



Curriculum Vitae

Personal data

Surname / Name Asprodini Eftihia
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Nationality Greek
Date of birth 24 April 1961
Marital Status Married, one child

Title **Professor of Pharmacology**

Work experience

1986-1992 Research Fellow, Department of Pharmacology and Toxicology, University of Texas Medical Branch (UTMB) at Galveston
1992-1993 Visiting Assistant Professor, Medical School, University of Crete
1993-1994 Postdoctoral Fellow, Dept. of Physiology, Medical School, University of Wales, College of Cardiff (UWCC), UK
1994–2003 Assistant Professor, Medical School, University of Thessaly
2003-to date Associate Professor, Medical School, University of Thessaly
2019 Director, Laboratory of Clinical Pharmacology, University Hospital, Larissa

Education and Training

B.S. Pharmacy, School of Health Sciences, University of Patras
Ph. D., Dept. of Pharmacology and Toxicology, UTMB at Galveston

Scientific distinctions

1986 James E. Beall II Memorial Scholarship
1991 George I. Ellis Memorial Award
1991 The Rose and Harry Walk Research Award
1991 Who's Who Among Students in American Universities and Colleges
1992 The James Beall II Memorial Award
1992 The S. Silverthorne Memorial Award

1992	«Epileptogenesis reduces the sensitivity of presynaptic GABA _B receptors in the basolateral amygdala», IBRO Workshop on “Mechanisms of Neuronal Plasticity”, Rio, Patras.
2000	«Intracellular recordings from morphologically indetified neurons of the cat and the rat nucleus reticularis thalami (NRT)», Hellenic Society for Neurosciences Award.
2000	«Synaptic Plasticity I: A Symmetric Electrostructural Model to Account for the Induction of Long-Term Depression (LTD)», 2 nd International Congress on the Improvement of the Quality of Life on Dementia, Epilepsy and MS, Congress Center of Meridien Hotel, Vienna.
2004	«Ketamine reverses the fentanyl induced increase in NMDA-mediated synaptic transmission in CA1 area of the rat hippocampus» Hellenic Society for Pharmacology Award.
2012	«Students of the secondary education talk about their research experience in a University Laboratory». PanHellenic Union of Bioscientists Award.
2015	«Therapeutic Monitoring of Clozapine (Therapeutic Drug Monitoring, TDM) using High Pressure Liquid Chromatography (HPLC) in patients diagnosed with schizophrenia-correlation between administered dose and clinical findings». Awarded to the 1 st year medical student E. Beltsios. 21 st Conference of Medical Students, Athens.
2016	«Development of a chromatographic method for the monitoring of licarbazepine levels in serum of epileptic patients under oxcarbazepine therapy» (2 nd place) 10 th Hellenic Epilepsy Congress, Radisson Blu Park, Athens.
2016	«Development and validation of a reversed-phase HPLC method for the Therapeutic Drug Monitoring (TDM) of Licarbazepine in patients under oxcarbazepine treatment» Special Award to the 1 st year medical student D. Kalousi. 9 th Congress of the Hellenic Society of Basic and Clinical Pharmacology, Electra Palace, Thessaloniki.

Administrative posts

1999	Appointed member of the National Organization for Medicines, Section of Greek Pharmacopoeia.
2010	Head of the Medicines Committee, University Hospital, Larissa.
2013	Chapter Member of the workshop “How to increase Support for Epilepsy Research and Access Funding Opportunities”. International League Against Epilepsy, ILAE, European Chapter Convention, Dublin, Ireland.
2019	Director of the Laboratory of Clinical Pharmacology, University Hospital, Larissa.

