

Antonia Katsouda

CURRICULUM VITAE

Nationality: Greek

Date of birth: January 22, 1991

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CURRENT POSITION

03/2026–now: **Assistant Professor of Pharmacology**, Department of Pharmacy, National and Kapodistrian University of Athens, Greece

EDUCATION

2008-2013: **M.Pharm.** (Very good, 7.19/10), Department of Pharmacy, University of Patras, Greece

2014-2015: **M.Sc. in Molecular Medicine** (Excellent, 9.24/10), School of Medicine, National and Kapodistrian University of Athens, Greece

2015–2021: **Ph.D. in Pharmacy** (Excellent), Department of Pharmacy, National and Kapodistrian University of Athens, Greece

08/2016: Visitor, Department of Genetics and Complex Diseases, Harvard T. H. Chan School of Public Health, Harvard University, Boston, Massachusetts, U.S.A.

2021-2023: **Postdoctoral Research Fellow**, Center of Clinical and Experimental Surgery & Translational Research, Biomedical Research Foundation, Academy of Athens, Greece

2023-2025: **Postdoctoral Research Fellow**, Division of Cardiovascular Medicine, Radcliffe Department of Medicine, University of Oxford, United Kingdom

2025-2026: **Postdoctoral Research Fellow**, Center of Clinical and Experimental Surgery & Translational Research, Biomedical Research Foundation, Academy of Athens, Greece

VISITING APPOINTMENTS

2025-2026: **Visiting Researcher**, Division of Cardiovascular Medicine, Radcliffe Department of Medicine, University of Oxford, United Kingdom

LICENSURES

2013: Board Certified in Pharmacy, Nicosia, Cyprus

AWARDS

2022: **Professor James R. Mitchell silver poster award** - 6th Word congress on Hydrogen Sulfide in Biology & Medicine, Budapest, Hungary

2023: **Oral presentation silver award** - 16th Meeting of the Hellenic Society of Basic and Clinical Pharmacology, Athens, Greece

2023: **The Federation of European Pharmacological Societies (EPHAR) – Young Investigator Award**, Glasgow, United Kingdom

2025: **Best poster award** - 17th Meeting of the Hellenic Society of Basic and Clinical Pharmacology, Athens, Greece

FUNDING AWARDED

2015-2017: Hellenic State Scholarship Foundation **IKY-Siemens research projects for excellence**

2017-2019: **Ph.D. Fellowship**, Hellenic Foundation for Research and Innovation

EDITORIAL BOARD POSITION

2023-now: **Editorial intern**, British Journal of Pharmacology (*IF-2025: 7.5*)

REVIEWER *in peer reviewed journals*

Biomedicine & Pharmacotherapy (*IF-2025: 7.5*)

British Journal of Pharmacology (*IF-2025: 7.5*)

Cell Metabolism (*IF-2025: 37*)

Frontiers in Pharmacology (*IF-2025: 5.4*)

International Journal of Biological Macromolecules (*IF-2025: 8.7*)

Nature (*IF-2025: 56.1*)

Pharmacological Research (*IF-2025: 12.2*)

Redox Biology (*IF-2025: 16.2*)

Star Protocols (*IF-2025: 1.4*)

The FEBS Journal (*IF-2025: 4.2*)

Theranostics (*IF-2024: 14.9*)

REVIEWER *in granting agencies*

2026: Science fund of the Republic of Serbia

MEMBERSHIP *in scientific societies*

2017-2019: American Society for Pharmacology and Experimental Therapeutics (A.S.P.E.T.)

2019-now: Hellenic Society of Basic & Clinical Pharmacology (H.S.B.C.P.)

