

**ZAMFIR ALINA-DIANA****Anexa 1 Proiecte nationale si internationale castigate prin competitie:**

- 7- director proiect national
- 2- responsabil partener in consortiu international (1 FP7-UE)
- 4- responsabil partener in consortiu national
- 2-membru in consortiu international
- 4-membru in consortiu national (1 ca Mentor proiect PD)
- 1-Co-director grant workshop
- 1-Responsabil proiect mobilitati

1. U.E. FP7 PIRSES-GA-2010-269256; INTEGRATING HIGH PERFORMANCE MASS SPECTROMETRY TOOLS WITH APPLICATIONS IN LIFE SCIENCE Acronym: MS-LIFE; valoare 319.200 Euro; **Responsabil echipa partenera P4**
2. 2009/2010 Proiect 0915\_2009\_GN1P2; GENZYME, GERMANIA, CEE GMBH; ESTABLISHMENT AND VALIDATION OF DIAGNOSTIC SCREENING METHODOLOGY OF PATIENTS WITH LYSOSOMAL STORAGE DISEASES (LSDS) USING LC-MS/MS TECHNOLOGY, valoare 45.040 Euro; **Co-director**
3. 2003/2004, AT CNCIS PROIECT 697 DEZVOLTAREA, IMPLEMENTAREA SI OPTIMIZAREA DE NOI TEHNICI SI METODE DE CUPLAJ DIRECT ELECTROFOREZA CAPILARA/SPECTROMETRIE DE MASA (CE/MS). APLICATII IN ANALIZE BIOFIZICE SI BIOMEDICALE. Valoare: 32850 lei. **Director**
4. 2004/2005, AT CNCIS PROIECT 697 CONTINUARE (prin competitie noua): DEZVOLTAREA, IMPLEMENTAREA SI OPTIMIZAREA DE NOI TEHNICI SI METODE DE CUPLAJ DIRECT ELECTROFOREZA CAPILARA/SPECTROMETRIE DE MASA (CE/MS). APLICATII IN ANALIZE BIOFIZICE SI BIOMEDICALE. Valoare: 32850 lei. **Director**
5. 2005/2008 ANCS Cercetare de excelenta, CE.Ex. nr. 14 modul I Proiecte Complexe: STUDIUL PRIN SPECTROMETRIE DE MASA DE INALTA PERFORMANTA AL GANGLIOZIDELOR IN REGIUNI DEFINITE ALE CREIERULUI UMAN: COMPOZITIE, STRUCTURA SI INTERACTIUNI FUNCTIONALE. valoare: 1.500. 000 lei; **Director**
6. 2006/2008 ANCS Cercetare de excelenta, CE.Ex. Nr. 98 modul III: INTEGRAREA UNUI CENTRU ROMAN DE SPECTROMETRIE DE MASA BIOMEDICALA DE INALTA PERFORMANTA IN ARIA DE CERCETARE INTERNATIONALA SI EUROPEANA, valoare 200.000 lei; **Director**
7. 2011/2015 CNCS-UEFISCDI-PCE-Idei-2011-0047; DEVELOPMENT OF CHIP-BASED NANO-ELECTROSPRAY IN COMBINATION WITH ELECTRON TRANSFER DISSOCIATION MASS SPECTROMETRY FOR TOP-DOWN GLYCOPROTEOMICS, valoare 1.500. 000 lei; **Director**
8. 2017-2019 ANCS-UEFISCDI-PN-III-P4-PCE-Idei-2016-0073; CONTRACT NR. 48; DEZVOLTAREA SPECTROMETRIEI DE MASA CU MICROFLUIDICE PENTRU ANALIZA INTERACTIUNILOR STRUCTURALE SI FUNCTIONALE ALE GANGLIOZIDELOR; valoare 850.000 lei; **Director**
9. 2017-2020 ANCS-UEFISCDI PN-III-P1-1.2-PCCDI-2017-0046; DEZVOLTAREA UNOR PLATFORME AVANSATE DE ANALIZA SI MODELAREA SISTEMELOR BIOLOGICE COMPLEXE; valoare 5.287.500 lei; **Director**
10. 2006/2008 ANCS Cercetare de excelenta, CE.Ex. Nr. 111 modul I: DETERMINAREA EXPRESIEI GLICOSFINGOLIPIDELOR COMPLEXE IN SISTEMUL NERVOS CENTRAL PRIN DISPOZITIVE DE MICROCHIPURI INTEGRATE POLIFUNCTIONALE CUPLATE CU SPECTROMETRIE DE MASA DE INALTA PERFORMANTA, valoare: 1.500. 000 lei; **Responsabil echipa partenera P1**
11. 2007/2010 ANCS PNCD II Nr. 41-001: IDENTIFICAREA SI CARACTERIZAREA BIOMARKERILOR CANCERULUI DE CREIER EXPRESATI IN SER SI FLUID CEFALORAHIDIAN PRIN METODE GLICOMICE MODERNE BAZATE PE SPECTROMETRIE DE MASA, valoare: 2.000. 000 lei; **Responsabil echipa P1**
12. 2012/2016 ANCS-UEFISCDI-PN-II-PT-PCCA-2011-3.1-0187; CONTRACT NR.142; OBTINEREA POLIZAHARIDELOR FUNCTIONALIZATE PENTRU APLICATII IN BIOMEDICINA SI BIOTEHNOLOGII; valoare 2.000.000 lei; **Responsabil echipa partenera P1**
13. 2014/2016 ANCS-UEFISCDI-PN-II-PT-PCCA-2013-4-0191, CONTRACT NR. 118; INTERACTOMICA GALACTOZAMINOGLICANILOR ÎN MATRICEA EXTRACELULARĂ PRIN SPECTROMETRIE DE MASĂ AVANSATĂ valoare 1.250.000 lei; **Responsabil echipa partenera P1**
14. 2009-2013- FP7- NMP-2008-LARGE-2, PROIECT NO 228827- FOLATE-BASED NANOBIODEVICES FOR INTEGRATED DIAGNOSIS/THERAPY TARGETING CHRONIC INFLAMMATORY DISEASES (director proiect: Artur Cavaco-Paolo, Minho University of Portugal; responsabil echipa nationala, Florentina-Daniela Munteanu); **membru colectiv international**
15. 2017-2019 CSF-2017-2019-Molecular markers of neuronal vulnerability, adaptation and plasticity in acute and chronic brain lesion, acronim „NeuroReact“, Croatian Scientific Foundation; directori proiect: Kristina Mlinac Jerković, Svjetlana Kalanj-Bognar and Katarina Ilic; Laboratory for Molecular Neurobiology and Neurochemistry, Croatian Institute for Brain Research, School of Medicine, University of Zagreb; **membru colectiv international**
16. 2010-2013 Sectoral Operational Program Increase of Economic Competitiveness, Priority Axis 2 - Competitiveness through RDI, Operation 2.1.2: "High-Level Scientific Projects CD with Specialists from Abroad": Liberian Plants - Strategic Renewable Resources for the Economy European Union - BASTEURES; **membru colectiv national**
17. 2014-2015 - Research Center for Technical and Natural Sciences ", project cofinanced by the European Union through the European Regional Development Fund under the Sectoral Operational Program " Increasing Economic Competitiveness ": INVESTMENTS FOR YOUR FUTURE; **membru colectiv national**

18. 2011-2014 PN-II-RU-TE-2011-3-0008 Glycomics of brain glycosaminoglycans by advanced mass spectrometric and related hyphenated techniques, director proiect Dr. Flangea Corina; **membru colectiv national**
19. PN-III-P1-1.1-PD2016-0256 Dezvoltarea spectrometriei de masă cu mobilitate ionică pentru analiza gangliozidelor umane și a interacțiilor acestora; director proiect, Dr. Mirela Sarbu **membru colectiv national; Mentor**
20. 2007 Grant NATO COLLABORATIVE PROGRAMMES SECTION; ADVANCED RESEARCH WORKSHOP „APPLICATION OF MASS SPECTROMETRY IN LIFE SAFETY”, valoare 38.000 Euro; **Co-director grant workshop**
21. 2016 ANCS-UEFISCDI PN-III-P1-1.1-MD Proiecte mobilitate cercetatori din diaspora, Prof. Dr. Costel Darie, NY, USA, valoare 9780 lei; **Responsabil proiect mobilitati**

FONDURI TOTALE ATRASE PRIN PROIECTE DE CERCETARE IN CALITATE DE DIRECTOR SAU RESPONSABIL: 3.900.000 EURO

## Anexa 2 – Publicații

### Lista de lucrari

Prof. Dr. Alina-Diana Zamfir

### TEZA DE DOCTORAT

**Ionizarea prin electrospray in spectrometria de masa, 2001**, conducator stiintific: Prof. Dr. Nicolae Palibroda; FACULTATEA DE FIZICA, Universitatea Babes-Bolyai, Cluj-Napoca.

### TEZA DE ABILITARE (GERMANIA)

**High Performance Electrospray Mass Spectrometric Glycoscreening in Biomedicine, 2005**, FACULTATEA DE MEDICINA, UNIVERSITATEA DIN MÜNSTER, GERMANIA.

### TEZA DE ABILITARE (ROMANIA)

**Development of Electrospray Mass Spectrometry-Based Methods for Glycan Analysis in Biomedical Research, 2013**, FACULTATEA DE FIZICA, UNIVERSITATEA DE VEST DIN TIMISOARA, ROMANIA.

### Carti, Manuale DE SPECIALITATE publicate la edituri din tara

C1. Metode fizice de studiu al materialelor solide. Indrumator de lucrari practice de laborator  
M.A. Balint, **A. D. Zamfir**  
Tipografia Universitatii de Vest din Timisoara, 1995

C2. Metode fizico-chimice de analiza  
**A.D. Zamfir**, N. Dinca, "Aurel Vlaicu", Univ. Arad Ed., 2005, ISBN: 973-752-012-2

C3. Sisteme avansate de ionizare prin microchip pentru spectrometria de masa si aplicatii  
**A. D. Zamfir**, Ed. Canonica, Cluj-Napoca, 2008, ISBN 978-973-88608-7-2

### EDITOR DE CARTE INTERNATIONALA

1. Applications of Mass Spectrometry in Life Safety  
C. Popescu, **A.D. Zamfir**, N. Dinca (editori)  
Ed. *Springer Verlag*, Germania, ISBN 978-1-4020-8810-0 (Print) 978-1-4020-8811-7 (Online), 238 pg., 2008, © *Springer*

### CAPITOLE DE CARTI LA EDITURI INTERNATIONALE

1. Protein carbohydrate analysis: gel-based staining, liquid chromatography, mass spectrometry, and microarray screening  
I. Shin, **A. D. Zamfir**, Bin Ye  
*Methods Mol. Biol.* 44, 19-39, 2008; Tissue Proteomics-Pathways, Biomarkers, and Drug Discovery, vol. 44, pg. 19-39, 2008; ISSN: 1064-3745; B. Liu Ed., © *Humana Press Inc.*, Totowa, N.J., USA

2. Structural analysis of chondroitin sulfate disaccharides by electrospray ionization high capacity ion trap mass spectrometry  
A. Muresan, M. Galusca, D. G. Seidler, N. Dinca, **A. D. Zamfir**  
in: Applications of Mass Spectrometry in Life Safety, ISBN 978-1-4020-8810-0; pg. 85-95; 2008, © *Springer*

3. Mapping and sequencing of gangliosides from anencephaly by electrospray ionization high capacity ion trap mass spectrometry  
C. Mosoarca, Ž. Vukelić, **A.D. Zamfir**

in: Applications of Mass Spectrometry in Life Safety, ISBN 978-1-4020-8810-0; pg. 71-82; 2008, © Springer

4. Electrospray Ionization tandem mass spectrometric investigation of essential oils from *Melissa officinalis* (Labiatae Family) and *Pellargonium ssp.* (Geraniaceae Family)

C. Toma, I.B. Pancan, M. Chirita, F.M. Vata, **A.D. Zamfir**

in: Applications of Mass Spectrometry in Life Safety, ISBN 978-1-4020-8810-0; pg. 213-220; 2008, © Springer

5. Brain chondroitin/dermatan sulfate: from cerebral tissue to fine structure. Extraction, preparation and fully automated chip-electrospray mass spectrometric analysis

**A. D. Zamfir**, C. Flangea, A.Serb, E. Sisu, L. Zagrean, A. Rizzi, D.G. Seidler

*Methods Mol. Biol.* 836, 145-159, 2012; Françoise Rédini (ed.), Proteoglycans: Methods and Protocols, Methods in Molecular Biology, vol. 836, DOI 10.1007/978-1-61779-498-8\_10, ISSN: 1064-3745; © Springer

6. Levansucrases of *Pseudomonas* bacteria: novel approaches for protein expression, assay of enzymes, fructooligosaccharides and heterooligofructans

T. Alamae, T. Visnapuu, K. Mardo, A. Mae, **A. D. Zamfir**

*Carbohydr. Chem.* 38, 176-191, 2012, edited by Amelia Pilar Rauter, Thisbe Lindhorst; ISBN: 978-1-84973-439-4 ©The Royal Society of Chemistry, UK

7. Separation and identification of glycoforms by capillary electrophoresis with electrospray ionization mass spectrometric detection

**A. D. Zamfir**, C. Flangea, A.Serb, A.-M. Zagrean, A. Rizzi, E. Sisu

*Methods Mol. Biol.* 951, 145-169, 2013; Jennifer J. Kohler and Steven M. Patrie (eds.), Mass Spectrometry of Glycoproteins: Methods and Protocols, Methods in Molecular Biology, vol. 951, DOI 10.1007/978-1-62703-146-2\_11, ISSN: 1064-3745, © Springer.

8. Nanochips for mass spectrometry and applications in biomedical research.

**A.D. Zamfir**

in: Research Horizons of Nanosystems: Structure, Properties and Interactions, 2014, 386-443, ISBN: 978-1926895-90-1 ©Apple Academic Press, Ontario-New Jersey, Canada-USA

9. Nanofluidics-based mass spectrometry. Applications for biomarker discovery in lysosomal storage diseases.

M Sarbu, **A.D. Zamfir**

in: Nanoparticles: Promises and Risks, 2015, 137-165, ISBN: 978-3-319-11727-0 © Springer

10. Sustainable nanosystem development for mass spectrometry. Applications in proteomics and glycomics

L. Popescu, A.C. Robu, **A.D. Zamfir**

in: Sustainable Nanosystems Development, Properties and Applications, 2016, 535-568, ISSN: 2327-5448 © IGI Global, Hershey, PA, USA

11. Microfluidics-mass spectrometry of protein-carbohydrate interactions: applications to the development of therapeutics and biomarker discovery.

