

# THEODORA KARAMANIDOU

## Chemical Engineer, PhD

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## Work Experience

General Director & Head of R&D ( <i>Current Position</i> )	Senior R&D Engineer	R&D Engineer	
Present	06/2018	07/2017	09/2016

PLiN Nanotechnology S.A. (Start-up & Spin-off of AUTH)

09/2016 - Present

Thessaloniki, Greece

- Oversee company's financial performance and daily operations.
- Formulation development of nanoparticle-enhanced cosmetic products for pet care use.
- Plan cost-effective operations and supervise employees providing guidance.
- Participates in 3 NSRF (2014-2020) projects. For more information please visit my LinkedIn profile.

### Adjunct Assistant Professor (*Current Position*)

University of Western Macedonia (UoWM)

03/2019 - Present

Koila Kozani, Greece

- Teaching both undergraduate (Non-Metallic Materials, Biomedical Engineering) and postgraduate courses (Pharmaceutical (Nano-) Technology & Cosmetology, Bio-printing at MSc Biomedical Engineering).
- Supervising and instructing MSc students in biomedical engineering, cosmetics and drug delivery, while also exploring various innovating approaches.

### Postdoctoral Research Associate – Drug Delivery Systems (Oral & Ocular Administration)

Chemical Engineering B' Laboratory, Aristotle University of Thessaloniki

11/2015 - 05/2016 (7 mos)

Thessaloniki, Greece

- Development of nanoparticulate drug delivery systems (e.g., lipid-based & polymer nanoparticles) for the oral and ocular administration of biomolecules and mathematical investigation of diffusion phenomena through biological membranes.

### Research Engineer – Drug Delivery Systems (Oral & Ocular Administration)

Chemical Engineering B' Laboratory, Aristotle University of Thessaloniki

02/2011 - 11/2015 (4 yrs & 8 mos)

Thessaloniki, Greece

- Research in the framework of the FP7-NMP-280761 project: ALEXANDER - "Mucus Permeating Nanoparticulate Drug Delivery Systems".
- Instructed and supervised (3) master's students in tissue engineering & drug delivery systems projects.

### IAESTE Intern Engineer

Austrian Institute of Technology

07/2008 - 08/2008

Vienna, Austria

- Research assistant in the framework of the project "Gene Expression Analysis of Drought Stressed Oaks Using cDNA Microarray".

## Education

### PhD in Nanomedicine/Drug Delivery (Grade: 10/10)

School of Chemical Engineering, Aristotle University of Thessaloniki

02/2011 - 11/2015

Thessaloniki, Greece

- **Dissertation:** "Mucus Permeating Nanocarriers for Controlled Drug Delivery." - Supervisor: Prof. C. Kiparissides.

### Diploma (MSc equivalent) in Chemical Engineering (Grade: 8.24/10)

School of Chemical Engineering, Aristotle University of Thessaloniki

2005 - 2010

Thessaloniki, Greece

- **Thesis:** "Development and characterization of 3D, porous PLGA scaffolds for bone and cartilage regeneration" - Supervisor: Professor C. Kiparissides. Grade: 10/10.

## Skills & Expertise

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### Research Skills

- Nanoparticle-based cosmetic products development (e.g. dental gels) for pet care applications (Nanosanitas™) with unique characteristics (e.g. mucoadhesive gels for prolonged action).
- Intermediate knowledge of the European cosmetics regulation (Regulation (EC) N° 1223/2009), Art. 16 for nanomaterials and Regulation (EU) No 528/2012 (BPR) for biocides.
- Organic/biodegradable nanoparticulate systems (e.g. polymer-, lipid-based nanocarriers) for various applications (e.g. cosmetic-, pharmaceutical industry).
- Inorganic nanoparticulate systems (e.g. silver-, copper-, gold NPs) synthesis and characterization.
- Nanocarriers characterization (e.g., DLS, LDE, ATR/FT-IR, etc.) and in vitro assessment of their diffusivity across biological membranes (e.g. via Transwell cells, etc.).
- Analytical techniques for protein/peptide content determination (e.g., HPLC, UV-Vis, BCA/microBCA, Bradford assay, etc.).
- Tissue engineering constructs (e.g., scaffolds, hydrogels) development/characterization.
- Mammalian cell culture and cell viability assays (e.g., MTT).
- Use of good aseptic techniques.
- Successfully applied for funding through research proposal/grant writing (e.g., NSRF).

### Computer Skills

- Advanced knowledge of Microsoft Windows operating systems.
- Extensive knowledge of Microsoft Office package (Word, Excel, PowerPoint, Outlook).
- Statistical tools (e.g., Minitab).

### Language Skills

**Greek** – Native Language



**English** – Certificate of Proficiency in English, University of Michigan



**German** – Goethe Zertifikat B2, Goethe Institut



### Other Skills

Data Analysis

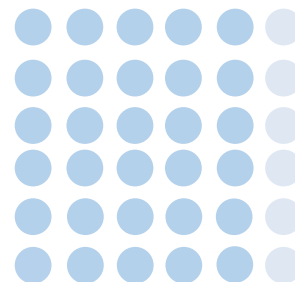
Problem Solving

Multitasking Ability

Time Management

Team Working

Communication Skills



## Honours & Awards

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### Awards

- Academic award for academic excellence from the School of Chemical Engineering of AUTH (in the entry year 2005 and in the graduation year 2010) and from the Technical Chamber of Greece (TCG) (2010).

### Scholarships

- Scholarship from the State of Scholarships Foundations (2005 and 2005-2006) and from the School of Chemical Engineering of AUTH (2005-2006).

## Publications

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- Publications in peer-reviewed journals (6), posters and oral presentations in national and international conferences (>15). For more information, please visit my LinkedIn profile.

## Additional Information

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- Car owner - category B driving license.
- Member of the Technical Chamber of Greece (TCG) - Professional engineering license verification.
- Member of Hellenic Society of Biomechanics (HSB).
- Review Editor at Frontiers in Bioengineering and Biotechnology.
- For more information on publications, volunteer experience etc., please visit my LinkedIn profile.
- References are available upon request.