



Westfälische
Wilhelms-Universität
Münster



Publikationen 2005

**Institut für Medizinische Physik und Biophysik
Universitätsklinikum Münster
Westfälische Wilhelms-Universität Münster**

Zeitschriftenartikel, Buchbeiträge, Bücher	Fachgebiet(e)*
<p>Balen, B., Zamfir, A., Vakhrushev, S., Krsnik-Rasol, M., Peter-Katalinić, J. Determination of Mammalaria gracillis N-glycan Patterns by ESI QTOF Mass Spectrometry Croatica Chim. Acta 78 (2005) 463-477</p>	ESI
<p>Berezhna S., Schaefer S., Heintzmann R., Jahnz M., Boese G., Deniz A., Schwille P. New effects in polynucleotide release from cationic lipid carriers revealed by confocal imaging, fluorescence cross-correlation spectroscopy and single particle tracking. Biochim. Biophys. Acta 1669 (2005) 193-207</p>	BP, ZB
<p>Bindila, L., Peter-Katalinić, J., Zamfir, A. Sheathless revers polartiy capillary electrophoresis-electrospray mass spectrometry for analysis of underivatized glycoconjugates. Electrophoresis 26 (2005) 1488-1499</p>	ESI
<p>Böse, G. and Peters, R. Nanoporen als künstliche molekulare Maschinen. Bioforum 7/8 (2005) 42-44</p>	BP, ZB
<p>Bulau, P., Okuno, A., Thome, E., Schmitz, T., Peter-Katalinić, J., Keller, R. Characterization of a molt-inhibiting hormone (MIH) of the crayfish, <i>Orconectus limosus</i>, by cDNA cloning and mass spectrometric analysis. Peptides (2005), in press</p>	BC, ESI
<p>Cederkvist, H., Zamfir, A., Bahrke, S., Eijsink, V.G.H., Sorle, M., Peter-Katalinić, J., Peter, M.G. Analysis of non-covalent complexes of chitinase B and chitooligosaccharides by (+) NanoESI QTOF mass spectrometry. Angew. Chemie (2005), in press</p>	ESI, BC
<p>Dreisewerd, K., Müthing, J., Pohlentz, G., Rohlfing, A., Meisen, I., Vukelic, Z., Kölbl, S., Peter-Katalinić, J., Hillenkamp, F., Berkenkamp, S. Analysis of Oligosaccharides and Gangliosides Directly from HPTLC Plates by IR-MAALDI-o-TOF Mass Spectrometry with a Glycerol Matrix. Proceedings of the 53rd ASMS Conference, June 5-9, 2005, San Antonio, Tx., USA</p>	LM

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 Analysis of Gangliosides Directly from Thin-Layer Chromatography Plates by Infrared Matrix-Assisted Laser Desorption/Ionization Orthogonal Time-of-Flight Mass Spectrometry with a Glycerol Matrix.
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Diplom-, Doktor- und Habilitationsarbeiten

Diplomarbeiten

Schwepe, C.H.

Immunchemische und massenspektrometrische Charakterisierung von neutralen GSL mit Shigatoxin-Rezeptorfunktion aus humanen Erythrozyten, Endothelzellen und Lipoproteinen

Diplomarbeit im Studiengang Molekulare Biotechnologie,
Universität Bielefeld (Betreuung: Müthing)

Distler, U.

Molekulargenetische und strukturelle Charakterisierung der DC75s-Struktur von humanen Tumoren des Gastrointestinaltraktes

Diplomarbeit im Studiengang Molekulare Biotechnologie,
Universität Bielefeld (Betreuung: Müthing)

Hülsewig, M.

