

SCIENTIFIC PROGRAM – LECTURES

SATURDAY, OCTOBER 14, 2017

CONGRESS HALL

EN 18:30 – 19:00 **OPENING LECTURE**

Chairmen: Souček K. (Brno, CZ), Kalina T. (Prague, CZ)

Ethics and Responsibility in Research

Marek Vácha | Prague, CZ

FOYER

19:00 - 20:30 **Welcome Drink**

SUNDAY, OCTOBER 15, 2017

CONGRESS HALL | PLENARY SESSIONS

9:00 Opening Ceremony

EN 9:10 – 17:25 **INVITED LECTURES**

Chairmen: Hrušák O., Alberich Jorda A. (Praha)

9:10 1. Birth, Reproduction, Inhibition and Death in CLL
Rawstron A. C. | Leeds, UK

9:45 2. Hematology and Cell Therapy
Gaipa G. | Monza (MB), IT

10:20 – 10:55 *Coffee Break*

Chairmen: Hrušák O. (Prague, CZ), Lysák D. (Pilsen, CZ)

10:50 3. The Secrets of Human B Lymphocyte Activation and Development by Flow Cytometry
Rizzi M. | Freiburg, DE

11:30 4. Immune Phenotyping by Mass Cytometry
Mei H. | Berlin, DE

5. Systems Immune Monitoring in Cancer 12:05
Irish J. M. | Nashville, Tennessee, USA

12:40 – 14:00 *Lunch / Lunch Sessions*

Chairmen: Fišer K., Janda J. (Prague, CZ)

6. Computational Data Analysis 14:00
Saeyns Y. | Ghent, BE

7. Circulating Tumor Cells as Metastatic Precursors 14:35
Maheswaran S. | Boston, USA

8. Lessons from Sperm Phenotypes of Livestock Animal Models and Their Translation to Human Male Infertility 15:10
Sutovsky P. | Columbia, Missouri, USA

15:45 – 16:15 *Coffee Break*

Chairmen: Doležel J. (Olomouc, CZ), Kanderová V. (Prague, CZ)

9. Isolation of Organelles by Flow Cytometry: State of the Art 16:15
Gomez-Pacheco M., Gillet C., Le Bars R., Satiat-Jeunemaître B., **Bourge M.**
| Gif-sur-Yvette, FR

10. Genome Evolution Revealed Through Chromosome Flow Sorting 16:50
in the Komodo Dragon (*Varanus komodoensis*)
Johnson Pokorná M.¹, Iannucci A.², Altmanová M.¹, Kratochvíl L.¹, Reháček I.³, Pereira J.⁴, Ferguson-Smith M.⁴, Ciofi C.² | ¹Liběchov, CZ, ²Sesto Fiorentino (FI), IT, ³Prague, CZ, ⁴Cambridge, UK

17:25 – 17:35 Award – The Best Cytometric Publication 2016

Chairmen: Kalina T. (Prague, CZ), Souček K. (Brno, CZ)

MONDAY, OCTOBER 16, 2017

BRUNCVÍK HALL | CSAC MEMBERS ONLY

8:30 – 9:00

Plenary Meeting of the Czech Society for Analytical Cytometry
Chairmen: Kalina T., CSAC Committee

BRUNCVÍK HALL

EN 9:00 – 12:10

PARALLEL SESSION

Cell Biology and Signalling

Chairmen: Souček K., Vaculová Hyršlová A. (Brno, CZ)

- CB-1 **Wnt/Planar Cell Polarity Pathway: A Compass Navigating Cells Towards Health or Disease**
9:00 Bryja V. | Brno, CZ
- CB-2 **Novel Surface Antigens Associated with Plasticity of Breast Cancer Cells and Disease Progression**
9:20 Remšík J., Fedr R., Navrátil J., Souček K. | Brno, CZ
- CB-3 **The Novel C/EBP α Target Gene EVI2B Regulates Myeloid Differentiation and Hematopoietic Progenitor Cell Function**
9:40 Zjablovskaja P.¹, Kardosova M.¹, Danek P.¹, Angelisova P.¹, Benoukraf T.², Wurm A.³, Sian S.², Kalina T.¹, Brdicka T.¹, Balastik M.¹, Delwel R.⁴, Tenen D. G.^{2,5}, Malissen B.⁶, Fiore F.⁶, Behre G.³, Horejsi V.¹, Alberich-Jorda M.¹ | ¹Prague, CZ, ²Singapore, SG, ³Leipzig, DE, ⁴Rotterdam, NL, ⁵Boston, USA, ⁶Marseille, FR
- CB-4 **Cripto-1 Induces Multicentrosomal Mitoses in Human Embryonic Stem Cells**
10:00 Porokh V., Vaňhara P., Mináriková D., Holubcová Z., Bárta T., Jurečková L., Doležalová D., Hampl A. | Brno, CZ
- CB-5 **Optimization of Mass Cytometry for Immunoprofiling of Cancer Patients**
10:05 Poláková I., Šmahel M., Peláček O., Pokrývková B., Simonidesová S., Grega M., Tachezy R. | Prague, CZ
- CB-6 **Lipidome in Epithelial Colon Cancer Cells: Expression of Genes Involved In Regulation of Lipid Metabolism – Tumor vs. Non-Tumor Tissue Differences**
10:10 Karasová M.¹, Straková N.¹, Zapletal O.¹, Tylichová Z.¹, Levková M.², Hušková Z.², Slavík J.¹, Ciganek M.¹, Ovesná P.¹, Skalický P.², Bouchal J.², Ehrmann J.², Kolář Z.², Hofmanová J.¹, Vondráček J.¹, Machala M.¹, Kozubík A.¹ | ¹Brno, ²Olomouc, CZ
- CB-7 **Inhibition of CHK1 Stimulates the Cooperative Cytotoxic Action of Platinum-Based Drugs and Trail in Human Prostate Cancer Cells**
10:15 Krkoška M., Herůdková J., Vondálová Blanářová O., Paruch K., Sova P., Hyršlová Vaculová A. | Brno, CZ

10:20 CB-8 **Decoding Bladder Carcinoma Through High Dimensional Analysis**
Koladiya A., Otavová K., Drbal K. | Prague, CZ

