

Curriculum Vitae

IOANNIS P. PAPANASTASIOU

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Current position

Associate Professor
Section of Pharmaceutical Chemistry
Department of Pharmacy
School of Health Sciences,
National and Kapodistrian University of Athens
Panepistimiopolis-Zografou, 157 84 Athens,
Office phone: +302107274828
Lab. phone: +302107274527, 4814
Email: papanastasiou@pharm.uoa.gr

Personal data

Nationality: Hellenic
Place of birth: Athens

Scopus Author ID: 8320737300
Researcher ID: F-8541-2018
ORCID ID: 0000-0001-697-2561
Web of Science Researcher ID: P-4781-2019

Education

2/2004 – 12/2007

PhD in Medicinal Chemistry
Department of Pharmaceutical Chemistry, Faculty of Pharmacy
National and Kapodistrian University of Athens
PhD thesis: «Adamantane imidazolines and oxazolines
of pharmacological interest»

4/2004

Chartered Pharmacist

11/2001 – 2/2004

MSc in Medicinal Chemistry
Department of Pharmaceutical Chemistry, Faculty of Pharmacy
National and Kapodistrian University of Athens
Dissertation: «Synthesis of new adamantane heterocycles
with probable antiviral activity»

10/1996 – 10/2001

BS in Pharmacy
Faculty of Pharmacy
National and Kapodistrian University of Athens

Languages

English, French

Academic employment

3/2023-today	Associate Professor Section of Pharmaceutical Chemistry Department of Pharmacy, School of Health Sciences National and Kapodistrian University of Athens
9/2020-3/2023	Assistant Professor (tenure in office) Section of Pharmaceutical Chemistry Department of Pharmacy, School of Health Sciences National and Kapodistrian University of Athens
9/2016-9/2020	Assistant Professor (not permanent post) Section of Pharmaceutical Chemistry Department of Pharmacy, School of Health Sciences National and Kapodistrian University of Athens
1/2014-9/2016	Lecturer Department of Pharmaceutical Chemistry Faculty of Pharmacy, School of Health Sciences National and Kapodistrian University of Athens
9/2009 – 1/2014	Postdoctoral Researcher Associate Department of Pharmaceutical Chemistry Faculty of Pharmacy National and Kapodistrian University of Athens
3/2008 – 9/2009	Postdoctoral Researcher Associate Center for Drug Discovery Northeastern University, Boston, USA

Teaching Experience

- Co-teaching of the compulsory course “Organic Chemistry II”, 2nd semester of the undergraduate program of the Faculty of Pharmacy (2021 – today).
- Co-teaching of the compulsory course “Inorganic Chemistry II”, 2nd semester of the undergraduate program of the Faculty of Pharmacy (2015 – 2020).
- Co-teaching of the compulsory course “Pharmaceutical Chemistry I”, 5th semester of the undergraduate program of the Faculty of Pharmacy (2014 – today).
- Supervision of the laboratory course «Drug Synthesis», 3rd year of the undergraduate program of the Faculty of Pharmacy (2014 – today).
- Supervision of the laboratory course «Introduction in laboratory practice» 1st year of the undergraduate program of the Faculty of Pharmacy (2014 – today).
- Teaching assistant in the laboratory course «Drug Synthesis» at the third year of the undergraduate program of the Faculty of Pharmacy (2002 – 2005).

Research interest

- Design and synthesis of adamantane derivatives with various pharmacological profiles (antiviral, antiproliferative, antiparasitic, antitubercular).
- Design and synthesis of small molecules with pharmacological activity against “Neglected Diseases”, such as trypanosomiasis, leishmaniasis and tuberculosis.
- Design and synthesis of indole derivatives with melatoninerpic and antitubercular activity.
- Design and synthesis of classical and non-classical cannabinoids exploring their pharmacological use in various therapeutic categories.

Supervision of undergraduate research projects

- Supervisor of the undergraduate research project of V. Ioannidou and V. Kourbeli, entitled “Aminoether derivatives of 2,2-adamantanediyl-bis(4-phenol) with possible antitubercular activity”, NKUA, **2016**.

- Supervisor of the undergraduate research project of M.O. Georgiades and E. Karakitsios, entitled “Aminoether derivatives of 2,2-adamantanediyl-bis(4-phenol) with possible antitubercular activity”, NKUA, **2016**.
- Supervisor of the undergraduate research project of A. Tsakoumagkou and A. Siskos, entitled “Design and synthesis of [4-(adamant-1-yl)phenyl]{4-[(1-(2-hydroxyoctyl)piperidin-4-yl)methoxyl]phenyl}methanone with plausible antitubercular activity”, NKUA, **2018**.
- Supervisor of the undergraduate research project of A. Batagianni, entitled “Synthesis and pharmacological evaluation of 1,3-thiazolo amides and sulfonamides with plausible trypanocidal activity”, NKUA, **2019**.
- Supervisor of the undergraduate research project of X. Vlasiou and K. Baran, entitled “Design and Synthesis of 2,2-(thiazol-2 & 5-yl)adamantanamine intermediates with plausible antitrypanosomal activity”, NKUA **2022**.
- Supervisor of the undergraduate research project of K. Stavropoulou και K. Dionysopoulou, entitled “Design and Synthesis of 2,2-(thiazol-2 & 5-yl)adamantanamines with plausible antitrypanosomal activity”, NKUA **2022**.
- Supervisor of the undergraduate research project of A. Kaimaki, entitled “Synthesis and pharmacological evaluation of novel synthesis of 1-(4-phenyl)adamantano- and 1-(4-phenoxyphenyl)adamantano-guanylhyazone and thiosemicarbazone derivatives against *T.brucei*”, NKUA **2025**.

Participation in the three-membered supervising committees of undergraduate research projects

- Participant in the three-membered supervising committee of undergraduate research project of I. Kalpaktsi, entitled “Novel method synthesis of hydroxytyrosol and its esters”, NKUA, **2015**.
- Participant in the three-membered supervising committee of the undergraduate research project of A. Andrikopoulos and D.

