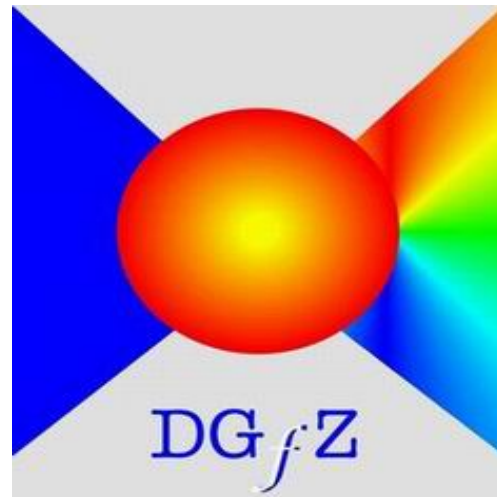


# 17<sup>th</sup> Annual Meeting of the German Society of Cytometry



Oct 10<sup>th</sup> - Oct 13<sup>th</sup> 2007

Hosted at the University Hospital  
Regensburg, Germany



Organized by Gero Brockhoff

in cooperation with Marietta Bock, Simone Diermeier-Daucher, Angelika Graf, Andrea Sassen,  
Elisabeth Schmidt-Brücken, Silvia Seegers, Arabel Vollmann-Zwerenz

DGfZ Conference 10<sup>th</sup> thru 13<sup>th</sup> Oct. 2007

- Final program -

General remark:

Please find all abstracts submitted before the early registration deadline (June 30<sup>th</sup>) printed in Cytometry Part A Sept. issue, page 737 ff.

Abstracts submitted after the early registration deadline are printed in this booklet.

Wednesday, Oct 10<sup>th</sup>

Time frame	<b>Basic Tutorials</b> Chair: Beisker	
<b>14:00 – 16:30</b>	<b>Elmar Endl</b>  <b>Ulrich Sack</b>  <b>Wolfgang Beisker</b>  <b>Susann Müller</b>  <b>Wim Corver</b>	(T 1) Flow Cytometry: Instrumentation, Setup, Adjustment  (T 2) Bead Based Cytometry: Selected Applications  (T 3) Flow Cytometric Analysis of Apoptosis  (T 4) Bacterial Activity Analysis: Proliferation vs. Viability Tests  (T 5) Multiparametric DNA Flow Cytometry of Human Carcinomas
<b>16:30 – 17:00</b>	<b>Break</b>	
<b>17:00 – 17:30</b>	<b>Official Opening Ceremony; Welcome note by Brockhoff and the Dean of Faculty of Medicine, University of Regensburg</b>	
	<b>Key note lectures</b> Chair: Schmitz	
<b>17:30 – 18:00</b>	<b>Mario Roederer</b>	(KL 1) The Multicolored World in Flow Cytometry: Prospects and Visions
<b>18:00 – 18:30</b>	<b>Bob Murphy</b>	(KL 2) Proteome-Wide Determination of Subcellular Location by Automated Microscopy
<b>18:30 – 19:00</b>	<b>Robert M. Zucker</b>	(KL 3) Confocal imaging of solid tissues
<b>19:00 - :-) (-:</b>	<b>Get together – Industry Opening</b>	