10:25 CB-9 **MojoSort™ Nanobead Cell Isolation Using a Commercial Magnetic Column Provides High Purity, Yield and Preserved Cell Function**
Zemlickova E. | Oxford, UK

10:30 – 11:00 *Coffee Break*

11:00 CB-10 **Polychromatic Flow Cytometry Using the New BD Facsymphony Analyser: Panel Design and Challenges in Data Interpretation**
Fleischer J. | Heidelberg, DE

11:10 CB-11 **ER Stress Alters Senescent Phenotype of Ovarian Surface Epithelial Cells**
Vašíčková K., Vaňhara P., Hampel A. | Brno, CZ

11:30 CB-12 **The Transcription Factor C/EBP γ Regulates Mast Cell Development and Function**
Kardošová M., Potůčková L., Halová I., Zjablovskaja P., Dráberová L., Dráber P., Alberich-Jorda M. | Prague, CZ

11:50 CB-13 **Stem Cell Marker Trop-2 is a Target of Tumor Suppressive miR-34a**
Slabáková E.¹, Remšík J.¹, Kubík M.¹, Culig Z.^{1,2}, Souček K.¹ | ¹Brno, CZ, ²Innsbruck, AT

12:00 – 14:00 *Lunch / Lunch Sessions*

CZ 14:00 – 17:10 EDUCATIONAL SESSION
Clinical Cases in Flow Cytometry

Úvod a krátký cytometrický kvíz

SEKCE KLINICKÁ IMUNOLOGIE

Předsedající: Kanderová V. (Praha), Vlková M. (Brno)

14:10 **Zajímavé imunologické kazuistiky pohledem klinika a laboratoře**
Hlaváčková E., Vlková M. | Brno

14:50 **Proliferace T-lymfocytů v odpovědi na alergenní stimul**
Vokurková D., Jankovičová K. | Hradec Králové

15:05 **Aktivace lymfocytů v klinické laboratoři - metody stimulace a detekce, klony protilátek**
Kanderová V. | Praha

15:20 **KRÁTKÁ ZÁBAVNÁ VSUVKA**

Čonka M. | Praha

15:30 – 16:00 *Coffee Break*

SEKCE KLINICKÁ HEMATOLOGIE

Předsedající: Kanderová V. (Praha), Vlková M. (Brno)

Jak dobře fenotypizovat AML

16:00 Nováková M. | Praha

Jak dobře fenotypizovat B-ALL

16:20 Vášková M. | Praha

Jak dobře fenotypizovat B-CLL

16:35 Chovancová J. | Brno

T-buněčné lymfoproliferace

16:50 Špaček M. | Praha

LIBUŠE HALL

CZ 9:00 – 10:30

PARALLEL SESSION

Reproduction Immunology

Chairmen: Luxová Š., Hortová K. (Prague, CZ)

RI-1 **Development of a New Antibody Against Human Carbonic Anhydrase Li to Support the Discrimination Between Fetal and Maternal Cells in Case of Fetomaternal Hemorrhage**

EN

9:00 Schuitemaker J. H.N., Wijbenga G., Schakel L., Cremers T. I.F.H. | Groningen, NL

RI-2 **Flow Cytometry in Fetomaternal Hemorrhage – Case Reports**

9:15 Zajíc T., Kamenická H., Procházková R., Bydžovská I. | Liberec, CZ

RI-3 **Natural Killer Cells Activation in Peripheral Blood of Women with Recurrent Pregnancy Loss and Unexplained Infertility**

9:30 Jankovičová K., Vokurková D., Malá E. | Hradec Kralove, CZ

RI-4 **Determination of Cytokine Profile in Infertile Women**

9:45 Luxová Š¹, Špryngar M.², Krátká Z.¹ | ¹Prague, ²Vestec, CZ

RI-5 **Evaluation of Acrosome Reaction by Flow Cytometry**

10:00 Dostálová P.¹, Dvořáková-Hortová K.^{1,2} | ¹Vestec, ²Prague, CZ

10:15 RI-6 **Cytometry Analyses of Annexin V Positive Sperm as a Prediction Marker of Male Fertility and Health**
Krátká Z., Luxová Š., Vik V. | Prague, CZ

10:30 – 11:00 *Coffee Break*

EN 11:00 – 12:15 **PARALLEL SESSION**

Clinical Immunology

Chairmen: Hrdý J. (Prague, CZ), Vlas T. (Pilsen, CZ)

11:00 CI-1 **Monitoring Changes Immunity During Allergen-Specific Immunotherapy**
Vlas T., Vachová M., Panzner P. | Pilsen, CZ

11:15 CI-2 **Immunomodulatory Effect of Probiotic Strain E. Coli O83:K24:H31 and Its Role in Allergy Prevention**
Hrdý J., Súkeníková L., Novotná O., Petrásková P., Boráková K., Prokešová L. | Prague, CZ

11:30 CI-3 **CD Maps – Revisiting CD1 to CD100 Expression on Human Immune Cell Subsets**
Kalina T.¹, Kužílková D.¹, Fišer K.¹, Cuenca M.², Álvarez E. B.³, Bartol S.J.W.⁴, Andres-Perez M.³, van Zelm M.C.^{4,5}, Engel P.² | ¹Prague, CZ, ²Barcelona, ES, ³Salamanca, ES, ⁴Rotterdam, NL, ⁵Melbourne, VIC, AU

11:45 CI-4 **Association of Circulating CD4⁺CD8⁺ T-Cells with Solid Cancer in Humans**
Šinkorová Z.¹, Vaňásek J.², Kolářová I.², Vilasová Z.², Zuzulová M.³, Jarčušková J.³, Zarybnická L.¹, Šinkora J.⁴ | ¹Hradec Králové, ²Pardubice, CZ, ³Bratislava, SK, ⁴Prague, CZ

12:00 CI-5 **Monitoring of Intrahepatic and Circulating Immune System Features in Patients with Hepatocellular Carcinoma**
Macek Jilkova Z., Kurma K., Granon A., Marche P., Decaens T. | Grenoble, FR

12:00 – 14:00 *Lunch / Lunch Sessions*

EN 14:00 – 15:30 **EDUCATIONAL SESSION**

Image Analysis

Chairmen: Fedr R., Jaroš J. (Brno, CZ)

14:00 **Basics of Image Analysis and High Content Screening**
Jaroš J. | Brno, CZ

14:45 **Concepts and Methods of Image Processing**
Fedr R. | Brno, CZ

EN 16:00 – 17:30

Shared Resources Workshop sponsored by APE**Cytometer Characterization and Optimization Using the QuantiFlash**

Chairmen: Svoboda J., Janda J. (Prague, CZ)

Instrument Characterization

One of the well-known methods to characterize flow cytometers uses the following parameters to compare machines against each other: detection efficiency Q and the signal background B . The use of the quantiFlash to easily perform this evaluation will be demonstrated by our collaborator Toralf Kaiser.

