

Curriculum Vitae



Dr. Maria Chountoulesi

Pharmacist, MSc, PhD

Laboratory of Pharmaceutical Nanotechnology,

Section of Pharmaceutical Technology,

Department of Pharmacy,

School of Health Sciences,

National and Kapodistrian University of Athens

Personal Details

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| Name- Surname: | Maria Chountoulesi |
| Title: | Pharmacist, MSc, PhD |
| Affiliation: | Eurysthenous 1, Zografou 15773, Athens |
| E-mail: | mchountoules@pharm.uoa.gr |
| Phone: | 6974661577 |
| Date of Birth: | 21/12/1992 |
| Nationality: | Hellenic |
| Scopus Author ID: | 56829379800 |

Academic Qualifications

- Oct. 2017-
Oct. 2020** PhD Thesis: “Development and evaluation of lyotropic liquid crystalline nanosystems intended for the delivery of active pharmaceutical ingredients to subcellular organelles”, Section of Pharmaceutical Technology, Department of Pharmacy, School of Health Sciences, National and Kapodistrian University of Athens, Greece (*PhD Thesis Grade: "Excellent"*)
- 2015-2017** Master Degree (M.Sc.) in Pharmaceutical Technology: “Industrial Pharmacy”, Department of Pharmacy, School of Health Sciences, National and Kapodistrian University of Athens, Greece (*Degree Grade: 9,63/10 "Excellent"*)
- 2015** License of Pharmaceutical Profession, Ministry of Health, Athens, Greece

2010-2015 Diploma of Pharmacy, Department of Pharmacy, School of Health Sciences, National and Kapodistrian University of Athens, Greece
(*Diploma Grade: 8,69/10 "Excellent"*)

Research Interests

❖ Pharmaceutical Nanotechnology

- Design and Development of Drug Delivery nano Systems
- Preparation of lyotropic liquid crystalline nanoparticles, liposomes and mixed/chimeric nanosystems
- Physicochemical, morphological and thermodynamic characterization of the nanoparticles
- Drug loading and release studies

Techniques: Dynamic, Static and Electrophoretic Light Scattering techniques, Differential Scanning Calorimetry, Fluorescence and UV-Vis Spectroscopy.

Scholarships

1. ***IKY PhD Scholarship:*** PhD Scholarship implemented by the State Scholarships Foundation (IKY), co-financed by Greece and the European Union (European Social Fund- ESF) through the Operational Programme «Human Resources Development, Education and Lifelong Learning» in the context of the project “Strengthening Human Resources Research Potential via Doctorate Research - 2nd Cycle” (MIS-5000432) (April 2018-October 2020).
2. ***Erasmus+ Traineeship Fellowship:*** Program Title: New self-organized lipid-polymer structures (2 September 2019 - 2 December 2019). In: Faculty of Chemistry, Silesian University of Technology, Poland. Supervisor: Professor Katarzyna Jaszcz. Mentor: Professor Barbara Trzebicka, Centre of Polymer and Carbon Materials, Polish Academy of Sciences.

Participation in Programmes in collaboration with Greek Big Pharma

1. Project Full Title: “Full thermodynamic and physicochemical characterization of Rivaroxaban API in different dispersion media”. Project Distinctive Title: “Identification of crystallinity and measurement of particle size of Rivaroxaban API”, in collaboration with PharmaZac Pharmaceutical Company. (Scientific Coordinator: Prof. Costas Demetzos) (Feb. 2018-Oct. 2018).