Research interests

- Neuroscience/Neuropharmacology
- Pharmacokinetics – Drug metabolism

Conference committees

1992	Co-director 33rd Annual National Student Research Forum, Galveston, TX.
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1999	Director of the Organizing Committee of the 14 th Meeting of the Hellenic Society for Neurosciences, Volos.
2013	Director of the Scientific Committee, 11 th Hellenic Congress of Clinical Chemistry, Volos.
2015	Member of the Local Organizing Committee, FENS Featured Regional Meeting (FFRM), 7-10 October, "Ioannis Vellidis" Congress Center, Thessaloniki, Greece.
Reviewer	<p><i>Manuscripts:</i> Brain Research Bulletin, British Journal of Pharmacology, BMC Anesthesiology, Current Pharmaceutical Analysis, Journal of Food and Chemical Toxicology, Journal of Pharmaceutical Analysis, Journal Pharmacy and Pharmacology, Journal of Epileptology, PlosOne</p> <p><i>Research grants:</i></p> <ul style="list-style-type: none"> • Central Health Board, Ministry of Health • Ministry of Education: Programme «Herakleitos II» • Ministry of Education: Programme «Updating the Education of Graduates» • General Secretariat of Research and Development: Programme «Aristeia»
Teaching	UNDERGRADUATE SCHOOL COURSES
1992-1994	<p><i>Medical School, University of Crete</i> «Physiology I» «Basic Neuroscience»</p>
1994-to date	<p><i>Medical School, University of Thessaly</i> «Pharmacology I» (<i>Course Director</i>) «Pharmacology II»</p>
1999-2001	<p><i>Department of Medical Biochemistry, University of Thessaly</i> «Pharmacology I» (<i>Course Director</i>) «Introduction to Neurosciences» (<i>Course Director</i>)</p>
1995	<p><i>Nursing School, Technological & Educational Institute, Larissa</i> «Pharmacology» (<i>Course Director</i>)</p>
2018- to date	<p><i>Department of Biochemistry & Biotechnology, University of Thessaly</i> «Neurosciences»</p>
	GRADUATE SCHOOL COURSES
2004-2018	<p>«Clinical Applications of Molecular Medicine», <i>Medical School, UTh</i> «Molecular Pharmacology» (<i>Course Director 2004-2009 & 2016-2018</i>)</p>
2018- to date	<p>«Clinical Applications of Molecular Medicine», <i>Medical School, UTh</i> «Molecular & Clinical Pharmacology» (<i>Course Director</i>)</p>
2007	<p>«Neurosciences», <i>Medical School, University of Crete,</i> «Topics in Electrophysiology»</p>
2004- to date	<p>«Primary Health Care», <i>Medical School, UTh</i> «Basics in Clinical Pharmacology»</p>
2011- to date	<p>«Specialization in Nursing», <i>University Hospital of Larissa</i> «Specific Pharmacology» (<i>Course Director</i>)</p>

2017- to date

«Toxicology» Department of Biochemistry & Biotechnology, UTh
«Xenobiotic Metabolism, Toxicokinetics, Doping, Forensic Toxicology»

Funding

- 1996 «Ontogenetic development of electrophysiological and morphological membrane properties of lateral geniculate thalamic neurons». Research Committee, UTh. PI: **E. Asproдини**.
- 1998 «Effects of somatostatin on rat and cat thalamic neurons». Ministry of Health, Central Health Committee. PI: **E. Asproдини**.
- 1999 «14th Meeting of the Hellenic Society for Neurosciences”, Greek Ministry of Development, Hellenic Secretariat of Research and Technology, Department of Publications, Conferences and Exhibitions». PI: **E. Asproдини**.
- 2000 «Determination of caffeine metabolic ratios for the functional evaluation of CYP450 in patients with early or advanced hepatic disease». Research Committee, UTh. PI: **E. Asproдини**.
- 2001 «Comparison of the excitability of morphologically-identified neurons between dorsal and ventral hippocampus». Greek Ministry of Education, Research fellowship EPEAEK II «*Heraclitus II*». PI: **E. Asproдини**.
- 2005 « Opioid-induced hyperalgesia: the role interneurons in the CA1 area of the hippocampus». Greek Ministry of Education, “EPEAEK II, Pythagoras II” PI: **E. Asproдини**. (After the retirement of PI D. Michaloudis)
- 2009 «The effects of selective somatostatin analogs on synaptic transmission of the epileptic hippocampus». Greek Ministry of Health & Solidarism, Central Health Council, Biomedical Research Committee. PI: **E. Asproдини**.
- 2010 «Investigation of the effect of opioid drugs on neurons of the rat hippocampus». Greek Ministry of Education, Research fellowship «*Heraclitus II*» PI: **E. Asproдини**.
- 2013 «Neuroscience Summer School». Research Committee, UTh. PI: **E. Asproдини**.

