



androgens
2016

C[C@]12CC[C@@H]3[C@H]([C@@H]1CC[C@@H]2O)CCC4=CC(=O)CC[C@]34C

INNSBRUCK - AUSTRIA

September 15 – 17, 2016

CCB–Center for Chemistry & Biomedicine

www.androgens2016.net

Organizing Committee

Local:

Helmut Klocker, Chairman
Zoran Culig
Iris Eder
Natalie Sampson
Frédéric Santer

International:

Charlotte Bevan, London
Frank Claessens, Leuven
Philippa Saunders, Edinburgh
Tapio Visakorpi, Tampere

Contact Address

Helmut Klocker, PhD

Medical University Innsbruck

Department of Urology, Division of Experimental Urology

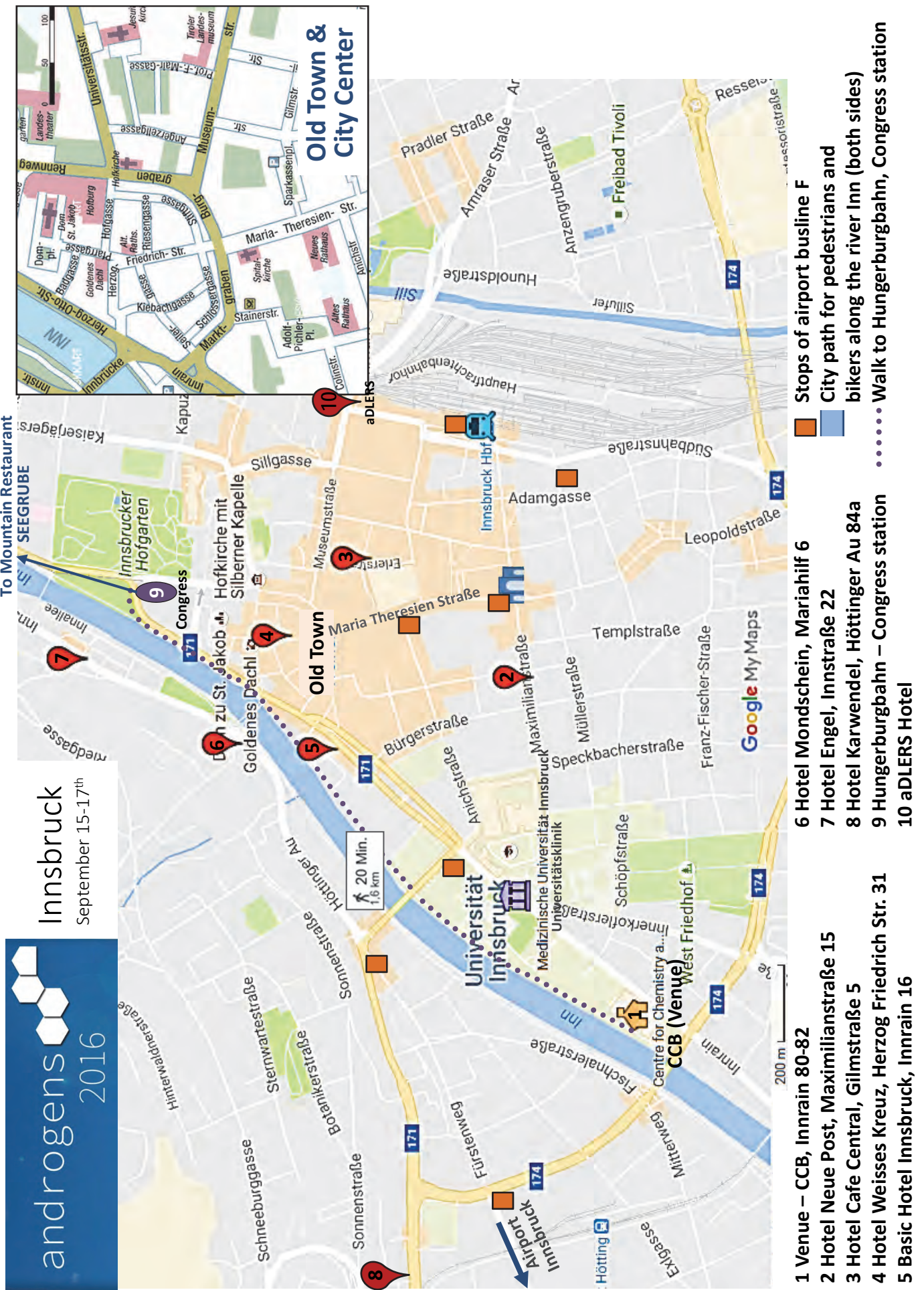
Anichstrasse 35, 6020 Innsbruck - AUSTRIA

