| Marion Saville (Australia) | Victorian Cytology Service Ltd., Department of Obstetrics<br>and Gynaecology, University of Melbourne |

| Presente                | ations  | 18.15                |
|-------------------------|---|----------------------|
| YSA 01                  | <ul> <li>Localised topical microwaving reverse human<br/>papillomavirus (HPV) induced proliferation<br/>and immortalisation in vitro in HPV-positive 3D<br/>epithelial raft tissues</li> </ul>                                | Kirk A. (UK)         |
| YSA 02                  | <ul> <li>Evidence of decreased long-term risk of cervical pre-<br/>cancer after negative primary HPV screens compared to<br/>negative cytology screens in a longitudinal cohort study</li> </ul>                              | Gottschlich A. (USA) |
| YSA 03                  | <ul> <li>Human papillomavirus circulating tumor DNA<br/>characterization for risk stratification in cervix cancer</li> </ul>  | Collier E. (Canada)  |
| YSA 04                  | <ul> <li>Human papillomavirus vaccination decision-making<br/>among adolescent girls in Japan: a qualitative study</li> </ul>   | Tomoi H. (Japan)     |
| YSA 05                  | <ul> <li>Alternative treatment options to surveillance<br/>for persistent HPV following a positive result<br/>from the cervical screening programme: a systematic<br/>review &amp; meta-analysis of the literature</li> </ul> | McGee A. (UK)        |
| _                       |   |                      |
| Congres                 | ss Welcome  | 19.00                |
| Welcome b<br>Joseph Mo  | by the Chairman of the EUROGIN Scientific Committee<br>Disonego (France)  |                      |
| and by the<br>Hans Berl | Congress Presidents<br>khof (Netherlands) and Miriam Elfström (Sweden)  |                      |
| Tribute to              | Harald zur Hausen • Joakim Dillner  |                      |
|                         |   |                      |

Announcement of the Winner of the Young Scientists Award

19.20

# WELCOME RECEPTION

Waterfront Congress Center • Bar Level 5 Thursday, March 14 • 19.30 Everybody welcome (no badge required)



#### HN - HPV AND HEAD & NECK FORUM

#### Coordinators: Brenner C. J. (USA) • Klussmann J. P. (Germany) Lang Kuhs K. (USA) • Virani S. (France)

The EUROGIN HPV and Head & Neck Cancer Forum highlights recent advances and areas of active research in the field of HPV-related head and neck cancers. This year's Forum features talks on epidemiology and prevention, HPV-OPC screening studies, updates on current management, innovations in surveillance and new discoveries of the molecular landscape of HPV-OPC tumors. New for this year, the Forum will also feature several panel discussions exploring the potential promise and peril of screening, surgery versus chemoradiation therapy and risks versus benefit of using liquid biopsy for HPV-OPC surveillance.

| HN 01   | <b>Submitted papers I</b><br>Chair: Kejner A. (USA)  | Room C3<br><b>9.30 • 11.00</b>      |
|---------|--|-------------------------------------|
| HN 01-1 | <ul> <li>Feasibility study OncSaliva – non-invasive specimen for<br/>the detection of head and neck cancer via epigenetic<br/>biomarkers</li> </ul>  | Wiehle L. (Germany)                 |
| HN 01-2 | <ul> <li>Diagnostic accuracy of HPV16 early antigen serology<br/>for HPV-driven oropharyngeal cancer is independent<br/>of age and sex</li> </ul>  | Waterboer T. (Germany)              |
| HN 01-3 | <ul> <li>Quantification of human papillomavirus cell-free DNA<br/>from low volume blood plasma samples by digital PCR</li> </ul>   | Rosing F. (Germany)                 |
| HN 01-4 | <ul> <li>Liquid biopsies with circulating plasma HPV–DNA<br/>measurements – a clinically applicable surveillance tool<br/>for HPV-positive oropharyngeal cancer patients</li> </ul>  | Kronberg Jakobsen K.<br>(Denmark)   |
| HN 01-5 | <ul> <li>Sex disparities in human papillomavirus-associated<br/>oropharyngeal carcinoma de-escalation therapy<br/>clinical trials</li> </ul>   | Marrero Gonzalez A. (USA)           |
| HN 01-6 | <ul> <li>Treatment and prognostic differences in<br/>oropharyngeal squamous cell carcinoma in two high-<br/>prevalence HPV areas with distinct healthcare systems:<br/>a cross-country comparison between the USA and<br/>Denmark</li> </ul> | Fenger Carlander A. L.<br>(Denmark) |
| HN 01-7 | <ul> <li>Preliminary findings from a multi-centre study<br/>on human papillomavirus driven head and neck<br/>squamous cell carcinomas in a multi-ethnic society</li> </ul>   | Sathasivam H. (Malaysia)            |
| HN 01-8 | <ul> <li>Prevalence of cystic metastases and HPV in a<br/>consecutive cohort of surgically removed branchial<br/>cleft cysts</li> </ul>  | Bark R. (Sweden)                    |
| HN 01-9 | <ul> <li>Clinical benefit following adjuvant therapeutic<br/>vaccination with PRGN-2012 is governed by the<br/>papilloma microenvironment in patients with RRP</li> </ul>  | Allen C. (USA)                      |
|         |  |                                     |

Lunch Break

#### **HN - HPV AND HEAD & NECK FORUM**

#### HN 02

#### Epidemiology and prevention of HPV-OPC

Room C3

Chair: Rettig E. (USA) • Robbins H. (France)

The epidemiology of HPV-positive oropharynx cancer has evolved rapidly over the past several decades, with tremendous geographic variation. Further changes are expected in the near future, as the impact of HPV vaccination takes effect. Understanding epidemiologic trends, and the risk factors that drive them, is critical to shaping public health policy and messaging. This session will feature recent trends in oropharyngeal cancer incidence, emerging evidence regarding risk factors for HPV-positive oropharyngeal cancer, and updates on HPV vaccination.

| •  |   | • • • • • • • • • |
|--|---|-------------------|
| Rettig E. (USA)<br>& Robbins H. (France) | Introduction  | HN 02-1           |
| Goodman M. (USA)                         | <ul> <li>Is the global increase in the incidence of oropharyngeal cancer caused by HPV?</li> </ul>  | HN 02-2           |
| Carvajal Roventos L. (USA)               | <ul> <li>Trends in incidence rates of head and neck squamous<br/>cell carcinomas overall and by potential relatedness to<br/>human papillomavirus, Costa Rica 2006 to 2015</li> </ul> | HN 02-3           |
| Osazuwa-Peters N. (USA)                  | • Oral HPV infection and HIV  | HN 02-4           |
| Giuliano A. (USA)                        | • HPV vaccination for prevention of oral HPV infection  | HN 02-5           |
| D'Souza A. (USA)                         | • HPV-OPC risk after persistent infection   | HN 02-6           |
| Rettig E. (USA)<br>& Robbins H. (France) | Discussion and Q&A  | CS/CC-X           |

#### Coffee Break

15.30 • 16.00

| Screening for HPV-OPC                              | Room C3       |
|--|---------------|
| Chair: Lang Kuhs K. (USA) • Waterboer T. (Germany) | 16.00 • 18.00 |

Human papillomavirus-driven oropharyngeal squamous cell carcinoma (HPV+OPSCC) is rapidly increasing in many parts of the world. There are no methods for early detection. A major barrier to screening is the inability to identify those at high risk as no precancerous lesion has been identified to date. However, some promising early markers of HPV+OPSCC have recently been discovered. There are several ongoing studies aimed at better understanding whether these biomarkers can be used for screening and early detection of HPV+OPSCC. The purpose of this session is to highlight the most recent findings from these studies and to discuss implications for future trial designs.

| HN 03-1 | Introduction   | Lang Kuhs K. (USA)<br>& Waterboer T. (Germany) |
|---------|--|--|
| HN 03-2 | <ul> <li>The potential impact of oropharyngeal cancer screening:<br/>results from a natural history simulation model</li> </ul>  | Landy R. (USA)                                 |
| HN 03-3 | <ul> <li>Modelling risks for OPC and non-OPC cancers among<br/>HPV16 E6-seropositives - implications for trial design</li> </ul> | Robbins H. (France)                            |
| HN 03-4 | Prediagnostic liquid biopsy  | Faden D. (USA)                                 |
| HN 03-5 | <ul> <li>The Hamburg HPV oropharyngeal cancer screening<br/>study (PHORECAST) - an update</li> </ul>                             | Waterboer T. (Germany)                         |
| HN 03-6 | <ul> <li>Updates on the VOYAGER and HIV-ENDEAVOR<br/>screening studies</li> </ul>  | Lang Kuhs K. (USA)                             |
| HN 03-7 | • PANEL: Pros vs cons of screening for HPV-OPC   | Waterboer T. (Germany)<br>vs D'Souza A. (USA)  |

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HN 04

#### **HN - HPV AND HEAD & NECK FORUM**

#### **Basic science**

Chair: Brenner C. J. (USA) • Virani S. (France)

#### Room C3 8.00 • 9.30

The session on basic science research in HPV-related oropharyngeal cancer provides a comprehensive exploration of cutting-edge techniques in detecting and characterizing human papillomavirus (HPV) in oropharyngeal cancer. Experts delve into the molecular intricacies of HPV genomics, emphasizing the role of emerging biomarkers and genetic signatures linked to oropharyngeal malignancies and outcomes. Attendees gain insights into advanced diagnostic tools such as sequencing-based classification and artificial intelligence-based tumor histology classification and discuss their accuracy for predicting cancer progression. Discussions span personalized treatment strategies based on molecular profiles and tumor heterogeneity, shedding light on tailored therapeutic interventions. The session serves as a crucial platform for multidisciplinary collaboration, fostering a deeper understanding of the molecular landscape of HPV-related oropharyngeal cancer and its implications for enhanced diagnostic accuracy and targeted therapeutic advancements.

| HN 04-1      | Introduction  | Brenner C. (USA)<br>& Virani S. (France) |
|--------------|---|--|
| HN 04-2      | • The impact of HPV structural alterations and viral load on clinical cancer outcomes   | Hayes N. (USA)                           |
| HN 04-3      | <ul> <li>Nucleotide diversity in HPV16 viral variants and impact<br/>on prognosis</li> </ul>  | Virani S. (France)                       |
| HN 04-4      | • Germline susceptibility loci for HPV-driven oropharynx cancer risk and survival   | Dudding T. (UK)                          |
| HN 04-5      | <ul> <li>HPV expression heterogeneity as a diagnostic<br/>biomarker and potential therapeutic target in<br/>oropharynx squamous cell carcinoma</li> </ul> | Puram S. (USA)                           |
| HN 04-6      | • Al in history   | Chinn S. (USA)                           |
|              | Discussion and Q&A  | Brenner C. (USA)                         |
|              |   | & Virani S. (France)                     |
|              |   |  |
| Coffee Break |   | 9.30 • 10.00                             |

9.30 • 10.00

#### **HN - HPV AND HEAD & NECK FORUM**

#### HN 05

Management

Chair: Klussmann J. P. (Germany) • Puram S. (USA)

Room C3

The management session will cover the latest interdisciplinary study concepts for the treatment of HPV-associated head and neck cancers. Conventional treatment of head and neck cancer with surgery and radiotherapy has significant long-term side effects. Due to the better prognosis of HPV-associated carcinomas, attempts are being made to de-escalate therapy. Therefore, different surgical and radio-oncological strategies are discussed by specialists. The criteria for patient selection is also a crucial factor. Further the optimal therapy in the relapsed or metastasized situation is an important topic. The session will therefore cover important results and considerations for improving the treatment of HPV-associated carcinomas of the head and neck.

| HN 05-1 | • Introduction  | Klussmann J. P. (Germany)<br>& Puram S. (USA)  |
|---------|---|--|
| HN 05-2 | • DART2 trial (Mayo)  | Ma D. J. (USA)                                 |
| HN 05-3 | • Questions answered, new questions generated:<br>updates in the management of the neck in the HPV era<br>of OPSCC  | Kejner A. (USA)                                |
| HN 05-4 | <ul> <li>Treatment of HPV driven recurrent/metastatic head<br/>and neck squamous cell carcinoma – primetime for<br/>treatment individualization?</li> </ul> | Klinghammer K. (Germany)                       |
| HN 05-5 | • The trial DAHANCA 34 and the single center TORS results   | Von Buchwald C. (Denmark)                      |
| HN 05-6 | • The MINimalist Trial (MINT): adjuvant treatment de-<br>escalation after surgery for HPV+ oropharyngeal cancer   | Jackson R. (USA)                               |
| HN 05-7 | • De-escalation of adjuvant radio(chemo)therapy<br>for HPV+ HNSCC - the DELPHI study  | Linge A. (Germany)                             |
| HN 05-8 | • PANEL: Using TORS to de-escalate, yes or no?  | Von Buchwald C. (Denmark)<br>vs Ma D. J. (USA) |
|         |   |  |

