

## ACCELERATING DETECTION AND ELIMINATION OF HPV AND RELATED CANCERS

Congress Presidents: Anna Giuliano (USA), Peter Hillemanns (Germany)





### **FDW - FULL DAY WORKSHOP**

## Revisiting high-grade intraepithelial neoplasia - molecular biology, risk management and prevention

### Coordinator: J. Monsonego (France)

The full day workshop is designed to provide summaries of the most relevant knowledge on HPV infection and associated diseases with the aim of assisting educators in the health field. The topics covered range from the basic science fundamentals to emerging issues and translational research.

Speakers will present accepted evidence-based scientific information that has been published in the peerreviewed medical literature.

FDW 01	Cervix	Hall X 8.30 - 17.00
FDW 01-A	<b>The Global picture of CIN3-ADC in situ</b> Chair: S. Franceschi (Italy)	8.30 - 9.30
FDW 01-A1	Introduction	Franceschi S. (Italy)
FDW 01-A2	Epidemiology	🖵 Brotons M. (Spain)
FDW 01-A3	<ul> <li>Natural history and carcinogenesis</li> </ul>	Franco E. (Canada)
FDW 01-A4	<ul> <li>HPV related prevalence and score of risk</li> </ul>	Wentzensen N. (USA)
	Discussion	
		및 Video presentation
Coffee Break		9.30 - 10.00
FDW 01-B	HPV primary screening of CIN3-ADC in situ: new insights and long-term performance Chair: C. Meijer (Netherlands)	10.00 - 11.45
FDW 01-B1	Introduction	Meijer C. (Netherlands)
FDW 01-B2	Triage of HPV+ women	Arbyn M. (Belgium)
FDW 01-B3	Role of genotyping	Dillner J. (Sweden)
FDW 01-B4	<ul> <li>Epigenetics and methylation</li> </ul>	Steenbergen P. (Netherlands)
FDW 01-B5	<ul> <li>Can biomarkers for diagnosis and grading of CIN help to prevent overtreatment?</li> </ul>	Meijer C. (Netherlands)
FDW 01-B6	Performance of self-sampling	Berkhof J. H. (Netherlands)
FDW 01-B7	<ul> <li>Screening of vaccinated women</li> </ul>	🖵 Canfell K. (Australia)
	Discussion	

igsquare Video presentation

Chair: J. Bornstein (Israel)

### **FDW - FULL DAY WORKSHOP**

FDW 01-C	HPV vaccines: protection against CIN3-ADC in situ Chair: E. Joura (Austria)	13.30 - 15.00
FDW 01-C1	Introduction	Joura E. (Austria)
FDW 01-C2	<ul> <li>Focus on randomized clinical trials</li> </ul>	Joura E. (Austria)
FDW 01-C3	<ul> <li>Long-term impact on public health</li> </ul>	🖵 Brotherton J. (Australia)
FDW 01-C4	<ul> <li>Defining populations at risk and individual benefits of HPV vaccines</li> </ul>	Moscicki A. B. (USA)
FDW 01-C5	<ul> <li>Residual risks of CIN-ADC in situ in HPV screening and vaccinated women</li> </ul>	Lehtinen M. (Sweden)
	Discussion	
		및 Video presentation
Coffee Break		15.00 - 15.30
FDW 01-D	Management and follow-up of women with CIN3-ADC in situ	15.30 - 17.00

Bornstein J. (Israel)	Introduction	FDW 01-D1
🖵 Clarke M. (USA)	New risk management	FDW 01-D2
Bouchard C. (Canada)	The colposcopic approach	FDW 01-D3
Donders G. (Belgium)	Current treatment options	FDW 01-D4
Kyrgiou M. (UK)	<ul> <li>Optimizing follow-up after treatment for CIN3 – vaccination after treatment</li> </ul>	FDW 01-D5
	Discussion	

**Uvideo** presentation

FDW 02	<b>New insights in high-grade intraepithelial neoplasia of anus, vulva and oropharynx</b> Chair: A. Nyitray (USA)	Hall X 17.00 - 18.30
FDW 02-1	Introduction	Nyitray A. (USA)
FDW 02-2	• AIN3	Nyitray A. (USA)
FDW 02-3	• VuIN3	Bleeker M. (Netherlands)
FDW 02-4	<ul> <li>Does oropharyngeal precancer exist?</li> </ul>	D'Souza A. (USA)
FDW 02-5	<ul> <li>Impact of HPV vaccine on non-cervical pre-cancer in the real life</li> </ul>	🖵 Saraiya M. (USA)
	Discussion	

### **SS - SCIENTIFIC SESSIONS**

SS 01	<b>Epidemiology: HIV and HPV-related cancers</b> Chair: A. Giuliano (USA) - S. Sudenga (USA)	Room 14 8.30 - 10.00
People living v	vith HIV are at an increased risk for developing HPV-related cancers. This session will discu	ss differences in HPV-related

cancer incidence and treatment by HIV status and biomarkers associated with early detection and screening. The session will end with time for discussion on ways to improve screening, treatment, and survival for HPV-related cancers among people with HIV.

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SS 01-1	• Introduction	Giuliano A. (USA)
		Sudenga S. (USA)
SS 01-2	• Anal cancer risk scale	Clifford G. (France)
SS 01-3	<ul> <li>Cervical pre-cancer and cancer in WLWH: Should we manage it differently</li> </ul>	Botha H. (South Africa)
SS 01-4	HPV-related cancers in people living with HIV in South Africa	Dhokotera T. (Switzerland)
SS 01-5	<ul> <li>HPV16 E6 serostatus and HPV-OPC screening among PWH</li> </ul>	Lang Kuhs K. A. (USA)
SS 01-6	CD4/CD8 Ratio and HPV-related cancer risk among PWH	Sudenga S. (USA)
	• Discussion	

	Is HPV genotyping transforming primary	Room 14
SS 02	HPV screening?	13.30 - 15.00
	Chair: J. Bonde (Denmark)	10.00

Advanced molecular methods to characterize HPV allows for the precise distinction between individual HPV genotypes and the use of HPV genotyping is increasingly finding its way into cervical screening algorithms to allow differentiation between those women who carry an HPV-infection at lower or higher risk for cervical precancer and cancer. Whereas, thirteen HPV genotypes are associated with the highest risk of cervical disease/cancer, the risk of disease progression and cancer is genotype dependent. In this session, the question asked is: How is genotyping applied in cervical screening programs and how can genotyping improving screening?

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SS 02-1	Introduction	Bonde J. (Denmark)
SS 02-2	<ul> <li>Role of HPV genotype in refining screening algorithms</li> </ul>	🖵 Cuzick J. (UK)
SS 02-3	<ul> <li>Present and future value of HPV genotyping in cervical cancer screening</li> </ul>	Franco E. (Canada)
SS 02-3	<ul> <li>The HPV type-specific impact on early detection and prevention of invasive cervical cancer</li> </ul>	Dillner J. (Sweden)
SS 02-4	<ul> <li>Extended type-specific algorithms in HPV screening; first experiences from Denmark</li> </ul>	Bonde J. (Denmark)
	Discussion	

Video presentation

**Coffee Break** 

15.00 - 15.30

### **SS - SCIENTIFIC SESSIONS**

SS 03

Quality assurance of self-sampling for cervical screening and disease management Chair: M. Arbyn (Belgium) - C. Cocuzza (Italy)

Room 14 15.30 - 17.00

Self-sampling has been shown to increase women's participation to cervical cancer screening programs. The implementation of these new screening approaches should however be accompanied by the assessment of the quality and applicability of the new methods, including organizational aspects, diagnostic procedures, test accuracy and management of screenpositive women. This session will highlight some of the quality assurance approaches and experiences related to the introduction of self-sampling in cervical cancer screening and disease management.

Arbyn M. (Belgium)	03-1 • Introduction	SS 03-1
Cocuzza C. (Italy)		
Vos K. (Netherlands)	03-2 • Experiences in organizing self-sampling-based screening	SS 03-2
Smith J. (USA)	03-3 • Self-collection in cervical cancer screening programs in low-middle income countries	SS 03-3
Arbyn M. (Belgium)	• Validation of tests, self-sampling devices and storage media	SS 03-4
Cuschieri K. (UK)	03-5 • Considerations for the pre-analytical optimization of self-sampling	SS 03-5
Martinelli M. (Italy)	03-6 • European VALHUDES findings	SS 03-6
Nedjai B. (UK)	• Molecular triage on self-collected samples	SS 03-7
	Discussion	

🕏 SS 04	HPV and anal cancer screening	Room 16a
¥ 33 04	Chair: A. Nyitray (USA) - L. Abramowitz (France)	13.30 - 15.00

With the ANCHOR Study being recently stopped for efficacy, a key barrier to anal cancer screening has been removed, i.e., the lack of accepted treatment for high-grade squamous intraepithelial lesions; however, other barriers remain that need attention to ensure that screening benefits outweigh harms. This scientific session will highlight new research that speaks to some of the unanswered questions including when to repeat screening, what is a suitable test for risk-based screening, and how can a screening program be built that is inclusive for all persons at increased risk for anal cancer.

SS 04-1	• Introduction	Nyitray A. (USA) Abramowitz L. (France)
SS 04-2	<ul> <li>Incidence and clearance of anal HPV at the anal canal</li> </ul>	Wei F. (IARC)
SS 04-3	<ul> <li>Host + viral genome methylation as a biomarker for precancers and cancer</li> </ul>	Nedjai B. (UK)
SS 04-4	<ul> <li>Suitability of clinician-performed Digital Anal Rectal Exams for detection of HPV-associated palpable lesions</li> </ul>	Nyitray A. (USA)
SS 04-5	<ul> <li>Disparities in uptake of anal cancer screening</li> </ul>	Gillis J. (Canada)
SS 04-6	<ul> <li>What do we know about successful promotion of HPV vaccination in high-risk communities, and can it be adapted to promote anal cancer screening?</li> <li>Discussion</li> </ul>	Ogilvie G. (Canada)

FC 01	<b>Screening methods and triage 1</b> Chair: M. Rebolj (UK)	Room 16b 8.15 - 10.00
FC 01-1	Management of minimally abnormal cervical cancer screening test results by DNA methylation detection	Liu S. (China)
FC 01-2	<ul> <li>Comparison of the GENIUSTM system for digital cytology with the THINPREP® imaging system</li> </ul>	lkenberg H. (Germany)
FC 01-3	• Peer Review Cytology Plus (PRCP): a new software for the internal quality control in cytology	Giachini C. (Italy)
FC 01-4	<ul> <li>Performance of oncoprotein-based tests to detect CIN2+ for cervical cancer screening and triage: a systematic literature review</li> </ul>	Downham L. (France)
FC 01-5	<ul> <li>Implementation of a centralized HPV-based cervical cancer screening programme in Tuscany: first round results and comparison with the foregoing Pap-based screening programme</li> </ul>	Pompeo G. (Italy)
FC 01-6	<ul> <li>Co-testing in cervical screening among 40-42 year old women is unreasonable</li> </ul>	Forslund O. (Sweden)
FC 01-7	<ul> <li>Cytology interpretation after a change to human papillomavirus testing in primary cervical screening: evidence from the English pilot</li> </ul>	Rebolj M. (UK)
FC 01-89	<ul> <li>Can HPV genotyping and cytology triage facilitate HPV screening of young women 23-29 years old?</li> </ul>	Pedersen H. (Denmark)
FC 01-9	<ul> <li>Results after two screening rounds for primary HPV screening for cervical cancer, in a population based organized screening program in Piedmont, Italy</li> </ul>	Armaroli P. (Italy)
FC 01-10	<ul> <li>Risk stratification of HPV-positive women using extended genotyping and cytology – results from the baseline unclarity trial</li> </ul>	Vaughan L. (USA)
FC 01-11	<ul> <li>Fourteen-year risk of cervical precancer in HPV- negative women, stratified for previous HPV and cytology results</li> </ul>	Inturrisi F. (Netherlands)
FC 01-12	• 7-TYPE HPV MRNA test in triage of HPV DNA positive women	Sorbye S. (Norway)
FC 01-13	<ul> <li>Preliminary results from a pragmatic sequential randomized trial on integrated cervical cancer screening in Mayuge district Uganda (aspire Mayuge)</li> </ul>	Ogilvie G. (Canada)