T: +43 50 50424818, E: helmut.klocker@i-med.ac.at

Sponsor Acknowledgements

We thank our Sponsors for their generous support of ANDROGENS 2016





ANDROGENS 2016 - INNSBRUCK

15.-17. September 2016

Center for Chemistry and Biomedicine, CCB, Medical University Innsbruck

Innrain 80-82, 6020 Innsbruck, Austria

Lecture Hall EG.01.180 and Aula

Thursday, September 15

12:00 PM *Registration opens*

2:00 PM *Welcome*

Hormone Action

Chairs: Charlotte Bevan & Marcus Cronauer

2:10 PM *Jean-Mark Kaufman, Ghent, B*

1. Determinants and clinical correlates of androgen exposure: phases of life and disease

2:50 PM *Christopher Wright, Baltimore, US*

2. Neuro-inflammatory origins of the sexual differentiation of the brain

3:30 PM *Konrad Lutz, Giessen, D*

- O1 Non-classical testosterone signaling in the testis

3:45 PM *Frank Claessens, Leuven, B*

- O2 Control of androgen bioactivity by sex hormone-binding globulin

4:00 PM *Alwyn Dart, Cardiff, UK*

- O3 Novel trifluoromethylated enobosarm analogues show very potent antiandrogen activity in prostate cancer cells, and cells with acquired bicalutamide resistance whilst maintaining tissue selectivity in vivo

4:15 PM *Coffee Break*

Androgen Receptor

Chairs: Frank Claessens & Helmut Klocker

4:40 PM *Eva Estebanez-Perpina, Barcelona, E*

3. Three-dimensional structure of homodimeric androgen receptor ligand-binding domain

5:20 PM *Jorma Palvimo, Kuopio, FI*

4. Modulation of androgen receptor signaling in prostate cancer cells by SUMOylation and NFκB pathways

Methods and Techniques

Chair: Florian Handle

6:00 PM *Francisco Bizouarn, Biorad, Hercules, US*

- Droplet Digital PCR: Resolving difficult challenges in nucleic acid detection and quantitation

6:30 PM *Opening Reception*

Friday, September 16

Methods and Techniques

Chair: Georg Schäfer

8:20 AM *Rupert Ecker, TissueGnostics Vienna, Austria*

Context-based tissue cytometry: A powerful tool for cancer research

Hormone and Disease

Chairs: Philippa Saunders & Germar Pinggera

8:45 AM *Mario Maggi, Florence, IT*

5. Androgens and cardiovascular diseases

9:25 AM *Farid Saad, Berlin, D*

6. Effects of long-term testosterone therapy on obesity, glycaemic control and other features of the metabolic syndrome

10:05 AM *Nadine Hornig, Kiel, D*

O4 The use of apolipoprotein D as a biomarker for androgen sensitivity identifies a new type of androgen insensitivity syndrome that is not associated with a mutation in the androgen receptor gene

10:20 AM *Ioannis Simitsidellis, Edinburgh, UK*

O5 What is the impact of AR modulation in the decidualisation of hESCs from women with endometriosis

10:35 AM *Ludwig Wildt, Innsbruck, A*

O6 Transgender: biological model for steroid action

10:50 AM *Coffee Break*

11:15 AM **Poster Session**

1:15 PM *Lunch Break*

Androgen Receptor & Chromatin

Chairs: Wayne Tilley & Natalie Sampson

2:15 PM *Wilbert Zwart, Amsterdam, NL*

7. The androgen receptor chromatin landscape in prostate tumors: biomarker discovery and beyond

2:55 PM *Axel Thomson, Montreal, CAN*

O7 Identification of AR genomic targets in mesenchymal cell subsets during prostate development

3:10 PM *Damien Leach, Adelaide, AUS*

O8 Fibroblast AR signalling in prostate cancer: Unique regulation of AR signalling, and associations with patient outcomes by influencing cancer progression and invasion.