Lunch Break

11.30 • 13.00

# **HN - HPV AND HEAD & NECK FORUM**

| HN 06   | <b>Submitted papers II</b><br>Chair: Hayes N. (USA)   | Room C3<br><b>13.00 • 14.30</b> |
|---------|---|---------------------------------|
| HN 06-1 | • Exosomal miRNA as possible liquid biomarker for HPV+ head and neck squamous cell carcinoma  | Oberste M. (Germany)            |
| HN 06-2 | <ul> <li>Extensive viral studies of HPV16-associated<br/>oropharyngeal tumors</li> </ul>  | Doghman I. (France)             |
| HN 06-3 | <ul> <li>HPV-positive oropharyngeal squamous cell carcinoma–<br/>monitoring and early response evaluation using HPV-<br/>DNA in plasma (MER-HPV)</li> </ul>                 | Forslund O. (Sweden)            |
| HN 06-4 | <ul> <li>NF-κB signaling pathway activity leads to identification<br/>of novel molecular biomarkers in HPV-associated head<br/>and neck cancer</li> </ul>                   | Kothari A. (USA)                |
| HN 06-5 | <ul> <li>HPV viral load is higher in HPVDNA/p16+ OPSCC as<br/>compared to that in HPVDNA+/p16- OPSCC but does<br/>not differ significantly between OPSCC subsite</li> </ul> | Dalianis T. (Sweden)            |
| HN 06-6 | <ul> <li>Comprehensive mRNA expression profiling for<br/>HPV oncogenes, p16 and cellular biomarkers for<br/>determination of HNSCC HPV etiology</li> </ul>                  | Liang L. (Germany)              |
| HN 06-7 | <ul> <li>Line-1 methylation in HPV16-positive oropharyngeal<br/>cancer: a potential prognostic marker of poor<br/>prognosis</li> </ul>                                      | Casarotto M. (Italy)            |
| HN 06-8 | • Tumour inflammation signature and expression of S100A12 and HLA class I improve survival in HPV-negative hypopharyngeal cancer  | Ursu R. G. (Romania)            |

#### **HN - HPV AND HEAD & NECK FORUM**

#### HN 07

#### Molecular diagnosis and surveillance Chair: Brenner C. J. (USA) • Mirghani H. (France)

Room C3 14.30 • 16.00

The session on molecular diagnostics and surveillance in HPV-related oropharyngeal cancer features an array of insightful talks followed by a debate on the current utility of HPV ctDNA. An overview of current pathology guidelines sets the stage, discussing the evolving standards for diagnosing and monitoring the disease. Cell-free HPV DNA in both plasma and urine is explored as a non-invasive diagnostic tool, providing a convenient and accessible means of detection. TTMV-HPV DNA for surveillance in the clinic is discussed, shedding light on its potential role in monitoring for disease progression. Furthermore, discussion of randomized controlled trials that are comparing standard surveillance methods to liquid biopsy-based approaches will add a crucial perspective, offering evidence-based insights into the feasibility and advantages of liquid biopsy in the context of HPV-related oropharyngeal cancer, prior to a panel debate on the pros and cons of strategies for implementing ctDNA testing into clinical management.

| Brenner C. J. (USA)       | Introduction  | HN 07-1 |
|---------------------------|---|---------|
| & Mirghani H. (France)    |   |         |
| Brenner C. J. (USA)       | Cell-free HPV DNA in urine                              | HN 07-2 |
| Rettig E. (USA)           | • TTMV-HPV DNA for surveillance in the clinic           | HN 07-3 |
| Klussmann J. P. (Germany) | • Practical considerations for the use of cfHPV16 DNA   | HN 07-4 |
| Mirghani H. (France)      | Randomized controlled trial of standard vs liquid       | HN 07-5 |
|                           | biopsy-based surveillance                               |         |
| Rettig E. (USA)           | • PANEL: pros vs cons of liquid biopsy for surveillance | HN 07-6 |
| vs Faden D. (USA)         |   |         |
|                           |   |         |

Coffee Break

16.00 • 16.30

#### **HN - HPV AND HEAD & NECK FORUM**

#### HN 08

Recurrent Respiratory Papillomatosis (RRP) Chair: Best S. (USA) Room C3 16.30 • 18.00

Recurrent Respiratory Papillomatosis is a chronic low-risk (HPV 6/11) infection of the upper airway. There are exciting new developments in the prevention, surgical treatment, and non-operative management of this disease that will be reviewed in this panel. Ongoing clinical trials will be highlighted, including novel immunologic therapies that should reduce the operative burden for patients.

| Best S. (USA)         | Introduction  | HN 08-1 |
|-----------------------|---|---------|
| Derkay C. (USA)       | • Epidemiologic trends in RRP                             | HN 08-2 |
| Jackowska J. (Poland) | • Advanced imaging modalities in RRP                      | HN 08-3 |
| Klein A. (USA)        | • Systemic bevacizumab for treatment of aggressive RRP    | HN 08-4 |
| Friedman A. (USA)     | • Novel DNA vaccines for RRP: initial results             | HN 08-5 |
| Allen C. (USA)        | • Future of combination therapy and immunotherapy for RRP | HN 08-6 |
| Best S. (USA)         | Discussion and Q&A  |         |

# HN - HPV AND HEAD & NECK FORUM

| HN 09   | <b>Submitted papers III</b><br>Chair: Dalianis T. (Sweden)   | Room C3<br><b>18.00 • 19.30</b> |
|---------|--|---------------------------------|
| HN 09-1 | • Evaluation of the attributable fraction and burden of HPV-related oropharyngeal cancers in Greece - the Orpheas study  | Economopoulou P. (Greece)       |
| HN 09-2 | <ul> <li>Incidence of oropharyngeal cancer in Brazil, data from<br/>the population-based cancer registries during 2000-<br/>2020</li> </ul>  | Aristizabal P. (Brazil)         |
| HN 09-3 | <ul> <li>Australian populations' attitudes and knowledge of<br/>oropharyngeal HPV infection</li> </ul>   | Rumianek B. (Australia)         |
| HN 09-4 | <ul> <li>Burden of human papillomavirus related to<br/>oropharyngeal cancers in European countries: the<br/>Broaden study results</li> </ul>   | Alemany L. (Spain)              |
| HN 09-5 | • Burden of adult-onset recurrent respiratory papillomatosis: a systematic literature review   | Engelbrecht K. (UK)             |
| HN 09-6 | <ul> <li>Juvenile onset recurrent respiratory papillomatosis</li> <li>insights into natural history and risk factors for<br/>aggressive disease</li> </ul>   | Sibiya A. (South Africa)        |
| HN 09-7 | <ul> <li>Prevalence of oral human papillomavirus infection<br/>among the general adult population in Hong Kong</li> </ul>  | Xing R. (China)                 |
| HN 09-8 | <ul> <li>Oral human papillomavirus prevalence and risk factors<br/>among healthy populations in France, Germany, Spain,<br/>the United Kingdom and the United States: results<br/>from the PROGRESS (PRevalence of Oral HPV infection,<br/>a global aSSessment) study</li> </ul> | Felsher M. (USA)                |
| HN 09-9 | <ul> <li>Persistent oral high-risk-HPV-infections and herpes<br/>viruses co-infections</li> </ul>  | Rintala S. (Finland)            |

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Friday, March 15

#### **SS - SCIENTIFIC SESSIONS**

# SS 18

Screening for HPV-vaccinated cohorts: country-specific experience Chair: Lei J. (Sweden) • Sasieni P. (UK)

Auditorium Al 8.00 • 9.30

Cohorts vaccinated through childhood against HPV have entered the screening programs in many countries. With the remarkable protection gained from the HPV vaccines, the significantly lower level of HPV circulation and fewer cervical lesions have impacted the cervical screening. This session is dedicated to screening practices and outcomes for HPV-vaccinated cohorts from different countries. We would like to communicate about what impact in each of the programs has been observed, challenges that our current programs are facing, and which potential changes might be necessary to accommodate the effect of HPV vaccination.

| SS 18-1 | Introduction  | Lei J. (Sweden)<br>& Sasieni P. (UK) |
|---------|---|--------------------------------------|
| SS 18-2 | • Will continued cervical cancer screening in HPV-<br>vaccinated populations cease to be justifiable?   | Franco E. (Canada)                   |
| SS 18-3 | • Does the population effectiveness of HPV immunization change with time since vaccination?   | Sasieni P. (UK)                      |
| SS 18-4 | • Real life evidence from population-based screening in Sweden  | Gray P. (Sweden)                     |
| SS 18-5 | • Australia: the research and policy response   | Saville M. (Australia)               |
| SS 18-6 | • The interplay between cervical screening and HPV immunization in Scotland – areas for change  | Palmer T. J. (UK)                    |
| SS 18-7 | <ul> <li>Screening of women HPV-vaccinated in the Danish<br/>childhood vaccination program</li> </ul>   | Lynge E. (Denmark)                   |
| SS 18-8 | <ul> <li>Cervical screening of HPV-vaccinated women:</li> <li>A randomized trial on the impact of frequent vs.</li> <li>infrequent screening</li> </ul> | Lehtinen M. (Finland)                |
|         | Discussion and Q&A  | Lei J. (Sweden)<br>& Sasieni P. (UK) |
|         |   |                                      |

#### Coffee Break

9.30 • 10.00

#### **SS - SCIENTIFIC SESSIONS**

# Scientific approaches to defining HPV vaccine-induced protective immunity

SS 19

Chair: Lehtinen M. (Finland) • Beddows S. (UK) Dillner J. (Sweden) Auditorium Al 10.00 • 11.30

The definition of vaccine-induced antibody levels that confer protection against persistent infections with high-risk human papillomavirus types and associated neoplasia is still needed more than 15 years after the first successful vaccine trials. In contrast, correlates of protection have been defined for many viral vaccines, including hepatitis B virus vaccine. Lessons learned from vaccination against HBV will be presented by Prof. van Damme. Thereafter Drs. Beddows and Mariz will respectively talk about infection vs. vaccine, and vaccine-specific differences in vaccine-induced antibody responses. Finally, international standardization of serological reagents and associated tools facilitated by Dr. Pinto is a prerequisite for the definition of any candidate protective HPV antibody levels as presented by Dr. Gray.

| Lehtinen M. (Finland)<br>- Beddows S. (UK)<br>& Dillner J. (Sweden) | • Introduction  | SS 19-1 |
|---|---|---------|
| Van Damme P. (Belgium)  | <ul> <li>Induction of protective humoral immunity by hepatitis</li> <li>B-virus vaccination</li> </ul>            | SS 19-2 |
| Beddows S. (UK)   | <ul> <li>L1 antigens recognized by infection- vs vaccine-induced<br/>neutralizing antibodie</li> </ul>            | SS 19-3 |
| Pinto L. (USA)  | <ul> <li>International standardization on how to evaluate<br/>vaccine-induced serological responses</li> </ul>    | SS 19-4 |
| Mariz F. (Germany)  | • Quantitative and qualitative differences in different L1 vaccine-induced antibody responses                     | SS 19-5 |
| Gray P. (Sweden)  | <ul> <li>Identification of vaccine-induced antibody levels<br/>conferring cross-protection against SIL</li> </ul> | SS 19-6 |
| Lehtinen M. (Finland)<br>- Beddows S. (UK)<br>& Dillner J. (Sweden) | • Discussion and Q&A  |         |

## **SS - SCIENTIFIC SESSIONS**

## SS 20

Sexual abuse and HPV Chair: Moscicki A. B. (USA) • Syrjänen S. (Finland)

#### Auditorium A2 8.00 • 9.30

The WHO estimates that approximately 1 in 3 women will experience sexual violence in their lifetime, with 7% of those women having experienced rape or attempted rape. Sexual abuse in children can be difficult to uncover since many are pre-verbal. In addition, if the person is a trusted person, the child may not understand that the sexual touching is abuse. The diagnosis of genital warts in an infant or child should trigger concerns about sexual abuse, specifically in the older child. The confusion occurs when the HPV may have been transmitted perinatally or during infant hygienic care. This session will review the rates of perinatal and parent-to-infant HPV transmission, epidemiology and diagnosis of STIs in children being evaluated for sexual abuse, women with a history of sexual abuse and incidence of HPV and HPV associated precancers, recommendations for HPV vaccine in children and adults sexually abused.

| ••••••  |   | •••••   |
|---|---|---------|
| Moscicki A. B. (USA)                            | 20-1 • Introduction   | SS 20-1 |
| Hammerschlag M. (USA)                           | • Epidemiology and diagnosis of STIs in children being evaluated for suspected sexual abuse | SS 20-2 |
| Syrjänen S. (Finland)                           | • Origin of HPV infection in children: when to worry and when not to worry                  | SS 20-3 |
| Garland S. (Australia)                          | • Sexual abuse and incidence of HPV, and HPV-<br>associated pre-cancers and cancers         | SS 20-4 |
| Moscicki A. B. (USA)                            | • Overview of areas of confusion and need for further studies                               | SS 20-5 |
| Moscicki A. B. (USA)<br>& Syrjänen S. (Finland) | Discussion and Q&A  |         |
|   |   |         |

| Coffee Break | 9.30 • 10.00 |
|--------------|--------------|
|              |              |

### **SS - SCIENTIFIC SESSIONS**

with HIV

#### HPV driven cancer among people living

SS 21

Auditorium A2 10.00 • 11.30

Chair: Moscicki A. B. (USA) • Muchengeti M. (South Africa)

HPV-driven cancers occur at extraordinarily high rates in people with HIV, but the epidemiology may differ by anatomic site where HPV causes the cancer. Further, screening and treatment, when possible, differ by world region. In this session, we will present data that compares the incidence, burden and trends in HPV-related cancers in individuals with HIV globally, and then a focused analysis on South Africa, a country with high HIV incidence and burden. Secondary prevention of cervical cancer in both high- and low-resources settings will be presented, as well as secondary prevention opportunities for prevention of HPV-driven oropharyngeal cancer.