Apart from this, other critical parameters that become easily accessible by using the quantiFlash. We want to point out how to measure

- the signal to noise ratio (SNR) and dynamic detection range (DNR)
- the optimal PMT gain (voltage) dependent on SNR and DNR

Cross-Channel Gain Calibration

Understanding how the gain of a PMT influences the processed signal intensity and the compensation matrix in a flow cytometer saves time and effort. We want to show

- how to characterize the gain of a given PMT (fluorescence channel) in order to define SPE per digital channel
- how to use the quantiFlash to optimize the compensation matrix

With this knowledge, the compensation matrix can be transferred without any further measurements to a new set of PMT voltages if a signal goes out of range in a certain channel.

PMT Characterization

Characterization of the spectral sensitivity of PMTs with quantiFlash and a monochromator

PŘEMYSL HALL

CZ 9:00 – 10.30

EDUCATIONAL SESSION**Flow Cytometry Basics**

Chairmen: Šinkora J., Svoboda J. (Prague, CZ)

9:00 **Fluorescence** | Benko M., Vestec9:20 **Základní principy průtokové cytometrie** | Pelák O., Praha9:40 **Příprava a zpracování vzorků** | Janda J., Praha9:55 **Principy cytometrického sortingu** | Svoboda J., Praha10:15 **Co může cytometristovi poradit a doporučit aplikační specialista** | Šinkora J., Praha

10:30 – 11:00 *Coffee Break*

12:00 – 14:00 *Lunch / Lunch Sessions*

EN

14:00 – 15:30

Satellite symposium sponsored by DYNEX | EN

Mass Cytometry

Chairman: Kalina T. (Prague, CZ)

Panel discussion:

All participants are welcome to present max 3 slides of usefull tips and tricks on any of the following topics:

- Mass cytometry project considerations
- Reagents, conjugations and stock control
- Sample handling, pre-enrichment
- Sample preparation and staining, barcoding
- Acquisition pitfalls
- Instrument handling
- Data analysis

15:30 – 16:00 *Coffee Break*

TUESDAY, OCTOBER 17, 2017

BRUNCVÍK HALL

EN 9:00 – 12:00

PARALLEL SESSION

Microfluidics

Chairman: Z. Prokop | Brno, CZ

MI-1 High Throughput Imaging Flow Cytometry

9:00 Holzner G., Anandkumar Sham R., deMello A.J., Stavrakis S. | Zurich, CH

MI-2 A Nanobiotechnology-Advanced Lab-on-a-Chip for Blood Cell Phenotyping

9:40 Rothbauer M.¹, Frauenlob M.¹, Gutkas K.¹, Fischer M.B.^{1,2}, Sin-ner E.-K.¹, Küpcü S.¹, Ertl P.¹ | ¹Vienna, ²Krems, AT

MI-3 Development of a Microfluidic Nanotoxicological-Screening System

10:00 Zirath H.¹, Rothbauer M.¹, Müller B.², Mayr T.², Ertl P.¹ | ¹Vienna, ²Graz, AT

10:30 – 11:00 *Coffee Break*

MI-4 Experimental Device for Fluorescence Measurement by Optical Fiber Combined with Dielectrophoretic Sorting in Microfluidic Chips

11:00 Ježek J., Pilát Z., Šmatlo F., Zemánek P. | Brno, CZ

MI-5 Directed Evolution of Enzymes Using Microfluidic Chips

11:20 Pilát Z., Ježek J., Šmatlo F., Zemánek P. | Brno, CZ

MI-6 Characterization of Haloalkane Dehalogenases Substrate Specificity by Capillary Microfluidics

11:40 Vasina M.¹, Buryska T.¹, Vanacek P.¹, Pilat Z.², Jezek J.², Zemanek P.², Damborsky J.¹, Prokop Z.¹ | ¹Brno, ²Prague, CZ

12:00 – 14:00 *Lunch / Lunch Sessions*

LIBUŠE HALL

EN 9:00 – 10:30

PARALLEL SESSION

Immunology

Chairmen: Janda J. (Prague, CZ), Frič J. (Brno, CZ)

IM-1 Pattern Recognition Receptors-Triggered Calcineurin-NFAT Signalling in Human Monocytes

9:00 Bendickova K., Tidu F., Jose S.S., Burilova P., Fric J. | Brno, CZ

9:30 IM-2 **Caspase 8 Deficiency Impairs NFκB Signaling and Apoptosis**
Kanderová V.¹, Ravčuková B.², Grombiříková H.², Fejtková M.¹, Klocperk A.¹, Zentsová I.¹, Paračková Z.¹, Kalina T.¹, Šedivá A.¹, Freiburger T.² | ¹Prague, ²Brno, CZ

9:45 IM-3 **How to Measure Self-Reactivity of a T-Cell Population?**
Horková V., Štěpánek O. | Prague, CZ

10:00 IM-4 **Validation of Novel Continuous Live-Cell Assays for Immune Cell Activation and Killing of Blood Cell Cancers**
Bevan N., Campwala H., Szybut C., Patel K., Appledorn D., Dale T., Trezise D. | Ann Arbor, MI, USA

10:15 IM-5 **CD47 Antibody-Induced Engulfment of Human T-Cell Leukaemia Cells by Bone-Marrow Derived Macrophages**
Lovell G., Szybut C., Patel K., Campwala H., Bevan N., Appledorn D., Dale T.J., Trezise D.J. | Ann Arbor, MI, USA

10:30 – 11:00 *Coffee Break*

EN 11:00 – 12:15

PARALLEL SESSION

Clinical Hematology & Cell Therapy

Chairmen: Hrušák O. (Prague, CZ), Lysák D. (Pilsen, CZ)

