

PERSONAL INFORMATION

SURNAME AKOUMIANAKI

NAME ANTONIA

DATE OF BIRTH 11.02.1975

PLACE OF RESIDENCE HERAKLION
CRETE, GREECE

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EDUCATION

- 10.2001 – 07.2007** **Ph.D.** Department of Basic Sciences, School of Medicine, University of Crete, Greece, Mark: 10/10
Title of thesis: Tubulin function and the effects of Taxanes and their derivatives in nuclear envelope organization and dynamics
- 09.1998 - 02.2001** **MSc.** Department of Chemistry, University of Crete, Greece.
Title of thesis: Synthesis of 7-hydroxy-substituted coumarin derivatives and study of their properties as fluorescent zinc indicators
- 10.1993 – 07.1997** **B.Sc.** Department of Chemistry, University of Crete, Greece, Mark: 7.63/10

RESEARCH/WORKING EXPERIENCE

- 12.2018 - 11.2021** **Current position**
Postdoctoral Research Scientist, Laboratory Medicine, Laboratory of Clinical Microbiology and Microbial Pathogenesis, School of Medicine, University of Crete, Greece
Group Head: Professor G. Chamilos
Field of work: Delineating molecular mechanisms of PHAGosome dysFUNCTION underlying Sepsis Immunosuppression: A Roadmap to Personalized Medicine in Sepsis
- 02.2015 - 11.2018** **Previous position**
Postdoctoral Research Scientist, Laboratory Medicine, Laboratory of Clinical Microbiology and Microbial Pathogenesis, School of Medicine, University of Crete, Greece
Group Head: Professor G. Chamilos
Field of work: Dissecting the role of LC3-associated phagocytosis in sepsis-induced immunosuppression
- 01.2011 – 01.2015** **Previous position**
Postdoctoral Research Scientist, Laboratory Medicine, Laboratory of Clinical Microbiology and Microbial Pathogenesis, School of Medicine, University of Crete, Greece
Group Head: Professor G. Chamilos
Field of work: Investigating the mechanism of LC3-associated phagocytosis induction during Aspergillosis
- 10.2008 – 09.2010** **Previous position**

Postdoctoral Research Scientist, Cellular and Developmental Biology, Lab of Cell Cycle and Division, Department of Biology, University of Crete, Greece

Group Head: Ass. Professor G. Zachos

Field of work: Investigating the mechanism by which Chk1 regulates Aurora-B during mitosis

11.2007 – 09.2008

Previous position

Postdoctoral Research Scientist, Basic Sciences, Laboratory of Biochemistry, School of Medicine, University of Crete, Greece

Group Head: Ass. Professor P. Theodoropoulos

Field of work: Regulation of the subcellular localization of tubulin in cancer cells