Giannakopoulos, entitled “Vascular Disrupting Agents (VDAs): Design and synthesis of DMXAA analogues”, NKUA, **2015**.

- Participant in the three-membered supervising committee of the undergraduate research project of A. Kalabaliki, entitled “Design of Staurosporine and Evodiamine Hybrids: Synthesis of Intermediates”, NKUA, **2015**.
- Participant in the three-membered supervising committee of the undergraduate research project of A. Iliopoulou, entitled “Controlled release studies of the new antitubercular compound 1,3-bis[4-(2-morpholinoethoxy)phenyl] adamantane, from solid pharmaceutical formulations”, NKUA, **2016**.
- Participant in the three-membered supervising committee of the undergraduate research project of D. Lentzos and D. Spaneas, entitled “A new potent antitubercular adamantano-aminoetherial derivative: Comparative controlled release studies, with other bioisosteric compounds, from solid pharmaceutical formulations”, NKUA, **2017**.
- Participant in the three-membered supervising committee of the undergraduate research project of I. Balatsouka, entitled “Design, synthesis and in vitro evaluation of the anti-trypanosomal activity of novel spiro carbocyclic 2,5-diketoimidazolidine-1-acetohydroxamic acids”, NKUA, **2017**.
- Participant in the three-membered supervising committee of the undergraduate research project of P.-M. Kourti and K.-C. Papamichail, entitled “Design, synthesis and *in vitro* evaluation of novel spiro carbocyclic 2,5-diketo-imidazolidine-1-acetohydroxamic acids against *Trypanosoma brucei*”, NKUA, **2017**.
- Participant in the three-membered supervising committee of the undergraduate research project of P. Panagiotou and N. Soldatou, entitled “New adamantane derivative of isoniazid with antitubercular activity: *In vitro* studies of controlled release from solid hydrophilic formulations”, NKUA, **2018**.
- Participant in the three-membered supervising committee of the undergraduate research project of C. Chatzopoulou, entitled “Synthesis,

characterization and biological evaluation of new «2+1» complex *fac*-[Re/99mTc (CO)₃(P,O)(P)]”, NKUA, **2018**.

- Participant in the three-membered supervising committee of the undergraduate research project of A. Konstantinidis, entitled “The development of mesalazine prolonged release tablets using experimental design techniques”, NKUA, **2018**.
- Participant in the three-membered supervising committee of the undergraduate research project of N. Vlachou and P. Tombros, entitled “Comparative study on the sustained release of two new isomeric adamantane derivatives of Isoniazid from solid pharmaceutical formulations”, NKUA, **2018**.
- Participant in the three-membered supervising committee of the undergraduate research project of C. Komianou, entitled “Synthesis of hydroxytyrosole analogues with antifungal activity”, NKUA, **2019**.
- Participant in the three-membered supervising committee of the undergraduate research project of M. Avgeropoulou and M. Mponiakou, entitled “Design and synthesis of a series of new *N*1-Me, C2-acylaminoethyl-substituted melatoninerigic indole derivatives”, NKUA, **2019**.
- Participant in the three-membered supervising committee of the undergraduate research project of A.M. Kiapoka and E.J. Loukas, entitled “Design and synthesis of bisubstituted pyrimido[4,5-*d*]pyrimidines as potent EGFR inhibitors”, NKUA, **2019**.
- Participant in the three-membered supervising committee of the undergraduate research project of K. Sakellaropoulou, entitled “Design, synthesis and evaluation of the melatoninerigic action of new C2-Me, C5-OMe substituted indolo derivatives with C3- α -Me and C3- β,β -dimethylethylalkylamido-side chain”, NKUA, **2019**.
- Participant in the three-membered supervising committee of the undergraduate research project of Cora Evia, entitled «Synthesis of bioactive molecules and *in vitro/in silico* studies as potent inhibitors of SQS/LOX enzymes», NKUA, **2019**.
- Participant in the three-membered supervising committee of the undergraduate research project of C. Sousafiri, entitled «Design and

Synthesis of p38 MAP kinase inhibitors: Synthesis of essential arylboronic acid intermediate», NKUA, **2020**.

- Participant in the three-membered supervising committee of the undergraduate research project of G. Kritikos, entitled “Agonists and antagonists of human melatonin receptors (hMT1 and hMT2)”, NKUA, **2021**.
- Participant in the three-membered supervising committee of the undergraduate research project of D. A. Vlassi and G. -I. Sotiropoulou, entitled “*In vitro* modified-release of the cytotoxic agent, 4-[4,4-diphenyl-4-(1-tricyclo[3.3.1.1^{3,7}]decyl)butyl)-1-methylpiperazine, from matrix tablets”, NKUA, **2021**.
- Participant in the three-membered supervising committee of the undergraduate research project of K. Antonara and E. Tseliki, entitled “*In vitro* modified-release studies of the novel cytotoxic agent, 1-methyl-4-{3-[4-[α -(1-adamantyl)phenylmethyl]phenyl]propyl}piperazine matrix”, NKUA, **2021**.
- Participant in the three-membered supervising committee of the undergraduate research project of O. Symeonidis, entitled “Design and study of PARP quinazalone inhibitors”, NKUA, **2021**.
- Participant in the three-membered supervising committee of the undergraduate research project of S. Kannelopoulou, entitled “Design and synthesis of 5*H*-2(3),6-dihydropyrazolo[4',3':5,6]pyrano[3,4-*b*]indol-5-one as plausible CLK1 kinase inhibitor”, NKUA, **2021**.
- Participant in the three-membered supervising committee of the undergraduate research project of D. Mavridi, entitled “The contribution of cholesterol to cancer: Molecular mechanisms, lipid rafts and therapeutic approaches”, NKUA, **2021**.
- Participant in the three-membered supervising committee of the undergraduate research project of V.-P. Tassopoulou, entitled “Design of improved antidiabetic molecules: evolution to multi-targeted drugs”, NKUA, **2022**.

