

List of sponsors (*alphabetical sequence*)



Beckman - Coulter GmbH



Becton-Dickinson-Pharmingen GmbH



Chroma Vision GmbH



Cytomation



DAKO Diagnostika GmbH



Dianova GmbH



Dynal GmbH



medac Medac GmbH



Meta Systems GmbH



Miltenyi - Biotec GmbH



Mo Bi Tec GmbH



Olympus GmbH



PALM - Zeiss



Partec GmbH



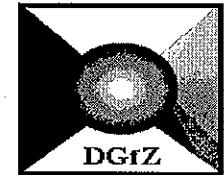
TILL Photonics GmbH



Heidelberg Cytometry Symposium

Program

12th



Annual General Meeting of the
German Society of Cytometry e.V.

Heidelberg, 21st - 23rd October 1999

Location

Communication Centre
German Cancer Research Centre Heidelberg

Im Neuenheimer Feld 280
D - 69 120 Heidelberg

Tel.: +49 - 6221 - 42 32 08 Fax: +49 - 6221 - 42 26 52
m.stoehr@dkfz-heidelberg.de

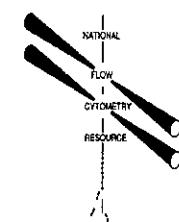
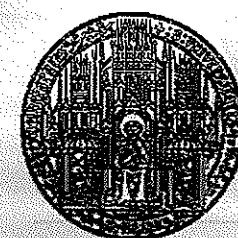
<http://www.dkfz-heidelberg.de/cytomed.htm>

Organisation

H.A. Crissman, J. Hemmer, K.J. Hutter,
S. Meuer, M. Stöhr,
M. Trendelenburg

Program Committee

Th. Bley, M. Hausmann
K.J. Hutter R. Jilch
R.Knüchel, G. Rothe,
A. Tárnok, M. Trendelenburg



Thursday, October 21. 1999

14.00 - 14.10 Welcome Address

14.10 - 16.30 **SESSION I: Antigen Specific Cytometry**
CHAIRS: BAUMGARTH - RADBRUCH

- 14.10 - 14.30** 1. SCHEFFOLD A, THIEL A, RADBRUCH A.
Why did it take so long? The cytometric identification of antigen specific T and B lymphocytes
- 14.30 - 14.50** 2. HUNZELMANN N, LEYENDECKERS H, SCHMITZ J.
Cytometry of allergen specific memory B lymphocytes in allergic diseases
- 14.50 - 15.10** 3. BUSCH DH.
Direct ex-vivo analysis of epitope specific T cell populations using MHC tetramers
- 15.10 - 15.30** 4. THIEL A, WU P, NITSCH S, HIEPE F, SIEPER J, RADBRUCH A.
Identification of antigen specific T lymphocytes by cytokine-provocation and intracellular cytokine staining
- 15.30 - 15.50** 5. BROSTERHUS H, LEYENDECKERS H, BRINGS S, MILTENYI S, RADBRUCH A, ASSENMACHER M, SCHMITZ J.
Analysis and isolation of live antigen specific T cells based on cytokine secretion
- 15.50 - 16.10** 6. MUZZULINI T, KUNKEL D, RADBRUCH A, AND SCHEFFOLD A.
A simple method for ex-vivo identification and sorting of viable antigen reactive T cells
- 16.10 - 16.30** 7. FRIEDRICH SO, ROTHE G, MEIERHOFF G, SCHMITZ G.
Optimization of a whole blood overnight assay for the detection of antigen reactive T cells

16.30 - 16.45 coffee break

16.45 - 18.30 **SESSION II: Novel Cytometric Techniques**
CHAIRS: HAUSMANN - ROTHE

