

PERSONAL INFORMATION **ZAMFIR ALINA-DIANA**

 Timișoara, Romania

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PROFESSIONAL EXPERTISE

Sept 1992 –Sept 1999

Teaching Assistant**West University of Timisoara, Physics Faculty**

- Seminars and practical lab: Physical Methods for the Study of Solid Materials; Solid State Physics
- Writing of scripts and textbooks for students
- Development of new laboratory works
- Diploma work supervision
- Research activities

Higher education specific activities

Oct 1999
Sept 2001

Research assistant (graduate student-PhD student)**University of Münster, Germany, Medical School, Biomedical Analysis Department, Institute for Medical Physics and Biophysics**

- research in the field of biomedical mass spectrometry
- article publication; presentations at international scientific conferences

Research-specific activities

Oct 2001
-Oct 2006

Postdoctoral Researcher, Habilitation, Privat Dozent**University of Münster, Germany, Medical School, Biomedical Analysis Dept, Institute for Medical Physics and Biophysics**

- research in the field of biomedical mass spectrometry
- publication of scientific articles; presentations at international scientific conferences
- supervision of PhD and MSc students
- courses, seminars and practical lab work for undergraduate studies: course: Biomedizinische Massenspektrometrie (in German); Glycobiotechnology (in English)

Higher education and research-specific activities

Sept 1995 - present

Research associate (senior researcher, CS I)**National Institute for R&D in Electrochemistry and Condensed Matter (INCEMC), Timisoara**

- research in the field of biological mass spectrometry
 - principal investigator in research projects
 - development of a new laboratory of biomedical mass spectrometry
 - publication of scientific articles; presentations at international scientific conferences
 - head of research group
 - organization and leadership activities as member of the scientific council of INCEMC
- Research-specific activities**

Feb 2005- present

Lecturer, Associate Professor and full Professor (since 2008)**Aurel Vlaicu University of Arad, Department of Technical and Natural Sciences, FIATPM**

Courses, seminars and practical lab with undergraduates and graduate students (MSc): Physical-Chemical Analyses; Instrumental Analysis; Physics; Environmental Physics; Experimental Techniques; Spectral Methods for Food Analysis

- Writing of scripts and textbooks for students
- Development of new laboratory works
- Diploma work supervision

Research activities

- development of a new laboratory of biological mass spectrometry
- principal investigator in research projects and head of research group
- publication of scientific articles; presentations at international scientific conferences

Higher education and research-specific activities

Mar 2008- June 2015

Vice-Rector for International Relationships

Aurel Vlaicu University of Arad

coordination of international projects and programs

development of the international strategy

coordination of academic exchanges

representation next to the rector in the relationships with MEC, UEFISCDI, ARACIS, ANCS, EUA, CNR,

student, civic organizations, mass-media, international academic organizations and universities

organization of conferences, partnerships etc.

Activities specific for leadership in higher education

December 2013 -present

PhD Supervisor

West University of Timisoara, Physics Faculty

supervision of PhD students

co-supervision of PhD students in co-tutelage with University of Medicine and Pharmacy, Timisoara

courses: Mass Spectrometry in Biomedicine (MSc, Physics Applied in Medicine)

General Biophysics (Undergrads: Medical Physics)

research activities with the PhD students

Higher education and research-specific activities

EDUCATION

June 2013

Habilitation in Physics

West University of Timisoara, Physics Faculty

Abilitation certificate, Physics, OM 5633 MD/11.12. 2013

December 2005

Habilitation in Biofizica

University of Münster, Germany, Medical School, Biomedical Analysis Department, Institute for Medical Physics and Biophysics

- Habilitation Diploma: die Venia Legendi für das Fach Biophysik, Fachbereich 5, W.W. Universität Münster/14.02. 2006

1998-2001

PhD in Physics

Babes-Bolyai University, Cluj-Napoca, Physics Faculty

- PhD diploma in Physics series C, Nr. 0002178, OM 5285 from 28. 12. 2001

1987-1992

Diploma in Physics (with Major in Solid State Physics)

West University of Timisoara, Physics Faculty

- BSc in Physics; Major: Solid State Physics, diploma series K, Nr. 13094/10 08. 10992

PERSONAL COMPETENCES

Native language Romanian

Foreign languages

	UNDERSTANDING		SPEAKING		WRITING
	listening	reading	conversation	speech	
English	C2	C2	C2	C2	C2
German	C1	C1	C1	C1	C1
Italian	B2	B2	B1	B1	B1
French	B1	B2	B1	B1	B1

