

Curriculum Vitae

Lucreția Udrescu, PhD

Professor – Department I, Drug Analysis, Faculty of Pharmacy, "Victor Babeș" University of Medicine and Pharmacy Timișoara, Romania

Director of the research center Center for Drug Data Analysis, Cheminformatics, and the Internet of Medical Things (CDDA-CIMT)

Research interests: complex networks, network pharmacology, systems biology, drug interactions, drug repositioning, network medicine, drug-cyclodextrin inclusion complex chemistry, in-silico prediction of host-guest stability constant.

Competences: network science and complex network analysis - Gephi, big data, data mining, Microsoft Office, Microcal Origin 6.0 (software for interactive scientific graphing and data analysis), R, Vision 32 (spectroscopy software for optical spectra).

Relevant Publications:

1. L. Suci, S.M. Ardelean, M. Udrescu, F.-D. Goldiș, D. Hânda, M.-M. Tuică, S.-O. Vasii, **L. Udrescu**. 2024. Categorical Analysis of Database Consistency in Reporting Drug–Drug Interactions for Cardiovascular Diseases, *Pharmaceutics* 16, no. 3: 339
2. M. Udrescu, S.M. Ardelean, **L. Udrescu**. 2023. The curse and blessing of abundance-the evolution of drug interaction databases and their impact on drug network analysis, *GigaScience*, Vol 12, giad011
3. C. Yin, M. Udrescu, G. Gupta, M. Cheng, A. Lihu, **L. Udrescu**, P. Bogdan, D.M. Mannino, S. Mihaicuta. 2023. Fractional Dynamics Foster Deep Learning of COPD Stage Prediction, *Advanced Science*, 10(12):2203485
4. V Groza, M. Udrescu, A. Bozdog, **L. Udrescu**. Drug Repurposing Using Modularity Clustering in Drug-Drug Similarity Networks Based on Drug–Gene Interactions. *Pharmaceutics* 2021, 13(12):2117
5. **L. Udrescu**, P. Bogdan, A. Chiș, I.-O. Sîrbu, A. Topîrceanu, R.-M. Văruț, M. Udrescu. Uncovering new drug properties in target-based drug-drug similarity networks, *Pharmaceutics* 2020, 12(9):879.
6. **L. Udrescu**, L. Sbârcea, A. Topîrceanu, A. Iovanovici, L. Kurunczi, P. Bogdan, M. Udrescu. Clustering drug-drug interaction networks with energy model layouts: community analysis and drug repurposing. *Scientific Reports* 2016, 6:32745
7. M. Udrescu, **L. Udrescu**. A drug repurposing method based on drug-drug interaction networks and using energy model layouts. Computational Methods for Drug Repurposing (Part of the Methods in Molecular Biology book series), 2019, Humana Press, New York, volume 1903, pp 185-201
8. A. Topîrceanu, **L. Udrescu**, M. Udrescu, S. Mihăicuță. Gender Phenotyping of Patients with Obstructive Sleep Apnea Syndrome Using a Network Science Approach, *Journal of Clinical Medicine* 2020, 9(12):4025
9. S. Mihăicuță, M. Udrescu, A. Topîrceanu, **L. Udrescu**. Network science meets respiratory medicine for OSAS phenotyping and severity prediction. *PeerJ* 2017, 5:e3289
10. A. Topîrceanu, M. Udrescu, **L. Udrescu**, C. Ardelean, R. Dan, D. Reisz, S. Mihăicuță. SAS score: Targeting high-specificity for efficient population-wide monitoring of obstructive sleep apnea. *PLoS ONE* 2018, 13(9):e0202042

Research grants:

1. Principal Investigator – *Complexity Science for Precision Pharmacy: Predicting Relevant Drug-Drug Interactions Using Complex Network Analysis* – HYPERION; Funding UEFISCDI Romania, 2020-2022, 120000 Euro
2. Assistant manager and researcher – *Revolution of sleep diagnostics and personalized health care based on digital diagnostics and therapeutics with health data integration* – Sleep Revolution, ID 965417, HORIZON 2020, 2021-2025, 113000 Euro
3. Researcher – Linde Healthcare REALfund R&D Grant *Morpheus: A Screening and Monitoring System for Sleep Apnea Syndrome*, 2014-2016, 70000 Euro
4. Researcher – *The synthesis of new compounds with potential anticancer activity by means of chemical derivatisation and their characterization through hyphenated technique. The evaluation of th antiangiogenic, antitumor and anti-inflammatory activity* – SYNTANTITUM, UMFVBT, 2014-2015

Other activities: Guest Editor Pharmaceutics

- special issue "In Silico Strategies for Prospective Drug Repositionings"
- special issue "Drug-Drug Interactions—New Approaches and Perspectives"
- Peer-Reviewer – ISI journals:
 - iScience (Cell Press)
 - Computers in Biology and Medicine (Elsevier)
 - Journal of Inclusion Phenomena and Macrocyclic Chemistry (Springer)
 - Industrial & Engineering Chemistry Research (The American Chemical Society Publications)
 - Molecular Pharmaceutics (The American Chemical Society Publications)
 - ACS Omega (The American Chemical Society Publications)
 - Journal of Materials Chemistry B (The Royal Society of Chemistry Publications)
 - Drug Development and Industrial Pharmacy (Taylor & Francis)
 - Journal of Macromolecular Science, Part A: Pure and Applied Chemistry (Taylor & Francis)
 - Plants (MDPI)
 - Molecules (MDPI)
 - Pharmaceutics (MDPI)
 - Pharmaceuticals (MDPI)
 - International Journal of Molecular Sciences (MDPI)
 - Processes (MDPI)
 - Medicina (MDPI)
 - International Journal of Environmental Research and Public Health (MDPI)
 - Medicina (MDPI)
 - Scientific Reports (Springer Nature)
 - Molecular Diversity (Springer Nature)

Timisoara,
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