CONTENT

General information	2
Invited speakers	7
List of posters	29
Hands-on workshops description	39

GENERAL INFORMATION

DATE / CONFERENCE VENUE

October 2–5, 2021
Clarion Congress Hotel Ostrava
Zkrácená 2703/84, Ostrava, Czech Republic
www.clarioncongresshotelostrava.com

BOARD / REFRESHMENTS

Coffee breaks are included in the registration fee and will be served in the foyer of the conference halls.

Lunches can be purchased for 250 CZK via the conference secretariat. Lunches will be served in the hotel restaurant Veduta.

Welcome drink (Saturday, October 2, 19:00)

The welcome drink is sponsored by the Czech Society for Analytical Cytometry. Free admission for all attendees of the conference.

Social event (Sunday, October 3, 20:00)

Free admission for CSAC members. Non-members can purchase tickets (400 CZK) via the conference secretariat.

ORGANIZING COMMITTEE

RNDr. Veronika Kanderová, Ph.D. (Chair)

Tomáš Jelínek, M.D., Ph.D. (Vice-chair)

Karel Souček, M.Sc., Ph.D.

Assoc. Prof. Tomáš Kalina, M.D., Ph.D.

Radek Fedr, M.Sc.

Marcela Vlková, M.Sc., Ph.D.

Lucie Říhová, M.Sc., Ph.D.

Jolana Vosáhlová, M.Sc., Ph.D.

Ondřej Pelák, M.Sc., Ph.D.

PROGRAM COMMITTEE

Jana Balounová | Institute of Molecular Genetics of the Czech Academy of Sciences, Prague

Marek Borský | University Hospital Brno

Vítězslav Bryja | Masaryk University, Brno

Karel Fišer | CLIP – Cytometry, Prague

Jan Frič | St. Anne's University Hospital, Brno

Alena Hyršlová Vaculová | Institute of Biophysics of the Czech Academy of Sciences, Brno

Jozef Janda | Faculty of Science, Charles University in Prague

Eva Kriegová | Olomouc University Hospital, Department of Immunology

Lukáš Kubala | Institute of Biophysics of the Czech Academy of Sciences, Brno

Daniel Lysák | University Hospital Pilsen
Jan Musil | Institute of Hematology and Blood Transfusion, Praha
Michaela Nováková | CLIP – Cytometry, Prague
Zbyněk Prokop | Masaryk University, Brno
Ondřej Souček | University Hospital Hradec Králové
Jan Svoboda | Institute of Microbiology of the Czech Academy of Sciences, Prague
Zuzana Šinkorová | University of Defence in Hradec Králové
Martin Špaček | General University Hospital in Prague
Ondřej Štěpánek | Institute of Molecular Genetics of the Czech Academy of Sciences, Prague
Tomáš Vlas | University Hospital Pilsen

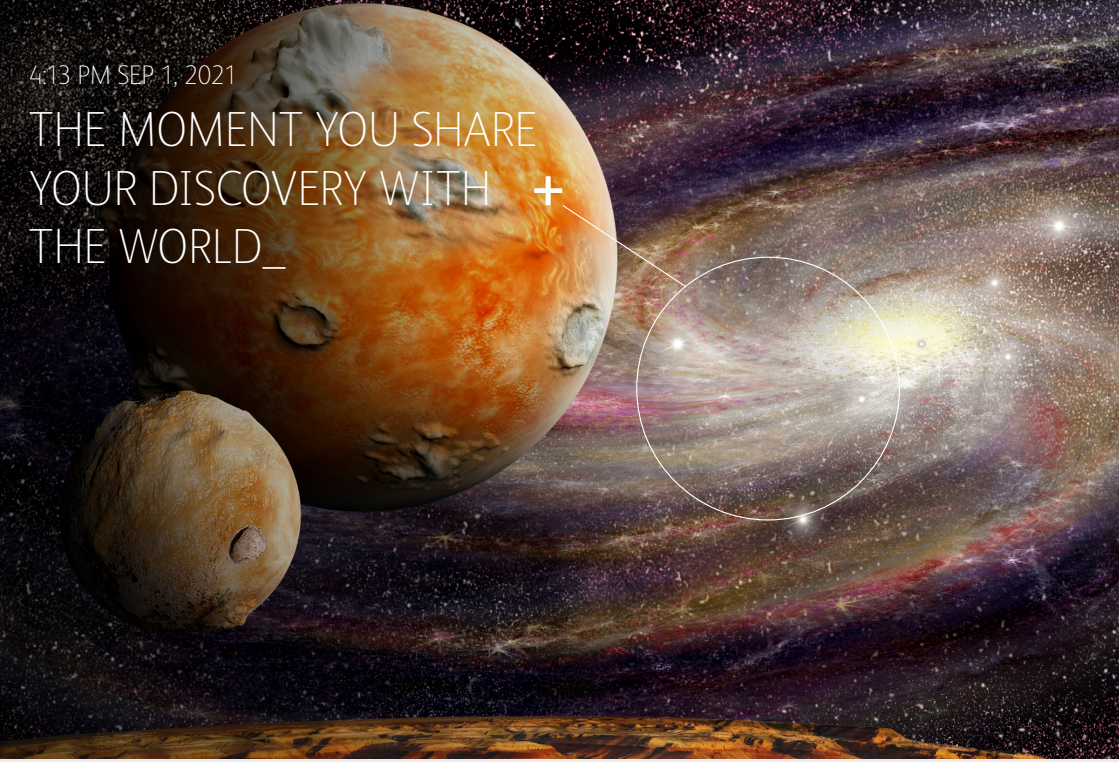
CONFERENCE SECRETARIAT

AMCA, spol. s r. o.
Academic and Medical Conference Agency
Vyšehradská 320/49, 128 00 Prague 2, Czech Republic
t: +420 737 357 159
e: amca@amca.cz
www.amca.cz

PLATINUM PARTNERS

SILVER PARTNERS

PARTNERS



THE DIFFERENCE OF BREAKTHROUGH DISCOVERIES

FROM SMALL PARTICLES TO A BROAD SPECTRUM OF PHENOTYPING.

BD FACSymphony™ A1 Cell Analyzer

Start immediately with premium BD FACSymphony™ instrument technology in a compact size.
Enhance detection sensitivity with four high-powered 100 mW lasers and low-noise electronics.
Analyze small particles such as extracellular vesicles with the new BD™ Small Particle Detector.
Profit from automated sample processing option in high-throughput mode.
Supported by our team of flow experts backed by over 45 years of expertize.

Discover the new BD at **bdbiosciences.com/en-eu**

BD

Solve the crossword
Visit BD Booth
Get a reward

1.
2.
3.
4.
5.
6.
7.
8.
9.
&
10.
11.
12.
13.
14.
15.
16.

1. Abbreviation for a derivative of fluorescein used in wide-ranging applications including flow cytometry. **2.** What does APC stand for? **3.** Name of the software enabling to run multiple applications on BD FACSAria (BD FACS....). **4.** Name of a red protein-pigment complex which is often used in flow cytometry (its abbreviation is PE). **5.** What is the name of a clinical flow cytometer from BD? (BD FACS.....) **6.** General name for a solution that runs in a flow cytometer. **7.** Type of 1D data visualization in flow cytometry. **8.** Place where the cells/particles interact with laser beam (... point). **9.** Type of the focusing used in a fluidic part of flow cytometer. **10.** Name of a family of high parameter cell analyzers from BD. **11.** The Abbreviation for International society for advancement of cytometry. **12.** Name of jet-in-air cell sorter from BD. **13.** Who has invented the electrostatic cell sorter? (Mack ...) **14.** One of the world's leading providers of lasers and laser-based technology. **15.** Name of the leading cytometry analysis software. **16.** Type of an optical filter that allows all light above a specific wavelength to pass through.

BD

INVITED SPEAKERS

Dominik Filipp

Institute of Molecular Genetics of the Czech Academy of Sciences, Prague, Czech Republic

Presentation:

Thymic cellular machinery for antigen presentation involved in T cell selection

Education:

1982–1987 RNDr. degree in Molecular Biology Genetics, Comenius University, Bratislava
1988–1991 PhD degree (its equivalent), Institute of Molecular Genetics, Moscow, Russia

Professional experience:

1992–1993 Post-Doc Fellow, Lab of Genome Struct and Immune Functions, CIML, Marseille
1993–1994 Assistant Professor, Dept. of Genetics, Comenius University, Bratislava
1994–1998 Post-Doctoral Fellow, Department of Immunology, University of Toronto, Toronto, Canada
1998–2001 Senior Research Scientist, Gemma Biotechnology Inc., Toronto, Canada
2001–2007 Senior Research Associate, Sunnybrook Research Institute, Toronto, Canada
2007–present Head of the Laboratory of Immunobiology, Institute of Molecular Genetics of the Czech Academy of Sciences, Prague, Czech Republic

An overarching theme of our current research are cellular, molecular, and signaling processes underpinning immune homeostasis. That mainly concerns (i) the mechanisms guiding the process of central and peripheral T cell tolerance and autoimmunity; (ii) initiation of T cell activation; (iii) embryonic hematopoiesis, and (iv) the role of Toll-like receptors in these processes.

Selected publications:

- Yamano T, Dobes J, Voboril M., Steinert M, Brabec T, Zietara N, Dobesova M, Ohnmacht C, Laan M, Peterson P, Benes V, Sedlacek R, Hanayama R, Kolar M, Klein L., and **Filipp D.** Aire-expressing ILC3-like cells in the lymph node display potent APC features. ***J Exp. Medicine, 2019, Vol.216(5):1027-1037.***

- Balounová J, Šplíchalová I, Dobešová M, Kolář M, Fišer K, Procházka J, Sedláček R, Jurisicova A, Sung, Meritxell Alberich-Jorda, and **Filipp D.** Toll-Like Receptor 2 Expression on c-kit+ Cells Tracks the Emergence of Definitive Hematopoietic Progenitors in a Pre-Circulation Embryo. ***2019. Nature Communication, 10:5176.***

- Vobořil M, Brabec T, Dobeš J, Šplíchalová I, Březina J, Čepková A, Dobešová M, Aidarova M, Kubovčiak J, Tsyklauri O, Štěpánek O, Beneš V, Sedláček R, Klein L, Kolář M, and **Filipp D.** Toll-like receptor signaling in thymic epithelium controls monocyte-derived dendritic cell recruitment and Treg generation. ***2020. Nature Communication, 11:2361.***

- Dobes J, Binyamin A, Oftedal B, Goldfarb Y, Kadouri N, Gropper Y, Giladi T, **Filipp D**, Husebye ES, Abramson J. Aire-expressing ILC3 like cells are essential for induction of Candida-specific Th17 response***. 2021. Nature Immunology (provisionally accepted).***

- Vobořil M, Březina J, Brabec T, Dobeš J, Ballek O, Dobešová M, Manning J, Blumberg RS, and **Filipp D.** A model of preferential pairing between epithelial and dendritic cells in thymic antigen transfer. ***2021. eLIFE (under revision).***

[NYNÍ SCHVÁLENO EMA]: SARCLISA + Kd

K léčbě relabujícího a/nebo refrakterního mnohočetného myelomu

SARCLISA (isatuximab)

TAKTO VYPADÁ ÚČINNOST

Přidáním přípravku SARCLISA ke Kd nebo Pd došlo k významnému prodloužení mPFS v porovnání se samotným Kd nebo Pd (HR=0,531 resp. 0,596)[1]

Ilustrační foto

Prodloužení PFS a významná odpověď při použití přípravku SARCLISA[1]