| D'Souza A. (USA)                                       | Introduction  | SS 21-1 |
|--|---|---------|
| Shiels M. (USA)  | <ul> <li>A global comparison of incidence rates and trends in<br/>HPV-related cancers among people with HIV</li> </ul>                            | SS 21-2 |
| Shing J. (USA)   | <ul> <li>Incidence, trends and burden of HPV-related cancers<br/>in a high HIV-setting: the South African National<br/>Cancer Registry</li> </ul> | SS 21-3 |
| Moscicki A. B. (USA)                                   | • Screening and treatment for cervical precancer in PWH in HIC  | SS 21-4 |
| Muchengeti M. (South Africa)                           | <ul> <li>Screening and treatment for cervical precancer in PWH in LMIC</li> </ul>   | SS 21-5 |
| D'Souza A. (USA)                                       | • Screening for oropharyngeal and anal cancer in PWH  | SS 21-6 |
| Moscicki A. B. (USA)<br>& Muchengeti M. (South Africa) | Discussion and Q&A  |         |



Friday, March 15

#### **SS - SCIENTIFIC SESSIONS**

#### SS 22 Methylation markers as management tool in anal, vulvar and cervical intraepithelial neoplasms Chair: Bleeker M. (Netherlands)

Auditorium A4 10.00 • 11.30

DNA methylation of host and viral genes is an epigenetic process that regulates gene expression involved in the development of human papillomavirus (HPV)-associated anogenital cancer. The detection of these methylated genes can identify precursor lesions, and potentially those with the highest risk of progression to cancer. Studies of methylation testing show promising diagnostic and prognostic value in cervical cancer screening, treatment of cervical intraepithelial neoplasia (CIN), vulvar intraepithelial neoplasia (VIN) and anal intraepithelial neoplasia (AIN) and post-treatment surveillance, with several advantages over traditional methods. Therefore, methylation testing may help further optimize screening and management to reduce referrals and reduce overtreatment of affected patients with a low cancer risk. This session will present the clinical needs for methylation testing as well as its potential in cervical cancer screening and the diagnosis and treatment of CIN, VIN and AIN.

| Bleeker M. (Netherlands)     | SS 22-1 • Introduction                                       | SS |
|------------------------------|--|----|
| Wentzensen N. (USA)          | • Clinical needs of methylation assays in anogenital disease | SS |
| Rozemeijer K. (Netherlands)  | SS 22-3 • Methylation in anal neoplasia                      | SS |
| Bleeker M. (Netherlands)     | SS 22-4 • Methylation in vulvar neoplasia                    | SS |
| Berkhof H. (Netherlands)     | SS 22-5 • Methylation in cervical cancer screening           | SS |
| Van Trommel N. (Netherlands) | SS 22-6 • Methylation in cervical neoplasia                  | SS |
| Bleeker M. (Netherlands)     | Discussion and Q&A   |    |

#### **SS - SCIENTIFIC SESSIONS**

#### SS 23

Challenges and implications of viral load and cellularity measurements

Room C1/C2 8.00 • 9.30

Chair: Arbyn M. (Belgium) • Cocuzza C. E. (Italy)

Type-specific HPV viral load has been proposed as a marker of persisting infections, able to provide additional information for the risk stratification of HPV-positive patients in both cancer-screening and post-treatment contexts. However, further evaluation of the predictive value of HPV type-specific viral loads requires robust, standardized laboratory methods, able to accurately quantify viral copy number as well as enabling to compare data from different clinical studies. Additionally, the concept of viral load is unreliable in the absence of a reference sample measure in clinical samples that are heterogeneous and/or have intrinsic variability of sample collection. In particular, accurate cellularity assessment permits viral load adjustment to the number of cells in cervical liquid-based cytology and/or biopsy samples. Future validation guidelines for HPV tests that include genotyping should ideally incorporate guidance on clinically relevant type specific cut-offs which require well characterized longitudinal data sets where accurately measured-load is related to disease outcomes.

| Arbyn M. (Belgium)         | -1 • Introduction  | SS 23-1 |
|----------------------------|--|---------|
| & Cocuzza C. E. (Italy)    |  |         |
| Vanden Broeck D. (Belgium) | <ul> <li>Methods, measures and normalization used to assess</li> <li>HPV viral load in clinical sample</li> </ul>                        | SS 23-2 |
| Cuschieri K. (UK)          | <ul> <li>Measuring HPV viral load in biopsies and effect<br/>on longitudinal clinical outcomes</li> </ul>                                | SS 23-3 |
| Latsuzbaia A. (Belgium)    | <ul> <li>Genotype-specific viral load in self-collected vaginal<br/>samples – experience from the VALHUDES studies</li> </ul>            | SS 23-4 |
| Dillner J. (Sweden)        | <ul> <li>International Collaborative Study on the association<br/>of type specific viral load and underlying cervical disease</li> </ul> | SS 23-5 |
| Arbyn M. (Belgium)         | <ul> <li>Clinical significance and validation aspects</li> <li>of viral load measurements</li> </ul>                                     | SS 23-6 |
| Arbyn M. (Belgium)         | Discussion and Q&A   |         |
| & Cocuzza C. E. (Italy)    |  |         |

Friday, March 15

# **SS - SCIENTIFIC SESSIONS**

VALGENT

#### SS 24

Chair: Arbyn M. (Belgium) • Hawkes D. (Australia)

#### Room C1/C2 10.00 • 11.30

VALGENT (validation of HPV genotyping tests) is a generic research protocol that offers a framework for HPV test comparison and validation. About a dozen of HPV tests have been validated through VALGENT so far. Whereas in the past VALGENT panels comprised specimens from organised cytologybased screening programs, newer instalments will be nested within HPV-based cervical cancer screening. Newer protocols will allow validation of assays applied on clinician-collected specimens as well as on self-samples and will address technical aspects (sampling, storage, laboratory work-up).

| Arbyn M. (Belgium)<br>& Hawkes D. (Australia) | • Introduction  | SS 24-1 |
|---|---|---------|
| Schuurman R. (Netherlands)                    | <ul> <li>VALGENT-5, the first Valgent evaluation nested<br/>within an organised HPV-based cervical cancer<br/>screening program</li> </ul>                              | SS 24-2 |
| Hawkes D. (Australia)                         | <ul> <li>VALGENT-6, a new HPV test validation paradigm<br/>allowing validation of new HPV assays applied<br/>on clinician-collected samples and self-samples</li> </ul> | SS 24-3 |
| Sahasrabuddhe V. (USA)                        | <ul> <li>Extension of validation of a validated assay/device/<br/>medium combination towards a slightly different<br/>application of that assay</li> </ul>              | SS 24-4 |
| Bonde J. (Denmark)                            | <ul> <li>How to assess the reproducibility of viral load or signal<br/>strength of HPV tests</li> </ul>   | SS 24-5 |
| Almonte M. (Switzerland)                      | • WHO Target Product Profiles for HPV tests   | SS 24-6 |
| Arbyn M. (Belgium)                            | The philosophy of test validation   | SS 24-7 |
| Arbyn M. (Belgium)<br>& Hawkes D. (Australia) | Discussion and Q&A  |         |

Friday, March 15

#### **CS - CLINICAL SESSIONS**

#### CS 06

How to deal with persistent HPV without HSIL lesions in colposcopy

Auditorium A4 8.00 • 9.30

Chair: Louvanto K. (Finland)

The majority of HPV infections do not cause symptoms or diseases and are usually cleared by an active immune response. However, still a small fraction of HPV infections persists and women are repeatedly followed-up with re-testing and colposcopy examinations without any signs of progression. This session will highlight the main reasons for long term persistence and evaluate possible approaches to stratify these women further and to identify the ones that would benefit from treatment.

| CS 06-1 | Introduction   | Louvanto K. (Finland)   |
|---------|--|-------------------------|
| CS 06-2 | • Reasons for long term HPV persistence                          | Bowden S. (UK)          |
| CS 06-3 | <ul> <li>Role of different HPV genotypes in follow-up</li> </ul> | Bonde J. (Denmark)      |
| CS 06-4 | Risk stratification with methylation                             | Kremer W. (Netherlands) |
| CS 06-5 | • When is it time to treat?                                      | Hammer A. (Denmark)     |
|         | Discussion and Q&A   | Louvanto K. (Finland)   |

Friday, March 15

# **SS - SCIENTIFIC SESSIONS**

Debate

SS 25

Chair: Franco E. (Canada) • Palmer T. J. (UK)

Auditorium Al 14.30 • 16.00

Debate sessions have been a popular offering in EUROGIN congresses since the 1990s. Pairs of leaders in the field capture the arguments on opposing sides of controversial or hot topics in HPV science and its practical aspects, such as vaccination, cervical cancer screening, or disease management. They present their arguments and then debate each other. The session in 2024 will showcase debates between camps on four key areas: (i) self-sampling in screening, (ii) strategies for HPV immunization surveillance, (iii) range of HPV genotypes of value in screening, and (iv) endpoints in vaccine efficacy trials. Presenters are not necessarily staunch supporters of the position they were asked to defend. They can be neutral or even prefer the other side. They were asked to provide the audience with a clear and balanced view of the state of the controversy or evolving science in each field.

| Franco E. (Canada)    | 25-1 • Introduction                                      | SS 25-1 |
|-----------------------|--|---------|
| & Palmer T. J. (UK)   |  |         |
| Bonde J. (Denmark)    | • Opt-in vs. Opt-out for self-sampling in primary HPV    | SS 25-2 |
| & Bruni L. (Spain)    | screening for cervical cancer                            |         |
| Baussano I. (France)  | • What is the best strategy for HPV immunization         | SS 25-3 |
| & Saraiya M. (USA)    | surveillance: cross-sectional with population-level data |         |
|                       | vs record linkage with subject-level data                |         |
| Cuschieri K (UK)      | • Range of HPV genotypes included in assays for primary  | SS 25-4 |
| & Dillner J. (Sweden) | HPV screening: few versus many                           |         |
| Palmer T. J. (UK)     | • What is the best endpoint for vaccine efficacy trials, | SS 25-5 |
| & Wentzensen N. (USA) | CIN2+ or CIN3+?  |         |
| Franco E. (Canada)    | Discussion and Q&A                                       |         |
| & Palmer T. J. (UK)   |  |         |
|                       |  |         |

Coffee Break

16.00 • 16.30

# **SS - SCIENTIFIC SESSIONS**

#### SS 26

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Vaccination hesitancy, recovery and public advocacy Chair: Hanley S. (UK) • Olkov I. (France)

Auditorium Al 16.30 • 18.00

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WHO's global strategy on acceleration of cervical cancer elimination was proclaimed in 2020. However, many countries have yet to approach the target pillars of this strategy. How can we work together as a community to close gaps in access to HPV vaccination, cervical screening and treatment among communities and countries?

| <br> | <br> |
|------|------|
| <br> | <br> |

| Hanley S. (UK)        | Introduction   | SS 26-1 |
|-----------------------|--|---------|
| & Olkov I. (France)   |  |         |
| Hanley S. (UK)        | Vaccine hesitancy and recovery - Japan                                       | SS 26-2 |
| Baandrup L. (Denmark) | Vaccine hesitancy and recovery - Denmark                                     | SS 26-3 |
| Morissey Y. (Ireland) | Vaccine hesitancy and recovery - Ireland                                     | SS 26-4 |
| Olkov I. (France)     | Public advocacy in France and Russia   | SS 26-5 |
| Hunt M. (UK)          | <ul> <li>Advocating for patients and influencing policy in the UK</li> </ul> | SS 26-6 |
| Hanley S. (UK)        | Discussion and Q&A   |         |
| & Olkov I. (France)   |  |         |



Friday, March 15

#### **SS - SCIENTIFIC SESSIONS**

# RISCC: Implementation of risk-based

SS 27

cervical cancer screening in Europe Chair: Berkhof H. (Netherlands) • Elfström M. (Sweden) Auditorium A2 13.00 • 14.30

RISCC is a European consortium which aims to develop and implement risk-based HPV screening strategies for cervical cancer and contributes to the elimination of cervical cancer in Europe. About 70 percent of citizens in Europe have access to an organized program, but cervical cancer is still common and is even on the rise in several European countries. Most screening programs also report unnecessary colposcopy referral rates of about 80 to 90 percent indicating that screening programs are only moderately efficient. We believe that screening can be made more effective and efficient by directing screening resources to those most at risk. And in a future world where cancer risks strongly vary in populations with highly vaccinated younger cohorts and older cohorts with an abiding cancer risk, risk-based screening programs in unvaccinated and vaccinated cohorts, we will point at the role of new technologies in future screening, and we will show how risk-based HPV screening can be implemented by means of a Swedish demonstration trial.

| Berkhof H. (Netherlands)<br>& Elfström M. (Sweden) | Introduction   | SS 27-1 |
|--|--|---------|
| Berkhof H. (Netherlands)                           | <ul> <li>Risk of precancer by current and previous screening<br/>test results</li> </ul> | SS 27-2 |
| Lehtinen M. (Finland)                              | Risk of precancer in vaccinated cohorts  | SS 27-3 |
| Arbyn M. (Belgium)                                 | <ul> <li>Risk of precancer by genotyping results</li> </ul>                              | SS 27-4 |
| Baussano I. (France)                               | <ul> <li>Model-based evaluation of risk-based screening</li> </ul>                       | SS 27-5 |
| Dillner J. (Sweden)                                | <ul> <li>Pilot implementation of risk-based screening</li> </ul>                         | SS 27-6 |
| Robles C. (Spain)                                  | <ul> <li>E-learning course of risk-based screening and<br/>dissemination</li> </ul>      | SS 27-7 |
| Berkhof H. (Netherlands)                           | Discussion and Q&A   |         |
| & Elfström M. (Sweden)                             |  |         |

#### **SS - SCIENTIFIC SESSIONS**

Chair: Smith J. S. (USA)

#### SS 28

Cervical cancer screening in LMICs

Auditorium A2 14.30 • 16.00

To aim towards cervical cancer elimination, experts in low- and middle- income countries are evaluating optimal approaches to obtaining the screening target of 70% of eligible women by age 35 and again by age 45, and of 90% treatment of cervical disease. Novel implementation research is critical to identifying best ways to increase coverage and to ensure that all women with screen-positive results obtain necessary follow-up care. To inform future roll-out in low- and middle-income countries, data will be presented in this 90 minute session on an HPV screen-and-treat program in Malawi; use of digital tools for screening in Uganda; combined HPV-automated visual evaluation in nine countries; crowdsourcing strategies in Nigeria; a generosity-based intervention strategy in China; logistical issues related to HPV self-collection implementation globally; and a novel topical self-administered therapy for HPV/cervical precancer treatment in Kenya. There will be ample time for questions and discussion.

