**CURRICULUM VITAE**
**Europass**

## PERSONAL INFORMATION


Name **NITA-LAZAR MIHAI**

[redacted]

Citizenship Romanian


## PROFESSIONAL EXPERIENCE

**Period** **2014 - present**

Working place **National Research and Development Institute for Industrial Ecology – ECOIND**,

Key assignments Fundamental and applied scientific research on industrial ecology. Evaluation and control of environmental pollution as well as environment technologies.

Position Biochemist, Research scientist I; Head of Environmental Assessment and Technologies Department; member of the technico-economical commission (CTE) and member of the scientific committees.

Tasks and responsibilities ●coordinates the activity of Environmental Assessment and Technologies Department.

**Period** **2010 – 2013**

Working place Department of Microbiology and Immunology, University of Maryland School of Medicine, MD, USA.

Key assignments Fundamental and applied scientific research on immunological and (glycol)biological fields in studying the role of galectins in innate (non specific) and adaptive (specific) immunity..

Position Research Associate

Tasks and responsibilities ●conducting 5 scientific projects;
● **scientist** specialist in 1 research project;
●scientific documentation in order to successfully conduct the research project
● designing experiments, generating and analyzing the data for dissemination
● mentoring graduated students;
●proposing and developing new research projects as well as establishing new collaborations.

**Period** **2005 – 2009**

Working place Department of Molecular and Cell Biology, Boston University Medical Center, MA, USA.

Key assignments Fundamental and applied scientific research on biochemical and molecular (glycol)biological medical field in studying the role of N-glycans in cancerous cells adhesion, growth and progression to metastasis.

Position Research Associate

Tasks and responsibilities ● conducting 6 scientific projects;
●scientific documentation in order to successfully conduct the research project
● designing experiments, generating and analyzing the data for publication in high impact journals as Cancer Research and meeting presentations.

● mentoring graduated students (acknowledged in various publications);
●proposing and developing new research projects as well as establishing new collaborations.

**Period** **2003 – 2005**

Working place Department of Biochemistry and Cell Biology, SUNY at Stony Brook, USA

Key assignments Fundamental and applied scientific research on biochemical and molecular biological fields in studying the role of proteins post-translational modification with a focus on the role of N-glycans in protein folding and maturation

Position **Post-doctoral researcher**

Tasks and responsibilities conducting 1 scientific project;
●scientist specialist in 1 research project;
●scientific documentation in order to successfully conduct the research project
● designing experiments, generating and analyzing the data for dissemination (scientific publication and meetings)
●proposing and developing new research projects as well as establishing new collaborations.

**Period** **2001 – 2003**

Working place Institute of Microbiology, ETH-Zurich, Switzerland

Key assignments Fundamental and applied scientific research on microbiological, biochemical and molecular biological fields in studying the pathogenic bacterium *C. jejuni* mechanisms which cause infections of the gastrointestinal tract.

Position **Post-doctoral researcher**

Tasks and responsibilities ● conducting 1 scientific projects;
●**scientist** specialist in 1 research project;
●scientific documentation in order to successfully conduct the research project
● designing experiments, generating and analyzing the data for publication in high impact journals such as Science and Molecular Cell and meeting presentations
●proposing and developing new research projects as well as establishing new collaborations.

**Period** **2000**

Working place University of Sciences and Technology of Lille and Pasteur Institute of Lille, France

Key assignments Fundamental and applied scientific research on immunological and biochemical field in developing of an anti -chistosomiasis immuno-prophylaxis adapted to humans via a synthetic vaccine by coupling a carbohydrate epitope with non-immunogenic proteins.

Position Project manager

Tasks and responsibilities ●director of 1 scientific project;
●scientific documentation in order to successfully conduct the research project
● designing experiments, generating and analyzing the data for dissemination (scientific publication and meetings)
●proposing and developing new research projects as well as establishing new collaborations

**Period** **1999 - 2001**

Working place Biochemical Department of Fundeni Oncological Hospital, Bucharest, Romania

Key assignments Fundamental and applied scientific research on medical field in analyzing and characterizing different tumoral markers associated with various types of cancer

Position Lab head of biochemical analysis lab

Tasks and responsibilities ●scientist specialist r of 1 scientific project;
●scientific documentation in order to successfully conduct the research project

● designing experiments, generating and analyzing the data for dissemination (scientific publication and meetings)
●proposing and developing new research projects as well as establishing new collaborations
●performing clinical biochemical tests

**Period** **1995 - 1996**

Working place Research Center on Vegetal Macromolecules (CERMAV), Grenoble, France.

