Ms Freideriki Michailidou Confidential

Date of Birth: 15th February 1991. Nationality: Greek School of Chemistry, Biomedical Sciences Research Complex, University of St Andrews, Fife, KY169ST

E-mail: fm59@st-andrews.ac.uk

I am a **synthetic chemist/ chemical biologist** with a particular interest in the biosynthesis of natural products, and am especially fascinated by the enzymes involved in in sugar and nucleoside biosynthesis and modification. I am passionate about biocatalysis, considering it the most striking and environmentally-friendly approach to synthesis. I am currently working on a very interdisciplinary project, combining synthetic chemistry, molecular biology and enzymology. Specifically, I am investigating the biosynthesis of the nucleoside moiety of pacidamycins, by focusing on the enzymes involved. Combining synthetic chemistry and heterologous expression, kinetic and crystallisation studies I aim to obtain a better understanding of the function of these enzymes, that could be potentially used for the generation of nucleoside antiviral targets.

Employment Record

PhD Studentship, funded by GSK and the University of St Andrews October 2013-present

Research internship, E2P2, SOLVAY CHINA CO, LTD., Shanghai, China February-July 2013

Research internship, Laboratory of Organic Chemistry 2 (LCO2), CPE Lyon (Ecole Supérieure de Chimie Physique et Electronique de Lyon), Lyon, France March-August 2012

Education

CASE PhD Studentship, University of St Andrews, Department of Chemistry, St Andrews, Scotland. GSK, Medicines Research Centre, Stevenage, UK, Dr R. Goss and Dr M. Brown October 2013- present

Harnessing synthetic chemistry and synthetic biochemistry to access modified nucleosides, with a focus on antiviral targets.

Master Thesis, E2P2, SOLVAY CHINA CO, LTD., Shanghai, China, Dr F. De Campo February-July 2013

Research in homogeneous catalysis and biomass chemistry. Development of an efficient and environmentally-friendly method for a reaction of industrial interest. Application to biomass chemistry.

International Master 2 'Synthesis, Catalysis and Sustainable Chemistry', Université Lyon 1, Lyon, France.

September 2012-July 2013

Bachelor's Thesis, Laboratory of Organic Chemistry 2 (LCO2), CPE Lyon (Ecole Supérieure de Chimie Physique et Electronique de Lyon), Lyon, France, Dr P. Goekjian March-August 2012

Synthesis of sugar-based analogues of an OGT inhibitor (BADGP) for a further understanding of OGT role in various biochemical pathways, especially its involvement in diabetes type 2.

Ms Freideriki Michailidou Confidential

Bsc. in Chemistry with one year specialisation in 'Biochemistry – Organic Chemistry and Synthesis', Department of Chemistry, Aristotle University of Thessaloniki, Thessaloniki, Greece

2008-2012

Involvement in ERASMUS programme.

Previous Employment Record

Summer Placement, Laboratory of biochemical analysis and medical exams, Ioannina, Greece.

July- September 2011

Direct Dialogue Campaign (DDC), Greenpeace, Thessaloniki, Greece.

September 2009- February 2010

Private tutor in Chemistry for high school students, Greece.

September 2009- January 2012

Skills and Knowledge

- Expertise in reaction design and set up including fluorination DAST-type reactions, hydrogenations, aminations using homogeneous catalysis, sugar and nucleoside chemistry, protecting group chemistry
- Expertise in purification of carbohydrates and nucleosides
- Expertise in purification of enzymes
- Expertise in molecular biology techniques including cloning
- Highly experienced in spectroscopic and spectrometric characterisation
- Experienced in the use of Word, Excel, Power Point, ChemDraw, ilib diverse, LingaScout, Mnova

Languages

- Greek: mother language.
- English: fluent/ PCE Cambridge and Michigan Proficiency Certificate in English
- French: independent / Certificate B2 (preparation for Certificate C1)

Administrative Experience/ Teaching

<u>Lab Roles</u>: Responsible for the proper function of Rotavaps and safety handling of solvents.

<u>Demonstrating:</u> Demonstrator of undergraduates for laboratories in the University of St Andrews