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FC 02	<b>Screening methods and triage 2</b> Chair: F. Carozzi (Italy)	Room 16b 10.30 - 12.00
FC 02-1	<ul> <li>Participation in cervical cancer screening among overweight and obese women: a systematic review and meta-analysis</li> </ul>	Ring L. L. (Denmark)
FC 02-2	<ul> <li>Has participation in Dutch cervical cancer screening decreased in the last years?</li> </ul>	Castañeda K. (Netherlands)
FC 02-3	<ul> <li>Reasons for non-attendance of colposcopy following an abnormal cervical cancer screening result in German</li> </ul>	Klug S. (Germany)
FC 02-4	• Quality assurance in cervical cancer screening: external quality assurance program (EQA) for HPV screening with cytology triage and PAP test screening	Carozzi F. (Italy)
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FC 02-5	• Economic and humanistic burden of HPV-related disease in Indonesia: a qualitative analysis	Felsher M. (USA)
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FC 02-6	<ul> <li>Searching for optimal algorithms for primary HPV screening</li> </ul>	Vahteristo M. (Finland)
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FC 02-7	• HPV screening in Bolivia: results by a pilot study	Carozzi F. (Italy)
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FC 02-8	<ul> <li>Final data from LIBUSE trial - algorithm for cervical cancer screening in the Czech Republic with usage of HPV DNA testing with HPV 16/18 genotyping and P16/ KI-67 DUAL-stained cytology</li> </ul>	Slàma J. (Czech Republic)
FC 02-9	• Women's right to life is not aging, older women have to be screened for cervical cancer	Tisler A. (Estonia)

Sunday, April 10

FC 03	<b>Vaccines 1</b> Chair: J. Paleskfy (USA)	Room 14 10.30 - 11.45
FC 03-1	• Effect of human papillomavirus (HPV) vaccination on occurrence of subsequent anogenital warts (AGWs) in patients with current or history of AGWs worldwide: a systematic review and meta-analysis	De Lepper M. (Germany)
FC 03-2	<ul> <li>Quadrivalent HPV vaccination and long-term risk of adverse pregnancy outcomes</li> </ul>	Sparen P. (Sweden)
FC 03-3	• Effectiveness of vaccination re-invitation at 25 years of age to increase HPV vaccine uptake	Acuti Martellucci C. (Italy)
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FC 03-4	<ul> <li>Surveillance of adverse events following HPV9 vaccine in a region which implemented UMV: data from Puglia (Italy)</li> </ul>	Di Lorenzo A. (Italy)
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FC 03-5	<ul> <li>Long-term immunogenicity and effectiveness of the 9-valent HPV (9vHPV) vaccine in preadolescents and adolescents after 10 years of follow-up</li> </ul>	Luxembourg A. (USA)
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FC 03-6	<ul> <li>Next era of HPV models: a cloud-based user-friendly dynatic transimission model</li> </ul>	Wu E. (USA)
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FC 03-7	<ul> <li>Immunogenicity of 2-dose regimens of 9 valent human papillomavirus (9VHPV) vaccine with extended dosing intervals: interim results of protocol V503-069</li> </ul>	Bonawitz R. (USA)
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FC 03-8	<ul> <li>Immunogenicity and safety study of the 9vHPV vaccine in 9-45-year-old Chinese females</li> </ul>	Wu L. (Taiwan)
FC 03-9	<ul> <li>Immunogenicity of 1, 2, and 3 doses of 9-valent human papillomavirus (9vHPV) vaccine in girls 9-14 years of age</li> </ul>	Luxembourg A. (USA)

Sunday, April 10

FC 04	<b>Viral and molecular biology</b> Chair: M. Von Knebel Döberitz (Germany)	Room 15 10.30 - 11.45
FC 04-1	<ul> <li>Single-cell profiling analysis reveals that targeting CXCR4+ CD8 T cells promotes anti-PD-1 immunotherapy of cervical cancer</li> </ul>	Wei Y. (China)
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FC 04-2	• BRD4S interacts with viral E2 protein to limit human papillomavirus late transcription	Renner J. (Germany)
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FC 04-3	<ul> <li>Characteristics of ancestry patterns of multiracial women population with cervical lesions induced by HPV: preliminary results from H2020 Elevate Study</li> </ul>	Guimarães Y. (Brazil)
FC 04-4	• 25-hydroxycholesterol inhibits human papllomavirus infection in cervical epithelial cells via disturbance of cytoskeleton remodeling through lipid metabolism suppression	Li B. (China)
FC 04-5	<ul> <li>rs2232365 polymorphism of FOXP3 gene as a risk factor of cervical cancer development</li> </ul>	lordanishvili S. (USA)
FC 04-6	• New evidence of methylation biomarkers in cervical adenocarcinoma especially HPV independent type	Dong Z. (China)
FC 04-7	<ul> <li>Integrated analysis of cervical squamous cell carcinoma cohorts from three continents reveals conserved subtypes of prognostic significance</li> </ul>	Reddin I. (UK)
FC 04-8	• Predictive factors of response to treatment in invasive squamous cell cancer of the cervix	Moreno-Acosta P. (Colombia)

Sunday, April 10

### **FC - FREE COMMUNICATIONS**

FC 05	<b>Methylation</b> Chair: B. Nedjai (UK)	Room 16b 13.30 - 15.00
FC 05-1	<ul> <li>CIN3+-specific methylation marker analysis to improve the triage of hrHPV-positive self-samples in the population-based cervical cancer screening</li> </ul>	De Waard J. (Netherlands)
FC 05-2	<ul> <li>Clarification testing/triage of women tested HPV DNA-positive in cervical cancer screening using a DNA methylation marker-based test as well as an HPV mRNA test</li> </ul>	Hums A. (Germany)
FC 05-3	<ul> <li>Clinical significance of methylated ZNF582 as a triage marker for HR-HPV infected women</li> </ul>	Zhang M. (China)
FC 05-4	• Streamlined workflow for methylation analysis on cervical samples	Floore A. (Netherlands)
FC 05-5	• DNA methylation markers for the detection of VIN, VAIN and vulva or vagina carcinoma	Hansel A. (Germany)
FC 05-6	• The proof-of-principle of marker discovery for different gynaecological cancers by a novel method for genome-wide DNA methylation profiling (MED-SEQ)	Boers J. (Netherlands)
FC 05-7	• GynTect DNA methylation marker - longitudinal observational study in patients with CIN2/3. Results from the GynTect-PRO trial	Schmitz M. (Germany)
FC 05-8	<ul> <li>Novel methylated genes as a clinical predictor to reduce the missed diagnosis of cervical lesions (cancer) in women over 50 years old: a preliminary analysis of a multicenter study</li> </ul>	Chao X. (China)

**Coffee Break** 

15.00 - 15.30

Sunday, April 10

FC 06	<b>Epidemiology, natural history and public health 1</b> Chair: K. Louvanto (Finland)	Room 16b 15.30 - 17.00
FC 06-1	• HPV prevalence according to socioeconomic characteristics in a Danish screening population	Thomsen L. T. (Denmark)
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FC 06-2	• Smear history of women with cervical cancer: an audit of routinely collected smears in the TEQAZ study	Tanaka L. (Germany)
FC 06-3	<ul> <li>Self-reported participation in cervical cancer screening among a volunteer cohort of vaccinated women in British Columbia, Canada</li> </ul>	Gillis J. (Canada)
FC 06-4	• Correcting cervical cancer incidence and mortality in the Nordic countries by reallocation of unspecified uterine cancer cases and deaths	Partanen V. M. (Finland)
FC 06-5	• Perinatal HPV transmission between parents and their offspring	Suominen N. (Finland)
FC 06-6	• Burden of cervical conization in commercially insured Young and mid-adult women in the USA	Saxena K. (USA)

FC 07	<b>Epidemiology, natural history and public health 2</b> Chair: M. Hampl (Germany)	Room 16b 17.00 - 18.30
FC 07-1	<ul> <li>Is organized cervical cancer screening more effective than opportunistic testing? A population-based case- control study</li> </ul>	Pankakoski M. (Finland)
FC 07-2	<ul> <li>Human papillomavirus at mid-gestation and adverse pregnancy outcomes: a prospective cohort study from Norway and Sweden</li> </ul>	Vaernesbranden M. R. (Norway)
FC 07-3	<ul> <li>HPV type specific E6, E7 antibodies in HIV-positive MSM with anal squamous cell carcinoma up to 20 years preceding diagnosis: a case-control study</li> </ul>	Schim Van Der Loeff M. (Netherlands)
FC 07-4	• Prevalence of anal HPV infection among unvaccinated men who have SEX with men in Brazil: preliminary data	Wendland E. M. (Brazil)
FC 07-5	<ul> <li>Type-specific concordance of HPV infection between the genital and anal sites for young women and MSM</li> </ul>	Kusters J. (Netherlands)
FC 07-6	• Extended human papillomavirus genotyping to predict progression to high-grade cervical precancer: a prospective cohort study in the south-eastern USA	Smith J. (USA)
FC 07-7	<ul> <li>Vaginal intraepithelial neoplasia: is it really a rare condition? - a retrospective study among a cohort of a Portuguese oncology center</li> </ul>	Polónia-Valente R. (Portugal)
FC 07-8	<ul> <li>Influence of HPV and P16 expression on survival after vulvar squamous cell carcinoma: a population-based Danish study of ~1,300 cancers</li> </ul>	Rasmussen C. L. (Denmark)
FC 07-9	• The « CIV Classification », a new proposal for the architectural grading of vulvar lichen sclerosus	Boero V. (Italy)
FC 07-10	<ul> <li>Maternal human papillomavirus infection during pregnancy and preterm delivery, a mother-child cohort study in Norway and Sweden</li> </ul>	Wiik J. (Sweden)

## WS - SPECIALIZED WORKSHOP WS 01 - THE FEASIBILITY OF PERSONALIZED SCREENING IN ORGANIZED PROGRAMS

### Coordinators: S. Van Dijk (Netherlands) - P. Giorgi Rossi (Italy) - M. Elfström (Sweden)

Over the last 5 years more and more countries worldwide have introduced primary HPV screening into their cervical cancer screenings programs or intend to do in the short term. We are moving more and more towards the implementation of science for advancing screening instead of longer RCTs. Ideas are being tested in practice and then monitored using existing infrastructures. This lifts the importance of organized programs that can adapt to new strategies and track individuals through the process. With the introduction of primary HPV screening, it also appears that the concept of "one size fit all" no longer applies, and women should be approached and treated according to the risk they run. This risk stratification will result in a more personalized screening, both in terms of reaching the unreached population and in managing the reached population. Then the question remains what the implications of risk-based screening will be on organized screening programs.