Již při prvním relapsu

IKEMA: SARCLISA + Kd vs Kd (N=302)		**ICARIA-MM:** SARCLISA + Pd vs Pd (N=307)
mPFS NR[a] vs 19,15 měs. u samotného Kd **HR=0.531** (99% CI: 0,32, 0,89; *p*=0,0013)	**Vyšší PFS**[1]	**mPFS 11.53 měs.** vs 6.47 měs. u samotného Pd **HR=0.596** (95% CI: 0,44, 0.81; *p*=0,001)
40% CR vs 28% u samotného Kd **30% MRD-** vs 13% u samotného Kd	**Významná odpověď**[*][1,2]	**32% ≥VGPR** vs 8,5% u samotného Pd **5% MRD-** vs 0% u samotného Pd[b]
8,5% míra ukončení léčby vs 13,9% u samotného Kd	**Příznivý bezpečnostní profil**[2,3]	**7,2% míra ukončení léčby** vs 12,8% u samotného Pd

Protože ORR (hlavní sekundární cílový parametr) ve studii IKEMA prokázal nominální p-hodnotu = 0,3859, jsou hodnoty p následných klíčových sekundárních cílových parametrů uvedeny pouze pro popisné účely.[1,2]

[a]Hodnoty mPFS nebylo při předepsané průběžné analýze po 19 měsících dosaženo.[2]
[b]Medián předchozích linií terapie ve studii ICARIA-MM byl 3 (IQR: 2-4) pro obě větve studie.[2]

In vitro, SARCLISA přímo ničí myelomové buňky bez přítomnosti imunitních buněk[1]

Nejčastější nežádoucí účinky

- Ve studii ICARIA-MM byly nejčastějšími (≥ 20 %) nežádoucími účinky neutropenie (47 %), reakce na infuzi (38 %), pneumonie (31 %), infekce horních cest dýchacích (28 %), průjem (26 %) a bronchitida (24 %)[1]
- Ve studii IKEMA jsou nejčastějšími nežádoucími účinky (≥20 %), reakce na infuzi (45,8 %), hypertenze (36,7 %), průjem (36,2 %), infekce horních cest dýchacích (36,2 %), pneumonie (28,8 %),[3]

Přípravek SARCLISA je indikován:

- V kombinaci s pomalidomidem a dexamethasonem k léčbě dospělých pacientů s relabujícím a refrakterním mnohočetným myelomem, kteří absolvovali alespoň dvě předchozí terapie, včetně léčby lenalidomidem a inhibitorem proteazomu, a u nichž došlo k progresi onemocnění během poslední terapie
- V kombinaci s karfilzomibem a dexamethasonem k léčbě dospělých pacientů s mnohočetným myelomem, kteří absolvovali alespoň jednu předchozí terapii

CR = kompletní odpověď; IQR = mezikvartilní rozsah; Kd = karfilzomib a dexamethason; mPFS = medián přežití bez progrese; MRD- = minimální reziduální nemoc; NR = nedosaženo; ORR = celková míra odpovědi; Pd = pomalidomid a dexamethason; PFS = přežití bez progrese; VGPR = velmi dobrá parciální odpověď.

K léčbě relabujícího a/nebo refrakterního mnohočetného myelomu

TAKTO VYPADÁ ***ÚČINNOST***

Přidáním přípravku SARCLISA ke Kd nebo Pd došlo k významnému prodloužení mPFS v porovnání se samotným Kd nebo Pd a (HR=0,531 resp. 0,596)[1]

Ilustrační foto

Indikace:[7]

- V kombinaci s pomalidomidem a dexamethasonem k léčbě dospělých pacientů s relabujícím a refrakterním mnohočetným myelomem (MM), kteří absolvovali alespoň dvě předchozí terapie, včetně léčby lenalidomidem a inhibitorem proteazomu, a u nichž došlo k progresi onemocnění během poslední terapie.
- V kombinaci s karfilzomibem a dexamethasonem k léčbě dospělých pacientů s mnohočetným myelomem, kteří absolvovali alespoň jednu předchozí terapii

Faktory a komorbidity pacientů mohou omezovat možnosti a výsledky léčby[3–5]

Pokročilý věk

Poškození ledvin

Refrakterní na lenalidomid nebo PI

Vysoce riziková cytogenetika

MGUS= monoklonální gamapatie neurčeného významu;
M-protein=protein myelomu; PFS=přežití bez progrese; PI= inhibitor proteazomu.

Kd=karfilzomib a dexamethason; mPFS= medián přežití bez progrese;
Pd=pomalidomid a dexamethason.

SARCLISA® (isatuximab)

Vítězslav Bryja

Masaryk University, Section of Animal Physiology and Immunology, Brno, Czech Republic

Presentation:

Casein kinase 1 as a therapeutic target in leukemias: from mechanism to inhibitors and back

Vítězslav Bryja, Ph.D. is a professor of Animal Physiology at the Faculty of Science of Masaryk University. He earned his degrees at Masaryk University (Master in Molecular biology and genetics), and Charles University in Prague (Ph.D. in Neurosciences). Subsequently, he worked as a postdoctoral researcher at the Department of Molecular Biochemistry and Biophysics at Karolinska Institute, Sweden.

Upon his return to the Czech Republic, he has worked in the Laboratory of Cytokinetics at the Institute of Biophysics of the Academy of Sciences of the Czech Republic and at the Department of Experimental Biology of the Faculty of Sciences, Masaryk University, where he established his research group in 2007.

Prof. Bryja's main research interest is to understand the cell signalling cascades with a focus on the Wnt signalling pathway in the context of development and cancer pathogenesis. The aim of his research group is to understand how these cascades control asymmetry and cell migration and how these can be exploited as novel therapeutic approaches. Specifically, his research aims to introduce the new casein kinase 1 (CK1) inhibitors into the treatment of chronic lymphocytic leukemia and other cancer types. Prof. Bryja is an author of 118 scientific publications, an inventor of 4 granted international patents, and one of the founders of the spin-off company Casinvent Pharma a.s.

Selected publications:

- N. Dani, R. H. Herbst, C. McCabe, G. Green, K. Kaiser, J. Head, J. Cui, F. B. Shipley, A. Jang, D. Dionne, L. Nguyen, C. Rodman, S. J. Riesenfeld, J. Prochazka, M. Prochazkova, R. Sedlacek, F. Zhang, **V. Bryja**, O. Rozenblatt-Rosen, N. Habib, A. Regev, M. K. Lehtinen (2021): A cellular and spatial map of the choroid plexus across brain ventricles and ages. ***Cell. 2021. Apr 27;S0092-8674(21)00438-4. doi: 10.1016/j.cell.2021.04.003.***

- J. Harnoš, M. C. Alonso Cañizal, M. Jurásek, J. Kumar, C. Holler, A. Schambony, K. Hanáková, O. Bernatík, Z. Zdráhal, K. Gömöryová, T. Gybeľ, T. W. Radaszkiewicz, M. Kravec, L. Trantírek, J. Ryneš, Z. Dave, A. I. Fernández-Llamazares, R. Vácha, K. Tripsianes, C. Hoffmann, **V. Bryja** (2019): Dishevelled-3 conformation dynamics analyzed by FRETbased biosensors reveals a key role of casein kinase 1. ***Nat Commun. 2019 Apr 18;10(1):1804. doi: 10.1038/s41467-019-09651-7.***

- Janovska P, Verner J, Kohoutek J, Bryjova L, Gregorova M, Dzimkova M, Skabrahova H, Radaszkiewicz T, Ovesna P, Vondalova Blanarova O, Nemcova T, Hoferova Z, Vasickova K, Smyckova L, Egle A, Pavlova S, Poppova L, Plevova K, Pospisilova S, **Bryja V**. (2018): Casein Kinase 1 is a Therapeutic

Target in Chronic Lymphocytic Leukemia. ***Blood. 2018 Mar 15; 131(11):1206-1218. doi: 10.1182/blood-2017-05-786947. Epub 2018 Jan 9.***

- I. Cervenka, J. Valnohova, O. Bernatik, J. Harnoš, M. Radsetoulal, K. Sedova, K. Hanakova, D. Potesil, M. Sedlackova, A. Salasova, Z. Steinhart, S. Angers, G. Schulte, A. Hampl, Z. Zdrahal and **V. Bryja** (2016): Dishevelled is a NEK2 substrate controlling dynamics of centrosomal linker proteins. ***Proc Natl Acad Sci USA. 2016 Aug 16;113(33):9304-9.***

- Pospíchalová V., Svoboda J., Dave Z., Kotrbova A., Kaiser K., Klemova D., Ilkovics L., Hampl A., Crha I., Jandakova E., Minar L., Weinberger V., **Bryja V.** (2015): Simplified protocol for flow cytometry analysis of fluorescently labeled exosomes and microvesicles using dedicated flow cytometer. ***J Extracell Vesicles. 2015 Mar 31;4:25530. doi: 10.3402/jev.v4.25530.***

Tomáš Kalina

Department of Paediatric Hematology / Oncology, 2nd Faculty of Medicine, Charles University in Prague, Czech Republic

Presentation:

CDMaps – mapping all CD markers on leukocytes' subsets

I am currently a Professor at the Department of Pediatric Hematology and Oncology, Charles University in Prague, 2nd Faculty of Medicine, Czech Republic. I graduated MD in 2000 from the 2nd Medical School, Charles University Prague, and started my research and diagnostic carrier in Prague (leukemia diagnostics and biology) and continued on a postdoctoral fellowship at Fred Hutchinson Cancer Research Center, Seattle, WA, USA (immune reconstitution post-BMT). I received PhD in Immunology in 2005. I was awarded "ISAC Scholar" in 2010. I am a vice-president of the Czech Society for Analytical Cytometry, former ISAC Council member, and ISAC Life Education Task Force member; I am a member of the Human Cell Differentiation Molecules council. Throughout my career, I have been working with various flow cytometry based techniques (leukemia phenotyping, minimal residual disease monitoring, immune monitoring, immunodeficiency, bead-based affinity proteomics, algorithmic data analysis). I am a founding member of the EuroFlow consortium where I am responsible for coordination of the technical aspects, design of flow cytometry procedures, and Quality Assessment. I have authored over 100 research publications, delivered 40 invited lectures, and lectured numerous educational workshops.

Selected publications:

- **Kalina T.** Reproducibility of Flow Cytometry Through Standardization: Opportunities and Challenges. ***Cytometry A. 2020 Feb;97(2):137-147.***
- **Kalina T**, Bakardjieva M, Blom M, et al. EuroFlow Standardized Approach to Diagnostic Immunopheneotyping of Severe PID in Newborns and Young Children. ***Front Immunol. 2020 Mar 19;11:371.***
- **Kalina T**, Fišer K, Pérez-Andrés M, et al. CD Maps-Dynamic Profiling of CD1-CD100 Surface Expression on Human Leukocyte and Lymphocyte Subsets. ***Front Immunol. 2019 Oct 23;10:2434.***
- **Kalina T**; Flores-Montero, J; Lecrevisse, Q; et al. Quality Assessment Program for EuroFlow Protocols: Summary Results of Four-Year (2010–2013) Quality Assurance Rounds, ***Cytometry A 2015: 87A, 2; 145-156.***
- **Kalina T.**; Flores-Montero, J.; Van Der Velden, V.H.J.; et al. EuroFlow standardization of flow cytometer instrument settings and immunophenotyping protocols, ***Leukemia 2012, 26, 9; 1986-2010.***

Vladimír Beneš

EMBL Heidelberg, Germany

Presentation:

Flow cytometry and single-cell transcriptomics: much more than a marriage of convenience

Vladimír Beneš, Ph.D., Head of EMBL GeneCore, born & studied in Prague, the Czech Republic. He has been at EMBL since 1994 when he came as a postdoc to Ansorge group in the Biochemical Instrumentation Unit. Vladimir worked on the development of methodology supporting genome-wide high-throughput sequencing, mainly in the sample processing part. In 2001 he was appointed to build EMBL Genomics Core Facility, a technology-orientated service laboratory founded to assist researchers with functional genomics projects. This facility is currently utilizing mainly massively parallel sequencing and supporting technologies, such as qPCR, for example. Most recently, Vladimir's expertise has enlarged by adding single-cell genomic approaches. Among Vladimir's tasks belong also assessment of new technologies and their applications in functional genomics, in particular their suitability for implementation in the environment of core facilities. He is also strongly involved in teaching of methods applied in this field.