Molekulargenetische und strukturelle Charakterisierung von Tumor-assoziierten Glykosphingolipiden aus humanen Nierenkarzinomen und Patientenserum

Diplomarbeit im Studiengang Molekulare Biotechnologie,
Universität Bielefeld (Betreuung: Müthing)

Auswärtige Dissertationen abgeschlossen in 2005

Uros Rajčević

"Differential Analysis of Transcriptome and Proteome in Gastric Adenocarcinoma"

Dissertation im Fach Medizinische Molekularbiologie (in Englisch), Medizinische Fakultät der Universität Ljubljana, Slovenia, April 2005 (Betreuung: Peter-Katalinić)

Maja Matis

"Modern approaches for identification and characterization of enzymes that convert steroids in fungi *Hortaea werneckii* and *Pleurotus ostreatus*"

Dissertation im Fach Medizinische Mikrobiologie (in Englisch), Medizinische Fakultät der Universität Ljubljana, Slovenia, Mai 2005 (Betreuung: Peter-Katalinić)

Biljana Balen

"Proteinska slika i N-glikozilacija proteina tijekom diferencijacije stanica u kulturi tkiva kaktusa *Mammillaria gracilis* Pfeiff."

("Das Proteinmuster und N-Glykosylierung von Proteinen während der Zelldifferenzierung in der Kaktusgewebekultur von *Mammillaria gracilis* Pfeiff.)

Dissertation im Fach Molekularbiologie (in Kroatisch), Mathematisch-Naturwissenschaftliche Fakultät, Universität Zagreb, Kroatien, Juli 2005 (Betreuung: Peter-Katalinić)

Habilitationsvorhaben

Zamfir, A.

High performance electrospray glycoscreening in biomedicine

Habilitationsarbeit, Medizinische Fakultät, UKM, 2005

Vorträge (V) und Poster (P) mit Abstracts	Fachgebiet(e)*
<p>Almeida, R., Vukelić, Ž., Bindila, L., Kalanj-Bognar, S., Peter-Katalinić, J. Zamfir, A. Biomarker discovery in human gliosarcoma by fully automated chip-based mass spectrometry LC/MS symposium, Ithaca, USA, July 20-22, 2005</p>	ESI, NBT
<p>Balen, B., A. Zamfir, S. Vakhrushev, M. Krsnik-Rasol, J. Peter-Katalinić Determination of <i>Mammillaria gracillis</i> N-glycan Patterns by ESI QTOF Mass Spectrometry, "Glycoproteomics – protein modifications for versatile functions". Dubrovnik, Croatia, June 28-30, 2005. (P)</p>	PR, ESI
<p>Bindila, L., A. Zamfir, J. Peter-Katalinić Identification of sulfated and acetylated <i>O</i>-glycans in urine of Schindler's disease patients by capillary electrophoresis/electrospray ionization mass spectrometry. 16th Joint Meeting of the „Studiengruppe Glykobiologie der Gesellschaft für Biochemie und Molekularbiologie“, the „Nederlandse Vereining voor Glycobiologie“ and the „Groupe Lillois de Glycobiologie“, Hannover, October 27-29, 2005. (P)</p>	ESI
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<p>Distler, U., Pohlentz, G., Zamfir, A., Dreisewerd, K., Haier, J., Senninger, N., Peter-Katalinić, J., Müthing, J. Structural characterization and quantification of CD60a, CD75s, and CD77 classified tumor associated glycosphingolipids in malignant human colon tissue. 16 th joint meeting 2005 of the ‚Studiengruppe Glykobiologie der GBM‘, the ‚Netherlands Society for Glycobiology‘, the ‚Groupe Lillois de Glycobiologie‘, and the Belgian Working Group for Glycosciences‘ Hannover, October, 27-29, 2005. (P)</p>	LM, BC, BT
<p>Dreisewerd, K., Müthing, J., Pohlentz, G., Rohlfing, A., Meisen, I., Vukelić, Z., Kölbl, S., Peter-Katalinić, J., Hillenkamp, F., Berkenkamp, S. Analysis of oligosaccharides and gangliosides directly from HPTLC plates by IR-MALDI-o-TOF-MS with a glycerol matrix. 53th ASMS Conference on Mass Spectrometry and Allied Topics, San Antonio, TX, June, 5-9, 2005. (V)</p>	LM, BC, BT

