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PROFESSIONAL GUARANTEE



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Czech Annual Cancer Research Meeting November 20–22 2023 | Olomouc, CZ

18th Czech Annual Cancer Research Meeting

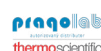
former Diagnostic, Predictive and Experimental Oncology Days

18th Molecular Pathology Days

106th Olomouc histopathology seminar

PROGRAM

SPONSORS



The project National Institute for Cancer Research (Programme EXCELES, ID Project No. LX22NPO5102) - Funded by the European Union – Next Generation EU

MONDAY 20TH NOVEMBER, 2023

12:30 – 12:45

OPENING CEREMONY

Early detection and prevention of cancers: Lung cancer focus

12:45 – 14:45

Chairs: Marián Hajdúch, Jiří Votruba

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|---------------|---|
| 12:45 – 13:15 | Assessing the lung cancer risk reduction potential of novel tobacco and nicotine containing products – A matter of dose response
Peter Harper |
| 13:15 – 13:45 | Epidemy of lung cancer is continuing despite the effort of medical and research specialists
Jiří Votruba |
| 13:45 – 14:15 | Identifying biomarkers for lung cancer and COPD diagnosis by protein analysis of exhaled breath condensate
Jana Václavková, Marián Hajdúch |
| 14:15 – 14:45 | How can we maximize the social value of biomedical innovation?
Jakub Hlávka |
| 14:45 – 15:00 | COFFEE BREAK |

Molecular pathology of cancers and molecular targets: Hematological malignancies I / 15:00 – 16:15

Chairs: Ester Mejstříková, Pavel Klener

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|---------------|--|
| 15:00 – 15:15 | Protein kinase B signaling in lymphomas: the current state and future therapy perspectives
Ondrej Havranek |
| 15:15 – 15:30 | Clonal evolution in mantle cell lymphoma at single cell resolution
Dmitry Kazantsev |
| 15:30 – 15:45 | Foxo1-Rictor axis mediates adaptive increase in Akt activity and cell survival during bcr inhibitor therapy in chronic lymphocytic leukemia
Kryštof Hlaváč |
| 15:45 – 16:00 | Modulation of oncogenic FLT3-ITD kinase in acute myeloid leukaemia cells
Eva Řezníčková |
| 16:00 – 16:15 | ALDH1A as a therapeutic target in acute myeloid leukemia
Mehak Shaikh |
| 16:15 – 16:45 | COFFEE BREAK |

Molecular pathology of cancers and molecular targets: Hematological malignancies II / 16:45 – 17:45

Chairs: Juan DeSanctis, Ester Mejstříková

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| 16:45 – 17:00 | BCL-XL blockage with A1155463 significantly increases efficacy of venetoclax in BCL-2 positive lymphoproliferative malignancies
Alexandra Dolníková |
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MONDAY 20TH NOVEMBER, 2023

- 17:00 – 17:15 Hybrid amyloidosis, R2 (rarest in rare)
Patrik Flodr
- 17:15 – 17:30 Molecular dynamics of the lineage switch in acute leukemia: Insight through mass cytometry and CITE-Seq analysis using trajectory inference
Jan Stuchlý
- 17:30 – 17:45 Composition of immunocompetent cells in bone marrow and peripheral blood in context of anti-CD19 targeted therapy of B cell precursor leukemia
Ester Mejstříková

TUESDAY 21ST NOVEMBER, 2023

Molecular pathology of cancers and molecular targets: Genetic predisposition / 9:00 – 10:15

Chairs: Jiří Drábek, Pavel Vodička

- 9:00 – 9:30 Genetic predisposition to colorectal cancer: Identification of novel cancer susceptibility genes
Asta Försti
- 9:30 – 9:45 Genomic Instability in adenomas and in colorectal cancer progression
Pavel Vodička
- 9:45 – 10:00 Large-scale categorization of germline missense variants in the checkpoint kinase gene CHEK2 revealed a set of functionally-impaired variants increasing breast cancer risks
Zdeněk Kleibl
- 10:00 – 10:15 Precise correction of casual mutations as a treatment strategy for monogenic disorders with increased predisposition to cancer
Lucie Peterková
- 10:15 – 10:45 **COFFEE BREAK**

