Curriculum Vitae

ALEXANDRA DASKALAKI

PERSONAL INFORMATION

Date of birth: 03/04/1990

Home address: Ippodamou 15, Patra

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EDUCATION

09/2019 - Present day PhD Student in Microbiology, Department of Biology,

University of Patras, Patra (Greece)

09/2016 - 09/2018 Master degree, Department of Biology,

University of Patras, Patra (Greece)

Title «Biological Technology»

Grade: 9.71/10.00

10/2009 - 09/2015 Bachelor degree, Department of Biology,

University of Patras, Patra (Greece)

Grade: 6.48/10.00

EMPLOYMENT EXPERIENCE

02/2019-08/2019 Quality Control Analyst in pharmaceutical industry,

CBL Biopharma, Patra (Greece).

01/2018-01/2019 Analyst of virological, parasitological and microbiological parameters

in food, water, biological samples and waste waters according to

ISO 17025.

Department of Public Health, Medical School, University of Patras,

(Greece)

RESEARCH PROJECTS

2019 – Present date «Adaptive laboratory evolution of the oleaginous yeast

Yarrowia lipolytica in nitrogen limited media»

PhD thesis, Laboratory of Microbiology, Unit of Genetics,

Cell Biology & Developmental Biology, Department of Biology,

University of Patras, (Greece)

Supervising Professor: Mr. George Aggelis

2016 - 2018

«Adaptive laboratory evolution of the oleaginous yeast Yarrowia lipolytica under nitrogen-limited conditions and selection under carbon-limited conditions»

Master thesis, Laboratory of Microbiology, Unit of Genetics, Cell Biology & Developmental Biology, Department of Biology,

University of Patras, (Greece)

Supervising Professor: Mr. George Aggelis

2014 - 2015

«Inhibition of the lipid degradation process of the intercellural lipids in the oleaginous yeast *Yarrowia lipolytica*»

Diploma thesis (Bachelor), Laboratory of Microbiology, Unit of Genetics, Cell Biology & Developmental Biology, Department of Biology, University of Patras, (Greece) Supervising Professor: Mr. George Aggelis

RESEARCH SKILLS (MICROBIOLOGY LABORATORY SKILLS)

Microbial cultures:

- Preparation of liquid and solid media for microorganism cultivation (yeasts, bacteria, fungi)
- Preparation of microorganisms cultivations in both flasks
- Conducting experiments concerning microorganism cultivation on solid and liquid substrates

Classical Microbiology Techniques:

- Gram (+) and Gram (-) staining, malachite green staining
- Nile red staining for microbial lipids
- Observation of microorganism morphology by optic microscope
- Observation of microorganism intracellular lipids by fluorescence microscope
- Photometric analysis (Folin–Ciocalteau method, 3,5- dinitrosalicylic acid method-DNS, Biuret method, Dubois method)

Specialized Microbiology Techniques:

- Biomass determination form yeast and fungi cultures, cultivated on liquid or solid media
- Extraction of intracellular and extracellular total lipids from microbial cultures (FOLSH, Soxhlet)
- Purification and fractionation of total lipids into neutral lipids, sphingolipids, phospholipids and glycolipids
- Acyl-esterification of lipids
- Proteins and polysaccharide determination

Analytical Techniques:

- High Performance Liquid Chromatography (HPLC)

RESEARCH SKILLS (MOLECULAR LABORATORY SKILLS)

- Molecular methods for virus detection (Norovirus, Adenovirus, Hepatitis virus) in food (shellfish, vegetables, fruits), water (sea/pool water, water for human consumption), biological samples (stool), and waste waters according to ISO 17025
- o Molecular methods for detection of Cryptosporidium in environmental water samples
- o Detection of bacteriophage in environmental water samples
- DNA, RNA isolation (manual or via QIACube)
- Real Time PCR

FOREIGN LANGUAGES

English:

- Proficiency Certificate in English, University of Michigan
- First Certificate in English, University of Cambridge

German:

- Zertificat Deutsch (B1), Goethe-Institut

H/Y SKILLS

- Microsoft office Specialist Master (Word, Excel, PowerPoint, Access, Outlook)
- o Origin lab

PUBLICATIONS IN INTERNATIONAL JOURNALS

- Daskalaki, A., Perdikouli, N., Aggeli, D. & Aggelis, G. (2019). Laboratory evolution strategies for improving lipid accumulation in *Yarrowia lipolytica*. Appl Microbiol Biotechnol.
- Daskalaki, A., Vasiliadou, I., Bellou, S., Tomaszewska- Hetman, L., Chatzikotoula, C., Kompoti, B., Papanikolaou, S., Vayenas, D., Pavlou, S. & Aggelis, G. (2018). Lipids and fatty acid composition of *Yarrowia lipolytica* cultivated on fatty substrates. J Clean Prod, Data in Brief.
- Vasiliadou, I., Bellou, S., Daskalaki, A., Tomaszewska- Hetman, L., Chatzikotoula, C., Kompoti, B., Papanikolaou, S., Vayenas, D., Pavlou, S. & Aggelis, G. (2018). Modeling growth of *Yarrowia lipolytica* on fats and perspectives for substrate fat modification. J Clean Prod.

PARTICIPATION IN EU/NATIONAL PROJECTS

• **INVALOR**: Project title: "Research infrastructure for waste valorization and sustainable management".

CONFERENCES

2017	Participation with poster in the 7th One-Day Conference Greek Lipid Forum, Alexander Technological Educational Institute of Thessaloniki, (Greece)
2015	Certificate of Attendance in the one-day conference "Microbiology and Biotechnological Applications: Challenges and Opportunities III"
2015	Certificate of Attendance in the one-day conference "Microbiology and Biotechnological Applications: Challenges and Opportunities II"
2014	Certificate of Attendance in the one-day conference "Microbiology and Biotechnological Applications: Challenges and Opportunities"