3:25 PM *Alfonso Ubanucci, Oslo, NOR*

O9 Chromatin relaxation is a feature of advanced prostate cancer

3:40 PM *Coffee Break*

Metabolism in Prostate Cancer

Chairs: Ian Mills & Iris Eder

4:00 PM *Matti Poutanen, Turku, FI*

8. Regulating androgen action by steroid synthesis and metabolism

4:40 PM *Charles Massie, Cambridge, UK*

9. Causes and consequences of metabolic changes in prostate tumours

5:20 PM *Jennifer Munkley, Newcastle, UK*

O10 Glycosylation is a global target for androgen control in prostate cancer cells

5:35 PM *Rougin Khalil, Leuven, B*

O11 Sex steroid deficiency alters renal calcium transporter expression independently of its effect on bone resorption

Meeting Dinner - Restaurant Seegrube

Saturday, September 17

Castration Resistant Prostate Cancer

Chairs: Ian McEwan & Jasmin Bektic

9:00 AM *Gero Kramer, Vienna, A*

10. Treatment of castration-resistant prostate cancer

9:40 AM *Felix Y Feng, San Francisco, US*

11. Identifying drivers of disease progression to personalize prostate cancer therapy

10:20 AM *Samuel Denmeade, Baltimore, US*

O12 Rapid cycling high dose testosterone (bipolar androgen therapy) as therapy for men with metastatic castrate-resistant prostate cancer (mCRPC)

10:35 AM *Alysha Bhatti, London, UK*

O13 In vivo imaging reveals prostate pathology in the PTEN knockout murine model of prostate cancer

10:50 AM Coffee Break

Androgen Receptor in Castration Resistant Prostate Cancer

Chairs: Axel Thomson & Zoran Culig

11:20 AM *Scott Dehm, Minneapolis, US*

13. Androgen receptor: master contortionist in prostate cancer

12:00 PM *Flavia Marialucia Fioretti, London, UK*

O14 Optimization of an engineered microrepressor for the treatment of castration-resistant prostate cancer

12:15 PM *Karolina Nowakowska, Sutton, UK*

O15 The role of nuclear steroid receptors in castration-resistant prostate cancer

12:30 PM Lunch Break

Genetics, Genomics & Epigenetics

Chairs: Nadine Hornig & Frédéric Santer

1:30 PM *Holger Sültmann, Heidelberg, D*

14. Genomic and epigenomic patterns in prostate cancer

2:10 PM *Francesca Demichelis, Trento, IT*

15. The genetics of prostate cancer specific events

2:50 PM *Stefan Prekovic, Leuven, B*

O16 Genomic analysis of enzalutamide resistant cells

3:05 PM *Leena Latonen, Tampere, FI*

O17 miR-32 promotes replicative changes in prostate epithelium in vivo

3:20 PM **Roundup & Farewell**

ANDROGENS 2016 – Poster Presentations

Friday, 16. September 2016, 11:15 am – 1:15 pm

AULA of the Center for Chemistry and Biomedicine (CCB)

Poster format: upright, maximal size 90 cm width and 125 cm height. Posters can stay on the poster boards during the whole meeting

Presenters of posters with even poster numbers are asked to be available at their posters for questions and discussion during the first hour of the poster session (11:15–12:15), presenters of uneven poster numbers during the second hour (12:15–1:15).

18. Inhibition of NADPH oxidase 4 attenuates stromal activation associated with prostate cancer

Natalie Sampson¹, Cédric Szyndralewicz³, Helmut Klocker¹

¹Department of Urology, Division of Experimental Urology, Medical University of Innsbruck, Innsbruck, Austria. ²Genkyotex S.A., Geneva, Switzerland.

19. Functional analysis of the AR LBD dimerization surface

Christine Helsen¹, Stefan Prekovic¹, Martin E. van Royen², Adriaan B. Houtsmuller², Pablo Fuentes-Prior³, Eva Estébanez-Perpiñá⁴, Frank Claessens¹

¹Laboratory of Molecular Endocrinology, Department of Cellular and Molecular Medicine, KU Leuven, Leuven, Belgium. ²Department of Pathology, Erasmus University Medical Center, Rotterdam, the Netherlands. ³Molecular Bases of Disease, Biomedical Research Institute Sant Pau, Barcelona, Spain. ⁴Institute of Biomedicine from the University of Barcelona (IBUB), Department of Biochemistry and Molecular Biology, University of Barcelona (UB), Barcelona, Spain.

20. Diminished response of prostate cancer cells to antiandrogens upon co-culture with cancer-associated fibroblasts as shown in a 3-dimensional prostate cancer epithelial-stromal organoid model

Theresa Eder^{1, 2, 3}, Anja Weber¹, Hannes Neuwirt⁴, Georg Grünbacher¹, Georg Schäfer¹, Christian Ploner⁵, Helmut Klocker¹, Natalie Sampson¹, and Iris E. Eder¹

¹Department of Urology, Medical University Innsbruck, Innsbruck, Austria. ²Charité University Hospital, Department of Radio oncology and Radiotherapy, Berlin, Germany. ³German Cancer Research Center (DKFZ), Heidelberg and German Cancer Consortium (DKTK) partner site Berlin, Germany. ⁴Department of Internal Medicine IV - Nephrology and Hypertension, Medical University of Innsbruck, Innsbruck, Austria. ⁵Department of Plastic, Reconstructive & Aesthetic Surgery, Medical University of Innsbruck, Innsbruck, Austria.

