

XII. DNY DIAGNOSTICKÉ, PREDIKTIVNÍ A EXPERIMENTÁLNÍ ONKOLOGIE / XII. DIAGNOSTIC, PREDICTIVE AND EXPERIMENTAL ONCOLOGY DAYS

STŘEDA / WEDNESDAY - 30. listopadu 2016 / November 30th, 2016

9:00-9:15 WELCOME AND INTRODUCTION

Mastering DNA repair.

Chairs: Marco Foiani, Jiri Bartek



09:15-10:00 An integrated ATR, ATM and mTOR-mechanical network controlling nuclear plasticity.

Marco Foiani

10:00-10:45 Replication stress and DNA damage as hallmarks of cancer: From basic mechanisms to emerging clinical trials.

Jiri Bartek

10:45-11:00 COFFEE BREAK

Cellular stress and genotoxicity.

Chairs: Martin Mistrik, Zdenek Hodny

11:00-11:15 Replication obstacles formed within common fragile sites under replication stress are targeted by the global genomic nucleotide excision repair pathway.

Martin Mistrik

11:15-11:30 Tumors overexpressing RNF168 show altered DNA repair and responses to genotoxic treatments, genomic instability and resistance to proteotoxic stress.

Katarina Chroma

11:30-11:45 Senescent tumor cells accelerate tumor growth but induce bystander senescence in vitro in a murine model.

Milan Reinis

11:45-13:00 LUNCH AND POSTER PRESENTATIONS (Note: the authors are kindly requested to present posters in between 12:45-13:00)

Emerging technologies in cancer research.

Chairs: Tomas Eckschlager, Jiri Drabek

13:00-13:30 Analytical qualification of peptide arrays for tumor autoantibody profiling and resolution of batch effects in a colorectal carcinoma study.

Peter Hettegger

13:30-13:45 Three-dimensional cell cultures and lightsheet fluorescence microscopy in drug discovery and development.

Viswanath Das

13:45-14:00 Miniaturization of cytotoxic assay in HTS.

Sona Gurska

14:00-14:15 Decryptor: system for reliable identification of alterations by mass spectrometry of proteome.

Miroslav Hruska

14:15-14:30 Comparison of three genotyping methods for detection of BRAF p.Val600Glu mutation in FFPE samples.

Jana Duchoslavova

14:30-14:45 Specific CNV analysis from single-cell.

Anastasiya Zidkova

14:45-15:00 COFFEE BREAK



Molecular targets and cancer biomarkers I.

Chairs: Ondrej Slaby, Lubos Holubec

- 15:00-15:30 Translational potential of microRNAs in oncology.
Ondrej Slaby
- 15:30-15:45 Prevalence of HPV infection in oocyte donors and women treated for infertility: a prospective study.
Hana Jaworek
- 15:45-16:00 Circulating glycoprotein biomarkers of gastrointestinal cancers.
Lakshman Varanasi
- 16:00-16:15 Deregulation of miR-21, miR-9, miR-143 and miR-145 in sinonasal carcinoma and their value as prognostic biomarkers.
Helena Kovarikova
- 16:15-16:30 Analysis of copy number variations in meningioma samples using microarrays revealed 22q deletions more frequent in higher grade tumors.
Josef Srovnal
- 16:30-16:45 The mechanisms of anticancer tumor response targeted to the EGFR in colorectal carcinoma.
Lubos Holubec
- 16:45-17:00 Comparison of newly prepared cisplatin-resistant and parental TGCTs cell lines.
Silvia Schmidtova
- 17:00-17:15 Invasive capacity of cancer cells is enhanced by expression and catalytic performance of the pH regulating enzyme CA IX.
Michaela Debreova
- 19:00 CONFERENCE DINNER** (NH hotel restaurant, for dinner-registered participants only)

ČTVRTEK / TUESDAY - 1. prosince 2016 / December 1st, 2016

Novel anticancer drugs and therapies I.

Chairs: Lucia Kucerova, Marian Hajduch

- 9:00-9:45 Drug discovery for triple negative breast cancers.
Susan L. Mooberry
- 9:45-10:00 Chemoresistance of cancer cells - experimental models.
Tomas Eckschlager
- 10:00-10:15 Role of high-fat diet on the effect of metformin and melatonin in chemically-induced rat breast cancer models.
Bianka Bojkova
- 10:15-10:30 The effect of piperlongumine on pheochromocytoma cells in vitro and in vivo.
Petra Bullova
- 10:30-10:45 COFFEE BREAK**

Novel anticancer drugs and therapies II.

Chairs: Petr Dzubak, Viswanath Das

- 10:45-11:00 The prostate cancer-targeted and nontargeted apoferritin loaded by doxorubicin and its effect on cancer and healthy cell lines.
Tereza Cerna
- 11:00-11:15 Cytotoxicity and release of Paclitaxel from a PEG/PLA carrier.
Johana Plich



- 11:15-11:30 Multifaceted properties of betulinic acid derivatives.
Jiri Rehulka
- 11:30-11:45 Analyses of distinctive effects of ginger phenylpropanoids and quercetin on Nrf2-ARE pathway in human BJ fibroblast and HaCaT keratinocytes.
Ermin Schadich
- 11:45-12:00 Novel carborane as carbonic anhydrase IX inhibitors.
Jana Dvoranova Stepankova
- 12:00-13:00 LUNCH AND POSTER PRESENTATIONS**
(Note: the authors are kindly requested to present posters in between 12:45-13:00)

Molecular imaging in cancer research.