Thursday, Oct 11<sup>th</sup>

Time frame		Advanced Tutorials Chair: Tarnok		
08:30 – 11:00	Attila Tarnok	(T 6) Advances in Quantitative Slide Based Cytometry: Towards Cytomics		
	Mario Roederer	(T 7) The Multicolored World in Flow Cytometry: Prospects and Visions		
	Peter Nagy	(T 8) FRET in Flow and Image Cytometry		
	Thomas Ried	(T 9) Multiparametric Fluorescence-in-situ-Hybridization (FISH) and Spectral Karyotyping (SKY) in Diagnosis of Human Malignancies		
	Johannes Wessels	(T 10) Introduction into small animal imaging techniques - a comparative overview		
11:00 – 11:30	Break			
11:30 – 13:00	<b>Industrial Presentations (I)</b> Chairs: Viergutz, Beisker	<b>Large Lecture Hall</b>	<b>Small Lecture Hall</b>	<b>Cytometry in Microbiology, Biotechnology, and Plants</b> Chairs: Müller, Obermayer
	(L 1) AxioVision SFM - Cell Image Associated Data for Flow Cytometry Results <i>Malkusch W (Carl Zeiss Imaging Solutions GmbH, Hallbergmos, Germany)</i>		(L 5) Physiology of living individual <i>Saccharomyces cerevisiae</i> cells - investigation on cellular and molecular level <i>Achilles J, Repenning C, Harms H, Stahl F, Müller S</i>	
	(L 2) Optical filters - essential tools in cytometry <i>Sommerauer M (AHF Analysentechnik AG, Tübingen, Germany)</i>		(L 6) Correlation between GC content and genome size in plants <i>Bures P, Šmarda P, Hralová I, Fuentes-Soriano S, Lysák M, Epka R, Helanová K, Rotreklová O, Procházková J, Úradník L, Krová J, Masaryk</i>	
	(L 3) Cell Proliferation Assay using Click Chemistry <i>Bradford J (Flow Cytometry Section, Molecular Probes / Invitrogen)</i>		(L 7) A high-throughput system for rapid ploidy analysis and seed screening for reproductive pathways in plants <i>Aliyu OM, Sharbel TF</i>	
	(L 4) Strategies to Improve siRNA Tools for Large Scale Library Screens <i>Scory S (ThermoFisher Scientific)</i>		(L 8) Evidence of flocculation in brewing yeast strains by flow cytometry, proteome and mRNA profiling <i>Heine F, Wiacek C, Benndorf D, Sträuber H, Stahl F, von Bergen M, Harms H, Müller S</i>	
13:00 – 14:00	Lunch			
14:00 – 14:30 14:30 – 15:00	Key note lectures Chair: Knuechel			
	Leoni Kunz-Schughart Thomas Ried	(KL 4) Multicellular spheroids: An underestimated tool is catching up again (KL 5) Causes and consequences of chromosomal aneuploidy in cancer cells		
15:00 – 16:30	Get in contact with the industrial exhibitors	Break	Poster Session Chair: Viergutz, Endl	
16:30 – 17:00	Key note lectures Chair: Tarnok			
	Paul Robinson	(KL 6) Cytometry and the dawn of the cytomics generation		
17:00 – 17:45	Distinguished Lecture Chair: Jovin			
	Stefan Hell	(DL 1) Breaking Abbe's barrier: Diffraction unlimited resolution in far-field microscopy		
Closing				
19:30 - :-)	Banquette downtown for participants who have registered for			