- 16.45 - 17.15** 1. BAUMGARTH N, PARKS DR, BIGOS M, STOVEL RT, ROEDERER M, NOZAKI T, HERZENBERG LA.
Eleven-color, thirteen parameter flow cytometry for dissecting the immune system.
- 17.15 - 17.30** 2. CRISSMAN HA, VALDEZ JG, STEINKAMP JA.
Flow cytometric fluorescence lifetime analysis of DNA-binding probes
- 17.30 - 17.45** 3. GERSTNER A, BOOTZ F, TÄRNOK A.
A new method for immunophenotyping of peripheral blood by laser scanning cytometry (LSC)
- 17.45 - 18.00** 4. HOPPE K, HAASE M, EYCHMULLER A, WELLER H.
Lumineszierende Nanokristalle als nichtradioaktive Markierungssubstanzen
- 18.00 - 18.15** 5. RAPP A, DITTMAR H, MONAJEMBASHI S, HAUSMANN M, GREULICH KO.
Development of a two colour hybridization protocol for radiation sensitivity mapping using COMET-FISH
- 18.15 - 18.30** 6. RAUCH J, HAUSMANN M, BORNFLETH H, SOLOVEI I, HORSTHEMKE B, CREMER T, KNÜCHEL R, CREMER C.
Spectral precision distance microscopy for the study of the 3D-topology of selected point-like markers

18.30 - 19.00 coffee break and poster mounting

19.00 - 20.00 **SESSION III: Poster Exhibition**
CHAIR: HUTTER

20.00 - Ende RECEPTION AT THE GERMAN CANCER RESEARCH CENTRE

Friday, October 22. 1999

08.30 - 11.30 SESSION IV: Analyses of Cellular DNA
CHAIRS: KNUECHEL-CLARKE - OTTO

- 08.30 - 08.45** 1. MEHES G, LÖRCH T, AMBROS PF.
Quantitative analysis of rare tumour cells by automated microscopy

- 08.45 - 09.00** 2. AMBROS PF, MEHES G, HATTINGER C, LUEGMAYR A, WITT A, PLESCH A, LÖRCH T.
Fully automated detection and genetic characterization of rare tumor cells

- 09.00 - 09.15** 3. HEMMER J.
High resolution DNA flow cytometry in the management of head and neck cancer.

- 09.15 - 09.30** 4. BEYER M, BLUM S, KUNZE KD, MEYER W, KAYSER K.
Telemetrische DNA Messungen (Statische DNA Zytometrie) maligner Pleuraergüsse

- 09.30 - 09.45** 5. BAUMGARTNER A, SCHIMD TE, ADLER LD, NÜSSE M.
Evaluation of the frequency of aneuploid sperm of mice and humans by laser scanning cytometry (LSC)

- 09.45 - 10.00** 6. NOWAK R, OELSCHLÄGEL U, HERBST R, NIKLISCH M, Hänel A, TEICH M, EHNINGER G.
The detection of aneuploid malignant hematopoietic cells with flow cytometry after therapy

- 10.00 - 10.15** 7. MEHES G, HATTINGER CM, LÖRCH T, ADNER H, AMBROS PF.
Proliferative potential of tumour cells disseminated in the hematopoietic system

10.15- 10.30 coffee break

- 10.30 - 10.45** 8. SKIERSKI JS, KORONKIEWICZ M, GRIEB P.
The effect of FMdC on the cell cycle of three leukemia cell lines *in-vitro*

- 10.45 - 11.00** 9. BÖCKER W, PILS S, WERNER F, STREFFER C.
Quantification of DNA telomere sequences in single chromosomes using fluorescence image cytometry

- 11.00 - 11.15** 10. HAUSMANN M, WINKLER R, DURM M, ESA A, CREMER C.
Fluoreszenzmarkierung des ABL-Gens mit Computer selektierten Oligo-DNA-Sonden

- 11.15 - 11.30** 11. DOBRUCKI J, SLUPCZYNsKA A, KRZESZOWIEC W, DARZYNKIEWICZ Z.
Imaging of *in situ* DNA sensitivity to denaturation by confocal microscopy