SS 28-1 Introduction Smith J. S. (USA) SS 28-2 • Single visit screen-and-treat strategy with Xpert-based Chinula L. (Malawi) HPV self-testing and thermal ablation treatment for women in Lilongwe, Malawi SS 28-3 • The role of digital tools in cervical cancer screening Kabukye J. (Sweden) in low resource settings: experiences from Uganda SS 28-4 Screening in LMIC: moving towards the HPV-Automated De Sanjosé S. (Spain) Visual Evaluation (PAVE) strategy in nine countries • Crowdsourcing cervical cancer screening strategies: SS 28-5 Iwelunmor J. (USA) evidence from Nigeria • A generosity-based intervention strategy to increase SS 28-6 Wu D. (China) service uptake for cervical cancer prevention in China SS 28-7 • HPV self-collection in low and middle income countries: Smith J. S. (USA) prevention potential and logistical issues for implementation SS 28-8 Feasibility of topical, self-administered therapy Mungo C. (USA) for HPV/cervical precancer treatment in LMICs Discussion and Q&A Smith J. S. (USA)

Coffee Break

16.00 • 16.30

Friday, March 15

## **SS - SCIENTIFIC SESSIONS**

# SS 29HPV vaccination in vulnerable populations<br/>Chair: Baussano I. (France) • Bardou M. (France)

Auditorium A2 16.30 • 18.00

Uterine Cervical Cancer (UCC) is more incident and more severe in vulnerable populations, whether economically, geographically, ethnically, or culturally disadvantaged. Human papillomavirus (HPV) vaccination has been shown to reduce the incidence and lethality of cervical cancer, especially when combined with screening. HPV vaccination policies have been implemented to varying degrees in most countries around the world. However, the one-size-fits-all approach ignores the unique challenges faced by vulnerable populations, as, despite demonstrations of effectiveness and safety, vaccine uptake in vulnerable groups is frequently lower than expected, even in developed countries with vaccination strategies in place. Implementing vaccines for vulnerable girls and women faces multiple barriers, including the high cost of vaccines, inadequate distribution infrastructure, and lack of community engagement to raise awareness about cervical cancer and early screening tools. In this session, we will address the individual and systemic challenges of an HPV vaccination policy based on a proportionate universalism approach.

| SS 29-1 | Introduction   | Baussano I. (France)<br>& Bardou M. (France) |
|---------|--|--|
| SS 29-2 | <ul> <li>Synergies between screening and vaccination in high<br/>risk and vulnerable groups</li> </ul>   | Giorgi-Rossi P. (Italy)                      |
| SS 29-3 | <ul> <li>Cancer RADAR: a study to assess the current<br/>and vaccine preventable burden of cervical cancer<br/>among migrants across Europe</li> </ul> | Alberts C. (Netherlands)                     |
| SS 29-4 | <ul> <li>Approaches to increase HPV vaccination coverage<br/>among vulnerable (or high-risk) populations</li> </ul>                                    | Dillner J. (Sweden)                          |
| SS 29-5 | • Heterogeneity of vulnerable populations across Europe and implications for cervical cancer prevention  | Tisler A. (Estonia)                          |
| SS 29-6 | <ul> <li>Improving HPV vaccination coverage in the field:<br/>the case of Romania</li> </ul>   | Taut D. (Romania)                            |
|         | • Discussion and Q&A   | Baussano I. (France)<br>& Bardou M. (France) |

SS 30

Innovations in HPV Research and Global Cancer Solutions: An International Collaborative Conference

#### **SS - SCIENTIFIC SESSIONS**

Indications for methylation testing in cervical screening and in the diagnosis of cervical and non-cervical HPVassociated lesions Chair: Heideman D. (Netherlands)

Steenbergen R. (Netherlands)

Auditorium A4 15.00 • 16.30

Altered DNA methylation is one of the key epigenetic events that contributes to the development of cancer. HPV-driven carcinogenesis is associated with increased DNA methylation. Changes in DNA methylation patterns are already detectable at the stage of precancerous lesions and can be measured in exfoliated cells using sensitive molecular methods. Accordingly, DNA methylation analysis has been evolved as one of the most promising tools for the early detection of HPV-associated cancer. Large clinical studies have demonstrated their applicability as triage markers in HPV-based cervical screening. This session will discuss the use of methylation markers for detection of HPV-induced cancers, including both anogenital and oropharyngeal cancers.

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|---|---|-----------|
| Heideman D. (Netherlands)<br>& Steenbergen R. (Netherlands) | SS 30-1 • Introduction  | SS 3(     |
| Heideman D. (Netherlands)                                   | • Clinical indications for methylation markers in cervical cancer screening and management of CIN                   | SS 30     |
| Widschwendter M. (USA)                                      | • DNA methylation-based detection and prediction<br>of CIN and cervical cancer                                      | SS 30     |
| Henrique R. (Portugal)                                      | • Why do we need DNA methylation as a triage marker for colposcopy referral in HPV-based cervical cancer screening? | SS 3(     |
| Ferré V. M. (France)  | • Methylation markers in anal cancer screening and prevention   | SS 3(     |
| Giuliano A. (USA)   | • Methylation analysis in oral gargles for the detection<br>of oropharyngeal cancer                                 | SS 3(     |
| Heideman D. (Netherlands)                                   | Discussion and Q&A  |           |
| & Steenbergen R. (Netherlands)                              |   |           |

# **SS - SCIENTIFIC SESSIONS**

# SS 31

The utility of urine for improved cervical cancer prevention Chair: Steenbergen R. (Netherlands) • Vorsters A. (Belgium)

Room C1/C2 14.30 • 16.00

Urine sampling offers several advantages over clinician-collected cervical and self-collected vaginal samples for cervical cancer prevention. One of the most important advantages being the ease of collection and the wide acceptance by women. The number of studies supporting the use of urine for HPV DNA detection are rising rapidly. Studies on clinical performance and evaluation in primary screening populations are just evolving. This session will discuss current developments on the analysis of HPV DNA and methylation markers for the detection of cervical lesions in urine, and evaluation thereof in primary screening populations. As will it discuss its potential for vaccination monitoring through HPV induced antibodies.

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|---|--|---------|
| Vorsters A. (Belgium)                   | Introduction   | SS 31-1 |
| Téblick L (Belgium)                     | <ul> <li>Non-Invasive HPV antibody monitoring using first-void<br/>urine: implications and applications</li> </ul>   | SS 31-2 |
| Tranberg M. (Denmark)                   | <ul> <li>Clinical evaluation of HPV DNA detection in paired<br/>self-collected first-void urine and vaginal samples<br/>compared to clinician-collected cervical samples<br/>in a Danish cohort</li> </ul> | SS 31-3 |
| Le Goff J. (France)                     | • Evaluation of the efficacy of first-void urine and vaginal<br>self-sampling in a French primary screening cohort<br>of under-screened women: first study outcomes<br>of the CapU4 study                  | SS 31-4 |
| Van Keer S. (Belgium)                   | • Evaluation of first-void urine self-sampling<br>for cervical cancer screening in Flanders: from clinical<br>performance to implementation in screening   | SS 31-5 |
| Huntington S. (UK)                      | <ul> <li>Two self-sampling strategies for HPV primary cervical<br/>cancer screening compared with clinician-collected<br/>sampling: an economic evaluation</li> </ul>                                      | SS 31-6 |
| teenbergen R. (Netherlands)             | • The utility of urine beyond cervical cancer prevention:<br>recent developments using methylation of human<br>tumor suppressor genes for cervical and endometrial<br>cancer prevention                    | SS 31-7 |
| teenbergen R. (Netherlands)             | Discussion and Q&A   |         |
| & Vorsters A (Belgium)                  |  |         |

#### **SS - SCIENTIFIC SESSIONS**

2024 status

#### Global overview of commercial HPV tests:

SS 32

Chair: Cuschieri K. (UK) • Poljak M. (Sweden)

Room C1/C2 16.00 • 17.30

The global market is overflowed with commercial HPV tests. Although analytical and clinical performance characteristics of a great majority of commercially available HPV tests are largely unknown. Due to lack of regulation such HPV tests are used worldwide in daily practice, with potentially grave consequences. The session will provide an updated global inventory of commercial HPV tests and critically review approval criteria and licensing procedures for HPV tests by selected stringent regulatory agencies and WHO, the associated challenges and the way forward.

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| Cuschieri K. (UK)               | Introduction  | SS 32-1 |
|---------------------------------|---|---------|
| & Poljak M. (Sweden)            |   |         |
| Poljak M. (Sweden)              | Global inventory of commercial HPV tests: 2024 update   | SS 32-2 |
| Wentzensen N. (USA)             | <ul> <li>Getting new tests into clinical practice: the role of US<br/>regulatory and guidelines procedures</li> </ul>             | SS 32-3 |
| Oštrbenk Valenčak A. (Slovenia) | <ul> <li>European CE marking for in vitro diagnostic (IVD)<br/>medical devices: how HPV tests fit here?</li> </ul>                | SS 32-4 |
| Hawkes D. (Australia)           | <ul> <li>Australian Therapeutic Goods Administration (TGA)<br/>approval criteria and licensing procedure for HPV tests</li> </ul> | SS 32-5 |
| Xu L. (China)                   | <ul> <li>Chinese National Medical Products Administration<br/>approval criteria and licensing procedure for HPV tests</li> </ul>  | SS 32-6 |
| Cuschieri K. (UK)               | • WHO prequalification procedure for HPV tests  | SS 32-7 |
| Cuschieri K. (UK)               | Discussion and Q&A  |         |
| & Poljak M. (Sweden)            |   |         |

# **FC - FREE COMMUNICATIONS**

| FC 14   | <b>Self-sampling II</b><br>Chair: Bogaards H. (Netherlands) • Rebolj M. (UK)   | Auditorium Al<br>18.00 • 19.30 |
|---------|--|--------------------------------|
| FC 14-1 | <ul> <li>Promoting participation through self-sampling:<br/>sociodemographic disparities in screening uptake<br/>among long-term non-attending women - a<br/>randomized controlled trial</li> </ul>                                | Nygård M. (Norway)             |
| FC 14-2 | <ul> <li>Mailed, at-home self-sampling for HPV testing to<br/>increase screening participation among under-<br/>screened patients in a U.S. Safety net health system:<br/>results of the PRESTIS trial</li> </ul>                  | Montealegre J. (USA)           |
| FC 14-3 | <ul> <li>High acceptability and accuracy of anal self-collection<br/>by veil collector device for high risk-HPV screening by<br/>multiplex real-time PCR among men who have sex with<br/>men living in Africa</li> </ul>           | Belec L. (France)              |
| FC 14-4 | <ul> <li>Regional organized cervical cancer screening in non-<br/>attendees women invited for first-void urine home<br/>self-sampling regarding their social-economics level<br/>and age status (the PAPU access study)</li> </ul> | Payan C. (France)              |
| FC 14-5 | • Urine high risk human papillomavirus testing as an<br>alternative cervical screening strategy: the ACES<br>studies   | Davies-Oliveira J. (UK)        |
| FC 14-6 | • Evaluation of retrieval of HPV from a novel self-<br>sampling device collection substrate  | Hawkes D. (Australia)          |
| FC 14-7 | <ul> <li>Predictors 5.2. Comparison of high-risk HPV positivity<br/>of a vaginal self-sample and urine sample with a<br/>clinician taken cervical sample taken at the same<br/>screening visit</li> </ul>                          | Vidali M. S. (UK)              |
| FC 14-8 | • A survey of hpv sampletakers' knowledge, beliefs and<br>attitudes towards HPV self-sampling for cervical cancer<br>screening in Ireland  | White P. (Ireland)             |
| FC 14-9 | • Designing an inclusive study of HPV self-sampling in the transgender population  | Berner A. (UK)                 |