# Friday, Oct 12<sup>th</sup>

Time frame	Key note lectures Chair: Weiss		
<b>09:00 – 09:30</b>	<b>Thomas M. Jovin</b>	(KL 7) Live cell microscopy of growth-factor dependent signal transduction pathways with a Programmable Array Microscope (PAM)	
<b>09:30 – 10:00</b>	<b>Otto Wolfbeis</b>	(KL 8) Applications of Fluorescent Functional Microbeads and Nanobeads	
<b>10:00 – 10:30</b>	<b>Break</b>		
<b>10:30 – 11:30</b>	<b>Industrial Presentations (II)</b> Chairs: Friedlaender, Nagy	<b>Large Lecture Hall</b>	<b>Small Lecture Hall</b>
	<b>Special Instrumentation and Applications</b> Chairs: Wolfbeis, Jovin		
	(L 11) <b>Principles and Applications of Imaging Flow Cytometry</b> <i>David B (Amnis Corporation, Seattle, WA, USA)</i>	(L 12) <b>Looking for the xTreme? MoFlo™ XDP Cell Sorter - the most powerful cell sorter on the planet</b> <i>Petkau K, (Dako Hamburg, Germany)</i>	(L 13) <b>The Power of 40 Years Flow Cytometry - From the worldwide first fluorescence-based FCM instrument ICP 11 to the newest FCM Technologies for dedicated applications</b> <i>Göhde R (1), Overton WR(2), Köhler D (1)</i> <i>(<sup>1</sup>Partec, Munster, Germany, <sup>2</sup>GCAT Inc, USA)</i>
	(L 14) <b>State of the art Slide Based Cytometry (SBC) systems for Cytomics</b> <i>Tarnok A</i>		(L 15) <b>Automated Multi-colour FISH Analysis Workstation for Lung Pharmacogenomics: Identification of Clonally Related Cells</b> <i>Dubrowski P (to be presented by MacAulay C)</i>
	(L 16) <b>MALDI-Imaging – a combination of histology with mass spectrometry for discovery of protein patterns with potential clinical impact</b> <i>Schwamborn K, Wellmann A, Knuechel R, Krieg R</i>		(L 17) <b>Validating MELC-Technology for Clinical Diagnostics by Comparing Measurements of a Disease-Specific Combinatorial Molecular Phenotype on Peripheral Blood Mononuclear Cells with Flow Cytometry Measurements</b> <i>Bartsch S, Böckelmann R, Malykh Y, Karcher P, Pommer AJ, Gollnick H, Bonnekoh B</i>
<b>11:30 – 12:30</b>	<b>DGfZ special themes</b> Klaus-Goertler-, Poster-Price Awarding, K-G-Winner Presentation, Special Tribute*		
<b>12:30 – 13:30</b>	<b>Lunch</b>		
<b>13:30 – 15:00</b>	<b>DGfZ General Public Meeting</b> (Chair: Brockhoff, Müller) Vice President and Council member elections, Official Matters, Announcements, Miscellaneous		
<b>15:00 – 15:30</b>	<b>Break</b>		
<b>15:30 – 17:00</b>	<b>Stem Cell Biology and Clinical Cytometry</b> Chairs: Rothe, Sack		
	(L 18) <b>Green Fluorescent Protein (GFP) marking for the study of host and graft participation in the foetal intestine ectopic growth</b> <i>Delreé P, Coulic V, Lallemand MC, Duprez L</i>		
	(L 19) <b>Options and limitations in determination of bacterial contaminations in platelet concentrates (PC). A study, using flow cytometry and transmission electron microscopy</b> <i>Neumüller J, Renz R, Meißlitzer-Ruppitsch C, Neumüller-Guber S, Pavelka M</i>		
	(L 20) <b>Cytometric monitoring of transplanted patients</b> <i>Sack U, Borte S, Hoppe A, Wegmann C, Luderer C, Oppel C, Bauer K, Emmrich F, Hauss J, Fangmann J</i>		
	(L 21) <b>T cell subsets controlled for demographic and biomedical variables in an industrial sample of blue- and white-collar employees</b> <i>Fischer JC, Nguyen XD, Fischer JE</i>		
	(L 22) <b>Extracting more information from routine immunophenotyping using quantitative multiparametry of flow cytometry: two triple staining combinations as examples</b> <i>Grunwald U</i>		
	(L 23) <b>Biomarkers of T-cell function after cardiopulmonary bypass surgery</b> <i>Ferrari-Kuehne K, Kiehnopf M, Renner A, Hornung K, Gruen K, Deufel T, Gummert JF Barten MJ</i>		
<b>17:00 – 17:30</b>	<b>Break</b>		
	<b>Key note lectures</b> Chair: Nagy		
<b>17:30 – 18:00</b>	<b>Dieter Weiss</b>	(KL 9) Imaging of the Living Cytoskeleton and the Associated Organelle Motility	
<b>18:00 – 18:30</b>	<b>Johannes Wessels</b>	(KL 10) Molecular imaging <i>in vivo</i> – a comparative overview	
	<b>Core Facility Managers Workshop - Refreshments</b> Chair: Endl, Davies		
<b>18:30 – closing</b>	<b>E. Endl, D. Davies</b>	(T 11) Forum open for discussion – suggestions - criticism, etc.	
<b>20:00 - :-) (-:</b>	<b>Special event down town for those who have registered for / or evening on your own</b>		