21. Expression of a novel androgen-regulated long noncoding RNA correlates with progression-free survival in prostate cancer patients

Annika Kohvakka, Kati Kivinummi, Ville Kytölä, Antti Ylipää, Matti Annala, Alfonso Urbanucci, Matti Nykter, Tapio Visakorpi

Prostate Cancer Research Center, BioMediTech, University of Tampere and Tampere University Hospital, Tampere, Finland.

22. Androgen pathway regulating microRNAs in prostate cancer progression and therapy

Foteini Kalofonou, Claire Fletcher, Jonathan Waxman, Charlotte Bevan

Androgen Signalling Laboratory, Department of Surgery and Cancer, Imperial College London.

23. The bi-directional interaction of AR and IL6 signalling in the response to enzalutamide in prostate cancer cells

Florian Handle¹, Holger H. H. Erb^{1,2}, Birgit Luef¹, Julia Hoefler¹, Dimo Dietrich³, Walther Parson^{4,5}, Glen Kristiansen³, Frédéric R. Santer^{1,6}, and Zoran Culig^{1,6}

¹Division of Experimental Urology, Department of Urology, Medical University of Innsbruck, Innsbruck, Austria. ²Yorkshire Cancer Research Unit, University of York, York, United Kingdom. ³Institute of Pathology, University Hospital Bonn, Bonn, Germany. ⁴Institute of Legal Medicine, Medical University of Innsbruck, Innsbruck, Austria ⁵Forensic Science Program, The Pennsylvania State University, University Park, Pennsylvania, USA. ⁶Joint senior authors.

24. μ -Crystalline as hormone antagonist in prostate cancer

Olaf Merkel^{1, #}, Osman Aksoy^{1, #}, Martin Suzani^{1, 2, 3}, Melanie Hassler^{4, 1}, Karin Schlangen⁵, Theresa Balber⁶, Markus Mitterhauser⁶, Ali Moazzami⁷, Michaela Schleder¹, Suzanne Turner^{8, 1}, Gerda Egger¹, Gregor Hörmann⁹, Markus Hacker⁶, Zoran Culig¹⁰, Jan Pencik^{1, 2}, Lukas Kenner^{1, 2, 11}

¹Department of Clinical Pathology, Medical University Vienna, Vienna, Austria. ²Ludwig Boltzmann Institute for Cancer Research, Vienna, Austria. ³Institute of Animal Breeding and Genetics, University of Veterinary Medicine Vienna, Austria. ⁴Department of Urology, Medical University of Vienna, Vienna, Austria. ⁵Department of Biosimulation and Bioinformatics, Medical University Vienna, Vienna Austria. ⁶Department of Nuclear Medicine, Medical University Vienna, Vienna, Austria. ⁷Department of Chemistry and Biotechnology, Swedish University of Agricultural Sciences, Uppsala, Uppsala, Sweden. ⁸Division of Molecular Histopathology, Department of Pathology, University of Cambridge, Addenbrooke's Hospital, Cambridge, UK. ⁹Department of Laboratory Medicine, Medical University Vienna, Vienna, Austria, ¹⁰Department of Urology, Medical University Innsbruck, Innsbruck, Austria. ¹¹Unit of Pathology of Laboratory Animals, University of Veterinary Medicine Vienna, Vienna, Austria. #These authors contributed equally.

25. Antiandrogens reduce intratumoral androgen concentrations and induce androgen receptor expression in castration-resistant VCaP xenografts

Matias Knuutila^{1, 2}, Arfa Mehmood³, Riikka Huhtaniemi^{1, 2, 4}, Riikka Oksala⁴, Merja Häkkinen⁵, Teemu D Laajala^{6, 7}, Tero Aittokallio^{6, 7}, Seppo Auriola⁵, Claes Ohlsson⁸, Laura Elo-Uhlgren^{3, 6}, Petra Sipilä^{1, 2}, Sari Mäkelä^{2, 9}, Matti Poutanen^{1, 2, 8}

¹Department of Physiology, ²Turku Center for Disease Modeling (TCDM), Institute of Biomedicine, University of Turku, Turku, Finland. ³Turku Centre for Biotechnology, University of Turku and Åbo Akademi University, Turku, Finland. ⁴Orion Pharma, Turku, Finland. ⁵School of Pharmacy, University of Eastern Finland, Kuopio, Finland. ⁶Department of Mathematics and Statistics, University of Turku, Turku, Finland. ⁷Institute for Molecular Medicine Finland (FIMM), University of Helsinki, Helsinki, Finland. ⁸Institute of Medicine, The Sahlgrenska Academy, University of Gothenburg, Gothenburg, Sweden. ⁹Functional Foods Forum, University of Turku, Turku, Finland.

