

## **Nikitas Georgiou**

**Work: Laboratory of Organic Chemistry, Department of Chemistry,  
National and Kapodistrian University of Athens, Athens, Greece**

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Researchgate: <https://www.researchgate.net/profile/Nikitas-Georgiou>



### **Profile**

BSc Chemistry Graduate, MSc Organic Chemistry Student, specialized in Computational Drug Design, Molecular Dynamics and NMR experiments.

I am a hard-working, creative and motivated person interesting to learn new things. I like to combine science so I have knowledge both in Organic Synthesis by my undergraduate thesis and in Computational Organic Chemistry by my master thesis. I am very collaborated person with teamwork spirit.

All in all, utilizing the experience I've gained, I am ready to apply my skills and laboratory experience in my career in the field of chemistry. My goal is to contribute with my knowledge and skills to the implementation and development of science.

### **Education**

2022- Present: Phd Student at Department of Chemistry, University of Athens Research Area: Computational Drug Design

01/05/2023-21/07/2023- Erasmus Internship Exchange Program at the National Institute of Chemistry in Ljubliana, Slovenia.

2020-2022: Master Program in "Organic Chemistry and Applications in Chemical Industry", Department of Chemistry, School of Science, National and Kapodistrian University of Athens (Grade: 9.59/10)

2016-2020: National and Kapodistrian University of Athens, School of Science, Department of Chemistry (Grade: 7.77/10)

2013-2016: 1<sup>st</sup> High School of Elefsina (Grade: 18.3/20)

### **Research Field in PhD Thesis:**

2022-present: Computational Drug Design/ NMR spectroscopy

Description: In silico and spectroscopic studies and interactions of (thio)semicarbazones and (thio)carbohydrazones on target macromolecules with potential biological effects

### **Research Field in Master Thesis:**

2020-2022: Computational Drug Design

Supervisor: Prof. Thomas Mavromoustakos

Description: Synthesis, structure assignment and conformational analysis of thiosemicarbazones and thioarbohydrazones adducts. (Grade: 10/10)

### **Thesis in Undergraduate Studies:**

06/2020 Title: Synthesis of novel phthalhydrazide products with possible biological applications correlated with mitochondrial function (Grade: 10/10)

Supervisor: Assoc. Prof. George Vougioukalakis

Laboratory of Organic Chemistry, Department of Chemistry, National and Kapodistrian University of Athens, Athens, Greece

### **Languages:**

1. Greek: Mother Tongue
2. English: C2 (University of Michigan)
3. French: C1 (Universite Paris-Sorbonne)

### **Computer Skills:**

1. (2020) Certificate of computer skills, National and Kapodistrian University of Athens
2. Applications: MS Office, GaussView, MarvinSketch, ChemDraw, SwissADME, pkCSM, Autodock, MestreNova, Maestro
3. Codes: Gaussian, GROMACS, DESMOND
4. Programming Languages: Python

### **Collaborating with programs abroad**

1. 01/05/2023-21/07/2023- Erasmus Internship exchange program at the National Institute of Chemistry in Ljubljana. Description: Application of NMR spectroscopy to study drug:protein interactions
2. 04-12/09/2022- CERIC program- High Resolution NMR studies of double-hydrophilic statistical copolymers encapsulating insulin (Proposers: Nikitas GEORGIU, Thomas MAVROMOUSTAKOS, Angeliki CHRONI)  
([https://vuo.elettra.trieste.it/pls/vuo/ceric\\_vusers.show\\_print\\_proposal?PROPID=20217104](https://vuo.elettra.trieste.it/pls/vuo/ceric_vusers.show_print_proposal?PROPID=20217104))
3. 10-12/11/2021-CERIC program - NMR experiments in one adduct theiosemicarvazone and one adduct theiocarvohydrazone in Slovenian NMR Centre (Proposers: Nikitas GEORGIU, Thomas MAVROMOUSTAKOS)  
([https://vuo.elettra.trieste.it/pls/vuo/ceric\\_vusers.ftp\\_proposal\\_manage?FRM\\_ID=20217107](https://vuo.elettra.trieste.it/pls/vuo/ceric_vusers.ftp_proposal_manage?FRM_ID=20217107))
4. 27/7-10/8/2009- Certificate of attendance an English Language Course at Intermediate level- Attending English lessons and stay in Stafford House, Rohemapton, London

### **Professional Activity:**

1. (11/07/2022-19/05/2023) Infrastructure of microbioma applications in systems (FOODBIOMES)-SUBPROJECT 2: FOODBIOMES PI in the University of Ioannina under the supervisor of Mr Andreas Tzakos operating from the ESPA program.
2. (03/2022-09/2022) Scholar with responsibility for designing and performing Organic Chemistry experiments related to Molecular Modeling (2022) under the guidance of Mr. Th. Mavromoustakos