Publications in International Peer-reviewed Journals

1. Liquid crystalline nanoparticles for drug delivery: the role of gradient and block copolymers on the morphology, internal organisation and release profile. **Maria Chountoulesi**, Diego Romano Perinelli, Aleksander Forys, Giulia Bonacucina, Barbara Trzebicka, Stergios Pispas, Costas Demetzos. In: European Journal of Pharmaceutics and Biopharmaceutics, 2021; 158: 21-34, [doi:10.1016/j.ejpb.2020.08.008](https://doi.org/10.1016/j.ejpb.2020.08.008).
2. Promising Nanotechnology Approaches in Treatment of Autoimmune Diseases of Central Nervous System. **Maria Chountoulesi**, Costas Demetzos. In: Brain Sciences 2020; 10(6): 338, [doi:10.3390/brainsci10060338](https://doi.org/10.3390/brainsci10060338).
3. Physicochemical, morphological and thermal evaluation of lyotropic lipidic liquid crystalline nanoparticles: the effect of stimuli-responsive polymeric stabilizer. **Maria Chountoulesi**, Diego Romano Perinelli, Natassa Pippa, Varvara Chrysostomou, Aleksander Forys, Lukasz Otulakowski, Giulia Bonacucina, Barbara Trzebicka, Stergios Pispas, Costas Demetzos. In: Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2020; 595: 124678, [doi:10.1016/j.colsurfa.2020.124678](https://doi.org/10.1016/j.colsurfa.2020.124678).
4. Preparation and Biophysical Characterization of Quercetin Inclusion Complexes with β -Cyclodextrin Derivatives to be Formulated as Possible Nose-to-Brain Quercetin Delivery Systems. Konstantina Manta, Paraskevi Papakyriakopoulou, **Maria Chountoulesi**, Dimitrios A. Diamantis, Dimitrios Spaneas, Vasiliki Vakali, Nikolaos Naziris, Maria V. Chatziathanasiadou, Ioannis Andreadelis, Kalliopi Moschovou, Ioanna Athanasiadou, Paraskevas Dallas, Dimitrios M. Rekkas, Costas Demetzos, Gaia Colombo, Sabrina Banella, Uroš Javornik, Janez

- Plavec, Thomas Mavromoustakos, Andreas G. Tzakos, Georgia Valsami. In: *Molecular Pharmaceutics* 2020; 17(11): 4241–4255, [doi:10.1021/acs.molpharmaceut.0c00672](https://doi.org/10.1021/acs.molpharmaceut.0c00672).
5. *Rindera graeca* (Boraginaceae) Phytochemical Profile and Biological Activities. Christos Ganos, Nektarios Aligiannis, Ioanna Chinou, Nikolaos Naziris, **Maria Chountoulesi**, Tomasz Mroczek, Konstantia Graikou. In: *Molecules* 2020; 25(16): 3625, [doi:10.3390/molecules25163625](https://doi.org/10.3390/molecules25163625).
 6. The Boundary Lipid around DMPC-Spanning Influenza A M2 Transmembrane Domain Channels: Its Structure and Potential for Drug Accommodation. Athina Konstantinidi, **Maria Chountoulesi**, Nikolaos Naziris, Barbara Sartori, Heinz Amenitsch, Gregor Mali, Tomaž Čendak, Maria Plakantonaki, Iro Triantafyllakou, Theodoros Tselios, Costas Demetzos, Dave Busath, Thomas Mavromoustakos, Antonios Kolocouris, *Biochimica et Biophysica Acta - Biomembranes*, 2020; 1862(3): 183156, [doi: 10.1016/j.bbamem.2019.183156](https://doi.org/10.1016/j.bbamem.2019.183156).
 7. Antihypertensive Activity and Molecular Interactions of Irbesartan in Complex with 2-Hydroxypropyl β -Cyclodextrin. Georgios Leonis, Eirini Christodoulou, Dimitrios Ntountaniotis, Maria V. Chatziathanasiadou, Thomas Mavromoustakos, Nikolaos Naziris, **Maria Chountoulesi**, Costas Demetzos, Georgia Valsami, Dimitrios E. Damalas, Andreas G. Tzakos, Nikolaos S. Thomaidis, Vlasios Karageorgos, Georgios Liapakis, *Chemical Biology & Drug Design*, 2020; 96(1): 668-683, [doi: 10.1111/cbdd.13664](https://doi.org/10.1111/cbdd.13664).
 8. Stimuli-responsive lyotropic liquid crystalline nanosystems with incorporated poly(2-dimethylamino ethyl methacrylate)-b-poly(lauryl methacrylate) amphiphilic block copolymer. **Maria Chountoulesi**, Natassa Pippa, Varvara Chrysostomou, Stergios Pispas, Evangelia D. Chrysina, Aleksander Forys, Lukasz Otulakowski, Barbara Trzebicka, Costas Demetzos, *Polymers*, 2019; 11(9): 1400, [doi: 10.3390/polym11091400](https://doi.org/10.3390/polym11091400).
 9. Cubic lyotropic liquid crystals as drug delivery carriers: Physicochemical and morphological studies. **Maria Chountoulesi**, Natassa Pippa, Stergios Pispas, Evangelia D. Chrysina, Aleksander Forys, Barbara Trzebicka, Costas Demetzos, *International Journal of Pharmaceutics*, 2018; 550: 57–70, [doi:10.1016/j.ijpharm.2018.08.003](https://doi.org/10.1016/j.ijpharm.2018.08.003).
 10. Comparative Perturbation Effects Exerted by the Influenza M2 Protein Inhibitors Amantadine and the Spiro[pyrrolidine-2,2-adamantane] Variant AK13 to