Levels: A1/2: elementary - B1/2: independent user- C1/2: skilled/advanced/fluent

Communication skills

Communication skills acquired as:
 Univ. Prof. in Germany and Romania, with double habilitation (Physics and Biophysics)
 vice-rector of Aurel Vlaicu University of Arad
 senior researcher, P.I. and member in the scientific board of INCEMC Timisoara
 within 265 scientific conferences in Europa, America, Japonia, Canada, Israel, Emiratele Arabe
 Visting Profesor in Germany and USA
 evaluator of the National Council for Scientific Research (CNCS)
 member of CNATDCU, Physics
 PhD supervisor and member of various scientific committees

Management skills

vice-rector of Aurel Vlaicu University of Arad
 President of the Romanian Society for Mass Spectrometry
 Project leader or leader of partner team in 17 national and international projects
 Mentor in postdoctoral grants
 Head of research group
 Organization of 3 new research labs
 Introduction of a new research direction in Romania (biological mass spectrometry, 2006)

Skills acquire at the working place

- Knowledge of the HE systems and research in the natural science field in Europe and USA;
- Knowledge of the requirements and EU level of performance to be reached in academic career
- Skills in working in international groups and multicultural environment; knowledge of the principles, methods and mechanisms governing the work in teams;
- Versatility in working in a new national or international group, in new teams and with novel strategies
- Knowledge of establishing new partnerships at the national and international level in the field of higher education and research;
- Skills in setting up and working in partnership with universities, professional organizations from Romania and abroad within multidisciplinary consortia;
- Skills in leading research groups and handling public or private funds for research and HE

Computer skills Microsoft Office, Mass Lynx, ChipSoft, Compass, XMass, Excel, TableCurve, MathCad, Mascot etc.

Driving licence B

Additional information

Hobby – classical music, literature

Conferences, prizes, international visibility

- 323 conference presentations in USA (New York, Boston, Philadelphia, Chicago, Indianapolis, Orlando, San Antonio, Denver, Atlanta, San Diego, San Francisco, Nashville, New Jersey, Seattle, New Orleans, Houston, Minneapolis), Canada, Australia, Japan, Germany, France, Italy, Switzerland, Austria, Greece, Sweden, Norway, Poland, Slovenia, Hungary, Croatia, UAE, Israel, Romania.
- 131 publications indexed in Web of Science of which 113 articles published *in extenso*, 15 book chapters at international publishing houses (Springer, Humana Press, IGI Global, RSC, Apple Academic Press etc.)
- **H index 30; 2592 citations**

2011: **I.G. Murgulescu Prize of the Romanian Academy al Academiei Romane** for the group of papers: Mass Spectrometry applied to the study of biological macromolecules (Chemical Sciences)

2007: **III ANCS prize, Research of Excellence for the project: Determination of glycosphingolipid expression in central nervous system by integrated polyfunctional microchips coupled with high performance mass spectrometry** (CE Ex. 111)

2008: **Prize of the Romanian Academy of Medical Sciences** for the paper: Investigation of novel under- and over-sulfated regions in decorin glycosaminoglycans by electrospray ionization collision-induced dissociation multistage mass spectrometry

2014: **Professor Bologna Prize** by the National Student Organization, ANOSR, Bucuresti

2007: **Elsevier Prize for Top Cited Article**: Recent advances in sheathless interfacing of capillary electrophoresis and electrospray ionization mass spectrometry, A. D. Zamfir J. Chromatogr. A 1159, 2–13, 2007

2021: **Wiley Award for Top Cited Article** in 2020-2021, J. Mass Spectrom. (2021).

2002: **„Outstanding young researchers” Award in the field of Glycobiology (2002), by the American Glycobiology Society**, Boston, MA, USA, Nov., 2002

2010: **Steinbeis-Löhn Prize**, Germany (2010) for the results within the project: ESTABLISHMENT AND VALIDATION OF DIAGNOSTIC SCREENING METHODOLOGY OF PATIENTS WITH LYSOSOMAL STORAGE DISEASES (LSDS) USING LC-MSMS TECHNOLOGY; Contract No. 0915_2009_GN1P2

2006: **Venia Legendi in Biophysics, Frauenhabilitation** prize, Universitätsklinikum Münster, Germany, Apr., 2006

2006-2015 **Visiting Professor Konstanz University**, Germany, Department of Analytical Chemistry and Biopolymer Analysis; Course (Schwerpunktkurs): Proteomics, Biological Mass Spectrometry
2015-present, **Visiting Professor at Clarkson University**, Department of Chemistry and Biomolecular Science, NY, USA. Course, seminars: Glycomics, glycoproteomics and mass spectrometry, microfluidics-mass spectrometry; mass spectrometry of proteoglycans; Walsh Seminar: Modern mass spectrometric approaches for biomarker discovery.