**A.D. Zamfir**

*Methods Mol. Biol.* 1647, 109-128, 2017; Lazar I., Kontoyianni M., Lazar A. (eds) Proteomics for Drug Discovery. Methods in Molecular Biology, vol 1647. DOI: 10.1007/978-1-4939-7201-2\_7, ISSN: 1064-3745 © Humana Press, New York, NY

#### ARTICOLE *IN EXTENSO* PUBLICATE IN REVISTE INDEXATE ISI CU FACTOR DE IMPACT (#autor corespondent)

1. Capillary electrophoresis and off-line CE/ESI-QTOF tandem MS of carbohydrates

**A.D. Zamfir**, S. König, J. Althoff, J. Peter-Katalinic

*J. Chromatogr. A* 895, 291-299, 2000

**IF 2.793**

2. Glycoscreening by sheathless on-line capillary electrophoresis/electrospray quadrupole time-of-flight tandem mass spectrometry

**A.D. Zamfir**, J. Peter-Katalinic

*Electrophoresis* 22, 2448-2457, 2001

**IF 4.282**

3. A capillary electrophoresis and off-line capillary electrophoresis/electrospray ionization quadrupole time-of-flight tandem mass spectrometry approach for ganglioside analysis

**A.D. Zamfir**, Ž. Vukelic, J. Peter-Katalinic

*Electrophoresis* 23, 2894-2903, 2002

**IF 4.325**

4. Structural characterization of chondroitin/dermatan sulfate oligosaccharides from bovine aorta by capillary electrophoresis and electrospray ionization quadrupole time-of-flight tandem mass spectrometry

**A. D. Zamfir**, D. Seidler, H. Kresse, J. Peter-Katalinic

*Rapid Commun. Mass Spectrom.* 16, 2015-2024, 2002

**IF 2.372**

5. Characterization of peptides by capillary zone electrophoresis and electrospray ionization quadrupole time-of-flight tandem mass spectrometry

L. Bindila, **A.D. Zamfir**, J. Peter-Katalinic

*J. Sep. Science* 15, 1101-1111, 2002

**IF 1.591**

6. Glucosylsulfones. Valuable syntons in obtaining C,O-glycosides

E. Sisu, V. Rusu, I. Sisu, **A.D. Zamfir**, J. Peter-Katalinic, C. Csunderlik

*Revista de Chimie* 53, 779-781, 2002

**IF 0.281**

7. The synthesis of lactose block - a valuable synthon in glycosphingolipids synthesis

E. Sisu, I. Sisu, **A.D. Zamfir**, N. Dinca, C. Csunderlik, V. Rusu, J. Peter-Katalinic

*Revista de Chimie* 53, 648-651 2002

**IF 0.281**

8. Structural investigation of chondroitin/dermatan sulfate oligosaccharides from human skin fibroblast decorin

**A.D. Zamfir**, D. Seidler, H. Kresse, J. Peter-Katalinic

*Glycobiology* 11, 733-742, 2003

**IF 3.490**

9. Sialylation analysis of O-glycosylated sialylated peptides from urine of patients suffering from Schindler's disease by Fourier transform ion cyclotron resonance mass spectrometry and sustained off-resonance irradiation collision-induced dissociation

M. Froesch, L. Bindila, **A.D. Zamfir**, J. Peter-Katalinic

*Rapid Commun. Mass Spectrom.* 17, 2822-2832, 2003

**IF 2.789**

10. New glycosyl derivatives of 5-substituted-3-mercapto-1,2,4-triazole

E. Sisu, A. Lascu, V. Bercean, M.T. Caproiu, **A.D. Zamfir**, I. Sisu, C. Neanu, C. Csunderlik, V. Rusu, J. Peter-Katalinic

*Revista de Chimie* 54, 181-183, 2003

**IF 0.281**

11. Fully automated chip-based mass spectrometry for complex carbohydrate system analysis

**A.D. Zamfir**, S. Vakhrushev, A. Sterling, H. Niebel, M. Allen, J. Peter-Katalinic

*Anal. Chem.* 76, 2046-2054, 2004

**IF 5.450**

12. On-line sheathless capillary electrophoresis/nanoelectrospray ionization-tandem mass spectrometry for the analysis of glycosaminoglycan oligosaccharides

**A.D. Zamfir**, D. Seidler, E. Schonherr, H. Kresse, J. Peter-Katalinic

*Electrophoresis* 25, 2010-2016, 2004

**IF 3.743**

13. Fully automated chip-based nanoelectrospray tandem mass spectrometry of gangliosides from human cerebellum

**A.D. Zamfir**, Z. Vukelic, L. Bindila, R. Almeida, A. Sterling, M. Allen, J. Peter-Katalinic

*J. American Soc. Mass Spectrom.* 15, 1649-1657, 2004

**IF 3.760**

14. Off-line capillary electrophoresis/fully automated chip-based electrospray ionization quadrupole time-of-flight mass spectrometry and tandem mass spectrometry for glycoconjugate analysis

L. Bindila, R. Almeida, A. Sterling, M. Allen, J. Peter-Katalinic, **A.D. Zamfir**<sup>#</sup>

*J. Mass Spectrom.* 39, 1190-1201, 2004

**IF 3.056**

15. Coupling of fully automated chip electrospray to Fourier transform ion cyclotron resonance mass spectrometry for high-performance glycoscreening and sequencing

M. Froesch, L. Bindila, G. Baykut, M. Allen, J. Peter-Katalinic, **A.D. Zamfir**<sup>#</sup>

*Rapid Commun. Mass Spectrom.* 18, 3084-3092, 2004

**IF 2.750**

16. A thin chip microsprayer system coupled to Fourier transform ion cyclotron resonance mass spectrometry for glycopeptide screening

L. Bindila, M. Froesch, N. Lion, Ž. Vukelic, J. Rossier, H. Girault, J. Peter-Katalinic, **A.D. Zamfir**<sup>#</sup>

*Rapid Commun. Mass Spectrom.* 18, 2913-2920, 2004

**IF 2.750**

17. O<sub>2</sub>An cross-ring cleavage as a general diagnostic tool for glycan assignment in glycoconjugate mixtures

S. Y. Vakhrushev, **A.D. Zamfir**, J. Peter-Katalinić

*J. American Soc. Mass Spectrom.* 15, 1863-1868, 2004

**IF 3.760**

18. Capillary electrophoresis-mass spectrometry for glycoscreening in biomedical research

**A.D. Zamfir**, J. Peter-Katalinić

*Electrophoresis* 25, 1949-1963, 2004

**IF 3.743**

19. Chip electrospray mass spectrometry for carbohydrate analysis

**A.D. Zamfir**, L. Bindila, N. Lion, M. Allen, H. H. Girault, J. Peter-Katalinic,

*Electrophoresis* 26, 3650-3673, 2005

**IF 3.850**

20. Screening and sequencing of complex sialylated and sulfated glycosphingolipid mixtures by negative ion electrospray Fourier transform ion cyclotron resonance mass spectrometry

Ž. Vukelic\*, **A.D. Zamfir**\*, L. Bindila, M. Froesch, S. Usuki, R.Yu, J. Peter-Katalinić

\*equal contribution

*J. American Soc. Mass Spectrom.* 16, 571-580, 2005

**IF 3.625**

21. Thin chip microsyringe system coupled to quadrupole time-of-flight mass spectrometer for glycoconjugate analysis

**A.D. Zamfir**, N. Lion, Ž. Vukelic, L. Bindila, J. Rossier, H.Girault, J.Peter-Katalinić

*Lab. Chip* 5, 298-307, 2005

**IF 5.265**

22. Sheathless reverse polarity capillary electrophoresis/electrospray mass spectrometry for the analysis of underivatized glycans

L. Bindila, J. Peter-Katalinić, **A.D. Zamfir**<sup>#</sup>

*Electrophoresis* 26, 1488-1499, 2005

**IF 3.850**

23. Determination of *Mammillaria gracillis* N-glycan patterns by ESI Q-TOF mass spectrometry

B. Balen, **A.D. Zamfir**, S. Vakhrushev, M. Krsnik-Rasol, J. Peter-Katalinić

*Croat. Chem. Acta* 78, 463-477, 2005

**IF 0.936**

24. Electrospray ionization quadrupole time-of-flight tandem mass spectrometric analysis of hexamethylene diamine-modified maltodextrin and dextran

E. Sisu, Wouter T.E. Bosker, Wilhem Norde, Teddy M. Slaghek, Jan W. Timmermans, J. Peter-Katalinić, M. A. Cohen-Stuart, **A.D. Zamfir**<sup>#</sup>

*Rapid Commun. Mass Spectrom.* 20, 209-218, 2006

**IF 2.680**

25. Glycoproteomic survey of *Mammillaria gracillis* tissues grown in vitro

B. Balen, M. Krsnik-Rasol, **A.D. Zamfir**, J. Milosevic, S.Y. Vakhrushev, J. Peter-Katalinić

*J. Proteome Res.* 5, 1658-1666, 2006

**IF 5.030**

26. Analysis of human hippocampus gangliosides by fully-automated chip-based nanoelectrospray tandem mass spectrometry

Z.Vukelic, M.Zarei, J.Peter-Katalinić, **A.D. Zamfir**<sup>#</sup>

*J. Chromatogr. A.* 1130, 238-245, 2006

**IF 3.554**

27. Copper-coated microsyringe interface for on-line sheathless capillary electrophoresis electrospray mass spectrometry of carbohydrates

**A.D. Zamfir**, N. Dinca, E.Sisu, J.Peter-Katalinić

*J. Sep. Science* 29, 414-422, 2006

**IF 2.535**

28. Identification of a high-affinity-binding oligosaccharide by (+) nanoelectrospray quadrupole time-of-flight tandem mass spectrometry of a noncovalent enzyme-ligand complex

F.H. Cederqvist\*, **A.D. Zamfir**\*, S.Bahrke, V.G. Eijnsink, M.Sorlie, J.Peter-Katalinić, M.G. Peter; \*equal contribution

*Angew. Chem. Int. Ed. Engl.* 45, 2429-34, 2006

**IF 10.232**

29. Human gliosarcoma-associated ganglioside composition is complex and highly distinctive as evidenced by high-performance mass spectrometric determination and structural characterization

Ž. Vukelić, S. Kalanj Bogнар, M.Froesch, L. Bindila, B. Radić, M. Allen, J. Peter-Katalinić, **A.D. Zamfir**<sup>#</sup>

*Glycobiology* 17, 504-515, 2007

**IF 3.886**

30. Galactosaminoglycan function and oligosaccharide structure determination

D. G. Seidler, J. Peter-Katalinić, **A.D. Zamfir**<sup>#</sup>

*Scient. World J.* 19, 233-241, 2007

**IF 0.877**

31. Recent advances in sheathless interfacing of capillary electrophoresis and electrospray ionization mass spectrometry

**A. D. Zamfir**

*J. Chromatogr. A* 1159, 2–13, 2007

**IF 3.641**

32. Analysis of oversulfation in a dermatan sulfate oligosaccharide fraction from bovine aorta by nanoelectrospray ionization quadrupole time-of-flight and Fourier-transform ion cyclotron resonance mass spectrometry

M.Morman\*, **A. D. Zamfir**\*, D.G.Seidler, H.Kresse, J.Peter-Katalinić; \*equal contribution

*J. American. Soc. Mass Spectrom.* 18, 179-187, 2007

**IF 3.664**

33. Synthesis and characterization of some new 2-hydroxy-N-(3-trifluoromethyl-phenyl)-benzamide derivatives

I. Ienascu, A.X. Lupea, I. Popescu, S. Tomas, **A.D. Zamfir**

*Revista de Chimie* 59, 56-59, 2008

**IF 0.389**

34. Synthesis and characterization of some new 2-hydroxy-N-(2-trifluoromethyl-phenyl)-benzamide derivatives

I. Ienascu, A.X. Lupea, I. Popescu, C. Mosoarca, **A.D. Zamfir**

*Rev. Roum. Chem.* 53, 273-276, 2008

**IF 0.284**

35. Enhanced electrospray ionization Fourier transform ion cyclotron resonance mass spectrometry of long-chain polysaccharides

I. Perdivara, E. Sisu, I. Sisu, N. Dinca, K.B. Tomer, M. Przybylski, **A.D. Zamfir**<sup>#</sup>

*Rapid Commun. Mass Spectrom.* 22, 773-782, 2008

**IF 2.772**

36. Coupling of fully automated chip-based electrospray ionization to high capacity ion trap mass spectrometer for ganglioside analysis

R. Almeida, C. Mosoarca, M. Chirita, V. Udrescu, N. Dinca, Ž. Vukelić, M. Allen, **A. D. Zamfir**<sup>#</sup>

*Anal. Biochem.* 378, 43–52, 2008

**IF 3.088**

37. Glycosylation analysis of glycoproteins and proteoglycans using CE–MS strategies

S. Amon, **A.D. Zamfir**, A. Rizzi

*Electrophoresis*, 29, 2485-2507, 2008

**IF 3.509**

38. C. Toma, I. B. Pancan, M. Chirita, **A. D. Zamfir**<sup>#</sup>

Electrospray ionization tandem mass spectrometric investigation of *Melissa officinalis* oil

*Farmacia* 1, 510-517, 2008

**IF 0.064**

39. Synthesis and structural characterization of amino-functionalized polysaccharides

I. Sisu, V. Udrescu, C. Flangea, S. Tudor, N. Dinca, L. Rusnac, **A.D. Zamfir**<sup>#</sup>, E.Sisu

*Cent. Eur. J. Chem.* 7, 66-73, 2009

**IF 1.065**

40. Fully automated chip-based negative mode nanoelectrospray mass spectrometry of fructooligosaccharides produced by heterologously expressed levansucrase from *Pseudomonas syringae* pv. tomato DC3000