TEACHING ACTIVITIES

Undergraduate

2022-2023: Assigned **independent teaching** of the course “**Pharmacology Laboratory Exercises**” for Pharmacy students, Department of Pharmacy, National and Kapodistrian University of Athens, Greece (*9th semester*)

2025-now: Assigned to **co-teach** the courses “**Pharmacology I**” and “**Pharmacology II**” for Pharmacy students, Department of Pharmacy, National and Kapodistrian University of Athens, Greece (*5th & 6th semester*)

Graduate

2021-2025: **Selected lectures** for the course: “**In vitro and in vivo systems used to study the mechanisms of drug actions**” for students of the Master’s in “Design and Synthesis of New Pharmaceutical Compounds”, Department of Pharmacy, National and Kapodistrian University of Athens, Greece (*1st semester*)

2024-2025: **Selected lectures** for the course: “**Advanced Pharmacology**” for students of the Master’s in “Design and Synthesis of New Pharmaceutical Compounds”, Department of Pharmacy, National and Kapodistrian University of Athens, Greece (*2nd semester*)

2025-2026: **Selected lecture** for the course: “**Molecular Pharmacology**” for students of the Master’s in Pharmacochemical and Pharmacological Development of Drug Molecules, Department of Pharmacy, Aristotle University of Thessaloniki, Greece (*1st semester*)

TEACHING MATERIAL

2022-2023: “**Pharmacology Laboratory Exercises**”, notes, Department of Pharmacy, National and Kapodistrian University of Athens (**Author**)

INVITED SPEAKER

2023: **Anesthesia Center for Critical Care Research Massachusetts General Hospital (MGH)**, Boston, Massachusetts, U.S.A.

2025: Nitric Oxide and Sulfide in Redox Signaling and Medicine, **Gordon Research Conference**, Ventura, California, U.S.A.

2025: **Department of Pharmacy, University of Patras**, Greece

2025: **75th National Conference of the Hellenic Society of Biochemistry and Molecular Biology** (H.S.B.M.B.), Athens, Greece

2026: **13th Panhellenic Congress of the Hellenic Society for Basic and Clinical Pharmacology** (H.S.B.C.P.), Patras, Greece

PUBLICATIONS *in peer reviewed journals*

Review articles

1. **Katsouda A**, Bibli SI, Pyriochou A, Szabo C, Papapetropoulos A. Regulation and role of endogenously produced hydrogen sulfide in angiogenesis. *Pharmacol. Res.* 113(Pt A):175-185 (2016).

(IF-2025: 12.2)

Research papers

1. **Katsouda A**, Szabo C, Papapetropoulos A. Reduced adipose tissue H₂S in obesity. *Pharmacol. Res.* 128: 190-199 (2018)

(IF-2025: 12.2)

2. Mitidieri E, Tramontano T, Gurgone D, Citi V, Calderone V, Brancalione V, **Katsouda A**, Nagahara N, Papapetropoulos A, Cirino G, d'Emmanuele di Villa Bianca R, Sorrentino R. Mercaptopyruvate acts as endogenous vasodilator independently of 3-mercaptopyruvate sulfurtransferase activity. *Nitric Oxide* 75:53-59 (2018)

(IF-2025: 3.8)

3. Moysidou M, Karaliota S, Kodela E, Salagianni M, Koutmani Y, **Katsouda A**, Kodella K, Tsakanikas P, Ourailidou S, Andreacos E, Kostomitsopoulos N, Skokos D, Chatzigeorgiou A, Chung KJ, Bornstein S, Sleeman MW, Chavakis T, Karalis KP. CD8⁺ T cells in beige adipogenesis and energy homeostasis. *JCI insight* 8;3(5):e95456 (2018)

(IF-2025: 6.8)

4. Peleli M, Bibli SI, Li Z, Chatzianastasiou A, Varela A, **Katsouda A**, Zukunft S, Bucci M, Vellecco V, Davos CH, Nagahara N, Cirino G, Fleming I, Lefer DJ, Papapetropoulos A. Cardiovascular phenotype of mice lacking 3-mercaptopyruvate sulfurtransferase. *Biochem. Pharmacol.* 176:113833 (2020)

(IF-2025: 6.5)

5. **Katsouda A**, Peleli M, Asimakopoulou A, Papapetropoulos A, Beis D. Generation and Characterization of a CRISPR/Cas9-Induced 3-*mst* Deficient Zebrafish. *Biomolecules* 10(2):317 (2020)

(IF-2025: 5.6)

6. Gampierakis IA, Koutmani Y, Semitekolou M, Morianos I, Polissidis A, **Katsouda A**, Charalampopoulos I, Xanthou G, Gravanis A, Karalis KP. Hippocampal neural stem cells and microglia response to experimental inflammatory bowel disease (IBD). *Mol. Psychiatr.* 26(4):1248-1263 (2021)

