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, ²University of Michigan, Dept. of Pathology, Ann Arbor, United States of America, ³University 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, ²Proteomedix, Dept. of Biotechnology, Schlieren, Switzerland, ³Cantonal Hospital St. Gallen, Dept. of Oncology, St. Gallen, Switzerland

*618 Ex vivo metabolic fingerprinting identifies biomarkers predictive of prostate cancer recurrence
By: Braadland P.R. ¹, Giskeødegård G. ³, Guldvik I.J. ³, Sandsmark E. ², Bertilsson H. ⁴, Euceda L. ², Hansen A. ², Grytli H.H. ³, Katz B. ³, Svinland A. ³, Berge V. ³, Eri L.M. ³, Nygård S. ³, 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, ²Norwegian University of Science and Technology (NTNU), Dep. of Circulation and Medical Imaging, Trondheim, Norway, ³Oslo University Hospital, Institute of Cancer Research, Oslo, Norway, ⁴St.Olav’s Hospital and Norwegian University of Science and Technology (NTNU), Dep. of Urology and Dep. of Circulation and Medical Imaging, Trondheim, Norway, ⁵Oslo University Hospital, Dept. of Pathology, Oslo, Norway, ⁶Oslo University Hospital, Dept. of Urology, Oslo, Norway, ⁷Oslo 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, ²University of Montreal Health Center, Cancer Prognostics and Health Outcomes Unit, Montreal, Canada, ³Prostate Cancer Center Hamburg-Eppendorf, Martini-Clinic, Hamburg, Germany, ⁴University 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: Özsoy 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.³, 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, 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, Geuerrickx 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, Karpathsi E.¹, Stenzl A.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, Kvåle R.⁵, George A.⁶, Gnansnaprasam V.⁷, Grönberg H.⁸, Wiklund F.⁹, Neal D.⁹, Mills I.¹⁰, Taskén K. A.²
Institutes: ¹Oslo University Hospital/Center 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/MoveMent Centre of Excellence For Prostate Cancer Research, Centre For Cancer
New protein biomarkers in prostate cancer
S. Füssel, Dresden Johannstadt Nord (DE)