Prostate cancer biomarkers: Technical advances and clinical implications

**Location:** Room Stockholm, North Hall (Level 1)

**Chairs:**
- M.G.K. Cumberbatch, Sheffield (GB)
- S. Füssel, Dresden Johannstadt Nord (DE)
- K.A. Tasken, Oslo (NO)

**Aims and objectives of this session**
Investigations on circulating tumor cells have been widely used in prostate cancer biomarker studies. Further improvements in biomarker assessment include application of MRI. New technical tools will be presented in the session.

Poster viewing of 20 minutes. Presentations will take place on stage. Standard presentations are 2 minutes in length, followed by 2 minutes for discussion. Extended presentations (•) are 3 minutes in length, followed by 3 minutes for discussion.

---

**616**

**Molecular characterization of magnetic resonance imaging visible and invisible prostate cancer: Biological insights and therapeutic implications**

*By:* Salami S.¹, Hvoelsson D.², Udager A.², Lee M.¹, Curci N.³, Kaplan J.², George A.¹, Davenport M.³, Tomlins S.², Palapattu G.¹

*Institutes:*
- University of Michigan, Dept. of Urology, Ann Arbor, United States of America, ¹
- University of Michigan, Dept. of Pathology, Ann Arbor, United States of America, ²
- University of Michigan, Dept. of Radiology, Ann Arbor, United States of America, ³

---

**617**

**A combination of new protein biomarkers reduces unneeded prostate biopsies and improves the detection of prostate cancer: Findings of a recent study**

*By:* Steuber T.¹, Tennstedt P.¹, Macagno A.², Golding B.², Schiess R.², Gillessen S.³

*Institutes:*
- Universitätsklinikum Hamburg-Eppendorf, Martini-Clinic, Prostate Cancer Center, Hamburg, Germany, ¹
- Proteomedix, Dept. of Biotechnology, Schieren, Switzerland, ²
- Cantonal Hospital St. Gallen, Dept. of Oncology, St. Gallen, Switzerland, ³

---

**618**

**Ex vivo metabolic fingerprinting identifies biomarkers predictive of prostate cancer recurrence**

*By:* Braadland P.R.¹, Giskeødegård G.², Guldvik I.J.³, Sandsmark E.², Bertilsson H.⁴, Euceda L.², Hansen A.², Grytli H.H.², Katz B.², Svidland A.², Berge V.⁶, Eli L.M.⁶, Nygård S.², Batthen T.², Tasken K.A.¹, Tessem M-B.²

*Institutes:*
- Oslo University Hospital and University of Oslo, Institute of Cancer Research and Institute of Clinical Medicine, Oslo, Norway, ¹
- Norwegian University of Science and Technology (NTNU), Dept. of Circulation and Medical Imaging, Trondheim, Norway, ²
- Oslo University Hospital, Institute of Cancer Research, Oslo, Norway, ³
- St.Olav's Hospital and Norwegian University of Science and Technology (NTNU), Dept. of Urology and Dep. of Circulation and Medical Imaging, Trondheim, Norway, ⁴
- Oslo University Hospital, Dept. of Pathology, Oslo, Norway, ⁵
- Oslo University Hospital, Dept. of Urology, Oslo, Norway, ⁶
- Oslo University Hospital, Institute of Informatics, Oslo, Norway

---

**619**

**Incidence rates and cancer control outcomes of contemporary primary neuroendocrine prostate cancer: Analysis of SEER database**

*By:* Zaffuto E.¹, Zanaty M.², Bondarenko H.D.², Pompe R.³, Dell'Oglio P.¹, Gandaglia G.¹, Fossati N.¹, Stabile A.¹, Zorn K.C.⁴, Montorsi F.¹, Briganti A.¹, Karakiewicz P.I.²

*Institutes:*
- IRCCS Ospedale San Raffaele, Dept. of Oncology and Urology, URI, Milan, Italy, ¹
- University of Montreal Health Center, Cancer Prognostics and Health Outcomes Unit, Montreal, Canada, ²
- Prostate Cancer Center Hamburg-Eppendorf, Martini-Clinic, Hamburg, Germany, ³
- University of Montreal Health Center, Dept. of Surgery, Section of Urology, Montreal, Canada
Identification of tumour-specific biomarkers associated with serum lactate dehydrogenase levels for predicting clinical responses to docetaxel chemotherapy in mCRPC
By: Hiew K.¹, Hart C.A.², Bokobza S.³, Elliott T.⁴, Smith N.³, Brown M.², Clarke N.⁵
Institutes: ¹Salford Royal NHS Foundation Trust, Dept. of Urology, Salford, United Kingdom, ²The University of Manchester, Genito Urinary Cancer Research Group, Manchester, United Kingdom, ³AstraZeneca, R&D, Oncology IMed, Macclesfield, United Kingdom, ⁴Christie Hospital NHS Foundation Trust, Dept. of Oncology, Manchester, United Kingdom, ⁵Christie Hospital NHS Foundation Trust, Dept. of Urology, Manchester, United Kingdom