Supervising Doctorate Theses

- 2000 *Greta Wozniak*: Study of the excitability of pyramidal neurons in the CA1 area of the rat hippocampus.
- 2006 *Evangelos Kouvaras*: Comparison of the excitability of morphologically identified neurons between the dorsal and ventral hippocampus.
- 2007 *Irene Asouchidou*: Opioid-induced hyperalgesia in rats: the effect of ketamine.
- 2009 *Elias Begas*: Evaluation of the in vivo activities of cytochromes CYP1A2, CYP2A6 and the enzymes NAT2 and xanthine oxidase by determining caffeine metabolites in urine samples of chronic liver disease patients using HPLC methods
- 2014 *Christina Koutsona*: Effects of opioids on neurons of the rat hippocampus.
- 2015 *Niki Pippidou*: Study of the effects of in vivo fentanyl treatment on neurons of the rat hippocampus.

- 2015 *Vassiliki Tsiokou*: Investigation of sex-related effects on the in vivo activity of the metabolic enzyme CYP1A2.
- 2019 *Maria Bounitsi*: Analysis of natural products using advanced methods – investigation of their effects on the in vivo activity of the metabolic enzyme CYP1A2.

**Supervising
Master Theses**

**Graduate Programme «Clinical Applications of Molecular Medicine»,
Medical School, University of Thessaly**

- 2007 *Tsiokou Vassiliki*: Reduced in vivo CYP1A2 activity at menopause.
- 2012 *Sotiropoulou Vassiliki*: Effect of opioids in the hippocampus-comparative study between the dorsal and ventral hippocampus.
- 2012 *Pippidou Niki*: Effect of opioids on neurons of the rat hippocampus.
- 2013 *Papageorgiou Dimitra-Iosifina*: GABA immunostaining in slices of the rat hippocampus *in vitro*.
- 2013 *Sinani Olga*: Distribution of GABA neurons in dorsal and ventral hippocampus.
- 2014 *Kadikou Aliko*: Immunohistochemical staining of hippocampal slices following electrophysiological recordings.
- 2016 *Vatidis George*: Development of a chromatographic method for the Therapeutic Drug Monitoring of licarbazepine in serum of patients under oxcarbazepine treatment.
- 2017 *Magouliotis Dimitrios*: Tumor-treating fields as a fourth treating modality for glioblastoma: a meta-analysis.
- 2018 *Tsioutsioumi Agoritsa*: Effects of peppermint tea consumption on the activities of CYP1A2, CYP2A6, Xanthine Oxidase, N-acetyltransferase-2 and UDPglucuronosyltransferases-1A1/1A6 in healthy volunteers.
- 2018 *Govaris Nikolaos*: Effects of Crocus Sativus L. (saffron) on the in vivo activities of CYP1A2 enzyme in healthy volunteers.
- 2018 *Daviti Maria*: Effects of Crocus Sativus L. (saffron) on the in vivo activities of CYP2A6, xanthine oxidase (XO) and N-acetyltransferase (NAT2) enzymes in healthy volunteers.
- 2019 *Deliliga Aspasia*: Image analysis of kainic acid-induced neurotoxicity in rat brain slices.
- 2020 *Janho Michel*: Correlation between clozapine serum levels and CYP1A2 enzyme activity in patients diagnosed with schizophrenia.

**Graduate Programme «Toxicology», Department of Biochemistry and
Biotechnology, University of Thessaly**

- 2017 *Tsioutsouliti Athanasia*: Effects of peppermint tea consumption on the activities of CYP1A2, CYP2A6, Xanthine Oxidase, N-acetyltransferase-2 and UDPglucuronosyltransferases-1A1/1A6 in healthy volunteers.

Invited Lectures

- 1987 **E. Asprodini**: “Coexistence and release of peptides and classic neurotransmitters”. UTMB at Galveston.