T.Visnapuu, **A. D. Zamfir**, C. Mosoarca, M. D. Stanescu, T.Alamäe

*Rapid Commun. Mass Spectrom.* 23, 1337–1346, 2009

**IF 2.695**



41. Analysis of novel over- and undersulfated glycosaminoglycan sequences by enzyme cleavage and multiple stage mass spectrometry  
**A.D. Zamfir**, C. Flangea, A. Serb, E. Sisu, N. Dinca, P. Bruckner, D. G. Seidler  
*Proteomics* 9, 3435-3444, 2009  
**IF 4.426**
42. High-throughput analysis of gangliosides in defined regions of fetal brain by fully automated chip-based nanoelectrospray ionization multistage mass spectrometry  
 A. Serb, C. Schiopu, C. Flangea, Ž. Vukelić, E. Sisu, L. Zagrean, **A. D. Zamfir**<sup>#</sup>  
*Eur. J. Mass Spectrom.* 15, 541-553, 2009  
**IF 1.340**
43. Discrimination of GalNAc (4S/6S) sulfation sites in chondroitin sulfate disaccharides by chip-based nanoelectrospray multistage mass spectrometry  
 C. Flangea, A. Serb, C. Schiopu, S. Tudor, E. Sisu, D. G. Seidler, **A. D. Zamfir**<sup>#</sup>  
*Cent. Eur. J. Chem.* 7, 752-759, 2009  
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44. Top-down glycolipidomics: fragmentation analysis of ganglioside oligosaccharide core and ceramide moiety by chip-nanoelectrospray collision-induced dissociation MS<sup>2</sup>-MS<sup>6</sup>  
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1. Capillary Electrophoresis & Mass Spectrometry of Complex Carbohydrates  
**A.D. Zamfir**, S. König, J. Althoff, J. Peter-Katalinić  
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ORAL PRESENTATION
2. Capillary Electrophoresis and ESI-QTOF Mass Spectrometry for Identification of Carbohydrates  
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  3. Strategies for Sequencing Complex Oligosaccharides by Mass Spectrometry  
M. Jovanović, B. Maček, D. Šagi, **A.D. Zamfir**, S. König, J. Peter-Katalinić  
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  4. High Sensitivity Separation and Analysis by Capillary Electrophoresis and Nano Electrospray Mass Spectrometry  
**A.D. Zamfir**, S. König, J. Peter-Katalinić  
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  5. Screening of Complex Glycopeptide Mixtures by on-line Capillary Electrophoresis/Electrospray Ionization Time-of-Flight Mass Spectrometry  
**A.D. Zamfir**, S. König, D. Schindler, J. Peter-Katalinić  
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ORAL PRESENTATION
  11. Glycoproteomics of Hereditary Diseases  
J. Peter-Katalinić, T. Marquardt, D. Šagi, **A.D. Zamfir**, D. Schindler  
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**A.D. Zamfir**, J. Peter-Katalinić  
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INVITED LECTURE
  13. Practical Approach for Identification of Complex Ganglioside Mixtures by High Performance Capillary Electrophoresis-

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Ž. Vukelić, **A.D. Zamfir**, J. Peter-Katalinić  
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POSTER PRESENTATION
14. Nanoscale Analysis of Biomolecules by on-line Sheathless Capillary Electrophoresis-Electrospray Ionization Quadrupole Time-of-Flight Tandem Mass Spectrometry  
**A.D. Zamfir**, J. Peter-Katalinić  
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POSTER PRESENTATION
15. Identification of O-Glycans in Complex Mixtures from Urine of Patients Suffering from Schindler's Disease by on-line CE-ESI-QTOF MS  
**A.D. Zamfir**, D. Schindler, J. Peter-Katalinić  
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ORAL PRESENTATION
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**A.D. Zamfir**, D. Seidler, H. Kresse, J. Peter-Katalinić  
German Society for Mass Spectrometry Conference, Heidelberg, March 3-6, 2002  
ORAL PRESENTATION
17. Structural Characterization of Insect Glycosphingolipids by Nano-Electrospray Ionization Quadrupole time-of-flight Tandem Mass Spectrometry  
A. Brodarac, J. Müthing, **A.D. Zamfir**, V. Jäger, J. Peter-Katalinić  
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**A.D. Zamfir**, G. Nareyeck, H. Kresse, J. Peter-Katalinić  
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POSTER PRESENTATION
19. High Performance Capillary Electrophoresis/ Electrospray Ionization Quadrupole Time-of-Flight Tandem Mass Spectrometry: Application to Glycosaminoglycans from Human Decorin  
**A.D. Zamfir**, D. Seidler, H. Kresse, J. Peter-Katalinić  
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20. Novel Method for Mapping and Sequencing of Gangliosides by Capillary Electrophoresis/Electrospray Ionization Quadrupole Time-of-Flight Tandem Mass Spectrometry  
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**A.D. Zamfir**, D. Sagi, M. Mormann, J. Peter-Katalinić  
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22. Capillary Electrophoresis and Nanoelectrospray Ionization Mass Spectrometry on Peptides  
L. Bindila, **A.D. Zamfir**, J. Peter-Katalinić  
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23. On-line Sheathless Capillary Electrophoresis-Nanoelectrospray Mass Spectrometry for Bioanalyses  
L. Bindila, **A.D. Zamfir**, J. Peter-Katalinić  
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ORAL PRESENTATION
24. Massenspektrometrische Untersuchung von Glycosaminoglykanen

- J. Peter-Katalinić, **A.D. Zamfir**, M. Mormann, D. Seidler, H. Kresse  
 SFB 492 Symposium, Universität Münster, Oct. 3, 2002  
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25. Identification of Eicosasaccharide Structures in Glycosaminoglycans from Human Decorin by online CE/ESI-MS and tandem MS  
**A.D. Zamfir**, D. Seidler, H. Kresse, J. Peter-Katalinić  
 7<sup>th</sup> Conference of the American Society of Glycobiology, Boston, MA, USA, Nov. 9-13, 2002  
 ORAL PRESENTATION
26. Identification of Oligosaccharides in Glycosaminoglycans from Human Decorin by on-line CE/ESIMS and tandem MS  
**A.D. Zamfir**, D. Seidler, H. Kresse, J. Peter-Katalinić  
 XIII<sup>th</sup> Joint Meeting on Glycobiology, Raestfeld, Germany, Nov. 21-23, 2002  
 POSTER PRESENTATION
27. Novel Strategies Employing on-line Sheathless Capillary Electrophoresis Nanoelectrospray Ionization Mass Spectrometry for Glycoscreening  
**A.D. Zamfir**, J. Peter-Katalinić  
 International Conference of Physics, Timișoara, Romania, Nov.28-29, 2002  
 INVITED LECTURE
28. Advanced of CE/tandem MS Glycoscreening in Biomedical Research  
 J. Peter-Katalinić, **A.D. Zamfir**  
 HPCE 2003, 16<sup>th</sup> Int. Symposium on Microscale Separations and Analysis, Jan.16-23, 2003, San Diego, CA, USA  
 ORAL PRESENTATION
29. Considerations of CE-QTOF and FTICR MS for Glycomics of Glycosaminoglycans  
 J. Peter-Katalinić, **A.D. Zamfir**, M. Mormann, D. Seidler, H. Kresse  
 5<sup>th</sup> Iglar MS Tage, Universität Innsbruck, Austria, Feb. 19-21, 2003  
 ORAL PRESENTATION
30. Capillary Electrophoresis/Electrospray Ionization Mass Spectrometry of Glycoconjugates  
**A.D. Zamfir**  
 Workshop on Mass Spectrometry of Glycoconjugates at the German Society for Mass Spectrometry Conference,  
 Münster, Germany, 9-12 March, 2003  
 INVITED LECTURE
31. CE/VE-MS/MS for Structural Analysis of Glycosaminoglycans from Human Skin Fibroblast Decorin  
**A.D. Zamfir**, D. Seidler, H. Kresse, J. Peter-Katalinić  
 German Society for Mass Spectrometry Conference, Münster, Germany, 9-12 March, 2003  
 ORAL PRESENTATION
32. Sheathless CE/ESI-MS and tandem MS for Biomedical Analysis  
**A.D. Zamfir**, J. Peter-Katalinić  
 International Symposium on Instrumentalized Analytical Chemistry, Düsseldorf, 25-27 March, 2003  
 ORAL PRESENTATION
33. Glycomics of Glycosaminoglycans by Capillary Electrophoresis/Quadrupole Time-of-Flight Tandem Mass Spectrometry  
**A.D. Zamfir**, D. Seidler, H. Kresse, J. Peter-Katalinić  
 Proc. of the 51<sup>st</sup> American Society for Mass Spectrometry Conference on Mass Spectrometry and Allied Topics, Montreal, Canada,  
 8-12 June, 2003  
 ORAL PRESENTATION
34. MS to MS/MS Automatic Switching for Glycoscreening in Congenital Disorders of Glycosylation  
 S. Vakhrushev, **A.D. Zamfir**, J. Peter-Katalinić  
 Proc. of the 51<sup>st</sup> American Society for Mass Spectrometry Conference on Mass Spectrometry and Allied Topics, Montreal,  
 Canada, 8-12 June, 2003  
 POSTER PRESENTATION
35. Mapping of O-Glycosylated Amino Acids Related to Schindler Disease by Negative Ion Nano ESI FTICR and SORI CID at 9.4 T  
 M. Froesch, **A.D. Zamfir**, J. Peter-Katalinić  
 Proc. of the 51<sup>st</sup> American Society for Mass Spectrometry Conference on Mass Spectrometry and Allied Topics, Montreal, Canada,  
 8-12 June, 2003  
 POSTER PRESENTATION
36. CE-QTOF and FTICR MS for Glycomics of Glycosaminoglycans  
**A.D. Zamfir**, D. Seidler, H. Kresse, M. Mormann, J. Peter-Katalinić



- 16<sup>th</sup> International Mass Spectrometry Conference, Edinburgh, Scotland, U.K., Aug. 31-Sept 5, 2003  
POSTER PRESENTATION
37. Mapping and Sequencing of Carbohydrates by Fully Automated Chip-Based Nanospray Quadrupole Time-of-Flight Tandem Mass Spectrometry  
**A.D. Zamfir**, A. Sterling, S. Vakhrushev, H. Niebel, M. Allen, J. Peter-Katalinić  
16<sup>th</sup> International Mass Spectrometry Conference, Edinburgh, Scotland, U.K., Aug. 31-Sept 5, 2003  
ORAL PRESENTATION
38. Capillary Electrophoresis/Electrospray Ionization Mass Spectrometry for Glycoconjugate Analysis  
**A.D. Zamfir**, J. Peter-Katalinić  
9<sup>th</sup> International Summer School on Biophysics and Supramolecular Structure, Rovinj, Croatia, 14-26 Sept. 2003  
POSTER PRESENTATION
39. Identification of Glycosaminoglycan Glycoforms by Mass Spectrometry  
**A.D. Zamfir**, D. Seidler, H. Kresse, M. Mormann, J. Peter-Katalinić  
Charite-Universitätsmedizin Berlin, Nov. 14, 2003  
ORAL PRESENTATION
40. Identification of Sialylated and Sulfated Glycosphingolipids by FTICR MS and SORI CID Tandem MS  
L. Bindila, M. Froesch, **A.D. Zamfir**, S. Usuki, R. K. Yu, J. Peter-Katalinić, Ž. Vukelić  
XIV<sup>th</sup> Joint Meeting on Glycobiology, Lille, France, 20-22 Nov. 2003  
POSTER PRESENTATION
41. Analysis and Sequencing of Sialylated Glycopeptides from Urine of Patients Suffering from Schindler Disease by NanoESI FTICR SORI CID Tandem MS  
M. Froesch, L. Bindila, **A.D. Zamfir**, J. Peter-Katalinić  
XIV<sup>th</sup> Joint Meeting on Glycobiology, Lille, France, 20-22 Nov. 2003  
POSTER PRESENTATION
42. Combination of Computational Algorithm and Fully Automated Chip-Based Nanospray Quadrupole Time-of-Flight Tandem Mass Spectrometry for Analysis of Complex Glycoconjugate Mixtures  
S. Vakhrushev, **A.D. Zamfir**, A. Sterling, H. Niebel, M. Allen, J. Peter-Katalinić  
XIV<sup>th</sup> Joint Meeting on Glycobiology, Lille, France, 20-22 Nov. 2003  
ORAL PRESENTATION
43. Potentials of Modern Mass Spectrometric Methods in Neuroscience Research and Neuropathological Diagnostics: Mapping and Sequencing of Brain Gangliosides  
Ž. Vukelić, V. Metelmann-Strupat, **A.D. Zamfir**, L. Bindila, M. Froesch, J. Peter-Katalinić  
1<sup>st</sup> Croatian Neuroscience Meeting, Zagreb, Croatia, Nov. 21-22, 2003  
POSTER PRESENTATION
44. Glycomics of Glycosaminoglycans  
**A.D. Zamfir**, D. Seidler, H. Kresse, M. Mormann, J. Peter-Katalinić  
8<sup>th</sup> Conference of the American Society of Glycobiology, San Diego, CA, USA, 3-6, 2003  
POSTER PRESENTATION
45. Negative Ion NanoESI FTICR MS of Glycosphingolipids  
L. Bindila, M. Froesch, **A.D. Zamfir**, S. Usuki, Ž. Vukelić, R. K. Yu, J. Peter-Katalinić  
German Society for Mass Spectrometry Conference, Leipzig, Germany, 7-10 March, 2004  
POSTER PRESENTATION
46. Microheterogeneity of N-Glycoforms in Bovine Serum Transferrin  
J. Milosevic, P. Rehulka, L. Bindila, **A.D. Zamfir**, J. Peter-Katalinić  
German Society for Mass Spectrometry Conference, Leipzig, Germany, 7-10 March, 2004  
POSTER PRESENTATION
47. Implementation of Fully Automated Chip-Based NanoElectrospray Mass Spectrometry in Glycomics  
**A.D. Zamfir**, A. Sterling, R. Almeida, M. Allen, J. Peter-Katalinić  
German Society for Mass Spectrometry Conference, Leipzig, Germany, 7-10 March, 2004  
ORAL PRESENTATION
48. Ionization and Fragmentation of Highly Sialylated Glycosphingolipids by FTICR MS  
M. Froesch, L. Bindila, Ž. Vukelić, **A.D. Zamfir**, J. Peter-Katalinić  
7<sup>th</sup> European FTMS Conference, Konstanz, Germany, Conference, 28 March-01 April, 2004  
POSTER PRESENTATION