Selected publications:

- Versatile workflow for cell type-resolved transcriptional and epigenetic profiles from cryopreserved human lung. Llamazares-Prada M, Espinet E, Mijošek V, Schwartz U, Lutsik P, Tamas R, Richter M, Behrendt A, Pohl ST, Benz NP, Muley T, Warth A, Heußel CP, Winter H, Landry JJM, Herth FJ, Mertens TC, Karmouty-Quintana H, Koch I, **Benes V**, Korbel JO, Waszak SM, Trumpp A, Wyatt DM, Stahl HF, Plass C, Jurkowska RZ. ***JCI Insight. 2021 Mar 22;6(6):e140443. doi: 10.1172/jci.insight.140443, PMID: 33630765.***

- Molecular Co-occupancy Identifies Transcription Factor Binding Cooperativity In Vivo. Sönmezer C, Kleinendorst R, Imanci D, Barzaghi G, Villacorta L, Schübeler D, **Benes V,** Molina N, Krebs AR. ***Mol Cell. 2021 Jan 21;81(2):255-267.e6. doi: 10.1016/j.molcel.2020.11.015. Epub 2020 Dec 7. PMID: 33290745.***

- MorphoSeq: Full Single-Cell Transcriptome Dynamics Up to Gastrulation in a Chordate. Sladitschek HL, Fiuza UM, Pavlinic D, **Benes V**, Hufnagel L, Neveu PA. ***Cell. 2020 May 14;181(4):922-935.e21. doi: 10.1016/j.cell.2020.03.055. Epub 2020 Apr 20. PMID: 32315617.***

- Single-cell transcriptomics identifies CD44 as a marker and regulator of endothelial to haematopoietic transition. Oatley M, Bölükbası ÖV, Svensson V, Shvartsman M, Ganter K, Zirngibl K, Pavlovich PV, Milchevskaya V, Foteva V, Natarajan KN, Baying B, **Benes V**, Patil KR, Teichmann SA, Lancrin C. ***Nat Commun. 2020 Jan 29;11(1):586. doi: 10.1038/s41467-019-14171-5. PMID: 31996681.***

- Apoptotic Cell Exclusion and Bias-Free Single-Cell Selection Are Important Quality Control Requirements for Successful Single-Cell Sequencing Applications. Ordoñez-Rueda D, Baying B, Pavlinic D, Alessandri L, Yeboah Y, Landry JJM, Calogero R, **Benes V**, Paulsen M. ***Cytometry A. 2020 Feb;97(2):156-167. doi: 10.1002/cyto.a.23898. Epub 2019 Oct 11. PMID: 31603610.***

SONY ID7000™
Hyper Spectral

Technology to collect continuous light from 360 nm to 920 nm

3-7 Lasers

deep ultraviolet (320 nm), ultraviolet (355 nm), violet (405 nm), blue (488 nm), yellow-green (561 nm), red (637 nm), infrared (808 nm).

188 Detectors

more than 3 times the number detectors than any flow cytometer available today

44+ Colors

based on currently avaible fluorochromes

40 000 eps

Autosampler compatible with standard and deep 96-well plates, 384-well plates, and 24 tube (12x75mm 5mL) rack

Autorizovaný distributor

I.T.A. - Intertact s.r.o. Praha 10 108 00 Tel.: +420 **224 810 196** ita@ita-intertact.com
Černokostelecká 616/143 Česká republika Fax: +420 **222 314 055** www.**ita-intertact**.com

Claudia Rössig

University of Münster, Cells in Motion Interfaculty Centre, Germany

Presentation:

CAR T cells for cancer therapy

Claudia Rössig received her medical degree at the University of Luebeck in Germany, then joined the Department of Pediatric Hematology and Oncology of University Children´s Hospital Muenster, Germany, as a Clinical Fellow. Between 1998 and 2000, funded by a grant by Deutsche Krebshilfe e.V., she was a Postdoctoral Fellow with Malcolm Brenner in the Center for Cell and Gene Therapy, Baylor College of Medicine in Houston, USA. After finishing her clinical training as a Pediatrician in 2005 and her speciality registration as a Pediatric Hematologist and Oncologist in 2007, she was appointed Full Professor in 2010. Since 2015, she is the Director of the Department of Pediatric Hematology and Oncology in Muenster. Her experimental and translational research focuses on the development of cellular immune-therapeutic strategies to treat pediatric malignancies, including leukemias and solid tumors.

Andrey Tchorbanov

Bulgarian Academy of Sciences – Laboratory of Experimental Immunology, Sofia, Bulgaria

Presentation

Flow cytometry analysis in vaccines and therapeutics development

Education:

1987–1992 Student of Biotechnology at the "St. Kliment Ochridsky" University of Sofia
1992 MS degree in "Gene and cell engineering" with the thesis "Analysis of the Poliovirus genome using recombinant DNA techniques"

2002 Defended Ph.D. thesis "Engineered and genetically engineered chimeric molecules as antigens"

Professional experience:

1992–1998
Staff Scientist, Research and Development Group, Department "Bacterial Vaccines", National Center of Infectious and Parasitic Diseases, Sofia. Vaccines production and development.
1996–1997
Visiting scientist, Laboratory
"Experimental immunology", University of Utrecht, Holland, Copernicus Contract CIPA CT 94-0152 "Genetically Engineered Vaccines"
1999–2009
Research fellow in the Department of Immunology, The Stefan Angelov Institute of Microbiology, Bulgarian Academy of Sciences, Sofia, Bulgaria – "Protein and genetically engineered chimeric molecules as antigens"
2003
Visiting scientist, Graduate Institute of Clinical Medicine, National Taiwan University, Taipei, Taiwan – "Reestablishing tolerance to DNA in murine models of lupus"
2004, 2005, 2006, 2007
Visiting scientist, Department of Immunology, Eotvos University, Budapest, Hungary, "Human models of lupus" and "DNA vaccine therapy"
2007: Head, Laboratory "Experimental immunology"
2009: Assoc. Professor in the Department of Immunology, Institute of Microbiology, BAS
2009, 2010, 2011: Visiting scientist, Department of Immunology, Eotvos University, Budapest, Hungary, "DNA vaccine therapy"
2011: Visiting Professor – University of Nis, Serbia
2014, 2015, 2016: Visiting Professor – New Bulgarian University
2013, 2014, 2015: Visiting scientist, Department of Immunology, Eotvos University, Budapest, Hungary, "Animal models of autoimmunity"

2016: Head, Department of Immunology, Stefan Angelov Institute of Microbiology, Bulgarian Academy of Sciences
2016, 2017, 2018: Visiting scientist, Institute of Cell Biology and Neurobiology, National Research Council, Roma, Italy
2016, 2017, 2018: Visiting Professor – University of Mining and Geology "St. Ivan Rilski"
2017: Visiting Professor – Sofia University "St. Kliment Ohridski"
2017, 2018, 2019: Visiting Professor – New Bulgarian University
2018, 2019: Visiting scientist, Institute of Experimental Pharmacology and Toxicology, Slovak Academy of Sciences
2019: Visiting Professor – Sofia University "St. Kliment Ohridski"
2019, 2020: Visiting Professor – University of Mining and Geology "St. Ivan Rilski"
2020: Professor in the Department of Immunology, Institute of Microbiology, BAS
2021: Visiting Professor – Sofia University "St. Kliment Ohridski"

Patent application:

1. WO2005023871

AN AGENT FOR SELECTIVE SUPPRESSION DISEASE-ASSOCIATED AUTO-REACTIVE B-CELLS

2. WO2006072152

SUPPRESSOR OF DISEASE-ASSOCIATED AUTOREACTIVE B LYMPHOCYTES

Professional and scientific awards:

1. Prize of foundation "Stefan Angelov" – the best work of young microbiologist in Bulgaria – 2000
2. Prize of Union of Scientists in Bulgaria for "Excellent scientific results" – 2011
3. "Pythagoras" Award for "Best scientist in the field of Biomedical Sciences" – 2012
4. Prize of Union of Scientists in Bulgaria for "Excellent scientific results" – 2013
5. "Pythagoras" Award for "Best scientist in the field of Biomedical Sciences" – 2017
6. Award from Kosovo Allergy Asthma and Immunology Association (KAAIA) – 2017

Representation:

1. President of Bulgarian Society for Immunology (BuSI) – from 2013
2. European Federation of Immunological Societies (EFIS)
3. European Association for the Study of Diabetes (EASD)

Maria Jaimes

Cytek Biosciences Inc., California, USA

Presentation:

Keys for the development of high resolution 40-color flow cytometry assays

Dr. Maria Jaimes earned her MD degree at the Universidad Javeriana in Colombia (South America). Dr Jaimes completed her postdoctoral training at Stanford University in the Department of Microbiology and Immunology. During her postdoc, she worked at characterizing the immune responses to both rotavirus and influenza viruses after natural infection and immunization. In 2005, Dr Jaimes joined BD Biosciences. While at BD, Maria worked in different aspects of quality assurance and standardization of flow cytometry assays.