Key assignments Fundamental and applied scientific research on biochemical and biological fields in identification and characterization carbohydrates which elicit a defense mechanism in plants

Position Project manager

Tasks and responsibilities ●director of 1 scientific project;
●scientific documentation in order to successfully conduct the research project
● designing experiments, generating and analyzing the data for dissemination (scientific publication and meetings)
●proposing and developing new research projects as well as establishing new collaborations

**Period** **1993 - 1999**

Working place Biochemistry Institute of the Romanian Academy, Bucharest, Romania.

Key assignments Fundamental and applied scientific research on biochemical field in identification, purification and characterization of blood glycoproteins.

Position Research assistant (1993-1998) and researcher (1998-1999)

Tasks and responsibilities ●team member in scientific project;
●scientific documentation in order to successfully conduct the research project
● designing experiments, generating and analyzing the data for dissemination (scientific publication and meetings)

## EDUCATION

**Period** **2024**

Institution POLITEHNICA Bucharest National University for Science and Technology, Romania

Field / domain of activity Environmental Engineering

Degrees or diplomas Habilitation

Educational level Ph. D mentor at the Doctoral school of Biotechnical Systems Engineering from POLITEHNICA Bucharest National University for Science and Technology

**Period** **1999**

Institution Faculty of Physics at University of Bucharest, Romania

Field / domain of activity Radioactive isotopes

Degrees or diplomas Post-university diploma

Educational level **Post-university**

**Period** **1995 – 1998**

Institution University of Sciences and Technology of Lille, Villeneuve d'Ascq, France.

Field / domain of activity “Sciences de la Vie et de la Sante”

Degrees or diplomas Graduation diploma *(summa cum laude)*: " Recognition of elicitor signals from fungal origin involved in plant defense mechanisms:the Fusarium – rubus biological model ".

Educational level **Ph.D (1999)**

**Period** **1995 – 1998**

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|---|---|
| Institution | Romanian Academy, Bucharest, Romania |
| Field / domain of activity | Biology, specialization in biochemistry |
| Degrees or diplomas | Graduation diploma: "Ligand receptor interactions in the plant defense process". |
| Educational level | **Ph.D (1999)** |
| **Period** | **1989 - 1994** |
| Institution | Faculty of Biology at University of Bucharest, Romania |
| Field / domain of activity | Biology, specialization in biochemistry |
| Degrees or diplomas | Graduation diploma: "Interaction of lectins with glycopeptides isolated from erythrocyte plasma membrane". |
| Educational level | **M.S**. |

**PERSONAL COMPETENCE**

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|---|---|
| Maternal language | Romanian |
| Foreign languages | **french, english** |
| Teaching and social competences | Excellent verbal and writing communication skills due to (i) active participation to many scientific international meeting, (ii) preparing reports and publications in many international journals, (iii) student mentoring, (iv) team leader, (v) collaboration with many scientific groups. |
| Management competences | Highly adaptive and innovative professional with a track record of driving advanced research with more than twenty years of experience in conducting scientific projects and publishing results in high impact factor journals such as Science, Molecular Cell, Cancer Research, etc. Action oriented team player with an out of the box thinking and goal orientated offer sharp problem solving abilities. With broad multicultural experience (Romania, France, Switzerland, USA), demonstrate high interpersonal interaction agility and learning capacity. I have the ability and desire to share knowledge and to bring clarity in complex situations. |
| Technical competences | Rich experience and a strong background in biochemistry, microbiology, molecular and cell biology. Very strong skills in working with bacterial strains and eukariotic cell lines as well as other biological model used in research linked to human and environmental health |
| Driving licence | B category |
| Other Specializations and Qualifications | **Computer skilles**: Windows, Macintosh, Microsoft office (Word, Excel and PowerPoint), Adobe, EndNote, PyMol software, Gen Construction Kit, Sequencer, Enzyme Fitter as well as and other available programs on gene and (glyco)protein databases.<br>**Teaching and supervision**: teaching undergraduate students laboratory methods and theory in science (protein biochemistry, molecular biology, glycobiology). Mentoring students from various programs such as:<br>•CityLab Academy, Boston University Medical Center, MA, USA;<br>•Predoctoral Research (APEX), Boston University Medical Center, MA, USA;<br>•Program of Excellence in Education Research Science Institute / Massachusetts Institute of Technology, MA, USA;<br>•ExPERT, University of Maryland, MD, USA.<br>•Foreign French students internship (Romania-France)<br><br>**Expert project reviewer** for Executive Unit for the Financing of Higher Education, Research, Development and Innovation (UEFISCDI) PNIII-P1-1.1-PD&TE Romania |

and for the National Agency for Research and Development from Republic of Moldavia, PS2019.
Expert for the certification of research and development activity belonging to the body of experts from the Romanian national register
**Scientific Committee**: INTERNATIONAL SYMPOSIUM "ENVIRONMENT AND INDUSTRY" SIMI (http://www.simiecoind.ro/comitet-stiintific/)