49. FTICR of Glycoconjugates  
M. Mormann, M. Froesch, L. Bindila, Ž. Vukelić, **A.D. Zamfir**, J. Peter-Katalinić  
7<sup>th</sup> European FTMS Conference, Konstanz, Germany, 28 March-01 April, 2004  
POSTER PRESENTATION
  
50. Fully Automated Chip-Based NanoElectrospray Tandem Mass Spectrometry: A Novel Concept in Glycomics  
**A.D. Zamfir**, R. Almeida, A. Sterling, M. Allen, J. Henion, J. Peter-Katalinić  
Proc. of the 52<sup>nd</sup> American Society for Mass Spectrometry Conference on Mass Spectrometry and Allied Topics, Nashville, Tennessee, USA, 23-28 May, 2004  
KEYNOTE LECTURE
  
51. Off-line Capillary Electrophoresis/Fully Automated Chip NanoESI QTOF MS for Glycoconjugate Analysis  
R. Almeida, L. Bindila, **A.D. Zamfir**, A. Sterling, M. Allen, J. Peter-Katalinić  
Proc. of the 52<sup>nd</sup> American Society for Mass Spectrometry Conference on Mass Spectrometry and Allied Topics, Nashville, Tennessee, USA, 23-28 May, 2004  
POSTER PRESENTATION
  
52. FTICR MS of Sialylated Gangliosides from Human Brain Biopsies  
M. Froesch, Ž. Vukelić, L. Bindila, **A.D. Zamfir**, J. Peter-Katalinić  
Proc. of the 52<sup>nd</sup> American Society for Mass Spectrometry Conference on Mass Spectrometry and Allied Topics, Nashville, Tennessee, USA, 23-28 May, 2004  
POSTER PRESENTATION
  
53. Structural and Quantitative Analysis of Gangliosides from Gliosarcoma and Meningioma  
S. Kalanj-Bognar, Ž. Vukelić, **A.D. Zamfir**, L. Bindila, M. Froesch, J. Peter-Katalinić  
Congress of the Croatian Society for Biochemistry and Molecular Biology, Bjelolasica, Croatia, September 30-October 2, 2004  
POSTER PRESENTATION
  
54. Novel Trends in N- and O-Glycoproteomics  
J. Peter-Katalinić, L. Bindila, M. Froesch, M. Mormann, D. Šagi, S. Vakhrushev, **A.D. Zamfir**  
3<sup>rd</sup> Swedish Proteomics Society Symposium, Lund, October 2-5, 2004  
ORAL PRESENTATION
  
55. Fully-Automated chip-Based NanoElectrospray Tandem Mass Spectrometry of Gangliosides from Human Cerebellum  
**A.D. Zamfir**, L. Bindila, R. Almeida, A. Sterling, Ž. Vukelić, M. Allen, J. Peter-Katalinić  
Advion User Meeting, 21<sup>th</sup> LC/MS Montreux Symposium, Montreux, Switzerland, November 10-12, 2004  
INVITED LECTURE
  
56. Implementation of Chip Electrospray Mass Spectrometry in Structural Glycobiology  
M. Froesch, L. Bindila, Ž. Vukelić, J. Peter-Katalinić, **A.D. Zamfir**  
15<sup>th</sup> Joint Meeting of the „Studiengruppe Glykobiologie der Gesellschaft für Biochemie und Molekularbiologie“, the „Nederlandse Vereininging voor Glycobiologie“ and the „Groupe Lillois de Glycobiologie“, Wageningen, Niederlande, November 29-30, 2004, Glycoconjugate J. 21, 398, 2004  
POSTER PRESENTATION
  
57. Coupling of Fully Automated ChipESI to FT-ICR Mass Spectrometry for High-Performance Glycoscreening and Sequencing  
M. Froesch, L. Bindila, G. Baykut, M. Allen, J. Peter-Katalinić, **A.D. Zamfir**  
15<sup>th</sup> Joint Meeting of the „Studiengruppe Glykobiologie der Gesellschaft für Biochemie und Molekularbiologie“, the „Nederlandse Vereininging voor Glycobiologie“ and the „Groupe Lillois de Glycobiologie“, Wageningen, Niederlande, November 29-30, 2004, Glycoconjugate J. 21, 404, 2004  
POSTER PRESENTATION
  
58. Thin Polymer Chip Coupled to Fourier Transform Ion Cyclotron Resonance Mass Spectrometry for Glycopeptide Screening  
L. Bindila, M. Froesch, N. Lion, J. S. Rossier, H. H. Girault, **A.D. Zamfir**, J. Peter-Katalinić  
15<sup>th</sup> Joint Meeting of the „Studiengruppe Glykobiologie der Gesellschaft für Biochemie und Molekularbiologie“, the „Nederlandse Vereininging voor Glycobiologie“ and the „Groupe Lillois de Glycobiologie“, Wageningen, Niederlande, November 29-30, 2004, Glycoconjugate J. 21, 400, 2004  
POSTER PRESENTATION
  
59. Thin chip polymer microsyringes for glycoconjugate analysis of Schindler disease patients  
N. Lion, L. Bindila, M. Froesch, Ž. Vukelić, J. S. Rossier, H. H. Girault, J. Peter-Katalinić, **A.D. Zamfir**  
Jahrestagung der Schweizerischen Proteomgesellschaft, SPS'04 Inselspital Bern, Switzerland, December 6-8, 2004  
POSTER PRESENTATION
  
60. Chip-Based Ionization Mass Spectrometry for Glycoscreening in Biomedical Research

**A.D. Zamfir**, Ž. Vukelić, L. Bindila, M. Froesch, J. Peter-Katalinić  
18th International Symposium on Microscale Bioseparations, New Orleans, LA, USA, February 12-17, 2005  
ORAL PRESENTATION

61. Determination of ganglioside expression in human gliosarcoma by chip electrospray tandem mass spectrometry  
**A.D. Zamfir**, L. Bindila, Ž. Vukelić, J. Peter-Katalinić  
German Society for Mass Spectrometry Conference, Rostock, Germany, 6-9 March, 2005  
POSTER PRESENTATION
62. High-performance glycoscreening and sequencing by chip-enhanced ESI-FTICR spectrometry  
M. Froesch, L. Bindila, G. Baykut, N. Lion, H. Girault, M. Allen, J. Peter-Katalinić, **A.D. Zamfir**  
German Society for Mass Spectrometry Conference, Rostock, Germany, 6-9 March, 2005  
POSTER PRESENTATION
63. On-line reverse polarity capillary electrophoresis coupled to electrospray quadrupole time-of-flight mass spectrometry for analysis of glycopeptides from Schindler's disease  
L. Bindila, J. Peter-Katalinić, **A.D. Zamfir**  
German Society for Mass Spectrometry Conference, Rostock, Germany, 6-9 March, 2005  
POSTER PRESENTATION
64. FTICR mass spectrometry for glycoconjugate analysis  
**A.D. Zamfir**  
Invited lecture, GSF, München, May 10, 2005
65. Challenges in mass spectrometry-based glycomics  
**A.D. Zamfir**  
Invited lecture, University of Konstanz, September 13, 2005
66. Implementation of microfluidics/electrospray mass spectrometry in glycolipidomics: determination of ganglioside expression in human brain tumors  
**A.D. Zamfir**, Ž. Vukelić, S. Kalanj-Bognar, J. Peter-Katalinić  
Proc. of the 53<sup>rd</sup> American Society for Mass Spectrometry Conference on Mass Spectrometry and Allied Topics, San Antonio, Texas, USA, 5-9 June, 2005  
POSTER PRESENTATION
67. Biomarker discovery in human gliosarcoma by fully automated chip-based mass spectrometry  
R. Almeida, Ž. Vukelić, L. Bindila, S. Kalanj-Bognar, J. Peter-Katalinić, **A.D. Zamfir**  
LC/MS symposium, Ithaca, USA, July 20-22, 2005  
ORAL PRESENTATION
68. Determination of ganglioside pattern in human hippocampus by fully automated chip-based nanoelectrospray mass spectrometry  
M. Zarei, Ž. Vukelić, J. Peter-Katalinić, **A.D. Zamfir**  
16<sup>th</sup> Joint Meeting of the „Studiengruppe Glykobiologie der Gesellschaft für Glycobiologie“, Hannover, Germany, October, 27-29, 2005  
POSTER PRESENTATION
69. Structural analysis of sulfated and O-acetylated glycopeptides in urine of Schindler disease patients by on-line capillary electrophoresis/mass spectrometry  
L. Bindila, **A.D. Zamfir**, J. Peter-Katalinić  
16<sup>th</sup> Joint Meeting of the „Studiengruppe Glykobiologie der Gesellschaft für Biochemie und Molekularbiologie“, the „Nederlandse Vereniging voor Glycobiologie“ and the „Groupe Lillois de Glycobiologie“, Hannover, Germany, October, 27-29, 2005  
POSTER PRESENTATION
70. Capillary electrophoresis and chip-based mass spectrometry  
**A.D. Zamfir**  
Chemistry Institute of Romanian Academy, Timișoara, Romania, 15.12.2005  
Invited lecture
71. Lab-on-a-chip: a new perspective in analytical and instrumental chemistry  
**A.D. Zamfir**  
Chemistry Institute of Romanian Academy, Timișoara, Romania, 22.12.2005  
Invited lecture
72. Analysis of human hippocampus gangliosides by fully-automated chip-based nanoelectrospray tandem mass spectrometry  
**A.D. Zamfir**, M. Zarei, Ž. Vukelić, J. Peter-Katalinić  
19<sup>th</sup> International Symposium on Microscale Bioseparations, Amsterdam, Netherlands, January 22-26, 2006

## POSTER PRESENTATION

73. Implementation of microfluidic chip MS in glycolipidomics. Application to biomarker discovery  
**A.D. Zamfir**, J. Peter-Katalinić  
 19<sup>th</sup> International Symposium on Microscale Bioseparations, Amsterdam, Netherlands, January 22-26, 2006  
 Invited lecture
74. Multimethodological mass spectrometry approach for compositional and structural analysis of human brain gangliosides  
 M. Zarei, S. Vakhrushev, Ž. Vukelić, A. Schneider, A. Ingendoh, J. Peter-Katalinić, **A.D. Zamfir**  
 German Society for Mass Spectrometry Conference, Mainz, Germany, 5-9 March, 2006  
 POSTER PRESENTATION
75. Human gliosarcoma-associated gangliosides: a high performance mass spectrometric determination  
 Ž. Vukelić, S. Kalanj-Bognar, E. Sisu, I. Grozescu, **A.D. Zamfir**  
 International Conference on Perspectives in Central Nervous System Malignancies, Budapest, April, 7-8, 2006  
 POSTER PRESENTATION
76. Fully automated chip-based nanoelectrospray tandem mass spectrometry for the determination of noncovalent protein-carbohydrate interaction  
**A.D. Zamfir**, M. Peter, J. Peter-Katalinić  
 Proc. of the 52<sup>nd</sup> American Society for Mass Spectrometry Conference on Mass Spectrometry and Allied Topics, Seattle, Washington, USA, 27-30 May, 2006  
 ORAL PRESENTATION
77. Human glioblastoma gangliosides-mass spectrometry investigation  
**A.D. Zamfir**  
 International Conference on Neuronal Excitability, Bucharest, Romania, Sept. 1-3, 2006  
 INVITED LECTURE
78. Fully automated chip-based electrospray mass spectrometry-a novel concept in glycomics for biomedical research  
**A.D. Zamfir**, E. Sisu, Ž. Vukelić, C. Flangea, I. Grozescu, J. Henion, J Peter-Katalinić  
 International NanoBioSpec Conference, Cluj-Napoca, September 3-6, 2006  
 ORAL PRESENTATION
79. High performance electrospray and matrix-assisted laser desorption/ionization time-of-flight mass spectrometry of modified maltodextrins and dextrans  
 E. Sisu, I. Sisu, I. Scurtu, N. Dinca, A. Serb, C. Neanu, J. Peter-Katalinić, **A.D. Zamfir**  
 International NanoBioSpec. Conference, Cluj-Napoca, September 3-6, 2006  
 POSTER PRESENTATION
80. Identification of a high-affinity binding oligosaccharide by (+) nanoelectrospray quadrupole time-of-flight mass spectrometry of a non-covalent enzyme-ligand complex  
 F. H. Cedervist, **A.D. Zamfir**, S. Bahrke, V.G.H. Eijnsink, M. Sørliie, J. Peter-Katalinić, M.G. Peter  
 7<sup>th</sup> European Chitin Society Conference, Montpellier, France, Sept. 6-9, 2006  
 ORAL PRESENTATION
81. Determination of ganglioside pattern in human hippocampus by chip-based nanoelectrospray ionization tandem mass spectrometry  
 Ž. Vukelić, M. Zarei, J. Peter-Katalinić, **A.D. Zamfir**  
 International Conference of the Croatian Biochemical Society, Vodice, Croatia, October 4-9, 2006  
 POSTER PRESENTATION
82. Chip electrospray mass spectrometry for glycoscreening in biomedical research  
**A.D. Zamfir**  
 International Conference of the Croatian Biochemical Society, Vodice, Croatia, October 4-9, 2006  
 ORAL PRESENTATION
83. Glycomics and systems biology: new targets for microfluidics-mass spectrometry  
**A.D. Zamfir**  
 International Conference Research and Education in Innovation Era, Arad, Romania, November 9-12, 2006  
 ORAL PRESENTATION
84. High capacity ion trap multiple stage sequencing of human brain gangliosides  
 Ž. Vukelić, C. Ratiu, A. Serb, C. Flangea, E. Sisu, I. Grozescu, **A.D. Zamfir**  
 International Conference Research and Education in Innovation Era, Arad, Romania, November 9-12, 2006  
 POSTER PRESENTATION