Membrane Bilayers Studied Using Biophysical Experiments and Molecular Dynamics Simulations. Athina Konstantinidi, Nikolaos Naziris, **Maria Chountoules**, Sophia Kiriakidi, Barbara Sartori, Dimitris Kolokouris, Heinz Amentisch, Gregor Mali, Dimitrios Ntountaniotis, Costas Demetzos, Thomas Mavromoustakos and Antonios Kolocouris, *The Journal of Physical Chemistry B*, 2018; 122(43): 9877–9895, [doi: 10.1021/acs.jpccb.8b07071](https://doi.org/10.1021/acs.jpccb.8b07071).

11. The significance of drug-to-lipid ratio to the development of optimized liposomal formulation. **Maria Chountoules**, Nikolaos Naziris, Natassa Pippa, Costas Demetzos, *Journal of Liposome Research*, 2018; 28(3): 249-258, [doi: 10.1080/08982104.2017.1343836](https://doi.org/10.1080/08982104.2017.1343836).
12. Design and development of pH-sensitive liposomes by evaluating the thermotropic behavior of their chimeric bilayers. Aimilia Kyrili, **Maria Chountoules**, Natassa Pippa, Anastasia Meristoudi, Stergios Pispas, and Costas Demetzos, *Journal of Thermal Analysis and Calorimetry*, 2017; 127(2): 1381-1392, [doi: 10.1007/s10973-016-6069-3](https://doi.org/10.1007/s10973-016-6069-3).
13. The modulation of physicochemical characterization of innovative liposomal platforms: The role of the grafted thermoresponsive polymers. **Maria Chountoules**, Aimilia Kyrili, Natassa Pippa, Anastasia Meristoudi, Stergios Pispas, Costas Demetzos, *Pharmaceutical Development and Technology*, 2017; 22(3): 330-335, [doi: 10.3109/10837450.2015.1121497](https://doi.org/10.3109/10837450.2015.1121497).
14. Calorimetric study on pH-responsive block copolymer grafted lipid bilayers: Rational design and development of liposomes. Natassa Pippa, **Maria Chountoules**, Aimilia Kyrili, Anastasia Meristoudi, Stergios Pispas, Costas Demetzos, *Journal of Liposome Research*, 2016; 26(3): 211–220, [doi: 10.3109/08982104.2015.1076464](https://doi.org/10.3109/08982104.2015.1076464).

Chapters in Books

1. A Differential Scanning Calorimetry (DSC) Experimental Protocol for Evaluating the Modified Thermotropic Behavior Thermotropic behavior of Liposomes with Incorporated Guest Molecules. **Maria Chountoules**, Nikolaos Naziris, Thomas Mavromoustakos, Costas Demetzos. In: *Supramolecules in Drug Discovery and*

