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, Hovelson D.², Udager A.², Lee M.¹, Curci N.³, Kaplan J.², George A.¹, Davenport M.³, Tomlins S.³, Palapattu G.¹
Institutes: University of Michigan, Dept. of Urology, Ann Arbor, United States of America, University of Michigan, Dept. of Pathology, Ann Arbor, United States of America, University of Michigan, Dept. of Radiology, Ann Arbor, United States of America

*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, Proteomedix, Dept. of Biotechnology, Schlieren, Switzerland, Cantonal Hospital St. Gallen, Dept. of Oncology, St. Gallen, Switzerland

*618* Ex vivo metabolic fingerprinting identifies biomarkers predictive of prostate cancer recurrence
By: Braaaland P.R.¹, Giskeødegård G.², Guldvik I.J.³, Sandmark E.², Bertilsson H.², Euceda L.², Hansen A.², Grytli H.H.², Katz B.², Svidland A.², Berge V.², Eri L.M.², Nygård S.², Bathen 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, Norwegian University of Science and Technology (NTNU), Dept. of Circulation and Medical Imaging, Trondheim, Norway, Oslo University Hospital, Institute of Cancer Research, Oslo, Norway, St.Olav's Hospital and Norwegian University of Science and Technology (NTNU), Dept. of Urology and Dep. of Circulation and Medical Imaging, Trondheim, Norway, Oslo University Hospital, Dept. of Pathology, Oslo, Norway, Oslo University Hospital, Dept. of Urology, Oslo, Norway, 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.², 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, University of Montreal Health Center, Cancer Prognostics and Health Outcomes Unit, Montreal, Canada, Prostate Cancer Center Hamburg-Eppendorf, Martini-Clinic, Hamburg, Germany, 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
Institutes: Salford 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: Özsöv M.1, Moschini M.1, Fajkovic H.1, Soria F.1, Seitz C.1, Klatte T.1, Kilian G.1, Briganti A.2, Karakiewicz P.2, Roupret M.4, 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: Tsumura H.1, Satoh T.1, Tabata K-I.1, Ishiyama H.2, Takenaka K.2, Segikuchi 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, Gheeurickx E.2, Claeyts T.1, Poelaert F.1, Buelens S.1, Hendrix A.7, 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, Karpatsi E.1, Stenzl A.1, Todenhoefer T.1, Schmees C.2
Institutes: 1Eberhard-Karls-University Tuebingen, Dept. of Urology, Tübingen, Germany, 2Universitatsmedizin Hamburg, Dept. of Urology, Hamburg, Germany, 3Natural 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.3, 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
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 of Excellence For Prostate Cancer Research, Centre For Cancer
New protein biomarkers in prostate cancer
S. Füssel, Dresden Johannstadt Nord (DE)