85. Novel mass spectrometric strategies for determination of protein O- and N- glycosylation  
**A.D. Zamfir**  
University of Konstanz, Germany, November 21, 2006  
INVITED LECTURE
86. Mass spectrometry of carbohydrates  
**A.D. Zamfir**  
University of Konstanz, Germany, November 23, 2006  
INVITED LECTURE
87. A novel method for structural analysis of human brain gangliosides based on nanoelectrospray multiple stage sequencing mass spectrometry  
**A.D. Zamfir**, Ž. Vukelić, A. Schneider, E. Sisu, A. Ingendoh  
Vienna MS Forum, Viena, Austria, February 19-22, 2007  
INVITED LECTURE
88. Structural analysis of human decorin dermatan sulfate by nanoelectrospray ionization quadrupole time-of-flight tandem mass spectrometry  
F. Harja, C. Flangea, D.G. Seidler, N. Dinca, E. Sisu, **A.D. Zamfir**  
German Society for Mass Spectrometry Conference, Bremen, Germany, 11-14 March, 2007  
POSTER PRESENTATION
89. Mapping and sequencing of gangliosides from defined regions of human brain by nanoelectrospray ionization quadrupole time-of-flight tandem mass spectrometry  
A. Serb, F. Harja, Ž. Vukelić, N. Dinca, E. Sisu, **A.D. Zamfir**  
German Society for Mass Spectrometry Conference, Bremen, Germany, 11-14 March, 2007  
POSTER PRESENTATION
90. Electrospray ionization mass spectrometry: principles and biomedical applications  
**A.D. Zamfir**  
Institute for Physiological Chemistry, May, 19, 2007, Muenster, Germania  
INVITED LECTURE
91. Structural analysis of chondroitin/dermatan sulfate glycosaminoglycans from human decorin by electrospray ionization multiple stage mass spectrometry  
D.G. Seidler, C. Flangea, A. Schneider, A. Serb, E. Sisu, A. Ingendoh, **A.D. Zamfir**  
54<sup>th</sup> American Society for Mass Spectrometry Conference on Mass Spectrometry and Allied Topics, June 2-7, 2007, Indianapolis, Indiana, USA  
ORAL PRESENTATION
92. Electrospray ionization Fourier transform ion cyclotron resonance mass spectrometry of long chain polysaccharides  
I. Perdivara, E. Sisu, I. Sisu, M. Przybylski, **A.D. Zamfir**  
54<sup>th</sup> American Society for Mass Spectrometry Conference on Mass Spectrometry and Allied Topics, June 2-7, 2007, Indianapolis, Indiana, USA  
POSTER PRESENTATION
93. Principles and applications of electrospray ionization mass spectrometry  
**A.D. Zamfir**  
1<sup>st</sup> Advanced Research Workshop on Applications of Mass Spectrometry in Life Safety under NATO auspices, Sept. 23-27, 2007, Herculane, Romania  
INVITED LECTURE
94. Applications of fully automated chip-based electrospray in biological mass spectrometry  
**A.D. Zamfir**  
1<sup>st</sup> Advanced Research Workshop on Applications of Mass Spectrometry in Life Safety under NATO auspices, Sept. 23-27, 2007, Herculane, Romania  
INVITED TUTORIAL LECTURE
95. NanoESI QTOF and MALDI TOF MS of modified maltodextrins and dextrans  
V. Udrescu, Ioana Sisu, N. Dinca, A. Lascu, C.Neanu E. Sisu, L. Rusnac, **A. D. Zamfir**  
1<sup>st</sup> Advanced Research Workshop on Applications of Mass Spectrometry in Life Safety under NATO auspices, Sept. 23-27, 2007, Herculane, Romania  
POSTER PRESENTATION
96. Mapping and sequencing of gangliosides from anencephaly by electrospray ionization high capacity ion trap mass spectrometry  
C. Mosoarca, Ž. Vukelić, **A.D. Zamfir**

- 1<sup>st</sup> Advanced Research Workshop on Applications of Mass Spectrometry in Life Safety under NATO auspices, Sept. 23-27, 2007, Herculane, Romania  
POSTER PRESENTATION
97. Determination of decorin glycosaminoglycan oversulfation by electrospray ionization quadrupole time-of-flight tandem mass spectrometry  
C. Flangea, A.F. Serb, E. Sisu, N. Dinca, **A.D. Zamfir**, D.G. Seidler  
1<sup>st</sup> Advanced Research Workshop on Applications of Mass Spectrometry in Life Safety under NATO auspices, Sept. 23-27, 2007, Herculane, Romania  
POSTER PRESENTATION
98. Compositional and structural analysis of long chain polysaccharides by electrospray ionization Fourier transform ion cyclotron resonance mass spectrometry  
I. Perdivara, E. Sisu, I. Sisu, M. Przybylski, K. B. Tomer, **A.D. Zamfir**  
1<sup>st</sup> Advanced Research Workshop on Applications of Mass Spectrometry in Life Safety under NATO auspices, Sept. 23-27, 2007, Herculane, Romania  
POSTER PRESENTATION
99. Comparative study upon ganglioside pattern in defined regions of human cerebrum using nanoelectrospray ionization quadrupole time-of-flight mass spectrometry  
A.F. Serb, C. Flangea, N. Dinca, E. Sisu, F. Harja, **A.D. Zamfir**, Ž. Vukelić  
1<sup>st</sup> Advanced Research Workshop on Applications of Mass Spectrometry in Life Safety under NATO auspices, Sept. 23-27, 2007, Herculane, Romania  
POSTER PRESENTATION
100. Mass spectrometric determination of ganglioside expression and structure in human neocortex  
M.I. Chirita, A.F. Serb, E. Sisu, Ž. Vukelić, **A.D. Zamfir**  
1<sup>st</sup> Advanced Research Workshop on Applications of Mass Spectrometry in Life Safety under NATO auspices, Sept. 23-27, 2007, Herculane, Romania  
POSTER PRESENTATION
101. Microspray high capacity ion trap multiple stage mass spectrometry of polysaccharides functionalized with aromatic amines  
I. Sisu, E. Sisu, N. Dinca, V. Rusu, **A.D. Zamfir**  
1<sup>st</sup> Advanced Research Workshop on Applications of Mass Spectrometry in Life Safety under NATO auspices, Sept. 23-27, 2007, Herculane, Romania  
ORAL PRESENTATION
102. Structural analysis of chondroitin/dermatan sulfate disaccharides by electrospray ionization high capacity ion trap mass spectrometry  
A. Muresan, M. Galusca, D.G. Seidler, N. Dinca, **A.D. Zamfir**  
1<sup>st</sup> Advanced Research Workshop on Applications of Mass Spectrometry in Life Safety under NATO auspices, Sept. 23-27, 2007, Herculane, Romania  
POSTER PRESENTATION
103. A novel approach for investigation of unusual sulfation motifs in chondroitin/dermatan sulfate from a specific proteoglycan by multiple stage mass spectrometry  
**A.D. Zamfir**, E. Sisu, C. Flangea, A.F. Serb, N. Dinca, P. Bruckner, D.G. Seidler  
1<sup>st</sup> Advanced Research Workshop on Applications of Mass Spectrometry in Life Safety under NATO auspices, Sept. 23-27, 2007, Herculane, Romania  
POSTER PRESENTATION
104. Electrospray ionization mass spectrometry of novel o-hydroxy-benzamide derivatives  
M.C. Ienascu, C. Mosoarca, I. M. Popescu, A. X. Lupea, **A.D. Zamfir**  
1<sup>st</sup> Advanced Research Workshop on Applications of Mass Spectrometry in Life Safety under NATO auspices, Sept. 23-27, 2007, Herculane, Romania  
POSTER PRESENTATION
105. Electrospray ionization tandem mass spectrometric investigation of *Melissa officinalis* oil  
D. Tibeaa, F. Vata, M. Chirita, I.B. Pancan, **A.D. Zamfir**, C.C. Toma  
1<sup>st</sup> Advanced Research Workshop on Applications of Mass Spectrometry in Life Safety under NATO auspices, Sept. 23-27, 2007, Herculane, Romania  
POSTER PRESENTATION
106. Determination of unusual sulfation motifs in chondroitin/dermatan sulfate from a specific proteoglycan by multiple stage mass spectrometry  
D.G. Seidler, E. Sisu, C. Flangea, A. F. Serb, N. Dinca, P. Bruckner, **A.D. Zamfir**



18<sup>th</sup> Joint Meeting of the „Studiengruppe Glykobiologie der Gesellschaft für Biochemie und Molekularbiologie“, the „Nederlandse Vereniging voor Glycobiologie“ and the „Groupe Lillois de Glycobiologie“, Nov. 5-8, 2007, Lille, France

POSTER PRESENTATION

107. Determination of ganglioside expression and structure in human neocortex by electrospray ionization multiple stage mass spectrometry

M. I. Chirita, Ž. Vukelić, **A.D. Zamfir**

18<sup>th</sup> Joint Meeting of the „Studiengruppe Glykobiologie der Gesellschaft für Biochemie und Molekularbiologie“, the „Nederlandse Vereniging voor Glycobiologie“ and the „Groupe Lillois de Glycobiologie“, Nov. 5-8, 2007, Lille, France

POSTER PRESENTATION

108. Survey upon ganglioside expression in anencephaly vs. normal fetal brain by electrospray ionization multiple stage mass spectrometry

C. Mosoarca, Ž. Vukelić, **A.D. Zamfir**

18<sup>th</sup> Joint Meeting of the „Studiengruppe Glykobiologie der Gesellschaft für Biochemie und Molekularbiologie“, the „Nederlandse Vereniging voor Glycobiologie“ and the „Groupe Lillois de Glycobiologie“, Nov. 5-8, 2007, Lille, France

POSTER PRESENTATION

109. Fully automated chip-based electrospray ionization multistage CID/ETD mass spectrometry for glycoconjugate analysis

**A.D. Zamfir**, V. Udrescu, R. Almeida, F. Harja, N. Dinca, L. Rusnac, M. Allen

Austrian Mass Spectrometry Forum, Feb. 18-22, 2008, Vienna, Austria

Invited lecture

110. Glycomics of brain glycosaminoglycans by chip ESI MS<sup>n</sup>

C. Flangea, C. Mosoarca, A.F. Serb, E. Sisu, D.G. Seidler, **A.D. Zamfir**

Germany Society for Mass Spectrometry Conference, DGMS, March 3-6, 2008, Giessen, Germany

POSTER PRESENTATION

111. High throughput brain ganglioside mapping and multistage sequencing by fully automated chip-based nanoelectrospray high capacity ion trap mass spectrometry

A.F. Serb, C. Mosoarca, C. Flangea, E. Sisu, Ž. Vukelić, **A.D. Zamfir**

Germany Society for Mass Spectrometry Conference, DGMS, March 3-6, 2008, Giessen, Germany

POSTER PRESENTATION

112. Novel mass spectrometric methods and protocols for protein glycosylation analysis

**A.D. Zamfir**

April 28-May 5, 2008, Konstanz, Germany

INVITED LECTURE

113. Fully automated chip-based electrospray ionization multistage mass spectrometry of long chain polysaccharides functionalized with aromatic amines

V. Udrescu, E. Sisu, I. Sisu, L. Rusnac, M. Allen, R. Almeida, **A.D. Zamfir**

56<sup>th</sup> American Society for Mass Spectrometry Conference on Mass Spectrometry and Allied Topics, June 1-6, 2008, Denver, Colorado, USA

ORAL PRESENTATION

114. Coupling of fully automated chip-based electrospray ionization to high capacity ion trap mass spectrometer for high throughput ganglioside analysis

C. Mosoarca, M. Chirita, R. Almeida, M. Allen, M. Allen, **A.D. Zamfir**

56<sup>th</sup> American Society for Mass Spectrometry Conference on Mass Spectrometry and Allied Topics, June 1-6, 2008, Denver, Colorado, USA

POSTER PRESENTATION

115. Coupling of NanoMate Robot to High Capacity Ion Trap Mass Spectrometer for Glycoconjugate Analysis

M. Chirita, A. Serb, E. Sisu, Ž. Vukelić, **A.D. Zamfir**

Conferinta Internationala de Chimie, 29-31 Mai 2008, Timișoara, Romania

POSTER PRESENTATION

116. Mass Spectrometric Mapping and Sequencing of Gangliosides Expressed in Normal Adult Human Cerebellum

A. Ienin, E. Șișu, Ž. Vukelić, **A.D. Zamfir**

Conferinta Internationala de Chimie, 29-31 Mai 2008, Timișoara, Romania

POSTER PRESENTATION

117. Investigation of volatile oil extracted from *Melissa officinalis* by electrospray ionization tandem mass spectrometry

C.C. Toma, I. B. Pancan, M. Chirita, **A.D. Zamfir**

Conferinta Internationala de Chimie, 29-31 Mai 2008, Timișoara, Romania

## POSTER PRESENTATION

118. Identification of sulfation pattern in mouse brain glycosaminoglycans by high performance electrospray ionization mass spectrometry

C. Flangea, C. Mosoarca, A. F. Serb, E. Sisu, D.G. Seidler, **A.D. Zamfir**

Conferinta Internationala de Chimie, 29-31 Mai 2008, Timișoara, Romania

## POSTER PRESENTATION

119. Synthesis and characterization of maltodextrins modified with aromatic amines

I. Sisu, E. Sisu, **A.D. Zamfir**

Conferinta Internationala de Chimie, 29-31 Mai 2008, Timișoara, Romania

## ORAL PRESENTATION

120. A novel method to enhance mass spectrometric analysis of long chain polysaccharides

V. Udrescu, L. Rusnac, I. Sisu, E. Sisu, R. Almeida, **A.D. Zamfir**

Conferinta Internationala de Chimie, 29-31 Mai 2008, Timișoara, Romania

## POSTER PRESENTATION

121. Determination and structural characterization of anencephaly-associated gangliosides by advanced mass spectrometry based on chip electrospray ionization and multistage sequencing.