- Drug Delivery Book. Series Title: Methods Molecular Biology, 2021, 2207, 299-312, Springer © 2021, Edited by Thomas Mavromoustakos, Andreas G. Tzakos and Serdar Durdagi. *doi:10.1007/978-1-0716-0920-0_21*.
2. Differential Scanning Calorimetry (DSC) on Sartan/Cyclodextrin Delivery Formulations Nikolaos Naziris, **Maria Chountoulesi**, Dimitrios Ntountaniotis, Thomas Mavromoustakos, Costas Demetzos. In: Supramolecules in Drug Discovery and Drug Delivery Book. Series Title: Methods Molecular Biology, 2021, 2207, 163-174, Springer © 2021, Edited by Thomas Mavromoustakos, Andreas G. Tzakos and Serdar Durdagi. *doi:10.1007/978-1-0716-0920-0_13*.
 3. Stimuli-responsive nanocarriers for drug delivery. **Maria Chountoulesi**, Nikolaos Naziris, Natassa Pippa, Stergios Pispas, Costas Demetzos In: Nanomaterials for Clinical Applications, Case Studies in Nanomedicines, Micro and Nano Technologies, Pages 99-121 Elsevier © 2020, Edited by N. Pippa and C. Demetzos. *doi: 10.1016/B978-0-12-816705-2.00004-7*.
 4. Differential scanning calorimetry (DSC): an invaluable tool for the thermal evaluation of advanced chimeric liposomal drug delivery nanosystems. **Maria Chountoulesi**, Nikolaos Naziris, Natassa Pippa, Stergios Pispas, Costas Demetzos. In: Thermodynamics and Biophysics of Biomedical Nanosystems. Applications and Practical Considerations. Series: Series in BioEngineering. Springer © 2019, Edited by C. Demetzos and N. Pippa. *doi: 10.1007/978-981-13-0989-2_9*.

Publications in Greek Peer-reviewed Journals

1. Kinetic study of the thermodynamic behavior of lipid bilayers in the presence of aminoadamantane drugs. **Maria Chountoulesi**, Athina Konstantinidi, Nikolaos Naziris, Dimitris Kolokouris, Antonios Kolocouris, Costas Demetzos, Thomas Mavromoustakos, *Pharmakeftiki*, 30(IV), 177-180, 2018.
2. Developing therapeutic drug delivery nanosystems from different lyotropic liquid crystalline mesophases. **Maria Chountoulesi**, Natassa Pippa, Nektarios Tavernarakis, Stergios Pispas, Costas Demetzos, *Pharmakeftiki*, 29(IV), 73-74, 2017.

Poster Presentations in International Conferences

1. Design and Characterization of Stimuli-Responsive Lyotropic Liquid Crystalline Nanosystems with Incorporated PDMAEMA-b-PLMA Amphiphilic Block Copolymer for precision drug delivery. **Maria Chountoulesi**, Varvara Chrysostomou, Aleksander Forys, Barbara Trzebicka, Stergios Pispas, Costas Demetzos. In: GeNeDis 2020, 8-11 October 2020.
2. Synthesis and Pharmaceutical Applications of Polyhydroxy-Dendrons Containing an Amino Focal Group for Conjugation to Biological Active Compounds. C. Arbez-Gindre, T. Fotopoulou, M. Konstantinidou, A. Tenchiu, G. Antonopoulou, G. Heropoulos, B.R. Steele, M. Micha-Screttas, M. Koufaki, N. Papaevgeniou, N. Chondrogianni, **M. Chountoulesi**, N. Naziris, C. Demetzos, S. Moreno Pinilla, D. Appelhans. In: 1st COST Action CA17140 Conference, 15-17 October 2019, Riga, Latvia.
3. Rational development and characterization of chimeric pH-sensitive liposomes as novel carriers of dimethoxycurcumin. **Maria Chountoulesi**, Nikolaos Naziris, Natassa Pippa, Anastasia Meristoudi, Stergios Pispas, Costas Demetzos. In: ILS Liposome Advances and Liposome Research Days Combined Conference: Progress in Liposomal Drug and Vaccine Delivery, 16-18 September 2017, Royal Olympic Hotel, Athens, Greece.
4. Design, preparation and evaluation of chimeric pH-sensitive liposomes incorporating dimethoxycurcumin. **Maria Chountoulesi**, Nikolaos Naziris, Natassa Pippa, Anastasia Meristoudi, Stergios Pispas, Costas Demetzos. In: 3rd International Congress of the Greek Local Chapter of the CRS (Controlled Release Society), 19-20 June 2017, Titania Hotel, Athens, Greece.
5. The effect of grafted thermoresponsive polymers on the physicochemical characteristics of chimeric liposomal platforms. Aimilia Kyrili, **Maria Chountoulesi**, Natassa Pippa, Anastasia Meristoudi, Stergios Pispas, Costas Demetzos. In: Liposomes in Drug and Vaccine Delivery, 19-22 December 2015, UCL School of Pharmacy, London, United Kindom.
6. Calorimetric results of pH-responsive grafted lipid bilayers may contribute to rational design and investigation of pH-sensitive liposomes. **Maria Chountoulesi**, Aimilia Kyrili, Natassa Pippa, Anastasia Meristoudi, Stergios Pispas, Costas

Demetzos. In: Liposomes in Drug and Vaccine Delivery, 19-22 December 2015, UCL School of Pharmacy, London, United Kindom.