Molecular pathology of cancers and molecular targets: Targeted therapies / 10:45 – 12:15

Chairs: Ondřej Slabý, Zdeněk Kleibl

- 10:45 – 11:15 Real-world precision medicine in oncology: comparison of results in pediatric and adult patients
Ondřej Slabý
- 11:15 – 11:30 Topological stress triggers difficult-to-repair DNA lesions in ribosomal DNA with subsequent formation of PML-nucleolar compartment
Pavla Vasicova
- 11:30 – 11:45 Exploring ATR inhibition in MLL-ENL-driven leukemogenesis: threshold and context role of ATR signaling
Pavla Chaloupkova

TUESDAY 21ST NOVEMBER, 2023

- 11:45 – 12:00 PPM1D activity promotes the replication stress caused by cyclin E1 overexpression
Libor Macurek
- 12:00 – 12:15 The role of autoproteolysis and mitoribosomal proteins in the regulation of LACTB tumor suppressor
Sara Escudeiro-Lopes
- 12:15 – 13:15 **LUNCH + POSTER PRESENTATION**

Cancer biomarkers and molecular targets I / 13:15 – 15:00

Chairs: Lucie Kučerová, Josef Srovnal

- 13:15 – 13:45 Advances in liquid biopsy testing
Mikael Kubista
- 13:45 – 14:00 Ultra-sensitive detection of miRNAs related to myelodysplastic syndromes in human blood plasma
Giusy Finocchiaro
- 14:00 – 14:15 Novel model of circulating tumor cells for validation of druggable pathways in triple-negative breast cancer
Lucia Kucerova
- 14:15 – 14:30 Patient-derived xenografts of pancreatic carcinoma – our experience with adenosquamous form
Tomas Sychra
- 14:30 – 14:45 Integrative multi-omics approaches unveil novel insights into vestibular schwannoma pathogenesis
Lucie Pfeiferova
- 14:45 – 15:00 PIWIL1-4 in human gliomas and glioblastoma stem-like cells
Elena Garcia Borja
- 15:00 – 15:30 **COFFEE BREAK**

Innovative cancer therapies I / 15:30 – 17:00

Chairs: Michal Hocek, Tomáš Etrych

- 15:30 – 16:00 Automation + miniaturization = acceleration
Alexander Dömling
- 16:00 – 16:15 Heterocyclic analogues of lupane triterpenoids trigger apoptosis selectively in cancer cells
Milan Urban
- 16:15 – 16:30 Development of degradable PHPMA-based nanogels: preparation procedure and physicochemical properties
Petr Šálek
- 16:30 – 16:45 Photocontrolled interleukin/receptor pairs through genetic code expansion
Gustavo Fuertes
- 16:45 – 17:00 3,5,7-Substituted pyrazolo[4,3-d]pyrimidine inhibitors of cyclin-dependent kinases and cyclin K degraders
Radek Jorda

TUESDAY 21ST NOVEMBER, 2023

17:00 – 17:15 COFFEE BREAK

Innovative cancer therapies II / 17:15 – 18:30

Chairs: Alexander Dömling, Milan Urban

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| 17:15 – 17:30 | Unveiling the potential of Stony Brook taxanes: A promising solution to combat taxane resistance in solid tumors
Radka Vaclavikova |
| 17:30 – 17:45 | Engineered antibodies as platforms for cancer therapy
Gargi Das |
| 17:45 – 18:00 | Derivatives of trilobolide activate the cytotoxic response of T cytotoxic and NK cells against tumour cells
Juan Bautista De Sanctis |
| 18:00 – 18:15 | Triazole-based estradiol dimers with five-atom linkers act as inhibitors of microtubule dynamics
Jiří Řehulka |
| 18:15 – 18:30 | Discovery of novel specific carbonic anhydrase IX inhibitors by HTS campaign
Soňa Gurská |
| 19:00 – 24:00 | SOCIAL EVENT |