President, Romanian Society for Mass Spectrometry (2009-present)

Lecturer at Scoala Normala Superioara Bucuresti chemistry-biology MSc studies; course: Biological Mass Spectrometry-Applications in Post-Genome Era;

Member: German Society for Mass Spectrometry, American Society for Mass Spectrometry, American Glycobiology Society, Romanian Society for Mass Spectrometry, National Society of Biochemistry and Molecular Biology.

Reviewer: 35 impact factor journals

2007-2008 Editor: Mass Spectrometry in Life Safety, NATO Science for Peace and Security Series A: Chemistry and Biology, Springer, 2008

2022-2023 Guest Editor: Molecules (impact factor 4.6)

2024 Guest Editor: Frontiers in Molecular Biosciences (impact factor 5.0)

2007 Conference Organizer/Chair: International Conference on Applications of Mass Spectrometry in Life Safety, Herculane, Romania

2010 Conference Organizer/Chair: The 1st International Conference of the Romanian Society for

Mass Spectrometry, Sinaia, Romania
2011 Conference Organizer/Chair: The 2nd International Conference of the Romanian Society for Mass Spectrometry, Timisoara, Romania
2023 Workshop Co-organizer/Co-chair: New paradigms in materials science: towards materials and characterization methods that contribute to increasing the quality of life; within Smart Diaspora Conference, Timisoara

Addendum

Research projects

National and International Projects

1. U.E. FP7 PIRSES-GA-2010-269256; INTEGRATING HIGH PERFORMANCE MASS SPECTROMETRY TOOLS WITH APPLICATIONS IN LIFE SCIENCE Acronym: MS-LIFE; budget: 319.200 Euro; **Responsabil echipa partenera P4**
2. 2009/2010 0915_2009_GN1P2; GENZYME, GERMANY, CEE GMBH; ESTABLISHMENT AND VALIDATION OF DIAGNOSTIC SCREENING METHODOLOGY OF PATIENTS WITH LYSOSOMAL STORAGE DISEASES (LSDS) USING LC-MSMS TECHNOLOGY, budget: 45.040 Euro; **Co-director**
3. 2003/2004, AT CNCSIS PROJECT 697 DEVELOPMENT, IMPLEMENTATION AND OPTIMIZATION OF NEW TECHNIQUES AND METHODS FOR DIRECT COUPLING OF CAPILLARY ELECTROPHORESIS AND MASS SPECTROMETRY. APPLICATIONS IN BIOPHYSICAL AND BIOMEDICAL ANALYSES. budget: 32850 lei. **Director**
4. 2004/2005, AT CNCSIS PROJECT 697 (follow up by new competition): DEVELOPMENT, IMPLEMENTATION AND OPTIMIZATION OF NEW TECHNIQUES AND METHODS FOR DIRECT COUPLING OF CAPILLARY ELECTROPHORESIS AND MASS SPECTROMETRY. APPLICATIONS IN BIOPHYSICAL AND BIOMEDICAL ANALYSES. budget: 32850 lei. **Director**
5. 2005/2008 ANCS Research of Excellence, CE.Ex. nr. 14 module I Complex Projects: HIGH PERFORMANCE MS STUDY OF GANGLIOSIDES IN DEFINED REGIONS OF HUMAN BRAIN: COMPOSITION, STRUCTURE AND FUNCTIONAL INTERACTIONS. budget: 1.500. 000 lei; **Director**
6. 2006/2008 ANCS Cercetare de excelenta, CE.Ex. Nr. 98 modul III: INTEGRATION OF A ROMANIAN CENTER OF HIGH PERFORMANCE MASS SPECTROMETRY IN THE EUROPEAN AND INTERNATIONAL RESEARCH AREA, budget: 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, budget: 1.500.000 lei; **Director**
8. 2017-2019 ANCS-UEFISCDI-PN-III-P4-PCE-**Idei**-2016-0073; CONTRACT NR. 48; DEVELOPMENT OF MICROFLUIDICS-MASS SPECTROMETRY FOR THE STUDY OF STRUCTURAL AND FUNCTIONAL INTERACTIONS OF GANGLIOSIDES; budget: 850.000 lei; **Director**
9. 2020-2022 ANCS-UEFISCDI PN-III-P2-2.1-PED-2019-0799; INTEGRATED MICROFLUIDICS-ION MOBILITY MASS SPECTROMETRY PLATFORM FOR GLYCOLIPIDOMICS OF HUMAN BRAIN; budget: 600.000 lei; **Director**
10. 2021-2023 ANCS-UEFISCDI PN-III-P4-ID-PCE-2020-0209; DISCOVERY AND CHARACTERIZATION OF IRREGULARLY SULFATED CHONDROITIN/DERMATAN SULFATE DOMAINS AND THEIR INTERACTIONS BY ION MOBILITY MASS SPECTROMETRY; budget: 1.198.032 lei; **Director**
11. 2017-2020 ANCS-UEFISCDI PN-III-P1-1.2-PCCDI-2017-0046; DEVELOPMENT OF ADVANCED PLATFORMS FOR THE ANALYSIS AND MODELING OF BIOLOGICAL SYSTEMS; budget: 5.287.500 lei; **Director**
12. 2007 Grant NATO COLLABORATIVE PROGRAMMES SECTION; ADVANCED RESEARCH WORKSHOP „APPLICATION OF MASS SPECTROMETRY IN LIFE SAFETY”, budget: 38.000 Euro; **Co-director grant/workshop**
13. 2016 ANCS-UEFISCDI PN-III-P1-1.1-MD Mobility projects for diaspora researchers, Prof. Dr. Costel Darie, NY, USA, budget: 9780 lei; **Project leader (mobilities)**
14. 2006/2008 ANCS Cercetare de excelenta, CE.Ex. Nr. 111 modul I: DETERMINATION OF GSL EXPRESSION IN CENTRAL NERVOUS SYSTEM BY POLYFUNCTIONAL MICROCHIPS COUPLED TO MASS SPECTROMETRY, budget: 1.500. 000 lei; **Leader of the partner team P1**