7. The modulation of physicochemical characterization of chimeric liposomes: The role of the thermoresponsive grafted polymers. Aimilia Kyrili, **Maria Chountoulesi**, Natassa Pippa, Anastasia Meristoudi, Stergios Pispas, Costas Demetzos. In: IXth Joint Meeting in Medicinal Chemistry, 7-10 June 2015, Athens, Greece.

Poster Presentations in Greek Conferences

1. Development and physicochemical evaluation of chimeric liposomes with incorporated triblock copolymer Poloxamer P407. Christina Massala, Nikolaos Naziris, **Maria Chountoulesi**, Costas Demetzos. In: 19th National Pharmaceutical Congress, 16-17 December 2019, Aegli Zappiou, Athens, Greece.
2. Design, development and evaluation of liposomal systems. In vitro toxicity study and permeability study with Transwell method. Petrina Stavropoulou, Konstantina Zouliati, **Maria Chountoulesi**, Sotiria Demisli, Maria Chatzidaki, Nikolaos Naziris, Vassiliki Papadimitriou, Aristotelis Xenakis, Costas Demetzos. In: 19th National Pharmaceutical Congress, 16-17 December 2019, Aegli Zappiou, Athens, Greece.
3. Design and characterization of lyotropic liquid crystalline nanosystems, by employing innovative polymeric stabilizers. **Maria Chountoulesi**, Athanasios Skandalis, Stergios Pispas, Apostolos Papalois, Costas Demetzos. In: 11th Panhellenic Congress of the Hellenic Society for Biomaterials, 23-24 November 2018, National Centre for Scientific Research "Demokritos", Athens, Greece.
4. The utility of the drug-to-lipid ratio at the optimization of the liposomal formulation. **Maria Chountoulesi**, Nikolaos Naziris, Natassa Pippa, Costas Demetzos. In: Conference on Bio-Medical Instrumentation and related Engineering and Physical Sciences (BIOMEPE 2017), 12-13 October 2017, Department of Biomedical Engineering, TEI of Athens, Greece.
5. Design, preparation and characterization of chimeric pH-sensitive liposomes incorporating dimethoxycurcumin. **Maria Chountoulesi**, Nikolaos Naziris,

- Natassa Pippa, Anastasia Meristoudi, Stergios Pispas, Costas Demetzos. In: 18th National Pharmaceutical Congress, 6-8 October 2017, Zappeion, Athens, Greece.
6. From calorimetric results of pH-responsive block copolymer grafted lipid bilayers to rational design and investigation of pH-responsive liposomes. Aimilia Kyrili, **Maria Chountoulesi**, Natassa Pippa, Anastasia Meristoudi, Stergios Pispas, Costas Demetzos. In: 10th Anniversary Conference of the Hellenic Society for Biomaterials, 26-28 November 2015, National Hellenic Research Foundation (NHRF), Athens, Greece.
 7. The modulation of physicochemical characterization of chimeric liposomes: The role of the thermoresponsive grafted polymers. **Maria Chountoulesi**, Aimilia Kyrili, Natassa Pippa, Anastasia Meristoudi, Stergios Pispas, Costas Demetzos. In: 17th National Pharmaceutical Congress, 8-11 October 2015, War Museum, Athens, Greece.

Oral Presentations in International Conferences

1. Developing lyotropic liquid crystalline nanosystems for precision drug delivery. **Maria Chountoulesi**, Stergios Pispas, Costas Demetzos. In: 3rd International Congress on Pharmacogenomics and Personalized Diagnosis and Therapy “K. Karatheodori” Auditorium, Department of Mathematics, Panepistimiopolis Zografou, 10-12 January 2020, Athens, Greece.
2. Direct visualization of lipid-polymer structures by cryo-TEM. Aleksander Foryś, **Maria Chountoulesi**, Natassa Pippa, Stergios Pispas, Costas Demetzos, Barbara Trzebicka. In: 14th Multinational Congress on Microscopy, 15-20 September 2019, Belgrade, Serbia.