11:00 CT-1 **Advanced Profiling of Switching B Cell Precursor Leukemia Towards Monocytic Lineage**
Mejstříková E., Žaliová M., Musilová A., Fišer K., Nováková M., Slámová L., Vakrmanová B., Starková J., Rejlová K., Vášková M., Trka J., Hrušák O. | Prague, CZ

11:15 CT-2 **Mesenchymal Stromal Cells for Steroid-Refractory GVHD – Laboratory Response During a Clinical Trial**
Holubova M., Karas M., Hrabetova M., Vlas T., Jindra P., Lysak D., Pilsen, CZ

11:30 CT-3 **Ambiguous Leukemias in Children: How to Get from the Uncertainty**
Hrusak O. et al | Prague, CZ

11:45 CT-4 **Diagnostic Utility of Flow Cytometry in Myelodysplastic Syndrome (Single Centre Experience)**
Zábranská T., Holubová M., Lysák D., Jindra P. | Pilsen, CZ

12:00 CT-5 **Different Approaches for Viability Testing of Cell Therapy Products**
Groh T., Kočí Z., Kosnarová E., Bauer P.O. | Prague, CZ

12:00 – 14:00 *Lunch / Lunch Sessions*

PŘEMYSL HALL

EN 9:00 – 11:45 **EDUCATIONAL SESSION**

Cell Biology

Chairman: Souček K. (Brno, CZ)

9:00 **Analysis of Cell Death** | Hyršlová Vaculová A., Brno, CZ

9:45 **Analysis of Side Populations** | Vargová J., Košice, SK

10:30 – 11:00 *Coffee Break*

Chairman: Hyršlová Vaculová A. (Brno, CZ)

11:00 **Analysis of Proliferation** | Souček K., Brno, CZ

12:00 – 14:00 *Lunch / Lunch Sessions*

SCIENTIFIC PROGRAM – POSTERS

GALLERY

SUNDAY, OCTOBER 15, 2017

17:35 – 18:35 **Poster Presentations I**
Authors of odd-numbered posters are present
(Posters 1, 3, 5 ...)

MONDAY, OCTOBER 16, 2017

17:30 – 18:30 **Poster Presentations II**
Authors of even-numbered posters are present
(Posters 2, 4, 6 ...)

CELL BIOLOGY AND SIGNALLING

- pCB-1 **Advanced in Vitro Toxicity Testing with Liver Stem Cell Spheroids - Hepatotoxic and Tumor Promoting Effects of Cyanotoxins**
Basu A., Dydowiczova A., Musilova V., Blaha L., Babica P. | Brno, CZ
- pCB-2 **Vacuolar-Atpase-Mediated Lysosomal Sequestration Plays Role in Resistance to Cytostatic Drugs**
Belhajová M., Plch J., Černá T., Hraběta J., Eckschlager T. | Prague, CZ
- PCB-3 **Nitro-Oleic Acid Regulates Fibroblast Functions in Different Profibrotic Models**
Cechova V., Koudelka A., Koreny M., Kubala L., Pekarova M. | Brno, CZ
- pCB-4 **Apoferitin Nanocage as a Promising Ellipticine or Doxorubicin Nanocarrier and Its Effects on Neuroblastoma Cell Lines**
Černá T.¹, Indra R.¹, Plch J.¹, Belhajová M.¹, Dostálová S.², Heger Z.², Adam V.², Hraběta J.¹, Eckschlager T.¹, Stiborová M.¹ | ¹Prague, ²Brno, CZ
- pCB-5 **Double Positive CD4⁺CD8⁺ T Cells and Their Cytokine Profile in Melanoma-Bearing Libečov Minipigs (MeLiM)**
Čížková J.^{1,2}, Strnadová K.^{1,2}, Červinková M.^{1,2}, Horák V.¹, Šinkorová Z.³, Šinkora J.², Šinkora M.⁴ | ¹Libečov, ²Prague, ³Hradec Králové, ⁴Nový Hrádek, CZ
- pCB-6 **In Vitro Assessment of Gap Junctional Intercellular Communication for Identification and Characterization of Chemopreventive and Anticancer Compounds**
Ctverackova L., Brozman O., Dydowiczova A., Babica P. | Brno, CZ

- pCB-7 **3-D Time Lapse Analysis of the Growth of Cultured Embryonic Stem Cell Colony and the Expression of a Pluripotency Regulator Protein with Yokogawa Confocal Image Cytometer CQ1**
Endo T.¹, Nomura Y.¹, Pasculli R.², Dintner R.², Ota A.¹ | ¹Hokuyodai Kanazawa, JP, ²Prague, CZ
- PCB-8 **CHK1 Inhibitor SCH900776-Mediated Enhancement of Platinum Drug-Induced Cytotoxicity is Accelerated in the Absence of P21**
Herůdková J., Paruch K., Souček K., Sova P., Hyršlová Vaculová A. | Brno, CZ
- pCB-9 **Binding of Oxaliplatin Impairs the Function of Neuronal Na⁺/K⁺-ATPase**
Huličiak M., Souček K. | Brno, CZ
- pCB-10 **Platinum-Based Drug-Mediated Increase of Trail-Induced Prostate Cancer Cell Apoptosis Depends on Mitochondria but Not Caspase-10**
Vondálová Blanářová O.¹, Šafaříková B.¹, Herůdková J.¹, Krkoška M.¹, Anděra L.², Sova P.¹, Hyršlová Vaculová A.¹ | ¹Brno, ²Prague, CZ
- pCB-11 **BCL2 and BCL11a in Prediction of Relapse in Triple-Negative Breast Cancer Treated with Adjuvant Anthracycline-Based Chemotherapy**
Kharaiashvili G.¹, Svoboda M.², Gachechiladze M.¹, Vrbkova J.¹, Slavkovsky R.¹, Navratil J.², Koudelakova V.¹, Trojanec R.¹, Cwiertka K.¹, Hajduch M.¹, Kolar Z.¹, Bouchal J.¹, Bouchalova K.¹ | ¹Olomouc, ²Brno, CZ
- pCB-12 **Testing of Potential HIV-1 Inhibitors Using a Lentivirus System**
Křížová I., Rumlová M. | Prague, CZ
- pCB-13 **Total Body Irradiation and Lung: Study of Early Responce**
Lierová A., Jeličová M., Filipová A., Pejchal J., Zárybnická L., Němcová M., Šinkorová Z. | Hradec Králové, CZ
- pCB-14 **The Level of Cyclin-Dependent Kinase Inhibitor P27^{KIP1} after DNA Damage Is Retained in Chronic Lymphocytic Leukemia Cells**
Raskova Kafkova L.¹, Navrkalova V.², Jarosova M.¹, Loja T.², Chovancova J.², Fialova Kucerova J.¹, Kriegova E.³, Prochazka V.¹, Novak Z.¹, Simkova D.¹, Pospisilova S.², Divoky V.¹ | ¹Olomouc, ²Brno, CZ, ³Birmingham, AL, USA
- pCB-15 **Analysis of Henotypic, Molecular and Functional Alterations on Model of Metastatic Colorectal Carcinoma**
Ďuriníková E., Poturnajová M., Kvokačková B., Kozovská Z., Miklíková S., Plavá J., Kučerová L., Matúšková M. | Bratislava, SK
- pCB-16 **Analysis of Functional Characteristics of Adipose Tissue-Derived Mesenchymal Stromal Cells Isolated from Healthy Donors and Oncological Patients**
Miklíková S., Plavá J., Matúšková M., Boháč M., Kučerová L. | Bratislava, SK

