



Tamás Pivarcsik

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WORK EXPERIENCE

01/2018 – 05/2019 Budapest, Hungary

QUALITY CONTROL DOCUMENTATOR EGIS PHARMACEUTICALS

1. Complete documentary and other GMP tasks in connection with analytical quality assurance tests (stability tests)
2. Completion and register quality management documentations, SOPs
3. Preparation for audits/inspections

09/2019 – CURRENT Szeged, Hungary

RESEARCH FELLOW UNIVERSITY OF SZEGED

- Developing metal complexes with pharmacological (anticancer, antibacterial, antiviral) aspects
- Synthesis, characterization in solid and aqueous phase, investigating interactions with (target)proteins, DNA
- Used analytical techniques: pH-potentiometry, UV-Visible spectrophotometry, Circular Dichroism, Spectrofluorometry, NMR spectroscopy, Capillary electrophoresis
- Preparing scientific manuscripts for publication
- Participation and presentation in scientific conferences (Author or co-author of 23 conference abstracts)
- Holding classical and instrumental analytical laboratories
- Supervision of bachelor and master students

EDUCATION AND TRAINING

09/2014 – 07/2017 Szeged, Hungary

CHEMIST B.SC. University of Szeged

Field of study Nonlinear dynamics | **Final grade** 5 |

Thesis Flow-driven precipitation patterns in magnesium- and strontium-carbonate systems

09/2017 – 07/2019 Budapest, Hungary

PHARMACEUTICAL ENGINEERING M.SC. Budapest University of Technology and Economics

Field of study Chemical Engineering | **Final grade** 4 | **Thesis** The vapor-liquid equilibrium of γ -valerolactone with ethane-1,2-diol

09/2020 – CURRENT Szeged, Hungary

PH.D STUDIES IN CHEMISTRY (EXPECTED COMPLETION: 2024) University of Szeged

My scientific area is mainly to investigate solution equilibria of half-sandwich rhodium and ruthenium organometallic complexes formed with bidentate ligands containing different donor atom set.

This includes:

- Determination of proton dissociation processes of the ligands as well as of the complexes
- Investigation solution chemical properties in aqueous matrix (lipophilicity, solubility, permeability)
- Investigation the complex formation and determination stability constants
- Isolation and characterization of the complexes and investigation their stability in biological medium
- Interaction of the complexes with transport and target biomolecules (human serum albumin, ct-DNA)

- (Characterization of the compounds in terms of pharmacological activity)

Field of study Chemistry - Cancer therapy

LANGUAGE SKILLS

Mother tongue(s): **HUNGARIAN**

Other language(s):

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken production	Spoken interaction	
ENGLISH	C1	C2	C1	C1	C2

Levels: A1 and A2: Basic user; B1 and B2: Independent user; C1 and C2: Proficient user

PUBLICATIONS

2021

[Comparison of solution chemical properties and biological activity of ruthenium complexes of selected \$\beta\$ -diketone, 8-hydroxyquinoline and pyridone ligands](#)

2021

[Critical factors affecting the albumin binding of half-sandwich Ru\(II\) and Rh\(III\) complexes of 8-hydroxyquinolines and oligopyridines](#)

2021

[8-Hydroxyquinoline-amino acid hybrids and their half-sandwich Rh and Ru complexes: synthesis, anticancer activities, solution chemistry and interaction with biomolecules](#)

2023

[Metal Complexes of a 5-Nitro-8-Hydroxyquinoline-Proline Hybrid with Enhanced Water Solubility Targeting Multidrug Resistant Cancer Cells](#)

2023

[Isobaric Vapor-Liquid Equilibria for Binary Mixtures of Biomass-Derived Gamma-Valerolactone + 1,4-Pentanediol and 1,2-Ethandiol](#)

2024

[Organometallic Ru\(II\), Rh\(III\) and Re\(I\) complexes of sterane-based bidentate ligands: Synthesis, solution speciation, interaction with biomolecules and anticancer activity](#)

NETWORKS AND MEMBERSHIPS

2020 – CURRENT Hungary

Hungarian Chemical Society

2020 – CURRENT Hungary

Coordination Chemistry Working Group of the Hungarian Academy of Sciences

CURRENT

Working group membership of NECTAR COST Action CA18202

WG2: NECTAR for strong and/or multifunctional ligands, macromolecules, polyelectrolytes

WG5: NECTAR for the future: new trends and exploitation of results

● **1-MONTH SCIENTIFIC TRIPS**

13/06/2022 – 08/07/2022

NECTAR COST Short-Term-Scientific-Mission

University of Ljubljana, Slovenia

Synthesis of biologically active half-sandwich ruthenium(II) and rhodium(III) complexes formed with sterane-based hybrids

01/09/2022 – 30/09/2022

OeAD-Scholarship of the Scholarship Foundation of the Republic of Austria

University of Vienna, Austria

Synthesis of biologically active half-sandwich ruthenium, osmium and rhodium complexes

● **NECTAR COST TRAINING SCHOOLS**

26/07/2021 – 28/07/2021

1st ISMEC-NECTAR Training School

Online

Determination, Analysis and Use of Thermodynamic Data

29/05/2023 – 29/05/2023

1st NECTAR Training School on Communication in Science

Cagliari, Italy

● **HONOURS AND AWARDS**

New National Excellence program (12 months)

2023

New National Excellence program (5 months)

2022