## **CURRICULUM VITAE**



Name: MANGALAGIU IONEL

Citizenship: Romanian

Position and degree held: Professor, Ph-D

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Brainmap ID: U-1700-039Y-5778

ORCID ID: http://orcid.org/0000-0002-4632-5076

Researcher ID (Web of Science): H-2421-2017 https://www.webofscience.com/wos/author/record/H-2421-2017

Researcher ID (Scopus): 55761251200 https://www.scopus.com/authid/detail.uri?authorId=55761251200

Researcher ID (Google): https://scholar.google.com/citations?user=aqwSylkAAAAJ&hl=en

#### ✓ Education:

- 1970-1978, Primary and the secondary school in my village;
- 1978-1982, Medical High School, Iasi;
- 1983-1984, Military service;
- 1985-1990, Chemical Technological Faculty, Chemistry- Physics Section, **Polytechnic Institute of Iasi**, **Romania**.

## ✓ Achievements:

- 1982, Medical instructor diploma;
- 1990, Bachelor in Chemistry and Physics;
- 1990: Assisting professor, Organic Chemistry Dep., Alexandru Ioan Cuza University of Iasi, Romania:
- 1995: Lecturer, the same department;
- 1996: Doctor's Degree in Chemistry, *Alexandru Ioan Cuza University of Iasi, Romania*. Title of Ph-D thesis: "*New Ylide Compounds In the 1,2-Diazine Series*". Ph-D supervisor: Prof.dr.doc.
- MAGDA PETROVANU;
- 1997: Associate professor, the same department;
- 2001: Professor, the same department;
- 2002: Ph-D Supervisor.
- -2006-2012, 2016-2020: Member of the National Council for Titles, Diplomas and Certificates of Romania-Chemistry
- 2012-2016: President of the Appeal National Council for Titles, Diplomas and Certificates of Romania-Chemistry;
- 2007-2011, 2017-2020: Member of the National Research Council of Romania;
- 2023 present: Member of the National Council for Higher Education Financing of Romania;
- 2000-2004: Vice dean of faculty;
- 2005-2008: Head of Organic and Biochemistry Department;
- 2012-2016: Dean of Chemistry Faculty;
- 2016- 2024: Vice-Rector for Research, Alexandru Ioan Cuza University of Iasi;
- 2020- 2021: Director of the Council for Doctoral Studies, Alexandru Ioan Cuza University of Iasi;
- since 2002: Erasmus Socrates coordinator for international cooperation with T.U. Braunschweig, University of Konstanz, Universite D'Angers, Università degli Studi di Cagliari.

# ✓ Invited speaker to foreign universities:

- ✓ 'Microwave Assisted Reactions in Organic Synthesis', Technische Universität Braunschweig, Germany, August 27-th 2005;
- ✓ 'Coronands', Technische Universität Braunschweig, Germany, July 18-th 2007.
- ✓ 'Coronands and Azaheterocycles: New Aproches', Technische Universität Braunschweig, Germany, June 27-th 2008.
- ✓ 'Nanomaterials with Azaheterocycles Skeleton', Universite D'Angers, France, July 10-th 2008.

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- ✓ "Nitrogen Heterocycles: Old Stories, new Approaches and Perspectives", University of Konstanz, Konstanz, October 16-th 2014.
- ✓ "Five and Six Member Ring Azaheterocycles as Intelligent Building Blocks for Multiple Tasks", University of Florence, Italy, June 20-th 2016.
- ✓ "Azaheterocycles: chemistry and applications", Institutul de Chimie al Academiei de Stiinte al Moldovei, Chisinau, October 16-th 2016.
- ✓ "New Achievements in the Five and Six Member Ring Azaheterocycles: Chemistry and Applications", Technische Universität Braunschweig, Germany, August 31-st 2017.
- ✓ "New achievements in medicinal chemistry of five and six member ring nitrogen heterocycles", Universite Paris Sud, Paris, France, July 12-th 2018.
- ✓ "Azaheterocycles", University of Viena, Viena, Austria, December 2, 2022.
- ✓ "Antimicrobial and Anticancer Activity of Hybrid and Chimieric Azaheterocycles", Technische Universität Braunschweig, Germany, August 31-st 2023.
- ✓ "Design, synthesis and biological activity in the class of azaheterocycles with 5 and 6 member rings", University of Florence, Italy, February 16-th 2024.