26. The deubiquitinating enzyme USP12 controls prostate cancer cell survival by regulating the AR-AKT-p53 signalling network

Urszula L. McClurg¹, Nay C.T.H. Chit¹, Sirintra Nakjang¹, Joanne Edwards², Stuart R. McCracken¹, Craig N. Robson¹

¹Northern Institute for Cancer Research, Newcastle University, Newcastle upon Tyne, UK. ²Unit of Experimental Therapeutics, Institute of Cancer, University of Glasgow, Glasgow, UK.

27. Metastases-prone localized prostate cancer: a genomic analysis

Thomas Van den Broeck^{1, 2}, Thomas Gevaert², Stefan Prekovic¹, Bram Boeckx³, Elien Smeets¹, Kaye Ong⁴, Jonathan Lehrer⁴, Zaid Haddad⁴, Nicholas Erho⁴, Christine Helsen¹, Diether Lambrechts³, Christine Buerki⁴, Elai Davicioni⁴, Steven Joniau², and Frank Claessens¹.

¹Department of Cellular and Molecular Medicine, KU Leuven, Leuven, Belgium. ²Department of Urology, University Hospitals Leuven, KU Leuven, Leuven, Belgium. ³Laboratory of Translational Genetics, KU Leuven, Leuven, Belgium. ⁴GenomeDx Biosciences, Vancouver, BC, Canada.

28. Switch to succinate-mediated mitochondrial respiration associated with HIF-1 α stabilization in PTEN negative prostate cancer cells

Anja Weber¹, Jan Pencik², Lukas Kenner², Helmut Klocker¹, Iris E. Eder¹

¹Department of Urology, Medical University Innsbruck, Austria. ²Clinical Institute for Pathology, Medical University Vienna, Austria.

29. Exploiting pioneer factors of androgen receptor variants for novel prostate cancer therapies

Lewis Chaytor and Luke Gaughan

Northern Institute for Cancer Research, Newcastle University, Newcastle upon Tyne, UK.

30. Lysine demethylase 7A (KDM7A) as a potential therapeutic target in prostate cancer

Veronika M Metzler^{1,2}, Simone de Brot¹, Jonathan Whitchurch^{1,2}, Brian D. Robinson³, Stephen Boorjian⁴, Lorraine J Gudas⁵, Martin Johansson⁶, Jenny L Persson⁷, David M Heery², Nigel P Mongan^{1,4}

¹Faculty of Medicine and Health Sciences, School of Veterinary Medicine and Science, University of Nottingham, United Kingdom. ²School of Pharmacy, University of Nottingham, United Kingdom. ³Department of Pathology, Weill Cornell Medicine, New York, NY, USA. ⁴Department of Urology, Mayo Clinic, MN, USA. ⁵Department of Pharmacology, Weill Cornell Medicine, New York, NY, USA. ⁶Department of Laboratory Medicine, Lund University, Malmö, Sweden. ⁷Clinical Research Center, Lund University, Malmö, Sweden.

31. Androgen Receptor Variants And Microenvironment In Prostate Cancer

Edwige Schreyer¹, Eva Erdmann¹, Félicie Cottard¹, Marine Delbecque¹, Pauline Berthélémy¹, Jean-Emmanuel Kurtz^{1, 2} and Jocelyn Céraline^{1,2}

¹INSERM U1113, Team 3 "Cell signalling and communication in kidney and prostate cancer", University of Strasbourg, Strasbourg, France. ²Haematology and Oncology Unit, Strasbourg University Hospital, Strasbourg, France.

32. Altered steroid profiles in prostate cancer xenograft model with low ADRB2 levels

Håkon Ramberg¹, Ralf Kellman², Peder Rustøen Braadland¹, Elin Stærli¹, Stein Waagene¹, Gunnar Mellgren^{2,3}, Gunhild Mari Mælandsmo^{1,4}, Kristin Austlid Taskén^{1,5}

¹Department of Tumor Biology, Oslo University Hospital, Oslo, Norway. ²Hormone Laboratory, Haukeland University Hospital, Bergen, Norway. ³Department of Clinical Science, University of Bergen, Bergen, Norway. ⁴Department for Pharmacy, University of Tromsø, Tromsø, Norway. ⁵Institute of Clinical Medicine, University of Oslo, Norway

33. Identification of Protein Kinases Involved in AR Transcriptional Regulation in Prostate Cancer

Scott Walker, Peter Banks, Craig Robson, Kelly Coffey

Northern Institute for Cancer Research, Paul O'Gorman Building, The Medical School, Newcastle University, Newcastle upon Tyne, UK.

