

# Dr. Vangelis (Evangelos) Simeonidis

## Contact details

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&  
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## RESEARCH EXPERIENCE

### 2010 - present *Research Associate*

*Luxembourg Centre for Systems Biomedicine, University of Luxembourg*

I am currently on a long-term visit to the **Institute for Systems Biology** in Seattle, USA. My visit is part of a partnership between ISB and LCSB, which aims to build strong collaborations and promote knowledge transfer between the two institutes. My research focuses on two fields: a) the development of constraint-based and control theory approaches (e.g. Flux Balance Analysis, Metabolic Control Analysis or Elementary Flux Mode analysis) for the study of metabolism; and b) the creation of kinetic-based models for the study of the dynamic behaviour of biochemical systems.

### 2006 - 2010 *Mathematical modeller (Post-doc)*

*Manchester Centre for Integrative Systems Biology, University of Manchester, UK*

I worked at the Manchester Centre for Integrative Systems Biology (MCISB) and the School of Chemical Engineering and Analytical Science, at the University of Manchester. My research focused on the development of mathematical models for the study of the metabolism of baker's yeast.

## EDUCATION

### 2000 - 2005 *PhD in Chemical Engineering: Optimisation of Biochemical Systems*

*University College London, UK*

The goal of my PhD was the application of mathematical programming and optimisation methodologies to problems of biological and biochemical nature.

### 1999 - 2000 *MSc in Process Systems Engineering*

*Imperial College, London, UK (Centre for Process Systems Engineering)*

### 1993 - 1999 *Diploma in Chemical Engineering*

*Aristotle University of Thessaloniki, Greece*

## RESEARCH FUNDING

### Grants

Participated and contributed to NIH and DoD grant applications during my time at the ISB.

Coordinated and participated in Luxembourg AFR grants for the funding of PhD students.

Participated and contributed as named researcher in MCISB grant applications to national (e.g. BBSRC) and international (e.g. EU FP7) bodies. In addition, I participated in international collaborations for grant applications; examples of proposals include:

- Multiscale analysis of complex networks in systems biology. *Funding body*: COST; €400,000
- Innovative applications in Epigenetics. *Funding body*: Thalys, Greek Ministry of Education; €510,000
- From reconstruction to model: Collaborative tool development to automate network reconstructions and improve their predictive power in Systems Biology. *Funding body*: BBSRC; £50,000

### Industrial partners

I was the main contact in MCISB prior to my departure for a planned collaboration with UCB Pharmaceuticals. The proposed collaboration was planned to last for a minimum of 3 years and the funding involved was projected to be in excess of £1,000,000.

### Personal awards

- Centre for Process Systems Engineering (Imperial) Scholarship (2000; £36,000)
- EPSRC Scholarship (2001; £12,000)
- Several travel grants 2001-2012 (numerous sources)

**SUPERVISION/MENTORING****2007 - present** *Supervision of PhD students (University of Manchester)*

- E. Murabito, Understanding cancer metabolism using differential metabolic control analysis, 2007-'10
- N. Stanford, Building a genome-scale kinetic model of yeast metabolism, 2008-'11
- O. Oshota, Identifying red and white biotechnological products through a systematic *in silico* gene deletion study, 2008-'11

**International mentoring**

Volunteered services as mentor for the 'International Mentoring' programme of the Biochemical Society.

**2001 – 2010**

Supervision of postgraduate (MSc) students (University of Manchester; University College London).

**TEACHING EXPERIENCE**

<b>2014</b>	National Academies Education Fellow in the Life Sciences
<b>2009 - 2010</b>	Course coordinator of Data Analysis Unit, MRes in Translational Medicine (Manchester)
<b>2007 - 2008</b>	Modelling and Flux Balance Analysis workshop, MCISB DTC (Manchester)
<b>2007</b>	Metabolic Engineering course, School of Chemical Engineering (Manchester)
<b>2006 - 2009</b>	Mathematics refresh course, MCISB DTC (Manchester)
<b>2000 - 2004</b>	GAMS software tutorials, Department of Chemical Engineering (UCL)

**SERVICE****Expert member - metabolic reconstructions**

Saccharomyces cerevisiae reconstruction: collaboration of leading groups in the field, which produced a consensus model of yeast metabolism (Herrgard *et al.*, 2008).

Homo sapiens reconstruction: collaborative effort from experts on metabolism and human physiology to build a reconstruction for human metabolism based on community consensus (Thiele *et al.*, 2013).

**MCISB project manager** Served in an interim capacity from May to September 2009

**Editor** Frontiers in Systems Biology; BMC Systems Biology

**Referee** Refereed dozens of papers in the field of Systems Biology

**Founder of BMNet**

Founder and organiser of the BioModelling Network (BMNet); a network of researchers of Biological Modelling in the University of Manchester (<http://www.mcisb.org/bmnet>).

**Coordination**

Organised a large number of research-related workshops, lectures, seminars and meetings on Systems Biology

**GENERAL****Professional memberships**

International Society for Computational Biology; International Society for Systems Biology; Biochemical Society; Institution of Chemical Engineers (IChemE); Yeast Systems Biology Network (YSBN); Technical Chamber of Greece (TEE-TCG)

**Computer skills**

Excellent knowledge of modelling and optimisation software (*e.g.* GAMS, MATLAB, COPASI, others)  
Frequent user of Systems Biology Markup Language (SBML) and other systems biology standards and tools  
Extremely competent with both UNIX and Windows and most popular commercial programs and packages

**Languages** English (fluent), Greek (native), French (intermediate), German (basic), Dutch (learning)