Saturday, Oct 13<sup>th</sup>

Time frame	Key note lectures Chair: Kunz-Schughart	
<b>09:00 – 09:30</b>	<b>Janos Szöllösi</b>	<b>(KL 11)</b> Molecular Interactions of the erbB2-Receptor-Tyrosin-Kinase: Implications in Trastuzumab Resistance
<b>09:30 – 10:00</b>	<b>Herbert Stepp</b>	<b>(KL 12)</b> Photodynamic Therapy and Fluorescence Diagnosis with 5-aminolevulinic acid
<b>10:00 – 10:30</b>	<b>Break</b>	
	<b>Cancer Biology and Therapy</b> Chairs: Brockhoff, Hemmer	
<b>10:30 – 12:15</b>	<p><b>(L 24) Circulating tumor cells in the metastatic pathway.</b> <i>Pachmann K</i></p> <p><b>(L 25) Characterization of the proliferating chronic lymphocytic leukemia cells in an in vitro model for Pseudofollicles</b> <i>Plander M, Seegers S, Ugocsai P, Schwarz S, Orsó E, Diermeier-Daucher S, Knüchel R, Iványi J, Brockhoff G</i></p> <p><b>(L 26) The impact of Trastuzumab, Pertuzumab, and Cetuximab on cell proliferation of breast cancer cell lines</b> <i>Diermeier-Daucher S, Heckel B, Schmidt-Brücken E, Plander M, Hofstaedter F, Brockhoff G</i></p> <p><b>(L 27) Differential influence of chemoresistance on radiosensitivity in human normal and tumour cells</b> <i>Bartkowiak D, Bottke D, Wiegel T</i></p> <p><b>(L 28) Loss of FHIT and p16 are early events in tumorigenesis of oral squamous cell carcinoma and characteristically occur in simple keratosis</b> <i>Bier J, Schwarz S, Driemel O, Reichert T, Hauke S, Brockhoff G</i></p> <p><b>(L 29) Subpopulations of human CD4+CD25+ regulatory T cells identified by multicolour flow cytometric analysis: purity and suitability for in vitro expansion</b> <i>Hoffmann P, Eder R, Boeld TJ, Albrecht J, Doser K, Stahl J, Andreessen R, Edinger M</i></p> <p><b>(L 30) Assessment of DNA ploidy in salivary gland tumors</b> <i>Bauer R, Driemel O, Hemmer J</i></p>	
<b>12:15 – :-) (-:</b>	<b>Farewell</b>	

### Cytometry in Systems Biology

- (P 1) **Bovine ovarian granulosa cells respond to the platelet-activating factor (PAF) with intracellular calcium mobilization via the PAF receptor**  
*Viergutz T, Krüger B, Löhrike B*
- (P 2) **Flow-cytometric measurement of respiratory burst in rat polymorphonuclear granulocytes: Comparison of four cell preparation procedures, and concentration-response evaluation of chemical stimulants**  
*Bitzinger D, Schlachetzki F, Lindner R, Trabold B, Dittmar MS*

### Cancer Biology and Therapy

- (P 3) **The effect of cisplatin on the structure of chromatin in tumor cells**  
*Gloushen G, Anikanov G, Khliabko P*
- (P 4) **HER3 and HER4 gene amplification have prognostic impact in breast cancer**  
*Sassen A, Rochon J, Wild P, Hartmann A, Hofstädter F, Schwarz S, Brockhoff G*
- (P 5) **Generation of reactive oxygen species and induction of a cell cycle arrest by epoxy and acrylate monomers**  
*Schweikl H, Hiller KA, Stich A, Bolay C, Brockhoff G, Eckhardt A, Schmalz G*
- (P 6) **Flow cytometric DNA ploidy in brush biopsies of oral lesions**  
*Dowjeko A, Driemel A, Schwarz S, Reichert TE, Brockhoff G*
- (P 7) **Application of fluorescence bar coding to multicolor flow cytometric quantification of ErbB receptor-driven intracellular signaling**  
*Friedländer E, Diermeier-Daucher S, Vereb G, Brockhoff G*
- (P 8) **Cooperation between two TNF receptors in the U937 in necessary for efficient cytotoxic response to transmembrane TNF whereas protective response is not**  
*Pierzchalski A, Banach K, Perycz M, Bigda J*