15. 2007/2010 ANCS PNCD II Nr. 41-001: IDENTIFICATION AND CHARACTERIZATION OF BRAIN CANCER BIOMARKERS EXPRESSED IN SERUM AND CEREBROSPINAL FLUID BY GLICOMICS METHODS BASED ON MASS SPECTROMETRY, budget: 2.000.000 lei; **Leader of the partner team P1**
16. 2012/2016 ANCS-UEFISCDI-PN-II-PT-PCCA-2011-3.1-0187; CONTRACT NR.142; OBTAINING OF FUNCTIONALIZED POLYSACCHARIDES FOR APPLICATIONS IN BIOMEDICINE AND BIOTECHNOLOGY; budget: 2.000.000 lei; **Leader of the partner team P1**
17. 2014/2016 ANCS-UEFISCDI-PN-II-PT-PCCA-2013-4-0191, CONTRACT NR. 118; THE INTERACTOMICS OF GALACTOSAMINOGLYCANS IN THE EXTRACELLULAR MATRIX BY ADVANCED MASS SPECTROMETRY budget: 1.250.000 lei; **Leader of the partner team P1**
18. 2009-2013 FP7-NMP-2008-LARGE-2, PROIECT NO 228827- FOLATE-BASED NANOBIODEVICES FOR INTEGRATED DIAGNOSIS/THERAPY TARGETING CHRONIC INFLAMMATORY DISEASES (PROJECT DIRECTOR: Artur Cavaco-Paolo, Minho University of Portugal; leader of the national partner team, Florentina-Daniela Munteanu); **member of the research team**
19. 2017-2019 CSF-2017-2019-MOLECULAR MARKERS OF NEURONAL VULNERABILITY, ADAPTATION AND PLASTICITY IN ACUTE AND CHRONIC BRAIN LESION, acronym „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; **member of the research team**
20. 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; **member of the research team**
21. 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; **member of the research team**
22. 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; **member of the research team**
23. PN-III-P1-1.1-PD2016-0256 DEVELOPMENT OF ION MOBILITY MASS SPECTROMETRY FOR THE ANALYSIS OF HUMAN GANGLIOSIDES AND THEIR INTERACTIONS; postdoctoral research project of Dr. Mirela Sarbu; **Mentor**
24. PN-III-P1-1.1-PD2020-038 DEVELOPMENT OF ION MOBILITY MASS SPECTROMETRY FOR SCREENING AND SEQUENCING OF SIALYLATED AND SULFATED GLICOSPHINGOLIPIDS IN CEREBROSPINAL FLUID IN HEALTH AND DISEASE postdoctoral research project of Dr. Mirela Sarbu; **Mentor**