- pCB-17 **Novel Cytotoxic Anticancer Drugs (1,10-Phenanthroline)₂Cu(II) Complexes Induce Cell Death by Modulation of Unfolded Protein Response in Ovarian Cancer Cells**
Moráň L.¹, Pivetta T.², Vašíčková K.¹, Hampl A.¹, Vaňhara P.¹ | ¹Brno, CZ,
²Monserrato (CA), IT
- pCB-18 **Scavenger Receptor B1 as a Target of Outdoor Stressors Affects Cutaneous Homeostasis**
Muresan X.M.^{1,2}, Belmonte G.², Gruber F.³, Valacchi G.², Souček K.¹ | ¹Brno, CZ,
²Ferrara, IT, ³Vienna, AT
- pCB-19 **Functional Status of CD47 Molecular Species on the Surface of Primary Bladder Cancer Cells**
Rajtmajerová M., Novák J., Drbal K. | Prague, CZ
- pCB-20 **Towards High Biocompatibility of Organic Conductive Materials for Heart on Chip Applications**
Šafaříková E., Viteček J., Stříteský S., Vala M., Salyk O., Omasta L., Weiter M., Kubala L. | Brno, CZ
- pCB-21 **Inhibition of SCF^{SKP2} Affects Characteristics of Cancer Stem-Like Cells**
Šimečková Š.¹, Fedr R.¹, Kahounová Z.¹, Remšík J.¹, Slabáková E.¹, Mičková A.², Kharaiashvili G.², Král M.², Bouchal J.², Souček K.¹ | ¹Brno, ²Olomouc, CZ
- pCB-22 **Flow Cytometry No-Wash Analysis of Fluorescently Labeled Exosomes and Microvesicles in the Urine of Bladder Carcinoma Patients**
Šťastná E., Drbal K. | Prague, CZ
- pCB-23 **Radiation Induced Apoptosis in Rats Spermatozoa**
Tsukanova E.V., Chueshova N.V., Veyalkina N.N., Cheshik I.A. | Gomel, BY
- pCB-24 **N-3 Polyunsaturated Fatty Acids Alleviate Benzo[A]Pyrene Toxicity in Human Colon Cancer Cell Lines**
Tylichová Z.¹, Neča J.², Machala M.², Topinka J.³, Milcová A.³, Hofmanová J.¹, Kozubík A.¹, Vondráček J.¹ | ¹Brno, ²Prague
- pCB-25 **Side Population Is Not an Unequivocal Marker of Cancer Stem Cells in A549 Cell Line and Can be Negatively Affected by Hypericin, an Active Metabolite of St. John's Wort**
Vargová J.¹, Mikeš J.¹, Jendželovský R.¹, Mikešová L.¹, Kuchárová B.¹, Čulka L.¹, Remšík J.², Fedr R.², Souček K.², Kozubík A.², Fedoročko P.¹ | ¹Košice, SK, ²Brno, CZ
- pCB-26 **Gap Junction Intercellular Communication as a Functional Biomarker to Assess Testicular Toxicants**
Yawer A., Laboha P., Dydowiczova A., Brozman O., Sychrova E., Kubincova P., Babica P., Sovadinova I. | Brno, CZ

- pCB-27 **Short Chain Fatty Acids Alter Expression of Xenobiotic-Metabolizing Enzymes in Colon Epithelial Cells**
Zapletal O.¹, Tylichová Z.¹, Dubec V.¹, Neča J.¹, Kohoutek J.¹, Machala M.¹, Milcová A.², Topinka J.², Hofmanová J.¹, Kozubík A.¹, Vondráček J.¹ | ¹Brno, ²Prague, CZ
- pCB-28 **Cripto-1 Induces Multicentrosomal Mitoses in Human Embryonic Stem Cells**
Porokh V., Vaňhara P., Mináriková D., Holubcová Z., Bárta T., Jurečková L., Doležalová D., Hampel A. | Brno, CZ
- pCB-29 **Optimization of Mass Cytometry for Immunoprofiling of Cancer Patients**
Poláková I., Šmahel M., Pelák O., Pokrývková B., Simonidesová S., Grega M., Tachezy R. | Prague, CZ
- pCB-30 **Lipidome in Epithelial Colon Cancer Cells: Expression of Genes Involved In Regulation of Lipid Metabolism – Tumor vs. Non-Tumor Tissue Differences**
Karasová M.¹, Straková N.¹, Zapletal O.¹, Tylichová Z.¹, Levková M.², Hušková Z.², Slavík J.¹, Ciganek M.¹, Ovesná P.¹, Skalický P.², Bouchal J.², Ehrmann J.², Kolář Z.², Hofmanová J.¹, Vondráček J.¹, Machala M.¹, Kozubík A.¹ | ¹Brno, ²Olomouc, CZ
- pCB-31 **Inhibition of CHK1 Stimulates the Cooperative Cytotoxic Action of Platinum-Based Drugs and Trail in Human Prostate Cancer Cells**
Krkoška M., Herůdková J., Vondálová Blanářová O., Paruch K., Sova P., Hyršlová Vaculová A. | Brno, CZ
- pCB-32 **Decoding Bladder Carcinoma Through High Dimensional Analysis**
Koladiya A., Otavová K., Drbal K. | Prague, CZ
- pCB-33 **MojoSort™ Nanobead Cell Isolation Using a Commercial Magnetic Column Provides High Purity, Yield and Preserved Cell Function**
Zemlickova E. | Oxford, UK