WEDNESDAY 22ND NOVEMBER, 2023

Cancer biomarkers and molecular targets II / 8:30 – 10:15

Chairs: Petr Džubák, Helena Kupcová Skalníková

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| 8:30 – 9:00 | The development of low input proteomic technologies for the analysis of rare quiescent cancer cells
Silvia Surinova |
| 9:00 – 9:15 | Connecting genomic variants and the proteome with peptide level resolution at scale
Willy Peña Büttner |
| 9:15 – 9:30 | Proteotype classification of metastatic and localized renal cell carcinomas for prognosis and therapy response
Pavel Bouchal |
| 9:30 – 9:45 | Can lipid profiles reflect the true biological age and healthy ageing?
Lukáš Najdekr |
| 9:45 – 10:00 | Lactosylceramide synthases B4GALT5 and B4GALT6 and their potential role(s) in colon cancer cells
Jan Vondráček |
| 10:00 – 10:15 | The cervical mucus – proteomic characterization and protein-tissue analysis in the healthy patient subset
Tomáš Oždian |

WEDNESDAY 22ND NOVEMBER, 2023

10:15 – 10:45 COFFEE BREAK

Cancer biomarkers and molecular targets III / 10:45 – 13:00

Chairs: Karel Smetana, Luca Vannucci

- 10:45 – 11:15 Generation of myeloid-derived suppressor cells (MDSC) and their targeting in cancer
Viktor Umansky
- 11:15 – 11:30 Fibroblast heterogeneity and cancer biology
Karel Smetana, Jr.
- 11:30 – 11:45 Revealing immune response against melanoma during spontaneous regression in pig model
Helena Kupcová Skalníková
- 11:45 – 12:00 Single-cell profiling of native surface glycosphingolipid epitopes opens new dimension for deconvolution of breast cancer intratumoral heterogeneity and phenotypic plasticity
Jiřina Procházková
- 12:00 – 12:15 Gut microbiome can influence local and distant immune environment and tissue structures: a germ-free animal lesson perspective also for cancer-microbiome relationships
Luca Vannucci
- 12:15 – 12:30 AI in pathology: state of the art and AI-powered image analysis with ImageJ
Kateřina Čížková
- 12:30 – 12:45 New prognostic markers and therapeutic strategies in solid tumors
Petr Benes
- 12:45 – 13:00 Single cell molecular pathology with Xenium *in situ*
Agnieszka Ciesielska
- 13:00 – 14:00 LUNCH + POSTER PRESENTATION

From molecular pathology to novel therapies of urological cancers 14:00 – 15:15

Chairs: Aleksí Sedo, Jan Bouchal

- 14:00 – 14:15 Glutamine metabolism as a target in therapy resistant prostate cancer
Holger H.H. Erb
- 14:15 – 14:30 Spliceosome component SRSF9 is involved in an rs5918762 allele-specific manner in alternative splicing of androgen receptor variant 7
Jasper Van Goubergen
- 14:30 – 14:45 Molecular basis of cisplatin resistance in testicular germ cell tumors
Laura Matoušková
- 14:45 – 15:00 *In vivo* toxicity and therapeutic efficacy of enhanced blood retention and tumor uptake PSMA-targeting ²²⁵Ac-labeled radioconjugates
Zbynek Novy
- 15:00 – 15:15 A-ring fused heterocyclic derivatives of dihydrotestosterone targeting the androgen receptor in prostate cancer
Miroslav Peřina