## ✓ Honours, Awards, Fellowships, Membership of Professional Societies (selections)

- July August, 2008. Visiting Professor: Technische Universität Braunschweig, University of Konstanz, Institut für Chemie, Germany; field: 'Supramolecular Chemistry' respectively "Highly Fluorescent Materials through Nonconventional methods"; with Prof. Wolf Du Mont and Prof. Ulrich Groth, respectively;
- July- August, 2007. Visiting Professor: Technische Universität Braunschweig, University of Konstanz, Germany; field: 'Supramolecular Chemistry' respectively "Highly Fluorescent Materials through Microwave Chemistry"; with Prof. Mathias Tham and Prof. Ulrich Groth, respectively;
- July- August, 2006. Visiting Professor, University of Konstanz, Germany; field: 'Solid-Phase Peptide Synthesis'; with Prof. Michael Przybylski;
- June September, 2003. DAAD–NATO Fellowship. Visiting Professor: Ludwig Maximilianus University Munchen, Institut fur Organische Chemie; field: 'Preparation of Polyfunctional Aryl, Alkenyl and Heteroaryl Magnesium Reagents and their Applications in Organic Synthesis'; with Prof. Paul Knochel;
- August September, 1998. NATO Fellowship. Postdoctoral study: NATO Advanced Study Institute in Management of Research&Developement&Inovation in Chemistry, Budapest, Hungary;
- September 1994 August 1995. Scholarship in Norway, University of Oslo, (competition: The Council of Europe for the East European countries (China including). Specialization in the field of "Application of Organometallic Chemistry to Synthetic Problems", under the supervising of prof. dr. Kjell Undheim.
  - December 19, 2011. Costin D. Nenitescu Medal, for Outstanding Achievements in Chemistry. Roumanian Society of Chemistry;
  - **2023.** Ioan Tanasescu Award for Excellence in Organic Chemistry. American Chemical Society (ACS) in association with the Romanian International Chapter;
  - October 26-th, 2006. Alexandru Ioan Cuza University of Iasi Award for Excellence in Research. Alexandru Ioan Cuza University Days, Iasi, Romania;
  - October 26-th, 2021. Alexandru Ioan Cuza University of Iasi Award for Excellence in Research. Alexandru Ioan Cuza University Days, Iasi, Romania;
  - October 26-th, 2023. Alexandru Ioan Cuza University of Iasi Award for Excellence in Research. Alexandru Ioan Cuza University Days, Iasi, Romania;
  - May 12-14, 2011. Excellency Diploma in Research, Technical University of Moldova for "Research in the field of Azaheterocycles". Euroinvent 2011, Iasi, Romania;
- December 4-6, 2015. Silver Medal. Patent awarded: "11,12-Bis-p-tolyl-piridazonil-drim-5(6),8(9)-diene-7-one with antifungal and antibacterial properties", Kaohsiung International Invention and design Expo 2015, Kaohsiung, Taiwan;
- November 25-28, 2015. Silver Medal. Patent awarded: "Stimulation procedure of grapes crop" Infoinvent 2015, Chisinau, Moldova;
- **November 8-10, 2012**. **Gold Medal.** Patent awarded: Procedure for obtaining of oil nanodispersion with regenerative capacity. **37-th International Invention Show**, Sibenik, Croatia;
  - June 8-10, 2011. Gold Medal. Group of patents awarded. Inventica 2011, Iasi, Romania;