Supervision of MSc dissertations

- Supervisor of the MSc dissertation of A.-S. Foscolos, entitled “Hydrazones of 5-nitro-furanecarboxaldehyde with adamantane-alkanohydrazides with chemotherapeutic interest against trypanosomiasis”, NKUA, **2015**.
- Supervisor of the MSc dissertation of A. Papageorgiou, entitled “Design, synthesis and studies of new isoniazid adamantane derivatives with antitubercular activity”, NKUA, **2017**.
- Supervisor of the MSc dissertation of M.-O. Georgiadis, entitled “Design, synthesis and trypanocidal evaluation of a series of novel adamantane thiazoles”, NKUA, **2018**.
- Supervisor of the MSc dissertation of O. Karoutzou, entitled “Design, synthesis and pharmacological evaluation of novel indole and adamantane amide derivatives”, NKUA, **2018**.
- Supervisor of the MSc dissertation of V. Kourbeli, entitled “Design and synthesis of (4-fluoro-3-thiazol-2 & 4-yl)anilines with plausible antimycobacterial activity”, NKUA, **2021**.
- Supervisor of the MSc dissertation of N. Efstathiou, entitled as “Synthesis of adamantane glutamatergic derivatives and melatoninerbic derivatives for antidepressant treatment”, NKUA **2023**.
- Supervisor of the MSc dissertation of M. Vlachou, entitled “Design and Synthesis of novel α -mono- and difluorinated phenylalkylamides with melatoninerbic activity”, NKUA, **2023**.
- Supervisor of the MSc dissertation of M. Nikolaou, entitled as “Design and synthesis of new adamantane aromatic ureas, amidoximes and amidines with potential pharmacological interest”, NKUA, **2024**.
- Supervisor of the MSc dissertation of T. Katsaros, entitled as “Synthesis of intermediates for the preparation of C1'*gem*-difluorinated cannabinoids”, NKUA, **2025**.

Participation in the three-membered supervising committees of MSc dissertations

- Participant in the three-membered supervising committee of the MSc dissertation of C. Iliopoulos-Tsoutsouvas, entitled “Design and synthesis of novel thiazolo-fused acridines and acridones as potent topoisomerase inhibitors”, NKUA, **2015**.
- Participant in the three-membered supervising committee of the MSc dissertation of E.D. Diamantidi, entitled “Comparative controlled release studies of the new antitubercular compounds 2,2-bis[4-(2-morpholinoethoxy)phenyl]adamantane and 1,3-bis[4-(2-morpholinoethoxy)phenyl]adamantane, from hydrophilic matrices”, NKUA, **2016**.
- Participant in the three-membered supervising committee of the MSc dissertation of A. Psaromati, entitled “Design and synthesis of new triazole and oxazole derivatives with possible anti-ageing activity”, NKUA, **2016**.
- Participant in the three-membered supervising committee of the undergraduate research project of A. Konstantinidis, entitled “The development of mesalazine prolonged release tablets using experimental design techniques”, NKUA, **2018**.
- Participant in the three-membered supervising committee of the MSc dissertation of V. Tsakalidou, entitled “Design, synthesis and evaluation of the melatonergic activity of new C2-, C3 α - και C3 β - substituted indolic derivatives”, NKUA, **2018**.
- Participant in the three-membered supervising committee of the MSc dissertation of D. Chandrinou, entitled “Design and synthesis of cannabimimetic derivatives”, NKUA, **2019**.
- Participant in the three-membered supervising committee of the MSc dissertation of A. Sakellaropoulou, entitled “Design, synthesis and evaluation of the melatonergic activity of new substituted indolic derivatives” NKUA, **2021**.
- Participant in the three-membered supervising committee of the MSc dissertation of M. Boniakou, entitled «New derivatives of indole and 7-azaindole with possible melatonergic activity: Design and synthesis”, NKUA, **2021**.
- Participant in the three-membered supervising committee of the MSc dissertation of S. A. Vlachou, entitled «Synthesis and pharmacological

evaluation of novel substituted benzoxazine derivatives with potent anti-dyslipidemic / antioxidant activity: Study of Structure-Activity relationships”, NKUA, **2023**.

Supervision of PhD thesis

- Supervisor of the PhD thesis of A.-S. Foscolos, entitled “Adamantane nitroheteroaromatic derivatives with trypanocidal activity”, NKUA, **2022**.

Participation in the three/seven-membered evaluating committees of PhD theses

- Member of the seven-membered evaluating committee of the PhD thesis of V. Belekou, entitled “Design and synthesis of new *N*-heterocycles with melatoninergetic activity”, NKUA, **2014**.
- Member of the seven-membered evaluating committee of the PhD thesis of I. Tzoumas, entitled “Furranoditerpenes cassane-type of traditional medicinal plants. Development of hedgehog and enantioselective synthesis of (±)-sucutinirane C”, NKUA, **2018**.
- Member of the seven-membered evaluating committee of the PhD thesis of A. Papastathopoulos, entitled “Design, synthesis and cytotoxic activity of new substituted pyrazolopyridines and pyridopyrazines”, NKUA, **2018**.
- Member of the seven-membered evaluating committee of the PhD thesis of A. Papastathopoulos, entitled “Design, synthesis and cytotoxic activity of new substituted pyrazolopyridines and pyridopyrazines”, NKUA, **2018**.
- Member of the seven-membered evaluating committee of the PhD thesis of D. Pournara, entitled “Design and synthesis of inflammasome inhibitors with potential cardioprotective activity”, NKUA, **2018**.
- Member of the seven-membered evaluating committee of the PhD thesis of N. Kollatos, entitled “Modified in base, acyclic 3'-trifluoromethyl- and methyl nucleosides: Design, synthesis and biological evaluation, University of Thessaly, **2019**.