CLINICAL HEMATOLOGY & CELL THERAPY

- pCT-1 **Rituximab-Mediated Release of CLL Cells from Lymph Nodes To Periphery: Use of CD62L Molecule as a Marker**
Borský M., Osičková J., Brychtová Y., Doubek M., Mayer J., Trbušek M. | Brno, CZ
- pCT-2 **Functionalization of Nanofiber Membrane by Amine- and Carboxyl-Rich Layers**
Cernochova P., Medalova J., Michlicek M., Obrusnik A., Zajickova L. | Brno, CZ
- pCT-3 **Novel Mass Spectrometry and Flow Cytometry-Based Approach for Characterization of Neural Differentiation**
Červenka J.^{1,2}, Poliakh I.^{1,2}, Žižková M.^{1,2}, Tylečková J.¹, Suchá R.¹, Vodička P.¹ | ¹Liběchov, ²Prague, CZ

- pCT-4 **TCF/LEF Signaling Suppresses Proliferation of Hematopoietic Stem and Progenitor Cells**
Daněk P., Kardošová M., Zjablovskaja P., Janečková L., Kořínek V., Alberich-Jorda M. | Prague, CZ
- pCT-5 **Natural Killer Cell Cytotoxic Activity: A Comparison Between Two Cell Populations**
Dolejšová M., Vištejnová L., Jindra P., Lysák D., Holubová M. | Pilsen, CZ
- pCT-6 **Flow Cytometry Panel Design – From Fundamentals to Multicolor Immunotyping Using the ZE5**
Hedlund S. | Stockholm, SE
- pCT-7 **Expression of Inhibitory KIRs after Hematopoietic Stem Cells Transplantation**
Holubová M., Houdova L., Jindra P., Lysak D. | Pilsen, CZ
- pCT-8 **Novel Antigen Combination for Minimal Residual Disease Detection in Hairy Cell Leukemia Using Flow Cytometry Approach**
Chovancová J., Hrabčáková V., Dvořáková D., Mayer J., Doubek M. | Brno, CZ
- pCT-9 **Immunophenotypic Correlations with Recurrent Genetic Aberrations Detected in T- Cell Acute Lymphoblastic Leukemia**
Kulis J., Słota Ł., Sędek Ł., Sonsala A., Twardoch-Pyka M., Pierzyna-Światała M., Szczepański T. | Zabrze, PL
- pCT-10 **Forward Scatter (FSC) and Side Scatter (SSC) Identifies LSK Cells from Regenerating Bone Marrow as Late Myeloid Progenitors in the Mouse**
Molik M., Savvulidi F., Necas E. | Prague, CZ
- pCT-11 **Novel Method for the Manufacture of Car-T-Cells: Effects of Different Cytokines in Culture Media on the Phenotype of Car-T-Cells**
Musil J., Ptáčková P., Otáhal P. | Prague, CZ
- pCT-12 **Expression of CD64 on Granulocytes as Marker of Sepsis in Neonates**
Novák M., Hálek J., Medková A., Juráňová J., Kantor L. | Olomouc, CZ
- pCT-13 **Comparison of V β Expression in Mature T-Cell Leukemia Detected by Flow Cytometry and Next Generation Sequencing**
Nováková M.¹, Kotrová M.¹, Oberbeck S.², Mayer P.², Schrader A.², Knecht H.¹, Herling M.², Brüggemann M.¹ | ¹Kiel, ²Cologne, DE
- pCT-14 **Usefulness of Chemokine Receptor CCR4 for Diagnosis of Cutaneous T-Cell Lymphomas by Flow Cytometry**
Osickova J., Fialova P., Vasku V., Doubek M. | Brno, CZ

- pCT-15 **Assessing CMV Specific T Cells in Donors for Adoptive Immunotherapy: Multimer or Intracellular Cytokine Staining is More Appropriate?**
Pelák O., Říha P., Hubáček P., Keslová P., Sedláček P., Formánková R., Hrušák O., Kalina T. | Prague, CZ
- pCT-16 **Comparison of 8-Color Immunophenotypic Panel with 7-Color B Cell Clonality Assay in Detection of Minimal Residual Disease in Mantle Cell Lymphoma**
Řádek M., Špaček M., Karban J. | Prague, CZ
- pCT-17 **Possibilities in Flow Cytometric Minimal Residual Disease Monitoring in Multiple Myeloma**
Bezdekova R., Stejskalova M., Kralova R., Penka M., Rihova L. | Brno, CZ
- pCT-18 **Isolation of Blood Microvesicles Before Analysis by Flow Cytometry Leads to Controversial Results in Relapsing Patients with Multiple Sclerosis**
Soukup J., Kostelanska M., Havrdova E., Holada K. | Prague, CZ
- pCT-19 **Acute Leukemias Phenotype Determination Using Mass Cytometry**
Stančíková J., Vášková M., Pelák O., Pavlišťová T., Thürner D., Kalina, Hrušák O. | Prague, CZ
- pCT-20 **Erythroid Lineage Shows Quality of a Sample During Antileukemic Therapy**
Vakrmanová B., Nováková M., Vodičková E., Houdková A., Vášková M., Janotová I., Starý J., Trka J., Hrušák O., Mejstříková E. | Prague, CZ