ট্র WS 01-A	Reaching the unreached population	Room 15 13.30 - 15.00
attend Cervical Car importance of CCS relating to these b	ttend screening programs at a regular basis are at the highest risk of developing ncer Screening have been identified, like social cultural and social economical l ), embarrassment and shame, discomfort and pain. By stratifying the unreac arriers, it might be possible by means of more personalized communication ty to (and the participation rate of) cervical cancer screening programs.	barriers, lack of understanding (the hed population in sub-populations
WS 01-A1	• Introduction	Giorgi Rossi P. (Italy)
WS 01-A2	• Personalized communication strategies Differentiation in (core) message, differentiation in channels (paper, digital, app), differentiation in alerting (advance notices (f.i. at30-year), repeat reminders)	Bardou M. (France)
WS 01-A3	• Personalized sampling methods Which sampling method (smear or self-sampling (swab or urine)) suits which target group best?	🖵 Vorsters A. (Belgium)
WS 01-A4	<ul> <li>Cervical screening among extraordinary groups, like transgender men</li> <li>How to reach Transgender men, non-binary people and other 'extraordinary' groups, outside the screening list based on identity numbers?</li> </ul>	Weyers S. (Belgium)
• • • • • • • • • • • • • • • • •	• Discussion	
		🕏 Session On-Demand (SOD)

Video presentation

**Coffee Break** 

15.00 - 15.30

## WS - SPECIALIZED WORKSHOP WS 01 - THE FEASIBILITY OF PERSONALIZED SCREENING IN ORGANIZED PROGRAMS

ট্ট WS 01-B	Managing the screened population	Room 15 15.30 - 17.00
	ng should allow better precancer detection in high-risk women, and fewer pr rotocols based upon trails conducted on woman at their first HPV-test in, mo	
The influx of HPV-v	accinated women in screening programs and the effect of the HPV screenir	ng results from successive rounds may
have an impact on	the incidence of disease in the screen population. From a screening efficacy p	perspective, this may lead to increasing
personalized invita	tion strategies and personalized management of HPV-positive women.	
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	<ul> <li>Personalized invitation strategies</li> </ul>	
WS 01-B1	Can we reduce screen intervals for woman at lower risk, based on vaccination status or earlier screening outcome?	Berkhof J. H. (Netherlands)
WS 01-B2	Personalized management: HPV+/triage+	Elfström M. (Sweden)
	Can we use genotyping for better triage?	
	• Personalized management: HPV+/triage-	
WS 01-B3	How to best manage HPV+/cyt- women exiting the screening program as we switch to HPV-based screening?	Wentzensen N. (USA)
• • • • • • • • • • • • • • • •	• Personalized screening in an organized program:	
	the Dutch experience	
	We could use The Dutch screening program as an (practical) example	
	of personalized screening in an organized program (but we can also choose another country or make a combination). With the introduction	
WS 01-B4	of primary HPV-screening in 2017 the Dutch program also introduced	Van Dijk S. (Netherlands)
	a self-sampling device and a 10-year interval for HPV negative women	
	at the age of 40 and 50. Further risk-based optimizations will be implemented in the short term (2022-2023), covering the topics mentioned above.	
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	• Discussion	

## WS - SPECIALIZED WORKSHOP WS 02 - HPV AND ANAL DISEASES WORKSHOP

Coordinator: J. Palefsky (USA)

WS 02	<b>Prevention of anal cancer post-ANCHOR</b> <b>workshop</b> Chair: J. Palefsky (USA)	Room 16a 15.30 - 18.30
cancer including cancer. Until rece the risk of progr questions that no	nilar biologically to cervical cancer and it has been a longstanding question as to screening for and treating high-grade squamous intraepithelial lesions (HSIL) antly there have been few data to but the ANCHOR study has now shown that tre ession to anal cancer. This symposium will include a description of the ANCH ow arise, including: who should be targeted for screening; inclusion of anal scre uals; methods to triage those who might benefit most from treatment; and nov	might also be used to prevent anal eatment of anal HSIL lesions reduces IOR study, and explore a number of eening in standard of care guidelines
WS 02-1	Update on epidemiology of anal cancer	Clifford G. (France)
WS 02-2	<ul> <li>Results of the ANCHOR Study-implications for screening and treatment</li> </ul>	Palefsky J. (USA)
WS 02-3	• Can the results of ANCHOR be applied to populations at risk for anal cancer other than those living with HIV?	및 Stier B. (USA)
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WS 02-4	<ul> <li>Should screening for and treating anal HSIL be included in standard of care guidelines? What additional information is needed?</li> </ul>	Deshmukh A. (USA)
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WS 02-5	• Methylation analysis of anal cancer and pre-cancerous lesions- implications for cancer risk stratification of anal HSIL	Steenbergen R. (Netherlands)
WS 02-6	Novel treatments for anal HSIL	🖵 Einstein M. (USA)
WS 02-7	• Roundtable - What is the next set of questions for the field to focus on?	Palefsky J. (USA)

### **COLPOSCOPY COURSE**

### Separate registration required - Limited capacity

### Coordinators: J. Bornstein (Israel) - A. Singer (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 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 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 squamo-columnar 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 the 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 cytologic, colposcopic, and histologic exam;
- 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.

Sunday, April 10

Room 16a

### **COLPOSCOPY COURSE**

<b>Part A</b> Chair: A. Singe	r (UK) - J. Bornstein (Israel)	Room 16a 8.30 - 10.00
	• Opening	Singer A. (UK)
CC A-1	• The normal cervix and the colposcopy examination	Singer A. (UK)
CC A-2	• Pathology, cytology and dual staining for colposcopists	Bergeron C. (France)
CC A-3	<ul> <li>Colposcopy of "abnormal" cervix, colposcopic terminology, risk-based management consensus guidelines</li> </ul>	Bornstein J. (Israel)

**Coffee Break** 

10.00 - 10.30

<b>Part B</b> Chair: A. Singe	er (UK) - J. Bornstein (Israel)	Room 16a 10.30 - 12.00
CC B-1	<ul> <li>Better management of abnormal screening findings</li> <li>the value of biomarkers in screening algorithms</li> </ul>	Bonde J. (Denmark)
CC B-2	• Treatment of cervical precancer, complications	Bornstein J. (Israel)
CC B-3	• Interactive session (what is your diagnosis)	A. Singer (UK)
CC B-4	• Summary	Bornstein J. (Israel)

MSS 01	HPV diseases and SARS-Cov-2	Auditorium Room 1 8.15 - 11.00
MSS 01-A	<b>COVID-19 and HPV vaccination</b> Chair: S. Franceschi (Italy) - S. Hanley (Japan)	8.15 - 9.30
The COVID-19 pandemic has led to significant immunization service disruptions. These include service delivery disruptions, particularly for school-based immunization programmes, and the suspension of mass vaccination campaigns. At the same time, the World Health Organisation has stated that immunization is a core health service that should be prioritised for the prevention of communicable diseases and safeguarded for continuity during the COVID-19 during the Pandemic, where feasible. This session will include presentations that inform the audience about the situation of HPV vaccination programmes across different regions of the world, assess to what extent coverage has been affected by the COVID-19 Pandemic and propose potential recovery strategies to restart programmes. MSS 01-A1 • Introduction Franceschi S. (Italy)		
MSS 01-A2	<ul> <li>Birth and spread of vaccines against HPV and SARS- COV-2: a comparison</li> </ul>	🖵 Bloem P. (Switzerland)
MSS 01-A3	<ul> <li>HPV vaccination and COVID, Europe</li> </ul>	Bonanni P. (Italy)
MSS 01-A4	<ul> <li>HPV vaccination in the USA: effects of the COVID-19 pandemic</li> </ul>	🖵 Markowitz L. (USA)
MSS 01-A5	<ul> <li>HPV vaccination and COVID, Oceania</li> </ul>	🖵 Brotherton J. (Australia)
MSS 01-A6	HPV vaccination and COVID, Asia	Hanley S. (Japan)
	• Discussion	

፟ Session On-Demand (SOD) 및 Video presentation

覺 MSS 01-B	<b>COVID-19 and cervical cancer screening</b> Chair: F. Carozzi (Italy) - E. Franco (Canada)	9.30 - 11.00
The COVID-19 pandemic adversely impacted all cancer control activities. During several months in 2020, primary care activities aimed at cancer prevention and control were severely curtailed or altogether suspended. All processes related to cervical cancer screening		

at cancer prevention and control were severely curtailed or altogether suspended. All processes related to cervical cancer screening and lesion management were affected. In this session, speakers will provide country-specific and international perspectives on their experience in mitigating the impact of the pandemic on cervical cancer control. They will focus on the lessons learned and strategies to build resilience into screening programs.

MSS 01-B1	Introduction	Franco E. (Canada)
MSS 01-B2	<ul> <li>Cervical screening during the COVID-19 pandemic: optimising recovery strategies</li> </ul>	Carozzi F. (Italy)
MSS 01-B3	<ul> <li>What happened to cervical screening programmes around the world during the pandemic: Reflections from an international assessment</li> </ul>	🖵 Saraiya M. (USA)
MSS 01-B4	<ul> <li>Challenges and opportunities to improve program resilience and reduce screening disparities</li> </ul>	Wentzensen N. (USA)
MSS 01-B5	<ul> <li>Challenges imposed by constraints on the supply chain for cervical cancer screening</li> </ul>	Poljak M. (Slovenia)
MSS 01-B6	Quality assurance in cervical screening during the pandemic	Dillner J. (Sweden)
MSS 01-B7	<ul> <li>A modelled analysis of the impact of disruptions and recovery for cervical screening programs</li> </ul>	🖵 Canfell K. (Australia)
MSS 01-B8	Impact of the pandemic on the future burden of cervical cancer	🖵 Malagón T. (Canada)
	• Discussion	

### **SS - SCIENTIFIC SESSIONS**

## SS 05The utility of urine for improved cervical<br/>cancer prevention<br/>Chair: R. Steenbergen (Netherlands) - S. Van Keer (Belgium)Room 14<br/>8.00 - 9.30

Urine samples offer several advantages over conventional cervical scrapes and self-collected cervico-vaginal samples for cervical cancer prevention. One of the most important advantage being the ease of collection and the wide acceptance by women. The number of studies supporting the use of urine for HPV testing is rising rapidly. Studies on the testing for other biomarkers in urine are just evolving. This session will discuss current developments on the analysis of HPV and methylation markers for the detection of cervical lesions in urine, and the potential of vaccination monitoring using urine as liquid biopsy to detect HPV induced antibodies

SS 05-1	• Introduction	Steenbergen R. (Netherlands) Van Keer S. (Belgium)
SS 05-2	<ul> <li>HPV testing of self-collected first-void urine samples: comparison of performance using devices collecting different urine volumes</li> </ul>	Martinelli M. (Italy)
SS 05-3	<ul> <li>Urinary HPV DNA testing as a tool for cervical cancer screening in French women</li> </ul>	🖵 Lefeuvre C. (France)
SS 05-4	<ul> <li>Clinical evaluation of DNA methylation and HPV DNA testing in urine for cervical intraepithelial neoplasia and cervical cancer detection</li> </ul>	Van Trommel N. (Netherlands)
SS 05-5	<ul> <li>Results on the CASUS study: HPV and DNA methylation testing in ColliPee collected urine samples</li> </ul>	Van Keer S. (Belgium)
SS 05-6	<ul> <li>Results on the performance of S5 classifier on urine samples collected in the PREDICTORS 5.1 study</li> </ul>	Nedjai B. (UK)
SS 05-7	<ul><li> Urine for the monitoring of vaccinated women</li><li> Discussion</li></ul>	Teblick L. (Belgium)

Video presentation

SS 06	Challenges in validation of new assays for cervical cancer screening and management of screen+ women Chair: M. Arbyn (Belgium) - K. Cuschieri (UK)	Room 14 9.30 - 11.00
SS 06-1	• Introduction	Arbyn M. (Belgium)
SS 06-2	<ul> <li>Updated list of 2022 HPV tests validated for screening on cervical samples</li> </ul>	Arbyn M. (Belgium)
SS 06-3	<ul> <li>New findings from the VALHUDES study</li> </ul>	Latsuzbaia A. (Luxembourg)
SS 06-4	<ul> <li>Extended VALHUDES study (how to extend existing validation towards an alternative applications)</li> </ul>	Bonde J. (Denmark)
SS 06-5	<ul> <li>Validation of tests for triage of HPV+ women</li> </ul>	Cocuzza C. (Italy)
SS 06-6	<ul> <li>Validation of new rapid robust affordable HPV test based on CRISPR technology</li> </ul>	🖵 Gheit T. (France)
SS 06-7	<ul> <li>Validation of HPV tests on self-samples in the USA</li> </ul>	🖵 Sahasrabuddhe V. (USA)
	• Discussion	

Video presentation

### **CS - CLINICAL SESSIONS**

CS 01

New strategies for monitoring disease in the test of cure population Chair: K. Cuschieri (UK) - T. Palmer (UK)

Hall X 8.00 - 9.30

Women treated for high grade lesions represent an at-risk population compared to the routinely screened population. HPV testing as an adjunct to cytology can support women as a test of cure (TOC) following treatment. However, women on a TOC pathway can nevertheless find themselves followed up for several years post treatment. Balancing the benefits of robust monitoring with the harms of over-scrutiny and procedures is particularly challenging. In this session we will review the international evidence base for HPV based TOC, hearing from real-life program experience and reflecting on prevailing knowledge "gaps". We will consider modalities that may improve risk stratification and thereby optimize management in the future.