**A.D. Zamfir**, C. Mosoarca, C. Flangea, Ž. Vukelić, E. Sisu

6<sup>th</sup> FENS Forum of European Neuroscience Societies, July 12-18 2008, Geneva, Switzerland; vol.4, 083.29, 2008

## POSTER PRESENTATION

122. Comparative assay on ganglioside differential expression in defined regions of human brain by modern mass spectrometric methods

A.F. Serb, C. Flangea, Ž. Vukelić, E. Sisu, L. Zăgrean, **A.D. Zamfir**

6<sup>th</sup> FENS Forum of European Neuroscience Societies, July 12-18 2008, Geneva, Switzerland, vol.4, 075.11, 2008

## POSTER PRESENTATION

123. Glycomics of human fetal brain gangliosides by chip electrospray ionization multistage mass spectrometry

**A.D. Zamfir**

24<sup>th</sup> International Carbohydrate Symposium July 27 - August 1 2008, Oslo, Norway

Invited lecture

124. Analysis of oversulfation in a dermatan sulfate octasaccharide from human skin fibroblast decorin by nanoelectrospray ionization quadrupole time-of-flight tandem mass spectrometry

C. Flangea, A. Serb, F. Harja, D.G. Seidler, N. Dinca, E. Sisu, **A.D. Zamfir**

5<sup>th</sup> International Conference on Condensed Matter Physics, July 16-18, 2008, Timișoara, Romania

## POSTER PRESENTATION

125. High performance mass spectrometric investigation of glycosphingolipid differential expression in human brain

A.F. Serb, C. Flangea, F. Harja, I. Sisu, Z. Szabadai, N. Dinca, E. Sisu, **A.D. Zamfir**

5<sup>th</sup> International Conference on Condensed Matter Physics, July 16-18, 2008, Timișoara, Romania

## POSTER PRESENTATION

126. Lab-on-a chip: a novel concept in glycomics

**A.D. Zamfir**

5<sup>th</sup> International Conference on Condensed Matter Physics, July 16-18, 2008, Timișoara, Romania

## ORAL PRESENTATION

127. NanoMate/HCT MS o noua tehnica pentru analiza carbohidratilor cu aplicatii in biomedicina

**A.D. Zamfir**, V. Udrescu, C. Flangea, E. Sisu, N. Dinca, L. Rusnac

Simpozionul National al Academiei de Stiinte Medicale din Romania, 28-30 Sept. 2008, Sinaia, Romania

## ORAL PRESENTATION

128. Compositional and structural determination of brain gangliosides from mass spectrometric data by software-assisted assignment

C. Schiopu, E. Sisu, Ž. Vukelić, **A.D. Zamfir**

Neuroscience Workshop-Conferinta Internationala ANCS: Diaspora in Cercetarea Stiintifica Romaneasca, 17-19 Sept. 2008, București, Romania

## ORAL PRESENTATION

129. Fetal brain glycolipids exhibit filogenetic and topologic specificity as revealed by fully automated chip-electrospray multistage ion trap mass spectrometry

A. Serb, E. Sisu, Ž. Vukelić, L. Zăgrean, **A.D. Zamfir**

Neuroscience Workshop-Conferinta Internationala ANCS: Diaspora in Cercetarea Stiintifica Romaneasca, 17-19 Sept. 2008,

București, Romania  
ORAL PRESENTATION

130. Profiling of gangliosides expressed in human hemangioma by fully-automated chip-based nanoelectrospray tandem mass spectrometry

A. Serb, C. Schiopu, C. Flangea, E. Sisu, S. Tudor, Ž. Vukelić, **A.D. Zamfir**

2<sup>nd</sup> International Symposium Research and Education in Innovation Era, 20-21 Nov., 2008, Arad, Romania

ORAL PRESENTATION

131. Identification of sialylated and sulfated glycosphingolipids by Fourier transform ion cyclotron resonance mass spectrometry

**A.D. Zamfir**, Ž. Vukelić

2<sup>nd</sup> International Symposium Research and Education in Innovation Era, 20-21 Nov., 2008, Arad, Romania

ORAL PRESENTATION

132. Investigation of unusual sulfation motifs in chondroitin/dermatan sulfate from a specific proteoglycan by multistage mass spectrometry

**A.D. Zamfir**, D.G. Seidler

2<sup>nd</sup> International Symposium Research and Education in Innovation Era, 20-21 Nov., 2008, Arad, Romania

ORAL PRESENTATION

133. Computer software for interpretation of brain ganglioside mass spectra

C. Schiopu, E. Sisu, S. Nadaban, C. Fifor, Ž. Vukelić, **A.D. Zamfir**

2<sup>nd</sup> International Symposium Research and Education in Innovation Era, 20-21 Nov., 2008, Arad, Romania

POSTER PRESENTATION

134. Investigation of glycosaminoglycan sulfation pattern by high performance chip electrospray multistage mass spectrometry

C. Flangea, A. Serb, F.Harja, S. Tudor, I. Pancan, E. Sisu, D.G. Seidler, **A.D. Zamfir**

2<sup>nd</sup> International Symposium Research and Education in Innovation Era, 20-21 Nov., 2008, Arad, Romania

ORAL PRESENTATION

135. A novel procedure for derivatization of long chain polysaccharides to enhance fully automated chip-based nanoelectrospray multistage mass spectrometric analysis

E. Sisu, I. Sisu, C. Flangea, V. Udrescu, N. Dinca, **A.D. Zamfir**

2<sup>nd</sup> International Symposium Research and Education in Innovation Era, 20-21 Nov., 2008, Arad, Romania

POSTER PRESENTATION

136. Analiza polizaharidelor de tip condroitin/dermatan sulfat din creier prin spectrometrie de masa.

C. Flangea, A.F.Serb, E. Sisu, **A.D. Zamfir**

Simpozion National VIASAN-CEEX (Modul 1) 28-30 septembrie 2008,

Sinaia, pg 48

POSTER PRESENTATION

137. Nanomate/HCT MS o noua tehnica pentru analiza carbohidratilor cu aplicatii in biomedicina.

V. Udrescu, C. Flangea, E. Sisu, N. Dinca, L. Rusnac, **A.D. Zamfir**.

Simpozion National VIASAN-CEEX (Modul 1) 28-30 septembrie 2008, Sinaia, pg 48

ORAL PRESENTATION

138. Identification of a novel glycosaminoglycan sequence in human decorin by electrospray ionization multistage ion trap mass spectrometry

**A.D. Zamfir**, E. Sisu, C. Flangea, A. Serb, D.G. Seidler

2<sup>nd</sup> International Symposium Research and Education in Innovation Era, 20-21 Nov., 2008, Arad, Romania

ORAL PRESENTATION

139. Potentials of a fully automated chip-based nanoelectrospray ionization high capacity trap mass spectrometry in neuroglycolipidomics: characterization of ganglioside composition specificity in selected fetal human brain regions

Ž.Vukelić, D. Marinčić, A.Serb, **A.D. Zamfir**

Austrian Mass Spectrometry Forum, Feb. 17-19, 2009, Vienna, Austria

INVITED LECTURE

140. Novel saccharide sequence analysis of glycosaminoglycans by enzyme cleavage and multistage MS: unusual exuronic acid sulfation in decorin

C. Flangea, C. Schiopu, E. Sisu, N. Dinca, D.G. Seidler, **A.D. Zamfir**

Austrian Mass Spectrometry Forum, Feb. 17-19, 2009, Vienna, Austria

ORAL PRESENTATION

141. A new Mass Spectrometry Society – Perspectives and plans

**A.D. Zamfir**

Anniversary Conference, 20 years of Analytical Chemistry in Konstanz, March 5-7, 2009, Konstanz, Germany  
INVITED LECTURE

142. Chip-based nanoelectrospray multistage mass spectrometry in neuroglycolipidomics: high-throughput analysis of gangliosides in defined regions of fetal brain

A.F. Serb, C. Schiopu, D. Marinčić, Ž. Vukelić, **A.D. Zamfir**

42<sup>nd</sup> German Society for Mass Spectrometry Conference, Konstanz, Germany, March 8-11, 2009  
ORAL PRESENTATION

143. Investigation of novel under- and over-sulfated regions in decorin glycosaminoglycans by electrospray ionization collision-induced dissociation multistage mass spectrometry

C. Flangea, E. Sisu, N. Dinca, D.G. Seidler, **A.D. Zamfir**

42<sup>nd</sup> German Society for Mass Spectrometry Conference, Konstanz, Germany, March 8-11, 2009  
POSTER PRESENTATION

144. A novel procedure for derivatization of long chain polysaccharides to enhance chip-based nanoelectrospray tandem mass spectrometric analysis

C. Flangea, I.Sisu, N. Dinca, E. Sisu, **A.D. Zamfir**

42<sup>nd</sup> German Society for Mass Spectrometry Conference, Konstanz, Germany, March 8-11, 2009  
POSTER PRESENTATION

145. Chip-Based nanoelectrospray high capacity ion trap mass spectrometry of gangliosides from precentral vs. postcentral gyrus of fetal human brain

D.Marinčić, Ž.Vukelić, C. Schiopu, M. Kos, **A.D. Zamfir**

42<sup>nd</sup> German Society for Mass Spectrometry Conference, Konstanz, Germany, March 8-11, 2009  
POSTER PRESENTATION

146. Screening and sequencing of fructooligosaccharides produced by heterologously expressed levansucrase from *Pseudomonas syringae* pv. tomato DC3000 by fully automated chip based mass spectrometry

C. Mosoarca, T. Visnapuu, T. Alamäe, **A.D. Zamfir**

42<sup>nd</sup> German Society for Mass Spectrometry Conference, Konstanz, Germany, March 8-11, 2009  
POSTER PRESENTATION

147. High-throughput mass spectrometric determination of ganglioside expression and structure in human fetal cerebellum

R. M. Ghiulai, C. Mosoarca, C. Novaconi, D. Marinčić, Ž. Vukelić, **A.D. Zamfir**

42<sup>nd</sup> German Society for Mass Spectrometry Conference, Konstanz, Germany, March 8-11, 2009  
POSTER PRESENTATION

148. Chip-based mass spectrometry for glycomics and glycoproteomics

**A.D. Zamfir**

Invited lecture: Anniversary Symposium "20 years of Analytical Chemistry at University of Konstanz", Konstanz, May 12-13, 2009

149. Analysis of brain chondroitin/dermatan sulfate glycosaminoglycans by fully automated chip-based nanoelectrospray multistage mass spectrometry

C. Flangea, E. Sisu, D.G. Seidler, **A.D. Zamfir**

57<sup>th</sup> American Society for Mass Spectrometry Conference on Mass Spectrometry and Allied Topics, May 31-June 6, 2009, Philadelphia, USA  
POSTER PRESENTATION

150. Compositional and structural analysis of gangliosides in human cerebrospinal fluid by chip-based nanoelectrospray ionization tandem mass spectrometry

A. Serb, C. Schiopu, D. Marinčić, Ž. Vukelić, **A.D. Zamfir**

57<sup>th</sup> American Society for Mass Spectrometry Conference on Mass Spectrometry and Allied Topics, May 31-June 6, 2009, Philadelphia, USA  
POSTER PRESENTATION

151. Combining fully-automated chip-nanoelectrospray ion trap mass spectrometry and GanglioSoft 1.2 computer software for identification of human hemangioma gangliosides

C.Schiopu, A. Serb, E. Sisu, Ž. Vukeli, **A.D. Zamfir**

57<sup>th</sup> American Society for Mass Spectrometry Conference on Mass Spectrometry and Allied Topics, May 31-June 6, 2009, Philadelphia, USA  
POSTER PRESENTATION

152. A novel method for brain ganglioside analysis based on top-down fragmentation by multistage mass spectrometry.  
A. Serb, C. Schiopu, C. Flangea, A.M. Zagrean, E. Sisu, **A. D. Zamfir**, L. Zagrean.  
5th "Gheorghe Marinescu" Symposium of the National Neuroscience Society of Romania (with international participation). "Carol Davila" University of Medicine and Pharmacy, October 1-3 2009, Bucharest, Romania  
ORAL PRESENTATION
153. Automatic assignment of ganglioside mass spectrometry using a novel computer software platform  
C. Schiopu, F. Capitan, A. Serb, A.M. Zagrean, C. Flangea, E. Sisu, L. Zagrean, **A.D. Zamfir**  
5th "Gheorghe Marinescu" Symposium of the National Neuroscience Society of Romania (with international participation). "Carol Davila" University of Medicine and Pharmacy, October 1-3 2009, Bucharest, Romania  
ORAL PRESENTATION
154. Biomarker discovery in human brain hemangioma by fully automated chipbased nano electrospray mass spectrometry. F. Capitan, C. Schiopu, A. Serb, A.M. Zagrean, C. Flangea, E. Sisu, L. Zagrean, A. d. Zamfir  
5th "Gheorghe Marinescu" Symposium of the National Neuroscience Society of Romania (with international participation). "Carol Davila" University of Medicine and Pharmacy, October 1-3 2009, Bucharest, Romania  
ORAL PRESENTATION
155. Structural analysis of chondroitin/dermatan sulfate oligosaccharides from biglycan by fully automated chip-nano electrospray ion trap mass spectrometry.  
Flangea, Corina; Sisu, Eugen; Seidler, Daniela; **A.D. Zamfir**  
43. Jahrestagung der Deutschen Gesellschaft für Massenspektrometrie 7-10 March 2010 Halle/Saale Germany  
ORAL PRESENTATION
156. High throughput sequencing of polysialylated gangliosides by chip nano electrospray multistage collision-induced dissociation.  
Schiopu, Catalin; Serb, Alina; Flangea, Corina; Sisu, Eugen; **A.D. Zamfir**  
43. Jahrestagung der Deutschen Gesellschaft für Massenspektrometrie 7-10 March 2010 Halle/Saale Germany  
POSTER PRESENTATION
157. Glycomics Of Glycosaminoglycans By Chip-Nano electrospray Mass Spectrometry.  
Corina Flangea, Eugen Sisu, Daniela Seidler, **A.D. Zamfir**  
1st Romanian Society for Mass Spectrometry Conference  
"Introducing Life Science Mass Spectrometry in Romania" April 25-29  
2010 Sinaia, Romania  
POSTER PRESENTATION
158. Chip-Based Nano electrospray Ionization Mass Spectrometry Of Biglycan Chondroitin/Dermatan Sulfate Oligosaccharides.  
Corina Flangea, Ramona Aldea, Eugen Sisu, Daniela Seidler, **A.D. Zamfir**  
1st Romanian Society for Mass Spectrometry Conference "Introducing Life Science Mass Spectrometry in Romania" April 25-29 2010 Sinaia, Romania  
ORAL PRESENTATION
159. Top-Down Fragmentation Of Complex Brain Gangliosides.  
A.F. Serb, Corina Flangea, C. Schiopu, E. Sisu, Željka Vukelić, **A. D. Zamfir**  
1st Romanian Society for Mass Spectrometry Conference  
"Introducing Life Science Mass Spectrometry in Romania" April 25-29  
2010 Sinaia, Romania  
POSTER PRESENTATION
160. Compositional And Structural Analysis Of Gangliosides In Defined Regions Of Human Brain By Fully Automated Chip-Nano electrospray Multistage Mass Spectrometry.  
Alina F. Serb, Corina Flangea, Eugen Sisu, Željka Vukelić, **A. D. Zamfir**  
1st Romanian Society for Mass Spectrometry Conference "Introducing Life Science Mass Spectrometry in Romania" April 25-29 2010 Sinaia, Romania  
POSTER PRESENTATION
161. New glycosylaminoglycan domains revealed by mass spectrometry methods based on chip-nano-ESI.