3. (2021-present) Supervisor of Undergraduate students in the Laboratory of Organic Chemistry
4. (2021-present) Supervisor of undergraduate student's diploma thesis
5. 1/7-30/9/2020: Internship in Hellenic Air Force- Quality Control Chemist (Analysis of petrol and oil samples of aircrafts using Instrumental Analysis Method)

#### Publications:

- "Structure elucidation, conformational properties and discovery of potential targets of the Ugi cinnamic adduct NGI25", **Nikitas Georgiou**, Niki Gouleni, Eleni Chontzopoulou, George Skoufas, Anastasios Gkionis, Demeter Tzeli, Stamatia Vassiliou, Thomas Mavromoustakos, *Journal of Biomolecular Structure and Dynamics*, **2021**, 1-30
- "Rational Design and Synthesis of AT1R antagonists", **Nikitas Georgiou**, Vasileios Gkalpinos, Spyridon Katsakos, Stamatia Vassiliou, Andreas Tzakos, Thomas Mavromoustakos, *Molecules*, **26**, **2021**, 1-24
- "Biophysical Evaluation and In Vitro Controlled Release of Two Isomeric Adamantane Phenylalkylamines with Antiproliferative/Anticancer and Analgesic Activity" Marilena Vlachou, Angeliki-Sofia Foscolos, Angeliki Siamidi, Angeliki Syriopoulou, **Nikitas Georgiou**, Aikaterini Dedeloudi, Antonis D. Tsiailanis, Andreas G. Tzakos, Thomas Mavromoustakos and Ioannis P. Papanastasiou, *Molecules*, **27**, **2021**, 1-16
- "Conformational properties of new thiosemicarbazone and thiocarbohydrazone derivatives and their possible targets", **N. Georgiou**, A. Katsogiannou, Dimitrios Skourtis, Hermis Iatrou, D. Tzeli, S. Vassiliou, U. Javornik, J Plavec, T. Mavromoustakos, *Molecules*, **27**, **8**, 2537, 2022, [doi.org/10.3390/molecules27082537](https://doi.org/10.3390/molecules27082537)
- "Losartan interactions with 2-hydroxypropyl- $\beta$ -CD", Vasiliki Palli, Georgios Leonis , Nikoletta Zoupanou , **Nikitas Georgiou** , Maria Chountoulesi , Nikolaos Naziris , Demeter Tzeli, Costas Demetzos , Georgia Valsami , Konstantinos D. Marousis , Georgios A. Spyroulias and Thomas Mavromoustakos, *Molecules*, **27**, **8**, 2421, 2022, [doi.org/10.3390/molecules27082421](https://doi.org/10.3390/molecules27082421)
- "Conformational Properties and Putative Bioactive Targets for Novel Thiosemicarbazone Derivatives", **Nikitas Georgiou** , Antigoni Cheilari , Danai Karta , Eleni Chontzopoulou , Janez Plavec , Demeter Tzeli , Stamatia Vassiliou and Thomas Mavromoustakos, *Molecules*, **27**, 4548, **2022**, [doi.org/10.3390/molecules27144548](https://doi.org/10.3390/molecules27144548)
- "Diminazene Aceturate Reduces Angiotensin II Constriction and Interacts with the Spike Protein of Severe Acute Respiratory Syndrome Coronavirus 2", John M. Matsoukas , Laura Kate Gadanec , Anthony Zulli, Vasso Apostolopoulos , Konstantinos Kelaidonis , Irene Ligielli, Kalliopi Moschovou, **Nikitas Georgiou**, Panagiotis Plotas , Christos T. Chasapis, Graham Moore , Harry Ridgway and Thomas Mavromoustakos, *Biomedicines*, **10**, 1731, **2022**, [/doi.org/10.3390/biomedicines10071731](https://doi.org/10.3390/biomedicines10071731)
- "In silico Prognostic Methods for Physicochemical Properties and Toxicity of

Propargylamine Derivatives, Inhibitors of Monoaminoxida”, Panagiou Mavroeidi , **Nikitas Georgiou** , Afroditi Vogiatzaki , Anastasia Maria Kouvari , Eleni Siskou , George Apostolopoulos , Nikolaos V. Tzouras , Stavros P. Neofotistos , George Vougioukalakis, A. Tsantili-Kakoulidou, Thomas Mavromoustakos, *PHARMAKEFTIKI*, 34, II, **2022**,

- “Comparative interaction studies of quercetin with 2-hydroxyl-propyl- $\beta$ -cyclodextrin and 2,6-methylated- $\beta$ -cyclodextrin”, Vasiliki Vakali, Michail Papadourakis, **Nikitas Georgiou**, Nikoletta Zoupanou, Dimitrios A. Diamantis, Uroš Javornik, Paraskevi Papakyriakopoulou, Janez Plavec, Georgia Valsami, Andreas G. Tzakos, Demeter Tzeli, Zoe Cournia and Thomas Mauromoustakos, *Molecules*, 27, 17, **2022**