**Editorial advisory board**: Revista de Chimie (https://revistadechimie.ro/RCBoard.asp), Romanian Journal of Ecology & Environmental Chemistry (RJEEC) (http://www.rjeec.ro/EditorialBoard)

**Member in 2 Ph.D. commission**

**SCIENTIFIC CONTRIBUTION**
Scientific papers
Fellowships
Courses, workshops, summer schools
Rewards
Memberships

**Scientific papers/books/patents**:
- publications on Web of Science > 70 (Researcher ID: Q-2206-2016; ORCID ID: 0000-0002-5099-1311; Brainmap ID: U-1700-039A-6720)
- books / book chapters: 6
- national and international oral (>20) and poster communications (>60).
- citations on web of science: >2000, h-index 23.
- **CBI A/00248/10.05.2022 patent application**– Installation for wastewater treatment using hybrid biological treatment and photocatalysis processes
- **CBI A/00319/10.06.2022 patent application**– Technological process for wastewater treatment using hybrid biological treatment and photocatalysis processes

**Fellowships/Grants (director/responsible of projects)**:
- **2023-2026** : Core Programs, Ministry of Research, Innovation and Digitalization, PN 23 22 02 01. Eco-friendly solutions for integrative systems biodiversity monitoring and protection, as well as for preventing their destruction
- **2022-2024**: UEFISCDI, PN-III-P2-2.1-PED-2021-4131, grant # 705/2022. Wastewater-based epidemiology concept as an early warning system for SARS-CoV-2 trend and its circulating variants in a defined catchment.
- **2021-2024**:**Horizon2020-FETOPEN-2018-2020** (FET Open – Novel ideas for radically new technologies), Topic: FETOPEN-01-2018-2019-2020, Type of action: RIA (Research and Innovation action), Grant Agreement number: 899205, EU. Proto-Opto-Electro-Mechanical Hybrid Systems for Generation-Next Bionic Devices
- **2020-2022**: UEFISCDI, PN-III-P2-2.1-PTE-2019-0628, research grant # 394/2020, Removal of organic pollutants device from wastewater based on photocatalysis and biological processes
- **2018-2022**: UEFISCDI, PN-III—P4-ID-PCCF-Complex frontier research grant #10/2018. Selection and dissemination of antibiotic resistance genes from wastewater treatment plants into the aquatic environment and clinical reservoirs
- **2017-2019**: UEFISCDI, PN III P4 ID-PCE-Exploratory research grant # 84/2017, Advanced investigations on microalgae-bacteria relationships within the newly developed granular wastewater treatment system
- **2016** : Core Programs, Ministry of Education and Scientific Research, PN 16-25 01 03. Detection of adaptive biomarkers induced in microorganisms by the toxic effect of pharmaceutical compounds
- **2015** : Core Programs, Ministry of Education and Scientific Research, PN 09-13 01 19. Detection of microbial toxic concentrations on 11 microbial lyophilized strains – validation compared to MARA's test

- **2000 Grant EP001216/1 from the Fondation pour la Recherche Médicale, FR.** University of Sciences and Technology of Lille, Unité Mixte de Recherche (UMR) n° 8576 of CNRS, France;
- **1996-1997**: Programmes Internationaux de Collaboration Scientifique (PICS): Centre de Recherche sur les Macromolécules Végétales (CERMAV) of CNRS, France;
- **1995-1996** Grant TEMPRA No. EO84580002, FR. Centre de Recherche sur les Macromolécules Végétales (CERMAV) of CNRS, France;
- **1994-1995**: TEMPUS JE 4398/94-95: University of Sciences and Technology of Lille, Unité Mixte de Recherche (UMR) n° 8576 of CNRS, France;

**Team member in European grants (last 10 years)**

- **2025-2029**: Horizon-WIDERA-2024-TALENTS-03, grant # 101217448, Fostering Europeans Talents forWidening Circular Economy (Talent Pass)
- **2024-2028**: Horizon-WIDERA-2023-ACCESS-07-01, grant # 101184151/2024, The waterwise hub: an excellence hub on water in the circular economy (WaterWiseHub)
- **2017-2020**: ERANET-JPI-EC, grant # 26/2017, Antibiotic resistance in wastewater: Transmission risks for employees and residents around waste water treatment plant (AWARE)