- 1988 **E. Asproдини:** “Enhanced inhibitory responses of serotonergic neurons in the dorsal raphe nucleus (DRN) after repeated cocaine exposure”. UTMB at Galveston.
- 1989 **E. Asproдини:** “The effect of dopamine on central amygdala neurons: *in vitro* intracellular recordings”. UTMB at Galveston.
- 1990 **E. Asproдини:** “Excitatory amino acid (EAA) antagonists block kindling-induced synaptic excitability in the basolateral amygdala”. UTMB at Galveston.
- 1991 **E. Asproдини:** “Kindling reduces the sensitivity of pre- but not postsynaptic GABA_B receptors in the basolateral nucleus of the amygdala (BLA)”. UTMB at Galveston.
- 1995 **E. Asproдини:** «Mechanism of action of bronchodilator drugs». Training Course Series of the Pneumatology Clinic, Medical School, University of Thessaly.
- 2006 **E. Asproдини:** «Pharmacology of Oral Contraceptives». Training Course Series of the Obstetrics-Gynaecology Clinic, Medical School, University of Thessaly.
- 2009 **E. Asproдини:** «Opioid-induced Hyperalgesia». 31st Congress of the Hellenic Society of Biological Sciences, Patras.
- 2010 **E. Asproдини:** «Novel targets of antiepileptic drugs». Conference «Treatment of Epilepsies I», Amphitheatre, «Hippocrates», Larissa.
- 2012 **E. Asproдини:** «Pharmacology of antiepileptic drugs. The neurosurgeon’s survival guide». Training Course Series of the Neurosurgery Clinic, Medical School, University of Thessaly.
- E. Asproдини:** «Antiepileptic drugs in psychiatry». Training Course Series of the Psychiatry Clinic, Medical School, University of Thessaly.
- E. Asproдини:** «Experimental model in evaluating antiepileptic drugs». 7th Epilepsy Congress, Aigli, Zappio Hall, Athens.
- 2013 **E. Asproдини:** «Pharmacology of Drugs of Addiction» Προσκεκλημένη ομιλία Lecture Series of the Hellenic Medical Students' International Committee (HelMSIC), Drug Rehabilitation Centre (KETHEA), Exodus, Larissa.
- 2014 **E. Asproдини:** «Kindling process and epileptogenicity». Conference «Treatment of Epilepsies II», Amphitheatre, «Hippocrates», Larissa.
- E. Asproдини:** «The participation of medical students in research during their undergraduate training». Amphitheatre «Hippocrates», Larissa.
- 2015 **E. Asproдини:** «Pathophysiology of Status Epilepticus». 15th Training Course of the Panhellenic Epilepsy Society, Athens Ledra, Athens.
- 2018 **E. Asproдини:** «Experimental models in epilepsy». 12th Epilepsy Congress, Grand Serai, Ioannina.
- 2019 **E. Asproдини:** «Developments in understanding basic mechanisms of epilepsy and seizures». 13th Epilepsy Congress, Wyndham Grand Athens, Athens.