### Clinical Cytometry and Advances in Diagnostic Immunophenotyping

- (P 9) **4-color immunohistochemical quantification of FoxP3+ regulatory T cells in transplanted kidney biopsies**  
*Stoelcker S, Kryvoshey D, Ellmann S, Banas B, Kraemer BK*
- (P 10) **Innovative concepts for Absolute Immunophenotyping by Slide-Based Cytometry**  
*Laffers W, Mittag A, Tárnok A, Bootz F, Gerstner AOH*
- (P 11) **The Core Unit Fluorescence-Technologies in the IZKF Leipzig**  
*Lösche A, Grosche J*
- (P 12) **Alteration of immune phenotype following protein losing enteropathy after total cavopulmonary connection by cytomics**  
*Bocsi J, Lenz D, Sauer U, Wild L, Hess J, Schranz D, Hamsch J, Schneider P, Tarnok A*
- (P 13) **Re-evaluation of the function of CCR6 on effector T cells by multi-colour flow cytometry**  
*Pötzl J, Botteron C, Männel DM, Lechner A*

- (P 14) **Continuous Ca<sup>2+</sup> dependent shedding of CD163 from macrophages determine soluble CD163 level**  
*Ugocsai P, Wolf Z, Paragh G, Schmitz G*

### Cytometry in Microbiology, Biotechnology, and Plants

- (P 15) **Populations profiles of the BTEX degrading enrichment culture L-D1 under balanced and non balanced growth conditions**  
*Ramig S, Vogt C, Kleinstaub S, Hübschmann T, Harms H, Müller S*
- (P 16) **Genome size variation in species with holokinetic chromosomes (Cyperaceae)**  
*Hralova I, Bures P, Rotreklova O, Smarda P, Grulich V, Zedek F, Smerda J, Horova L, Hroudova Z, Repka R*
- (P 17) **Flow cytometry, a suitable method for detection of ploidy level and reproductive variability within the hawkweeds populations, Hieracium subgen. Pilosella**  
*Rotreklova O, Krahulcova A, Krahulec F*
- (P 18) **Flow-sorted nuclei are valuable subjects to investigate the structural and functional nuclear architecture in Arabidopsis**  
*Fuchs J, Pecinka A, Lysak M, Schubert V, Lermontova I, Watanabe K, Jovtchev G, Schubert I*
- (P 19) **Flow cytometric and phytochemical investigations with plant cell suspension cultures of sunflower (Helianthus annuus)**  
*Haas C, Georgiev M, Weber J, Ludwig-Müller, Bley T*
- (P 20) **Diploid and polyploid cytotypes distribution in the white-rayed complex of Melampodium (Heliantheae, Asteraceae)**  
*Obermayer R, Reich D, Rebernic CA, Weiss-Schneeweiss H, Stuessy TF*

### Novel Instrumentation and Applications

- (P 21) **Comparing the effect of the thymidine analogues EdU and BrdU on cell cycle progression**  
*Diermeier-Daucher S, Clarke S, Bradford J, Hill D, Brockhoff G*
- (P 22) **Quantum Dots as Replacements for Tandem Dyes in Flow Cytometry**  
*Buller GB, Zhang YZ, Godfrey WL*
- (P 23) **Is quantitative cytometric 3D analysis of tissue possible?**  
*Mittag, A*
- (P 24) **On-chip and label-free cell characterization with an impedance spectroscopy flow cytometer**  
*Schade-Kampmann G, Hebeisen M, Huwiler A, Hessler T, Di Bernardino M*
- (P 25) **Analysis of Cell Cycle Blockers using Click Chemistry Catalyzed EdU Detection**  
*Bradford JA, Clarke ST, Buck SB, Gee KR, Agnew B, Salic A*
- (P 26) **Photoinduced electron transfer (PET)-probes for the detection of cancer-related nucleases**  
*Henkenjohann S, van de Linde S, Doose S, Wittig R, Schubert P, Coy JF, Sauer M*
- (P 27) **Optimization of the hypoosmotic loading method of aequorin, an intracellular Ca<sup>2+</sup> concentration indicator, into cells of follicular lymphoma**  
*Skopalik J, Klabusa M, Borsky M*

DGfZ Conference 10<sup>th</sup> thru 13<sup>th</sup> Oct. 2007

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