Oral Presentations in Greek Conferences

1. Electron Microscopy of Liquid Crystals. **Maria Chountoulesi**. In: 3rd Symposium of Nanotechnology in Health Science, by Hellenic Society of Nanotechnology in Health Sciences (HSnanoHs), 8 February 2020, Megaron, Athens, Greece.

2. Design and evaluation of lyotropic liquid crystalline nanosystems. **Maria Chountoulesi**, Natassa Pippa, Stergios Pispas, Evangelia D. Chrysina, Aleksander Forys, Barbara Trzebicka, Costas Demetzos. In: 11th Panhellenic Congress of the Hellenic Society for Biomaterials, 23-24 November 2018, National Centre for Scientific Research "Demokritos", Athens, Greece.
3. Kinetic study of the thermodynamic behavior of lipid bilayers in the presence of aminoadamantane drugs. **Maria Chountoulesi**, Athina Konstantinidi, Nikolaos Naziris, Dimitris Kolokouris, Antonios Kolocouris, Costas Demetzos, Thomas Mavromoustakos. In: Therma 2018, 8th Panhellenic congress on Thermal Analysis and Calorimetry, 12-13 October 2018, Kostis Palamas Building, Athens, Greece.
4. Thermal analysis on the effect of quercetin-3-rutinoside-7-rhamnoside and flavonoids on model phospholipid membranes. Christos Ganos, Nikolaos Naziris, **Maria Chountoulesi**, Konstantia Graikou, Costas Demetzos. In: Therma 2018, 8th Panhellenic congress on Thermal Analysis and Calorimetry, 12-13 October 2018, Kostis Palamas Building, Athens, Greece.
5. Thermotropic Effect of Rhustyphina Tannin on Model Membranes. Nikolaos Naziris, **Maria Chountoulesi**, Szymon Sekowski, Maria Zamaraeva, Nodira Abdulladjanova, Costas Demetzos. In: Therma 2018, 8th Panhellenic congress on Thermal Analysis and Calorimetry, 12-13 October 2018, Kostis Palamas Building, Athens, Greece.
6. Liposomal Amphotericin B: Clinical-Technological summary and new data. **Maria Chountoulesi**, Scientific Meeting "Days of Health 2018", 11 – 13 May 2018, Zappeion, Athens, Greece.
7. Developing therapeutic drug delivery nanosystems from different lyotropic liquid crystalline mesophases. **Maria Chountoulesi**, Natassa Pippa, Nektarios Tavernarakis, Stergios Pispas, Costas Demetzos. In: 1st Symposium of Nanotechnology in Health Science, by Hellenic Society of Nanotechnology in Health Sciences (HSnanoHs), 21 January 2018, Megaron, Athens, Greece.

Awards

1. **“Award in Excellence of Applied Pharmaceutical Technology”** dedicated to the memory of “Kleon Tsetis”, founder of the Pharmaceutical Industry “Uni-Pharma S.A.”. Awarded by the Hellenic Pharmaceutical Society (HPS), in 2020.
2. **Best Poster Presentation:** The modulation of physicochemical characterization of chimeric liposomes: The role of the thermoresponsive grafted polymers. **Maria Chountoulesi**, Aimilia Kyrili, Natassa Pippa, Anastasia Meristoudi, Stergios Pispas, Costas Demetzos. In: 17th National Pharmaceutical Congress, 8-11 October 2015, War Museum, Athens, Greece.

Training

- ❖ **Laboratory of Pharmaceutical Nanotechnology**, Section of Pharmaceutical Technology, Department of Pharmacy, School of Health Sciences, National and Kapodistrian University of Athens, Greece. **Supervision: Professor Costas Demetzos** (Oct. 2014-today).
 - Development, Preparation Protocols, Physicochemical and Thermal Evaluation of Drug Delivery Nanosystems (lipidic and mixed lipid-polymer nanostructures)
 - Techniques: Dynamic and Electrophoretic Light Scattering, Differential Scanning Calorimetry, Preparation Protocols, Drug Loading and Release studies, Size-exclusion Chromatography, UV-Vis Spectroscopy, Fractal analysis
- ❖ **Laboratory of Polymer Science**, Theoretical and Physical Chemistry Institute, National Hellenic Research Foundation, Greece. **Supervision: Director of Research Dr. Stergios Pispas** (during PhD Thesis period).
 - Physicochemical and Morphological Characterization of Drug Delivery Nanosystems
 - Techniques: Dynamic and Static Light Scattering, Fluorescence Spectroscopy