11.30 - 12.30 lunch

12.30 - 14.30 ANNUAL GENERAL MEETING OF THE DGfZ MEMBERS

14.30 - 14.45 KLAUS GOERTTLER AWARD: TALK OF THE PRIZE WINNER

14.45- 15.00 coffee break

15.00 - 17.45 SESSION V: Cytometric Investigations of Receptor Complexes
CHAIRS: CRISSMAN - NUESSE

- 15.00 - 15.15** 1. BECKE FM, SCHWARZ H, HOFSTÄDTER F, BROCKHOFF G.
CD137 (ILA/4-1BB) reduces phagocytosis of human monocytes

- 15.15 - 15.30** 2. LEHLE K, KUNZ-SCHUGHART LA, PREUNER J, BIRNBAUM D.
Differences in tumor cytotoxicity of human monocytes: cultivation and isolation of endothelial cells from large vessel preparations

- 15.30 - 15.45** 3. KONUR A, KREUTZ M, ANDREESEN R, BROCKHOFF G.
Differences in tumor cytotoxicity of human monocytes depends on the type of tumor target: analysis in a threedimensional spheroid model

- 15.45 - 16.00** 4. TARNOK A, GERSTNER A, ADAMS V, RACZ P, RACZ K, SCHNEIDER P.
Quantification of apoptosis and leukocyte subsets in tissue sections by laser scanning cytometry (LSC)

- 16.00 - 16.15** 5. GÖTZ A, KAPINSKY M, ORSÓ E, ROTHE G, SCHMITZ G.
The cholesterol and sphingomyelin content of the plasma membrane as determinants of CD14 dependent signal transduction

16.15 - 16.30 *coffee break*

- 16.30 - 16.45** 6. KAPINSKY M, TORZEWSKI M, SCHINDLER G, ROTHE G, SCHMITZ G.
Enzymatically modified LDL in contrast to oxidized or acetylated LDL induces foam cell formation independent from scavenger receptor expression

- 16.45 - 17.00** 7. SÄNGER N, STROHMEIER R, KAUFMANN M, KUHL H.
Periphere Benzodiazepinrezeptoren in Relation zu Zellzyklusphase und Mitochondriengehalt bei Mamma-Carcinom-Zellkulturen

- 17.00 - 17.15** 8. LEVINA VV, VARFOLOMEEVA EY, SUKHAREVA EB, DROBCHENKO EA, FILATOV MV.
Flow cytometry study of DNA clearing from noncovalently bound agents which is a new mechanism of drug resistance in mammalian cells.

- 17.15 - 17.30** 9. LÖHRKE B, VIERSGUTZ T, GOLDAMMER T, KRÜGER N.
Association between development-dependent ectopic expression of the transcription factor peroxisome proliferator-activated receptor subtypes and apoptosis in lutein cells

- 17.30 - 17.45** 10. SCHMID TE, BAUMGARTNER A, NÜSSE M, ADLER ID.
The effect of chemicals on the duration of male meiosis in mice detected with laser scanning cytometry (LSC)

17.45 - 18.30 *small dinner*

18.30 - 21.00	Session VI: Industrial Talks
CHAIRS:	BEISKER, GREULICH

- 18.30 - 18.45** 1. MHC-Tetramere:
Nachweis von antigen-spezifischen CD8+ T Zellen mit Hilfe der Flußzytometrie
Beckman-Coulter

- 18.45 - 19.00** 2. BD LSR, the 6-Color benchtop research flow cytometer from BD Biosciences
Becton Dickinson

- 19.00 - 19.15** 3. Biomagnetic separation: Methods and applications
Deutsche Dynal

- 19.15 - 19.30** 4. Kooperatives Arbeiten in der Mikroskopie über Netze (HISTKOM)
Deutsche Telekom

- 19.30 - 19.45** 5. Continuous Gating® von medac, eine Expertensoftware
medac Diagnostica

- 19.45 - 20.00** 6. Recent developments in rare cell scanning and multi fluorochrome imaging
MetaSystems