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Investigation of GAG-chemokine interactions. 16th Joint Meeting of the „Studiengruppe Glykobiologie der Gesellschaft für Biochemie und Molekularbiologie“, the „Nederlandse Vereininging voor Glycobiologie“ and the „Groupe Lillois de Glycobiologie“, Hannover, October 27-29, 2005. (P)
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KM, ESI

Eingeladene Vorträge	Fachgebiet(e)*
<p>Franz Hillenkamp The Molecular Age in Medicine and Biology: The challenge of how to measure what we need to know Gordon Research Conference on Molecular Energy Transfer. Buelton, CA, January 9 – 14, 2005</p>	LM
<p>Franz Hillenkamp MALDI Mass Spectrometry: What do we know about the Mechanisms Lecture, University of California, Santa Barbara, January 20, 2005</p>	LM
<p>Franz Hillenkamp MALDI Mass Spectrometry of Nucleic Acids Lecture, University of California, Santa Barbara, January 21, 2005</p>	LM
<p>Franz Hillenkamp MALDI Mass Spectrometry of Nucleic Acids 40th Winter Seminar on Biophysical Chemistry, Molecular Biology and Cybernetics of Cell Functions. Klosters, Switzerland, January 15 – 19, 2005</p>	LM
<p>Franz Hillenkamp Matrix-Unterstützte Laser Desorptions/Ionisations Massenspektrometrie (MALDI-MS): Ein Schritt auf dem Weg zur molekularen Medizin. Seminarvortrag, Institut für Physikalische Chemie der Universität Göttingen, 23. Juni, 2005</p>	LM
<p>Franz Hillenkamp MALDI Mass Spectrometry in Proteomics: What does a Matrix, or the Big and the Small. Plenary Lecture. HUPO (Human Proteom), 4th World Congress, Munich August 29 – September 1, 2005</p>	LM
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<p>Franz Hillenkamp Nano- and mesostructured physical matrices: Are they alternatives to the chemical matrices in MALDI-MS? Journée Scientifique - Université de Metz, Frankreich. 7 Novembre, 2005</p>	LM
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Müthing, J., Deutsche Krebshilfe (Mildred Scheel Stiftung) 106742
(Kooperationspartner: Prof. Dr. Peter-Katalinić (IMPB), PD Dr. J. Haier (Klinik und Poliklinik f. Allgemeine Chirurgie, UK Münster), Prof. Dr. N. Senninger (Klinik und Poliklinik f. Allgemeine Chirurgie, UK Münster))

Müthing, J., IMF-Projekt, Mü 420505 zu DKH 106742

Müthing, J., DAAD-Stipendiatin:
Irena Drmić, PhD, Assistant Professor
Split University Hospital and Split University School of Medicine (Croatia)
Dezember 2004 bis Februar 2005.

Peter-Katalinić, J., SFB 492: Extrazelluläre Matrix: Biogenese, Assemblierung und Zelluläre Wechselwirkungen (2000-2005).
„Quadrupol Flugzeit und Fourier-Transform Ion Zyklotron Resonanz Massenspektrometrie von Glykosaminoglykanen und anderen Glykokonjugaten“,
Projekt Z2: 2003-, 2005

Peter-Katalinić, J., „GPI-spezifische Phospholipase D: Regulator der Tumor-malignität, Prognosefaktor und therapeutisches Target?“ mit Dr. G. Brunner, Fachklinik Hornheide an der WWU Münster.
(Schwerpunkt: Zelladhäsion, Migration und Invasion: Molekulare Grundlagen und klinische Bedeutung bei Tumorprogression und Metastasierung, Deutsche Krebshilfe (Mildred Scheel Stiftung) I0-2041-Br I, 2003-2005