Since 2015, Maria has been working at Cytek Biosciences and is part of the R&D team who developed the Aurora Full Spectrum Cytometer. Dr Jaimes has overseen the instrument characterization, verification, and development of multicolor applications. Besides her responsibilities within the R&D team, Dr Jaimes leads the Technical Applications Support team worldwide

Selected publications:

- Park LM, Lannigan J, **Jaimes MC**. OMIP-069: Forty-Color Full Spectrum Flow Cytometry Panel for Deep Immunophenotyping of Major Cell Subsets in Human Peripheral Blood. ***Cytometry A 2020;97:1044-1051.***
- Ferrer-Font L, Pellefigues C, Mayer JU, Small SJ, **Jaimes MC**, Price KM. Panel Design and Optimization for High-Dimensional Immunophenotyping Assays Using Spectral Flow Cytometry. ***Curr Protoc Cytom 2020;92:e70.***
- **Jaimes MC**, Maecker HT, Yan M, Maino VC, Hanley MB, Greer A, Darden JM, D'Souza MP. Quality assurance of intracellular cytokine staining assays: analysis of multiple rounds of proficiency testing. ***J Immunol Methods 2011;363:143-57.***
- Feng N, **Jaimes MC**, Lazarus NH, Monak D, Zhang C, Butcher EC, Greenberg HB. Redundant role of chemokines CCL25/TECK and CCL28/MEC in IgA+ plasmablast recruitment to the intestinal lamina propria after rotavirus infection. ***J Immunol 2006;176:5749-59.***
- **Jaimes MC**, Rojas OL, Kunkel EJ, Lazarus NH, Soler D, Butcher EC, Bass D, Angel J, Franco MA, Greenberg HB. Maturation and trafficking markers on rotavirus-specific B cells during acute infection and convalescence in children. ***J Virol 2004;78:10967-76.***

Rafael J. Argüello

Aix Marseille University, Centre d'Immunologie de Marseille-Luminy, Marseille, France

Presentation:

Illuminating metabolism of rare cell populations under physiological conditions using SCENITH

Rafael J. Argüello (Patagonia, Argentina). During his PhD at the University of Buenos Aires, he worked identifying early immunological markers of treatment efficacy in patients with Chagas disease and HIV. In 2013, he moved to France to study protein synthesis regulation in Dendritic cells, in the lab of Philippe Pierre at the CIML. As a postdoc, he used his original training in molecular biology, flow cytometry, and immunology to develop and publish original methods to investigate protein synthesis and metabolism ex-vivo. After his postdoctoral stay, in 2018 Rafael worked as an invited research specialist at the University of California, San Francisco (UCSF) in the laboratory of Max Krummel lab to work on "human immunometabolism and Cancer". In 2019, he obtained a tenured researchers position at the CNRS and came back to the CIML. Envisioning the use of SCENITH as a personalized medicine tool to address clinically relevant questions he created a website and established an international network of collaborations to apply this method in multiple physiological and physio-pathological contexts (**https://www.scenith.com/collaborative-network**). Since 2019, he has been awarded many grants including an Emergence grant, CoPoC, ECOS-Sud (2021–2023 France–Argentina), and the "ANR – young researcher award" of the French National Research Agency grant (2020–2024). In 2021, he was an awardee of the Marylou Ingram scholar leadership program (2021–2024) of the international society for the advancement of cytometry (ISAC) and obtained the "Diversity, Equality and Inclusion Paper of the Year award" from Society for Leukocyte Biology.

Miscellaneous

2005–Present: Founder and organizer of the Immune dinners (twitter **@inmunocenas**)
2009–Present: Active member of **Expedición Ciencia** educational non-profit organization for science camps.
2020–Present: Creator of the "World Wide Immuno" community for dissemination of online seminars (twitter **@wwimmuno**)

Hobbies

Underwater hockey, kitesurfing, flyfishing.

Selected publications:

- **Argüello RJ@***, Combes AJ, Char R, Bousiquot E, Gigan JP, Camosseto V, Samad B, Tsui J, Yan P, Boissonneau S, Figarella-Branger D.F, Tabouret E, Gatti E, Krummel MF, Pierre P. SCENITH: A flow cytometry based method for functional profiling energy metabolism with single cell resolution. ***Cell Metabolism. 2020.***

- Reverendo M, **Argüello RJ**, Polte C, Valečka J, Camosseto V, Auphan-Anezin N, Ignatova Z, Gatti E, Pierre P. Polymerase III transcription is necessary for T cell priming by dendritic cells. ***Proc Natl Acad Sci. 2019.***

- **Argüello RJ@**, Reverendo M, Mendes A, Camosseto V, Torres AG, Ribas de Pouplana L, van de Pavert SA, Gatti E, Pierre P@. SunRiSE – measuring translation elongation at single-cell resolution by means of flow cytometry. ***J Cell Sci. 2018.***

- Wulff TF*, **Argüello RJ***, Molina Jordàn M, Roura Frigolé H, Hauquier G, Filonava L, Camacho N, Gatti E, Pierre P, Ribas de Pouplana L, Torres AG. Detection of a Subset of Posttranscriptional Transfer RNA Modifications in Vivo with a Restriction Fragment Length Polymorphism-Based Method. ***Biochemistry. 2017.***

- Dalet A*, **Argüello RJ***, Combes A, Spinelli L, Jaeger S, Fallet M, Vu Manh T-PT, Mendes A, Perego J, Reverendo M, Camosseto V, Dalod M, Weil T, Santos MA, Gatti E, Pierre P. Protein synthesis inhibition and GADD34 control IFN-β heterogeneous expression in response to dsRNA. ***The EMBO Journal. 2017 Mar 15 ;36(6):761–82.***

*lead author

Tomasz Szczepanski

Medical University of Silesia in Katowice, Poland

Presentation:

Multiparameter flow cytometry for precise diagnosis and monitoring of acute lymphoblastic leukemia

Prof. Tomasz Szczepański completed his medical studies at the Silesian Academy of Medicine in Katowice in June 1994. After the studies and one year of internships in general medicine he received Rotary International Academic-Year Ambassadorial Scholarship for research training at the Department of Immunology, Erasmus MC, University Medical Center Rotterdam, The Netherlands. He continued the work in Rotterdam for the period 1997– 1999 and on 13th November 2002 he defended cum laude the Ph.D. thesis entitled "Detection of minimal residual disease in acute lymphoblastic leukemia". Since 2000 Tomasz Szczepański works at the Department of Pediatric Hematology and Oncology in Zabrze of the Medical University of Silesia in Katowice, Poland, where he obtained Specialist Certificates in Pediatrics (2005) and Pediatric Oncology and Hematology (2006). After successful defense of Habilitation thesis entitled "Immunoglobulin and T-cell receptor gene rearrangements in B-cell-precursor acute lymphoblastic leukemia in childhood" (2005), Tomasz Szczepański has become an Independent Scientist at the Medical University of Silesia in Katowice, Poland, and since 2009 the Head of the Department of Pediatric Hematology and Oncology in Zabrze. After receiving a professorship from the President of Poland he has become a full professor at the Medical University of Silesia. Currently, Prof. Szczepański also serves at the Medical University of Silesia as Rector Magnificus. He is a member of the Board of the Polish Pediatric Association and the President of the Polish Society of Pediatric Oncology and Hematology. He is co-author of >300 publications, including >150 international SCI publications. His works were cited >6000 times, which resulted in the Hirsch index of 41.

Selected publications:

- **Szczepański T**, van der Velden VHJ, Waanders E, Kuiper RP, Van Vlierberghe P, Gruhn B, Eckert C, Panzer-Grümayer R, Basso G, Cavé H, zur Stadt U, Campana D, Schrauder A, Sutton R, van Wering E, Meijerink JPP, van Dongen JJM: Late recurrence of childhood T-cell acute lymphoblastic leukemia frequently represents a second leukemia rather than a relapse: first evidence for genetic predisposition. ***J Clin Oncol 2011; 29: 1643-1649*.**

- Van Dongen JJM, Lhermitte L, Böttcher S, Almeida J, van der Velden VH, Flores-Montero J, Rawstron A, Asnafi V, Lécrevisse Q, Lucio P, Mejstrikova E, **Szczepański T**, Kalina T, de Tute R, Brüggemann M, Sedek L, Cullen M, Langerak AW, Mendonça A, Macintyre E, Martin-Ayuso M, Hrusak O, Vidriales MB, Orfao A: EuroFlow antibody panels for standardized n-dimensional flow cytometric immunophenotyping of normal, reactive and malignant leukocytes. ***Leukemia 2012; 26: 1908-1975.***

- Sędek L, Bulsa J, Sonsala A, Twardoch M, Wieczorek M, Malinowska I, Derwich K, Niedźwiecki M,

Sobol-Milejska G, Kowalczyk JR, Mazur B, **Szczepański T**: The immunophenotypes of blast cells in B-cell precursor acute lymphoblastic leukemia: How different are they from their normal counterparts? ***Cytometry B Clin Cytom 2014; 18: 48-53.***

- Theunissen P, Mejstrikova E, Sedek L, van der Sluijs-Gelling AJ, Gaipa G, Bartels M, Sobral da Costa E, Kotrova M, Novakova M, Sonneveld E, Buracchi C, Bonaccorso P, Oliviera E, Te Marvelde JG, **Szczepanski T**, Lhermitte L, Hrusak O, Lecrevisse Q, Grigore GE, Fronkova E, Trka J, Brüggemann M, Orfao A, van Dongen JJ, van der Velden VH. Standardized flow cytometry for highly sensitive MRD measurements in B-cell acute lymphoblastic leukemia. ***Blood 2017, 129: 347-357.***

- Sędek Ł, Theunissen P, da Costa ES, van der Sluijs-Gelling A, Mejstrikova E, Gaipa G, Sonsala A, Twardoch M, Oliveira E, Novakova M, Buracchi C, van Dongen JJM, Orfao A, van der Velden VHJ, **Szczepański T**; EuroFlow Consortium: Differential expression of CD73, CD86 and CD304 in normal vs. leukemic B-cell precursors and their utility as stable minimal residual disease markers in childhood B-cell precursor acute lymphoblastic leukemia. ***J Immunol Methods. 2019; 475: 112429.***

Bristol Myers Squibb™

Pacienti jsou smyslem všeho, co děláme. Inspirují nás. Motivují nás.

Bojujeme s nádorovými onemocněními

Bristol Myers Squibb je globální biofarmaceutická společnost. Naším posláním je objevovat, vyvíjet a dodávat moderní léky, které pomáhají pacientům zvítězit nad nádorovými onemocněními.

Náš závazek vyvíjet inovativní léky je tak silný jako vůle pacientů bojovat proti závažným onemocněním. Nakonec bude náš úspěch měřen jedinou věcí: jak úspěšně dokážeme změnit životy pacientů.

IOCZ2002523-01 | datum schválení: 6. 5. 2020.

Bristol-Myers Squibb spol. s r.o.
Budějovická 778/3, 140 00 Praha 4 | tel.: 221 016 111 | e-mail: bms.czech@bms.com | **www.b-ms.cz**

Alberto Orfao

Department of Medicine, Cancer Research Center, University of Salamanca, Spain

Presentation:

Follow-up of multiple myeloma after therapy: advantages and limitations of BM versus blood monitoring

Martin Jemelka

Masaryk Institute and Archives of the Czech Academy of Sciences of the Czech Academy of Sciences, Prague, Czech Republic

Presentation:

Ostrava-Vítkovice 1800-2000: from the "Steel City" (Jules Verne) to Know-it-nothing's City on the Moon (Nikolai Nosov)

2002–2006 Ph.D., Faculty of Arts, University of Ostrava, Ostrava.
2006–2018 Social Sciences Department, Technical University of Ostrava.
2013–2014 Imre Kertész Kolleg, Universität Jena, Jena, Germany.
2015–2016 Institut für Osteuropäische Geschichte, Universität Wien, Vienna, Austria.
2016–Present Masaryk Institute and Archives of the Czech Academy of Sciences, Prague, Czech Republic
2018 Assoc. Prof., Faculty of Arts, University of Ostrava, Ostrava.

Scientific interests:

Modern economic and social history; Urban history; Historical demography; Labor and working-class history of the Czech lands; Modern religious history; History of the Concern Baťa.

Selected publications:

- **Jemelka, Martin** – Štofaník, Jakub: Víra a nevíra ve stínu továrních komínů. Náboženský život průmyslového dělnictva v českých zemích 1918–1938. Praha: Academia, Masarykův ústav a Archiv AV ČR, 2020.
- Hájková, Dagmar – Horák, Pavel (eds.). Republika československá. Praha: NLN, Nakladatelství Lidové noviny, 2018.
- **Jemelka, Martin** – Ševeček, Ondřej. Tovární města Baťova koncernu. Evropská kapitola globální expanze. Praha: Academia, 2016.
- **Jemelka, Martin** (ed.): Ostravské dělnické kolonie I–III. Ostrava: Ostravská univerzita 2011, 2012, 2015.
- Ševeček, Ondřej – **Jemelka, Martin** (eds.). Company Towns of the Baťa Concern. History – Cases – Architecture. Stuttgart: Franz Steiner Verlag, 2013.


janssen
PHARMACEUTICAL COMPANIES
OF Johnson&Johnson

LIST OF POSTERS

CELL BIOLOGY

(P1) DIRECT MEASUREMENTS OF CELLULAR ATP LEVELS USING AUTOMATED, QUANTITATIVE LIVE-CELL ANALYSIS FOR MITOCHONDRIAL TOXICITY SCREENING
Schramm C.L., Filonov G.S., Bowe M.L., Chen Y.X., Skerlos L.A., McEwen D.P., Appledorn D.M.