- 20.00 - 20.15** 7. autoMACS
For ultra high speed automated magnetic cell separation
Miltenyi Biotech

- 20.15 - 20.30** 8. PAS, ein kompaktes Flowzytometer mit Färbeautomat für die Routine-Immunologie.
Partec

- 20.30 - 20.45** 9. Das Till-Photonics Standard Imaging System
Till-Photonics

- 20.45 - 21.00** 10. Multiple fluorescence microscopy and optoelectronic imaging: Possibilities and limits
Zeiss Oberkochen

Saturday, October 23, 1999

09.00 - 10.15	Session VII: <i>Cellular Function, Differentiation and Disease</i> Part 1: Chairs: ASSENMACHER - VALET
---------------	--

- 09.00 - 09.15 1. BEDNER E, LI X, DARZYNKIEWICZ Z.
Assays of cell functions by laser scanning cytometry
- 09.15 - 09.30 2. TORZEWSKI M, KAPINSKY M, ROTHE G, SCHMITZ G.
C-reactive protein (CRP) in atherogenesis
- 09.30 - 09.45 3. PIPEK M, HAMBSCH J, SCHNEIDER P, TÁRNOK A.
Increased apoptosis of circulating lymphocytes during cardiac surgery with cardiopulmonary bypass
- 09.45 - 10.00 4. KRIEG R, MESSMANN H, HOFSTAEDTER F, KNUECHEL R.
Effects of 5-aminolevulinic acid (ALA) induced intracellular protoporphyrin IX (PPIX) - content and - localisation on photodynamic therapy (PDT)
- 10.00 - 10.15 5. BERNAS T, DOBRUCKI J.
The role of cellular plasma membranes in reduction of tetrazolium salts, MTT and CTC
- 10.15 - 10.30 6. BARLAGE ST, WIMMER A, ROTHE G, SCHMITZ G.
Effects of the GPIIB/IIIA receptor antagonist MK-383 on receptor conformation and function

10.30 - 11.00 *coffee break and small breakfast*

11.00 - 12.30	Session VII: Part 2: Chairs: TÁRNOK - SZÖLLÖSI
---------------	--

- 11.00 - 11.15 8. SCHNEIDER EM, DOBRUCKI J, STAHL-HAEGE B, GEORGIEFF M.
Subcellular CD95-ligand expression in microvascular endothelial cells, Ewing's tumors and long term cultured T cells.
- 11.15 - 11.30 9. SEIDL J, KRIEG R, KNUECHEL R.
Cellular effects of 5-aminolevulinic acid (ALA) - induced protoporphyrin XI (PPIX) - mediated photodynamic therapy (PDT) on human urothelial cell lines
- 11.30 - 11.45 10. STARK R, ROTHE G, SCHÄFER B, SCHMITZ G.
Flow cytometric characterisation of platelet membrane microviscosity as a determinant of abnormal platelet activation in hypercholesterolemia
- 11.45 - 12.00 11. BÖHM I, REICHARDT A, SCHNAUTZ S, BAUER R.
Flow cytometric detection of CD3^{low} cells in the peripheral blood of patients with cutaneous T-cell lymphoma
- 12.00 - 12.15 12. SZÖLLÖSI J, NAGY P.
Mapping of cell surface distribution of ErbB proteins in breast cancer cells.
- 12.15 - 12.30 13. VALET G, KAHLE H, TARNOK A, VAN DRIEL B, VAN NOORDEN.
Predictive medicine by pattern analysis (CLASSIF1) of cytometric and other data