34. Next generation sequencing panels to predict response to hormonal therapy in prostate cancer

Heini M.L. Kallio¹, Matti Annala¹, Anniina Brofeldt¹, Reija Hieta¹, Kati Kivinummi¹, Teuvo Tammela², Matti Nykter¹, Hans G. Lilja¹, G. Steven Bova¹, and Tapio Visakorpi¹

¹ Prostate Cancer Research Center, BioMediTech, University of Tampere and Fimlab Laboratories, Tampere University Hospital, Tampere, Finland. ² Prostate Cancer Research Center, Department of Urology, Tampere University Hospital and School of Medicine, University of Tampere, Tampere, Finland.

35. Altering androgen precursor availability impacts on endometrial function

Douglas A Gibson¹, Olympia Kelepouri¹, Ioannis Simitsidellis¹, Hilary O.D. Critchley² and Philippa T.K. Saunders¹

¹MRC/University of Edinburgh Centre for Inflammation Research and ²Centre for Reproductive Health, University of Edinburgh, UK.

36. The AR/NCOA1 signaling regulates prostate cancer migration by involvement of PRKD1

Birgit Luef¹, Florian Handle¹, Gvantsa Kharashvili², Martina Hager³, Johannes Rainer⁴, Günter Janetschek⁵, Stephan Hruby⁵, Christine Englberger⁵, Jan Bouchal², Frédéric R. Santer^{1,6} and Zoran Culig^{1,6}

¹Division of Experimental Urology, Department of Urology, and ⁴Division of Molecular Pathophysiology, Biocenter, Medical University of Innsbruck, Innsbruck, Austria. ²Department of Clinical and Molecular Pathology and Institute of Molecular and Translational Medicine, Faculty of Medicine and Dentistry, Palacky University, Olomouc, Czech Republic. ³ Departments of Pathology and ⁵ Urology, Paracelsus Medical University, Salzburg, Austria. ⁶Joint senior authors.

37. Combined AR phosphorylation at serine 81 and serine 213 are associated with decreased survival in Castrate Resistant Prostate Cancer

Milly J McAllister¹, Pamela McCall², Mark A Underwood³, Hing Y Leung⁴ and Joanne Edwards¹

¹Institute of Cancer Sciences, College of Medical, Veterinary, and Life Sciences, University of Glasgow, Glasgow, Scotland. ²University of Strathclyde, Glasgow, Scotland. ³Department of Urology, Southern General Hospital, Glasgow, Scotland. ⁴Cancer Research UK Beatson Institute, The Beatson Institute of Cancer Research, Glasgow, Scotland.

38. Investigating the Role of SUMOylation of Androgen Receptor Splice Variants by SUMO1 in Castration Resistant Prostate Cancer

Evangelia E. Kounatidou¹ and Luke Gaughan¹

¹Northern Institute for Cancer Research, Newcastle University, Newcastle upon Tyne, UK

39. Mediators of stress resistance in prostate cancer cells

Adam Pickard¹, Francesca Amoroso¹, Lorna May-Stewart¹, Jonathan McComb¹, Ian G. Mills^{1,2}

¹Prostate Cancer UK/Movember Centre of Excellence, Centre for Cancer Research and Cell Biology, Queen's University Belfast, Belfast, UK. ²Prostate Cancer Research Group, Centre for Molecular Medicine (Norway), University of Oslo and Oslo University Hospitals, Oslo, Norway; Department of Molecular Oncology, Institute for Cancer Research, Oslo University Hospitals-Radium Hospital, Montebello, Oslo, Norway.

40. Characterising mechanisms of aberrant androgen receptor signalling in advanced prostate cancer

Wenrui Guo, Craig Robson, Luke Gaughan

Northern Institute for Cancer Research, Newcastle University, Newcastle upon Tyne, UK.

41. Identification and characterization of a CRM1/XPO1-dependent nuclear export signal in the human androgen receptor

Stefanie V. Schütz¹, Axel Merseburger², Anca Azoitei¹, Marcus V. Cronauer²

¹Department of Urology, University of Ulm, Ulm, Germany. ²Department of Urology, UKSH Campus Lübeck, Lübeck, Germany.