(IF-2025: 10.4)

7. Renieris G, Droggiti DE, Katrini K, Koufargyris P, Gkavogianni T, Karakike E, Antonakos N, Damoraki G, Karageorgos A, Sabracos L, **Katsouda A**, Jentho E, Weis S, Wang R, Bauer M, Szabo C, Platoni K, Kouloulis V, Papapetropoulos A, Giamarellos-Bourboulis EJ. Host cystathionine- γ -lyase derived hydrogen sulfide protects against pseudomonas aeruginosa sepsis. *Plos Pathogens* 17(3): e1009473 (2021)

(IF-2025: 4.9)

8. **Katsouda A**, Valakos D, Dionellis V, Bibli SI, Akoumianakis I, Karaliota S, Zuhra K, Fleming I, Nagahara N, Thanos D, Antoniadou, Szabo C, Papapetropoulos A. MPST sulfurtransferase maintains mitochondrial protein import and cellular bioenergetics to attenuate obesity. *J. Exp. Med.* 219(7): e20211894 (2022)

(IF-2025: 11.6)

9. Li Z, Xia H, Sharp III TE, LaPenna KB, **Katsouda A**, Elrod JW, Pfeilschifter J, Beck KF, Xu S, Xian M, Goodchild TT, Papapetropoulos A, Lefer DJ. Endothelium-Derived Hydrogen Sulfide Modulates Endothelial-Mesenchymal Transition in Heart Failure. *Circ. Res.* 132(2): 154-156 (2023)

(IF-2025: 18.0)

10. **Katsouda A**, Markou M, Zampas P, Varela A, Davos CH, Vellecco V, Cirino G, Bucci M, Papapetropoulos A. CTH/MPST double ablation results in enhanced vasorelaxation and reduced blood pressure via upregulation of the eNOS/sGC pathway. *Front. Pharmacol.* 14:1090654 (2023)

(IF-2025: 5.4)

11. Peleli M, Antoniadou, Rodrigues-Junior DM, Caja L, **Katsouda A**, Ketelhuth D, Stubbe J, Madsen K, Moustakas A, Papapetropoulos A. Cystathionine gamma-lyase inhibition attenuates glioblastoma formation. *Redox Biol.* 64:102773 (2023)

(IF-2025: 16.2)

12. **Katsouda A**, Valakos D, Vatselas G, Thanos D, Papapetropoulos A. An optimized protocol for chromatin immunoprecipitation from murine inguinal white adipose tissue. *STAR Protoc.* 4(4):102594 (2023)

(IF-2025: 1.4)

13. Drekolia MK, Karantanou S, Wittig I, Li Y, **Katsouda A**, Hu J, Papapetropoulos A, Bibli SI. Loss of cardiac mitochondrial complex I persulfidation impairs NAD⁺ homeostasis in aging. *Redox Biol.* 69: 103014 (2024)

(IF-2025: 16.2)

14. Markou M, **Katsouda A**, Papaioannou V, Argyropoulou, Vanioti M, Constantin Tamvakopoulos C, Skaltsounis LA, Halabalaki M, Mitakou S, Papapetropoulos A. Anti-obesity effects of Beta vulgaris and Eruca sativa-based extracts. *Phytother. Res.* 38(9):4757-4773 (2024)

(IF-2025: 8.1)

15. Zampas P, Zhen L, **Katsouda A**, Varela A, Psarras S, Davos CH, Lefer DJ, Papapetropoulos A. Protective Role of 3-Mercaptopyruvate Sulfurtransferase (MPST) in the Development of Metabolic Syndrome and Vascular Inflammation. *Pharmacol. Res.* 211:107542 (2025)

(IF-2025: 12.2)

16. **Katsouda A**, Markou M, Valakos D, Theodorou I, Papapetropoulos A. Cth/Mpst double ablation results in early onset fatty liver disease in lean mice. *Redox Biol.* 83:103641 (2025)

(IF-2024: 16.2)