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Friday, March 15

| FC 15    | Low income countries and at risk situations<br>Chair: Dreyer G. (South Africa) • Gassama O. (Senegal)  | Auditorium A2<br>18.00 • 19.30 |
|----------|--|--------------------------------|
| FC 15-1  | • Dynamics of HPV persistence, clearance and incident infection according to genotype carcinogenicity in a cohort of women living with HIV in semi-rural Tanzania  | Kind A. B. (Switzerland)       |
| FC 15-2  | <ul> <li>Molecular epidemiology of human papillomavirus<br/>(HPV) infection in a rural healthcare facility catchment<br/>area in Eswatini</li> </ul>               | Fappani C. (Italy)             |
| FC 15-3  | • The implementation of human papillomavirus testing<br>using point-of-care diagnostics for the screening of<br>cervical cancer in women living with HIV in Malawi | Twabi H. H. (Malawi)           |
| FC 15-4  | • Implementation of an integrated cervical self-screening program in rural Uganda  | Ogilvie G. (Canada)            |
| FC 15-5  | <ul> <li>Positivity rates of cervical screening tests other than<br/>visual inspection is doubled in HIV positive South<br/>African women</li> </ul>               | Dreyer G. (South Africa)       |
| FC 15-6  | • Risk management of suspicious carcinoma of VIA/VILI for cervical cancer screening in low resource settings   | Dang L. (China)                |
| FC 15-7  | • Utility of extended HPV genotyping as primary cervical screen in an unscreened population with high HIV co-infection   | Botha H. (South Africa)        |
| FC 15-8  | • Enhancing cervical cancer prevention in South African<br>women: primary HPV mRNA screening with different<br>genotype combinations                               | Falang B. M. (Norway)          |
| FC 15-9  | • LAMP-based lateral flow point-of-care diagnostic test<br>for all 14 high-risk types of human papillomavirus  | Boswell E. (UK)                |
| FC 15-10 | • Study of the impact of the COVID-19 pandemic on HPV vaccination initiation among French girls  | Baldauf J. J. (France)         |

EUROGIN 2024

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Friday, March 15

| FC 16   | <b>Methylation I</b><br>Chair: Forslund O. (Sweden) • Van Trommel N. (Netherlands)   | Auditorium A4<br>16.30 • 18.00      |
|---------|--|-------------------------------------|
| FC 16-1 | <ul> <li>Cervix cytology samples revealed increased<br/>methylation of the human markers FAM19A4/miR124-2<br/>up to eight years before adenocarcinoma</li> </ul>               | Lindroth Y. (Sweden)                |
| FC 16-2 | • MeD-seq, a method for genome-wide DNA<br>methylation detection, can be used to characterize<br>tumors, detect HPV subtypes and is compatible with<br>liquid biopsies         | Gribnau J. (Netherlands)            |
| FC 16-3 | <ul> <li>High-risk HPV genotypes as potential biomarkers in<br/>early diagnosis of cervical cancer</li> </ul>  | Yim Z. Y. S. (UK)                   |
| FC 16-4 | • Direct comparison of the performances of the single-<br>marker assay Screenyu Gyn and the six-marker assay<br>GynTect  | Schmitz M. (Germany)                |
| FC 16-5 | • GynTect® DNA methylation markers detect recurrent<br>disease in patients treated for CIN3 with high<br>sensitivity and specificity in a retrospective case-<br>control study | Hansel A. (Germany)                 |
| FC 16-6 | <ul> <li>Integrative analysis of gene expression and DNA<br/>methylation in HPV+ penile squamous cell carcinoma<br/>in Puerto Rico</li> </ul>                                  | Martinez-Ferrer M.<br>(Puerto Rico) |
| FC 16-7 | • Validation of Methica CC kit as triage test for cervical cancer screening  | Van Belzen N. (Netherlands)         |
| FC 16-8 | <ul> <li>Towards simplified anal cancer screening: biomarker<br/>discovery by genome wide methylation profiling on<br/>anal swabs</li> </ul>                                   | Rozemeijer K. (Netherlands)         |

Friday, March 15

| FC 17   | Methylation II<br>Chair: Hesselink B. (Netherlands) • Wisman B. (Netherlands)   | Auditorium A4<br>18.00 • 19.30 |
|---------|---|--------------------------------|
| FC 17-1 | <ul> <li>Utility of DNA methylation markers FAM19A4/MI124-</li> <li>2 for risk-stratification of women ≥45 referred for colposcopy</li> </ul>                     | Tranberg M. (Denmark)          |
| FC 17-2 | • A novel DNA methylation predictor for CIN3<br>progression of hr-HPV positive women can help in<br>early detection of cervical cancer risk                       | Ladoukakis E. (UK)             |
| FC 17-3 | • A multicenter study on the accuracy of detecting PAX1/<br>JAM3 double gene methylation in cervical scraping cells<br>as a clinical predictor of cervical cancer | Yu-Ligh L. (China)             |
| FC 17-4 | • Methylation analysis to detect CIN3+ in hrHPV-positive self-samples from the population-based cervical cancer screening programme                               | Wisman B. (Netherlands)        |
| FC 17-5 | <ul> <li>Preliminary results of DNA-methylation analysis in a population-based screening program</li> </ul>   | Muresu N. (Italy)              |
| FC 17-6 | • Automated workflow for FAM19A4/MIR124-2<br>methylation analysis on HPV+ cervical screening<br>samples   | Hesselink B. (Netherlands)     |
| FC 17-7 | • High performance of DNA methylation analysis among<br>HPV-positives: a retrospective cohort study with 12-<br>year follow-up time                               | Costanzi J. M. (Norway)        |
| FC 17-8 | <ul> <li>Construction and preliminary validation of a primary<br/>screening model for cervical cancer based on host<br/>DNA methylation</li> </ul>                | Yang Y. (China)                |
| FC 17-9 | • A novel DNA methylation marker for prediction of cervical intraepithelial neoplasia grade 2 progression   | Ellis L. (UK)                  |
| FC 18   | <b>Genotyping</b><br>Chair: Eklund C. (Sweden) • Giorgi Rossi P. (Italy)   | Room C1/C2<br><b>18.00 • 19.30</b> |
|---------|--|------------------------------------|
| FC 18-1 | • Epidemiological overview of HPV genotypes co-<br>circulation related to genital malignancies and<br>appraising of human SNPs, miRNAs, methylated genes<br>and lead (Pb) exposure among the unvaccinated<br>community: a research of molecular diagnostic<br>laboratory | Sohrabi A. (Sweden)                |
| FC 18-2 | <ul> <li>Monitoring of HPV prevalence and genotype<br/>distribution in a vaccine surveillance programme using<br/>urine samples from boys and young men</li> </ul>   | Hansen M. (Norway)                 |
| FC 18-3 | <ul> <li>Evaluation of HPV persistence and new infections in<br/>the cervico-vaginal samples from the NTCC2 study</li> </ul>   | Benevolo M. (Italy)                |
| FC 18-4 | • The 2023 global HPV DNA typing proficiency study   | Eklund C. (UK)                     |
| FC 18-5 | <ul> <li>Pre-vaccine era distribution of HPV genotypes in<br/>cervical cancer and precancerous lesions in Norway</li> </ul>  | Bekkevold T. (Norway)              |
| FC 18-6 | <ul> <li>Difference in observed HPV73 prevalence in urine<br/>samples from young women in a vaccine surveillance<br/>programme using MGP-luminex and in-house QPCRr</li> </ul>   | Kristiansen H. (Norway)            |
| FC 18-7 | • High rate of non-vaccine-targeted high-risk HPV genotypes in Eastern Ethiopia: its implication in future vaccine selection   | Seyoum A. (Ethiopia)               |
| FC 18-8 | • A comprehensive, user-friendly and cost-efficient HPV and sexually transmitted infections assay  | Gharizadeh B. (USA)                |
| FC 18-9 | • "You're no longer my type!" – Impact of quadrivalent vaccination on US HPV prevalence and disease  | Andrews J. (USA)                   |

# WS - SPECIALIZED WORKSHOP

# WS 02 - Vulvar diseases

Auditorium A4 13.00 • 15.00

#### Coordinators: Bleeker M. (Netherlands) • Hampl M. (Germany)

Vulvar intraepithelial neoplasia (VIN) can be divided into human papillomavirus (HPV)-associated high-grade squamous intraepithelial lesions (HSIL) and HPV-independent VIN (d-VIN). HPV-associated HSIL is the most common precursor and usually affects patients between the ages of 40 and 50. HPV-independent VIN occurs mainly in older patients (>65 years) and is associated with vulvar inflammatory dermatoses such as lichen sclerosus (LS). The clinical course of d-VIN is more aggressive and the time of progression to invasive vulvar cancer is often short. Recent insights have been shown that HPV-independent VIN can be further divided into p53 mutant and p53 wild-type variants that confer different cancer risks. Patients with VIN often have recurrent disease, as well as multiple lesions at different anogenital sites (multizonal/multicentric disease).

This workshop will provide state-of-the-art lectures on the clinicopathological aspects and treatment of this heterogeneous disease, as well as new insights into prognostic biomarkers and prevention by vaccination.

| WS 02-1 | Introduction<br>Bleeker M. (Netherlands) • Hampl M. (Germany)                                  | 13.00 • 13.15 |
|---------|--|---------------|
| WS 02-2 | VIN: incidence and clinical spectrum<br>Bornstein J. (Israel)                                  | 13.15 • 13.30 |
| WS 02-3 | <b>VIN: the histomorphologic spectrum</b><br>Regauer S. (Austria)                              | 13.30 • 13.45 |
| WS 02-4 | Management/treatment options for VIN<br>Preti M. (Italy)                                       | 13.45 • 14.00 |
| WS 02-5 | VIN: multicentric disease and impact<br>Hampl M. (Germany)                                     | 14.00 • 14.15 |
| WS 02-6 | <b>Prognostic biomarkers in VIN</b><br>Bleeker M. (Netherlands)                                | 14.15 • 14.30 |
| WS 02-7 | Prevention of VIN: what can we expect<br>from the effects of vaccination<br>Joura E. (Austria) | 14.30 • 14.45 |
| WS 02-8 | <b>Discussion</b><br>Bleeker M. (Netherlands) • Hampl M. (Germany)                             | 14.45 • 15.00 |

SS 33

Innovations in HPV Research and Global Cancer Solutions: An International Collaborative Conference



#### PERCH: European joint action aiming for improved HPV vaccination coverage and data collection Chair: Arbyn M. (Belgium) • Bucciardini R. (Italy)

Room C1/C2 8.00 • 9.30

PERCH (PartnERship to Contrast HPV) is a EU Joint Action, nested within the Europe's Beating Cancer Plan, which aims to support member states to extend the roll-out of routine HPV vaccination of girls and boys with the purpose to reach 90% coverage within a decade. In addition, PERCH wants to update knowledge about HPV vaccines and improve data collection procedures regarding HPV vaccination coverage, support linkage of HPV vaccination databases with cervical cancer screening and cancer registries and support risk based prevention of cervical cancer and other HPV-related cancers. Moreover, PERCH aims to improve knowledge and awareness about prevention of HPV and related diseases among teenagers and their parents. Finally, PERCH will enhance skills of healthcare professions with respect to communication with their patients about HPV vaccination.

| Bucciardini R. (Italy)   | • Introduction  | SS 33-1 |
|--------------------------|---|---------|
| Ivanus U. (Slovenia)     | <ul> <li>Dissemination strategies to increase HPV awareness<br/>among the target population</li> </ul>              | SS 33-2 |
| Gerlich M. (Germany)     | <ul> <li>Strategies to train health care professionals regarding<br/>communication about HPV vaccination</li> </ul> | SS 33-3 |
| De Pauw H. (Belgium)     | <ul> <li>Implementation of HPV vaccination in Europe</li> </ul>   | SS 33-4 |
| Bruni L. (Spain)         | HPV vaccination coverage in Europe  | SS 33-5 |
| Chung J. (Belgium)       | • Effectiveness of HPV vaccination with one dose  | SS 33-6 |
| Arbyn M. (Belgium)       | <ul> <li>Linkage of HPV vaccination registries with screening<br/>and cancer databases</li> </ul>                   | SS 33-7 |
| Arbyn M. (Belgium)       | Discussion and Q&A  |         |
| & Bucciardini R. (Italy) |   |         |

# **SS - SCIENTIFIC SESSIONS**

#### Risk stratification in cervical cancer

SS 34

screening

Room C3 8.00 • 9.30

Chair: Berkhof H. (Netherlands)

As the natural history and risk factors of cervical cancer are very well documented, HPV-based screening offers the possibility to move away from a one-size-fits-all approach to a system where women at high-risk are offered more intensive screening and women at low-risk get less intensive screening. In this way, screening resources are directed to those most at risk, thus screening programs would be more effective and more efficient. At present, strong predictors that could be used for further risk stratification in screening programs with primary HPV testing are age, screening attendance, screening history, triage testing including HPV genotyping and automated visual evaluation (AVE), and HPV vaccination status. In this session, we will discuss how risk stratification can be used in screening in both high and low-income settings and see real-life examples of risk-based programs.

|                          |  | • • • • • • • • • • |
|--------------------------|--|---------------------|
| Berkhof H. (Netherlands) | Introduction   | SS 34-1             |
| & Inturrisi F. (USA)     |  |                     |
| Berkhof H. (Netherlands) | Risk stratification in screening programs                              | SS 34-2             |
|                          | in high-income settings (RISCC consortium)                             |                     |
| Elfström M. (Sweden)     | <ul> <li>Stratification by age and extended genotyping: the</li> </ul> | SS 34-3             |
|                          | Stockholm pilot  |                     |
| Inturrisi F. (USA)       | Stratification by past test results and vaccination status             | SS 34-4             |
| Carozzi F. (Italy)       | <ul> <li>Screening strategy for vaccinated and unvaccinated</li> </ul> | SS 34-5             |
|                          | women in Italy   |                     |
| De Sanjosé S. (Spain)    | <ul> <li>Use of risk in screening in low-income settings</li> </ul>    | SS 34-6             |
|                          | (PAVE consortium)  |                     |
| Egemen D. (USA)          | <ul> <li>Stratification by extended genotyping and AVE</li> </ul>      | SS 34-7             |
| Berkhof H. (Netherlands) | Discussion and Q&A   |                     |
| & Inturrisi F. (USA)     |  |                     |