WEDNESDAY 22ND NOVEMBER, 2023

15:15 – 15:45

COFFEE BREAK

Innovative cancer therapies III: Polymers and nanoprobes

15:45 – 17:15

Chairs: Milada Šírová, Marek Kovář

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| 15:45 – 16:00 | Antitumor activity of HPMA copolymer conjugates bearing taxanes and platinum-based drugs for the treatment of head and neck cancer
Katerina Behalova |
| 16:00 – 16:15 | Stimuli-responsive polymer nanoprobes intended for fluorescence-guided surgery
Tomáš Etrych |
| 16:15 – 16:30 | Hydrophilic polymer carriers for tumor targeted delivery of photosensitiser precursors
Kevin Kotalík |
| 16:30 – 16:45 | Advanced glycopolymers as potent inhibitors of galectin-induced tumor progression
Petr Chytil |
| 16:45 – 17:00 | Powerful increase of gemcitabine in vivo antitumor activity through drug delivery system based on biocompatible HPMA copolymers: drug release kinetics is crucial
Marek Kovář |
| 17:00 – 17:15 | Targeted drug delivery using polymer carrier with P-gp overcoming capacity for treatment of chemoresistant tumors
Milada Šírová |

17:15 – 17:30

CLOSING CEREMONY



PARALLEL SESSIONS / Evropa Hall Small

MONDAY 20TH NOVEMBER, 2023

9:30 – 12:30 SALVAGE project meeting

14:00 – 16:30 NICR administrative meeting

TUESDAY 21ST NOVEMBER, 2023

10:00 – 15:00 106th Olomouc histopathology seminar

15:45 – 16:45 NICR research program 1 meeting

17:00 – 18:00 NICR research program 3 & 4 meeting

WEDNESDAY 22ND NOVEMBER, 2023

15:45 – 16:45 NICR research program 5 meeting

PARALLEL SESSIONS / Ventana Lounge

MONDAY 20TH NOVEMBER, 2023

18:00 – 21:00 NICR board meeting

TUESDAY 21ST NOVEMBER, 2023

13:30 – 15:00 NICR research program 2 meeting

WEDNESDAY 22ND NOVEMBER, 2023

18:00 – 21:00 NICR International Science and Advisory Board Meeting

POSTER SECTION

1. Impaired HSC fitness and accelerated leukemogenesis in a mouse model of chronic inflammation
Srdjan Grusanovic
2. Targeting Plectin in hepatocellular carcinoma
Zuzana Outla
3. Cytoskeletal disruption drives dna damage and carcinogenesis
Petra Novotna
4. Inhibition of P-glycoprotein mediated multidrug resistance and STAT3 signaling pathway by polymeric conjugates bearing HIV protease inhibitor derivatives
Daniil Starenko
5. Effect of acetylsalicylic acid nanopolymer on tumour antigen expression in human cell lines.
Jenny Valentina Garmendia
6. Discrimination of resected glioma tissues using surface enhanced Raman spectroscopy and Au@ZrO₂ plasmonic nanosensor
Vaclav Ranc
7. Characterization of drug release rate: an approach using Surface plasmon resonance, capillary electrophoresis, diffusion-ordered NMR spectroscopy
Alena Libanska
8. Age prediction from semen samples through the detection of DNA methylation
Lucie Kotkova
9. Differential roles of ARF GTPase-activating proteins GIT1 and GIT2 in regulating microtubule nucleation in glioblastoma cells
Vadym Sulimenko
10. CD147 – a promising target in head and neck cancer?
David Kalfeřt
11. CD38 and tumor associated macrophages in prostate cancer immune microenvironment
Nino Vashakidze
12. Micelle-forming amphiphilic copolymers for the treatment of resistant solid tumors
Marketa Frejtkova
13. Regulation of enterocyte development in the intestinal epithelium by bmp ligands
Linda Berkova
14. Predictive biomarkers testing - from simple tests to complex genomic profiling era
Barbora Kubova
15. Regulated cell death in 3D glioblastoma spheroids induced by near-infrared photothermal therapy using cationic gold nanorods
Monika Žarska
16. Oxysterols in pancreatic cancer: A comparative study of their effects on different cell lines
Tereza Tesarova
17. Circulating and salivary DNA-based biomarkers for early diagnosis and recurrence monitoring of oropharyngeal squamous cell carcinomas
Ondrej Bouska
18. Positron emission tomography imaging of Klebsiella pneumoniae infection using gallium-labelled siderophores
Kateřina Dvořakova Bendova
19. Establishment and characterization of preclinical models derived from circulating tumor cells
Zuzana Kahounova
20. Circulating tumor cell detection and characterization in solid tumors
Pavel Stejskal
21. Lupane derivatives inhibit Gli1-mediated transcription in human glioblastoma cell line via direct interaction with Gli1
Ivo Frydrych
22. Protein engineering of humanized antibody 5D3 designed to prostate cancer therapy
Zora Novakova
23. Diversity of oral and gut microbioma in adenokarcinoma and squamous cell lung carcinoma
Jozef Škarda
24. Tracing main c-Myc isoforms endogenous expression for targeted anti-cancer therapies
Agata Kubickova
25. Expression-methylation profile diversity of long non-coding RNAs in epithelial ovarian cancer patients with different platinum-free interval
Karolina Seborova
26. Exploring the role of notch signaling pathway in ovarian carcinoma: potential therapeutic targets and biomarkers
Alzbeta Spalenkova
27. Antiviral activity of selected lamiaceae essential oils and their monoterpenes against SARS-Cov-2
Ermin Schadich
28. Cytoplasmic p21 affects caspase-independent cell death pathway – parthanatos – in colon cancer cells following genotoxic stress
Viswanath Das
29. Morphine analgesia, opioid growth factor receptor and cannabinoid receptor 2 gene expression in tumor tissue improve survival of patients with pancreatic cancer
Monika Vidlarova
30. Morphological profiling of 2500 bioactive compounds by high throughput screening using cell painting assay
Alzbeta Srovnalova
31. Amplification of androgen receptor and expression of miR-375 as liquid biopsy markers for monitoring of prostate cancer progression and ARTA therapy failure
Eva Szczyrbova