Chairs: Clemens Decristoforo, Milos Petrik

- 13:00-13:45 Translation of radiopharmaceuticals from bench to bedside - prospects and challenges in Europe.
Clemens Decristoforo
- 13:45-14:00 Fusarinine C - a backbone for targeted multimodality imaging?
Dominik Summer
- 14:00-14:15 ⁶⁸Ga and ⁸⁹Zr labelled RGD multimers for integrin $\alpha_v\beta_3$ targeting based on a siderophore scaffold.
Piriya Kaeopookum
- 14:15-14:30 New cholin analogs as potential diagnostics/therapeutics for prostate cancer.
Zbynek Novy
- 14:30-15:00 High resolution PET insert for high field preclinical MRI: evaluation of single ring system using 7T field strength.
Willy Gsell
- 15:00-15:15 COFFEE BREAK**

Molecular targets and cancer biomarkers II.

Chairs: Jana Nekvindova, Josef Srovnal

- 15:15-15:45 Mesenchymal stromal cells and drug responses in breast cancer cells.
Lucia Kucerova
- 15:45-16:00 Prognostic and predictive factors in primary glioblastoma multiforme WHO grade IV patients with resection: a single-institution study.
Ondrej Kalita
- 16:00-16:15 Urinary cell-free microRNA panel in detection of bladder carcinoma.
Jaroslav Juracek
- 16:15-16:30 Cannabinoid receptors expression affects NSCLC patients' survival.
Monika Vahalikova
- 16:30-16:45 Expression of biotransformation enzymes in hepatocellular carcinoma.
Jana Nekvindova
- 16:45-17:00 Identification of circulating microRNAs with diagnostic potential in colorectal cancer using next generation sequencing.
Petra Vychytilova-Faltejskova
- 17:00-17:15 What is the role of peripheral double positive (CD4+CD8+) T-cells in anti-tumor immunity?
Jiri Sinkora
- 17:15 CLOSING CEREMONY**



Postery / Posters

- 1 *Deletion of 18q in Patients with Colorectal Cancer - Preliminary Data*
Radek Trojanec
- 2 *DNA affinity chromatography combined with quantitative proteomics revealed role of XPC protein in replication stress and common fragile site stability*
Lucie Beresova
- 3 *Application of DARTS (Drug Affinity Responsive Target Stability) for identification of the ligand-binding part of the protein.*
Jana Vaclavkova
- 4 *Nuclear shuttling of microRNA hsa-miR-29b enhances etoposide toxicity in HeLa cells*
Zdenek Dostal
- 5 *Surface Antibodies-Modification of Apoferritin with Encapsulated Doxorubicin Favorably Influences the Formation of Protein Corona*
Simona Dostalova
- 6 *Size-Related Toxicological Aspects of PVP-Capped Platinum Nanoparticles*
Hana Buchtelova
- 7 *Cross-Interactions between Trks Receptors and Neurotrophins: Insights from Molecular Docking and Molecular Dynamics*
Yazan Haddad
- 8 *Sarcosine Up-Regulates Expression of Genes Involved in Cell Cycle Progression of Metastatic Models of Prostate Cancer*
Vladislav Strmiska
- 9 *A role of V-ATPase in cancer cells chemoresistance*
Marie Belhajova
- 10 *Effect of mutations in the post-translation modifications sites of carbonic anhydrase IX and study of their functional properties*
Lenka Jelenská
- 11 *Detection of ionizing radiation biomarkers in mouse hair follicles*
Hanuš Slavík
- 12 *DNA methylation changes in tumour invasivity associated genes in breast cancer*
Lenka Kalinkova
- 13 *X-irradiation-induced senescence model: detection of senolytic drugs in high-throughput system*
Natálie Táborská
- 14 *Metformin and melatonin administration in a rat model of breast cancer improves liver antioxidant status.*
Bianka Bojková
- 15 *Importance of promoter methylation of GATA5 and THSB1 genes in malignant tumors of the sinonasal area.*
Marcela Chmelarova
- 16 *The prognostic aspect of the perioperative circulating tumor cells detection in non-small cell lung cancer patients*
Alona Rehulkova
- 17 *NGS technology as a way for monitoring of IgVH clones in ALL patients - pilot study*
Katerina Hrochová
- 18 *Oncogenic action of S100P in cancer includes sequestration of p53 and stimulation of therapy-induced senescence*
Adriana Gibadulinova
- 19 *The effect of metallothionein - doxorubicin combination approach in the targeted anticancer therapy*
Michaela Docekalova
- 20 *A new type of carbon nanotransporter for doxorubicin targeted delivery in breast cancer: the effect of metallothionein*
Michaela Docekalova
- 21 *Bid-dependent activation of mitochondrial pathway is essential for cisplatin- or LA-12-mediated enhancement of TRAIL-induced apoptosis in human prostate cancer cells*
Olga Vondalova Blararova
- 22 *Regulation of NEU4 sialidase expression in tumor hypoxia*
Mária Bartošová
- 23 *The role of the soluble form of tumor-associated CA IX protein in vivo.*
Ivana Vidlickova
- 24 *Plasma-based biomarkers of gastrointestinal cancers*
Martina Jakoubkova
- 25 *Detection of HPV in lung cancer patients*
Jana Potockova
- 26 *Molecular diagnostics in glioma*
Magdalena Houdova Megova