42. Mitochondrial function and mitochondrial heteroplasmy levels differ between benign and malignant prostate tissue.

Bernd Schöpf¹, Georg Schäfer^{2,3}, Hansi Weissensteiner¹, Erich Gnaiger⁴, Helmut Klocker²

¹Division of Genetic Epidemiology, Department of Medical Genetics, ²Division of Experimental Urology, Department of Urology, ³Department of Pathology, ⁴D. Swarovski Research Laboratory, Department of General and Transplant Surgery, Medical University of Innsbruck, Austria.

43. Mechanisms behind tumor relapse in 22Rv1 xenografts after treatment with abiraterone or cabazitaxel

Erik Bovinder Ylitalo and Pernilla Wikström

Department of Medical Biosciences, Umeå University, Umeå, Sweden.

44. The amino terminal domain of steroid hormone receptors as a novel drug target: Identification of small molecule inhibitors

Amy E. Monaghan¹, Stuart McElroy² and Iain J. McEwan¹

¹Institute of Medical Sciences, School of Medicine, Medical Sciences and Nutrition, University of Aberdeen, Foresterhill, Aberdeen AB25 2ZD, Scotland, UK. ²Biological Chemistry and Drug Discovery, School of Life Sciences, University of Dundee, Dow Street, Dundee DD1 5EH, Scotland, UK.

45. Evidence for neuroendocrine progenitor cells in a transgene mouse model of prostate cancer

Simon Udovica¹, Alexander Otahal¹, Erwin Tomasich¹, Gerwin Heller¹, Michael Schwarz¹, Andreas Spittler², Reinhard Horvat³, Peter Horak⁴, Maximilian Marhold¹ and Michael Krainer¹

¹Department for Internal Medicine I, Oncology, Medical University of Vienna, Vienna, Austria. ²Department of Surgery, Medical University of Vienna, Vienna, Austria. ³Institute for Pathology, Medical University of Vienna, Vienna, Austria. ⁴DKFZ, Heidelberg, Germany.

46. Potential of Metabolome Analysis for new Insights into System Biology and Relevance for Translational Medicine

Therese Koal

BIOCRATES Life Sciences AG, Innsbruck, Austria

47. Critical Role of Androgen Receptor Level in Prostate Cancer Cell Resistance to New Generation Antiandrogen Enzalutamide

Julia Hoefler¹, Mohammady Akbor^{1,2}, Florian Handle¹, Philipp Ofer¹, Martin Pühr¹, Walther Parson^{3,4}, Zoran Culig^{1,5}, Helmut Klocker¹ and Isabel Heidegger¹

¹Department of Urology, Division of Experimental Urology, Medical University of Innsbruck, Austria. ²School of Biosciences and Veterinary Medicine, University of Camerino, Italy. ³Institute of Legal Medicine, Medical University of Innsbruck, Austria. ⁴Forensic Science Program, The Pennsylvania State University, University Park, Pennsylvania, USA. ⁵Center of Biomolecular and Cellular Engineering, International Clinical Research Center, St. Anne's Hospital Brno, Czech Republic.

48. The cellular and molecular effects of the androgen receptor agonist, CI-4AS-1, on breast cancer cells

Mamoun Ahram, Ebtihal Mustafa, Shatha Abu Hammad, Mariam Hodhod, Malek Zihlif

Department of Physiology and Biochemistry, Faculty of Medicine, The University of Jordan, Amman, Jordan.

49. Differential expression and androgen regulation of microRNA molecules in breast cancer cells

Mamoun Ahram, Rand Zaza, Ebtihal Mustafa, Heba Jarrar, Razan Al-Saber, Shatha Abu Hammad, Malek Zihlif

¹Department of Physiology and Biochemistry, Faculty of Medicine, The University of Jordan, Amman, Jordan.

50. Phosphorylation of androgen receptor at serine 81 by cyclin-dependent kinases

Zuzana Skrášková¹, Radek Jorda¹, Eva Řezníčková¹ and Vladimír Kryštof¹

¹Laboratory of Growth Regulators, Palacký University and Institute of Experimental Botany ASCR, Olomouc, Czech Republic.

51. Mechanisms of radioresistance in prostate cells

Fabian Guggenberger¹, Holger Erb², Ira-Ida Skvortsova³, Zoran Culig¹, Frédéric R. Santer¹

¹Division of Experimental Urology, Medical University of Innsbruck, Austria. ²YCR Cancer Research Unit, Department of Biology, University of York, UK. ³Department of Therapeutic Radiology and Oncology, Medical University of Innsbruck, Austria.