- Member of the seven-membered evaluating committee of the PhD thesis of A. Konstantinidi, entitled “Studies of the Membrane Influenza A/M2 Protein with Aminoadamantane Drugs Using Experimental and Computational Biophysics”, NKUA, **2021**.
- Member of the seven-membered evaluating committee of the PhD thesis of I. Christopoulos, entitled “Synthesis of natural product analogues possessing inflammatory activity. Development of total synthesis of neorogioltriol”, NKUA, **2021**.
- Member of the seven-membered evaluating committee of the PhD thesis of A. Latorrata, entitled “Synthesis of dehydroepiandrosterone (DHEA) derivatives substituted by three membered-17-spiro substituents”, NKUA, **2022**.
- Member of the seven-membered evaluating committee of the PhD thesis of A. Bourboula, entitled “Synthesis and Study of bioactive derivatives and their deuterated analogs ”, NKUA, **2023**.
- Member of the seven-membered evaluating committee of the PhD thesis of M. Stampolaki, entitled “Structure-based drug discovery research on the MmpL3 transporter of *Mycobacterium tuberculosis* and the M2 proton channel of *Influenza A virus*”, NKUA, **2023**.
- Member of the three-membered evaluating committee of the PhD thesis of E. Chazapi, entitled “Synthesis of new heterocyclic compounds with antiparasitic activity”, NKUA, **2025**.
- Member of the seven-membered evaluating committee of the PhD thesis of O. Kirkilessi, entitled “Synthesis of tyrosinase inhibitors and probes for mechanistic studies”, NKUA, **2025**.
- Member of the seven-membered evaluating committee of the PhD thesis of P. Mavroeidi, entitled “In silico studies of neurodegenerative disease targets.”, NKUA, **2025**.
- Member of the three-membered evaluating committee of the PhD thesis of G. Ninigianni, entitled “Design and synthesis of fluorescent near-infrared (NIR) detectors for application in biological systems”, NKUA, *in progress*.
- Member of the three-membered evaluating committee of the PhD thesis of A. Sakellaropoulou, entitled “New Heteroaromatic derivatives: Design,

synthesis and evaluation of their melatoninergetic activity”, NKUA, *in progress*.

- Member of the three-membered evaluating committee of the PhD thesis of G. Laros, entitled “Design, synthesis and evaluation of new adamantyl compounds as soluble epoxide hydrolase and P2X7 inhibitors”, NKUA, *in progress*.

Conferences / Symposia / Invited Speaker

- Synthesis of new adamantane heterocycles with probable antiviral activity. **I. Papanastasiou**, G. B. Foscolos, N. Kolocouris, G. Fytas, 11th Panhellenic Symposium of Medicinal Chemistry, Patra **2004** (oral presentation).
- Synthesis of 2-oxazolines and 2-imidazolines adamantane derivatives with *anti*-Trypanosoma and antimitotic activity. **I. Papanastasiou**, G. B. Foscolos, N. Kolocouris, G. Fytas, 11th Panhellenic Pharmaceutical Congress, Athens **2005** (poster).
- New adamantane derivatives with sigma affinity and antiproliferative activity. S. Riganas, **I. Papanastasiou**, G. B. Foscolos, A. Tsotinis, K. Dimas, V. N. Kourafalos, A. Eleutheriades, V. I. Moutsos, H. Khan, M. Prassa, S. Georgakopoulou, A. Zaniou, M. Theodoropoulou, A. Mantelas, S. Pondiki, A. Vamvakides, Trends in Drug Research, 29th Cyprus-Noordwijkerhout-Camerino Symposium, Limassol **2011** (poster presentation).
- Hydrazones of 5-nitro-furanecarboxaldehyde with 1-adamantane alkanohydrazides with probable trypanocidal activity. A.-S. Foscolos, **I. Papanastasiou**, G. B. Foscolos, A. Tsotinis, T. Kellici, T. Mavromoustakos, Trends in Drug Research, 32nd Cyprus-Noordwijkerhout-Camerino Symposium, Limassol **2014** (poster presentation).
- Adamantylphenylalkylamines with potential antiproliferative activity. A-S Foscolos, A. Koperniku, S. Riganas, **I. Papanastasiou**, G. B. Foscolos,

- A. Tsotinis, D. Scholsb, S. A. Akhtar, M. A. Khan, K. M Rahman, D. E. Thurston, IXth Joint Meeting in Medicinal Chemistry, Athens **2015** (poster presentation).
- New hydrazones of 5-nitro-2-furaldehyde with adamantane alkanohydrazides: synthesis, conformational analysis and in vitro trypanocidal activity. A. Tsotinis, A-S Foscolos, **I. Papanastasiou**, G. B. Foscolos, T. Kellici, T. Mavromoustakos, M. C. Taylor, John M. Kelly, 33rd Camerino-Cyprus Symposium - Receptor Chemistry: "Reality and Vision" Camerino **2016** (poster presentation).
 - Modified release studies from matrix tablets of a new 2,2-disubstituted aminoadamantane derivative with antitubercular activity. M. Vlachou, E. Diamantidi, A. Siamidi, V. Ioannidou, V. Kourbeli, S-A. Foscolos, **I. Papanastasiou**. 2nd International Congress of Greek Local Chapter of CRS (Controlled Release Society), Athens **2016** (poster presentation).
 - Evaluation of modified release formulations of a new 1,3- disubstituted aminoadamantane derivative with tuberculocidal activity. M. Vlachou, A. Iliopoulou, A. Siamidi, V. Ioannidou, V. Kourbeli, S-A. Foscolos, **I. Papanastasiou**. 2nd International Congress of Greek Local Chapter of CRS (Controlled Release Society), Athens **2016** (poster presentation).
 - Two new adamantano ethoxymorpholino derivatives with antitubercular activity: comparison of their modified release formulations. M. Vlachou, A. Siamidi, E. Diamantidi, A. Iliopoulou, V. Ioannidou, V. Kourbeli, A-S. Foscolos, **I. Papanastasiou**, V. Karalis, T. F. Kellici, T. Mavromoustakos. 11th Central European Symposium on Pharmaceutical Technology, Belgrade **2016** (poster presentation).
 - Modified release studies of the new antitubercular compound, 1,1'-[4,4'-[tricyclo[3.3.1.1^{3,7}]decane-2,2-diyl]bis(phenoxyethyl)dipyrrolidine, bis-hydro- chloride from solid formulations. A. Siamidi, D. Lentzos, D. Spaneas, **I. Papanastasiou**, M. Vlachou. 10th Int. Conference on Pharmaceutics and Drug Delivery Systems, London **2017** (poster presentation).
 - New hydrazones of 5-nitro-2-furaldehyde with adamantane alkanohydrazides: synthesis, and in vitro trypanocidal activity. A. Tsotinis, A-S Foscolos, **I. Papanastasiou**, G. B. Foscolos, T. Kellici, T.