CS 01-1	• Introduction	Cuschieri K. (UK) Palmer T. J. (UK)
CS 01-2	<ul> <li>Global performance of HPV testing as a test of cure and priorities for future research</li> </ul>	🖵 Clarke M. (USA)
CS 01-3	<ul> <li>Delivery of a national test of cure service at 10 years - key outcomes and next step</li> </ul>	Palmer T. J. (UK)
CS 01-4	<ul> <li>Type specific persistence in the test of cure population and implications for management</li> </ul>	lacobone A. D. (Italy)
CS 01-5	<ul> <li>Optimal management of older women treated for CIN; balancing the risks and benefits</li> </ul>	Wang J. (Sweden)
CS 01-6	<ul> <li>Utility and value of HPV vaccine in the colposopy population</li> </ul>	Kyrgiou M. (UK)
	• Discussion	

Video presentation

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### **Cervical adenocarcinoma in situ: a review** Chair: C. Bouchard (Canada) - G. Ogilvie (Canada)

Hall X 9.30 - 11.00

Adenocarcinoma in situ (AIS) of the uterine cervix is an intraepithelial lesion containing malignant appearing glandular epithelium that carries a significant risk of invasive adenocarcinoma if not treated. Most cases of AIS are associated with high-risk types human papillomaviruses but some are not. Declined incidence rates in young women (21 - 24 years of age) have been demonstrated in US since introduction of HPV vaccine. Clinicians are still confronted to deal with the difficulty of identifying these infrequent lesions in colposcopy to offer the optimal management to their patients. This clinical session will review the updated science from epidemiology, histology, pathology, colposcopic features to treatment according to new clinical guidelines.

CS 02-1	• Introduction	Bouchard C. (Canada) Ogilvie G. (Canada)
CS 02-2	• Epidemiology of AIS	P. Sparen (Sweden)
CS 02-3	<ul> <li>Cytology and histology of AIS</li> </ul>	Bergeron C. (France)
CS 02-4	<ul> <li>New pathogenetic classification for invasive adenocarcinoma of the endocervix; implications for the clinician</li> </ul>	및 Darragh T. (USA)
CS 02-5	<ul> <li>Colposcopy evaluation of AIS</li> </ul>	Bornstein J. (Israel)
CS 02-6	• Management of Al	Bentley J. R. (Canada)
	• Discussion	

Monday, April 11

FC 08	<b>Vaccines 2</b> Chair: M. Kyrgiou (UK)	Room 15 8.00 - 9.30
FC 08-1	• Eliminating cervical cancer in Italy: results from mathematical modeling of HPV vaccination impact and DNA screening	Senese F. (Italy)
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FC 08-2	• The public health impact and cost effectiveness of gender neutral 9VHPV vaccination in the Netherlands	Dolk C. (Netherlands)
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FC 08-3	<ul> <li>Girls-only HPV vaccination – impact on the HPV type distribution in young men</li> </ul>	Munk C. (Denmark)
FC 08-4	• The impact of HPV vaccination on HPV prevalence, pre- cancers, cancers: a systematic review on observational and model outcomes	De Bondt D. (Netherlands)
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FC 08-5	<ul> <li>Vaccine effectiveness against persistent genital HPV infections up to ten years after three doses of the bivalent HPV vaccine</li> </ul>	Middeldorp M. (Netherlands)
•••••		•••••••••••••••••••
FC 08-6	• Post-immunization prevalence of HPV infection in gay, bisexual and other men who have sex with men attending specialist sexual health services in England	Checchi M. (UK)
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FC 08-7	<ul> <li>Evidence-based impact projections of single-dose human papillomavirus (HPV) vaccination in India</li> </ul>	Man I. (France)
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FC 08-8	• Estimation of HPV vaccine model parameters and uncertainty from interim analysis of KEN-SHE trial	Daniels V. (USA)

Monday, April 11

FC 09	<b>Vaccines 3</b> Chair: O. Forslund (Sweden)	Room 15 9.30 - 11.00
FC 09-1	<ul> <li>Forecast reduction in RRP in the US attributable to quadrivalent and nonavalent HPV vaccination: a dynamic Transmission modeling study</li> </ul>	Palmer C. (USA)
FC 09-2	• Understanding HPV oral burden and 9-VALENT HPV vaccine efficacy: design of the progress, broaden and V503-049 studies	Morais E. (France)
FC 09-3	• Collaborating to support global elimination of cervical cancer - the "cancer won't wait" program in Canada	Brown V. (Canada)
FC 09-4	<ul> <li>HPV vaccination uptake in boys after introduction of gender-neutral HPV vaccination in Germany including impact of COVID-19 pandemic - a retrospective database analysis</li> </ul>	Wähner C. (Germany)
FC 09-5	• Evidence of cross protection from the bivalent HPV vaccine in young females in England	Milbourn H. (UK)
FC 09-6	• Raising HPV vaccine awareness and advocacy through steam workshops	Macdonald I. (Ireland)
FC 09-7	• National HPV vaccination program in the republic of Uzbekistan	Zakhirova N. (Uzbekistan)

Monday, April 11

FC 10	<b>Diagnostic procedures and management</b> Chair: E. Paraskevaidis (Greece)	Room 16a 8.00 - 9.30
FC 10-1	<ul> <li>Conservative management of women with CIN2 lesions enrolled in a prospective multicentric study: age prevalence and applicability</li> </ul>	Gori S. (Italy)
FC 10-2	• Clearance of High-Risk HPV after Large Loop Excision of Transformation Zone of Early Stage Cervical Cancer and Adenocarcinoma in Situ has a high correlation with absence of residual disease	Siegler E. (Israel)
FC 10-3	• The sync up of colposcopic findings with cervix precancerouses changes in cervix with young female patients	lgor J. (Serbia)
FC 10-4	• Clinical evaluation of the AVE (AI) application VisualCheck 1.5 versus 2.0: comparison with human colposcopic assessment	Glab G. (Poland)
FC 10-5	• Establishment and optimization of a software-based 3D reconstruction workflow for organotypic culture models	Kalteis M. S. (Germany)
FC 10-6	• Efficacy of a multi-ingredient CORIOLUS versicolor- based vaginal gel in high-risk HPV women over 40: sub-analysis of the paloma clinical trial & PAPILOBS real-life study	Gaslain Y. (Spain)
FC 10-7	<ul> <li>Burden of conization and associated healthcare costs in women with cervical intraepithelial neoplasia (CIN)         <ul> <li>an analysis of German statutory health insurance claims data from 2013-2018</li> </ul> </li> </ul>	Luzak A. (Germany)
FC 10-8	• The WERTHEIM-MEIGS hysterectomy in surgical treatment of cervical cancer: six years' experience	Dias Leite S. (Portugal)
FC 10-9	<ul> <li>The impact of lymph node micrometastases on disease free survival in cervical cancer patients         <ul> <li>a retrospective subgroup study of the SCCAN (Surveillance in Cervical CANcer) project</li> </ul> </li> </ul>	Dostalek L. (Czech Republic)
FC 10-10	• Inmunomodulation in viral processes of the cervix	Pingarrón C. (Spain)

Monday, April 11

FC 11	<b>HPV testing</b> Chair: C. Eklund (Sweden)	Room 16a 9.30 - 11.00
FC 11-1	<ul> <li>A new PCR-based detection methodology for human papillomavirus genotyping on cervical brushes and self-collected vaginal samples</li> </ul>	Marini B. (Italy)
FC 11-2	<ul> <li>Comparison of traditional and rapid nucleic acid extraction using a non-alcohol-based medium for vaginal self-samples</li> </ul>	Sechi I. (Italy)
FC 11-3	<ul> <li>New tool in cervical carcinoma prevention: a non- alcohol based medium for the elution of dry self- collected vaginal samples</li> </ul>	Muresu N. (Italy)
FC 11-4	• Vaginal self-sampling as a tool for the prevention of cervical cancer	Del Rio A. (Italy)
FC 11-5	• Clinical validation of full genotyping HPV Selfy assay according to the international guidelines for HPV test requirements for cervical cancer screening on clinician collected and self-collected samples	Marini B. (Italy)
FC 11-6	• Validation of MSWAB™ medium for the elution of FLOQSWABS® for human papillomavirus (HPV) detection on six commercial PCR-based HPV assays	Castriciano S. (Canada)
FC 11-7	<ul> <li>Clinical validation of HPV OncoPredict<sup>®</sup> SCR and QT assays using the VALGENT-2 framework</li> </ul>	Dhillon S. K. (Belgium)
FC 11-8	• International quality assurance of HPV DNA genotyping services: THE 2021 GLOBAL HPV DNA proficiency study	Eklund C. (Sweden)
FC 11-9	<ul> <li>Frequency, distribution, and correlation OF HPV in diverse anogenital and oral samples</li> </ul>	Bräutigam K. (Germany)
FC 11-10	<ul> <li>The quality of anal sampling for HPV genotyping: experience of an epidemiological study</li> </ul>	Wendland E. M. (Brazil)

Auditorium Room 1 14.00 - 15.30	<b>HPV vaccines - Special session</b> Chair: A. Giuliano (USA)	ট্র MSS 02
Giuliano A. (USA)	<ul> <li>Vaccination of older adolescents and adults with the 9-VALENT (9vHPV) and quadrivalent (qHPV) human papillomavirus vaccines: emerging data from clinical trials and real-world studies</li> </ul>	MSS 02-1
Saah A. (USA)	<ul> <li>Efficacy and immunogenicity of the quadrivalent (qHPV) AND 9-VALENT (9vHPV) HPV vaccines in adults: evidence from clinical trials</li> </ul>	MSS 02-2
Sexena K. (USA)	<ul> <li>Sexual behavior and patterns of partnerships in married and non-married adults in the USA: A survey study</li> </ul>	MSS 02-3
Reuschenbach M. (Germany)	• Type-specific clearance rates of prevalent and incident HPV infection in young women	MSS 02-4
Joura E. (Austria)	<ul> <li>Effect of the 9-VALENT human papillomavirus (9vHPV) vaccine in a subgroup of female clinical trial participants who underwent cervical surgery</li> </ul>	MSS 02-5
Palefsky J. (USA)	<ul> <li>Incidence of persistent HPV infection and progression of infection to associated anogenital disease among men in a global HPV vaccine trial</li> </ul>	MSS 02-6
Palmer C. (USA)	<ul> <li>Modelling health impact and cost-effectiveness of HPV vaccination in HIV+ and HIV- men who have sex with men in Germany</li> </ul>	MSS 02-7
Del Pino M. (Spain)	<ul> <li>Risk factors for HPV infection and disease in adults: a literature summary</li> </ul>	MSS 02-8
Reuschenbach M. (Germany)	<ul> <li>Real world evidence of 4VHPV/9VHPV vaccine effectiveness and impact in high-risk populations</li> </ul>	MSS 02-9
	Discussion	