52. Isolation, propagation and characterisation of primary prostate cancer epithelial cell lines from prostate specimens

Samantha Patek^{1&2}, Pamela McCall¹, Mark A Underwood³, Joanne Edwards¹

¹Institute of Cancer Sciences, Wolfson Wohl Cancer Research Centre, University of Glasgow, Glasgow G12 8QQ. ²Academic Department of Surgery, School of Medicine, University of Glasgow, Walton Building, Glasgow Royal Infirmary, 84 Castle Street, Glasgow, G4 0SF. ³Department of Urology, Queen Elizabeth University Hospital, Glasgow G31 2ER.

53. Androgen and Estrogen Receptor Co-regulation of Human UDP-glucuronosyltransferases 2B15 and 2B17 in Breast Cancer

Dong Gui Hu^{1#}, Luke Selth^{2#}, Gerard Tarulli², Robyn Meech¹, Dhilushi Wijayakumara¹, Apichaya Chanawong¹, Roslin Russell³, Carlos Caldas³, Jessica LL Robinson⁴, Jason Carroll⁴, Wayne Tilley², Peter Mackenzie¹ and Theresa Hickey²

¹Department of Clinical Pharmacology, Flinders University School of Medicine, Flinders Medical Centre, Bedford Park SA 5042, Australia. ²Dame Roma Mitchell Cancer Research Laboratories, School of Medicine, The University of Adelaide, SA 5005, Australia. ³Breast Cancer Genomics Group, Cancer Research UK, Cambridge Institute, Cambridge University, Cambridge, UK. ⁴Nuclear Transcription Factor Laboratory, Cancer Research UK, Cambridge Institute, Cambridge University, Cambridge, UK. #Authors provided equal contribution.

54. Trop-2 expression in epithelial-to-mesenchymal transition of cancer cells

Ján Remšík^{1,2,3}, Zuzana Pernicová^{1,3}, Šárka Šimečková^{1,2,3}, Lucia Binó^{1,3}, Eva Slabáková¹, Radek Fedr^{1,3}, Alois Kozubík^{1,2}, Karel Souček^{1,2,3}

¹Department of Cytokinetics, Institute of Biophysics, Academy of Sciences of the Czech Republic, Brno, Czech Republic. ²Department of Experimental Biology, Faculty of Science, Masaryk University, Brno, Czech Republic. ³Center of Biomolecular and Cellular Engineering, International Clinical Research Center, St. Anne's University Hospital Brno, Brno, Czech Republic.

55. Histological modeling of prostate cancer

Pekka Ruusuvauro, Mira Valkonen, Kimmo Kartasalo, Tapio Visakorpi, Leena Latonen, Matti Nykter

BioMediTech, University of Tampere, Tampere, Finland.

56. Androgen receptor variant 7 induces cellular senescence

Zeynep Kaya and Nathan A. Lack

Koç University, School of Medicine, Istanbul, Turkey.

57. Segment-specific enrichment of AP-2 and Runx motifs within caput- and IS-preferred androgen receptor binding sites in the mouse epididymis

Päivi Pihlajamaa¹, Biseajyoti Sahu¹, Olli A. Jänne², Matti Poutanen³ and Petra Sipilä³

¹Genome-Scale Biology, Research Programs Unit, University of Helsinki, ²Institute of Biomedicine, University of Helsinki, Helsinki, Finland. ³Department of Physiology and Turku Center for Disease Modeling, Institute of Biomedicine, University of Turku, Turku, Finland.

58. Characterisation of Androgen and Estrogen Receptor Cross-Talk

Mohammad Alkheilewi, Rosie Bryan and Greg Brooke

School of Biological Sciences, University of Essex, Colchester, CO4 3SQ, UK.

59. High levels of the AR-V7 splice variant and co-amplification of the Golgi protein coding YIPF6 in AR amplified prostate cancer bone metastases

Erik Djusberg^{1*}, Emma Jernberg^{1*}, Elin Thysell¹, Irina Golovleva², Pia Lundberg², Sead Crnalic³, Anders Widmark⁴, Anders Bergh¹, Maria Brattsand¹, Pernilla Wikström¹.

¹Department of Medical Biosciences, Pathology, Umeå University, Umeå, Sweden. ²Department of Medical Biosciences, Medical and Clinical Genetics, Umeå University, Umeå, Sweden. ³Department of Perioperative sciences, Orthopedics, Umeå University, Umeå, Sweden. ⁴Department of Radiation Sciences, Oncology, Umeå University, Umeå, Sweden. *Contributed equally.