17. Smimmo M, Casale V, Andrea DD, Bello I, Iaccarino N, Romano F, Brancalone V, Panza E, di Villa Bianca RE, **Katsouda A**, Mitidieri E, Antoniadou I, Papapetropoulos A, Maione F, Castaldo S, Friuli M, Romano A, Gaetani S, Sorrentino R, Randazzo A, Cirino G, Bucci M, Filipovic MR, Vellecco V. Defective protein persulfidation is involved in obesity associated skeletal muscle dysfunction: role of SIRT-1. *Redox Biol.* 83:103645 (2025)

(IF-2025: 16.2)

18. **Katsouda A**, Vasilaki E, Fountoulakis M, Tremi I, Havaki H, Myrianthopoulos V, Gorgoulis VG, Mikros E, Papapetropoulos A. 3-mercaptopyruvate sulfurtransferase resides on the inner mitochondrial membrane. *Nitric Oxide* 158:67-75 (2025)

(IF-2025: 3.8)

19. Li Z, LaPenna KB, Gehred ND, Yu X, Tang WHW, Doiron JE, Xia H, Chen J, Driver IH, Sachse FB, Muraoka N, **Katsouda A**, Zampas P, Haydel AG, Quiarte H, Zagouras A, Wilcox J, Gromova T, Shah SJ, Goodchild TT, Allerton TD, Jensen MB, Papapetropoulos A, Sharp TE, Vondriska TM, Lefer DJ. Dysregulation of Nitrosylation Dynamics Promotes Nitrosative Stress and Contributes to Cardiometabolic Heart Failure with Preserved Ejection Fraction. *Circ. Res.* 137(9):1185-120 (2025)

(IF-2025: 18.0)

20. Vignane T, Hugo M, Hoffmann C, **Katsouda A**, Petric J, Wang H, Miler M, Comas F, Petrovic D, Chen S, Miljkovic JL, Morris JL, Chowdhury SR, Prudent J, Polovic N, Murphy MP, Papapetropoulos A, Milovanovic D, Filipovic MR. Protein thiol alterations drive aberrant phase separation in aging. *Nat. Struct. Mol. Biol.* (in press)

(IF-2025: 10.1)

BOOK CHAPTERS

Katsouda A, Papapetropoulos A. Hydrogen Sulfide in adipose tissue biology. *Handb. Exp. Pharmacol.* 292:207-232 (2026)

CONFERENCE PARTICIPATION

Selected from 21 European and International Conference participations and 11 National Meeting participations

31/5-3/6/2018: **Katsouda A**, Papapetropoulos A, Beis D. Functional characterization of a crispr/cas9-induced 3-Mst zebrafish mutant. **5th Word congress on Hydrogen Sulfide in Biology and Medicine, Toronto, Canada**

19-21/05/2022: **Katsouda A**, Valakos D, Dionellis V, Bibli SI, Akoumianakis I, Karaliota S, Zuhra K, Fleming I, Nagahara N, Thanos D, Antoniadis, Szabo C, Papapetropoulos A. MPST attenuates obesity by maintaining mitochondrial protein import and metabolic flux. **6th Word congress on hydrogen sulfide in biology & medicine, Budapest, Hungary**

6-8/11/20022: **Katsouda A**, Valakos D, Dionellis VS, Bibli SI, Akoumianakis I, Karaliota S, Zuhra K, Fleming I, Nagahara N, Havaki S, Gorgoulis VG, Thanos D, Antoniadis C, Szabo C, Papapetropoulos A. Adipose tissue expansion is linked to defective MPST-mediated mitochondrial protein import and metabolic flux. **Cell symposia: Multifaceted mitochondria, Seville, Spain**

2-7/07/2023: **Katsouda A**, Papapetropoulos A. Sulfide donors attenuate obesity and restore metabolic health. **19th World Congress of Basic & Clinical Pharmacology 2023, Glasgow, United Kingdom**

13-15/06/2024: **Katsouda A**, Petrovic D, Havaki S, Pilalis E, Chatziioannou A, Filipovic MR, Papapetropoulos A. Cystathionine γ -lyase regulates white adipose tissue browning. **Cell symposia: Molecular mechanisms and integrative physiology of obesity, Shanghai, China**

04-06/10/2023: **Katsouda A** and Papapetropoulos A. Metabolic phenotype of mice lacking cystathionine gamma-lyase. **7th Word congress on hydrogen sulfide in biology & medicine, Baltimore, USA**