

## **EUROGIN 2016**

### **Forum on HPV and Head & Neck Cancer**

Over 15 years ago, Human papillomavirus (HPV) was found to be the causative agent of a subset of head and neck cancers (HNC). Since these sentinel reports, the field has rapidly evolved from utilizing HPV as a prognostic biomarker in HNC to tailoring therapies to this patient population based on this unique viral etiology and associated clinical features.

In this head and neck cancer forum, we highlight areas of active investigation in the field. We will review the current epidemiologic efforts which focus on the natural history of HPV infection, risk of transmission, screening for early cancer detection, and the potential impact of prophylactic HPV vaccines in the incidence of head and neck cancer.

Next, we will evaluate how the differing biology of HPV-HNC makes us re-assess our clinical staging and clinical prognostic characteristics. Given the viral etiology of these tumors, we review immune evasion mechanisms utilized by HPV and our understanding of these mechanisms, with the hope of leading to novel immunotherapeutic strategies to reactivate the host immune response against the virus and virally-associated cancer cells.

We discuss the clinical responses observed in immunotherapy trials in HPV-OPC patients, as well as the clinical results of other targeted therapies.

Lastly, we introduce a new topic to this forum, recurrent respiratory papillomatosis, which is a benign head and neck tumor caused by HPV infection but which can have a devastating and at times life threatening impact on patients. Taking the lessons learned from HPV-OPC, there is the potential of applying similar therapeutic approaches to this HPV-associated disease.

### **HPV and HN Cancer Sessions**

This is a draft program only pending confirmation from some speakers – please check this webpage regularly for updates.

#### **HN 01**

##### **EPIDEMIOLOGY**

##### **THE STATE OF THE ART NATURAL HISTORY - FROM ORAL HPV INFECTION TO OPC**

**Thursday, June 16, 8.00 –9.30**

**Chair: G. D'Souza, X. Castellsagué**

- Natural history of HPV in H&N region: where are we now?  
S. Syrjänen (Finland)

- HPV related and unrelated OPC: genomical differences  
R. Brakenhoff (Netherlands)
- Increased incidence of oropharynx cancer among the elderly: an HPV-associated trend  
M. Goodman (USA)
- Risk of HPV-driven OPC in partners of patients with HPV related cancers (cervix – oropharynx)  
H. Mirghani (France)
- Epithelial to mesenchymal transition and HPV infection in squamous cell oropharyngeal carcinomas: the Papillophar study  
P. Birembaut (France)
- Implications of prophylactic HPV vaccines in HPV-HNSCC  
L. Alemany (Spain)

## **HN 02**

### **CURRENT KNOWLEDGE ON HPV-DRIVEN HNSCC**

**Thursday, June 16, 9.30 –11.00**

**Chair: A. Kreimer, T. Waterboer**

HPV is an accepted cause of some head and neck cancers, particularly of the oropharynx. The goal of this session is to present an update on the state-of-the-science for the role of HPV infection in head and neck cancer development. The session will present recent data for oral HPV transmission, HPV as a cause of non-oropharyngeal head and neck cancers, possibilities of screening for HPV-driven cancers in the head and neck, and clinical staging opportunities.

- Risk of oral HPV transmission:  
G. D'Souza (USA)
- HPV+HNSCC outside of the oropharynx  
M. Gillison (USA)
- Human papillomavirus genotype and oropharynx cancer survival  
M. Goodman (USA)
- Association of HPV serological markers with HNSCC  
T. Waterboer (Germany)

- Should HPV oropharynx cancer have its own staging?  
S. Huang (Canada)

### **HN 03**

#### **ROLE OF MOLECULAR TESTING IN THE MANAGEMENT OF HPV H&N CANCERS**

**Thursday, June 16, 14.15 –15.45**

**Chair: P. Snijders, J. Lacaou St. Guily**

HPV-driven oropharyngeal squamous cell carcinoma (OPSCC) represents an entity where perspectives of treatment de-escalation are currently under discussion. At this moment, no consensus exists about what molecular testing is best to define the HPV-driven OPSCC, for research and/or clinical use. Several strategies have been proposed using Immuno Histo Chemistry (IHC) for p16INK4A, HPV DNA PCR, HPV RNA detection, or HPV in situ hybridization (ISH) either alone or in combination (such as IHC of p16INK4A and HPV PCR DNA). Clinical performance, practical feasibility and costs are all factors that can be included in the molecular strategy discussion. Besides molecular testing, the role of tobacco consumption associated with HPV infection should also be taken into account when considering treatment de-escalation.

- HPV and other predictive markers for predicting response to therapy of HPV positive OSCC  
A. Näsman (Sweden)
- Promise of early detection of HPV–OPC  
T. Waterboer (USA)
- Need for standardisation  
P. Snijders (Netherlands)
- Clinical prognostic markers for HPV-HNSCC: ADEPT clinical trial  
B. Haughey (USA)

(Other speakers to be added)

### **HN 04**

#### **UPDATES ON IMMUNOTHERAPY TRIALS IN HPV-HNSCC**

**Thursday, June 16, 16.15 –17.45**

**Chair: S. Pai**

HPV-OPC results from the failure of the host immune system to eradicate the initial viral infection and subsequent virally-induced cancer cells. The goal of the session is to review ongoing immunotherapy trials targeting this patient population, as well as to discuss the key questions which may impact the successes of immunotherapy in the field.