12.30 - 12.45 *coffee break*

12.45 - 13.45 **Sitzung VIII.** *Microorganisms*
CHAIRS: **BLEY - MÜLLER**

- 12.45 - 13.00** 1. BEISKER W, BRUCKMEIER B, SCHADE C, SCHÄFER H, NUESSE M.
The characterization of phytoplankton populations using flow cytometry and laser scanning cytometry
- 13.00 - 13.15** 2. FRERICHS JG, JOERIS K, SCHAPER J, SCHEPER TH.
In-situ Mikroskopie bei der Kultivierung von Mikroorganismen
- 13.15 - 13.30** 3. GROßE-UHLMANN R, MÜLLER S, BLEY TH.
Fluß Zytometrie als Methode zur Prozeßidentifikation am Beispiel der Synthese von Poly- β -Hydroxy-Buttersäure (PHB) durch *Methylobacterium rhodesianum* MB126
- 13.30 - 13.45** 4. ULLRICH S, LÖSCHE A, MÜLLER S.
Durchflußzytometrische Bestimmung der Fluidität zur Charakterisierung der Strukturen bakterieller Membranen

End

POSTER EXHIBITION

1. ALBRECHT J, DABETIC-POPESCU C, ECKART M.
Evaluation der Quantifizierung der CD38-Expression (Antibody Binding Capacity) auf T-Suppressorzellen unter den besonderen Bedingungen des Einsendelabors
2. BÖHM I, PEGELOW K, VON RÜCKER A, KISTLER V, BAUER R.
Immunological differences between idiopathic CD4+ T lymphocytopenia (ICL) and HIV-infection
3. FILIPIAK K, JEDRZEJCZAK P, KOTWICKA M, PAWEŁCZYK L, SKIERSKI JS, WARCHOL JB.
DNA content in human spermatozoa and *in vitro* fertilisation effects
4. GREVE B, SEVERIN E, HACKER-KLOM U, GÖHDE W.
Mikronuklei und Zellzyklusverzögerung als Parameter zur Bestimmung der individuellen Strahlenempfindlichkeit
5. KLEINE TO.
Indication for an altered transfer of lymphocyte subsets from blood into cerebrospinal fluid (CSF) in aging humans

6. KLEINE TO.
Different blood/cerebrospinal fluid (CSF) ratios of human lymphocyte subsets
7. KORCZAK-KOWALSKA G, WIERZBICKI P, MICHALSKA K, DOBRZYSKA E, CHMURA A, KOSOWSKA D, PODOBISKA I, ROWISKI W, GÓRSKI A.
The flow cytometric crossmatch in renal transplantation
8. KOTWICKA M, FILIPIAK K, WARCHOL JP.
Study on association between DNA content and sperm morphology of males with unexplained infertility.
9. MEYER ZU HÖRSTE G, HOFFMANN A, MONAJEMBASHI SH, UHL V, PILARCZYK G, GREULICH K-O.
Optical tools in laser scanning microscopy of cultured mammalian cells
10. MÜLLER S, ULLRICH S, LÖSCHE A, BABEL W.
Flow cytometric techniques to characterize physiological states of *Acinetobacter Calcoaceticus*
11. NEUMÜLLER S, DUNKY A, BURTSCHER H, JILCH R, MENZEL JE.
Interaktionen zwischen Monozyten aus dem peripheren Blut von Patienten mit Arthritis Psoriatica und kultivierten humanen dermalen mikrovaskulären Endothelzellen.
12. NUDING S, MÜLLER HAG, BODE CH.
Flußzytometrie in der mikrobiologischen Diagnostik
13. PILARCZYK G, SCHMITT E, GREULICH KO.
Cardiac calcium homeostasis ends up in oscillations:
micro- cytometric measurements and numeric simulations
14. POZAROWSKI P, ROLINSKI J, SURDACKA A, KRAWCZYK P.
Examination of inner mitochondrial transmembrane potential ((DYm)) using Chlormethyl-X-Rosamine dye
15. RIESEBERG M, SCHEPER T.
On-Line Monitoring an Bioprozessen mittels fließinjektionscytometrischer Messungen
16. SCHÜLER C, HOFER A, WITT M, KASPER M, WOLF C, SCHULZE E, FUNK RHW.
Flow cytometry for assessing biocompatibility of type 1 collagen-coated titanium alloy