(P2) 96-WELL LIVE-CELL ASSAYS FOR IMMUNE CELL KILLING OF 3D TUMOUR SPHEROIDS
Oliver M., Patel K., Holtz N., Endsley E., Dale T., Trezise D.

(P3) EXTRACELLULAR VESICLES REIMAGINED WITH MULTIPLEX COLOR DETECTION IN IMAGING FLOW CYTOMETRY
Hall B.

(P4) THE USE OF AN AURORA SPECTRAL CYTOMETER FOR SMALL PARTICLE ANALYSIS
Lannigan J., Solga M., Tang V., Langlois M.A.

(P5) DETECTION AND QUANTIFICATION OF CIRCULATING TUMOR CELLS IN PBMCS OR BLOOD USING FLOW CYTOMETRY
Lei M., Ye P., Wang A., Li N., Wang X.

(P6) IDENTIFICATION OF DUBS REGULATING RIBOSOME STALLING ON ENDOGENOUS mRNA
Šnaurová R., Vdovin A., Vrána J., Hájek R., Šimíček M.

(P7) DISRUPTION OF THE ARYL HYDROCARBON RECEPTOR (AHR) SIGNALING ALTERS FUNCTIONS AND PRODUCTION OF SURFACTANT IN A HUMAN MODEL OF ALVEOLAR TYPE II CELLS
Karasová M., Vázquez-Gómez G., Pelková V., Kotasová H., Hampl A., Slavík J., Machala M., Vondráček J.

(P8) ACUTE MYELOID LEUKEMIA REGRESSION INDUCED BY PALBOCICLIB AND PONATINIB IN PATIENT-DERIVED XENOGRAFT MODEL
Buša D., Loja T., Ježíšková I., Folta A., Mayer J., Čulen M.

(P9) CHK1 INHIBITOR SCH900776 ENHANCES ANTICANCER ACTION OF CISPLATIN AND TRAIL VIA STIMULATION OF BAK-DEPENDENT MITOCHONDRIAL PATHWAY
Krkoška M., Paruch K., Herůdková J., Hyršlová Vaculová A.

(P10) DEREGULATION OF CYTOCHROME P450 EXPRESSION IN HUMAN HEPATOCELLULAR CARCINOMA – POSSIBLE ROLE OF MICRORNAS
Krkoška M., Nekvindová J., Nevědělová K., Zubáňová V., Radová L., Vondráček J., Herůdková J., Slabý O., Kiss I., Bohovicová L., Fabian P., Tylichová Z., Kala Z., Kysela P., Ostřížková L., Palička V., Hyršlová Vaculová A.

(P11) DEREGULATION OF SIGNALING PATHWAYS CONTROLLING CELL SURVIVAL AND PROLIFERATION IN CANCER CELLS REDUCES INDUCIBILITY OF CYP1A1/1B1 CYTOCHROMES
Krkoška M., Svobodová J., Zapletal O., Hyršlová Vaculová A., Nekvindová J., Vondráček J.

(P12) PROS AND CONS OF IN VITRO CULTURE OF PROSTATE ORGANOIDS AND TISSUE FRAGMENTS
Mickova A., Levkova M., Kurfurstova D., Kharaishvili G., Morong M., Student V., Drapela S., Soucek K., Bouchal J.

(P13) THE ROLE OF ALDEHYDE DEHYDROGENASE IN COLORECTAL CANCER CHEMORESISTANCE AND METASTASIS
Poturnajová M., Riľak M., Kozovská Z., Matúšková M.

(P14) TLR3 AFFECTS CELL MIGRATORY FEATURES IN PROSTATE CANCER
Muresan X.M., Slabáková E., Drápela S., Beneš P., Fedr R., Bouchal J., Puhr M., Culig Z., Souček K.

(P15) DIRECT CO-CULTURE MODEL FOR THE ANALYSIS OF CHRONIC LYMPHOCYTIC LEUKAEMIA RESPONSE TO BONE MARROW STROMAL CELLS
Plešingerová H., Janovská P., Radová L., Mařáková M., Kotašková J., Hankeová S., Andersson E., Bryja V.

(P16) BREAST CANCER HETEROGENEITY MEDIATED BY EPITHELIAL-MESENCHYMAL PLASTICITY
Kvokačková B., Fedr R., Procházková J., Kučerová K., Remšík J., Navrátil J., Fabian P., Langerová L., Abaffy P., Souček K.

(P17) EMPLOYING EXTRACELLULAR VESICLES FOR EARLY DIAGNOSIS OF OVARIAN CANCER
Kotrbová A., Lapinová J., Bednaříková M., Hausnerová J., Weinberger V., Bryja V., Pospíchalová V.

(P18) OPTIMALIZATION OF CLICK-IT® EDU ALEXA FLUOR® 488 FLOW CYTOMETRY ANALYSIS AND CORRELATION WITH PROLIFERATION ASSAY
Chovancova B., Liskova V., Krizanova O.

(P19) SINGLE CELL RNA-SEQUENCING OF SORTED LINEAGE TRACED STEM CELL POPULATION SHOWS A GRADUAL DIFFERENTIATION PATTERN IN CONTINUOUSLY GROWING TEETH
Krivanek J., Lavicky J., Taus P., Gonzalez Lopez M., Rakultsev V., Kurucova T., Dunajova A.A., Sulcova M., Buchtova M.

(P20) ATYPICAL HUMAN KINASE HASPIN – CELL CYCLE FUNCTIONS AND ROLE IN CANCER CELL PLASTICITY
Suchánková T., Novotný J., Jarošková A., Fedr R., Paruch K., Souček K.

(P21) HIGHLY MULTIPLEXED, SINGLE-CELL FUNCTIONAL PROFILING OF CAR-T CELLS ENABLES MORE PREDICTIVE PRODUCT CHARACTERIZATION, CELL MANUFACTURING ANALYSIS, AND CELLULAR BIOMARKERS ACROSS PRODUCT TYPE
Paczkowski P., Liu D., Colin Ng, Kaiser A., Mackay S., Zhou J.

(P22) INTACT NUCLEI SAMPLE PREPARATION FROM FROZEN BRAIN TISSUE WITH THE WOLF CELL SORTER
Alaynick W.

(P23) DEVELOPMENT OF A TRIPLE UV/VIOLET EXCITATION ANALYZER FOR LABEL-FREE FLOW CYTOMETRY
Vacca G., Chin A., Kashi E., Huang J., Shevgaonkar K., Contini G., Cappella P.

(P24) BUILDING ARNO, TIME-RESOLVED FLOW CYTOMETER FOR COMPENSATION FREE ASSAYS
Chin A., Shevgaonkar K., Kashi E., Huang J, Kashi E., Huang J., McKay R., Cappella P., Vacca G.

(P25) PHENOTYPIC VARIABILITY IN LYMPHOID CELL LINES: FACS-BASED ANALYSIS OF SINGLE CELL CLONES AND DESIGN OF QUALITY CONTROL FLOW CYTOMETRIC PANELS
Vondálová Blanářová O., Gömoryová K., Čada Š., Janovská P., Radaskiewicz T., Bryja V.

(P26) MEF 3T3 CELLS REACTION TO PHO- BIOPOLYMER OF BACTERIAL ORIGIN
Solarz D., Witko T., Rajfur Z., Guzik M.

(P27) ANALYSIS OF PLANT GENOME SIZE IN THE FIELD USING GUAVA MUSE
Janda J.

(P28) ARYL HYDROCARBON RECEPTOR (AHR) DOWNREGULATESTHE INFLAMMATORY RESPONSE IN HUMAN LUNG ALVEOLAR TYPE II CELLS MODEL
Vázquez-Gómez G., Karasová M., Tylichová Z., Kabátková M., Hampl A. Neča J., Machala M., Vondráček J.

(P29) ANOTHER ONE BEATS THE DUSP – DUAL SPECIFICITY PHOSPHATASES IN MES DIFFERENTIATION
Sladeček S., Radaszkiewicz K.A., Bőhmová M., Gybeľ T., Radaszkiewicz T.W., Mlčáková M., Pacherník J.

(P30) PROTEOMIC ANALYSIS IDENTIFIES KEY PLAYERS IN THE PROCESS OF METASTASIS UNDER HYPOXIC CONDITIONS
Buľková V., Vargová J., Babinčák M., Jendželovský R., Roudnický P., Zdráhal Z., Fedoročko P.

CLINICAL CYTOMETRY

(P31) 24-COLOR HUMAN IMMUNOPHENOTYPING PANEL USING 3 LASERS ONLY: CYTEK SPECTRAL CLINICAL FLOW CYTOMETER
Brewińska-Olchowik M.

(P32) PLATELET-MONOCYTE AGGREGATES (PMA): IN VITRO FORMATION, AND DETECTION IN A COHORT OF HEALTHY INDIVIDUALS
Carazo A., Fadraersada J., Alva R., Mladěnka P.

(P33) IMMUNOPHENOTYPING OF T-ZONE LYMPHOMA IN DOGS USING MULTIPARAMETER FLOW CYTOMETRY
Jeklová E., Levá L., Pfeifr J., Faldyna M.

(P34) THE ROLE OF COMPLOSOME IN CD4 T-CELLS
Stichova J., Slanina P., Chovancova Z., Vlkova M.

(P35) INFLUENCE OF RADIATION DOSE ON THE CHANGE OF H2AX EXPRESSION
Vlas T., Skálová J., Lysák D.

(P36) ACUTE LYMPHOBLASTIC LEUKAEMIA IN A DOG – DOCUMENTATION OF RAPID DISEASE PROGRESSION USING MULTIPARAMETER FLOW CYTOMETRY (A CASE REPORT)
Levá L., Jeklová E., Borská P., Faldyna M.

(P37) ANALYSIS OF PLACENTAL EXTRACELLULAR VESICLES IN UMBILICAL CORD BLOOD OF PRE-TERM NEWBORNS
Smolová H., Soukup J., Širc J., Kostelanská M., Straňák Z., Holada K.

(P38) GRAFT COMPOSITION VARIABILITY IN AUTOLOGOUSLY TRANSPLANTED MULTIPLE MYELOMA PATIENTS
Chena D., Dekojová T., Holubová M., Lysák D., Jindra P.

HEMATOLOGY

(P39) NECESSITY OF FLOW CYTOMETRY ASSESSMENT OF CIRCULATING PLASMA CELLS AND ITS CONNECTION WITH CLINICAL CHARACTERISTICS OF PRIMARY AND SECONDARY PLASMA CELL LEUKEMIA
Bezdekova R., Jelinek T., Kralova R., Stork M., Polackova P., Vsianska P., Brozova L., Almasi M., Boichuk I., Knechtova Z., Penka M., Pour L., Sevcikova S., Rihova L.

(P40) EFFECT OF DARATUMUMAB-CONTAINING INDUCTION ON CD34+ HAEMATOPOIETIC STEM CELL SUBSETS BEFORE AUTOLOGOUS STEM CELL TRANSPLANTATION IN MULTIPLE MYELOMA
Venglář O., Huvarová L., Ševčíková T., Vrána J., Kapustová V., Žihala D., Broskevičová L., Kořístek Z., Hájek R., Jelínek T.