KEUROGIN 2024

SS 35

Innovations in HPV Research and Global Cancer Solutions: An International Collaborative Conference

Saturday, March 16

# **SS - SCIENTIFIC SESSIONS**

#### Present status of genome-wide association studies Chair: Hillemanns P. (Germany)

Room C4 8.00 • 9.30

HPV infection triggers the development of several cancers. However, the risk of developing cancer after HPV infection is modified by genome variation of the host. Genome-wide association studies have begun to uncover risk loci that mediate the processes from HPV infection to cancer. These studies compare millions of variants across the whole genome between several hundreds of cases and controls to identify risk variants enriched in patients. Any of these genomic risk loci can help to understand the molecular pathogenesis of the respective cancer and can eventually, when many variants are combined, lead to a personalized risk prediction by means of a polygenic risk score. The session presents the current knowledge about genomic risk factors for two HPV-associated cancers, cervical cancer and head and neck cancer, and discusses the possibilities to use this knowledge in future research and medical practice.

| Hillemanns P. (Germany)   | Introduction   | SS 35-1 |
|---------------------------|--|---------|
| Laisk T. (Estonia)        | <ul> <li>Polygenic risk for cervical malignancies</li> </ul> | SS 35-2 |
| Ramachandran D. (Germany) | • GWAS signals for cervical cancer and HPV type              | SS 35-3 |
| Virani S. (France)        | New GWAS for HPV-associated head and neck cancer             | SS 35-4 |
| Hillemanns P. (Germany)   | Discussion and Q&A   |         |

Saturday, March 16

| FC 19    | HPV Screening II<br>Chair: Bonde J. (Denmark) • Elfström M. (Sweden)   | Room C1/C2<br>9.30 • 11.15      |
|----------|--|---------------------------------|
| FC 19-1  | <ul> <li>Prolonged persistent genital HPV infections and the<br/>future risk of cervical carcinogenesis</li> </ul>   | Numminen E. (Finland)           |
| FC 19-2  | • HPV infection and CIN2/3 rate over two screening rounds of a randomized primary HPV self-sampling trial (IMPROVE study)  | Costa S. (Netherlands)          |
| FC 19-3  | • Evaluation of algoritm to distinguish primary and secondary HPV screening in registry data   | Nordqvist Kleppe S. (Sweden)    |
| FC 19-4  | <ul> <li>Cervical cancer out of Portuguese age screening limits</li> <li>are the age range enough?</li> </ul>  | Mateus D. (Portugal)            |
| FC 19-5  | • Long-term effects of COVID-19 on the Dutch cervical cancer screening programme   | Olthof E. (Netherlands)         |
| FC 19-6  | • Diagnostic and clinical outcome at 24 months re-<br>test after HPV+ index and 12 months re-test in HPV<br>screening using extended genotyping and cytology<br>triage                                   | Tønnes Pedersen B.<br>(Denmark) |
| FC 19-7  | • Longitudinal performance of mRNA HPV testing in<br>cervical cancer screening. High protective value of a<br>negative test and positive predictive value after eight<br>years of follow-up              | Granados Carreño R. (Spain)     |
| FC 19-8  | • Screening and vaccination: results on number of<br>vaccine doses from the Italian study evaluating best<br>strategies on how to screen vaccinated women  | Armaroli P. (Italy)             |
| FC 19-9  | <ul> <li>Mapping opportunities for HPV vaccination and<br/>screening engagement and uptake in trans men and<br/>gender non-binary individuals assigned female at<br/>birth: the MOVE UP study</li> </ul> | Edward J. (Canada)              |
| FC 10 10 | • Changes in HPV prevalence and genotype distribution  |                                 |
| FC 19-10 | screening program in Denmark   | reuersen n. (Denmark)           |
| FC 19-11 | <ul> <li>Pilot project for cervical cancer screening by HPV<br/>testing in the Republic of Uzbekistan</li> </ul>   | Zakhirova N. (Uzbekistan)       |

| FC 20    | <b>Colposcopy / Management II</b><br>Chair: Louvanto K. (Finland)<br>Von Knebel Doeberitz M. (Germany)  | Room C1/C2<br>11.15 • 13.00            |
|----------|---|--|
| FC 20-1  | • Adenocarcinoma in situ of the cervix: risk factors for recurrence after fertility-sparing treatment   | lacobone A. D. (Italy)                 |
| FC 20-2  | • Reproductive outcomes after fertility-sparing surgery for cervical cancer - results of the multicenter FERTISS study  | Fricová L. (Czech Republic)            |
| FC 20-3  | <ul> <li>Randomized trial on treatment of high-grade vaginal<br/>intraepitelial neoplasia –self-administered vaginal<br/>imiquimod and laser vaporization</li> </ul>  | Kiviharju M. (Finland)                 |
| FC 20-4  | • The DelVIN trial: interim results from a multicenter<br>clinical phase I trial evaluating the safety and<br>preliminary efficacy of local decitabine treatment of<br>human papillomavirus-induced VIN grade 2/3 | Prigge E. S. (Germany)                 |
| FC 20-5  | Assessment of intra-observer rating of women with     warty vulvar lesions  | Dreyer G. (South Africa)               |
| FC 20-6  | <ul> <li>Photodynamic therapy with APL-1702 for high-grade<br/>squamous intraepithelial lesions (HSIL): results from<br/>a randomized phase 3 global study "YHGT-CEV-R1/<br/>APRICITY"</li> </ul>                 | Hillemanns P. (Germany)                |
| FC 20-7  | • Identification of risk factors for treatment stratification for cervical squamous- and glandular cell lesions   | Kööpikkä J. (Finland)                  |
| FC 20-8  | • To compare the new smart and handy device<br>developed with standard colposcope for cancer cervix<br>screening  | Kirubamani N. H. (India)               |
| FC 20-9  | <ul> <li>5-AZA-2'-deoxycytidine (DAC, decitabine) induces<br/>beneficial treatment effects in a preclinical in vivo<br/>model</li> </ul>  | Schlegel L. (Germany)                  |
| FC 20-10 | • Effect of a coriolus versicolor-based vaginal gel as a conservative treatment for hr-HPV-dependent HSIL in pregnant women   | Sanmartin Salinas P. (Spain)           |
| FC 20-11 | • Prognostic impact and adjuvant treatment decision of poor differentiation on early-stage cervical cancer  | Miaochun X. (China)                    |
| FC 20-12 | • Conservative treatment of coexisting high SIL and adenocarcinoma in situ of the cervix: case report   | Aleksioska Papestiev I.<br>(Macedonia) |

Saturday, March 16

| FC 21   | Triage of HPV positive women<br>Chair: Dahlström L. A. (Sweden)  | Room C3<br><b>9.30 • 11.00</b> |
|---------|--|--------------------------------|
| FC 21-1 | • Performance of a 7-type HPV mRNA test in triage of<br>HPV DNA primary screen positive women compared to<br>liquid-based cytology                                   | Sorbye S. (Norway)             |
| FC 21-2 | <ul> <li>Impact of the quality of cervical Pap smears on referral<br/>rates and clinical outcome of a cervical screening<br/>program</li> </ul>                      | Uyterlinde A. (Netherlands)    |
| FC 21-3 | • Assessment of ASCCP CIN3+ risk-guided triage: a study on 125,750 Chinese women   | Qu X. (China)                  |
| FC 21-4 | <ul> <li>Triage options of HPV positive women: a real world<br/>study from China</li> </ul>  | Rezhake R. (China)             |
| FC 21-5 | <ul> <li>Should we use risk selection tests for type 16/18<br/>positive cases: comparison of p16/ki67 and cytology</li> </ul>  | Mazurec K. (Poland)            |
| FC 21-6 | <ul> <li>Clinical relevance of partial HPV genotyping in cervical<br/>cancer screening triage in Finland</li> </ul>  | Leino A. (Finland)             |
| FC 21-7 | • To treat or not to treat? That's the question  | Leenders W. (Netherlands)      |
| FC 21-8 | • Evaluation of host gene methylation as a triage test for<br>HPV positive women in a real-world clinical setting  | Costa M. (Portugal)            |
| FC 21-9 | <ul> <li>Could HLA-DPB2 rs4713607 and rs3117039<br/>polymorphisms detection benefit HR-HPV triage based<br/>on HPV primary screening for cervical cancer?</li> </ul> | Lin W. (China)                 |

| FC 22   | HPV Testing<br>Chair: Cocuzza C. E. (Italy) • Arroyo Mühr L. S. (Sweden)   | Room C3<br>11.00 • 12.30 |
|---------|--|--------------------------|
| FC 22-1 | • Building an HPV genotyping lab in Costa Rica:<br>transfer of technology to perform a next-generating<br>sequencing-based assay for HPV genotyping samples<br>collected in large HPV vaccine trials                           | Porras C. (Costa Rica)   |
| FC 22-2 | • A comparative analysis of cycle threshold (CT) values<br>from Cobas 4800 and Ampfire HPV assay for triage of<br>women with positive hrHPV results  | Wu R. (China)            |
| FC 22-3 | • E6/E7 homology relative to HPV prototypes and performance of HPV testing by Cobas and Anyplex assays   | Godoy L. (Canada)        |
| FC 22-4 | • Clinical performance of Aptima and Onclarity HPV<br>Assays indetection cervical precancer and cancer: a<br>head-to-head comparison study in China  | Pi R. (China)            |
| FC 22-5 | • Performance of Anyplex II HPV28 assay and Cobas<br>4800 HPV test for high-risk HPV detection   | Godoy L. (Canada)        |
| FC 22-6 | <ul> <li>Comparison of high-risk HPV DNA detection using<br/>Anyplex<sup>™</sup> II HPV28 and Xpert<sup>™</sup> HPV in clinician<br/>obtained cytological samples among women living<br/>with HIV in Lusaka, Zambia</li> </ul> | Taghavi K. (UK)          |
| FC 22-7 | • HPV type-specific viral load in CIN2+  | Yilmaz E. (Sweden)       |

# **FC - FREE COMMUNICATIONS**

| FC 23    | Molecular markers and viral<br>and molecular biology<br>Chair: Doorbar J. (UK) • Schwartz S. (Sweden)   | Room C4<br><b>9.30 • 11.00</b>      |
|----------|---|-------------------------------------|
| FC 23-1  | • High risk HPV lineages and sublineages associated with cervical cancer and precursor lesions: a systematic review   | Van Den Borst E. (Belgium)          |
| FC 23-2  | • Mutational differences between human papillomavirus<br>(HPV)-associated and HPV-independent penile<br>squamous cell carcinomas and precancers   | Regauer S. (Austria)                |
| FC 23-3  | <ul> <li>Identification and correlation with prognosis of specific<br/>molecular signatures of HPV virus in early cervical<br/>cancer without pelvis nodes metastasis by HPV<br/>capture technique coupled with NGS (Next-Generation<br/>Sequencing)</li> </ul> | Péré H. (France)                    |
| FC 23-4  | <ul> <li>Association of HPV E6/E7 mRNA expression with IL-10</li> <li>c592C&gt;A single nucleotide polymorphism</li> </ul>  | Dulvis S. (Macedonia)               |
| FC 23-5  | <ul> <li>The proof-of-principle of MED-seq, a method for<br/>genome-wide DNA methylation profiling for marker<br/>discovery to detect different gynecological cancers</li> </ul>  | Boers J. (Netherlands)              |
| FC 23-6  | • Binding of HPV16-E2 protein on E2 binding sites is blocked in case of T310K mutation on E2  | Di Domizio N. (France)              |
| FC 23-7  | <ul> <li>Distribution of genital and anal HPV 16 variants among<br/>men in the human papillomavirus infection in men<br/>(him) study</li> </ul>   | Dube Mandishora R. S.<br>(Zimbabwe) |
| FC 23-8  | • Line-1 hypomethylation correlates with TP53 mutation in oropharyngeal squamous cell carcinoma   | Fratta E. (Italy)                   |
| FC 23-9  | <ul> <li>Metabolic profiling of vaginal discharge differentiates<br/>persistent high-risk human papillomavirus infection<br/>and cervical lesions</li> </ul>  | Jia Y. (China)                      |
| FC 23-10 | • The clinical relationship between the cervical administration of Chinese medicine (Paiteling) and HPV<br>F6F7 mRNA expression   | Li C. (China)                       |
| FC 23-11 | • Understanding false HPV-negativity in cervical cancer diagnostics by HPV whole genome sequencing  | Søreng K. (Norway)                  |