**Coffee Break** 

15.30 - 16.00

Monday, April 11

### **MSS - MAIN SCIENTIFIC SESSIONS**

ট্র MSS 03	New evidence on the effectiveness of HPV vaccination against invasive cervical cancer: a global view Coordinators: A. Kreimer (USA) - J. Z. Shing (USA) Chair: S. Sudenga (USA) - P. Sasieni (UK)	Auditorium Room 1 16.00 - 18.00
research endpoint. Th then go into a series	s the recent and novel global findings of HPV vaccine effectiveness against cer ne session will begin with an overview of why studying vaccine prevention again of country-specific examples and plans for future HPV vaccine effectiveness stu on will conclude with a presentation on methodologic considerations in these stud	nst cancer is important and dies against cervical cancer.
MSS 03-1	<ul> <li>Introduction: Cervical cancer endpoints in HPV vaccine effectiveness studies</li> </ul>	🖵 Shing J. Z. (USA)
MSS 03-2	<ul> <li>Country-specific case studies of HPV vaccine effectiveness against cervical cancer: Sweden</li> </ul>	Lei J. (Sweden)
MSS 03-3	<ul> <li>Country-specific case studies of HPV vaccine effectiveness against cervical cancer: Denmark</li> </ul>	Kjaer S. (Denmark)
MSS 03-4	<ul> <li>Country-specific case studies of HPV vaccine effectiveness against cervical cancer: Scotland</li> </ul>	Palmer T. J. (UK)
MSS 03-5	<ul> <li>Country-specific case studies of HPV vaccine effectiveness against cervical cancer: England</li> </ul>	Sasieni P. (UK)
MSS 03-6	Real-world HPV vaccine effectiveness studies:     guideposts for interpretation	🖵 Campos N. G. (USA)
	Discussion	

Isession On-Demand (SOD)
☐ Video presentation

### **SS - SCIENTIFIC SESSIONS**

SS 07	Targeting high risk populations for control of HPV related cancer	Hall X 14.00 - 16.00
SS 07-A	<b>Screening</b> Chair: H. Berkhof (Netherlands) - N. Wentzensen (USA)	14.00 - 15.00
SS 07-A1 SS 07-A2 SS 07-A3 SS 07-A4 SS 07-A5	<ul> <li>Introduction</li> <li>Risk-based screening: European perspective</li> <li>Risk-based screening: US perspective</li> <li>Risk-based screening: Australian perspective</li> <li>Screening in HIV populations</li> <li>Discussion</li> </ul>	Wentzensen N. (USA) Berkhof J. H. (Netherlands) Wentzensen N. (USA) 및 Smith M. (Australia) 및 De Sanjosé S. (Spain)
		및 Video presentation
SS 07-B	<b>Vaccination</b> Chair: P. Bonanni (Italy)	15.00 - 16.00
SS 07-B1 SS 07-B2 SS 07-B3 SS 07-B4 SS 07-B5	<ul> <li>Introduction</li> <li>HPV vaccination after vulvar HSIL: impact on recurrence</li> <li>Assessing value of vaccine in women with cone</li> <li>Prevention of anal HSIL in young HIV positive men who have sex with men</li> <li>How to become "at risk" due to an abandoned vaccination policy: the Japanese experience</li> <li>Discussion</li> </ul>	Bonanni P. (Italy) Joura E. (Austria) Jentschke M. (Germany) Palefsky J. (USA) Hanley S. (Japan)
SS 08	Screening in special situations: from evidence to practical guidance Chair: A. B. Moscicki (USA) - E. Siegler (Israel)	Hall X 16.00 - 17.30
SS 08-1	Introduction	Moscicki A. B. (USA)

		Siegler E. (Israel)
SS 08-2	<ul> <li>Screening in immunocomprimised patients</li> </ul>	Moscicki A. B. (USA)
SS 08-3	• Low-income	Smith J. (USA)
SS 08-4	Post-treatment	Kyrgiou M. (UK)
SS 08-5	<ul> <li>Anal screening in HIV and non-HIV women</li> </ul>	Palefsky J. (USA)
SS 08-6	<ul> <li>Follow up of abnormal screening in pregnant women</li> </ul>	Siegler E. (Israel)
	Discussion	

FC 12	HPV disease and COVID-19 Chair: J. Smith (USA)	Room 14 14.00 - 15.30
FC 12-1	• The impact of COVID-19 ON the Dutch cervical cancer screening programme	Olthof E. (Netherlands)
FC 12-2	<ul> <li>Influence of COVID-19 pandemic on participation in HPV self-testing trial</li> </ul>	Parker S. (USA)
FC 12-3	<ul> <li>Intention to receive COVID-19 vaccination relates to HPV vaccination receipt among young adults ages 18- 26 years in the western region of the USA</li> </ul>	Kepka D. (USA)
FC 12-4	• Realization of WHO global strategy on cervical cancer elimination in Russia in the COVID-19 era	Olkov I. (Russia)
FC 12-5	<ul> <li>Preliminary proof and suggestion from the clinical data of multicenter research on the application of real-time optoelectronic device for cervical cancer screening: in the repeated surges of COVID-19 epidemics</li> </ul>	Chen F. (USA)
FC 12-6	Prevalence of genital HPV infections among female transplant recipients	Hillen C. (Germany)
FC 12-7	• The impact of COVID-19 on the implementation of progress (PRevalence of Oral HPV infection, a Global aSSessment) study	Morais E. (France)

15.30 - 16.00

FC 13	<b>Microbiome</b> Chair: K. Sundström (Sweden)	Room 14 16.00 - 17.00
FC 13-1	• Metagenomes in HPV negative cervical cancers	Lagheden C. (Sweden)
FC 13-2	• The interplay between HPV, CVM DYSBIOSIS and cervical cancer development (MICROCERVIXHPV STUDY)	Nobre J. G. (Portugal)
FC 13-3	• Longitudinal study of vaginal microbiome pre and post treatment identifies biomarkers for cervical intraepithelial NEOPLASIA 3 (CIN3)	Scibor-Bentkowska D. (UK)
FC 13-4	<ul> <li>Effectiveness of a multi-ingredient CORIOLUS versicolor-based vaginal gel in HPV+ and HIV+ patients: a pilot observational study</li> </ul>	Sanmartín P. (Spain)

FC 14	<b>Self-sampling 1</b> Chair: B. Hesselink (Netherlands)	Room 15 14.00 - 15.30
FC 14-1	<ul> <li>First-void urine: a reliable approach for cervical cancer screening</li> </ul>	Hendrickx J. (Belgium)
FC 14-2	<ul> <li>Clinical evaluation of HPV-DNA testing in home- collected first-void urine compared to paired cervical samples: update on VALHUDES</li> </ul>	Van Keer S. (Belgium)
FC 14-3	• Explorative study on device architectures for defined ranges of first-void urine collection	Beyers K. (Belgium)
FC 14-4	<ul> <li>Acceptability of HPV self-sampling test in a population of Latvian women (preliminary data)</li> </ul>	Berza N. (Latvia)
FC 14-5	• Effects of environmental conditions on home-based self-sampling kits for anal cancer screening	Nitkowski J. (USA)
FC 14-6	<ul> <li>Validation of the HPV ONCOPREDICT® assay on self- collected vaginal and urine samples: preliminary Italian data of the EUROPEAN-VALHUDES study</li> </ul>	lacobone A. D. (Italy)
FC 14-7	• SELF- VERSUS clinician-collected samples for the detection of HPV by 14-type DNA and 7-TYPE mRNA tests	Aranda Flores C. E. (Mexico)
FC 14-8	• The extended validation of human papillomavirus assays and collection devices for HPV testing (extended VALHUDES): the IEO experience	Bottari F. (Italy)
FC 14-9	• Validation of the clinical performance and reproducibility of the NEUMODX HPV assay self-sample workflow	Hesselink B. (Netherlands)
FC 14-10	• Self-collection test performance for high-risk HPV RNA detection among HIV-positive and HIV-negative women engaged in female sex work in Kenya	Lee F. (USA)

**Coffee Break** 

15.30 - 16.00

Monday, April 11

FC 15	<b>Self-sampling 2</b> M. Jentschke (Germany)	Room 15 16.00 - 17.30
FC 15-1	• A randomized, large-scale comparison of direct mail versus opt-in HPV self-sampling invitation strategy: participation rates, participants, follow-up, and cost of last attender	Sonne S. B. (Denmark)
FC 15-2	• Realistic population-based cost-effectiveness estimates for wider deployment of HRHPV self-sampling: a modelling study	Kaljouw S. (Netherlands)
FC 15-3	• Factors associated with mailed return of self-collection for human papillomavirus (HPV) testing	Biederman E. (USA)
FC 15-4	• HPV self-sampling in the capital region of Denmark - new operational experiences	Pedersen B. T. (Denmark)
FC 15-5	<ul> <li>HaSCo Study: First results of a pilot study for systematic HPV self-sampling for non-responders to the cervical cancer screening program</li> </ul>	Jentschke M. (Germany)
FC 15-6	<ul> <li>The emerging role and opinion about implementation of HPV self-sampling in Germany: a mixed methods study</li> </ul>	Payrich EM. (Germany)
FC 15-7	<ul> <li>Analytical stability of ROVERS EVALYN and COPAN FLOQSWAB HPV self-sampling devices; implications for use</li> </ul>	Korsgaard Andreasen E. (Denmark)
FC 15-8	• Effect of HPV self-collection on cervical cancer screening completion among low-income, under-screened people with a cervix in the US: my body, my test 3 study	Pretsch P. (USA)
• • • • • • • • • • • •	•••••••••••••••••••••••••••••••••••••••	• • • • • • • • • • • • • • • • • • • •
FC 15-9	<ul> <li>Prevalence of high-risk HPV by RNA assay in home self-collected samples among underscreened people in North Carolina</li> </ul>	Lee F. (USA)

Hall X 8.00 - 9.30	Routine HPV screening: how to modulate and manage HPV screening by age Chair: P. Giorgi Rossi (Italy) - G. Ogilvie (Canada)	MSS 04
Giorgi Rossi P. (Italy) Ogilvie G. (Canada)	• Introduction	MSS 04-1
Van Niekerk D. (Canada)	<ul> <li>Outcomes of HPV primary screening 10 years later in 25–29-year-old (FOCAL)</li> </ul>	MSS 04-2
🖵 Saville M. (Australia)	<ul> <li>Screening outcomes in vaccinated populations by age (COMPASS or the overall VCS results)</li> </ul>	MSS 04-3
Rebolj M. (UK)	<ul> <li>Impact of different assays by age</li> </ul>	MSS 04-4
Giorgi Rossi P. (Italy)	<ul> <li>Acceptability of HPV primary screening by age – impacts on screening policy</li> </ul>	MSS 04-5
🖵 Money D. (Canada)	<ul> <li>Screening with HPV in HIV+ women by age</li> </ul>	MSS 04-6
Bentley J. R. (Canada)	<ul> <li>Triage and colposcopy impact by age</li> </ul>	MSS 04-7
	• Discussion	
ତ Session On-Demand (SOD) پ Video presentation		

**Coffee Break** 

9.30 - 10.00

 	HPV vaccination strategies, impact and safety by age, current knowledge	Hall X 10.00 - 11.30
	Chair: J. Dillner (Sweden) - A. Giuliano (USA)	10.00 - 11.50

Many countries all over the world have implemented HPV vaccination programs and the impact of different vaccination strategies such as gender-neutral vaccination or different target ages are starting to show in vaccine effectiveness against infection, genital warts, cervical pre-cancer, and cancer. The design of HPV vaccine programs and the results of these efforts will be presented for a variety of countries including Rwanda, Bhutan, Finland, Scotland, and Spain.