Elevated preoperative neutrophil–lymphocyte ratio predicts upgrading at radical prostatectomy
By: Özsöz M.¹, Moschini M.¹, Fajkovic H.¹, Soria F.¹, Seitz G.², Klatte T.¹, Kilian G.¹, Briganti A.², Karakiewicz P.², Roupret M.², Kramer G.¹, Shariat S.¹
Institutes: ¹Medical University of Vienna, Dept. of Urology, Vienna, Austria, ²Vita-Salute University, San Raffaele Scientific Institute, Urological Research Institute, Milan, Italy, ³University of Montreal, Health Centre, Cancer Prognostics and Health Outcomes Unit, Montreal, Canada, ⁴Pitié-Salpêtrière Hospital, Dept. of Urology, Paris, France

Perioperative search for circulating tumor cells in patients undergoing prostate brachytherapy for clinically nonmetastatic prostate cancer
By: Tsunoura H.¹, Satoh T.¹, Tabata K-I.¹, Ishiyama H.², Takenaka K.², Sekiguchi A.², Kitano M.², Hayakawa K.², Iwamura M.¹
Institutes: ¹Kitasato University School of Medicine, Dept. of Urology, Sagamihara, Japan, ²Kitasato University School of Medicine, Dept. of Radiology and Radiation Oncology, Sagamihara, Japan

Purification of urinary extracellular vesicles for uro-oncological biomarker studies using an iodixanol (Optiprep™) density gradient
By: Dhondt B.¹, Vergauwen G.², Van Deun J.², Geurickx E.², Claeyts T.¹, Poelaert F.¹, Buelens S.¹, Hendrix A.², De Wever O.², Lumen N.¹
Institutes: ¹Universitair Ziekenhuis Gent, Dept. of Urology, Ghent, Belgium, ²Universitair Ziekenhuis Gent, Dept. of Radiation Oncology and Experimental Cancer Research, Ghent, Belgium

Prostate cancer genomics: Identification of prognostic markers from the bone marrow
By: Bier S.¹, Hennenlotter J.¹, Haerle U.², Karpatzi E.¹, Todenhoefer T.¹, Schmees C.²
Institutes: ¹Eberhard-Karls-University Tuebingen, Dept. of Urology, Tübingen, Germany, ²Natural and Medical Sciences Institute, Dept. of Tumor Biology, Tübingen, Germany

Increased CCR4-positive regulatory T cells in biopsy specimens of poor prognostic prostate cancer
By: Watanabe M.¹, Kanao K.¹, Suzuki S.², Muramatsu H.¹, Morinaga S.¹, Kajikawa K.¹, Kobayashi I.¹, Nishikawa G.¹, Kato Y.¹, Nakamura K.¹, Yoshikawa K.², Ueda R.², Sumitomo M.³
Institutes: ¹Aichi Medical University, Dept. of Urology, Nagakute, Japan, ²Aichi Medical University, Dept. of Tumor Immunology, Nagakute, Japan, ³Aichi Medical University, Division of Advanced Research Promotion, Nagakute, Japan

Identification and validation of a novel blood-based biomarker of aggressive prostate cancer
By: Guldvik I.J.¹, Grytli H.², Zuber V.³, Thiede B.⁴, Saatcioglu F.⁴, Gislefoss R.⁵, Kvále R.⁵, George A.⁴, Gnanapragasam V.⁷, Grönborg H.⁸, Wiklund F.⁹, Neal D.⁵, Mills I.¹⁰, Taskén K. A.²
Institutes: ¹Oslo University Hospital/Centre For Molecular Medicine Norway, Dept. of Prostate Cancer, Oslo, Norway, ²Oslo University Hospital, Dept. of Urology, Oslo, Norway, ³Centre For Molecular Medicine (Norway), University of Oslo and Oslo University Hospital, Dept. of Prostate Cancer, Oslo, Norway, ⁴University of Oslo, Dept. of Biosciences, Oslo, Norway, ⁵Oslo University Hospital, Dept. of Cancer Registry of Norway, Oslo, Norway, ⁶University of Cambridge, Dept. of Surgery, Cambridge, United Kingdom, ⁷University of Cambridge, Translational Prostate Cancer Group, Cambridge, United Kingdom, ⁸Karolinska Institute, Dept. of Medical Epidemiology and Biostatistics, Stockholm, Sweden, ⁹University of Oxford, Dept. of Surgical Sciences, Oxford, United Kingdom, ¹⁰Queen's University Belfast/Centre For Molecular Medicine Norway, Dept. of Prostate Cancer UK/Movember Centre for Excellence For Prostate Cancer Research, Centre For Cancer