#### Conferences:

- **(Oral Presentation)** Structure assignment, conformational analysis and discovery of potential targets of the thiosemicarbazone and thiocarbohydrazone derivatives, **N. Georgiou** , A. Katsogiannou , D. Tzeli , S. Vassiliou , Uroš Javornik , Janez Plavec , T. Mavromoustakos, Athens Conference on Advances in Chemistry (ACAC 2022) Department of Chemistry, National and Kapodistrian University of Athens, June 26-1 July, 2022
- **(Poster Presentation)** “In silico prevention of propargylamine substrate toxicity in their use as monoamino-oxidase inhibitors, Panagiou Mavroeidi, **Nikitas Georgiou**, Georgios Vougioukalakis and Thomas Mavromoustakos, Athens Conference on Advances in Chemistry (ACAC 2022) Department of Chemistry, National and Kapodistrian University of Athens, June 26-1 July, 2022
- **(Oral Presentation)** Conformational properties of new thiosemicarbazone and thiocarbohydrazone derivatives and their possible targets, **N. Georgiou**, A. Katsogiannou, D. Tzeli, S. Vassiliou, T. Mavromoustakos, 1<sup>st</sup> Symposium of Postgraduate Students , 17-18/3/2022, Department of Chemistry, National and Kapodistrian University of Athens.
- **(Oral Presentation)** In silico methods for the prevention of propargylamine substrate toxicity for use as monoamino-oxidase inhibitors, P. Mavroeidi, **N. Georgiou**, G. Vougioukalakis, T. Mavromoustakos, 1<sup>st</sup> Symposium of Postgraduate Students , 17-18/3/2022, Department of Chemistry, National and Kapodistrian University of Athens.
- **(Poster Presentation)** “Conformational Properties of NGI 26”, N. Gouleni , T. Gionis , G. Skoufas , E. Chontzopoulou, **N. Georgiou** , T. Mavromoustakos, S. Vassiliou, Athens Conference on Advances in Chemistry (ACAC 2020) Department of Chemistry, National and Kapodistrian University of Athens, March 10-14, 2021
- **(Poster Presentation)** “Searching for novel synthetic MAO inhibitors, Panagiou Mavroeidi , Aggeliki Syriopoulou , **Nikitas Georgiou** , Nikolaos Tzouras , Stavros Neofotistos , Georgios Vougioukalakis , Serdar Durdagi and Thomas Mavromoustakos, Athens Conference on Advances in Chemistry (ACAC 2020) Department of Chemistry, National and Kapodistrian University of Athens, March 10-14, 2021
- **(Poster Presentation)** “Searching for targets against neurodegenerative diseases”, Panagiou Mavroeidi, Aggeliki Syriopoulou, **Nikitas Georgiou**, Nikolaos Tzouras,

Stavros Neofotistos, Georgios Vougioukalakis, Serdar Durdagi and Thomas Mavromoustakos, 18<sup>th</sup> Hellenic Symposium on Medicinal Chemistry, held online, February 25-27, 2021 (9<sup>n</sup> place of 154 posters)

### **Seminars-Workshops:**

- 26/10/2020-6/6/2021: Certificate of Special Education and Training, University of Aegean
- 06/2020: Certificate of Pedagogical and Teaching Competence, National and Kapodistrian University of Athens
- 07/2021: 56th Summer School & 7th Hellenic Forum for Science, Technology and Innovation, NCSR "Demokritos"
- 2019: Certificate of attendance the 17<sup>th</sup> Symposium of Clinical Chemistry, Royal Olympic Hotel
- 2018: Athens Conference on Advances in Chemistry (ACAC 2018) Department of Chemistry, National and Kapodistrian University of Athens, Athens
- 2018: Food Authenticity, Elemental Metabolomics, Chromatographic Fingerprinting and Molecular Techniques, Agricultural University of Athens

### **Awards:**

Scholarship of the National and Kapodistrian University's Scholarship for the spring semester 2021-2022 to carry out teaching project (2nd in the ranking order out of 5)

### **Contribution to the Organic Chemistry and Physical Chemistry Laboratories:**

- Gaussian Program tutorial, Author: Nikitas Georgiou, Text editors: Thomas Mavromoustakos, Demeter Tzeli  
(<https://eclass.uoa.gr/modules/document/?course=CHEM207>)

### **Volunteering Activities:**

- (2022-present): Volunteer at Erasmus Student Network (ESN)
- (2020-present): Volunteer at Athens Science Festival
- 08-09/2013: Volunteer at Aisxhyleia Festival of Elefsina

### **Professional Affiliations**

Association of Greek Chemists

### **Hobbies and Interests**

- Travelling Abroad (visiting to over 15 countries and 50 cities)
- Theatre and Musical Concerts
- Cinema
- Painting and Piano (taking courses for about 7 years)
- Jogging/ Hiking