Giuliano A. (USA)	Introduction	MSS 05-1
Clifford G. (France)	<ul> <li>The implementation and success of the vaccination program in Rwanda</li> </ul>	MSS 05-2
🖵 Tshomo U. (Bhutan)	<ul> <li>The implementation and success of the vaccination program in Bhutan</li> </ul>	MSS 05-3
Pimenoff V. (Sweden)	<ul> <li>The implementation of gender-neutral vaccination in Finland and the outcomes from this program</li> </ul>	MSS 05-4
Cuschieri K. (UK)	<ul> <li>The success of the vaccination program in Scotland</li> </ul>	MSS 05-5
🖵 Bruni L. (Spain)	Mid-adult female vaccination and outcomes	MSS 05-6
	Discussion	

# Image: Assessing risk of cervical cancerHall XImage: MSS 06in the post vaccination era13.15 - 14.45Chair: J. Dillner (Sweden) - M. Lehtinen (Finland)13.15 - 14.45

The scientific session: "Assessing risk of cervical cancer in the post-vaccination era" seeks to understand the demands of cervical intraepithelial neoplasia/squamous intraepithelial lesion triage now that the prevalence of vaccine-targeted oncogenic human papillomaviruses is decreasing. The plenary lecture of Ville Pimenoff on the changing ecological diversity of HPV types is followed by presentations by Belinda Nedjai, Karolina Louvanto and Lisanne Verhoef which describe the use of cellular and viral gene methylation in the triage of both unvaccinated women with HSIL and vaccinated women with a breakthrough HSIL lesion. Mariam El-Zein will elaborate, most importantly the predictive positive value challenges new triage modalities will be face when background HPV prevalence is decreasing. Finally, Martin Widschwendter will be putting future cervical cancer risk prediction in the context.

MSS 06-1	Introduction	Lehtinen M. (Finland)
MSS 06-2	<ul> <li>Challenges to cervical screening from changing HPV ecology</li> </ul>	Pimenoff V. (Sweden)
MSS 06-3	<ul> <li>The role of methylation in the progression of cervical neoplasia</li> </ul>	Nedjai B. (UK)
MSS 06-4	<ul> <li>Combined S5 methylation panel in the CIN triage of vaccinees</li> </ul>	Louvanto K. (Finland)
MSS 06-5	<ul> <li>VUMC: cellular methylation markers in the CIN triage of HPV-vaccinated women</li> </ul>	Verhoef D. L. (Netherlands)
MSS 06-6	<ul> <li>Reassessing predictive value in the post-vaccination CIN triage</li> </ul>	🖵 El Zein M. (Canada)
MSS 06-7	<ul> <li>Implementing cervical cancer risk prediction in the post-vaccination era</li> </ul>	Widschwendter M. (UK)
	Discussion	
		Session On-Demand (SOD)

Session On-Demand (SOD)

**Coffee Break** 

14.45 - 15.15

MSS 07 🔮	HPV screening: first experiences	Hall X 15.15 - 18.15
لاً MSS 07-A	<b>HPV screening in the real life, the first experiences</b> Chair: J. Bonde (Denmark) - S. Van Dijk (Netherlands)	15.15 - 16.45
MSS 07-A1	Introduction	Bonde J. (Denmark) Van Dijk S. (Netherlands)
MSS 07-A2	<ul> <li>Large scale data comparing current cytology to HPV screening combining cytology and extended HPV genotyping triage (Denmark)</li> </ul>	Bonde J. (Denmark)
MSS 07-A3	<ul> <li>Large scale data comparing current cytology to HPV screening combining cytology and extended HPV genotyping triage (Latin America)</li> </ul>	Almonte M. (France)
MSS 07-A4	<ul> <li>Experiences with organized national HPV-primary screening since 2017 in the Netherlands</li> </ul>	Van Dijk S. (Netherlands)
MSS 07-A5	• Experiences from HPV-primary screening in Scotland	Wilson A. (Scotland)
MSS 07-A6	<ul> <li>Experiences from HPV-primary screening in Ireland</li> </ul>	Russell N. (Ireland)
MSS 07-A7	<ul> <li>Experiences from HPV-primary screening in USA</li> </ul>	Wentzensen N. (USA)
MSS 07-A8	• Experiences from HPV-primary screening in Australia	🖵 Brotherton J. (Australia) 🖵 Smith M. (Australia)
MSS 07-A9	<ul> <li>Results from the second round of screening in real life and implication for screening algorithm (Italy)</li> </ul>	Carozzi F. (Italy)
	• Discussion	

16.45 - 18.15

	HPV self-sampling -	
🔮 MSS 07-B	Real life implementation experiences	
	Chair: J. Bonde (Denmark) - S. Van Dijk (Netherlands)	

HPV self-sampling is increasingly being introduced to provide an alternative to the clinician collected cervical screening sample. This session will present experiences from large-scale implementation of HPV self-sampling. The speakers will share the context in which HPV self-sampling has been introduced; the target population, communication strategy, reflections on choice of utensils and packaging materials, HPV test and algorithms, along with data on uptake of HPV self-sampling

MSS 07-B1	Introduction	Bonde J. (Denmark)
MSS 07-B2	Implementation of self-collection: the Australian Experience	🖵 Saville M. (Australia)
MSS 07-B3	<ul> <li>Self-sampling within routine cervical cancer screening in Region of Skåne, Sweden</li> </ul>	Forslund O. (Sweden)
MSS 07-B4	<ul> <li>The Dutch are embracing HPV self-sampling: real life experiences since 2017 and plans for the future</li> </ul>	Van Dijk S. (Netherlands)
MSS 07-B5	<ul> <li>Inviting 100.000 screening non-attenders for HPV self- sampling: design, algorithms, uptake and outcomes</li> </ul>	Bonde J. (Denmark)
	Discussion	

### **SS - SCIENTIFIC SESSIONS**

SS 09	Artificial intelligence and digital pathology applications in cancer screening Chair: N. Wentzensen (USA)	Room 14 8.00 - 9.30
SS 09-1	Introduction and AI applications in cervical screening	Wentzensen N. (USA)
SS 09-2	Automated dual stain for anal cancer screening	🖵 Clarke M. (USA)
SS 09-3	<ul> <li>Improving histologic endpoints: Role of digital pathology and artificial intelligence</li> </ul>	Grabe N. (Germany)
SS 09-4	<ul> <li>Cervical precancer risk prediction using extended genotyping and automated visual evaluation</li> </ul>	🖵 Egemen D. (USA)
	• Discussion	

HPV latency and clinical implications Chair: A. B. Moscicki (USA)	Room 15a 8.00 - 9.30

Although the concept of Latency of HPV remains somewhat controversial, most agree that biologically it is certainly plausible and in vitro models support this concept. A greater question is whether this is true for ALL women or for only a portion of women who are vulnerable whether they may be genetically unable to clear the virus, or based on the cell type infected (e.g. junctional stem cell)? From epidemiology studies, it is difficult to differentiate latency vs new infections since a) sexual transmission studies repeatedly demonstrate the 'ease' of transmission between couples, b) studies of "monogamous "couples cannot account for infidelity, c) the vagina and anus can be reservoirs among those not reporting recent sexual activity and d) lack of detection does not necessarily translate to true latency, rather it may reflect "low levels" of replication, lower than the assay can detect and of course, sampling error. Many of these issues will be addressed in a lively session which will include not only discussions around the cervix, but also the new frontiers of the oral cavity and anus.

SS 10-1	Introduction	Moscicki A. B. (USA)
SS 10-2	<ul> <li>HPV latency vs reactivation of the cervix</li> </ul>	Moscicki A. B. (USA)
SS 10-3	<ul> <li>Biology of HPV latency and epitomal maintenance proteins</li> </ul>	Kaufmann A. (Germany)
SS 10-4	<ul> <li>HPV latency of oropharynx</li> </ul>	D'Souza A. (USA)
SS 10-5	• HPV latency in the anal tract	Burchell A. (Canada)
SS 10-6	<ul> <li>HPV reactivation in older women</li> </ul>	Rositch A. (USA)
	Discussion	

#### **Coffee Break**

9.30 - 10.00

### **SS - SCIENTIFIC SESSIONS**

SS 11

Innovative SARS-CoV-2 diagnostic devices: opportunity for worldwide HPV screening Chair: M. Poljak (Slovenia)

Room 15a 10.00 - 11.30

Significant recent COVID-19-related investments in manufacturing capacity, innovations in molecular and antigen-based COVID-19 portable testing devices, and reuse of neglected technologies can be readily transformed to advance HPV point-of-care and field testing. In addition, fully integrated, automated sample-to-result molecular analyzers and platforms initially installed for COVID-19 testing can be successfully applied to HPV-based cervical cancer screening on a large scale. Well-trained laboratory personnel who support the delivery of COVID -19 testing can also apply their skills to HPV testing. Massive COVID-19 self-sampling and self-testing showed that is worth exploring if we can duplicate these efforts also in the HPV world. The HPV community should be alert to the opportunities for innovation and capacity if the goals of cervical cancer elimination are to be achieved.

SS 11-1 Introduction Poljak M. (Slovenia) Oštrbenk Valenčak A. (Slovenia) SS 11-2 • Commercial HPV tests: what's on the market and what's not (and what we desperately need)? SS 11-3 • Post-COVID-19 release of workforce and fully Cuschieri K. (UK) integrated, automated sample-to-result molecular analyzers as a unique opportunity for high-throughput **HPV** screening SS 11-4 Can innovations in molecular COVID-19 portable Poljak M. (Slovenia) testing devices and reuse of neglected technologies be transformed to advance HPV point-of-care and field testing? SS 11-5 Large-scale COVID-19 antigen testing: are similar HPV Almonte M. (France) dreams allowed?

 SS 11-6
 Massive COVID-19 self-sampling and self-testing: can we duplicate this in the HPV world?
 Discussion

**Uvideo** presentation

## **SS - SCIENTIFIC SESSIONS**

<sup>©</sup> SS 12	The role of HPV circulating DNA for the surveillance of cancer recurrence in HPV-associated cancer Chair: H. Mirghani (France)	Room 16a 10.00 - 11.30
SS 12-1	<ul> <li>Current surveillance paradigm for HPV-positive OPC - Can we do better?</li> </ul>	Mirghani H. (France)
SS 12-2	<ul> <li>How droplet digital PCR improves HPV Ct DNA detection?</li> </ul>	Peré H. (France)
SS 12-3	<ul> <li>HPV Ct DNA for the surveillance of recurrence in HPV- driven OPC: University of North Carolina School of medicine experience</li> </ul>	Chera B. S. (USA)
SS 12-4	<ul> <li>HPV Ct DNA for the surveillance of recurrence in HPV- driven OPC: The Royal Marsden hospital experience</li> </ul>	🖵 Bhide S. (UK)
SS 12-5	<ul> <li>HPV Ct DNA as a marker for early detection of relapse in cervical and anal cancer</li> </ul>	Jeannot E. (France)
	Discussion	

Isession On-Demand (SOD) ☐ Video presentation

#### SS 13

Gaps in knowledge and promising research directions in HPV and cancer

Room 14 13.00 - 14.30

Chair: E. Franco (Canada)

For more than 25 years EUROGIN has provided a forum for experienced clinical and public health scientists to discuss the knowledge gaps and needed research directions for the prevention and control of HPV infection and its associated diseases. EUROGIN asked a few key leaders to provide thoughtful summaries of what they think would be strategically important to advance this goal. The cervical cancer elimination target, launched in late 2020 by the World Health Organization, is the primary concern in the presenters' viewpoints, as they address the question of how the world can reach this laudable goal efficiently and equitably

Franco E. (Canada)	Introduction	SS 13-1
Giuliano A. (USA)	<ul> <li>Towards cervical cancer elimination - promising research directions</li> </ul>	SS 13-2
Dillner J. (Sweden)	<ul> <li>Which laboratory-derived data do we need to optimize cervical cancer elimination strategies?</li> </ul>	SS 13-3
🖵 De Sanjosé S. (Spain)	<ul> <li>Promises and perils in the emerging landscape of cervical screening</li> </ul>	SS 13-4
🖵 Brotherton J. (Australia)	<ul> <li>Integrating vaccination and screening - needed research directions</li> </ul>	SS 13-5
Lehtinen M. (Finland)	<ul> <li>HPV eradication - what still needs to be known?</li> </ul>	SS 13-6
Ogilvie G. (Canada)	<ul> <li>Bridging the gap between the global north and global south for HPV prevention</li> </ul>	SS 13-7
	Discussion	