(P41) FLOW CYTOMETRY DETECTION OF TUMOR SPECIFIC MICROVESICLES.
Novák M., Grohmann J., Procházka V., Fürst T., Slavík L., Papajík T.

(P42) SUITABILITY OF FLOW CYTOMETRY FOR MINIMAL RESIDUAL DISEASE ASSESSMENT IN PEDIATRIC PATIENTS WITH ACUTE MYELOID LEUKEMIA
Nováková M., Stančíková J., Luknárová P., Rozumová M., Thürner D., Semerák P., Hrušák O., Šrámková L., Starý J., Mejstříková E.

CELL THERAPY

(P43) SELECTION, EXPANSION, AND UNIQUE PRETREATMENT OF ALLOGENEIC HUMAN NATURAL KILLER CELLS WITH ANTI-CD38 MONOCLONAL ANTIBODY FOR EFFICIENT MULTIPLE MYELOMA TREATMENT
Charvátová S., Motais B., Walek Z., Kořístek Z., Sobotka J., Jelínek T., Hájek R., Bago J.R.

eppendorf

Připojte se k laboratoři, připojte laboratoř k Vám

VisioNize® je digitální platforma, která propojuje Eppendorf přístroje s počítačem nebo mobilním zařízením. Nabízí přehledné a jednoduché uživatelské prostředí a rychlou a snadnou dostupnost informací o přístrojích.

Proč připojit laboratoř k VisioNize?

> Díky vzdálenému přístupu přes internet můžete kdykoli monitorovat Eppendorf přístroje v laboratoři (mrazáky, třepačky, inkubátory, aj.)
> Přizpůsobitelné nastavení alarmů a notifikací o stavu přístrojů
> Pomůže identifikovat prostoje přístrojů a plánovat použití, a tak zvýšit produktivitu

Máte zájem získat zdarma VisioNize ke svým Eppendorf přístrojům?

Po přihlášení k rozhraní VisioNize dostanete osobní přístup k VisioNize Digital Lab Space. Nainstalujte a začněte využívat základní funkce monitorování laboratorních přístrojů Eppendorf pomocí VisioNize.

Pro předvedení a bližší informace nás kontaktujte na eppendorf@eppendorf.cz.

www.eppendorf.com/visionize

Eppendorf Czech & Slovakia s.r.o. · Voděradská 2552/16 · 251 01 Říčany u Prahy

(P44) STIMULATION OF MURINE EMBRYONIC STEM CELLS WITH PEDOT:PSS BASED DEVICE
Šafaříková E., Ehlich J., Salyk O., Vala M., Weiter M., Kubala L., Víteček J.

(P45) EFFECT OF PSEUROTIN D ON MEC-1 HUMAN LYMPHOMA CELLS
Mosejová E., Bošnjaković R., Kubala L., Vašíček O.

(P46) IMMUNOPHENOTYPING OF DLBCL AND B-ALL PATIENTS RECEIVING ANTI-CD19 CAR T CELL THERAPY
Štach M., Koladiya A., Mucha M., Šmilauerová K., Musil J., Otáhal P.

(P47) HIGH OUTGROWTH PLATING OF SUSPENSION CHO CELLS
Alaynick W.

(P48) DEVELOPMENT AND OPTIMIZATION OF MATRIGEL-BASED MULTI-SPHEROID 3D TUMOR ASSAYS USING REAL-TIME LIVE-CELL ANALYSIS
Kalpana P., Miniver O., Nevine H., Jackson T., Nicholas D., Lovell G., Bevan N.J., Dale T.J., Trezise D.J.

DATA ANALYSIS

(P49) MIHA CELL MODEL OF IMMORTALIZED HEPATOCYTES AND ITS POSSIBLE APPLICATION FOR DETECTION OF LIPOGENIC EFFECTS OF DRUGS/CHEMICALS
Kabátková M., Nevědělová K., Vondráček J.

(P50) IMPROVING DATA QUALITY WITH CYTEK SPECTRAL FLOW CYTOMETERS AND AUTOFLUORESCENCE EXTRACTION
Brewińska-Olchowi M.

(P51) QUANTIFICATION OF DNA IN ADHERENT CELL CULTURES: COMPARISON OF TWO LABORATORY METHODS
Čížková J., Andrejsová L., Lierová A., Šinkorová Z., Šinkora J.

IMMUNOLOGY

(P52) FLOW CYTOMETRIC CHARACTERISATION OF MONOCYTE-MACROPHAGE SUBSETS IN SYNOVIAL FLUIDS IN KNEE OSTEOARTHRITIS
Mikulkova Z., Trajerova M., Gallo J., Savara J., Kriegova E.

(P53) USE OF FLOW CYTOMETRY TO ASSESS AND CHARACTERISE SYNOVIAL FLUID PHENOTYPES OF KNEE OSTEOARTHRITIS PATIENTS
Trajerova M., Gallo J., Mikulkova Z., Kudelka M., Manukyan G., Savara J., Kriegova E.

(P54) CONTRIBUTION OF HYALURONIC ACID NANOPARTICLES FOR MODULATION OF RADIATION-INDUCED PULMONARY FIBROSIS
Sinkorova Z., Pejchal J., Kubelkova K., Korecka L., Bilkova Z., Lierová A.

(P55) MACROPHAGE POLARIZATION AS A RESPONSE TO AMINE PLASMACHEMICALLY FUNCTIONALIZED SURFACES
Bartošíková J., Černochová P., Matušů P., Medalová J., Zajíčková L.

(P56) A MAP OF REGENERATING IMMUNE SYSTEMS OF HSCT PATIENTS USING GROWING QUADTREE-STRUCTURED SOMS
Koladiya A., Vaníková S., Musil J.

(P57) FLOW CYTOMETRY AS A TOOL OF PRACTICE BIODOSIMETRY
Andrejsová L., Čížková J., Filipová A., Jeličová M., Lierová A., Šinkorová Z., Tichý A.

(P58) METABOLIC CHANGES OF IN VITRO EXPANDED NK CELLS
Jedlička M., Feglarová T., Mašínová E., Dvořák J., Sládková L., Kuželová K., Kořánová T., Frič J.

(P59) PSEUROTIN AS AN INHIBITOR OF SPECIFIC IMMUNITY
Vašíček O., Skoroplyas S., Rubanová D., Fedr R., Daďová P., Kubala L.

(P60) EFFECT OF 4-METHYLUMBELLIFERONE ON THE IMMUNE RESPONSE OF MACROPHAGES
Chorvátová M., Stojanovová A., Kubala L.

(P61) THE EFFECT OF PSEUROTIN D ON MOUSE IMMUNE RESPONSE
Skoroplyas S., Dadová P., Fedr R., Vasicek O., Kubala L.

(P62) PRELIMINARY VALIDATION OF MONOCLONAL ANTIBODIES GENERATED AGAINST TWO RABBIT CD34 SYNTHETIC PEPTIDES
Vašíček J., Baláži A., Bauer M., Svoradová A., Tirpáková M., Chrenek P.

(P63) LIPOPOLYSACCHARIDES FROM CYANOBACTERIAL WATER BLOOM-FORMING SPECIES POSSESS PRO-INFLAMMATORY EFFECTS ON EPITHELIAL AS WELL AS IMMUNE CELLS
Šindlerová L., Skočková V., Raptová P., Vašíček, O., Babica P.

(P64) INTRAVENOUS IMMUNOGLOBULIN MODULATES THE NUMBER AND FUNCTION OF LOW DENSITY NEUTROPHILS IN PATIENTS WITH COMMON VARIABLE IMMUNODEFICIENCY
Slanina P., Štíchová J., Litzman J., Chovancová Z., Frič J., Vlková M.

(P65) IMMUNE RESPONSE IN ZINC ADMINISTRATION AND ASCARIDIA GALLI INFECTION
Revajová V., Dvorožňáková E., Grešáková Ľ., Selecká E., Karaffová V., Herich R., Levkut M. Jr., Ševčíková Z., Levkut M. Sr.

(P66) IMMUNOMODULATORY AND GUT-PROTECTIVE EFFECTS OF HUMIC SUBSTANCES IN BROILER CHICKENS
Mudroňová D., Karaffová V., Koščová J., Cingeľová Maruščáková I., Bartkovský M., Marcinčáková M., Semjon B., Marcinčák S.

(P67) EFFECTS OF WATER BLOOM LIPOPOLYSACCHARIDES ON CO-CULTURE INTESTINAL MODEL
Skočková V., Hošeková V., Vašíček O., Babica P., Šindlerová L.

(P68) FORSKOLIN-MEDIATED MODULATION OF HUMAN T HELPER CELL DIFFERENTIATION
Dadova P., Mikulova A., Jarousek R., Kubala L.

(P69) INFLIXIMAB POLYMER CONJUGATES FOR TREATMENT OF RHEUMATOID ARTHRITIS
Bryja J., Rubanová D., Kudláčová J., Etrych T., Šenolt L., Kubala L.

(P70) DEXAMETHASONE BASED POLYMER THERAPEUTICS FOR TREATMENT OF RHEUMATOID ARTHRITIS
Rubanová D., Bryja J., Skoroplyas S., Libánská A., Etrych T., Kubala L.

(P71) INTERCELLULAR COMMUNICATION IN THE DEVELOPMENT OF PERITONEAL ADHESIONS
Sandanusová M., Kocurková A., Kerberová M., Kubala L., Ambrožová G.

(P72) CN-NFAT INHIBITORS IMPAIR PTX-3 PRODUCTION IN HUMAN NEUTROPHILS
Vymazal O., Andrejčinová I., Bosáková V., Hortová Kohoutková M., Tidu F., Bendíčkova K., De Zuani M., Frič J.

(P73) EFFECT OF TNF INHIBITORS ON GD-IGA B CELLS IN PERIPHERAL BLOOD OF IGAN PATIENT – A CASE STUDY
Zachová K., Jemelková J., Flögelová H., Raška M.

(P74) COMPREHENSIVE IMMUNE MONITORING OF T CELL SUBPOPULATIONS GIVES RELEVANT INFORMATION TO IMPROVE PATIENT CARE
Huarriz-Sagüés A., González R., Perez-Peña J., Cabrita C.

(P75) PROTOCOL SETTINGS OF PHAGOCYTIC ACTIVITY OF MONOCYTE SUBPOPULATIONS
Krupičková L., Fialová M., Stříž I.

(P76) COVID-19 INFECTION AND SELECTED IMMUNOLOGICAL PARAMETERS IN PATIENTS WITH SEVERE COURSE – OUR FIRST EXPERIENCES
Szabóova K., Ilavská S., Tibenská E., Hrubišková K.

(P77) ROLE OF FAM83H IN IMMUNE SYSTEM HOMEOSTASIS
Ogan B., Vičíková K., Šímová M., Procházka J., Sedláček R., Balounová J.

(P78) QUANTIFYING IMMUNE CELL SUBSETS IN LIVING CULTURES OVER TIME USING LIVE-CELL ANALYSIS
Schramm C.L., Filonov G.S., Bowe M.L., Chen Y.X., Skerlos L.A., McEwen D.P., Appledorn D.M.

(P79) HOW IMAGING FLOW CYTOMETRY CAN ILLUMINATE IMMUNE CELL INTERACTIONS
Hall B.

(P80) ULTRA-HIGH PARAMETER EXPERIMENTS WITH CYTEK AURORA SPECTRAL FLOW CYTOMETER: 40 COLORS, ONE TUBE
Brewińska-Olchowik M.

