

# Nefeli Nikolaidou-Katsaridou

## Personal Details

Date of birth: 29/11/1979  
Place of Birth: Athens, Greece  
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## Education

2005 - 2008 PhD, University of East Anglia, Norwich, U.K.  
Thesis Title: 'Genetic analysis of dimethylsulfoniopropionate and acrylate catabolism by the marine bacterium *Halomonas* HTKN1'.

2001 - 2002 MSc Biomedical Sciences Research, King's College, London, U.K.  
Research Project: 'Toxic effects of Beta-Amyloid on neurons and the blood brain barrier in relevance to Alzheimer's disease'.

1998 - 2001 BSc Honours Degree Biochemistry and Applied Molecular Biology, UMIST, Manchester, U.K.  
Final Year Research Project: 'Genome-wide analysis using microarray technology: how does it work and what does it tell us.'

1994 - 1997 First Comprehensive High School of Rhodes, Greece.

## Employment History

2008-present B.S.R.C. "Alexander Fleming"

### **Post-doctorate Fellow**

Working on Immunology/ Oncology that focuses on the role of ATX and LPA signalling in the pathophysiology of pulmonary diseases and more specifically on 'Autotaxin as a diagnostic marker and therapeutic target in pulmonary fibrosis, therapeutic target in lung cancer and as a diagnostic marker and therapeutic agent in acute lung injury' working with animal models.

2002-2005 Sanger Institute, Wellcome Trust, Cambridge, U.K.

### **Advanced Research Assistant**

I was a member of the pathogen microarrays team and I was collaborating with pharmaceutical companies (R&D). I was involved in a several projects such as *Candida Albicans*, *Salmonella Typhi*, *Dictyostelium discoideum*, *Schistosoma mansoni*, *Scizosaccharomyces pombe*. I undertook development of new arrays including continual expansion and refinement of genomic and cDNA collections. I had been responsible for accumulation of products (i.e.oligos, PCR products), hybridization experiments and data analysis using complex software programmes (i.e.Genepix, Genespring, Bioconductor). Furthermore I was a critical member of my team responsible for the evaluation of methods, protocols and R&D and also the design of the microarrays of my team and other Institutes.

June 2000 – September 2000 Medical School, Department of Biochemistry, Athens, Greece.

### **Summer internship**

I worked under the supervision of Dr. Raptis in the Department of Molecular Biology, Metabolism and Clinical Research, on the Metabolism of Carbohydrates, Proteins and Lipids on Diabetes.

### **Skills**

- I am experienced in recombinant genetics, microbiology and molecular biology.
- I am an expert on the microarray technology, where I studied during my first year as a PhD student ‘Transcriptomics on *Rhizobium Leguminosarum*’ and also during my three year post as an advanced research assistant at the Wellcome Trust, where I work on a number of different pathogens.
- I have used proteomics to study the effects of different carbon sources to a novel bacterium strain of *Halomonas*.
- I regularly download genomes and analyse them in Artemis and other software using the skills learnt at the 1<sup>st</sup> ‘Working with pathogenic genomes’ workshop at the Wellcome Trust Genome Campus.
- I supervise undergraduate and postgraduate students.
- I teach principles and techniques of molecular biology and genetic to undergraduate and postgraduate students.

### **Additional skills**

Languages: Greek (native), English (proficient), French (Elementary).  
Technical skills: Mouse handling skills, Transcriptomics, Proteomics, SDS-PAGE, Molecular Cloning, Western blotting, Protein assay methods, Tissue culture, Cell viability, Radioimmunoassay, Cell permeabilisation, High pressure liquid chromatography, PCR, Northern blotting, Southern blotting, Transfection, Engineering DNA with PCR, In situ hybridization, Light microscopy, Fluorescence microscopy, Confocal microscopy, Protein assays, Immunohistochemistry, Brain perfusion, Patch clamp, RT-PCR, Primer extension, Gas Chromatography.  
Computing skills: HTML, Linux, Biochemical Software, GeneSpring, Genepix, Bioconductor, R, Windows, TAS Application Software, all the latest Microsoft Office Applications, Statistical Packages, Clustal W.  
Other skills: Data Handling Skills, Excellent Presentation and Organization Skills, Communication Management Skills, Demonstrating, Radioactive substances course, Teaching and Professional Skills,

### **Honours**

Honours: Bodossakis foundation studentship in Immunology.  
BBSRC scholarship in Molecular Genetics and Microbiology.  
Member of the Biochemistry Society of England.  
Member of the Microbiology Society of England.

### **Publications**

**Ioanna Nikitopoulou, Nikos Oikonomou, Emmanuel Karouzakis, Nefeli Nikolaidou-Katsaridou, Zhenwen Zhao, Vassilis Mersinias, Damian Madan, Maria Armaka, Yannis Sotsios, Niki Karagianni, Yan Xu, Glenn D. Prestwich, Masayuki Masu, Gordon B. Mills,**

**Steffen Gay, George Kollias & Vassilis Aidinis (2011).** Autotaxin expression from synovial fibroblasts and lysophosphatidic acid signaling are essential for the development of modeled arthritis. Submitted for evaluation (Nature Medicine)

**Triantafillos Paparountas, Nefeli Nikolaidou-Katsaridou, Gabriella Rustici, Vassilis Aidinis (2011)** Data mining and meta-analysis on DNA microarray data. Submitted for evaluation

**Jonathan D. Todd, Andrew R. J. Curson, Nefeli Nikolaidou-Katsaridou, Charles A. Brearley, Nicholas J. Watmough, Yohan Chan, Philip C. B. Page, Lei Sun, Andrew W. B. Johnston (2009).** Molecular dissection of bacterial acrylate catabolism – unexpected links with dimethylsulfoniopropionate catabolism and dimethyl sulfide production. Environmental Microbiology

**Johnston, A. W. B., Todd, J. D., Sun, L., Nikolaidou-Katsaridou, M. N., Curson, A. R. & Rogers, R. (2008).** Molecular diversity of bacterial production of the climate-changing gas, dimethyl sulphide, a molecule that impinges on local and global symbioses. J Exp Bot., 16.

**Johnston, A. W. B., Todd, J. D., Curson, A. R., Lei, S., Nikolaidou-Katsaridou, N., Gelfand, M. S. & Rodionov, D. A. (2007).** Living without Fur: the subtlety and complexity of iron responsive gene regulation in the symbiotic bacterium *Rhizobium* and other alpha-proteobacteria. Biometals 20, 501-511.

**Dillon, G. P., Feltwell, T., Skelton, J. P., Ashton, P. D., Coulson, P. S., Quail, M. A. , Nikolaidou-Katsaridou, N., Wilson, R. A. & Ivens, A. C. (2006).** Microarray analysis identifies genes preferentially expressed in the lung schistosomulum of *Schistosoma mansoni*. Int. J. Parasitol. 36,1-8.

### Presentations

ATX and LPA signalling in the pathophysiology of Pulmonary diseases. B.S.R.C. "Alexander Fleming". November 2010.

Cloning the smell of the seaside. School of Biological Sciences, University of East Anglia, Norwich, May 2008.

Genomic and proteomics analysis of bacterial dimethyl sulphide production. Society of General Microbiology, 161th Meeting, Edinburg, September 2007.

Transcriptomics on *Rhizobium Leguminosarum*. School of Biological Sciences, University of East Anglia, Norwich, September 2006.