- June 04-06, 2009. Excellency Diploma and Gold Medal. Patent awarded: "Steroidal Glycosides: Biological Active Compounds of Vegetal Origin". Inventica 2009, Iasi, Romania;
- **June- July, 2008.** Erasmus/Socrates mission to: Universite D'Angers (France, July 13-25) and University of Konstanz, Institut fur Chemie (Germany, June 30 July 12);
- **July- August, 2007.** Erasmus/Socrates mission to: TU Braunschweig (Germania, July 13-19) and University of Konstanz, Institut fur Chemie (Germania, July 20 August 5);

**Member of International Society of Heterocyclic Chemistry;** 

Member of the Romanian Chemical Society (ID: 1064);

Member of the Romanian Society of Biomaterials (ID: 3064 MS);

Member of the American Chemical Society (ACS ID- 2405478);

Member of the American Nano Society;

Member of the Royal Society of Chemistry (ID-712835).

#### **✓** Other Achievements:

- Grants reviewer for:
- FP7 program (since 2008) and Horizont 2020 (since 2015) Cod: EX2002B025670;;
- INTAS program of grants (EU), since 2002;
- CNCSIS, CEEX, PNCDI program of grants of Romanian Ministry of Research, since 2001.

## Member in Editorial Board / Guest Editor of the following journals

- Current Medicinal Chemistry, Bentham Sicence, UK.

https://benthamscience.com/journal/25/editorial-board;

- Current Pharmaceutical Design, Bentham Sicence, UK.

https://www.benthamscience.com/journal/29/editorial-board

- Molecules (Organic Chemistry Section), MDPI, Switzerland.

https://www.mdpi.com/journal/molecules/sectioneditors/organic chemistry?page no=3;

- Molecules (Ultrasounds Chemistry Section), MDPI, Switzerland.

https://www.mdpi.com/journal/molecules/sectioneditors/organic chemistry?page no=3;

- Mini-Reviews in Organic Chemistry, Bentham Sicence, UK.

https://benthamscience.com/journal/45/editorial-board;

- Acta Chimica Iasi (former Analele Stiintifice ale Universitatii "Al.I Cuza" Iasi), Ed. Univ. Alexandru Ioan Cuza Iasi, Iasi, Romania. <a href="https://www.chem.uaic.ro/ro/acta-chemica/editorial\_board.html">https://www.chem.uaic.ro/ro/acta-chemica/editorial\_board.html</a>;
- *Chemistry Journal of Moldova*, Institute of Chemistry, M.S.U., 3 Academiei str., Chisinau MD-2028, Republic of Moldova. <a href="http://cjm.ichem.md/editorial">http://cjm.ichem.md/editorial</a> board;
- *New Frontiers in Chemistry*, Ed. Univ. de Vest Timisoara, Timisoara, Romania. <a href="http://www.newfrontchem.iqstorm.ro/editors.php">http://www.newfrontchem.iqstorm.ro/editors.php</a>;
- Journal of the European Society of Mathematical Chemistry, European Society of Mathematical Chemistry, <a href="http://chem.ubbcluj.ro/jesmc/">http://chem.ubbcluj.ro/jesmc/</a>;
- *Studia Universitatis Moldaviae Științe Reale și ale Naturii USM*, Ed. Universitatii de Stat din Moldova, ISSN 1814-3237 ISSN online 1857-498X. <a href="https://natural.studiamsu.md/editorial-board/">https://natural.studiamsu.md/editorial-board/</a>;

#### - Guest Editor, Special Issues:

- 1. Microwave Assisted Reactions: A Modern Useful Tool in Med. Chemistry (2019), Molecules, MDPI;
- 2. Huisgen 3+n dipolar cycloaddition reactions: an accessible and useful tool in modern organic and heterocycle synthesis Chemistry (2020), *Molecules*, MDPI;
- 3. Research Progress and Application of Natural Compounds (2022), Molecules, MDPI.
- 4. Advances in the Synthesis of Heterocyclic Compounds and Their Applications (2024), *Molecules*, MDPI.