(P81) EX VIVO PHENOTYPING AND POTENCY MONITORING OF CD19 CAR T CELLS WITH A COMBINED FLOW CYTOMETRY AND IMPEDANCE-BASED REAL TIME CELL ANALYSIS WORKFLOW
Leyna Z., Lauren J., Ming L., Peifang Y., Yan L., Xiaoping J., Yu Y., Garret G., Nan L., Xiaobo W.

(P82) T CELL EXHAUSTION IN PRIMARY IMMUNODEFICIENCIES, INCLUDING CVID AND 22Q11.2 DELETION SYNDROME
Klocperk A., Friedmann D., Smetanova J., Bengsch B., Warnatz K., Sediva A.

(P83) EFFECT OF EARLY POSTNATAL PROBIOTIC SUPPLEMENTATION ON IMMUNE SYSTEM MATURATION AND COLITIS DEVELOPMENT
Hrdý J., Súkeníková L., Věcek J., Černý V., Novotná O., Petrásková P., Miková E.

(P84) REGULATION OF T CELL RESPONSE WITH SELECTIVE CASEIN KINASE 1 FAMILY INHIBITORS
Chorvátová M., Skoroplyas S., Daďová P., Kubala L.

(P85) SERUM-REDUCED CULTURE OF PORCINE MONOCYTE-DERIVED MACROPHAGES
Štěpánová H., Kavanová L., Levá L., Vícenová M., Šťastný K., Faldyna M.

(P86) THE ROLE OF PATTERN RECOGNITION RECEPTOR-INDUCED TRANSCRIPTION FACTOR SIGNALLING IN MONOCYTE RESPONSES
Andrejčinová I., De Zuani M., Hortová Kohoutková M., Bosáková V., Mrkva O., Bendíčková K., Frič J.

MICROFLUIDICS

(P87) A HIGHLY CUSTOMIZABLE FLUIDICS CONTROL MODULE FOR FLOW CYTOMETRY
Vacca G., Kashi E.

(P88) RETINAL ORGANOIDS IN MICROFLUIDIC SYSTEMS – FORMATION AND EARLY-STAGE DIFFERENTIATION
Jongen V.A., Kandra M., Bárta T., Hampl A., Jaroš J.

(P89) PRODUCTION OF A MICROFLUIDIC CHIP TO STUDY THE CD44-HIPPO PATHWAY CROSS-TALK
Černík M., Oliver-De La Cruz J., Forte G., Kubala L., Víteček J.

(P90) DROPLET MICROFLUIDICS WITH PHOTON-UPCONVERSION LUMINESCENCE DETECTION: TOWARDS AUTOMATED SINGLE-CELL ASSAYS
Křivánková J., Hlaváček A., Foret F.

(P91) SYNTHESIS OF PHOTON-UPCONVERSION NANOPARTICLES FOR MICROFLUIDIC APPLICATIONS
Weisová J., Hlaváček A., Křivánková J., Foret F.

IMAGE CYTOMETRY

(P92) 3D IN VITRO MODEL OF HUMAN ENTEROCYTES
Raptová P., Goliášová Z., Vašíček O., Šindlerová L.

(P93) VISUALIZATION OF TETRASPANIN ENRICHED MICRODOMAINS USING STRUCTURED ILLUMINATION MICROSCOPY
Fedr R., Kryštofová K., Vacek O., Souček K.

(P94) STUDY CELL FREE DNA HISTONES AND NUCLEOSOMES BY IMAGING FLOW CYTOMETRY
Búzová D., Červený J., Vinciguerra M.

Novel Full Spectrum Flow Cytometry Dyes

From dyes with unique emission spectra to innovative chemistries, we're equipped to offer you more fluorophore options than ever before. Over the past year, we've released Spark Dyes to fill spectral spaces and Fire Dyes that push the limits of flow cytometry. Many of these dyes leverage the capabilities of spectral flow cytometers that allow fluors with similar spectra to be unmixed and used together, which cannot be done on conventional flow cytometers. Explore our diverse set of dyes, crafted by experts and peer reviewed by your colleagues.

Discover our new dyes at:
biolegend.com/en-us/fluorophore-families

Highlights include:

- **PE/Fire™ 810 and APC/Fire™ 810:** two dyes that emit far into the infrared beyond conventional dyes.
- **Spark YG™ 581 and Spark YG™ 593:** novel options for the yellow-green laser that are minimally excited by the blue laser.
- **Spark Violet™ 538:** violet laser option whose emission falls between BV510™ and BV570™.
- **PE/Fire™ 640:** A blue and yellow/green laser-excited dye that has a distinct emission peak between the peaks of PE/Dazzle™ 594 and PE/Cyanine5.
- **PE/Fire™ 700:** A brighter and more stable equivalent to PE/Cyanine5.5.

BioLegend®
biolegend.com

World-Class Quality | Superior Customer Support | Outstanding Value

BioLegend products are manufactured in an ISO 13485:2016-certified facility to ensure the highest quality standards.

HANDS-ON WORKSHOPS DESCRIPTION

Beckman Coulter hands-on workshops

Lunch workshop, Gold hall, Sunday, October 3, 12:40

CytoFLEX SRT – simple way to get cells you want

Michal Maj, Beckman Coulter

High sensitivity and high resolution fully automated cell sorter.

CytoFLEX family of Flow Cytometers have been known for their extraordinary sensitivity and resolution connected with ease of use and reliability. Now allowing to sort cells in an easy and automated way. Introduction and application of newly launched 4-way cell sorter CytoFLEX SRT.

Lunch workshop, Silver hall, Monday, October 4, 12:30

DxFLEX and Supernova dyes – new shining cytometry stars

Roman Vlček, Beckman Coulter

CytoFLEX flow cytometers have been known for years for their's reliable high sensitivity detection of dim populations as well as small particles analysis (e.g., extracellular vesiculles) with different laser excitation sources. This technology has entered recently also clinical environment with its addition to the family – DxFLEX flow cytometer.

SuperNova – New polymer bright dyes for violet laser allows sensitive detection of dim populations. These extraordinary dyes are usable on both Navios and CytoFLEX/DxFLEX family flow cytometers and other compatible cytometers.

Silver hall | Sunday, October 3, 14:35 | Monday, October 4, 11:00 | Tuesday, October 5, 9:00

CytoFLEX SRT – automated bench top cell sorter

High sensitivity and resolution fully automated cell sorter.

CytoFLEX family of Flow Cytometers have been known for their extraordinary sensitivity and resolution connected with ease of use and reliability. Now allowing to sort cells in an easy and automated way. Introduction and application of newly launched 4-way cell sorter CytoFLEX SRT.

Silver hall | Sunday, October 3, 16:15 | Monday, October 4, 14:00 | Tuesday, October 5, 9:50

DxFLEX – flexible clinical flow cytometer

CytoFLEX flow cytometers have been known for years for their's reliable high sensitivity detection of dim populations as well as small particles analysis (e.g., extracellular vesiculles) with different laser excitation sources. This technology has entered recently also clinical environment with its addition to the family – DxFLEX flow cytometer. Come to meet cutting edge clinical flow system!

Silver hall | Monday, October 4, 8:30, 14:45 | Tuesday, October 5, 11:00

CytoFLEX family – sensitivity and high resolution in your hands

CytoFLEX flow cytometers have been known for years for their's reliable high sensitivity detection of dim populations as well as small particles analysis (e.g., extracellular vesiculles) with different laser excitation sources. Choice of up to 6 different excitation sources (lasers) and up to 21 fluorescence detection paths, sensitive Avalanche Photo Diode Detection, and more than 50 different configurations available make this research flow cytometer a perfect match for every research lab.

Silver hall | Monday, October 4, 9:50, 16:00

Reagents – Duraclone Dry ready to use cocktails and SuperNova polymer dyes

Beckman Coulter has been manufacturing high-quality reagents for flow cytometry for more than 30 years. Come to discuss new additions to our Research and Clinical catalog.

BD

BD hands-on workshops

Lunch workshop, Silver hall, Sunday, October 3, 12:40

Best practice in flow cytometer characterization and its usage in panel design

During our first lunch workshop, we will be hosting RNDr. Jan Musil, Ph.D. Jan is working at the Institute of Hematology and Blood Transfusion in Prague as the head of the Department of Immune Monitoring and Flow cytometry. His lab is dedicated to system level understanding of immune system complexity across various clinical conditions using the single cell multi-omic methods.

In his talk, Jan will describe how they have successfully developed multicolor flow cytometry panels for clinical usage for their BD LSRFortessa™ and BD FACSymphony™ A5 flow cytometers and why standardization is a key factor for them. Jan will also demonstrate live on our FACSymphony™ A3, how to use the quantiFlash device for calibration and performance testing of flow cytometers.

Lunch workshop, Gold hall, Monday, October 4, 12:30

How to successfully combine flow cytometry with the multi-omics approach

BD will be hosting Dr. Luigia Pace, who is the principal investigator of the Immune regulation group at the Italian Institute for Genomic Medicine in Turin. Her research addresses fundamental aspects of the immune responses, related to memory T cell differentiation and long-term protection. In this field she is a very successful scientist with her recent publications in Science and Immunity journals.

In the last years, numerous innovations in cancer treatment demonstrate that long-lasting clinical benefits can be obtained by targeting CD8+ T lymphocyte responses. These observations have determined a paradigm shift in cancer treatment: to target the immune cells to improve tumor rejection.

Keeping this in mind Dr. Pace will be presenting the way how to successfully combine several multiparameter approaches (like flow cytometry and NGS) at a single cell level. She will be presenting the new set of her multi-omics data obtained through the BD Rhapsody™ Single-Cell Analysis System.

Silver hall, Monday, October 4, 9:10

Total spread matrix – an optimized method for accurate spread measurement and its use in panel design

During this talk, we will be presenting a new method of spread classification for the design of multicolor flow cytometry panels. The assessment of fluorescence spillover is critical to prevent or minimize loss of resolution due to spreading error. The Spillover Spread Matrix (SSM) was developed as a powerful tool to monitor and compare instrument performance over time, especially in the setting of experiments standardized or calibrated across different instruments. SSM has also been widely adopted as a tool to guide panel design. The intrinsic nature of SSM, i.e., independence from fluorochrome brightness, is a critical feature for instrument performance comparison but may lead to inaccurate spread prediction and consequent sub-optimal panel design.

In this seminar we will introduce a new, optimized method for a more precise spread quantification and specifically developed to aid panel design.

Silver hall | Sunday, October 3, 14:35, 16:15 | Monday, October 4, 9:50, 11:00, 14:00, 14:45, 16:00 | Tuesday, October 5, 9:00, 9:50, 11:00

Hands-on demonstration of BD FACSymphony™ A1, A3, BD FACSLyric™ and BD Rhapsody™ instruments

Everyone who will join us for these time slots will have the opportunity to see and try out several BD instruments. BD Biosciences will be presenting 3 flow cytometers BD FACSymphony™ A1, A3, and BD FACSLyric™. During our hands-on workshops you will also have the opportunity to see the entire workflow of a successful multi-omics experiment with the usage of the BD Rhapsody™ Single-Cell Analysis system. We would also like to encourage you to use this unique opportunity and meet with the BD Biosciences team of application specialists (Jiri Sinkora and Katarina Musilova) to discuss your prospective panels or the best practice when working with your BD flow cytometers. The entire BD Biosciences team will also warmly welcome you at any time at our booth, so do not hesitate and come to meet us!

