

## Ioannis P. Papanastasiou (*Curriculum Vitae*)

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### **Personal Data**

Nationality: Hellenic

Date – Place of birth: 26/04/1976 – Athens, Greece

### **Education**

9/2016-today

Assistant Professor  
Division of Pharmaceutical Chemistry,  
Department of Pharmacy, School of Health Sciences,  
National and Kapodistrian University of Athens

1/2014-9/2016

Lecturer  
Division of Pharmaceutical Chemistry,  
Department of Pharmacy, School of Health Sciences,  
National and Kapodistrian University of Athens

9/2009 – 1/2014

Postdoctoral Researcher Associate  
Division of Pharmaceutical Chemistry,  
Department of Pharmacy ,  
National and Kapodistrian University of Athens

3/2008 – 9/2009

Postdoctoral Researcher Associate  
Center for Drug Discovery,  
Northeastern University, Boston, USA

4/2004

Chartered Pharmacist

2/2004 – 12/2007

PhD in Medicinal Chemistry  
Department of Pharmaceutical Chemistry,  
National and Kapodistrian University of Athens

Thesis: *Adamantane imidazolines and oxazolines of pharmacological interest*. Supervisor: Prof. G.B. Foscolos

- 11/2001 – 2/2004 MSc in Medicinal Chemistry  
Department of Pharmaceutical Chemistry,  
National and Kapodistrian University of Athens
- Dissertation: *Synthesis of new adamantane heterocycles with probable antiviral activity*. Supervisor: Prof. G.B. Foscolos
- 10/1996 – 10/2001 BS in Pharmacy  
Faculty of Pharmacy, National and Kapodistrian University  
of Athens

### **Teaching Experience**

Co-teaching of the compulsory course “Inorganic Chemistry II” at the second semester of the undergraduate program of the Faculty of Pharmacy (2015 – today)

Co-teaching of the compulsory course “Pharmaceutical Chemistry I” at the fifth semester of the undergraduate program of the Faculty of Pharmacy (2014 – today)

Co-teaching of the compulsory course “Synthetical strategy of pharmaceutical molecules” at the first semester of the postgraduate program of the Faculty of Pharmacy (2014 – today)

Supervision of the laboratory course «Drug Synthesis» at the third year of the undergraduate program of the Faculty of Pharmacy (2014 – today)

Supervision of the laboratory course «Introduction in laboratory practice» at the first 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)

### **Publications**

1. The novel GABA adamantane derivative (AdGABA): design, synthesis and activity relationship with gabapentin.  
G. Zoidis, I. Papanastasiou, I. Dotsikas, A. Sandoval, R. G. Dos Santos, Z. Papadopoulou-Daifoti, A. Vamvakides, N. Kolocouris, R. Felix  
*Bioorg.Med.Chem.*, **2005**, *13*, 2791-2798.
2. Heterocyclic rimantadine analogues with antiviral activity  
G. Zoidis, C. Fytas, I. Papanastasiou, G. B. Foscolos, G. Fytas, E. Pedalko, E. De Clercq, L. Naesens, J. Neyts, N. Kolocouris

*Bioorg.Med.Chem.*, **2006**, *14*, 3341-3348.

3. An intriguing, regioselective synthesis of novel 2-(1-adamantylmethyl) tetrahydropyridines.  
I. Papanastasiou, G. B. Foscolos, A. Tsotinis  
*Lett.Org.Chem.*, **2008**, *59(1)*, 57-59.
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.
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*, 2043-2061.
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.
7. Design and Synthesis of *Trypanosoma brucei* Active 1-Alkyloxy and 1-Benzyloxy adamantano 2-Guanylhydrazones  
I. Papanastasiou, A. Tsotinis, G. Zoidis, N. Kolocouris, S. R. Prathalingam, J. M. Kelly  
*Chem.Med.Chem.*, **2009**, *4*, 1059-1062.
8. Microwave-assisted synthesis of sodium sulfonates precursors of sulfonylchlorides and fluorides.  
S. O. Alapafuja, S. P. Nikas, V. G. Shukla, I. Papanastasiou, A. Makriyannis  
*Tetr.Lett.*, **2009**, *50*, 7028-7031.
9. Design and synthesis of new adamantyl-substituted antileishmanial ether phospholipids.  
I. [Papanastasiou](#), K.C. [Prousis](#), K. [Georgikopoulou](#), T. [Pavlidis](#), E. [Scoulica](#), N. [Kolocouris](#), T. [Calogeropoulou](#)  
*Bioorg.Med.Chem.Lett.*, **2010**, *20(18)*, 5484-5487.

### **In the rank of Lecturer**

10. Novel 1',1'-chain substituted hexahydrocannabinols: 9 $\beta$ -hydroxy-3-(1-hexyl-cyclobut-1-yl)-hexahydrocannabinol (AM2389) a highly potent cannabinoid receptor 1 (CB1) agonist.  
S.P. [Nikas](#), S.O. [Alapafuja](#), I. [Papanastasiou](#), C.A. [Paronis](#), V.G. [Shukla](#), D.P. [Papahatjis](#), A.L. [Bowman](#), A. [Halikhedkar](#), X. [Han](#), A. [Makriyannis](#)  
*J. Med. Chem.*, **2010**, *53(19)*, 6996-7010.