## • **Reviewer** to the following journals (*by Publishers*):

- European Journal of Medicinal Chemistry, Elsevier, Netherlands;
- Ultrasonics Sonochem, Elsevier, Netherlands;
- Comptes Rendus Chimie, Elsevier, Netherlands;
- Bioorganic & Medicinal Chemistry, Elsevier, Netherlands;
- Bioorganic & Medicinal Chemistry Letters, Elsevier, Netherlands;
- Tuberculosis, Elsevier, Netherlands;
- Arabian Jornal of Chemsitry, Elsevier, Netherlands;
- Inorganica Chimica Acta, Elsevier, Netherlands;

- ChemMedChem, RSC, UK;
  - Monatshefte für Chemie, Springer, Germany;
  - Medicinal Chemistry Research, Springer, Germany;
  - Research on Chemical Intermediates, Springer, Germany;
  - Central European Journal of Chemistry, Springer, Germany;
- Journal of Heterocyclic Chemistry, Wiley, New York, USA;
- Journal of Physical Chemistry, ACS, USA;
- Heteroatom, Wiley, New York, USA;
- Plos One, USA;
- Arkivok, Arkat Gainesville, FL, USA;
- Future Medicinal Chemistry, Taylor&Francis, US
- Polycyclic Aromatic Compounds, Taylor&Francis, US
  - Current Organic Chemistry, Bentham Sicence, UK;
  - Current Medicinal Chemistry, Bentham Sicence, UK;
  - Current Microwave Chemistry, Bentham Sicence, UK;
  - Letters in Drug Design and Discovery, Bentham Science, UK;
  - Journal of Chemistry, Hindawi Publishing Corporation, Egipt/USA
  - Molecules, MDPI, Switzerland;
  - Metabolites, MDPI, Switzerland;
  - -Amino Acids, MDPI, Switzerland;
  - Molbank, MDPI, Switzerland;
  - International Journal of Molecular Sciences, MDPI, Switzerland;
    - Revue Roumaine de Chimie, Ed. Academiei, Bucuresti, Romania;
    - Roum. Biotech. Lett., Ed. Universitatii Bucuresti, Romania;
    - Analele Stiintifice ale Universitatii Alexandru Ioan Cuza Iasi, Ed. Univ. Iasi, Iasi, Romania.
    - New Frontiers in Chemistry, Ed. Univ. de Vest Timisoara, Timisoara, Romania;
    - Studia UBB Cluj, Cluj, Romania.

## • Organisation of scientific meetings

- Euroinvent 2009, May 7-9, 2009. Iasi, Romania;

https://www.euroinvent.org/cat/e2009.pdf

- Euroinvent 2010, May 7-9, 2010. Iasi, Romania;

https://www.euroinvent.org/cat/e2010.pdf

- Euroinvent 2011, May 12-14, 2011. Iasi, Romania;

https://www.euroinvent.org/cat/e2011.pdf

- Euroinvent 2012, May 10-12, 2012. Iasi, Romania;

https://www.euroinvent.org/cat/e2012.pdf

- Euroinvent 2013, May 9-11, 2013. Iasi, Romania;

https://www.euroinvent.org/cat/e2013.pdf

- "Alexandru Ioan Cuza" University Days 2013, Mini-Hot-Conference: "Recent Achievements in Organic and Supramolecular Chemistry", October 25 – 26, 2013. Iasi, Romania; https://www.chem.uaic.ro/files/File/acta-chemica/ac vol21 no2 2013/6.pdf