Publications

- 1991 D.G. Rainnie, **E.K. Asprodini**, and P. Shinnick-Gallagher: Excitatory transmission in the basolateral amygdala. *J. Neurophysiol.*, 66, 986-998, 1991.
- D.G. Rainnie, **E.K. Asprodini**, and P. Shinnick-Gallagher: Inhibitory transmission in the basolateral amygdala. *J. Neurophysiol.*, 66, 999-1009, 1991.
- 1992 3. D.G. Rainnie, **E.K. Asprodini**, and P. Shinnick-Gallagher: Kindling-induced long-lasting changes in synaptic transmission in the basolateral amygdala. *J. Neurophysiol.*, 67, 443-454, 1992.
4. **E.K. Asprodini**, D.G. Rainnie, and P. Shinnick - Gallagher: In vivo kindling does not alter afterhyperpolarizations (AHPs) following action potential firing in vitro in basolateral amygdala neurons. *Brain Res.*, 558, 329-334, 1992.
5. **E.K. Asprodini**, D.G. Rainnie, and P. Shinnick - Gallagher: Epileptogenesis reduces the sensitivity of presynaptic GABAB receptors on glutamatergic afferents in the amygdala. *J. Pharmacol. Exp. Therap.*, 262, 1011-1021, 1992.
- 1993 6. M.C. Schiess, **E.K. Asprodini**, D.G. Rainnie, and P. Shinnick - Gallagher: The central nucleus of the rat amygdala: in vitro intracellular recordings. *Brain Res.*, 604, 283-297, 1993.
7. D.G. Rainnie, **E.K. Asprodini**, and P. Shinnick-Gallagher: Intracellular recordings from morphologically identified neurons of the basolateral nucleus of the amygdala (BLA). *J. Neurophysiol.*, 69, 1350-1362, 1993.
- 1997 M. Pirchio, J.P. Turner, **E.K. Asprodini**, and V. Crunelli: Postnatal development of membrane properties and δ oscillations in thalamocortical neurons of the cat dorsal lateral geniculate nucleus. *J. Neurosci.*, 17, 5428-5444, 1997.
- 1998 N. Leresche, R. Parri, G. Erdemli, A. Guyon, J.P. Turner, S.R. Williams, **E.K. Asprodini**, J. Turner, M. Pirchio, and V. Crunelli: On the action of the anti-absence drug ethosuximide in the rat and cat thalamus. *J. Neurosci.*, 18, 4842-4853, 1998.
- E.K. Asprodini**, E. Zifa, I. Papageorgiou, and A. Benakis. Determination of N-acetylation phenotyping in a Greek population using caffeine as a metabolic probe. *Eur. J. Drug Metab. Pharmacokin.*, 23, 501-506, 1998.
- 1999 Ch. Nepka, **E.K. Asprodini** and D. Kouretas. Tannins, Xenobiotic metabolism and cancer chemoprevention in experimental animals (review). *Eur. J. Drug Metab. Pharmacokin.*, 24, 183-189, 1999.
- 2000 N. Leresche, **E.K. Asprodini**, Zs. Emri, D.W. Cope and V. Crunelli: Somatostatin inhibits GABAergic transmission in the sensory thalamus via presynaptic receptors. *Neuroscience*, 98, 513-522, 2000.
- 2001 A. Domali, **E.K. Asprodini**, P.A. Molyvdas and I. Messinis: In vitro effects of Endothelin-1 on the contractility of myometrium obtained from pre- and postmenopausal women. *J. Endocrinol.*, 168, 153-162, 2001.

- I.E. Messinis, I. Papageorgiou, S. Milingos, **E. Asproдини**, G. Kolios and K. Seferiadis: Oestradiol and progesterone treatment on serum leptin concentrations in normal women. *Human Reproduction*, 16, 1827-1832, 2001.
- 2002 C. Papatheodoropoulos, **E.K. Asproдини**, I. Nikita, C. Koutsona, and G. Kostopoulos. Weaker synaptic inhibition in CA1 region of ventral compared to dorsal rat hippocampal slices. *Brain Research* 948(1-2):117-21, 2002.
- 2006 Pandis C, Sotiriou E, Kouvaras E, **Asproдини E**, Papatheodoropoulos C, Angelatou F. Differential expression of NMDA and AMPA receptor subunits in rat dorsal and ventral hippocampus. *Neuroscience* 140(1): 163-75, 2006.
- 2007 E. Begas, E. Kouvaras, A. Tsakalof, S. Papakosta, and **E.K. Asproдини**. In vivo evaluation of CYP1A2, CYP2A6, NAT2 and xanthine oxidase activities in a Greek population sample by the RP-HPLC monitoring of caffeine metabolic ratios. *Biomedical Chromatography*, 21: 190-200, 2007.
- 2008 Kouvaras E, **Asproдини EK**, Asouchidou I, Vasilaki A, Kilindris T, Michaloudis D, Koukoutianou I, Papatheodoropoulos C, Kostopoulos G. Fentanyl treatment reduces GABAergic inhibition in the CA1 area of the hippocampus 24 h after acute exposure to the drug. *Neuropharmacology*, 55(7): 1172-82, 2008.
- 2009 K. Tepetes, **E. Asproдини**, G. Christodoulidis, M. Spyridakis, E. Kouvaras, K. Hatzitheophilou. Prevention of postoperative adhesion formation by individual and combined administration of 4 per cent icodextrin and dimetindene maleate. *Br J Surg. Dec*;96(12):1476-83, 2009.
- 2011 Michmizos D, Koutsouraki E, **Asproдини E**, Baloyannis S. Synaptic plasticity: a unifying model to address some persisting questions. *Int J Neurosci. Jun*;121(6):289-304, 2011.
- 2014 Begas E, Papandreou C, Tsakalof A, Daliani D, Papatsibas G, **Asproдини E**. Simple and reliable HPLC method for the monitoring of methotrexate in osteosarcoma patients. *J Chromatogr Sci. Aug*;52(7):590-5, 2014.
- 2015 Begas E, Kouvaras E, Tsakalof AK, Bounitsi M, **Asproдини EK**. Development and validation of a reversed-phase HPLC method for CYP1A2 phenotyping by use of a caffeine metabolite ratio in saliva. *Biomed Chromatogr. Nov*;29(11):1657-63, 2015.
- 2017 Begas E., Tsakalof A., Dardiotis E., Vatidis G. E., Kouvaras E., **Asproдини EK**. Development and validation of a reversed-phase HPLC method for licarbazepine monitoring in serum of patients under oxcarbazepine treatment. *Biomedical Chromatography Sep*;31(9). doi: 10.1002/bmc.3950, 2017.
- E Begas, A Tsioutsiouliti, E Kouvaras, S A. Haroutounian, K M. Kasiotis, D Kouretas, E Asproдини. Effects of peppermint tea consumption on the activities of CYP1A2, CYP2A6, Xanthine Oxidase, N-acetyltransferase-2 and UDP glucuronosyltransferases-1A1/1A6 in healthy volunteers. *Food and Chemical Toxicology*, 100: 80-89, 2017.
- 2018 D. E. Magouliotis, **E. K. Asproдини**, K. A. Svokos, V. S. Tasiopoulou, A. A. Svokos, S. A. Toms. Tumor-treating fields as a fourth treating modality for glioblastoma: A meta-analysis *Acta Neurochirurgica*, 160(6): 1167-1174, 2018.

