

PERSONAL INFORMATION

Geza Lazar



WORK EXPERIENCE

Oct 2020 – Oct 2022

Research Assistant

Babes Bolyai University, Research Project: 'From Nanobiosensing to Blue Bioeconomy: Translational Science as Innovation Speeder of Blue Growth'. PN-III-P2-2.1-PED-2019-4777.
<https://bluebiosustain.granturi.ubbcluj.ro/objectives.html>

Responsibilities: performing experiments, data acquisition, data processing and interpretation, statistical analysis of experimental results, writing and drafting research papers and reports.

Nov 2019 – Sept 2021

Section Managing Editor / Group Leader

MDPI

Responsibilities: Managing a section of a scientific journal published by a leading global publisher; working to improve the number and quality of the papers published; Analysis and interpretation of large amounts data and records; Developing new work strategies and protocols.

EDUCATION AND TRAINING

2021 – present

Doctoral Programme

Doctoral School of Physics, Babes-Bolyai University, Cluj-Napoca, Romania

2019 – 2021

Master's degree

Biophysics and Medical Physics, Faculty of Physics, Babes-Bolyai University, Cluj-Napoca, Romania

2016 – 2019

Bachelor's degree

Medical Physics, Faculty of Physics, Babes-Bolyai University, Cluj-Napoca, Romania

2012 – 2016

High School

Natural Sciences Intensive English, Technological High School Nr.1, Ludus, Romania

PERSONAL SKILLS

Mother tongue(s) Romanian, Hungarian

Other language(s)

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	C2	C2	C2	C2	C2
French	A1	A1	A1	A1	A1

Communication skills Public speaking experience, able to speak persuasively in front of large groups of people, able to clearly express ideas and information, able to provide and ask for feedback, able to effectively express complex information in common terms, patient and attentive listener, able to write in a clear and concise manner

Organisational / managerial skills Punctual and efficient with time management, highly detail-oriented, organized and sensitive to deadlines, methodical in planning and performing tasks. Able to face problems and conflicts with confidence and assurance, use positive reinforcement and show appreciation for contributions and achievements, promote harmony and teamwork, work harmoniously and effectively with others, promote relationships built on trust, respect, and honesty in the workplace.

Teaching experience *Spectroscopy and Lasers / Biomedical Applications of Raman and Infrared Spectroscopy*
Laboratory work with the undergraduate students from Faculty of Physics, Babes Bolyai University

ADDITIONAL INFORMATION

Awards Best oral presentation of ICPAM 2022, Croatia, for the presentation "Effects of ocean acidification on the morphology and structure of Hexaplex trunculus sea snail shell biomaterial revealed by Raman, XRD AND SEM-EDX data."

Publications

1. Lovro Ogresta, Fran Nekvapil, Tudor Tămaş, Lucian Barbu-Tudoran, Maria Suci, Răzvan Hirian, Mihaela Aluăş, **Geza Lazar**, Erika Levei, Branko Glamuzina, Simona Cîntă Pinzaru. Rapid and Application-Tailored Assessment Tool for Biogenic Powders from Crustacean Shell Waste: Fourier Transform-Infrared Spectroscopy Complemented with X-ray Diffraction, Scanning Electron Microscopy, and Nuclear Magnetic Resonance Spectroscopy. ACS Omega, vol. 6, no. 42, pp. 27773–27780, 2021, doi: 10.1021/acsomega.1c03279.
2. **Geza Lazar**, Fran Nekvapil, Razvan Hirian, Branko Glamuzina, Tudor Tamas, Lucian Barbu-Tudoran, Simona Cinta Pinzaru. "Novel drug carrier: 5-Fluorouracil formulation in nanoporous biogenic Mg-calcite from blue crab shells—Proof of concept" ACS Omega, vol. 6, no. 42, pp. 27781–27790, 2021, doi: 10.1021/acsomega.1c03285.
3. **Geza Lazar**, Fran Nekvapil, Sanja Matić-Skoko, Călin Firta, Dario Vrdoljak, Hana Uvanović, Lucian Barbu-Tudoran, Maria Suci, Luka Glamuzina, Branko Glamuzina, Regina Mertz-Kraus, Simona Cinta Pinzaru. "Comparative screening the life-time composition and crystallinity variation in gilthead seabream otoliths Sparus aurata from different marine environments," Sci. Rep., vol. 12, p. 9584, 2022, doi: 10.1038/s41598-022-13667-3.
4. **Geza Lazar**, Fran Nekvapil, Branko Glamuzina, Tudor Tamaş, Lucian Barbu-Tudoran, Maria Suci, Simona Cinta Pinzaru. "pH-Dependent Behavior of Novel 5-FU Delivery System in Environmental Conditions Comparable to the Gastro-Intestinal Tract" Pharmaceuticals, vol. 15, p. 1011, 2023, doi: 10.3390/pharmaceutics15031011.

