

Professional Profile

“Highly motivated biologist graduate with an exemplary academic record, with a passion and drive to progress a career within the Biological Sciences Research sector”

Knowledgeable and experienced biologist graduate with Merit a MRes in Advanced Biological Sciences from the University of Southampton, with a wealth of practical laboratory experience gained within the expression, purification and characterisation of recombinant proteins and the molecular techniques associated with cloning and PCR. An accomplished strategic planner with a successful track record of European project participation and delivery coupled with academic research.

Currently seeking to enhance my practical laboratory skills and expand my understanding of Advanced Biological Sciences while making a constructive and meaningful contribution towards the organisation's research and development objectives.

Core Skills

- Strong understanding of scientific concepts and biological processes
- Extensive time management and project planning experience
- Proven ability to design, conduct and interpret scientific research
- Enhanced IT software skills to compile, analysis and present information
- Ability to work independently or with a team
- Comprehensive understanding of laboratory safety, quality and ethical procedures

Qualifications & Experience

➤ **University of Southampton** – September 2018 - September 2019

○ **MRes Advanced Biological Sciences**

Academic Syllabus: Cell Biology, Regulation of Gene Expression, Biomolecular NMR, Practical Spectroscopy and Biomedical Technology.

Research Project titled ‘Investigation of the role of divalent metal ions in S100A9 amyloid fibril formation’

Introduction: Previous studies have shown that the triggering of Alzheimer's disease and Parkinson's disease is due to the presence in the brain of some large structures formed by S100A9 proteins (also called amyloid fibrils)

Aim: Carried out innovative research to assess the impact of divalent metal ions on the formation of S100A9 amyloid fibrils

Materials and methods: S100A9 proteins were purified and then placed in various concentrations of calcium, copper and manganese and analyzed using the fluorescence technique

Conclusions: High concentrations of copper and calcium inhibited the formation of S100A9 amyloid fibril, and manganese variations seem to have no significant effect on the overall process

Advanced key skills:

- Performed external Solid-State NMR experimental analysis at the Warwick Science Facility
- Implemented new analysis techniques to characterize biological processes
- Carried out in depths data analysis related to experimental research data

- **University of Bucharest** – October 2015-July 2018
 - **Faculty of Biology, Bachelor's in Biology (Passed with distinction)**

Research project titled '*Study of lignocellulosic enzymes produced by endosymbionts of xylotrophic bivalves*'

- **Project funded and supported by the European Commission's "Seventh Framework Programme"**

Aim: Participated in the European International shipworm digestive module research programme, to assess the feasibility of developing biofuels based on the molecular structure of lignocellulosic enzymes.

Key Laboratory skills:

- Gained valuable and in-depth practical laboratory experience configuring and monitoring experimental equipment
- Designed and carried out complex biological experiments in the field of Genetics, Microbiology, Biochemistry and Biophysics
- Applied the process of science through observation, experimentation and hypothesis testing
- Analyzed and interpreted the usage of bioinformatics and NCBI databases to study biological processes

- **Faculty of Psychology and Educational Sciences, Bachelor's in Teaching**

Academic Syllabus: Education Psychology, Fundamentals of pedagogy, Theory and methodology of training, Didactics of specialty, Computer-assisted training and Classroom management.

Awards and Acaladates

- Merit Scholarship (2017-2018) awarded by the University of Bucharest in the final year of undergraduate studies
- Undergraduate thesis written and presented as part of the International Project META-MINE MarineBiotech (2018-2020), coordinated by Bjørn Altermark.

Interests

- **Complementary medicine:** Phytotherapy, Scio-EDUCTOR machines and Acupuncture
- **Swimming:** Maintaining a healthy lifestyle

References

Dr Philip Williamson: Masters, Tutor

Doctor of Structural biology and biological Membranes

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Professor Ileana Stioca: Undergraduate, Tutor

Professor of Microbial Genetics and Genetic Engineering

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