# CV. Professor, Dr. Gianni (Ioannis) Panagiotou


**PERSONAL DATA**

| | |
|---|---|
| Address: | Knaackstrasse 35, 10405 Berlin, Germany |
| Contact details: | Telephone: +49(0)152-255-617445 E-mail: Gianni.Panagiotou@hki-jena.de & gipa@hku.hk |
| Date of birth: | 22 September 1974 |
| Civil status: | Married, two children (born 2014) |
| Citizenship: | Greek, Permanent residence in Denmark |
| Languages: | Greek (native), English (professional), German (B1) |


## ACADEMIC STATUS

**2023** Professor of Microbiome Dynamics, Faculty of Biological Sciences, Friedrich Schiller University, Jena, Germany.

**2022-2027** (Honorary) Professor at Li Ka Shing Faculty of Medicine, The University of Hong Kong.

**2022 -** Head of the Department Microbiome Dynamics, Leibniz Institute for Natural Product Research and Infection Biology, Jena, Germany.

**2017 -** Head of Systems Biology & Bioinformatics Group, Leibniz Institute for Natural Product Research and Infection Biology, Jena, Germany (permanent position).

**2020 - 2022** (Honorary) Associate Professor at Li Ka Shing Faculty of Medicine, The University of Hong Kong.

**2019** I was headhunted and offered a Professor position at the Department of Biomedicine and Biotechnology of the Technical University of Denmark. The offer was not accepted.

**2017 - 2022** (Honorary) Associate Professor at the Faculty of Science, School of Biological Sciences, The University of Hong Kong.

**2013 - 2017** Associate Professor at the Faculty of Science, School of Biological Sciences, The University of Hong Kong.
**The University of Hong Kong places 22nd in 2021 QS World University Rankings**

**2009 – 2013** Associate Professor at the Department of Systems Biology, Technical University of Denmark.
**The Technical University of Denmark places 103rd in 2021 QS World University Rankings**

**2007 – 2009** Assistant Professor at the Department of Systems Biology, Technical University of Denmark.

**2004 – 2007** Post-doctoral researcher at the Department of Systems Biology, Technical University of Denmark.

**2000 – 2004** PhD in Biochemical Engineering, National Technical University of Athens, Greece; 16 months as Erasmus PhD student at the Technical University of Denmark.

## ACADEMIC EDUCATION

**1993 – 1999** **Diploma (BSc & MSc)** in Chemical Engineering obtained from the National Technical University of Athens, Greece.

### EXTERNAL STAYS (SABBATICALS)

**2010** Visiting Assoc. Professor at the Industrial Biotechnology Lab, Department of Chemical and Biological Engineering, Chalmers University, Sweden **(January – May)**.

**2008** Visiting Assist. Professor at the Natural Products Chemistry Lab, Department of Pharmaceutical Sciences, University of Tokyo, Japan **(January – December)**.

## RESEARCH STATEMENT

### EXPERTISE

- Medical & Environmental Metagenomics: human, mice, marine, plants;
- Systems Biology: -omics integration, chemical-protein & protein-protein interaction networks;
- Synthetic Biology: genome-scale metabolic modelling, design of probiotics, discovery of postbiotics

## SCIENTIFIC FOCUS AREAS

***Microbiome Systems Biology*:** My research is highly collaborative and explores the role of the microbiome and mycobiome in globally significant diseases for delivering novel patient-centric therapies. I am particularly interested on the dynamics between the host and the associated bacteria and fungi in metabolic diseases, infection, critical care and cancer. My group is emphasizing on the integration of microbiome, mycobiome and meta-omics data with biochemical and clinical data using machine learning methods for in-depth investigation of the biotic and abiotic factors consistently associated with alterations in host's metabolism and physiology. We construct state-of-the-art genome-scale metabolic models for fungal pathogens, and we use *in silico* growth simulations to understand the interactions between the host, the resident microbiota and the pathogen. Our data provide 'real world' understanding of microbiome and mycobiome functions valuable for precision medicine and targeted microbial therapies.

***Systems Medicine*:** We generate an enormous volume of next generation sequencing data and we develop computational pipelines for efficient and informative data processing. We perform comparative genomics and transcriptomics of fungal pathogens to explore how genetic variation contributes to human infection and antifungal drug resistance. We apply machine learning methods that combine clinical and high-throughput biological data to study sepsis and we establish multidimensional molecular networks to improve our ability to design new therapies and predict patient groups who are likely to respond to specific treatments.

---

**>120 PUBLICATIONS** (including Cell Metabolism, Nature Metabolism, Nature Immunology, Nature Microbiology, Advanced Science, PNAS, Science Translational Medicine, Nature Communications, among others)
**CITATIONS (SCOPUS) >4000**
**H-INDEX=36**
**PATENTS=5**

Gianni Panagiotou, PhD