Mavromoustakos, M. C. Taylor, John M. Kelly. 17th Hellenic Symposium on Medicinal Chemistry (HSMC-17) - Aristotle University of Thessaloniki **2017** (poster presentation).

- Synthesis of adamantane aminoethers with antitubercular potential. **I. Papanastasiou**, A.-S. Foscolos, A. Tsotinis, N. Kolocouris, George B. Foscolos, A. Vocat and S. T. Cole, ACSMEDI-EFMC: Medicinal Chemistry Frontiers 2017, Philadelphia **2017** (poster presentation).
- Invited speaker in the Chemistry Department of National and Kapodistrian University of Athens. Title of speech: Adamantane derivatives with sigma receptor (σ R) affinity and antiproliferative / anticancer activity. Athens **2018**.
- Modified release studies on the new antitubercular compound, (1,1'-[4,4'-[tricyclo[3.3.1.1^{3,7}]decane-1,3-diyl]bis(phenoxyethyl)]dipyrrolidine, bis-hydrochloride from solid formulations. M. Vlachou, A. Siamidi, P. Ladia, K. Anastasiou, **I. Papanastasiou**, International Conference and Exhibition on Pharmaceutical Sciences & Research, Dubai **2018** (poster presentation).
- Bis(phenoxy)adamantane alkylamines of pharmacological interest against trypanosomiasis and tuberculosis. M.-O. Georgiadis, V. Ioannidou, V. Karakitsios, V. Kourbeli, A. Tsotinis, **I. Papanastasiou**, D. Komiotis, T. Kellici, T. Mavromoustakos, A. Vocat, S. T. Cole, M. C. Taylor, J. M. Kelly, 2nd World Congress on Pharmaceutics and Chemical Sciences, Bologna **2018** (oral presentation).
- Side Chain Substituted Indolealkyl Amides as Potent Melatonin Receptor Ligands. J. Lipinski, V. Tsakalidou, **I. Papanastasiou**, A. Sakellaropoulou, M. Avgeropoulou, M. Boniakou, A. J. Jones, G. C. Glatfelter, C. Weiss, A. Tsotinis, M. L. Dubocovich, Experimental Biology **2019** Meeting, Orlando 2019 (poster presentation). (The FASEB Journal, 2019, 33:1_supplement, lb43-lb43).
- i. Synthesis, Biology, Computational Studies and in vitro Controlled Release of new Isoniazid-based Adamantane Derivatives A. Papageorgiou, A.-S. Foscolos, **I. Papanastasiou**, M. Vlachou, A. Siamidi, A. Vocat, S. T. Cole, T. Kellici, T. Mavromoustakos, A. Tsotinis

ii. Synthesis and evaluation of new nifurtimox-adamantane adducts with trypanocidal activity, A.-S. Foscolos, **I. Papanastasiou**, A. Tsotinis, M. C. Taylor, J. M. Kelly

EFMC-ACSMEDI Medicinal Chemistry Frontiers 2019, Krakow **2019** (poster presentations).

- i. New Antitubercular Isoniazid-Adamantane Hydrazone Derivatives: Design, Synthesis, Evaluation, Computational Studies and *in vitro* Controlled Release Studies, A. Papageorgiou, A.-S. Foscolos, **I. Papanastasiou**, M. Vlachou, A. Siamidi, A. Vocat, S. T. Cole, T. Kellici, T. Mavromoustakos, A. Tsotinis
ii. New nifurtimox-adamantane adducts: Synthesis and evaluation of trypanocidal activity, A.-S. Foscolos, **I. Papanastasiou**, A. Tsotinis, Tahsin F. Kellici, T. Mavromoustakos, M. C. Taylor, J. M. Kelly
iii. Design, Synthesis and Evaluation of Novel 2,4-Bisubstituted Arylthiazoles as Trypanocidals, M.-O. Georgiadis, V. Kourbeli, A. Tsotinis, **I. Papanastasiou**, M. C. Taylor, J. M. Kelly
EFMC-ASMC 2019, Athens **2019** (poster presentations).
- Invited speaker in Institute of Chemical Biology, National Hellenic Research Foundation. Title of speech: Adamantane derivatives with sigma receptor (σ R) binding affinity and antiproliferative / anticancer activity. Athens **2019**.
- i. *In vitro* modified-release of the cytotoxic agent, 4-[4,4-Diphenyl-4-(1-tricyclo[3.3.1.1^{3,7}]decyl)butyl)-1-methylpiperazine, from matrix tablets, A. Siamidi, A. Dedeloudi, D.A. Vlassi, G.A. Sotiropoulou, A.S. Foscolou, M. Vlachou, **I. Papanastasiou**
ii. *In vitro* modified-release studies of 1-methyl-4-{3-[4-[α -(1-adamantyl)phenylmethyl]phenyl]propyl}piperazine matrix tablets, A. Siamidi, A. Dedeloudi, E. Tseliki, A.S. Foscolou, M. Vlachou, **I. Papanastasiou**
12th PBP World Meeting, Vienna **2021**(poster presentations).
- i. *N*-[2-(4-fluoro-3-methoxyphenyl)-2-methylpropyl]propionamide, a new melatonin receptor selective ligand: *in vitro* dissolution studies, M. Vlachou, D. Anagnostopoulou, A. Siamidi, R. Kompogennitaki, N. Efsthathiou, **I.P. Papanastasiou**.