IMMUNOLOGY

- pIM-1 **The Effects of Cytokines on Development and Phenotype of B Lymphocytes**
Bohacova P., Javorkova E., Holan V. | Prague, CZ
- pIM-2 **Usefulness of CD200 Assessment in Discrimination of CD5-Positive B-Cell Neoplasms**
Čandová J., Mandáková P., Kalinová M., Mrhalová M., Campr V., Kodet R. | Prague, CZ
- pIM-3 **Transepithelial Electrical Resistance (TEER): Implication to Antiinfectious Immunity**
Machát R., Zemánková N., Smržová Z., Faldyna M. | Brno, CZ
- pIM-4 **Flow Cytometry as a Powerful Method for Treatment Monitoring in a Patient with Chronic Mucocutaneous Candidiasis Caused by Gain-of-Function Mutation of STAT1**
Fejtková M.¹, Kanderová V.¹, Paračková Z.¹, Maródi L.², Svatoň M.¹, Froňková E.¹, Kalina T.¹, Bloomfield M.¹, Šedivá A.¹ | ¹Prague, CZ, ²Budapest, HU

- pIM-5 **Can Immunophenotyping of Synovial Fluid Cells Help Distinguish Between Patients with Osteoarthritis?**
Gabcova G.¹, Gallo J.¹, Mikulkova Z.¹, Manukyan G.^{1,2}, Gajdos P.³, Kriegova E.¹ |
¹Olomouc, CZ, ²Yerevan, AM, ⁴Ostrava, CZ
- pIM-6 **Mesenchymal Stem Cells in Combination with Different Immunosuppressive Drugs Modulate the Balance Among TH17/TREG Cells**
Hájková M., Heřmánková B., Javorková E., Jabůrek F., Holář V., Krulová M. |
Prague, CZ
- pIM-7 **Immunomodulatory Potential of Mesenchymal Stem Cells in the Treatment of Retinal Disorders**
Hermankova B., Kossl J., Javorkova E., Bohacova P., Hajkova M., Zajicova A.,
Krulova M., Holan V. | Prague, CZ
- pIM-8 **The Effect of Intranasal Immunisation by Delipidated Bacillus Firmus on Cellular Response in NALT**
Hrdý J., Hnilicová Š., Novotná O., Petrásková P., Prokešová L. | Prague, CZ
- pIM-9 **Whole Blood Cultures in 12x75 MM Cytometry Tubes for Mitogen Induced Proliferation Assay**
Jinoch P., Prouza M. | Vestec, CZ
- pIM-10 **Immunophenotypic and Functional Characterization of PBMC and Fibroblasts in Patients with Scleromyxedema**
Kalli F.¹, Parodi A.¹, Nasi G.¹, Marini C.¹, Rongioletti F.², Fenoglio D.¹, Filaci G.¹ |
¹Genova, ²Cagliari, IT
- pIM-11 **Myeloperoxidase in the Regulation of Polymorphonuclear Neutrophil Cell Death**
Kocurkova A.¹, Kremserova S.¹, Klinke A.^{1,2}, Kubala L.¹ | ¹Brno, CZ, ²Cologne, DE
- pIM-12 **Phenotypic Changes of Peripheral Blood Monocytes After Kidney Allograft Transplantation**
Kopecka I., Svachova V., Slatinska J., Fialova M., Sekerkova A., Viklicky O., Striz I.
| Prague, CZ
- pIM-13 **Identification and Functional Analysis of Different Monocyte Subpopulations in Patients with Rheumatoid Arthritis**
Koudelka A.¹, Kudova J.², Cechova V.¹, Koreny M.¹, Perecko T.², Pekarova M.¹ |
¹Brno, CZ, ²Bratislava, SK
- pIM-14 **Role of SRC Family Kinases in Immunological Synapse of Antigen Presenting Cells**
Kralova J., Kotlabova K., Fabisik M., Glatzova D., Brdicka T. | Prague, CZ
- pIM-15 **Effects of Pseurotin Alkaloids on Selected Immune Cell Functions**
Vasicek O., Rubanova D., Fedr R., Kubala L. | Prague, CZ

- pIM-16 **Immune Changes During Development of Cirrhotic RAT Model with Hepatocellular Carcinoma**
Kurma K.^{1,2}, Macek Jilkova Z.^{1,2}, Marche P.^{1,2}, Decaens T.^{1,2} | ¹Grenoble Alpes, ²Grenoble, FR
- pIM-17 **Monitoring Cd39+Tregs in the Prognosis of SIRS in Cancer Patients**
Mrázová V., Zuzulová M., Záhorec R. | Bratislava, SK
- pIM-18 **Immunostimulatory and Gut-Protecting Effect of Fungal Gamma-Linolenic Acid and Beta-Carotene Containing Prefermented Feed for Broiler Chicken**
Mudroňová D.¹, Karaffová V.¹, Koščová J.¹, Bartkovský M.¹, Marcinčáková D.¹, Klemková T.², Mačanga J.¹, Čertík M.², Marcinčák S.¹ | ¹Košice, ²Bratislava, SK
- pIM-19 **Entry of Mycobacterium Bovis BCG Into B Cells**
Plzáková L., Krocová Z. | Hradec Králové, CZ
- pIM-20 **Immunomodulatory Properties of Sertoli Cells after Xenogeneic Transplantation**
Porubská B., Hájková M., Vegrachtová M., Krulová M. | Prague, CZ
- pIM-21 **Study of Immune Response in Blood, Spleen and Cecum to Lactobacillus Fermentum CCM 7514 in Chickens Infected with Campylobacter SPP**
Revajová V.¹, Gancarčíková S.¹, Karaffová V.¹, Nemcová R.¹, Bobíková K.¹, Šefcová M.¹, Herich R.¹, Levkut M. Jr.¹, Letnická A.¹, Ševčíková Z.¹, Levkutová M.¹, Žitňan R.², Levkut M.^{1,3} | ¹Košice, ²Nitra, ³Bratislava, SK
- pIM-22 **Effects of Pseurotin Alkaloids on Selected Immune Cell Functions**
Rubanova D., Vasicek O., Kubala L. | Brno, CZ
- pIM-23 **Mycotoxin Deoxynivalenol Transferred from SOW to Piglets Changed Their T Lymphocyte Proportion**
Stepanova H., Hlavova K., Šťastný K., Faldyna M. | Brno, CZ
- pIM-24 **Optimization of FACS Panel for Effective Screening of Rabbit Antigen-Specific Plasma Cells**
Motycakova E., Stepanova H., Machat R., Faldyna M., Sevcik M. | Brno, CZ
- pIM-25 **Expression of TNRF2 Characterizes IL-10 Producing Human B Cells**
Ticha O., Bekeredjian-Ding I. | Langen, DE
- pIM-26 **Crossreactivity of Different CD34 Antibodies to Rabbit and Human Cells**
Vašíček J.^{1,2}, Baláži A.¹, Chrenek P.^{1,2} | ¹Lužianky, ²Nitra, SK
- pIM-27 **The Lymphocyte Transformation Test – Monitoring the Effectiveness of Immunosuppressive Therapy**
Vlas T., Tymkivová L., Velková A., Lysák D. | Pilsen, CZ

pIM-28 **Altered DSDNA Signaling Pathway of T1d Patients**
Zentsová I., Kayserová J., Paračková Z., Rataj M., Klocperk A., Vrabcová P.,
Bloomfield M., Šedivá A. | Prague, CZ