Peter-Katalinić, J., EU-RP6 "Nano2Life" Network of Excellence für Bioanalytik

Peter-Katalinić, J., 3 Industrieprojekte

Peter-Katalinić, J., EU-Projekt (Forschungsstipendium), Dipl. Chem. Henning Cederquist, Landwirt. Fakultät, Universität Oslo, Oslo, Norwegen

Peter-Katalinić, J., EU-Projekt (Forschungsstipendium), Dr. Bernd Gesselbauer, Universität Graz, Graz, Österreich

Peter-Katalinić, J., Industrieprojekt (Forschungsstipendium), Dr. Mario Cindric, Pliva, Zagreb, Kroatien

Peter-Katalinić, J., Österreichisches Zukunftsfond (Forschungsstipendium), Kerstin Steiner, Universität für Bodenkultur, Wien, Österreich

Peters, R., Grants PE 138/20-1 und 20-2 der Deutschen Forschungsgemeinschaft. 4Pi-Mikroskop mit FCS-Attachment.

Reichelt, R., DFG-Projekt NE 123/34-3 (E. Nembach, Inst. für Materialphysik, WWU und R. Reichelt): "Anwendungen des Rasterkraftmikroskops in der Materialphysik"

Reichelt, R., DFG-Projekt RE 782/8-1 „VIII. Inter-American Congress of Electron Microscopy, Havanna/Kuba“

Reichelt, R., DAAD-Projekt: "Nanostrukturierung von Spitzen durch Ionenbeschuß" (1 Doktorand)

Reichelt, R., Mehrere kleine Projekte mit zwei Sachverständigenbüros sowie mit kleinen und mittleren Firmen / Industrie

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Andere Aktivitäten

Müthing

-Croatian Medical Journal, Scientific Board.

-Neurologia Croatica, Scientific Board.

Peter-Katalinić

Vorstandsmitglied der Deutschen Gesellschaft für Massenspektrometrie (DGMS).

-Journal of Proteome Research, Editorial Board

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Gutachtertätigkeit:

Deutsche Forschungsgemeinschaft (DFG),

Österreichischer Jubiläumsfonds (FWF),

Natural Sciences and Engineering Research Council of Canada (NSERC),

German-Israeli Foundation for Scientific Research and Development (GIF)

National Fonds (Schweiz).

Gastherausgeberin: „Proteomics Special Issue Glycomics“

Auswärtige Prüfertätigkeit 2005:

Universität Ljubljana, Slovenien

Universität Zagreb, Kroatien.

Projektkoordination: EU-Projekt: SRPT1-Nano2Life WP7

Reichelt

Mitglied des Programmkomitee der Dreiländertagung für Mikroskopie MC 2005 in Davos / CH

Chairman der Session “SEM and LEEM” auf der Dreiländertagung für Mikroskopie MC 2005 in Davos / CH

Mitveranstalter der interdisziplinären Vortragsreihe “Current Topics in Medical Technology” am 20.05.2005 und 09.12.2005 an der WWU, Münster

Gutachtertätigkeit:

Deutsche Forschungsgemeinschaft (DFG)

Zamfir

Visiting Professor „Aurel Vlaicu“ University of Arad, Rumänien

Abkürzungsverzeichnis

AFM	Atomkraftmikroskopie
AL	Elektronenmikroskopische Untersuchungen zur Allergologie
BC	Biochemie
BP	Biophysik
BT	Biotechnologie
EM	Elektronenmikroskopie
ESI	Elektronenspray Massenspektrometrie
FT-ICR	Fourier Transform Ion Cyclotron Resonance
KM	Klinisch-medizinische Fragestellung
LM	Laser-Massenspektrometrie
LSM	Laser-Scanning-Mikroskopie
MA	Elektronenstrahl-Mikrosondenanalytik
NBT	Nanobiotechnologie
PR	Proteomics
PC	Physiologische Chemie
SSM	Scanning-Sensormikroskopie
TM	Tumormedizin
ZM	Zellbiologie