Corina Flangea, **A.D. Zamfir**

13-15 Decembrie 2009; Konstanz, Germany

INVITED LECTURE

162. A novel platform for top-down proteomics: chip-based nanoelectrospray combined with electron transfer dissociation mass spectrometry

C. Flangea, C. Schiopu, F. Capitan, C. Mosoarca, M. Manea, E. Sisu, **A.D. Zamfir** Joint Conference of Polish Mass Spectrometry Society and German Mass Spectrometry Society, 4-7 March 2012, Poznan, Poland

POSTER PRESENTATION

163. Alpha-galactosidase A activity monitoring by fluorometry and mass spectrometry

M. Galusca, C. Cozma, S. Dilly, **A.D. Zamfir**, M. Przybylski

Romanian Society for Mass Spectrometry Conference, 1-5 May 2011, Timișoara, Romania

POSTER PRESENTATION

164. Affinity binding study of Abeta–autoantibody CDR peptide to Abeta (12-40) peptide

M. Galusca, C. Cozma, **A.D. Zamfir**, M. Przybylski Romanian Society for Mass Spectrometry Conference, 25-29 April 2010, Sinaia, Romania

POSTER PRESENTATION

165. Microfluidics-mass spectrometry of glycosaminoglycans

**A.D. Zamfir** 18<sup>th</sup> International Mass Spectrometry Conference, 30 August-4 -September 2009, Bremen, Germany

INVITED LECTURE

166. Affinity binding study of Abeta–autoantibody CDR peptide to Abeta (12-40) peptide M. Galusca, C. Cozma, **A.D. Zamfir**, M. Przybylski

Deutsche Gesellschaft für Massenspektrometrie Conference, 7-10 March 2010, Halle, Germany

167. Complex structural composition of accumulated GD1a species in brain tissue of GD3 synthase knockout mice

D. Marinčić, K. Mlinac, M. Heffer, **A. D. Zamfir**, Ž. Vukelić, S. Kalanj Bognar

SiNAPS Neurosciences Conference '11, Central European FENS Featured Regional Meeting, Ljubljana, Slovenia, September 22-25, 2011

POSTER PRESENTATION

168. Chip-based mass spectrometry, a novel concept in glycomics

**A.D. Zamfir**, F. Peter, E. Sisu

12th Edition of Academic Days Timisoara, Chemistry

26-27 May 2011

ORAL PRESENTATION

169. Mass Spectrometry-Based Characterization of Gangliosides from Selected Brain

Tumors: Further Evidences of Aberrant Glycosylation,

Dragana Marinčić, Željka Vukelić, **A.D. Zamfir**, Alina Serb, Jasna Peter-Katalinić

2nd International Conference of The Romanian Society For Mass Spectrometry, Timisoara 1-5 Mai, 2011

ORAL PRESENTATION

170. A Novel Analytical Approach Combining NanoMate and Electron Transfer Dissociation for Top-Down Proteomics

Corina Flangea, Alina Serb, Cristina Mosoarca, Catalin Schiopu, Roxana Ghiulai, Marilena Manea, Eugen Sisu, **A.D. Zamfir**

2nd International Conference of The Romanian Society For Mass Spectrometry, Timisoara 1-5 Mai, 2011

INVITED LECTURE

171. Composition and Structure Analysis of Gangliosides in Human Brain Hemangioma by

NanoMate Robot Coupled to Ion Trap Mass Spectrometry,

Florina Capitan, Catalin Schiopu, Corina Flangea, Eugen Sisu, **A. D. Zamfir**

2nd International Conference of The Romanian Society For Mass Spectrometry, Timisoara 1-5 Mai, 2011

INVITED LECTURE

172. New Oversulfated Chondroitin/Dermatan Sulfate Sequence Identification in Human

Skin Fibroblasts Decorin by Fully Automated Chip-Based Nanoelectrospray Quadrupole Time of Flight Mass Spectrometry,

Corina Flangea, Alina Serb, Eugen Sisu, Daniela G. Seidler, Jasna Peter-Katalinić, **A. D. Zamfir**

2nd International Conference of The Romanian Society For Mass Spectrometry, Timisoara 1-5 Mai, 2011

ORAL PRESENTATION

173. Ganglioside composition and structure analysis in human dysembryoplastic neuroepithelial tumor

D. Marinčić, T. Pašalić, Alina Serb, Tomislav Sajko, **A. D. Zamfir**, Ž. Vukelić



SiNAPSA Neuroscience Conference '11, Central European FENS Featured Regional Meeting, Ljubljana, Slovenia, September 22-25, 2011

ORAL PRESENTATION

174. Oligomerisation studies of modified A-beta peptides using mass spectrometry

M.I. Iurascu, C. Cozma, M. Galusca, M. Przybylski, **A.D. Zamfir**

Joint Conference of Polish Mass Spectrometry Society and German Mass Spectrometry Society, 4-7 March 2012, Poznan, Poland

POSTER PRESENTATION

175. Clinical diagnostic in dry blood spots by fluorometry and multiple reaction monitoring mass spectrometry

C. Cozma, M.I. Iurascu, M. Galusca, S. Maeser, M. Przybylski, **A.D. Zamfir**

Joint Conference of Polish Mass Spectrometry Society and German Mass Spectrometry Society, 4-7 March 2012, Poznan, Poland

POSTER PRESENTATION

176. Chip-based nano electrospray mass spectrometry of fructooligosaccharides produced by levansucrases from *Pseudomonas Syringae* Pv. Tomato and *P. Chlororaphis* Subs. *P. Aurantiaca*

C. Mosoarca, **A.D. Zamfir**

Joint Conference of Polish Mass Spectrometry Society and German Mass Spectrometry Society, 4-7 March 2012, Poznan, Poland

POSTER PRESENTATION

177. High throughput top-down proteomics by chip-based nano electrospray in combination with electron transfer dissociation mass spectrometry

C. Flangea, M. Galusca, M. Manea, **A.D. Zamfir**

4<sup>th</sup> International Congress and the 30<sup>th</sup> Annual Session of the Romanian Society for Cell Biology, 13-17 June 2012, Satu Mare, Romania

POSTER PRESENTATION

178. Rapid diagnostic by fully automated chip-based nano electrospray ionization mass spectrometry

C. Flangea, M. Galusca, **A.D. Zamfir**

4<sup>th</sup> International Congress and the 30<sup>th</sup> Annual Session of the Romanian Society for Cell Biology, 13-17 June 2012, Satu Mare, Romania

POSTER PRESENTATION

179. Fully automated chip-based nano electrospray combined with electron transfer dissociation for high throughput top-down proteomics

C. Flangea, C. Mosoarca, M. Manea, C. Schiopu, E. Sisu, **A.D. Zamfir**

International Mass Spectrometry Conference, 11-22 September 2012, Kyoto, Japan

POSTER PRESENTATION

180. Chip-based electrospray ionization tandem mass spectrometry a novel tool for rapid diagnostic of Fabry disease

M. Galusca, C. Flangea, C. Mosoarca, C. Cozma, **A.D. Zamfir**

International Mass Spectrometry Conference, 11-22 September 2012, Kyoto, Japan

POSTER PRESENTATION

181. Compositional and structural analysis of gangliosides in human fetal cerebellum by chip electrospray mass spectrometry

F. Capitan, C. Schiopu, C. Mosoarca, C. Flangea, C. Ilie, I. Velea, E. Sisu, **A.D. Zamfir**

International Symposium Research and Education in Innovation Era, 8-9 November 2012, Arad, Romania

POSTER PRESENTATION

182. Chip-based electrospray ionization tandem mass spectrometry a novel tool for rapid diagnostic

M. Galusca, C. Flangea, C. Mosoarca, C. Cozma, **A.D. Zamfir**

International Symposium Research and Education in Innovation Era, 8-9 November 2012, Arad, Romania

POSTER PRESENTATION

183. Mapping and sequencing of gangliosides in human astrocytoma by Orbitrap mass spectrometry

F. Capitan, C. Schiopu, C. Flangea, Ž. Vukelić, **A.D. Zamfir**

24<sup>th</sup> Mass Spectrometry Forum, 19-23 February, 2013, Vienna, Austria

ORAL PRESENTATION

184. Rapid diagnosis of Fabry disease by a novel method based on automated chip-nano electrospray ionization mass spectrometry

M. Galusca, C. Flangea, C. Mosoarca, C. Cozma, **A.D. Zamfir**

24<sup>th</sup> Mass Spectrometry Forum, 19-23 February 2013, Vienna, Austria

ORAL PRESENTATION

185. Fully automated chip-nano electrospray combined with collision induced and electron transfer dissociation

**A.D. Zamfir**, C. Mosoarca, C. Flangea, C. Cozma, I. Malaescu, M. Przybylski

46<sup>th</sup> German Society for Mass Spectrometry Conference, 10-14 March 2013, Berlin, Germany  
POSTER PRESENTATION

186. Introducing Orbitrap mass spectrometry for ganglioside biomarker discovery in human brain cancer: application to astrocytoma  
F. Capitan, C. Flangea, A. Petrescu, C. Munteanu, **A.D. Zamfir**  
46<sup>th</sup> German Society for Mass Spectrometry Conference, 10-14 March 2013, Berlin, Germany  
POSTER PRESENTATION

187. Rapid diagnosis through molecular markers identified by advanced mass spectrometry  
C. Mosoarca, C. Flangea, M. Galusca, **A.D. Zamfir**  
5<sup>th</sup> International Congress and the 31<sup>th</sup> Annual Session of the Romanian Society for Cell Biology, 5-9 June 2013, Timișoara, Romania  
POSTER PRESENTATION

188. Chip-based nanoelectrospray ionization tandem mass spectrometry for glycan analysis in biomedical research  
**A.D. Zamfir**  
2<sup>nd</sup> Middle Eastern and Mediterranean Sea Region Countries Mass Spectrometry Conference, June 30 - July 4, 2013, Siena, Italy  
invited lecture

189. Chip-based mass spectrometry of oligosaccharides produced by levansucrases from *Pseudomonas syringae* pv. tomato and *P. chlororaphis* subsp. *aurantiaca*  
C. Mosoarca, T. Visnapuu, T. Alamăe, **A.D. Zamfir**  
2<sup>nd</sup> Biotechnology World Congress, 10-13 February 2014, Dubai, United Arab Emirates  
POSTER PRESENTATION

190. Top-down analysis by electron transfer/collision induced dissociation of noncovalent protein-ganglioside complexes  
C. Mosoarca, L. Lupu, I. Malaescu, **A.D. Zamfir**  
5<sup>th</sup> Mass Spectrometry Forum, 17-19 February 2014, Vienna, Austria  
ORAL PRESENTATION

191. Applications of chip-based nanoelectrospray MS to lysosomal storage diseases: Schindler disease  
M. Sarbu, A. Robu, R. Ghiulai, J. Peter-Katalinić, **A.D. Zamfir**  
25<sup>th</sup> Mass Spectrometry Forum, 17-19 February 2014, Vienna, Austria  
ORAL PRESENTATION

192. A nanoESI-QTOF MS approach for screening and sequencing of underivatized dextran chains containing up to 35 glucose repeats  
M. Sarbu, R. Ghiulai, **A.D. Zamfir**  
20<sup>th</sup> International Mass Spectrometry Conference, 24-29 August 2014, Geneva, Switzerland  
POSTER PRESENTATION

193. Introduction of chip-based nanoelectrospray mass spectrometry with electron transfer/collision induced dissociation in glycoproteomics  
C. Mosoarca, **A.D. Zamfir**  
20<sup>th</sup> International Symposium on Analytical and Environmental Problems, 22 September 2014, Szeged, Hungary  
ORAL PRESENTATION

194. Nanoelectrospray quadrupole time of flight tandem mass spectrometric analysis of long chain polysaccharides  
**A.D. Zamfir**, M. Sarbu, R. Ghiulai  
20<sup>th</sup> International Symposium on Analytical and Environmental Problems, 22 September 2014, Szeged, Hungary  
POSTER PRESENTATION

195. Nanoelectrospray quadrupole time-of-flight tandem mass spectrometric analysis of long chain polysaccharides  
M. Sarbu, R.M. Ghiulai, **A.D. Zamfir**  
5<sup>th</sup> International Symposium. Research and Education in Innovation Era, 5-6 November 2014, Arad, Romania  
ORAL PRESENTATION

196. Identification of the O-glycoforms expressed in the urine of a patient suffering from Schindler disease using chip-based nanoelectrospray tandem mass spectrometry  
A.C. Robu, M. Sarbu, C.C. Darie, J. Peter-Katalinić, **A.D. Zamfir**  
Eastern Analytical Symposium and Exhibition, 17-19 November, Somerset, New Jersey, USA  
POSTER PRESENTATION

197. Glycan biomarker discovery in human gliosarcoma by chip-based nanoelectrospray tandem mass spectrometry  
L. Lupu, Ž. Vukelić, C.C. Darie, **A.D. Zamfir**  
Eastern Analytical Symposium and Exhibition, 17-19 November, Somerset, New Jersey, USA  
POSTER PRESENTATION