- ❖ **Laboratory of Electron Microscopy**, Centre of Polymer and Carbon Materials, of Polish Academy of Sciences, Zabrze, Poland. **Supervision: Professor Barbara Trzebicka** (2/9/2019 - 2/12/2019).
 - Morphological Characterization of Nanostructures
 - Techniques: cryogenic-Transmission Electron Microscopy (cryo-TEM)

- ❖ **Laboratory of Neurophysiology and Aging**, Institute of Molecular Biology and Biotechnology, Foundation for Research and Technology-Hellas, Heraklion, Crete, Greece. **Supervision: Professor Nektarios Tavernarakis** (12/9/2018-28/9/2018, 21/5/2020-19/7/2019).
 - *In vivo* administration of nanoparticles in the nematode worm *Caenorhabditis elegans* (toxicity studies).
 - Techniques: Epifluorescence Microscopy

Internships

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| July 2016 | Pharmaceutical Company "Pharmathen", "Research and Development" (R&D) Department, Analytical Development and Formulation Sections <ul style="list-style-type: none"> ➤ practical training in analytical techniques and formulation processes of solid pharmaceutical forms |
| Oct. 2014-Dec.2014 | Hospital pharmacy of the National Anticancer-Oncological Hospital "Agios Savvas" |
| July 2014-Sept. 2014, Jan. 2015-June 2015 | Pharmacy store <ul style="list-style-type: none"> ➤ pharmaceutical care, pharmacy store management |

Thesis

- ❖ **PhD thesis title (Oct.2017-Oct.2020):** «Development and evaluation of lyotropic liquid crystalline nanosystems intended for the delivery of active pharmaceutical ingredients to subcellular organelles» under the supervision of Prof. Costas Demetzos (*thesis grade: Excellent*).
- ❖ **Master thesis title (2016-2017):** «Rational design, development and evaluation of chimeric pH-sensitive liposomes with incorporated dimethoxycurcumin» under the supervision of Prof. Costas Demetzos (*thesis grade: Excellent 10/10*).
- ❖ **Pharmacy Diploma thesis title (2015):** «Design and physicochemical characterization of thermoresponsive block copolymer grafted liposomes» under the supervision of Prof. Costas Demetzos (*thesis grade: Excellent 10/10*).

Teaching experience

1. Assistant teaching in the Pharmaceutical Technology Lab Courses of Undergraduate Students of the 1st, 7th and 8th semesters, Section of Pharmaceutical Technology, Department of Pharmacy, School of Health Sciences, National and Kapodistrian University of Athens (Director: Prof. Costas Demetzos) (March 2016- today).
2. Assistant in lab training of undergraduate and MSc. postgraduate students in the Lab of Pharmaceutical Nanotechnology of Prof. Costas Demetzos (October 2017- today).

Member of Organizing Committees of Training Workshops

1. “Advanced Therapies”, Chair: C. Demetzos, N. Naziris, **M. Chountoulesi**. Workshop for Pharmacy Undergraduate Students, in Pharmaceutical Athenian Congress (PharmACon) by Greek’s Pharmaceutical Students Federation (GPSF), 20-21 October 2018, War Museum, Athens, Greece.
2. “Pharmaceutical Nanotechnology: Liposomal Anticancer Nanomedicines in Clinical Practice”, Chair: C. Demetzos, N. Pippa, N. Naziris, **M. Chountoulesi**. Workshop for Pharmacy Undergraduate Students, in the Department of Pharmacy,

National and Kapodistrian University of Athens, 3 November 2017, Athens, Greece.

Membership of scientific societies

1. Member of Executive Committee Hellenic Society of Nanotechnology in Health Sciences (HSnanoHs)
2. Member of Hellenic Pharmaceutical Society (H.P.S.)
3. Member of Hellenic Society for Biomaterials (H.S.B.)

Skills

Languages English: C2 Michigan Certificate of Proficiency in English
German: B1 Zertifikat Deutsch Goethe Institut

Computer Knowledge ECDL Core Certificate (Microsoft Word, Excel, Power Point, Access, Internet Services, Windows)