IMAGING CYTOMETRY

pIT-1 **3D Imaging of Adult Liver Stem Cell Spheroids in Toxicity Testing**
Dydowiczova A., Musilova V., Basu A., Babica P., Bláha L., Sovadinová I. | Brno, CZ

pIT-2 **Time Lapse Imaging and Analysis of Cell Migration, Proliferation and Cell Cycle in Scratch Assay with Yokogawa Confocal Quantitative Image Cytometer CQ1**
Endo T.¹, Nomura Y.¹, Pasculli R.², Ota A.¹ | ¹Hokuyodai Kanazawa, JP, ²Prague, CZ

MICROFLUIDICS

pMI-1 **Microfluidic Device for Dielectrophoretic Droplet Sorting**
Křivánková J.¹, Foret F.¹, Michálek T.², Hurák Z.² | ¹Brno, ²Prague, CZ

pMI-2 **Preparation of a Simple Microfluidic Model to Study Vascular Inflammation with Improved Physiological Relevance**
Víteček J., Černík M., Šafaříková E., Sochová L., Kolářová H., Kubala L. | Brno, CZ

NEW METHODS

pNM-1 **Flow Cytometric Analysis of Nucleoside Transporters Activity**
Drápela S., Fedr R., Khirsariya P., Paruch K., Souček K. | Brno, CZ

pNM-2 **Fluorescently Labelled Mouse Syngeneic Model for Circulating Tumour Cells Research**
Dvořák V., Slabáková E., Binó L., Remšík J., Fedr R., Souček K. | Brno, CZ

pNM-3 **The Flow Cytometric Detection of HLA-B27 Using Duraclone B27 K**
Prajzlerová K., Hulejová H., Kryštůfková O. | Prague, CZ

pNM-4 **Tem Exosome Analyzer: A Novel Software Tool for Detection and Analysis of Exosomes in Transmission Electron Microscopy Images**
Kotrbová A., Štěpka K., Maška M., Páleník J. J., Ilkovic L., Klemová D., Hamp l A., Bryja V., Matula P., Pospíchalová V. | Brno, CZ

pNM-5 **Effect of the Förster Resonance Energy Transfer on Fluorescence Intensity Cell Markers Studied by Flow Cytometry**
Slanina P., Vlk D., Vlková M. | Brno, CZ

- pNM-6 **Flow Cytometry Detection of Fibroblast Activation Protein Using Inhibitor-Decorated Polymer Conjugates**
Stollinová Šromová L., Bušek P., Dvořáková P., Knedlík T., Šácha P., Schimer J., Etrych T., Kostka L., Šubr V., Konvalinka J., Šedo A. | Prague, CZ
- pNM-7 **Cytokine Analysis of Mesenchymal Stem Cell Secretome Measured by Luminex® Technology Adapted to Flow Cytometry**
Turnovcová K.¹, Vacková I.¹, Kupcová Skalníková H.², Kočí Z.¹, Kubinová Š.¹ | ¹Prague, ²Liběchov, CZ

PLANT CYTOMETRY

- pPC-1 **Application of Single Chromosome Genomics in Plants**
Cápal P.¹, Blavet N.¹, Vrána J.¹, Endo T. R.², Karafiátová M.¹, Doležel J.¹ | ¹Olomouc, CZ, ²Shiga, JP
- pPC-2 **Flow Cytometric Characterization of Nuclear Genome and Chromosome Sorting in *Agropyron Cristatum*, a Wild Relative of Wheat**
Said M.¹, Vrána J.¹, Karafiátová M.¹, Čížková J.¹, Cabrera A.², Doležel J.¹ | ¹Olomouc, CZ, ²Córdoba, ES
- pPC-3 **Flow Cytometric Sorting Facilitates the Analysis of Plant Nuclear Proteome**
Petrovská B., Blavet N., Uřinová J., Jeřábková H., Chamrád I., Vrána J., Lenobel R., Beinhauer J., Šebela M., Doležel J. | Olomouc, CZ
- pPC-4 **FAOS Technique as a Suitable Tool for Determination of Auxin Metabolic Profiles at the Subcellular Level of Isolated Intact Plant Nuclei**
Vojtková T., Skalický V., Vrána J., Pěničák A., Novák O., Kubeš M. | Olomouc, CZ
- pPC-5 **Am I Really so Smashed?**
Sadílek D., Urfus T., Vilímová J. | Prague, CZ
- pPC-6 **Polyplodization of *Anemone sylvestris* L**
Zahumenická P.¹, Fernández E.¹, Šedivá J.² | ¹Prague, ²Průhonice, CZ

REPRODUCTION IMMUNOLOGY

- pRI-1 **Lymphocytes in Pregnant Women with Gestational Diabetes Mellitus: Difference Between Subcutaneous and Visceral Adipose Tissue**
Cinkajzlová A., Anderlová K., Šimják P., Lacinová Z., Kloučková J., Kratochvílová H., Krejčí H., Mráz M., Haluzík M., Kršek M. | Prague, CZ
- pRI-2 **Regulatory T Cells and Their Role in Reproductive Processes**
Onderová B. | Bratislava, SK
- pRI-3 **Ubiquitin Response to Epigenetic Changes in Sperm**
Štiavnická M.¹, García-Álvarez O.¹, Abril-Parreno L.^{1,2}, Nevoral J.¹, Dolejšová M.¹, Hošek P.¹, Lošan P.¹, Ulčová-Gallová Z.¹, Králičková M.¹ | ¹Pilsen, CZ, ²Limerick, IE