POSTER SECTION

32. *In vitro* and *in vivo* efficacy of Stony-brook taxanes in paclitaxel resistant ovarian carcinoma
Marie Ehrlichova
33. The role of the checkpoint kinase 1 (Chk1) inhibition in luminal subtype of breast carcinoma
Veronika Boušková
34. Decreased glioblastoma growth and macrophage infiltration in a disintegrin and metalloproteinase domain-containing protein 8 (ADAM8) knockout mice
Nikola Ternerová
35. Fibroblast activation protein expressing mesenchymal cells influence T cell quantity and function in glioblastoma
Magdalena Houdová Megová
36. Differential seeding potency of exogenous R2 and R3 fibrils influences autophagic degradation of intracellular tau aggregates in Tau K18 P301S cells
Narendran Annadurai
37. Immunomodulatory effect of mesenchymal cells on T cells in a glioblastoma 3D spheroid model
Tereza Šváblová
38. Identification of the mechanism of action of A3 adenosine receptor agonist – PNH173
Kateřina Ječmeňová
39. Towards identification and validation of novel dc-sign ligands
Martin Ondra
40. How can single cell and spatial transcriptomics help in cancer research?
Alice Mášová
41. Trastuzumab induces cell death in tnbc cells: a step towards repurposing the monoclonal antibody
Hussein Sabit
42. Targeted treatment of severe vascular malformations using PIK3CA inhibitor alpelisib in children and young adults – single center prospective case series
Martin Sterba
43. Regulation of AR-V7 by 3'UTR-binding miRNAs
Elisa Morales
44. The role of HUS1 and RAD51 in cisplatin-based chemotherapy resistant bladder cancer
Nils van Creij
45. Clonal somatic variants in hematopoietic cells in relation to atherosclerosis and stroke
Barbora Kalousová
46. Molecular genetics of extraskeletal myxoid chondrosarcoma focusing on a rare alternative TCF12::NR4A3 gene fusion associated with unusual morphologic features
Jiří Lenz
47. Targeting of tyrosine kinases contributing to KMT2A-r mediated leukemogenesis as a therapeutic approach in mixed-lineage leukemia
Nikola Niederlova
48. Potential role of CDK13 in neuroblastoma progression
Jiří Kohoutek
49. Liquid biopsies in multiple myeloma
Sabina Sevcikova
50. Casein kinase 1 alpha inhibition in acute myeloid leukemia
Pavλίna Janovská



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Meeting**
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www.cancermeeting.cz