- ii. *In vitro* modified-release of the cytotoxic agents, 4-[4,4-diphenyl-4-(1-tricyclo[3.3.1.1^{3,7}]decyl)butyl)-1-methylpiperazine and 1-methyl-4-{3-[4-[α-(1-adamantyl)phenylmethyl]phenyl]propyl}piperazine from matrix tablets, M. Vlachou, A. Siamidi, A. Dedeloudi, K. Antonara, E. Tseliki, D.A. Vlassi, G. I. Sotiropoulou, A. S. Foscolou, **I. P. Papanastasiou** 13th PBP World Meeting, Rotterdam **2022** (poster presentations).
- An overview of the antitrypanosomal profile of the adamantanescaffolds V. Kourbeli, M.-O. Georgiadis, A. S. Foscolos, A. Koperniku, M. C. Taylor, J. M. Kelly, A. Tsotinis, **I. P. Papanastasiou** EFMC-ISMIC 2022, Nice **2022** (flash presentation).
 - Invited speaker to the 19th Hellenic Symposium on Medicinal Chemistry (HSMC-19). Title of speech: Synthetic routes of adamantane derivatives with a trypanocidal profile. Patras **2023**.
 - Synthesis and Identification of Lead Compounds as Analogs of the Tuberculosis Drug Candidate SQ109 against Mycobacterium Tuberculosis and Malaria Parasites - Biological Potency Evaluation Using Surface Plasmon Resonance, Molecular Dynamics-Based Methods and Perturbative Effects in Model Membranes, M. Stampolaki, S. R. Malwal, L-M. Birkholtz, L. Kremer, C. Demetzos, H. I. Zgurskaya, T. Dick, **I. P. Papanastasiou**, E. Oldfield, A. D. Kolocouris, RICT 2023, 57th International Conference on Medicinal Chemistry, Lille **2023** (poster).
 - An Overview of the Antitrypanosomal Profile of Adamantane Scaffolds”, **I.P. Papanastasiou**. 1st Meeting of the COST ActionCA21111 One Health drugs against parasitic vector borne diseases in Europe and beyond “OneHealthdrugs”, Modena **2023** (flash presentation).
 - Adamantane imidazolines with trypanocidal activity. **I. P. Papanastasiou**. Advancements in Structural and Functional Drug Discovery of Vector-borne Diseases. Saïd Business School & Diamond Light Source, Oxford **2024** (flash presentation).
 - Adamantane Nitro-Heterocyclic Derivatives with Activity against *L. infantum*, K. Stavropoulou, A.-S. Foscolos, N. Santarem, T. Calogeropoulou, A. Cordeiro da Silva and **I. Papanastasiou** Novel leads and drugs for vector borne diseases: Targets and off targets (toxicity and ecotoxicity) and mechanism of action, CA21111.One Health

drugs against parasitic vector-borne diseases in Europe and beyond. National Hellenic Research Foundation, Athens **2024**(flash presentation).

- i. Synthesis and evaluation of nitroheterocyclic aromatic adamantane amides with anti-trypanosomal activity, A.-S. Foscolos, M. Billia, M.-O. Georgiadis, N. Santarém, A. Cordeiro da Silva, M. C. Taylor, J. M. Kelly, T. Calogeropoulou, A. Tsotinis, T. Mavromoustakos and **I. P. Papanastasiou**,
ii. New 1-(4-phenyl)adamantane and 1-(4-phenoxyphenyl)adamantane incorporating derivatives with activity against *Trypanosoma brucei*, K. Stavropoulou, A. Kaimaki, M. Nikolaou, A. K. Brown, A. Tsotinis, M. C. Taylor, J. M. Kelly and **I. P. Papanastasiou**
20th Hellenic Symposium on Medicinal Chemistry (HSMC-20), Ioannina **2025** (poster presentations).
- Synthesis and Evaluation of Nitroheterocyclic Aromatic Adamantanohydrazones with Trypanocidal Activity. Part III, A.-S. Foscolos, K. Stavropoulou, N. Santarém, A. Cordeiro da Silva, M. C. Taylor, J. M. Kelly, S. Wyllie, T. Calogeropoulou, A. Tsotinis and **I. P. Papanastasiou**
CA211111.One Health drugs against parasitic vector-borne diseases in Europe and beyond, Antwerp conference, June 4-6, **2025**, Antwerp, Belgium(flash presentation).
- Synthesis and Evaluation of Nitroheterocyclic Aromatic Adamantane Amides with Trypanocidal Activity, A.-S. Foscolos, M. Billia, M.-O. Georgiadis, N. Santarém, A. Cordeiro da Silva, M. C. Taylor, J. M. Kelly, T. Calogeropoulou, A. Tsotinis, T. Mavromoustakos and **I. P. Papanastasiou**, EFMC-ASMC **2025**, Porto, Portugal.

Reviewer of articles in peer-reviewed journals

Assessor of manuscripts submitted to the following peer reviewed journals:

- ACS Medicinal Chemistry Letters
- AMINO ACIDS
- Bioorganic and Medicinal Chemistry
- ChemistrySelect
- Future Medicinal Chemistry
- HELIYON (Certificate of outstanding contribution in reviewing)
- Letters in Organic Chemistry
- Medicinal Chemistry Research
- Molbank
- Molecules
- Organic Preparations and Procedures International
- Pharmaceuticals
- Photochemistry and Photobiology B: Biology

Editorial activity

- Guest co-Editor of the Special Issue of “Molecules”: Advances of medicinal chemistry against kinetoplastid protozoa (*Trypanosoma brucei*, *Trypanosoma cruzi* and *Leishmania* spp.) infections: Drug design, synthesis and pharmacology.
https://www.mdpi.com/journal/molecules/special_issues/neglected_disease
- Member of Topical Advisory Panel of MDPI journal *Molecules*.
https://www.mdpi.com/journal/molecules/topic_editors/medicinal_chemistry

Scientific affiliations

- Member of the Hellenic Society of Medicinal Chemistry
- Member of the American Chemical Society

Administrative work

- Participant in the organization of seminars for the Postgraduate Study Program of the Division of Pharmaceutical Chemistry "Design and Development of New Pharmaceutical Compounds" for three academic years, 2016-2019.
- Full member of the NKUA Competition and Evaluation Committee of the competition "Supply of Consumables for the Laboratories of the Departments of Chemistry, Pharmacy, Geology and Biology" for the academic year 2017-2018.
- Full member of the Graduate Program Committee of the Department of Pharmacy for the academic year 2017-2018.
- Co-responsibility for the proper functioning of the Council Board of the Library of the School of Sciences of the National and Kapodistrian University of Athens, 2018-2021.
- Regular member of the Council Board of the Library of the School of Sciences of the National and Kapodistrian University of Athens, 2021-today.
- Regular member of the Committee on Educational Programmes (Erasmus+, CIVIS), 2024 -today.