ACCELA hands-on workshops

Diamant hall, corner 1

ACCELA Lunch workshop, Sunday, October 3, 12:40

Spectral flow cytometry, what else?

ACCELA / Cytek Biosciences educational workshop, presented by Marta Brewińska-Olchowik, PhD

With an increasing number of parameters to analyze with a dearth of analytical solutions, Cytek provides a plethora of tools and solutions to efficiently complete the path from experiment design to high-quality interpretable results. This includes showing our technology, our fluorochromes, foundation of the panel design and with the reagents. Learn how we can use the available reagents in the lab while taking advantage of the new technologies to achieve high resolution spectral flow cytometry.

Lunch workshop, Monday, October 4, 12:30

Single-cell Polyfunctional Immune Profiling paves the way for successful cellular therapies

ACCELA / IsoPlexis educational workshop, presented by Sandra Biewers

Chimeric antigen receptor (CAR) T cell therapy has already paved the way for successful immunotherapies to fight against liquid tumors and is quickly expanding to solid tumors. Nevertheless, the biggest challenges are how to evaluate the quality of CAR-T cells and how to predict their in vivo behaviors once reinfused into a patient. In this workshop, we will review how Isoplexis' single-cell polyfunctional profiling technology, through the measurement of the polyfunctional strength index (PSI) of pre-infused CAR-T products, is used for:

- CAR-T products characterization
- Predicting clinical outcome of patients after receiving CAR-T cell treatment (biomarker)
- Cell therapy manufacturing process optimization (quality metric)

In a second part we will have a practical session to demonstrate how Isoplexis Data analysis Software, Isospeak, combined with full automation, provides a powerful solution to access functional biology thanks to intuitive data mapping visualizations.

Sunday, October 3, 14:35

Kinetic cytometry session: Analyse cell-type-specific, long-term ATP changes like never before!

ACCELA / Sartorius educational workshop, presented by Riccardo Pasculli

Cancer cells exhibit metabolic rewiring to support increased rates of proliferation and survival in the tumor microenvironment. This phenomenon is recognized as a hallmark of cancer. Traditional techniques for measuring metabolic changes often:

- Cannot distinguish cell-type-specific metabolic changes in complex co-culture models
- Do not integrate confirmation of cell morphology
- Analyze an endpoint, rather than perform kinetic evaluation
- Do not incorporate physiologically relevant environment conditions

The InCucyte ATP Assay is an end-to-end solution consisting of instrumentation, software, and reagents that enables direct analysis of ATP facilitating the understanding of metabolic change in cancer cells. Evaluate metabolic changes like never before!

Sunday, October 3, 16:15

Spectral flow cytometry session: The power of Autofluorescence Extraction using full spectrum profiling

ACCELA / Cytek Biosciences educational workshop, presented by Marta Brewińska-Olchowik, PhD

All about why extracting autofluorescence can and ultimately improve data resolution. Learn how to:

- Define and understand sources of autofluorescence
- Understand where autofluorescence signals are detected and how to capture them
- Learn how to extract autofluorescence to improve resolution.

Monday, October 4, 9:10

NanoView: Purification-free characterization of extracellular vesicles and viruses

ACCELA / NanoView Biosciences educational workshop, presented by Andrew Malloy

NanoView technology pushes one step forward the characterization of exosomes and extracellular vesicles. The fully automated platform provides multi-level and comprehensive measurements for exosome size analysis, exosome count, phenotype, and biomarker colocalization. Once bound to the surface of the ExoView chip each individual exosome can be sized, counted, and characterized in terms of protein expression. Fluorescent antibodies can be added (in 3 channels so that up to 4 proteins can be measured on individual exosomes with single-molecule sensitivities meaning that even the smallest of exosomes and can be detected and characterized. Exosomal cargo can also be detected through the application of cargo protocols to detect proteins not expressed on the surface of exosomes.

Monday, October 4, 9:50

Spectral sorting session: Full Spectrum Profiling (FSP) let you see it, now Aurora CS (Cell Sorter) will let you sort it!

ACCELA / Cytek Biosciences educational workshop, presented by Marta Brewińska-Olchowik, PhD

The Full Spectrum Profiling (FSP™) technology is fueling the Cytek® Aurora CS, a new cell sorter that takes full advantage of this full spectrum approach, and combines that with all the sorting capabilities you have come to expect in a high-capacity sorter. Learn how Aurora CS can help take your research to the next level by harnessing the power of Full Spectrum Profiling (FSP™); to isolate and further characterize populations of interest to gain deeper insights into the biology.

Monday, October 4, 11:00

Cell sorting session: Sorting of T-Cells from a heterogenous population of lyophilized cells

ACCELA / NanoCellect educational workshop, presented by William Alaynick, PhD

Veri-Cells are lyophilized human cells developed by BioLegend. Designed for long term stability, a scatter profile similar to fresh cells, and validated with more than 150 markers, Veri-Cells can be used to monitor data quality and aid with reproducibility in multi-center and longitudinal studies. In addition, these cells can be used in substitution of precious samples for routine checks in your experimental setup. Although not meant to replace specific samples when doing antibody titrations or instrument optimization, they can definitely help check or verify reagent and instrument performance. Furthermore, every lot of Veri-Cells is analyzed with a select number of phenotyping markers to ensure that the cell populations/marker staining is within the expected frequency, and reference values are reported with the cells Certificate of Analysis. Here, we demonstrate that Veri-Cells serve as a valuable tool for demonstrating the efficiency and precision of the WOLF G2 and N1.

Monday, October 4, 14:00

Cell sorting session: sterile, gentle plating of cells for cloning.

ACCELA / NanoCellect educational workshop, presented by William Alaynick, PhD

There are two cloning workflows that can benefit from sterile, gentle, zero cross-contamination workflows: Cell Line Development for the production of biologics, and stem cell work that uses embryonic or induced pluripotent stem cells. In this demonstration we will show how cells can be sorted and plated in a sterile, aerosol-free workflow that uses a completely disposable fluidics set. Because of this disposability, nutrient-rich media can be used without fear of microbial contamination of the cell sorter. Furthermore, small volumes of sheath fluid are needed allowing for the use of otherwise prohibitively expensive growth factors or artificial serum replacements.

Monday, October 4, 14:45

Spectral flow cytometry session: Creating efficiency in the clinical lab with full spectrum cytometry – Northern Lights CLC (CE IVD)

ACCELA / Cytek Biosciences educational workshop, presented by Marta Brewińska-Olchowik, PhD

By enabling deeper biological insights from each sample, the Northern Lights-CLC platform improves efficiencies across the entire sample to answer workflow for immunophenotyping, hematology and more. Learn how to:

- Succeeding with validated conventional cytometry assays on full spectrum flow cytometers
- Expanding assays for use with full spectrum flow cytometers
- Generating data from bone marrow samples from healthy donors and donors with acute myeloid leukemia (AML).

Monday, October 4, 16:00

Imaging flow cytometry session: Detection of Extracellular Vesicles and virus using the Amnis ImageStreamX Mk II

ACCELA / Luminex corporation educational workshop, presented by Dr. Peter Rhein

High Gain mode for the Amnis ImageStreamX Mk II Flow Cytometer is designed to detect small, dim particles such as extracellular vesicles (EVs) and viruses. In High Gain mode, the time-delay integration (TDI) CCD camera at the heart of the Amnis Technology is adjusted to a higher gain setting to

maximize signal while minimally increasing the noise, allowing for increased sensitivity and increased signal from small particles. In addition to increasing the gain, the object detection thresholds and masking have been adjusted to better identify small objects like EVs and viruses. High Gain mode is designed to work at 60X and at slow speed. With the addition of a 400 mW 488 nm laser and an increase in photonic sensitivity, even more EVs and virus particles can be detected.

Tuesday, October 5, 9:00

Spectral flow cytometry session: Get to know our new Cytek Automated Sample Loader and SpectroFlo 3.0 software

ACCELA / Cytek Biosciences educational workshop, presented by Marta Brewińska-Olchowik, PhD

The new ASL / Loader 2.0 has officially launched! To run this new loader, a new version of the software, SpectroFlo 3.0. had been released. In addition to operation of our new ASL, SpectroFlo 3.0 comes with a host of other improvements. Learn about:

- How this new loader delivers expanded capabilities
- The new features introduced in SpectroFlo 3.0

Tuesday, October 5, 9:50

Kinetic cytometry session: Analyze your adherent or non-adherent heterogenous cells with IncuCyte live-cell analysis

ACCELA / Sartorius educational workshop, presented by Riccardo Pasculli

Considerable heterogeneity exists in even the simplest of cell systems. With the IncuCyte and Cell-by-Cell Analysis module, scientists can quantify the process and effects of cellular heterogeneity in real-time in living cells – inside your incubator. Study the dynamic, phenotypic changes of cell subsets during activation or differentiation, or understand how cell subsets respond to treatments using our unique and accessible approach to live-cell imaging and analysis. The IncuCyte live-cell analysis system, Cell-by-Cell analysis software module, and IncuCyte reagents provide a new, enabling, end-to-end solution for analyzing heterogeneous cultures at 96-well throughput.

Tuesday, October 5, 11:00

Imaging flow cytometry session: The benefits of Artificial Intelligence for the image analysis of new Immuno oncology applications

ACCELA / Luminex corporation educational workshop, presented by Dr. Peter Rhein

Imaging flow cytometry (IFC) combines the statistical power of flow cytometry with microscopy-imaging content within one system. The special features of this technology are based on the fact that it is not only capable of measuring the intensities of fluorescence associated with cells, but it also provides images of every cell at the same time. To optimize the manual image analysis, we have now added Artificial Intelligence (AI) and Machine Learning (ML) to the IDEAS software. ML can differentiate populations using a super feature that maximally separates each manually selected truth population from the other. In contrast, the AI module is using deep learning algorithms that “learn” directly and automatically from a large set of labeled images by attempting to mimic the activity of human brains. In this presentation, we will show the advantage of AI for the quantification of cell-cell interactions between T cells and Antigen Presenting Cells by including criteria to identify subtle morphological differences between cell conjugates.

I.T.A. Intertact hands-on workshops

Diamant hall, corner 2

Lunch workshop, Sunday, October 3, 12:40

Uncovering the hidden part of the iceberg: NGF for Minimal Residual Disease assessment

Arantxa Huarriz, Cytognos

Lunch workshop, Monday, October 4, 12:30

Advanced spectral cell analysis using the new ID7000™ system

Vendula Šinkorová, Sony Biotechnology

Sony workshop: Sunday, October 3, 14:35, Tuesday, October 5, 9:50

Deep dive into ID7000 spectral data – it's easy when you've got the right tools

Vendula Šinkorová, Sony Biotechnology

Sony workshop: Monday, October 4, 9:50

Q&A with application specialist: Spectral cytometry and cell sorting

Vendula Šinkorová, Sony Biotechnology

Luminex workshop, Sunday, October 3, 16:15, Monday, October 4, 16:00

Advantages of imaging flow cytometry – from basic analysis to artificial intelligence

Jozef Janda, I.T.A.-Intertact

Cytognos workshop, Monday, October 4, 9:10

What clinical information can I obtain from an MM MRD report?

Carina Cabrita, Cytognos

Cytognos workshop, Tuesday, October 5, 11:00–11:30

Infinicyt: How to optimize your results using multidimensional analysis

Carina Cabrita, Cytognos

DeNovo Software workshop, Monday, October 4, 14:45, Tuesday, October 5, 9:00

FCS Express: Bridging the gap between cytometry data and results

Jozef Janda, I.T.A.-Intertact