**Courses, workshops, summer schools**:

- **2017 Mai 29-31**: Technology Broker Course –Cod COR : 241265, Bucharest, Ro
- **2017 April 3-10**: Manager of Innovation Course –Cod COR : 242106, Bucharest, Ro
- **2017 February 20-28**: Trainer course - Cod COR : 242401, Bucharest, Ro.
- **2016 September 29**: Interreg – Danube Transnational Programme workshop, Bucharest, Ro.
- **2016 March 4**: Horizon 2020 Communication Campaign, Bucharest, Ro.
- **2015 October 8**: October Labor Fest, Teknoleb – Sartorius, Bucharest, Ro;
- **2015 March 30 – April 3**: Molecular methods to detect and characterize the pathogenic microorganisms, INCD MI "Cantacuzino", Bucharest, Ro;
- **2012 December 14**: Grant writing workshop, University of Maryland, Baltimore, MD, USA;
- **2010 October 26**: Glycans Analysis / New Biophama tools. Seminar hosted by Dionex, Bethesda, MD, USA;
- **2005 December 6**: Basic indoctrination BUMC radiation safety. Boston University Medical Center, Boston, MA, USA;
- **1999 March 17-19**: Internet organization course for advanced research on automatic learning, adapting the natural language and conceptual modeling, Romanian Academy, Bucharest, Ro.
- **1997 April 29**: Recent discoveries in protein methods and analysis, Grenoble, France;
- **1997 February 9**: workshop on regional research, Lyon, France;
- **1996 October 30**: Courses on Windows, MSDOS, WEB (Telnet, FTP, Netscape, Eudora, Pine, Mail) and Excel/SigmaPlot, Grenoble France;
- **1995 October 25**: Course on radioprotection CNRS in molecular biology, Institute of nuclear research, Grenoble France;
- **1994-1995**: Course of DEA (diplome d'etudes approfondies) in "Biologie, Sante" at University of Sciences and Technology of Lille, Unité Mixte de Recherche (UMR) n° 8576 of CNRS, France
- **1994 June**: FEBS: Advanced Course: "An Introduction in Animal Cell Culture Techniques for Biochemists", Dublin, Ireland.
- **1994, July**: CHREST Course "Recent technics in molecular biology", Sibiu, Ro

**Awards** :

- **2024**: GOLD MEDAL - EUROINVENT ICIR 2024 International Conference on Innovative Research Iasi, Romania 8 June 2024. Installation for the treatment of wastewater through biological and photocatalysis hybrid processes

- **2022**: GOLD MEDAL - EUROINVENT ICIR 2022 International Conference on Innovative Research Iasi, Romania 26–27 May 2022. Installation for removal of organic pollutants from wastewater based on photocatalysis and biological processes
- **2022**: GOLD MEDAL - EUROINVENT ICIR 2022 International Conference on Innovative Research Iasi, Romania 26–27 May 2022. Installation for wastewater treatment by hybrid processes of biological treatment and photocatalysis.
- **2021**: GOLD MEDAL - EUROINVENT 13th edition, European exhibition of creativity and innovation 2021, Iasi, Romania. Installation for removal of organic pollutants from wastewater based on photocatalysis and biological processes
- **2020**: GOLD MEDAL – International Invention show –INOVA Zagreb, Croatia 2020. Installation for removal of organic pollutants from wastewater based on photocatalysis and biological processes.
- **2019**: EXCELLENCE AWARD and GOLD MEDAL at XVIth Edition INFOINVENT International Specialized the Exhibition November 20-23 2019, Chișinău, Republic of Moldova. Antibiotic resistance in wastewater: transmission risks for employees and residents around waste water treatment plants.
- **2019**: EXCELLENCE AWARD and GOLD MEDAL at The International Salon for Scientific Research, Innovation and Inventions, "ProInvent", 20-22 March 2019, Cluj Napoca, Romania. Antibiotic resistance in wastewater: transmission risks for employees and residents around waste water treatment plants.
- **2019**: INNOVATION AWARD at 11th Edition of EUROINVENT- European Exhibition of Creativity and Innovation, 16-18 May 2019, Iași, Romania. Antibiotic resistance in wastewater: transmission risks for employees and residents around waste water treatment plants.
- **2019**: EXCELLENCE AWARD and GOLD MEDAL at 11th Edition of EUROINVENT- European Exhibition of Creativity and Innovation, 16-18 May 2019, Iași, Romania. Antibiotic resistance in wastewater: transmission risks for employees and residents around waste water treatment plants.
- **2009**: mentoring "Awarded Distinguished Paper" from Research Science Institute Student Reports, Boston, Massachusetts, USA.
- **2007**: Winner of Postdoctoral Fellows Award, BUSDM 26th annual Science Day, March 2007, Boston, Massachusetts, USA.
- **2004**: Winner of a free registration to the 29th FEBS Congress, June 2004, Warsaw, Poland.
- **2004**: Winner of a travel award for ASBMB Annual Meeting and 8th IUBMB Conference, June 2004, Boston, Massachusetts, USA.

**Memberships (past/present)**:

- Romanian Society of Biochemistry and Molecular Biology;
- Society for Glycobiology;
- American Association of Cancer Research (AACR);
- American Society for Cell Biology (ASCB);
- Balkan Environmental Association (B.EN.A.).