Funded Research Project

- Scientist in charge of the research program, entitled "Hydrazones of adamantanobenzene-carbohydrazides with antiparasitic activity" 2nd Call for H.F.R.I. PhD candidate scholarships, Program code: 16231, budget: 19.800,00 Euro. PhD candidate A. Foscolos, **2018-2022**.
- MC member co-representative of Greece in the COST Action CA21111, One Health drugs against parasitic vector borne diseases in Europe and beyond (OneHealth*drugs*), **2022-2026**.

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3. An intriguing regioselective synthesis of novel 2-(1-adamantylmethyl) tetrahydropyridines. G. B. Foscolos, **I. Papanastasiou**, A. Tsotinis, *Lett.Org.Chem.*, **2008**, 59(1), 57-59. DOI: 10.2174/157017808783330117
4. Design, synthesis and trypanocidal activity of new aminoadamantane derivatives. **I. Papanastasiou**, A. Tsotinis, N. Kolocouris, S. R. Prathalingam, J. M. Kelly, *J.Med.Chem.*, **2008**, 51(5), 1496-1500. DOI: 0.1021/jm7014292
5. Conformationally constrained adamantaneoxazolines of pharmacological interest. **I. Papanastasiou**, G. B. Foscolos, A. Tsotinis, J. Oláh, J. Ovádi, S. R. Prathalingam, J. M. Kelly, *Heterocycles*, **2008**, 75(8), 2043-2061. DOI: 10.3987/REV-07-625
6. Synthesis of conformationally constrained adamantane imidazolines with trypanocidal activity. **I. Papanastasiou**, A. Tsotinis, G. B. Foscolos, S. R. Prathalingam, J. M. Kelly, *J.Heterocyclic Chem.*, **2008**, 45(5), 1401-1406, DOI:10.1002/jhet.5570450524
7. Design and Synthesis of *Trypanosoma brucei* Active 1-Alkyloxy and 1-Benzoyloxy adamantano 2-Guanylhydrazones.**I. Papanastasiou**, A. Tsotinis, G. Zoidis, N. Kolocouris, S. R. Prathalingam, J. M. Kelly, *ChemMedChem*, **2009**, 4, 1059-1062. DOI: 10.1002/cmdc.200900019
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18. New hydrazones of 5-nitro-2-furaldehyde with adamantanealkanolhydrazides: synthesis and *in vitro* trypanocidal activity. A.-S. Foscolos, **I. Papanastasiou**, G. B. Foscolos, A. Tsotinis, T. F. Kellici, T. Mavromoustakos, M. C. Taylor, J. M. Kelly, *Medchemcomm*, **2016**, 7(6), 1229-1236. DOI: 10.1039/C6MD00035E
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- Vocat, S. T. Cole, *ChemistrySelect*, **2019**, 4(37), 11048-11051, DOI: 10.1002/slct.201902283
30. Synthesis and evaluation of novel 2,4-disubstituted arylthiazoles against *T. brucei*. M.-O. Georgiadis, V. Kourbeli, **I. P. Papanastasiou**, A. Tsotinis, M. C. Taylor, J. M. Kelly, *RSC Med.Chem.*, **2020**, 11(1), 72-84, DOI:10.1039/C9MD00478E (This article is featured on the inside front cover of the inaugural issue of RSC Medicinal Chemistry journal)
 31. Multicomponent reaction of aldehydes, amines and oxalacetate analogues leading to biologically attractive pyrrole derivatives, S. Manta, N. Kollatos, C. Mitsos, G.-A. Chatzieffraimidi, **I. P. Papanastasiou**, J. K. Gallos, D. Komiotis, *Mini-Rev.Med.Chem.*, **2020**, 20(10), 818-830, DOI: 10.2174/138955752066620010 3123114
 32. Repurposing current therapeutic regimens against SARS-CoV-2. S. K. Konstantinidou, **I. P. Papanastasiou**, *Exp.Ther.Med*, **2020**, 20(3), 1845-1855, DOI: 10.3892/etm.2020.8905
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 35. An Overview on Target-Based Drug Design against Kinetoplastid Protozoan Infections: Human African Trypanosomiasis, Chagas Disease and Leishmaniases. V. Kourbeli, E. Chontzopoulou, K. Moschovou, D. Pavlos, T. Mavromoustakos, **I. P. Papanastasiou**, *Molecules* **2021**, 26(15), 4629 DOI:10.3390/molecules26154629
 36. Biophysical Evaluation and In Vitro Controlled Release of Two Isomeric Adamantane Phenylalkylamines with Antiproliferative/Anticancer and Analgesic Activity. M. Vlachou, A.-S. Foscolos, A. Siamidi, A. Syriopoulou, N. Georgiou, A. Dedeloudi, A. D. Tsailanis, A. G. Tzakos, T. Mavromoustakos, **I. P. Papanastasiou**, *Molecules*, **2022**, 27(1), 7. DOI: 10.3390/molecules27010007