- The 6 th Scientific Session of Undergraduate, Masters and Ph-D Students, June 26, 2015. Iasi, Romania;

https://www.chem.uaic.ro/files/File/acta-chemica/aci 23 2015/5.pdf

- The 7th Scientific Session of Undergraduate, Master and PhD Students, June 24, 2016. Iasi, Romania; <a href="https://www.chem.uaic.ro/files/File/acta-chemica/aci\_vol\_24\_nol\_2016/10373\_24\_1\_achi\_2016\_06.pdf">https://www.chem.uaic.ro/files/File/acta-chemica/aci\_vol\_24\_nol\_2016/10373\_24\_1\_achi\_2016\_06.pdf</a>
- *4-eme Colloque Franco-Roumain de Chimie Medicinale*, October 05-07, 2017. Iasi, Romania; https://www.chem.uaic.ro/cofrrocm-2017/OrganizingCommittee
- National Conference of Ph-D Schools from Universitaria Consortium, October 31- November 3, 2019. Iasi, Romania;
- 10-th European Organic Chemistry Congress, March 21-22, 2019. Rome, Italy ;file://D:/IONEL/CONF/2020/1-invitatii%20Org%20Commite%20Memmber/2019-Roma-Organizing%20Committee%20 %20Global%20Chemistry...pdf
- 2nd International Conference on Organic and Inorganic Chemistry, September 16-17, 2020. Vienna, Austria.

file:///D:/IONEL/CONF/2020/1-

invitatii%20Org%20Commite%20Memmber/Organizing%20Committee%20\_%20Organic%20Chemistry%20Conferences%20\_ %20Biochemistry%20Meeting%20\_%20Chemistry%20Gathering%20\_%20Frankfurt%20\_%20Germany%20\_%20Europe%20\_ %20USA%20\_%20Middle%20East%20\_%20219.pdf

- 3-rd International Conference on Organic Chemistry, April 27-28, 2020, Berlin, Germany.

- President or Member of defended committee of Ph-D Thesis for students from Romania, France and Italy
  - ✓ Language skills: English- very good; French- good
  - ✓ Didactic and Scientific Background
- Didactic Career:
- Beginning with the academic year 1995- 1996 I'm teaching the following courses:
- **1. Relation between Structure and Biological Activity of the Organic Compounds** (at the 3<sup>rd</sup> year Biochemistry Section and Master students).
- 2. Natural Products (at the 4<sup>th</sup> year of Chemistry Section and year Biochemistry Section).
- **3. Organic Chemistry I** (at the 2<sup>nd</sup> year of Chemistry Section).
- 4. Amphionic Compouds (Master)
- 5. Microwave and Ultrasounds Assisted Reactions (Doctoral School).
- 6. Drug Design (Master).

#### • Research Career:

#### Main field of research:

#### Heterocyclic Compounds,

with three area of expertise:

- 1. Chemistry and Health: Nitrogen Heterocycles Chemistry and Medicinal Chemistry;
- 2. Chemistry and Nanoscience: Nitrogen and/or Oxygen Macrocycles, Supramolecular Chemistry;
- 3. Chemistry and Sustainable Development: Eco-friendly Reactions using Microwave and Ultrasounds Assisted Reactions.

Inside of these areas the following main aspects are followed:

- **a.** Chemistry and Health: the development of new useful reactions for the synthesis of heterocyclic compounds, and in particular, reactions involving reactive species such as cycloimmoniu ylides. The main outcomes of these directions are: new nitrogen heterocycles biologically active [antimicrobials (antituberculosis including), anticancer and grow up factors for agriculture], new nanobiomaterials with and without nitrogen heterocycle moieties, etc.;
- **b.** Chemistry and Nanoscience: in this field our efforts are orientated in the arrea of oxa- and oxaaza- coronands, nano-electronics and nano-devices, nanobiomaterials (for dentistry including), new highly fluorescent materials, chemical captors (chemosensors);
- **c.** Chemistry and Sustainable Development: microwave and ultrasounds assisted reactions; these technologies allow us to develop environmental friendly methods, with lower waste and environmental friendly impact ["green" chemistry];

**Keywords**: heterocycles, diazine, ylides, oxa- oxaaza- coronands, microwave, ultrasounds, cycloadditions, fluorescent materials, nanobiomaterials, antituberculosis, antimicrobials, anticancer, nano-electronics and nano-devices (logic gates, chemosensors), "green" chemistry.