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| FC 24    | Immunology, immuno-therapy,<br>treatment & microbiome<br>Chair: Pinto L. (USA)   | Room C4<br><b>11.00 • 12.30</b>    |
|----------|--|------------------------------------|
| FC 24-1  | <ul> <li>Defining HPV16 and HPV18 seropositivity thresholds in<br/>young unvaccinated women using trajectory modelling</li> </ul>  | Ng K. (Canada)                     |
| FC 24-2  | • The HPV serology standardization initiative: key achievements  | Pinto L. (USA)                     |
| FC 24-3  | • Time-resolved fluorescence (TRF) for total IGG and<br>HPV16-specific antibody detection in first-void urine<br>and serum: a comparative study  | Lipovac M. (Belgium)               |
| FC 24-4  | • Relationship between male HPV serostatus and female<br>HPV infection among heterosexual couples  | Ng K. (Canada)                     |
| FC 24-5  | • A pre-existing coordinated immune response is pivotal<br>to treatment response to imiquimod in primary and<br>recurrent vulvar high-grade squamous intraepithelial<br>lesions  | Muntinga C. (Netherlands)          |
| FC 24-6  | • Evaluation of T- and B-cell immunity after HPV vaccination by multi-colour elispot on a single cell level  | Preyer R. (Germany)                |
| FC 24-7  | • Effects of HPV16 E7 protein on the immune<br>microenvironment of HPV-associated tumors by<br>inhibiting the type I interferon signaling pathway  | Wang Y. (China)                    |
| FC 24-8  | <ul> <li>Results of the multicenter study on local<br/>carboxymethyl beta-glucan and polycarbophil<br/>treatment in high-risk HPV (PCR+) patients</li> </ul>   | Pingarron Santofimia C.<br>(Spain) |
| FC 24-9  | <ul> <li>Treatment with the demethylating agent decitabine<br/>represents a promising novel therapeutic concept for<br/>HPV-transformed lesions at the vulva</li> </ul>  | Melzer A. M. (Germany)             |
| FC 24-10 | <ul> <li>Association between sexually transmitted infections,<br/>cervical-vaginal microbiome and high-risk HPV<br/>infection: a study based on a prospective cohort</li> </ul>  | Li T. (China)                      |
| FC 24-11 | • The interplay between HPV and microbiota of oral-<br>nasal-intestinal microenvironments in head and neck<br>cancer   | Gonçalves- Nobre J. (Portugal)     |
| FC 24-12 | <ul> <li>Host immune response to HPV infection: using<br/>deconvolution tools from non-invasive samples low-<br/>volume RNA-seq data for tumor microenvironment<br/>profiling in cervical cancer progression and risk<br/>stratification, a pilot study</li> </ul> | Bruno V. (Italy)                   |

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| P 01   | HPV disease and COVID-19  |                                      |
|--------|---|--------------------------------------|
| P 01-1 | <ul> <li>Impact of the COVID-19 pandemic on HPV vaccinations in<br/>Switzerland and Greece: road to recovery</li> </ul>   | <b>Gountas I.</b><br>(Greece)        |
| P 03   | Epidemiology and natural history  |                                      |
| P 03-1 | <ul> <li>Human development index and burden of cervical cancer:<br/>an ecological study</li> </ul>  | <b>Hu J.</b><br>(China)              |
| P 03-2 | • HPV genotypes distribution in urethral samples in French men  | Bergeron C.<br>(France)              |
| P 03-3 | • The burden of HPV-related cancer, precancerous lesions, and anogenital warts in Denmark during 2010-2021  | <b>Munk C.</b><br>(Denmark)          |
| P 03-4 | <ul> <li>Prevalences of HPV and other sexually transmitted<br/>diseases among women living in remote areas along the<br/>Amazon rivers-Brazil</li> </ul>                              | <b>Liljander A.</b><br>(Germany)     |
| P 03-5 | <ul> <li>Other HPV as important as HPV16 and 18 in developping<br/>High-Grade CIN?</li> </ul>   | <b>Farzaneh F.</b><br>(Canada)       |
| P 03-6 | <ul> <li>10-year trend of vaccine-and non-vaccine-type high risk<br/>HPV among women in Western Austria</li> </ul>  | <b>Borena W</b><br>(Austria)         |
| P 05   | Immunology  |                                      |
| P 05-1 | • Normalization of HPV-specific antibody detection in first-<br>void urine: lessons learned from a pilot study  | <b>Bell M.</b><br>(Belgium)          |
| P 06   | HPV prophylactic vaccines   |                                      |
| P 06-1 | <ul> <li>Introduction of HPV vaccine in a country with low routine<br/>immunization coverage</li> </ul>   | <b>Joksimović M.</b><br>(Montenegro) |
| P 06-2 | <ul> <li>Acceptance of human papillomavirus vaccination and<br/>parents' willingness to vaccinate their adolescents in<br/>Ethiopia: a systematic review and meta-analysis</li> </ul> | <b>Awoke Derbie H.</b><br>(Ethiopia) |
| P 06-3 | • Effect of HPV vaccination on virus disappearance in a cervical swab in a cohort of HPV-positive Polish patients.  | <b>Pruski D.</b><br>(Poland)         |
| P 06-4 | <ul> <li>Investigation of MTDOD multimerization platform on<br/>the immunogenicity of minor capsid protein L2-based<br/>prophylactic HPV vaccine antigens</li> </ul>                  | <b>Kaplan E.</b><br>(Germany)        |

**Posters Topics** 

#### **POSTERS**

#### P 09 HPV testing

| P 09-1 | Coilocytosis in urine samples  | <b>Comes García M. D.</b><br>(Spain)       |
|--------|--|--|
| P 09-2 | <ul> <li>Comparison of anyplextm HPV hr and Allplex™HPV hr detection assays</li> </ul>   | <b>Kloboves Prevodnik V.</b><br>(Slovenia) |
| P 09-3 | <ul> <li>The impact of HPV triage on CIN2+ cumulative incidence in<br/>Slovenian national cervical cancer screening program Zora</li> </ul>  | <b>Kos J.</b><br>(Slovenia)                |
| P 09-4 | <ul> <li>High risk HPV-specific testing in oropharyneal carcinoma<br/>by RNA ISH has clinical value beyond p16 IHC</li> </ul>  | <b>Wrobel S.</b><br>(USA)                  |
| P 09-5 | <ul> <li>Assessment of HPV characteristics in cervical cancer<br/>screening samples from elderly women - a new<br/>stratification tool?</li> </ul>   | <b>Andersen K.</b><br>(Denmark)            |
| P 09-6 | <ul> <li>Clinical validation of Allplex HPV hr detection assay on<br/>surepath collected cervical samples: comparison with<br/>Clart<sup>®</sup> HPV4s genotyping test in a French laboratory</li> </ul> | <b>Daste G.</b><br>(France)                |
| P 09-7 | • Completing the international validation status of the<br>Ampfire® HPV screening 16/18/hr assay   | <b>Chung J.</b><br>(Belgium)               |
| P 09-8 | • The detection of multiple human papillomavirus (HPV)<br>types through the development of an isothermal DNA<br>amplification assay  | <b>Powell L.</b><br>(Ireland)              |

# P 10 HPV screening

| <b>Zivadinovic R.</b><br>(Serbia)   | • Does the oncogenic potential and genotypic prevalence of HPV change every year?   | P 10-1  |
|-------------------------------------|---|---------|
| <b>Bogers J. P.</b><br>(Belgium)    | <ul> <li>An economic evaluation of two cervical screening<br/>algorithms in Belgium: HPV primary compared to HPV and<br/>liquid-based cytology (LBC) co-testing</li> </ul>  | P 10-3  |
| <b>Dinis S.</b><br>(Portugal)       | HrHPV infection prevalence in women with NILM cytology  | P 10-4  |
| <b>Ang J. X.</b><br>(Singapore)     | <ul> <li>Comparison of clinical efficacy of human papillomavirus<br/>(HPV) testing with partial genotyping to liquid-based<br/>cytology as primary test in cervical screening for women<br/>between 25 and 29 years old in Singapore</li> </ul> | P 10-5  |
| Andersson H.<br>(Sweden)            | <ul> <li>Cervical cancer incidence and screening in Sweden<br/>2017-2022</li> </ul>   | P 10-6  |
| <b>Fonn J. S.</b><br>(Norway)       | <ul> <li>HPV prevalence and genotype profile in primary HPV<br/>screening of norwegian women aged 25-33 years</li> </ul>  | P 10-7  |
| García Gil A.<br>(Mexico)           | High risk HPV genotypes prevalence in Mexico  | P 10-8  |
| <b>Haba Moya J.</b><br>(Spain)      | • Evaluation of a new self-sampling device for HPV detection<br>in cervical cancer screening  | P 10-9  |
| <b>Milanova V.</b><br>(Bulgaria)    | • Efficacy and acceptability of self-collected medical grade tampon as a novel vaginal sample collection tool for the detection of HPV and STIS   | P 10-10 |
| <b>Romero García F.</b><br>(Sweden) | • Prevalence of the human papillomavirus (HPV)<br>types among cervical dysplasia women attending a<br>gynaecological clinic in Sweden   | P 10-11 |

| P 11   | Screening for women difficult to reach   |                                  |
|--------|--|----------------------------------|
| P 11-1 | • Enhancing cervical cancer screening for Dutch women over 60: evaluating the need for regular screening at age 65   | <b>Jemal E.</b><br>(Netherlands) |
| P 11-2 | <ul> <li>Identifying barriers and facilitators to implementing<br/>a community health worker (CHW)-engaged cervical<br/>cancer screening program in Shenzhen, China using the<br/>Consolidated Framework for Implementation Research<br/>(CFIR)</li> </ul> | <b>Wanyi T.</b><br>(USA)         |
| P 11-3 | • Barriers to follow-up care after a positive HPV test among<br>Hispanic women in the United States  | <b>Canedo J.</b><br>(USA)        |
| P 12   | Triage of HPV positive women   |                                  |
| P 12-1 | <ul> <li>High-risk human papillomavirus testing is superior<br/>to visual inspection with acetic acid in cervical cancer<br/>screening of Kenyan and Ugandan women living with HIV</li> </ul>  | <b>Ermel A.</b><br>(USA)         |
| P 13   | Self-sampling  |                                  |
| P 13-1 | <ul> <li>Clinical performance of hr-HPV testing on self-taken<br/>vaginal samples for the detection of CIN2+ and CIN3+ over<br/>three screening rounds</li> </ul>  | <b>Stanczuk G.</b><br>(UK)       |
| P 13-2 | <ul> <li>HPV self-sampling pilot and program implementation<br/>strategies used to engage under screened communities in<br/>cervical cancer screening: a scoping review</li> </ul>   | <b>Fullerton M.</b><br>(Canada)  |
| P 13-3 | <ul> <li>Cost-effectiveness of HPV self-sampling recruitment<br/>strategies for cervical cancer screening compared to<br/>clinician-sampling in Singapore</li> </ul>   | <b>Chua B.</b><br>(Singapore)    |
| P 13-4 | • A nationwide trial of risk-stratified cervical screening for faster cervical cancer elimination  | Hassan S. S.<br>(Sweden)         |

#### **Posters Topics**

| P 14  | Genotyping  |  |
|---|---|--|
| P 14-1  | <ul> <li>Prevalence and genotype distribution of human<br/>papillomavirus (HPV) in penile cancer in Brazil: systematic<br/>literature review and meta-analysis</li> </ul>   | <b>Saddi V. A.</b><br>(Brazil)   |
| P 14-2  | <ul> <li>Prevalence of HPV and assessing type-specific hpv testing<br/>in cervical high-grade squamous intraepithelial lesions<br/>in Poland</li> </ul>   | <b>Przybylski M.</b><br>(Poland)   |
| P 14-3  | • Analytical comparison of Allplex HPV hr and Anyplex HPV hr in population-based cervical cancer screening setting  | <b>Bohinc K.</b><br>(Slovenia)   |
| P 14-4  | • Evaluating the performance of two screenfire HPV genotyping assays on various PCR platforms   | <b>Hou L.</b><br>(USA)   |
| P 14-5  | <ul> <li>Risk stratification for cervical neoplasia by HPV genotypes<br/>and cytology results in pilot HPV-based screening<br/>"Hippo" project</li> </ul>   | <b>Nowakowski A.</b><br>(Poland)   |
|   |   |  |
| P 15  | Molecular markers   |  |
| <b>P 15</b><br>P 15-1                               | Molecular markers <ul> <li>CTLA4 polymorphisms (rs5742909, rs231775, rs3087243)</li> <li>influence on HPV vulnerability, intraepithelial lesions, and cervical cancer susceptibility</li> </ul>   | <b>De Oliveira K. B.</b><br>(Brazil)   |
| <b>P 15</b><br>P 15-1<br>P 15-2                     | Molecular markers <ul> <li>CTLA4 polymorphisms (rs5742909, rs231775, rs3087243)</li> <li>influence on HPV vulnerability, intraepithelial lesions, and cervical cancer susceptibility</li> <li>Genetic (CHRNA5, SCL6A4) and epigenetic (BDNF, NTRK2)</li> <li>contributions to cervical carcinoma or precursor lesions</li> </ul>  | <b>De Oliveira K. B.</b><br>(Brazil)<br><b>Bicho C.</b><br>(Portugal)                              |
| <b>P 15</b><br>P 15-1<br>P 15-2<br>P 15-3           | Molecular markers• CTLA4 polymorphisms (rs5742909, rs231775, rs3087243)<br>influence on HPV vulnerability, intraepithelial lesions, and<br>cervical cancer susceptibility• Genetic (CHRNA5, SCL6A4) and epigenetic (BDNF, NTRK2)<br>contributions to cervical carcinoma or precursor lesions• Identifying molecular biomarkers of cervical disease<br>progression   | De Oliveira K. B.<br>(Brazil)<br>Bicho C.<br>(Portugal)<br>Scott H.<br>(UK)                        |
| <b>P 15</b><br>P 15-1<br>P 15-2<br>P 15-3<br>P 15-4 | Molecular markers <ul> <li>CTLA4 polymorphisms (rs5742909, rs231775, rs3087243) influence on HPV vulnerability, intraepithelial lesions, and cervical cancer susceptibility</li> <li>Genetic (CHRNA5, SCL6A4) and epigenetic (BDNF, NTRK2) contributions to cervical carcinoma or precursor lesions</li> <li>Identifying molecular biomarkers of cervical disease progression</li> <li>Programmed Death-Ligand 1 expression in uterine cervical carcinoma in Indian population</li> </ul> | De Oliveira K. B.<br>(Brazil)<br>Bicho C.<br>(Portugal)<br>Scott H.<br>(UK)<br>Sinha R.<br>(India) |

| P 16 Screening m | nethods |
|------------------|---------|
|------------------|---------|

| D 1 C 1 |   | Carlsson S. |
|---------|---|-------------|
| P 16-1  | • The 2023 global HPV screening proficiency study | (Sweden)    |