37. Improved cyclobutyl nabilone analogs as potent CB1 receptor agonists. **I. P. Papanastasiou**, M-O. Georgiadis, C. Iliopoulos-Tsoutsouvas, C. A. Paronis. C. A. Brust, N. K. Tran, L. Ji, X. Mab, J.T.Wood, N. Zvonok, F.Tong, L. M.Bohn, S. P. Nikas, A. Makriyannis, *Eur.J.Med.Chem.*, **2022**, 230, 114027, DOI: 10.1016/j.ejmech.2021.114027
38. Evidence for spontaneous cannabinoid withdrawal in mice. C. Paronis, C. Iliopoulos-Tsoutsouvas, **I. Papanastasiou**, A. Makriyannis, J. Bergman, S. P. Nikas, *Behav. Pharmacol.*, **2022**, 33(2&3),184-194, DOI: 10.1097/FBP.0000000000000665
39. Mapping the Melatonin Receptor.8. Selective MT2 Agonists derived from 5,6-dihydroindolo[2,1-a]isoquinolines and related systems. A. Tsotinis, P. A. Afroudakis, **I. P. Papanastasiou**, A. Sakellaropoulou, M. Boniakou, D. Komiotis, P. J. Garratt, P. Delagrang, A. Bocianowska-Zbrong, D. Sugden, *ChemMedChem*, **2022**, e202200129. DOI:10.1002/cmdc.2022000129
40. Probing Adamantane Arylhydroxamic Acids against *Trypanosoma brucei* and *Trypanosoma cruzi*. A.-S. Foscolos, A. Tsotinis, M. C. Taylor, J. M. Kelly, **I. P. Papanastasiou**, *Molbank*, **2022**, 2022(2), M1363. DOI:10.3390/M1363
41. Synthesis and Testing of Analogs of the Tuberculosis Drug SQ109 Against Bacteria and Protozoa: Identification of Lead Compounds Against Mycobacterium abscessus and Malaria. M. Stampolaki, S. R. Malwal, N. Alvarez-Cabrera, Z. Gao, M. Moniruzzaman, S. O. Babii, N. Naziris, A. Rey-Cibati, M. Valladares-Delgado, A. L. Turcu, K-H Baek, T-N Phan, H. Lee, M. Alcaraz, S. Watson, M. van der Watt, D. Coertzen, N. Efstathiou, I. Stylianakis, M. Chountoules, C. M. Shoen, **I. P. Papanastasiou**, J. Brea, M. H. Cynamon, L-M Birkholtz, L. Kremer, J. H. No, S. Vázquez, G. Benaim, C. Demetzos, H. I. Zgurskaya, T. Dick, E. Oldfield, A. D. Kolocouris. *ACS Infect. Dis.* **2023**, 9, 342-364. DOI: 10.1021/acsinfecdis.2c00537
42. Potent Lipophilic Melatonergic x-fluoro-y-methoxy Substituted Phenylalkylamides: Molecular Dynamics Calculations and in vitro Modified Release in Aqueous Media from Tablet Formulations. M.Vlachou, A. Siamidi Angeliki, D. Anagnostopoulou, C. Protopapa, R. Kompogennitaki, A. Sakellaropoulou, N. Efstathiou, **I. Papanastasiou**, M. Billia, T. Mavromoustakos. *Curr. Pharm. Des.* **2023**, 29(17)1370-1378. DOI: 10.2174/1381612829666230607093311

43. *In vitro* Modified Release Studies on Melatonergic Fluorinated Phenylalkylamides: Circumventing their Lipophilicity for Oral Administration. M. Vlachou, A. Siamidi, C. Protopapa, M. Vlachos, S. Kloutsou, C.-C. Dreliozi, **I. P Papanastasiou** *Curr. Pharm. Des.* **2024**, 30(18), 1433-1441. DOI: 10.2174/0113816128304967240328065809
44. Overview of Small Molecules as Fluorescent Probes of Mycobacterium tuberculosis. K. Stavropoulou, **I. P Papanastasiou**. *ACS Omega*, **2024**, 9(29), 31220-31227. DOI: 10.1021/acsomega.4c01992
45. New *Trypanosoma brucei* acting derivatives incorporating 1-(4-phenyl)adamantane and 1-(4-phenoxyphenyl)adamantane. K. Stavropoulou, A. Kaimaki, M. Nikolaou, A. K. Brown, A. Tsotinis, M. C. Taylor, J. M. Kelly, **I. P. Papanastasiou**. *RSC Med. Chem.*, **2025**, 16, 2441-2451. DOI: 10.1039/d5md00135h

Publications from Conferences' participations

1. Side Chain Substituted Indolealkyl Amides as Potent Melatonin Receptor Ligands. J. Lipinski, V. Tsakalidou, **I. Papanastasiou**, A. Sakellaropoulou, M. Avgeropoulou, M. Boniakou, A. J. Jones, G. C. Glatfelter, C. Weiss, A. Tsotinis, M. L. Dubocovich, *FASEB*, **2019**, 33(S1), DOI:10.1096/fasebj.2019.33.1_supplement.lb43
2. Selective MT2 Melatonin Receptor Antagonist Modulates Circadian Activity via Inhibition of the Endogenous Melatonin Signal in the East Bound Jet Lag Model. J. Sosa, J. Lipinski, V. Tsakalidou, **I. Papanastasiou**, A. Sakellaropoulou, A. Tsotinis, M. Dubocovich, *FASEB*, **2021**, 35(S1), DOI:10.1096/fasebj.2021. 35.S1.01911
3. Effects of Cannabinoid Agonists and Antagonists in Rats Discriminating Fentanyl. D. A. Alkheib, A. Kirunda, **I. Papanastasiou**, S. Jiang, C. Iliopoulos-Tsoutsouvas, A. Zvonok, S. P. Nikas, K. Vemuri, A. Makriyannis, R. I. Desai, *FASEB J*, **2022**, 36(S1), DOI:10.1096/fasebj. 2022.36.S1.R4829

Publication in a non-peer reviewed journal

Targets and therapeutic agents against SARS-CoV-2. S.K. Konstantinidou, **I. P. Papanastasiou**, *FARMAKEFTIKI*, **2020**, 32(IV), 158-185.

Book Chapters

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