#### • **Significant Results** in reserch:

Present research team: 4 postdocs, 5 pH-D students, 8 master and graduating students;

- 17 Ph-D students finished and defended their thesis under my supervision:

Moldoveanu C. (defense on July 2007), Zbancioc Ghe. (defense on July 2007), Butnariu R. (June 2008), Balan A.M. (May 2009), Florea O. (October 2009), Risca M. (December 2009), Bejan V. (February 2010), Mantu D. (November 2010), Astefanei D. (December 2013), Maftei D. (September 2014), Al-Matarneh C. (October 2016), Olaru A. (July 2018), Tiru L. (September 2018), Sardaru M. (November 2020), Diaconu D. (February 2021), Bucur St. (September 2021), Oniciuc L (March 2024).

## Foreign doctoral researchers in my labs:

Florian Roßner (Goethe University Frankfurt), Germany (2021)

Renata Eftenyeva (Yuriy Fedkovych National University Cernauti, Chemical Dep.,) Ukraine (2015-2016) Nejjar El Ansari Zineb (Université Abdelmalek Essaadi, Faculté des Sciences de Tétouan) Morocco (2014)

# Postdocs in my labs:

Edu Carolina, Moldova (2013); Antoci Vasilichia, Romania (2012-2013); Chibac Andreea, Romania (2014-2015); Mantu Dorina, Romania (2014-2015); Murariu Manuela, Romania (2014-2015); Zbancioc Ana Maria, Romania (2014-2015), Diaconu D.(2023-2024).

# • Total scientifically papers published:

- over 200, from which papers in ISI quoted publications (Web of Science-Core Collection) over 150, almost half of them in journals from first quartile Q1 (top 25%) and second quartile Q2 (top 26-50%) (Bioorg. Med. Chem., Curr. Med. Chem., Eur. J. Med. Chem., Eur. J. Org. Chem., Future Med. Chem, J. Heterocyclic Chem., J. Phys. Chem., Macromolecules, Molecules, Synthesis, Synlett, Tetrahedron, Tetlett., Ultrason. Sonochem., etc.);
- papers presented to meetings: over 150 (over 100 international).

#### • Citations, from which:

#### Hirsh index:

- 31, Web of Science-Core Collection (Number of citations: over 3000)
- 31, Scopus (Number of citations: over 3000)
- **35**, Google (Number of citations: over 4000)
- Invited speaker to foreign universities 12;
- Invited *Plenary lectures* (representative)- over 50;
- Patents: 14.

## • International grants as director:

- -1 HORIZONT 2020 grant as WP leader (2021-2023);
- -1 FP7 grant as director (2010-2013);
- -1 NATO grant as director (2006-2007);
- 1 bilateral grant as director with Moldova (2010-2013);
- Management Committee member (Romanian representative) in the COST Actions CM1307 (2014-2018) and MP0901 (2009-2013);

#### • National grants as director. Total number- 18

- -1: PN-III-P3-3.6-H2020- International and Eupopean Cooperation grant as director (2022-2023, with Romanian Ministry of Research Education);
- 1 PN-III-PCE Exploratory Research grant as director (2021-2023, with Romanian Ministry of Research Education):
- 2 PN-II Ideas grant as director (2009-2011, 2012-2016, with Romanian Ministry of Research Education);
- 2 CEEX grants as director (2005-2008, 2006-2008, with Romanian Ministry of Research Education);
- 1 CEEX grant as partner director (2006-2008, with Romanian Ministry of Research Education);
- 1 grant with World Bank as director (1999);
- 8 grants type A (with Romanian Ministry of Research Education) as director: 1998, 2003, 2004, 2005; 2006, 2007, 2008.