198. Introducing 2D numerical analysis in modelling of complex carbohydrate mass spectra  
C. Mosoarca, I. Malaescu, Ž. Vukelić, **A.D. Zamfir**, A. Ercuta  
TIM-FIZ 2014 Physics without frontiers, International Physics Conference, 20-22, November 2014, Timișoara, Romania  
POSTER PRESENTATION
199. Chip-based mass spectrometry for Schindler disease type I: detailed analysis of a complex glycopeptide fraction from patient urine  
M. Sarbu, A. Robu, I. Malaescu, **A.D. Zamfir**  
TIM-FIZ 2014 Physics without frontiers, International Physics Conference, 20-22, November 2014, Timișoara, Romania  
POSTER PRESENTATION
200. Novel glycopeptide structures highlighted by Orbitrap MS and MS<sup>2</sup> analysis in the urine of a Schindler disease patient  
M. Sarbu, C.V.A. Munteanu, A. Petrescu, J. Peter-Katalinić, **A.D. Zamfir**  
26<sup>th</sup> Mass Spectrometry Forum, 17-19 February, 2015, Vienna, Austria  
ORAL PRESENTATION
201. High sensitivity Orbitrap mass spectrometry analysis of neural chondroitin/dermatan sulfate domains  
C.V.A. Munteanu, L. Popescu, D.G. Seidler, **A.D. Zamfir**  
26<sup>th</sup> Mass Spectrometry Forum, 17-19 February, 2015, Vienna, Austria  
POSTER PRESENTATION
202. High resolution mass spectrometric analysis of complex ganglioside profile typical to early stage fetal neocortex  
R.M. Ghiulai, M. Sarbu, Ž. Vukelić, C. Ilie, **A.D. Zamfir**  
26<sup>th</sup> Mass Spectrometry Forum, 17-19 February, 2015, Vienna, Austria  
POSTER PRESENTATION
203. Discovering breast cancer biomarkers in human milk by advanced proteomics methods based on mass spectrometry  
A.C. Robu, R. Aslebagh, K.F. Arcaro, C.C. Darie, **A.D. Zamfir**  
26<sup>th</sup> Mass Spectrometry Forum, 17-19 February, 2015, Vienna, Austria  
POSTER PRESENTATION
204. Introducing ion mobility mass spectrometry in glycomics of Schindler disease  
M. Sarbu, F. Zhu, J. Peter-Katalinić, D.E. Clemmer, M. Przybylski, **A.D. Zamfir**  
48<sup>th</sup> German Society for Mass Spectrometry Conference (Deutschen Gesellschaft für Massenspektrometrie-DGMS), 1-4 March 2015, Wuppertal, Germany  
POSTER PRESENTATION
205. Development of advanced proteomics methods based on mass spectrometry for breast cancer biomarker discovery in human milk  
A.C. Robu, R. Aslebagh, C.C. Darie, B. Chait, M. Przybylski, **A.D. Zamfir**  
48<sup>th</sup> German Society for Mass Spectrometry Conference (Deutschen Gesellschaft für Massenspektrometrie-DGMS), 1-4 March 2015, Wuppertal, Germany  
POSTER PRESENTATION
206. Proteomics methods based on gel electrophoresis and nanoLC-MS/MS for discovering new breast cancer biomarkers in human milk  
A.C. Robu, R. Aslebagh, C.C. Darie, B. Chait, M. Przybylski, **A.D. Zamfir**  
1<sup>st</sup> International Symposium Biomolecular Recognition and Mass Spectrometry, 5-7 March 2015, Rüsselsheim, Germany  
POSTER PRESENTATION
207. Compositional and structural analysis of brain chondroitin/dermatan sulfate hexasaccharides by Orbitrap mass spectrometry  
L. Popescu, A.C. Robu, F. D. Munteanu, D.G. Seidler, **A.D. Zamfir**  
3<sup>rd</sup> Mediterranean Sea Region Countries Mass Spectrometry Workshop, 28 June- 2 July 2015, Athens, Greece  
POSTER PRESENTATION
208. Assessment of the noncovalent interaction between  $\beta$ -lactoglobulin detected in human milk and maltooligosaccharides by chip nano-electrospray high resolution tandem mass spectrometry  
A.C. Robu, F. Capitan, C. Schiopu, B.T. Chait, **A.D. Zamfir**  
3<sup>rd</sup> Mediterranean Sea Region Countries Mass Spectrometry Workshop, 28 June- 2 July 2015, Athens, Greece  
POSTER PRESENTATION
209. Clinical applications of chip-based mass spectrometry  
**A.D. Zamfir**  
25<sup>th</sup> Anniversary Conference of the Romanian Society of Biochemistry and Molecular Biology, 17-18 September, Bucharest, Romania  
ORAL PRESENTATION
210. A decade of GlycoRizzi-based Austrian-Romanian mass spectrometry  
**A.D. Zamfir**

Bioanalysis Symposium and Honorary Colloquium, 5-6 November 2015, Vienna, Austria  
INVITED LECTURE

211. ChipESI MS<sup>n</sup> of Ctb5 monomers-G1 ganglioside complexes.

A. Robu, L. Popescu, F. Capitan, **A.D. Zamfir**

27<sup>th</sup> Mass Spectrometry Forum 23-25 February, 2016, Vienna, Austria  
POSTER PRESENTATION

212. Neuroblastoma ganglioside analysis by chip-ESI MS

**A.D. Zamfir**, A. Robu, F. Capitan, C. Schiopu

27<sup>th</sup> Mass Spectrometry Forum 23-25 February, 2016, Vienna, Austria  
POSTER PRESENTATION

213. IMS MS and MS/MS of human brain gangliosides

M. Sarbu (Galusca), A. Robu, M. Trion, D. Clemmer, **A.D. Zamfir**

27<sup>th</sup> Mass Spectrometry Forum 23-25 February, 2016, Vienna, Austria  
ORAL PRESENTATION

214. Microfluidics-mass spectrometry of brain tumor gangliosides

**A.D. Zamfir**, A. Robu, F. Capitan, C. Schiopu

13<sup>th</sup> International Conference on Nanosciences & Nanotechnologies, 5-9 July, 2016, Thessaloniki, Greece  
ORAL PRESENTATION

215. Glycomics of GAG oligosaccharides by high-performance mass spectrometry

A. Robu, L. Popescu, F. D. Munteanu, **A.D. Zamfir**

13<sup>th</sup> International Conference on Nanosciences & Nanotechnologies, 5-9 July, 2016, Thessaloniki, Greece  
POSTER PRESENTATION

216. Ion mobility mass spectrometry of glycolipids

M. Sarbu (Galusca), F.D. Munteanu, D. E. Clemmer, **A.D. Zamfir**

13<sup>th</sup> International Conference on Nanosciences & Nanotechnologies, 5-9 July, 2016, Thessaloniki, Greece  
POSTER PRESENTATION

217. Development of the advanced mass spectrometry for mapping and structural analysis of human brain gangliosides

M. Sarbu, M. Trion, L. Dehelean, A.C. Robu, F. Munteanu, **A.D. Zamfir**

22<sup>nd</sup> International Symposium on Analytical and Environmental Problems, Szeged, Ungaria. 10 Oct., 2016  
ORAL PRESENTATION

218. Assessment of protein-glycan interaction by chip-based mass spectrometry

A.C. Robu, L. Popescu, F.D. Munteanu, **A.D. Zamfir**

22<sup>nd</sup> International Symposium on Analytical and Environmental Problems, Szeged, Ungaria, 10 Oct., 2016  
POSTER PRESENTATION

219. Determination of noncovalent FGF2-galactosaminoglycan interaction by chip-based high-resolution mass spectrometry

L. Popescu, A.C. Robu, F.D. Munteanu, **A.D. Zamfir**

a XXXIV-a Conferință Națională de Chimie, Căciulata, Vâlcea, 4-7 Oct., 2016  
POSTER PRESENTATION

220. Glycopeptides biomarker discovery in Schindler disease by ion mobility tandem mass spectrometry

M. Sarbu, D.E. Clemmer, **A.D. Zamfir**

10<sup>th</sup> Central and Eastern European Proteomic Conference, Budapesta, Ungaria, 11-14 Oct., 2016  
ORAL PRESENTATION

221. Glycomics of brain glycosaminoglycans by high resolution tandem mass spectrometry

L. Popescu, A.C. Robu, C. Munteanu, **A.D. Zamfir**

10<sup>th</sup> Central and Eastern European Proteomic Conference, Budapesta, Ungaria, 11-14 Oct., 2016  
POSTER PRESENTATION

222. Age-related and topographic specificity of human brain gangliosides by Orbitrap mass spectrometry

M. Sarbu, Ž. Vukelić, **A.D. Zamfir**

28<sup>th</sup> MassSpec Forum Conference, 17-18 februarie 2017, Viena, Austria  
POSTER PRESENTATION

223. Novel developments in high performance electrospray ionization mass spectrometry of glycosaminoglycans

**A.D. Zamfir**

28<sup>th</sup> MassSpec Forum Conference, 17-18 februarie 2017, Viena, Austria

## ORAL PRESENTATION

224. Application of high resolution mass spectrometry in glycolipidomics of extracranial tumors

A.C. Robu, **A.D. Zamfir**

28<sup>th</sup> MassSpec Forum Conference, 17-18 februarie 2017, Viena, Austria

POSTER PRESENTATION

225. Screening of human fetal hippocampus gangliosides by ion mobility mass spectrometry

M. Sarbu, Ž. Vukelić, D.E. Clemmer, **A.D. Zamfir**

Proceedings of the American Society for Mass Spectrometry Conference, 4-6 iunie 2017, Indianapolis, SUA.

POSTER PRESENTATION

226. Assessment of the noncovalent interaction between FGF-2 and glycosaminoglycans by chip-nanoelectrospray high resolution mass spectrometry

A.C. Robu, L. Popescu, D.G. Seidler, **A.D. Zamfir**

Proceedings of the American Society for Mass Spectrometry Conference, 4-8 iunie 2017, Indianapolis, SUA.

POSTER PRESENTATION

227. Chip-nanoESI high resolution mass spectrometry assay for studying the FGF-GAG noncovalent complexes

A.C. Robu, L. Popescu, D.G. Seidler, **A.D. Zamfir**

14<sup>th</sup> International Conference on Nanosciences & Nanotechnologies (NN17), 5-9 iulie 2017, Thessaloniki, Grecia.

POSTER PRESENTATION

228. Nanofluidics for mass spectrometry with applications in glycomics for biomedical research

**A.D. Zamfir**

14<sup>th</sup> International Conference on Nanosciences & Nanotechnologies (NN17), 5-9 iulie 2017, Thessaloniki, Grecia.

ORAL PRESENTATION

229. Ion mobility mass spectrometry: Mapping and structural characterization of human fetal hippocampus gangliosides

M. Sarbu, Ž. Vukelić, D.E. Clemmer, **A.D. Zamfir**

14<sup>th</sup> International Conference on Nanosciences & Nanotechnologies (NN17), 5-9 iulie 2017, Thessaloniki, Grecia.

POSTER PRESENTATION

230. Profiling and structural characterization by mass spectrometry of region-specific gangliosides in brain

M. Sarbu, Ž. Vukelić, D.E. Clemmer, **A.D. Zamfir**

23<sup>rd</sup> International Symposium on Analytical and Environmental Problems, 9-10 octombrie 2017, Szeged, Ungaria

ORAL PRESENTATION

231. High performance mass spectrometry for advanced interactomics studies

A.C. Robu, L. Popescu, D.G. Seidler, **A.D. Zamfir**

23<sup>rd</sup> International Symposium on Analytical and Environmental Problems, 9-10 octombrie 2017, Szeged, Ungaria

POSTER PRESENTATION

232. Modern mass spectrometric approaches for biomarker discovery

**A.D. Zamfir**

Walsh Seminar, 9-10 Noiembrie 2017, Potsdam, N.Y., USA

INVITED LECTURE

233. Mass spectrometry of proteoglycans

**A.D. Zamfir**

Dept. of Chemistry & Biomolecular Science, 9 Noiembrie 2017, Clarkson University, N.Y., USA

INVITED LECTURE

234. Microfluidics-mass spectrometry for glycomics in biomedical research

**A.D. Zamfir**, invited lecture

Dept. of of Chemistry & Biomolecular Science, 10 Noiembrie 2017, Clarkson University, N.Y., USA

INVITED LECTURE

235. Chip-nanoESI QTOF MS of FGF2-CS noncovalent interaction

A.C. Robu L. Popescu, M. Sarbu, D.G. Seidler, **A.D. Zamfir**

29<sup>th</sup> MassSpec Forum Vienna, 20-21 Februarie 2018, Viena, Austria

ORAL PRESENTATION

236. IMS MS of human fetal hippocampus: novel insights into the ganglioside domain

M. Sarbu, Ž. Vukelić, D.E. Clemmer, **A.D. Zamfir**  
29th MassSpec Forum Vienna, 20-21 Februarie 2018, Viena, Austria  
POSTER PRESENTATION

237. ESI MS/MS discovery of a novel brain GT1 ganglioside species  
I.I. Cozma, M. Sarbu, C. Ilie, **A.D. Zamfir**  
29th MassSpec Forum Vienna, 20-21 Februarie 2018, Viena, Austria  
POSTER PRESENTATION

238. High performance chip-nanoelectrospray tandem mass spectrometry  
characterization of the noncovalent FGF2 – CS complex,  
Popescu L., **A.D. Zamfir**  
TIM 18 Physics Conference, 24-26 Mai, Timisoara, Romania  
ORAL PRESENTATION

239. Development of novel mass spectrometry approaches for the analysis of brain  
gangliosides and their structural and functional interactions,  
Popescu L., Sarbu M., Robu A.C., **A.D. Zamfir**  
7th International Symposium Research and Education in Innovation Era, 17-20 Mai  
2018, Arad, Romania  
ORAL PRESENTATION

240. Fibroblast growth factor-glycosaminoglycan noncovalent interaction analysis by  
chip-nanoelectrospray mass spectrometry  
Robu AC, Popescu L, Seidler DG, **A.D. Zamfir**,  
ISREIE, Student Scientific Session, XVIth Edition, 10-12 mai, 2018, Arad, Romania  
ORAL PRESENTATION

241. Determination of neuropeptides-human brain gangliosides noncovalent interactions  
by microfluidics tandem mass spectrometry  
Robu AC, Sarbu M, Popescu L, Vukelic Z, **A.D. Zamfir**  
Proceedings of the American Society for Mass Spectrometry Conference, 3-7 iunie  
2018, San Diego, SUA

242. Ion mobility mass spectrometry of human brain hippocampus gangliosides  
Sarbu M, Vukelic Z, Clemmer D, **A.D. Zamfir**  
Proceedings of the American Society for Mass Spectrometry Conference, 3-7 iunie  
2018, San Diego, SUA

16.09. 2018

Prof. Dr. Alina-Diana Zamfir