11. 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  
*Med.Chem.*, **2012**, 8, 569-586.
12. New sigma-receptors binding adamantane phenylalkylamines with anti-cancer activity associated with putative antagonism of neuropathic pain.  
S. Riganas, I. Papanastasiou, G. B. Foscolos, A. Tsotinis, G. Serin, J. F. Mirjolet, K. Dimas, V. N. Kourafalos, A. Eleutheriades, V. I. Moutsos, H. Khan, S. Georgakopoulou, A. Zaniou, M. Prassa, M. Theodoropoulou, A. Mantelas, S. Pondiki, A. Vamvakides  
*J.Med.Chem.*, **2012**, 55, 10241-10261.
13. Synthesis,  $\sigma_1$ ,  $\sigma_2$ -receptors binding affinity and antiproliferative action of new C1-substituted adamantanes.  
S. Riganas, I. Papanastasiou, G. B. Foscolos, G. B, A. Tsotinis, J. J. Bourguignon, G. Serin, J. F. Mirjolet, K. Dimas, V. N. Kourafalos, A. Eleutheriades, V. I. Moutsos, H. Khan, S. Georgakopoulou, A. Zaniou, M. Prassa, M. Theodoropoulou, S. Pondiki, A. Vamvakides  
*Bioorg.Med.Chem.*, **2012**, 20, 3323-3331.
14. Synthesis and trypanocidal action of new adamantane substituted imidazolines.  
A. Koperniku, I. Papanastasiou, G.B. Foscolos, A. Tsotinis, M.C. Taylor, J.M. Kelly  
*Med.Chem.Comm.*, **2013**, 4, 856-859.
15. New aminoadamantane derivatives with antiproliferative activity  
I. Papanastasiou, A. Tsotinis, N. Kolocouris, S. P. Nikas, A. Vamvakides  
*Med.Chem.Res.*, **2014**, 23, 1966–1975.
16. Synthesis and Cytotoxicity of 4-(2-Adamantyl)phenylalkylamines  
I. Papanastasiou, S. Riganas, G. B. Foscolos, A. Tsotinis, S. A. Akhtar, M. A. Khan, K. M. Rahman, D. E. Thurston  
*Lett.Org.Chem.*, **2015**, 12, 319-323.
17. 4-(1-Adamantyl)phenylalkylamines with Potential Antiproliferative Activity  
A. Koperniku, A.-S. Foscolos, I. Papanastasiou, G. B. Foscolos, A. Tsotinis, D. Schols.  
*Lett.Org.Chem.*, **2016**, 13, 171-176.
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.  
*Med.Chem.Comm.*, **2016**, 7, 1229-1236.

## **Book**

Aminoadamantane derivatives against *Trypanosoma brucei*.

I. Papanastasiou, G. B. Foscolos, A. Tsotinis, J.M. Kelly

«African Trypanosomiasis: Clinical Symptoms, Diagnosis and Treatment»,

Nova Science Publishers, NY, **2016**.

## **Participation in Conferences**

Synthesis of new adamantane heterocycles with probable antiviral activity

I. Papanastasiou, G. B. Foscolos, N. Kolocouris, G. Fytas

11<sup>th</sup> 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

11<sup>th</sup> Panhellenic Pharmaceutical Congress, Athens **2005** (poster presentation)

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, 29<sup>th</sup> Cyprus-Noordwijkerhout-Camerino Symposium, Limassol **2011** (poster presentation)

Hydrazones of 5-nitro-furanecarboxaldehyde with 1-adamantanealkanolhydrazides with probable trypanocidal activity

A.-S. Foscolos, I. Papanastasiou, G. B. Foscolos, A. Tsotinis, T. Kellici, T.

Mavromoustakos

Trends in Drug Research, 32<sup>th</sup> 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

IX<sup>th</sup> Joint Meeting in Medicinal Chemistry, Athens **2015** (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)

### **Supervision of dissertations**

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

Participant in the three-member supervising committee of the MSc dissertation of E.D. Diamantidi entitled as “Comparative controlled release studies of the new antitubercular compounds 2,2-bis[4-(2-morpholinoethoxy)phenyl]adamantane και 1,3-bis[4-(2-morpholinoethoxy)phenyl]adamantane, from hydrophilic matrices.”, National and Kapodistrian University of Athens, **2016**

Participant in the three-member supervising committee of the undergraduate research project of A. Iliopoulou entitled as “Controlled release studies of the new antitubercular compound 1,3-bis[4-(2-morpholinoethoxy)phenyl]adamantane, from solid pharmaceutical formulations.”, National and Kapodistrian University of Athens, **2016**

Supervisor of the MSc dissertation of A.-S. Foscolos entitled as “Hydrazones of 5-nitro-furanecarboxaldehyde with adamantanealkanohydrazides with chemotherapeutic interest against trypanosomiasis”, National and Kapodistrian University of Athens, **2015**

Participant in the three-member supervising committee of the MSc dissertation of Ch. Iliopoulos-Tsoutsouvas entitled as “Design and synthesis of novel thiazolo-fused acridines and acridones as potent topoisomerase inhibitors”, National and Kapodistrian University of Athens, **2015**

Participant in the three-member supervising committee of the undergraduate research project of Am. Kalabaliki entitled as “Design of Staurosporine and Evodiamine Hybrids: Synthesis of Intermediates”, National and Kapodistrian University of Athens, **2015**

Participant in the three-member supervising committee of the undergraduate research project of A. Andrikopoulos and D. Giannakopoulos entitled as “Vascular Disrupting

Agents (VDAs): Design and synthesis of DMXAA analogues”, National and Kapodistrian University of Athens, **2015**

Participant in the three-member supervising committee of degree thesis of Ioa. Kalpaktsi entitled as “Novel method synthesis of hydroxytyrosol and its esters”, National and Kapodistrian University of Athens, **2014**

Member of the seven-member evaluating committee of the PhD thesis of V. Belekou entitled as “Design and synthesis of new *N*-heterocycles with melatoninergic activity”, National and Kapodistrian University of Athens, **2014**

### **Research interest**

Design and synthesis of new organic derivatives with pharmacological interest against “Neglected Diseases”, such as trypanosomiasis, leishmaniasis, tuberculosis.