- Begas E, Kilindris T, Kouvaras E, Tsioutsioumi A, Kouretas D, Asproдини EK. Dietary effects of *Sideritis scardica* "mountain tea" on human in vivo activities of xenobiotic metabolizing enzymes in healthy subjects. *Food Chem Toxicol.* 25;122:38-48, 2018.
- 2019 K. Bouliaris, **E. Asproдини**, P. Liakos, A. Diamantis, G. Koukoulis, C. Befani, S. Tzika, and K. Tepetes. Adhesion Prevention to Polypropylene Meshes Using Combined Icodextrin Four Percent and Dimetindene Maleate. *Journal of Surgical Research* 234;325-333, 2019.
- E. Asproдини**, V. Tsiokou, E. Begas, T. Kilindris, E. Kouvaras, M. Samara and I. Messinis. Alterations in Xenobiotic-Metabolizing Enzyme Activities across Menstrual Cycle in Healthy Volunteers. *The Journal of Pharmacology and Experimental Therapeutics.* 368:262–271, 2019.
- Begas E, Bounitsi M, Kilindris T, Kouvaras E, Makaritsis K, Kouretas D, **Asproдини EK**. Effects of short-term saffron (*Crocus sativus* L.) intake on the in vivo activities of xenobiotic metabolizing enzymes in healthy volunteers. *Food Chem Toxicol.* 2019.
- 2020 Veskoukis AS, Vassi E, Poulas K, Kokkinakis M, **Asproдини E**, Haroutounian S, Kouretas D. Grape Stem Extracts From Three Native Greek Vine Varieties Exhibit Strong Antioxidant and Antimutagenic Properties. *Anticancer Res.* 2020 Apr;40(4):2025-2032. doi: 10.21873/anticancer.14159.
- Angelaki DE, Ng J, Abrego AM, Cham HX, **Asproдини EK**, Dickman JD, Laurens J. A gravity-based three-dimensional compass in the mouse brain. *Nat Commun.* 2020 Apr 15;11(1):1855. doi: 10.1038/s41467-020-15566-5.
- Veskoukis AS, Kerasioti E, Skaperda Z, Papapostolou PA, Nepka C, Spandidos DA, **Asproдини E**, Taitzoglou I, Kouretas D. Whey protein boosts the antioxidant profile of rats by enhancing the activities of crucial antioxidant enzymes in a tissue-specific manner. *Food Chem Toxicol.* 2020 Aug;142:111508. doi: 10.1016/j.fct.2020.111508. Epub 2020 Jun 13.