## **CS - CLINICAL SESSIONS**

CS 03	<b>New developments in colposcopy practice</b> Chair: E. Paraskevaidis (Greece)	Room 14 10.00 - 11.30
1 13 3	ar-old technique but still pivotal in modern HPV based screening. It is cha hall reflect the current status, its challenges and outlook for tomorrow	allenged by declining prevalence of CIN
CS 03-1	Introduction	Paraskevaidis E. (Greece)
CS 03-2	<ul> <li>Colposcopy in the era of triage markers</li> </ul>	Berkhof J. H. (Netherlands)
CS 03-3	Colposcopy - a challenge for AI	Von Knebel Döberitz M. (Germany)
CS 03-4	<ul> <li>ValCOLP a protocol for evaluation and comparison of colposcopy devices</li> </ul>	Arbyn M. (Belgium)
CS 03-5	<ul> <li>Vaginal microbioma &amp; cervical pathology</li> </ul>	Kyrgiou M. (UK)
CS 03-6	<ul> <li>New technologies to aid coloscopy</li> </ul>	Martin Hirsch P. (UK)
CS 03-7	<ul> <li>Individualising management in cervical pathology</li> </ul>	Paraskevaidis E. (Greece)
	Discussion	

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### Clinical applications of emerging sequencing technologies Chair: K. Cuschieri (UK) – K. Sundström (Sweden)

Room 14 15.00 - 16.00

Molecular platforms capable or resolving minute quantities of cellular and viral targets at great precision and depth have increased, in their capacity and scope, exponentially over the last decade Further they are no longer solely the province of academia and are being seen increasing in service laboratories. How such technologies can be used to (1) understand the natural history of disease and recurrence (2) search for credible biomarkers (3) offer options for risk stratification - to improve the patient pathway are aspects that we will cover in this session. As well as gaining an understanding of the potential of "next generation" technologies for clinical application, challenges for translation and operation(s) will be discussed.

CS 04-1	• Introduction	Cuschieri K. (UK) Sundström K. (Sweden)
CS 04-2	<ul> <li>Deep-diving for HPV in cervical cancers using next generation sequencing</li> </ul>	Arroyo Muhr S. (Sweden)
CS 04-3	<ul> <li>Liquid biopsy for post treatment monitoring of HPV driven disease</li> </ul>	Bhide S. (UK)
CS 04-4	<ul> <li>Implications of HPV variants on disease outcomes</li> </ul>	🖵 Mirabello L. (USA)
CS 04-5	<ul> <li>NGS approaches for the detection of epigenetic signatures of disease</li> </ul>	Nedjai B. (UK)
CS 04-6	<ul> <li>Genome wide micro RNA analysis to inform biomarker design</li> </ul>	Snoek B. (Netherlands)
	Discussion	

Video presentation

**Coffee Break** 

16.00 - 16.30

## **CS - CLINICAL SESSIONS**

CS 05

**Applying methylation assays for clinical use** Chair: D. Heideman (Netherlands) - C. Meijer (Netherlands)

Room 14 16.30 - 18.00

Disruption of DNA methylation patterns is one of the hallmarks of cancer. Host cell DNA methylation has shown to contribute to the development and progression of HPV-induced cervical cancer. Furthermore, the HPV genome itself becomes a target of the cellular DNA methylation machinery. These findings are now increasingly being used as morphology-independent biomarkers in cervical cancer prevention and diagnostics. This session will highlight clinical applications of methylation assays, including treatment guidance and prevention of overtreatment of CIN, reassurance test, primary triage of HPV-positive women, and secondary triage for women with minor cytological abnormalities.

n D. (Netherlands)	Heideman D	ation assays for clinical use	S 05-1 • Introdu	CS 0!
k S. (Netherlands)	Dick S	markers as guidance for CIN2/3	S 05-2 • Use of manag	CS 05
n B. (Netherlands)	Wisman B	cervical screening by methylation	S 05-3 • Triage marke	CS 05
r C. (Netherlands)	Meijer C	/-positive women with ASC-US/LSIL kers	S 05-4 • Manag by met	CS 05
mpl M. (Germany)	Hamp	reatment of pregnant women by s	S 05-5 • Preven methy	CS 05
Nedjai B. (UK)		low - and middle-income countries	S 05-6 • Methyl	CS 0!
			• Discus	

# WS - SPECIALIZED WORKSHOP WS 03 - VULVAR DISEASES WORKSHOP

Coordinators: G. Donders (Belgium) - J. Paavonen (Finland) -

J. Bornstein (Israel) - M. Preti (Italy) - P. Vieira-Baptista (Portugal)

WS 03	Vulvar Diseases Workshop	Room 15a 13.15 - 18.15
WS 03-A	<b>Part A</b> Chair: G. Donders (Belgium)	13.15 - 14.45
WS 03-A1	<ul> <li>Vulvar dermatoses: natural history and risk for malignancy</li> </ul>	🖵 Stary A. (Austria)
WS 03-A2	<ul> <li>Vaginal dysbiosis: bacterial vaginosis and aerobic vaginitis</li> </ul>	Donders G. (Belgium)
	• Vulvodynia	Donders G. (Belgium)
WS 03-A4	Selected case presentations	
	Discussion	
		🖵 Video presentation
Coffee Break		및 Video presentation 14.45 - 15.15
Coffee Break WS 03-B	<b>Part B - Stump the expert</b> Chair: J. Bornstein (Israel) - M. Preti (Italy) - P. Vieira-Baptista (Portugal)	- -
WS 03-B	<b>Part B - Stump the expert</b> Chair: J. Bornstein (Israel) - M. Preti (Italy) - P. Vieira-Baptista (Portugal) on the expert's diagnosis and management will be questi ience. We will go through the approach to diagnosing, cla	14.45 - 15.15 15.15 - 18.15 oned by the panel members
WS 03-B In this session and the audi vulvar condition	Part B - Stump the expert Chair: J. Bornstein (Israel) - M. Preti (Italy) - P. Vieira-Baptista (Portugal) on the expert's diagnosis and management will be questi ience. We will go through the approach to diagnosing, cla ons.	14.45 - 15.15 15.15 - 18.15 oned by the panel members ssifying, and treating various Bornstein J. (Israel) Hampl M. (Germany)
WS 03-B In this session and the audi	<b>Part B - Stump the expert</b> Chair: J. Bornstein (Israel) - M. Preti (Italy) - P. Vieira-Baptista (Portugal) on the expert's diagnosis and management will be questi ience. We will go through the approach to diagnosing, cla	14.45 - 15.15 15.15 - 18.15 oned by the panel members posifying, and treating various Bornstein J. (Israel)

## **FC - FREE COMMUNICATIONS**

FC 16	<b>Immunology and immunotherapy</b> Chair: S. Van der Burg (Netherlands)	Room 16a 16.45 - 18.00
FC 16-1	<ul> <li>Characterization of peripheral blood t-lymphocyte subsets among mothers with persistent genital or oral HPV16 infection and their children</li> </ul>	Suominen H. (Finland)
FC 16-2	• Mechanism of HPV16 E2 promoting its persistent infection by inhibiting cGAS-STING signaling pathway	Tian P. (China)
FC 16-3	• Empower-cervical 1/GOG-3016/ENGOT-CX9: result of phase 3 trial of CEMIPLIMAB vs investigator's choice chemotherapy in recurrent/metastatic cervical carcinoma	Tewari K. S. (USA)
FC 16-4	<ul> <li>Impact of CEMIPLIMAB on quality of life, functioning and symptoms in patients with recurrent/metastatic cervical carcinoma: results from empower-cervical 1/ GOG-3016/ENGOT-CX9</li> </ul>	Monk B. J. (USA)
FC 16-5	• Local immune status related to SIL: specialities and possibilities for immunomodulation with solutions treated with ultrasound cavitation	Kononova I. (Russia)

### HN - HPV AND HEAD & NECK FORUM

### Coordinators: J. P. Klussmann (Germany) - K. A. Lang Kuhs (USA) - E. Rettig (USA)

**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 the emerging role of biomarkers in screening and management of HPV-related oropharyngeal cancer, updates epidemiological data, emphasizes survivorship and surveillance, highlights deintensification trials and other therapeutic innovations, and a dedicated session focusing on molecular & immunologic considerations.

لا HN 01	<b>Screening, prevention and epidemiology</b> Chair: K. A. Lang Kuhs (USA) - T. Waterboer (Germany)	Room 16a 14.00 - 15.30
HN 01-1	• Introduction	Lang Kuhs K. A. (USA) Waterboer T. (Germany)
HN 01-2		D'Souza A. (USA)
HN 01-3	• Updates in epidemiologic trends - oral HPV infection & HPV-OPC	🖵 Alemany L. (Spain)
HN 01-4		Giuliano A. (USA)
HN 01-5	<ul> <li>Absolute risk of oropharyngeal cancer after an HPV16-E6 serology test and implications for screening</li> </ul>	Robbins H. (France)
HN 01-6	<ul> <li>Screening for HPV-OPC: Overview of screening concepts</li> </ul>	Waterboer T. (Germany)
HN 01-7	• Screening trial updates	Sturgis E. (USA)
	• Discussion	
		Session On-Demand (SOD)

Session On-Demand (SOD) ↓ Video presentation

**Coffee Break** 

15.30 - 16.00

**WEARED SET ACCELERATING DETECTION AND ELEMENTS OF THE ADDRESS OF** 

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

HN 02	Survivorship & surveillance Chair: E. Rettig (USA)	Room 16a 16.00 - 17.30
HN 02-1	• Introduction	Rettig E. (USA)
HN 02-2	• ctHPVDNA for Surveillance of HPV-positive Oropharynx Cancer	🖵 Chera B. S. (USA)
HN 02-3	Patient concerns, priorities & decision-making	Windon M. (USA)
HN 02-4	• Swallowing evaluation, interventions, and outcomes	Starmer H. (USA)
HN 02-5	<ul> <li>The psychology of surviving a sex/STI-linked cancer like HPV-associated cancer</li> </ul>	Osazuwa-Peters N. (USA)
HN 02-6	• HNC survivorship	🖵 Murphy B. (USA)
	• Discussion	

∲ Session On-Demand (SOD) 및 Video presentation

④ HN 03	<b>Management / Clinical trials</b> Chair: J. P. Klussmann (Germany)	Room 16a 17.30 - 19.00
HN 03-1	• Introduction	Klussmann J. P. (Germany)
HN 03-2	<ul> <li>Radiation reduction in human papillomavirus related oropharyngeal cancer</li> </ul>	🖵 Lee N. Y. (USA)
HN 03-3	• Deintensification of adjuvant radiation after surgery for HPV+ OPC	🖵 Ma D. (USA)
HN 03-4	• Management of incurable disease or clinical trials for incurable disease	🖵 Massarelli E. (USA)
HN 03-5	• Work-up of unknown primary	🖵 Holsinger C. (USA)
HN 03-6	• Neoadjuvant immunotherapy	Mirghani H. (France)
HN 03-7	• Pathos trial	🖵 Jones T. (UK)
	Discussion	

**WEARED SET ACCELERATING DETECTION AND ELEMENTS** 

Tuesday, April 12

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

<b>틏</b> HN 04	<b>Submitted papers</b> Chair: T. Dalianis (Sweden)	Room 16a 8.00 - 9.30
HN 04-1	<ul> <li>Prevalence and incidence of oral-HPV among people living with HIV: what do we know?</li> </ul>	Mandishora R. (USA)
HN 04-2	<ul> <li>Detection of circulating tumor human papillomavirus DNA before diagnosis of HPV-positive head and neck cancer</li> </ul>	Rettig E. (USA)
HN 04-3	• Experimental studies with combinations of targeted therapy on HPV positive and negative tonsillar and base of tongue cancer lines reveals synergistic effects	Holzhauser S. (Sweden)
HN 04-4	<ul> <li>Promising epigenetic biomarker for improved detection of head and neck cancer in non-invasive specimen</li> </ul>	Hoyer C. (Germany)
HN 04-5	• Whole exome sequencing of HPV positive tonsillar and base of tongue squamous cell carcinomas reveals a global mutational pattern along with relapse-specific somatic variants	Dalianis T. (Sweden)
HN 04-6	<ul> <li>Attributable fraction of HPV in advanced stage head and neck cancers per geographical region: results from a systematic literature review – the 'ALARM' study</li> </ul>	
HN 04-7	<ul> <li>HPV related oropharyngeal cancer : a noninstitutional experience of upfront mini-invasive transoral surgery (TOS) versus curative chemoradiation</li> </ul>	Zorzi S. F. (Italy)
HN 04-8	<ul> <li>Assessing the burden of HPV-related head and neck cancers in mainland China: the design of BROADEN-China study</li> </ul>	Qiao Y. L. (China)
HN 04-9	• The value of p16 and HPV DNA in non-tonsillar, non- base of tongue oropharyngeal cancer	Ursu R. G. (Romania)