# POSTERS

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| P 17   | Methylation  |                                       |
|--------|--|---------------------------------------|
| P 17-1 | • WID-qCIN - optimization and recalibration of a DNA-<br>methylation based test to triage HPV-positive women   | <b>Schreiberhuber L.</b><br>(Austria) |
| P 17-2 | • Screening and functional study of methylation modification of genes associated with cervical cancer  | <b>Ling X.</b><br>(China)             |
| P 17-3 | <ul> <li>Feasibility of FAM19A4/mir124-2 DNA methylation test for<br/>cervical and endometrial glandular lesions in formalin-<br/>fixed paraffin-embedded histology - a pilot study</li> </ul> | <b>Bouda J.</b><br>(Czech Republic)   |
| P 17-4 | Clinical validation of methylation triage assays:     the VALMETH concept  | <b>Redzic N.</b><br>(Belgium)         |

| P 18   | Microbiome   |                                  |
|--------|--|----------------------------------|
| P 18-1 | • The role of the vaginal microbiome and the immune system in the process of cervical carcinogenesis                             | <b>Kudela E.</b><br>(Slovakia)   |
| P 18-2 | • Cervicovaginal bacterial infections and HPV-DNA positivity<br>in females of reproductive age harbouring cervical<br>dysplasias | <b>Valasoulis G.</b><br>(Greece) |

| P 19   | Serology   |           |
|--------|--|-----------|
| P 19-1 | Serosurveillance to support the HPV vaccination          |           |
|        | programme in England: durability of antibody responses   | Panwar K. |
|        | against vaccine and non-vaccine types 3-4, 8-9 and 13-14 | (UK)      |
|        | years after each programmatic change                     |           |

| P 20   | New technologies  |                           |
|--------|---|---------------------------|
| P 20-1 | <ul> <li>Potential of AI technology and digital cytology in cervical<br/>cancer screening: an evaluation of the hologic geniustm<br/>digital cytology system</li> </ul> | <b>Smith D.</b><br>(UK)   |
| P 20-2 | <ul> <li>Metabolomic profiling of cervical mucus for diagnosis and<br/>pathway analysis in cervical neoplasia</li> </ul>  | <b>Fuji T.</b><br>(Japan) |

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#### **Posters Topics**

| P 21   | Artificial intelligence - Big data - Machine learnii   | ng                                   |
|--------|--|--------------------------------------|
| P 21-1 | • Artificial intelligence in cervical colposcopy: a review   | Nauschütte L.<br>(Germany)           |
| P 21-2 | <ul> <li>A.I. strategies for predicting regression potential in H&amp;E<br/>images of cervical precancerous lesions</li> </ul>   | <b>Lehtonen O.</b><br>(Finland)      |
| P 21-3 | <ul> <li>Development and validation of artificial intelligence-based<br/>analysis software to support screening system of cervical<br/>intraepithelial neoplasia</li> </ul>        | <b>Ouh Y. T.</b><br>(South Korea)    |
| P 22   | Diagnostic procedures / management   |                                      |
| P 22-1 | <ul> <li>Clinical factors influencing the occurrence of discordant<br/>results between cytology, colposcopy and histopathology<br/>in the diagnosis of cervical lesions</li> </ul> | <b>Dordea Leonte L.</b><br>(Romania) |

| P 24   | Colposcopy  |                                     |
|--------|---|-------------------------------------|
| P 24-1 | <ul> <li>Can pre-treatment with vaginal estrogen improve the<br/>colposcopy performance in postmenopausal women? - a<br/>randomized controlled trial</li> </ul> | <b>Bertelsen V. M.</b><br>(Denmark) |
| P 24-2 | <ul> <li>Complete visualization of transformation zone in<br/>colposcopy using estradiol or misoprostol: a clinical trial</li> </ul>                            | <b>Yarandi F.</b><br>(USA)          |

| P 25   | Cervical neoplasia  |   |
|--------|---|---|
| P 25-1 | • P16/ki67 dual stain cytology in cervical smears: is it still useful?  | <b>Mitran M.</b><br>(Romania)                 |
| P 25-2 | <ul> <li>Postoperative prognosis of patients harboring human<br/>papillomavirus who underwent minimally invasive radical<br/>trachelectomy for early-stage cervical cancer</li> </ul> | <b>Shin-Wha L.</b><br>(South Korea)           |
| P 25-3 | <ul> <li>Clinical, economic, and humanistic burden of high grade<br/>cervical interaepithelial neoplasia in Europe: systematic<br/>literature review</li> </ul>                       | <b>Valente S.</b><br>(Germany)                |
| P 25-4 | • Circulating cell-free tumor human papillomavirus DNA is a promising biomarker in cervical cancer  | <b>Holzhauser S.</b><br>(Sweden)              |
| P 25-5 | • One carbon metabolism and CIN   | <b>Baturan B.</b><br>(Serbia)                 |
| P 25-6 | <ul> <li>Genomic risk variants and HPV infection modulate gene<br/>expression at the human leukocyte antigen locus in<br/>cervical cancer</li> </ul>                                  | <b>Ramachandran D.</b><br>(Germany)           |
| P 26   | Vulvar diseases and neoplasia   |   |
| P 26-1 | <ul> <li>Association of human papilloma virus infection with other<br/>microbial pathogens in cervical samples with normal and<br/>abnormal cytopathological findings</li> </ul>      | <b>Aleksioska Papestiev I.</b><br>(Macedonia) |

| P 29   | HPV and oropharynx / Head and neck cancer   |                                       |
|--------|---|---------------------------------------|
| P 29-1 | <ul> <li>Evaluating diagnostic workflows for HPV-positive<br/>oropharyngeal squamous cell carcinoma detection using<br/>simulated specimens mounted on slides</li> </ul>  | <b>Zhelev P.</b><br>(Canada)          |
| P 29-3 | <ul> <li>Evaluation of a prognostic HPV biomarker assay for risk<br/>stratification of HPV16+ oropharyngeal squamous cell<br/>carcinoma patients</li> </ul>   | <b>Kloch Bendtsen S.</b><br>(Denmark) |
| P 29-4 | <ul> <li>Incidence and prevalence of human papillomavirus in<br/>tonsillar and base of tongue cancer during 2000-2022 in<br/>the Stockholm region and Sweden</li> </ul>   | <b>Jörtsö E.</b><br>(Sweden)          |
| P 29-5 | • HPV related oropharyngeal cancers in Canada:<br>HPV oral scan   | <b>Racovitan V.</b><br>(Canada)       |
| P 29-6 | <ul> <li>Circulating and salivary DNA-based biomarkers for early<br/>diagnosis and recurrence monitoring of OPSCC</li> </ul>  | <b>Bouska O.</b><br>(Czech Republic)  |
| P 29-7 | Studies on the effects of curcumin targeting CDC27 alone<br>or combined with other inhibitors on HPV positive and<br>negative head and neck cancer cell lines   | <b>Zupancic M.</b><br>(Sweden)        |
| P 29-8 | • Combining specific PI3K, PARP, and WEE1 inhibitors or<br>corresponding single inhibitors with radiotherapy in HPV<br>positive and negative tonsillar squamous cell carcinoma<br>cell lines reveals synergistic effects, while the effects with<br>APR-246 are limited | <b>Kostopoulou O. N.</b><br>(Sweden)  |
| P 30   | HPV and associated skin diseases  |                                       |
| P 30-1 | <ul> <li>Oncological treatment to men with penile cancer, survival<br/>in correlation to treatment and HPV-status</li> </ul>  | <b>Ulvskog E.</b><br>(Sweden)         |
| P 32   | HPV transmission  |                                       |
| P 32-1 | <ul> <li>Regression of HPV-derived VaIN using an adjuvant<br/>treatment with a coriolus versicolor-based vaginal gel</li> </ul>   | <b>Lopez Cavanillas B.</b><br>(Spain) |
|        |   |                                       |

| Р 34   | Conventional therapies  |   |
|--------|---|---|
| P 34-1 | <ul> <li>Remission of HPV-related diseases during antiviral<br/>treatment of herpes virus: a case series</li> </ul>   | <b>Falcucci S.</b><br>(Italy)           |
| Р 35   | Economics and modelling   |   |
| P 35-1 | • Health economic impact model of a digital health solution   | <b>Ruiz Serrano A.</b><br>(Switzerland) |
| P 35-2 | <ul> <li>Financial difficulty in acquiring menstrual hygiene<br/>products in Lithuania</li> </ul>   | <b>Simanauskaite A.</b><br>(Lithuania)  |
| P 35-3 | <ul> <li>Health impact and cost-effectiveness analysis of<br/>nonavalent versus bivalent human papillomavirus national<br/>immunization strategies in Thailand</li> </ul> | <b>Wu Y. H.</b><br>(Taiwan)             |
| P 35-4 | Community-driven software development for HPV modeling: reflections and lessons learned   | <b>Stuart R.</b><br>(USA)               |
| Р 37   | Health education  |   |
| P 37-1 | Factors affecting young women's participation in cervical   | Partanen V. M.                          |

| P 37-1 | <ul> <li>Factors affecting young women's participation in cervical<br/>cancer testing - a population-based survey study</li> </ul>                            | <b>Partanen V. M.</b><br>(Finland)     |
|--------|---|--|
| P 37-2 | <ul> <li>It's time: a campaign to increase HPV vaccination<br/>awareness and cervical cancer screening among Hispanic/<br/>Latina and Korean women</li> </ul> | <b>Baezconde-Garbanati L.</b><br>(USA) |
| P 37-3 | • HPV decide: the development of a comprehensive tool<br>for facilitating informed HPV vaccination choices among<br>adults aged 27 to 45                      | <b>Wheldon C.</b><br>(USA)             |
| P 37-4 | • A descriptive study of first female South African HPV<br>vaccine recipients eleven years later: sociodemographics,<br>sexual behaviour and knowledge        | <b>Adams R.</b><br>(South Africa)      |
| P 37-5 | • Identifying educational needs for anal cancer prevention among patients taking pre-exposure prophylaxis (PREP)  | <b>Maness S.</b><br>(USA)              |
| P 37-6 | <ul> <li>A pilot evaluation of a sexual health high-school<br/>educational intervention on HPV knowledge, beliefs and<br/>behaviours</li> </ul>               | <b>Norris T.</b><br>(Canada)           |

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#### **POSTERS**

#### P 38 Low resource settings

| P 38-1 | Nonvaccine oncogenic human papillomavirus (HPV) - 35: the | Mabika Obanda A. K. F. |
|--------|---|------------------------|
|        | most prevalent HPV genotype among Gabonese women          | (Gabon)                |

#### P 39 Public health

| P 39-1 | • Surveillance of adverse events following national HPV vaccine immunization in Taiwan  | <b>Chen Y. C.</b><br>(Taiwan)      |
|--------|---|------------------------------------|
| P 39-2 | • Epidemiological characteristic of p16 among<br>oropharyngeal squamous cell carcinoma in a oral cancer<br>endemic area   | <b>Liu P. T.</b><br>(Taiwan)       |
| P 39-3 | • Cervical cancer prevention in rural Kenyan communities:<br>the mother-daughter project  | <b>Tong Y.</b><br>(USA)            |
| P 39-4 | <ul> <li>Informatics platform for a cervical cancer elimination<br/>campaign using HPV vaccination and HPV screening</li> </ul>                                 | <b>Ure A. E.</b><br>(Sweden)       |
| P 39-5 | <ul> <li>Children's perceptions about being offered the HPV<br/>vaccination: a focus group study</li> </ul>   | <b>Enskär I.</b><br>(Sweden)       |
| P 39-6 | • Using immunization registry data to explore disparities in early HPV vaccine initiation in a rural, midwestern state, US                                      | <b>Ryan G.</b><br>(USA)            |
| P 39-7 | <ul> <li>The opinion of women aged 16-55 on free or partially<br/>subsidized menstrual hygiene products in Lithuania and<br/>its influential factors</li> </ul> | <b>Krutulyte D.</b><br>(Lithuania) |
| P 39-8 | <ul> <li>Impact of the pandemic on cervical cancer screening in the<br/>state of Rio de Janeiro - Brazil</li> </ul>   | <b>Silveira F. A.</b><br>(Brazil)  |
| P 39-9 | • Knowledge regarding menstrual cycle and menstrual hygiene of Lithuanian women aged 16-55 years  | <b>Jariene K.</b><br>(Lithuania)   |

# P 40 Fertility and HPV

| P 40-1 | • HPV and recurrent pregnancy loss   | <b>Drakakis P.</b><br>(Greece)    |
|--------|--|-----------------------------------|
| P 40-2 | • Cervical adenocarcinoma in nulliparous woman - is it possible for a patient to become a mother?  | <b>Musialowicz V.</b><br>(Poland) |
| P 40-3 | <ul> <li>Associations between loop electrosurgical excision (LEEP)<br/>for cervical precancer after primary human papillomavirus<br/>(HPV) screening and adverse birth outcomes</li> </ul> | <b>Ogilvie G.</b><br>(Sweden)     |