- Pembrolizumab in head and neck cancer:  
Phase 1 trial results  
F. Jin (USA)
- Intratumoral IL-12 therapy in HNSCC:  
R. Pierce (USA)
- Clinical trial capturing anti-PD1 failures:  
S. Pai (USA)
- Immune biomarkers in recurrent head and neck squamous cell carcinoma:  
D. Clayburgh (USA).
- Immune biomarkers in the primary and metastatic site:  
M. Patel (USA)

## **HN 05**

### **UPDATES ON RECURRENT RESPIRATORY PAPILLOMATOSIS**

**Friday, June 17, 8.00 –9.30**

**Chair: B. Steinberg**

Recurrent respiratory papillomatosis (RRP) is caused by HPV infection of the upper aerodigestive tract and results in a debilitating, chronic disease. RRP is caused by infection with the low-risk human papillomavirus (HPV) types 6 and 11 and is the most common benign tumor of the airway that affects children and adults. The virus induces the proliferation of benign squamous epithelium, most commonly around the larynx, but can also involve the trachea and lungs, and this can have profound functional consequences for breathing and speech. Currently, there is no medical therapy for RRP. We will discuss the epidemiology of this disease, our understanding of the role of failed host immune responses to the virus, and novel therapies being investigated in this patient population.

- RRP Research: The Role of COX2/PGE2  
B. Steinberg (USA)
- Epidemiology  
F. Buchinsky (USA)
- Immunology of RRP  
B. Steinberg
- Targeted therapy for RRP  
R. Schlegel (USA)
- Management of Pediatric RRP--Update 2016  
C. Derkay (USA)

## **HN 06**

### **TARGETED THERAPY FOR HPV-HNSCC**

**Friday, June 17, 9.30 –11.00**

**Chair: B. Burtness**

HPV-OPC has a unique biology and associated distinct clinical features. The goal of this session is to provide an overview of how the field is re-assessing (or challenging) therapeutic decision-making in the context of clinical trials. The session will highlight surgical trials, such as the ADEPT trial, review the role of EGFR inhibitors in the newly diagnosed and recurrent/metastatic setting, as well as discuss the sensitivity of HPV-OPC to radiation therapy which may provide new perspectives on dosing and novel molecular targets.

- Management of neck metastasis in HPV-related oropharynx cancer  
Bruce Haughey (USA)
- TORS clinical trials  
T. Thomas (USA)
- Role of Cexitumab in the management in HPV-HNSCC patients
- B. Burtness (USA)
- Considerations of surgical versus non-surgical management of HPV-OPSCC  
M. Patel (USA)

## **HN 07**

### **OROPHARYNGEAL CANCERS AND IMMUNITY**

**Friday, June 17, 14.15 –15.15**

**Chair: E. Tartour, S. Van der Burg**

Oropharyngeal tumors can arise via two distinct aetiologies and this provides us with the unique opportunity to study the role of the immune system, in particular the presence of HPV, in the progression and treatment response of cancer. This session will provide insight in the local immune response and how to improve this by immunotherapy.

- HPV induced H&N cancer and checkpoint regulation  
E. Tartour (France)
- Superior prediction of response to therapy by measurement of intratumoral HPV- specific immunity  
M. Welters (Netherlands)
- A new mucosal route for therapeutic vaccines against H&N squamous cell carcinomas  
F. Lemoine (France)

## HN 08

### ORAL COMMUNICATIONS

Friday, June 17, 15.45 –17.00

Chair: J.D Combes, P. Stern

- SLPI and Annexin A2 expression in non-neoplastic tonsillar tissue specimens in correlation to smoking habit  
M. Hoffmann (Germany)
- Integration of human papillomavirus type 11 into FGFR3 gene and long non-protein coding RNA LINC00486 in a patient with sinonasal carcinoma
  - L. Hošnjak (Slovenia)
- Human papillomavirus infection and head and neck cancers in Montréal, Canada: results from the hence life case-control study
  - C. Laprise (Canada)
- Epithelial-to-mesenchymal transition (EMT) signature in HPV-positive and HPV-negative oropharyngeal squamous cell carcinoma  
C. Mourareau (France)
- Meta-analysis on the accuracy of P16INK4A immunohistochemistry to diagnose HPV-induced oropharyngeal squamous cell carcinomas  
E.S. Prigge (Germany)
- MiRNA-expression in tonsillar carcinomas in relation to HPV-infection and expression of the antileukoproteinase SLPI  
E.S. Quabius (Germany)
- Branchiogenic carcinoma with high-risk type human papillomavirus infection  
M. Suzuki (Japan)
- Diagnosis of HPV driven head and neck cancer: Comparing p16 based algorithms with the RNAscope HPV-test  
H. Mirghani (France)

## HN 09

### ORAL COMMUNICATIONS

Friday, June 17, 17.00 –18.30

Chair: H. Mirghani, M. Goodman

- RRP  
J. Lacau St. Guily (France)
- Oral cancer screening on oral rinse samples using quantitative E6, E7 mRNA and flow cytometry
  - R. Morgan (USA)
- HPV detection in head and neck carcinomas: evaluation of in situ hybridization, P16 immunohistochemistry and genexpert HPV assay
  - R. Cerutti (Italy)
- Study of HPV and precancerous lesions in the tonsils (“SPLIT”): preliminary results  
J.D. Combes (France)
- Methylation levels in HPV 16 E2 binding sites 3 and 4 are related to histological subtype and survival in a cohort of OPSCC patients  
M.S. Kalteis (Germany)
- Association of HPV infection, xenobiotic gene polymorphism, mitochondrial mutations and tobacco with oral cancer- A study from northeast India  
R. Mondal (India)
- Detection of HPV 16 and 18 oncoproteins with an ONCOE6™ oral test in fine needle aspirates of cervical lymph nodes from patients with head and neck cancers  
J. Schweizer (USA)
- Immune infiltration of oral pharyngeal squamous cell (OPSCC) and programmed cell death ligand-1 (PD-L1) expression: relationship to clinical outcome  
P. Stern (UK)
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**Additional sessions on HPV and HN cancer will be proposed for proffered papers.**