🕏 Session On-Demand (SOD)

**EUROGIN 2022** Accelerating detection and elimination of HPV and related cancers

Tuesday, April 12

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

ট্র HN 05	<b>Carcinogenesis &amp; molecular characterization</b> Chair: S. Virani (France)	Room 16a 13.15 - 14.45
HN 05-1	Introduction	Virani S. (France)
HN 05-2	• Deep learning	Klein S. (Germany)
HN 05-3	Single cell sequencing	Puram S. (USA)
HN 05-4	• Liquid Biopsy	Faden D. (USA)
HN 05-5	• Pathology	🖵 Lewis J. (USA)
HN 05-6	• Characterization of the HPV genome in the Voyager Consortium	Virani S. (France)
HN 05-7	• HPV16 genetic variation and prognosis	Lang Kuhs K. A. (USA)
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**Coffee Break** 

14.45 - 15.15

ট্র HN 06	<b>Immunologic considerations</b> Chair: S. Van der Burg (Netherlands)	Room 16a 15.15 - 16.45
HN 06-1	Introduction	Van der Burg S. (Netherlands)
HN 06-2	• Immunologic landscape in HPV+ vs HPV- HNSCC	🖵 Sikora A. G. (USA)
HN 06-3	• HPV-specific T cell response	Van der Burg S. (Netherlands)
HN 06-4	<ul> <li>Enhancing immune response to HPV-OPC: tumor vaccines, CAR-T therapy</li> </ul>	🖵 Massarelli E. (USA)
HN 06-5	• Defining HPV-specific B cell responses in patients with head and neck cancer	Wieland A. (USA)
HN 06-6	• Role of immunotherapy in HPV-OPC	🖵 Hanna G. J. (USA)
	• Discussion	

Isession On-Demand (SOD)
☐ Video presentation

# **LW - DEUTSCHSPRACHIGER WORKSHOP** HPV 2022 - Über die Wissenschaft zur Praxis

### Leitung: P. Hillemanns, DGGG, DKG, AG-CPC

### Programmkommission: Peter Hillemanns • DGGG, DKG, AG-CPC Volkmar Küppers • AG-CPC Düsseldorf Magnus von Knebel Doeberitz • Universitätsklinikum Heidelberg Thomas Iftner • Universitätsklinikum Tübingen Elmar Joura • Medizinische Universität Wien Clemens Tempfer • AGO Uterus

Es ist uns eine besondere Freude, Sie auf dem EUROGIN Kongress 2022 in Düsseldorf, Deutschland, begrüßen zu dürfen.

Der jährliche EUROGIN Kongress zeigt auf, was die Zusammenarbeit von Grundlagenforschung und klinischer Forschung im Kampf gegen das Zervixkarzinom erreicht hat. Die Verfügbarkeit der nonavalenten HPV-Vakzine und die STIKO Empfehlung zur HPV-Impfung für Jungen in 2018 stellen einen Meilenstein in der Elimination von Gebärmutterhalskrebs und anderen HPV-assoziierten Erkrankungen dar.

Große bevölkerungsbezogene Studien zu den HPV Impfstoffen in Australien, Großbritannien und Schweden zeigen eine dauerhafte Reduktion der Fälle an CIN2/3 und Gebärmutterhalskrebs bei den Frauen, die vor dem Alter von 17 Jahren geimpft wurden.

Seitdem die Niederlande 2016 als erstes europäisches Land das primäre HPV-Screening für die Früherkennung des Gebärmutterhalskarzinoms eingeführt hat, stimuliert das auch im deutschsprachigen Raum die Debatte über ein HPV-basiertes Screening- und die verwendeten Abklärungs Strategien. Zum 1.1.2020 wurde das organisierte Gebärmutterhals-Screening in Deutschland aktualisiert, mit einer wesentlichen Neuerung für die über 35-jährigen Frauen: der KoTestung mittels Zytologie und HPV-Test.

Die deutschsprachige Fortbildungsveranstaltung im Rahmen des EUROGIN Kongresses 2022 in Düsseldorf widmet sich ganz der Aus- und Weiterbildung von klinisch tätigen Ärzten. Von den Grundlagen der HPV Biologie und der assoziierten Krankheitsbilder über das Screening und die Diagnose von HPV-Erkrankungen spannt sich der Bogen von der präventiven Impfung bis zur operativen Therapie und therapeutischen Vakzinen. In kompakter Form werden deutsche und österreichische Experten von internationalem Ruf die unterschiedlichen Perspektiven der verschiedenen Fachgebiete aufzeigen und ihr Wissen praxisrelevant vermitteln.

Wir wünschen allen Teilnehmern eine spannende und erfolgreiche Zeit während des EUROGIN Kongresses 2022 in Düsseldorf!

#### Peter Hillemanns und die Mitglieder der Programmkommission

**WEARED EXAMPLE CONTENDED CONTENDED CONTENDED CONTENDE CONTENDE**

### Dienstag, 12. April

## LW - DEUTSCHSPRACHIGER WORKSHOP

LW 01	<b>HPV-Impfung</b> Vorsitz: E. Joura, A. Kaufmann	Raum 15b 8.00 - 9.30
LW 01-1	Aktueller Stand der HPV-Impfung	Joura E.
LW 01-2	Ist eine HPV-Impfdosis ausreichend?	Kaufmann A.
LW 01-3	• HPV-Impfung nach CIN/VIN Therapie	Hillemanns P.
LW 01-4	• HPV-Impfung in anderen Konstellationen (HIV, HNO, MSM)	Dannecker C.
LW 01-5	Impfprävention der Zukunft	Von Knebel Döberitz M.
LW 01-6	Therapeutische HPV Impfung bei Zervixkarzinom	Klapdor R.
• • • • • • • • • • • • •	• Diskussion	• • • • • • • • • • • • • • • • • • • •

Kaffeepause

9.30 - 10.00

LW 02	<b>Gesundheitspolitik und Prävention</b> Vorsitz: M. Hallek, P. Hillemanns	Raum 15b 10.00 - 11.45
LW 02-1	• A Nationale Dekade gegen Krebs: Ergebnisse und Perspektiven	Hallek M.
LW 02-2	• Gesundheitsbildung in der Schule: HPV und HPV-Impfung	Mais A.
LW 02-3	COVID-19-Pandemie: lehre für die Prävention	Schulz T.
LW 02-4	<ul> <li>Welchen Effekt können wir durch die HPV-Impfung und das neue Zervixkarzinom-Screening in der Modellierung erwarten</li> </ul>	Sroczynski G.
LW 02-5	• Wie können wir die Vorsorgeverweigerer erreichen?	Hillemanns P.
LW 02-6	• Prävention der oropharyngealen Karzinome	Klussmann J. P.
	• Diskussion	

Mittagspause

11.45 - 13.15

**WEARED EXAMPLE CONTENDED CONTENDED CONTENDED CONTENDE CONTENDE**

### Dienstag, 12. April

# LW - DEUTSCHSPRACHIGER WORKSHOP

LW 03	Zervixkarzinomscreening in Deutschland und international	Raum 15b 13.15 - 15.30
LW 03-A	<b>Teil A - Deutschland</b> Vorsitz: C. Dannecker, M. Hampl	13.15 - 14.25
LW 03-A1	Nationales Screeningprogramm in Deutschland	Gallwas J.
LW 03-A2	<ul> <li>Erfahrungen von der Wolfsburger Pilotstudie zur Co-testung</li> </ul>	Denecke A.
LW 03-A3	• Herausforderungen bei der zweiten Screeningrunde	Küppers V.
LW 03-A4	<ul> <li>Wie können wir den Abklärungsalgorithmus verbessern</li> </ul>	Böhmer G.
LW 03-A5	• Kann das Einladungsmodell die Teilnehmerzahl erhöhen	Jentschke M.
	• Diskussion	

LW 03-B	<b>Teil B - Internationale Entwicklungen</b> Vorsitz: T. Iftner, N. Wentzensen (USA)	14.25 - 15.30
LW 03-B1	<ul> <li>Aktueller Stand des Screenings in den USA</li> </ul>	Wentzensen N. (USA)
LW 03-B2	• HPV-Impfung und Screening in den Niederlanden	Bogaards H. (Niederlande)
LW 03-B3	• HPV-Impfung und Screening in Skandinavien	Dillner J. (Schweden)
LW 03-B4	• HPV-Impfung und Screening in Japan	Hanley S. (Japan)
	Diskussion	

#### Kaffeepause

15.30 - 16.00

LW 04	Differenzialdiagnostik bei auffälligem Screeningbefund Vorsitz: V. Küppers, C. Tempfe	Raum 15b 16.00 - 17.30
LW 04-1	• Abklärungszytologie	Küppers V.
LW 04-2	• Methylierung	Hampl M.
LW 04-3	• Abklärungstests	lftner T.
LW 04-4	• Abklärungskolposkopie	Soergel P.
	• Diskussion	

### WF - WORKSHOP FRANCOPHONE VIRTUEL

17.30 - 19.30

# Le Cancer n'attend pas Contrôle en vie réelle des cancers HPV induits - évidences, progrès, défis et perspectives

#### **Coordinateur scientifique :** J. Monsonego (France)

Ce workshop virtuel gratuit de 2h réunit des spécialistes de pathologies induites par l'infection à HPV. Il offrira un éclairage scientifique sur ces pathologies, avec focus sur la prévention primaire et secondaire. Une des sessions sera dédiée aux leçons à tirer de la pandémie Covid-19 pour la prévention des maladies HPV induites. Le workshop se terminera par une table ronde qui donnera la parole aux associations de patientes.

Cet événement s'adresse à tous les professionnels impliqués dans le dépistage et la prévention des maladies HPV-induites, notamment les gynécologues, sages femmes, pédiatres, médecins généralistes, otorhinolaryngologistes, proctologues et biologistes.

#### Joseph Monsonego, Président du programme scientifique

WF 01	Introduction Monsonego J. • EUROGIN	17.30 - 17.35
WF 02	<b>Les cancers HPV induits en chiffres</b> Hamers F. • Santé Publique France	17.35 - 17.50
WF 03	Impact de la vaccination sur les cano HPV en vie réelle, élimination en ma Launay O. • Unviersité Paris Cité - Hôpital Coch	rche 17.50 - 18.10
WF 04	Bilan et état des lieux du dépistage HP cancer du col / Analyse des données ac Monsonego J. • EUROGIN	
WF 05	<b>COVID-19, leçons de la pandémie et conséquences sur la prévention</b> Vié Le Sage F. • Infovac-France	18.30 - 18.45
WF 06	Immunothérapies des cancers à HPV Pautier P. • Institut Gustave Roussy	18.45 - 19.00
WF 07	Plaidoyer pour un engagement fort de prévention - Table ronde Modération : Mueller J. • Institut Pasteur	19.00 - 19.30
Associations	• Stop HPV • Gaëlle Vareilles • Imagyn • Coralie Marjollet	• <b>1000 Femmes 1000 Vies •</b> Brigitte Letombe • <b>Corasso •</b> Émilie Carré - Sylvie Pradier