5. Cristina Adriana Dehelean, Dorina Coricovac, Iulia Pinzaru, Iasmina Marcovici, Ioana Gabriela Macasoi, Alexandra Semenescu, **Geza Lazar**, Simona Cinta Pinzaru, Isidora Radulov, Ersilia Alexa, Octavian Cretu. "Rutin bioconjugates as potential nutraceutical prodrugs: An in vitro and in ovo toxicological screening," *Front. Pharmacol.*, vol. 13, 2022, doi: 10.3389/fphar.2022.1000608.
6. Cristina Dehelean, Ersilia Alexa, Iasmina Marcovici, Andrada Iftode, **Geza Lazar**, Andrea Simion, Vasile Chis, Adrian Pirnau, Simona Cinta Pinzaru, Estera Boeriu. "Synthesis, Characterization, and in vitro–in Ovo Toxicological Screening of Silibinin Fatty Acids Conjugates As Prodrugs With Potential Biomedical Applications," *Biomolecules and Biomedicine*, vol. 24, no. 6, pp. 1735–1750, 2024, doi: 10.17305/bb.2024.10600.
7. Fran Nekvapil, Maria Mihet, **Geza Lazar**, Simona Cîntă Pinzaru, Ana Gavrilović, Alexandra Ciorîță, Erika Levei, Tudor Tamaș, Maria-Loredana Soran Composition and Porosity of the Biogenic Powder Obtained from Wasted Crustacean Exoskeletons after Carotenoids Extraction for the Blue Bioeconomy. *Water*, 15, 2591. <https://doi.org/10.3390/w15142591>
8. SUBMITTED MANUSCRIPT: **Geza Lazar**, Tudor Tămaș, Lucian Barbu-Tudoran, Monica M. Venter, Ilijana Bajama, and Simona Cîntă Pinzaru. Biowaste valorisation: Conversion of Crab Shell-Derived Mg-Calcite into Calcium Phosphate Minerals Controlled by Raman Spectroscopy. Submitted to *Biomaterials Science*.
9. **Geza Lazar**, Calin Firta, Sanja Matić-Skoko, Melita Peharda, Dario Vrdoljak, Hana Uvanović, Fran Nekvapil, Branko Glamuzina, S. Cinta Pinzaru. 'Tracking the growing rings in biogenic aragonite from fish otolith using confocal raman microspectroscopy and imaging'. *Studia UBB Chemia*, 65(1), 125–136. <https://doi.org/10.24193/subbchem.2020.1.10>.
10. Fran Nekvapil, Ioana Brezestean, **Geza Lazar**, Calin Firta, Simona Cinta Pinzaru. Resonance Raman and SERRS of fucoxanthin: Prospects for carotenoid quantification in live diatom cells. *J. Mol. Struct.* 2021, 1250, 131608. <https://doi.org/10.1016/j.molstruc.2021.131608>.

Conference Contributions

- Geza Lazar**, Fran Nekvapil, Razvan Hirian, Branko Glamuzina, Tudor Tamaș, Lucian Barbu-Tudoran and Simona Cinta Pinzaru. PH dependent fluorouracil release from novel composite drug based on biogenic calcium carbonate. Poster: ICPAM 14, Dubrovnik, Croatia 7-16 September 2022.
- Effects of ocean acidification on the morphology and structure of Hexaplex trunculus sea snail shell biomaterial revealed by Raman, XRD AND SEM-EDX data. **G. Lazar**, F. Nekvapil, I. Bajama, T. Tamas, M. Suci, L. BarbuTodoran, S. Grdan, S. Cinta Pinzaru, S. Dupont, A. Bratos Cetinic, L. Glamuzina. Oral presentation: ICPAM 14, Dubrovnik, Croatia 7-16 September 2022.
- New biocomposites from waste materials S. Cinta Pinzaru, **G. Lazar**, F. Nekvapil, R. Hirian, T. Tamas, L. Barbu-Tudoran, M. Suci, M. Aluas, I. Bajama, D. A. Dumitru, S. Tomsic, B. Glamuzina. . ICPAM 14, Dubrovnik, Croatia 7-16 September 2022.
- Multiplexed SERS for wastewater treatment utilizing highly absorbent biogenic powders to eliminate environmentally realistic mixtures comprising inorganic pollutants. Ilijana Bajama, **Geza Lazar**, Tudor-Liviu Tamas, Simona Cinta Pinzaru. Poster: ICORS 2024, Rome, Italy 28 July - 2 August 2024.
- Raman technology for the development of a novel biogenic calcite based bone substitute material. **Geza Lazar**, Ilijana Bajama, Tudor Tamas, Simona Pinzaru. Accepted abstract. Poster: ICORS 2024. Rome, Italy 28 July - 2 August 2024