



Lia Maria Cucos

Date of birth: 15/11/1995 ✉ Email address: liamcucos@gmail.com

WORK EXPERIENCE

Researcher

Institute of Biochemistry of the Romanian Academy [03/2023 – Current]

City: Bucharest | Country: Romania

Research Assistant

Institute of Biochemistry of the Romanian Academy [08/2019 – 03/2023]

City: Bucharest | Country: Romania

Biochemistry and proteomics techniques such as SDS-PAGE, WB, IP, IF, ELISA, protein purification; Cell culture techniques like transfections, cell seeding, microscopy . Molecular Biology experiments like primer design, DNA and RNA purification, PCR, RT-PCR, cloning, mutagenesis. Molecular Virology techniques like HCVpp production, antigenicity studies, and viral neutralization.

EDUCATION AND TRAINING

PhD student

Doctoral School of the Romanian Academy [08/2019 – Current]

Field(s) of study: Biologie

MSc in Synthetic Biology

Newcastle University [07/2017 – 12/2018]

Country: United Kingdom | Final grade: Distinction

Synthetic Biology skills: molecular cloning, programming, modelling, phylogenetics, etc.

BSc in Experimental Biology

University of Bucharest - Faculty of Biology [08/2014 – 2017]

LANGUAGE SKILLS

Mother tongue(s): Romanian

Other language(s):

English

LISTENING C2 READING C2 WRITING C2

SPOKEN PRODUCTION C2 SPOKEN INTERACTION C2

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

DIGITAL SKILLS

Microsoft Office / Linux, user level; / Basic Python / R/ R Studio / - SQL – Basic

PUBLICATIONS

[2024]

The red alga *Porphyridium* as a host for molecular farming: Efficient production of immunologically active hepatitis C virus glycoprotein Hammel, A.*, Cucos, L. M.*, Caras, I., Ionescu, I., Tucureanu, C., Tofan, V., Costache, A., Onu, A., Hoepfner, L., Hippler, M., Neupert, J., Popescu, C. I., Stavaru, C., Branza-Nichita, N., & Bock, R. (2024). The red alga *Porphyridium* as a host for molecular farming: Efficient production of immunologically active hepatitis C virus glycoprotein. *Proceedings of the National Academy of Sciences of the United States of America*, 121(24), e2400145121. <https://doi.org/10.1073/pnas.2400145121>

[2021]

Challenges and Prospects of Plant-Derived Oral Vaccines against Hepatitis B and C Viruses Pantazica, A. M.*, Cucos, L. M.*, Stavaru, C., Clarke, J. L., & Branza-Nichita, N. (2021). Challenges and Prospects of Plant-Derived Oral Vaccines against Hepatitis B and C Viruses. *Plants (Basel, Switzerland)*, 10(10), 2037. <https://doi.org/10.3390/plants10102037>

[2020]

A polycarboxylic chelating ligand for efficient resin purification of His-tagged proteins expressed in mammalian systems Popescu, C. C.*, Stoian, M. C.*, Cucos, L. M.*, Coman, A. G., Radoi, A., Paun, A., Hädade, N. D., Gautier, A., Popescu, C. I., & Matache, M. (2020). A polycarboxylic chelating ligand for efficient resin purification of His-tagged proteins expressed in mammalian systems. *RSC advances*, 10(40), 23931–23935. <https://doi.org/10.1039/d0ra02382e>

CONFERENCES AND SEMINARS

[07/2021] online

35th Anniversary Symposium of the Protein Society ABS433 : Hepatitis C Virus Envelope Protein E2 Based Antigen Design and Characterization for Vaccine Development

[08/2020] online

49th Conference of the Romanian Immunology Association

[11/2022] Seville, Spain

FEBS-ENABLE Hepatitis C Virus Envelope Protein E2 Based Antigen Design and Characterization for Vaccine Development - Poster

[09/2023] Cluj-Napoca, Romania

SRBBM Young Scientist Forum - Best presentation award (1st prize)

[26/06/2024 – 03/07/2024] Pavia/Milano

23rd FEBS YSF/ 48th FEBS Congress YSF bursary recipient

PROJECTS

[2018 – 2023]

Next generation Viral Hepatitis B and C vaccine development in plants and algae using advanced biotechnological tools Research assistant and PhD student in project number: SEE1/ SMARVAC

[2019 – 06/2022]

Multiplex testing for hepatitis viruses development (MULTIHEP) Research assistant in project number: PN-III-P2-2.1-PTE-2019-0226;

- recombinant protein expression (novel antigens)
- purification of these novel antigens

[2022 – 2024]

Developing new diagnostic assays for hepatitis viruses rapid testing Research assistant in project number: POC 390/390066/11.10.2021

Expression and purification of novel antigens for immunization.

Cloning and production of high affinity antibodies derived from immunisation.

Biosensor development