PUBLICATIONS

- **Akoumianaki T.**, Vaporidi K., Diamantaki E., Pene F., Beau R., Gresnigt M.S., Gkoutzinopoulou M., Venihaki M., El-Benna J., Samonis G., Le K.T.T., Kumar V., Georgopoulos D., van de Veerdonk F.L., Netea M.G., Latge JP., Chamilos G. Uncoupling of IL-6 signaling and LC3-associated phagocytosis drives immunoparalysis during sepsis. *Cell Host and Microbe*. 29(8):1277-1293 (2021) DOI: [10.1016/j.chom.2021.06.002](https://doi.org/10.1016/j.chom.2021.06.002)
- **Akoumianaki T.**, Kyrmizi I., Valsecchi I., Gresnigt MS., Samonis G., Drakos E., Boumpas D., Wong J., Prevost MC., Kontoyiannis DP., Chavakis T., Netea MG., van de Veerdonk FL., Brakhage A., Beauvais A., Latge JP., Chamilos G. Cell wall melanin regulates fungal pathogenicity via targeting noncanonical autophagy. *Cell Host and Microbe*. 19(1): 79-90 (2016) DOI: [10.1016/j.chom.2015.12.002](https://doi.org/10.1016/j.chom.2015.12.002)
- **Akoumianaki T.**, Chamilos G. DAPK1 Keeps the Peace in Antifungal Inflammation. *Cell Host and Microbe*. 20(6): 695-697 (2016) DOI: [10.1016/j.chom.2016.11.008](https://doi.org/10.1016/j.chom.2016.11.008)
- Chamilos G., **Akoumianaki T.**, Kyrmizi I., Brakhage A., Beauvais A., Latge JP. Melanin targets LC3-associated phagocytosis (LAP): A novel pathogenetic mechanism in fungal disease. *Autophagy* 12(5): 888-889 (2016) DOI: [10.1080/15548627.2016.1157242](https://doi.org/10.1080/15548627.2016.1157242)
- Kyrmizi I, Gresnigt MS.* , **Akoumianaki T.***, Samonis G., Sidiropoulos P., Boumpas D., Netea MG., van de Veerdonk FL., Kontoyiannis DP., Chamilos G. Corticosteroids block autophagy protein recruitment in *Aspergillus fumigatus* phagosomes via targeting dectin-1/Syk kinase signaling. *J Immunol*.191(3): 1287-99 (2013) DOI: [10.4049/jimmunol.1300132](https://doi.org/10.4049/jimmunol.1300132)
- Kyrmizi I, Ferreira H, Carvalho A, Figueroa JAL, Zarpas P, Cunha C, **Akoumianaki T**, Stylianou K, Deepe GS Jr, Samonis G, Lacerda JF, Campos A Jr, Kontoyiannis DP, Mihalopoulos N, Kwon-Chung KJ, El-Benna J, Valsecchi I, Beauvais A, Brakhage AA, Neves NM, Latge JP, Chamilos G. *Nat Microbiol*. 3(7):791-803 (2018) DOI: [10.1038/s41564-018-0167-x](https://doi.org/10.1038/s41564-018-0167-x)
- Andrianaki AM, Kyrmizi I, Thanopoulou K, Baldin C, Drakos E, Soliman SSM, Shetty AC, McCracken C, **Akoumianaki T**, Stylianou K, Ioannou P, Pontikoglou C, Papadaki HA, Tzardi M, Belle V, Etienne E, Beauvais A, Samonis G, Kontoyiannis DP, Andreakos E, Bruno VM, Ibrahim AS, Chamilos G. *Nat Commun*. 9(1):3333 (2018) DOI: [10.1038/s41467-018-05820-2](https://doi.org/10.1038/s41467-018-05820-2)
- Ioannou P., Andrianaki A., **Akoumianaki T.**, Kyrmizi I, Albert N, Perlin D, Samonis G, Kontoyiannis DP, Chamilos G. Albumin Enhances Caspofungin Activity against *Aspergillus* Species by Facilitating Drug Delivery to Germinating Hyphae. *Antimicrob Agents Chemother*. 60(3): 1226-33 (2015) DOI: [10.1128/AAC.02026-15](https://doi.org/10.1128/AAC.02026-15)
- Petsalaki E., **Akoumianaki T.**, Black EJ., Gillespie DA., Zachos G. Phosphorylation at serine 331 is required for Aurora B activation. *J Cell Biol*. 195(3): 449-466 (2011) DOI: [10.1083/jcb.201104023](https://doi.org/10.1083/jcb.201104023)
- **Akoumianaki T.**, Kardassis D., Polioudaki, H., Georgatos S.D., Theodoropoulos P.A. Nucleocytoplasmic shuttling of soluble tubulin in mammalian cells. *J Cell Sci*. 122 (Pt-8): 1111-1117 (2009) DOI: [10.1242/jcs.043034](https://doi.org/10.1242/jcs.043034)
- Papas S.* , **Akoumianaki T.***, Kalogiros C., Hadjiarapoglou L., Theodoropoulos P.A., Tsikaris V. Synthesis and antitumor activity of peptide-paclitaxel conjugates. *J Pept Sci*. 13: 662-671 (2007) DOI: [10.1002/psc.899](https://doi.org/10.1002/psc.899)
- Hadjipavlou-Litina D., Kontogiorgis C., Pontiki E., Dakanali M., **Akoumianaki A.**, Katerinopoulos H.E. Anti-inflammatory and antioxidant activity of coumarins designed as potential fluorescent zinc sensors. *J Enz. Inhib. Med. Chem*. 22(3):287-292 (2007) DOI: [10.1080/14756360601073914](https://doi.org/10.1080/14756360601073914)

- Tsiakalou V., Tsangaridou E., Polioudaki H., Nifli A.P., Koulentaki M., **Akoumianaki T.**, Kouroumalis E., Castanas E., Theodoropoulos P.A. Optimized detection of circulating anti- nuclear envelope autoantibodies by immunofluorescence. *BMC Immunol.* 7:20 (2006)
DOI: [10.1080/14756360601073914](https://doi.org/10.1080/14756360601073914)

CONFERENCES

- Oral Presentation, Akoumianaki T. et al, **Role of LAP in sepsis induced immunosuppression.** 9th Advances Against Aspergillosis and Mucormycosis, Lugano, Switzerland, 27-29/2/2020
- Akoumianaki T., Beau R., Pene F., Diamantaki E., van de Veerdonk FL., Vaporidi K., Netea MG., Tsatsanis C., Latge JP., Chamilos G. **LC3 associated phagocytosis (LAP) defects underlie phagocyte dysfunction in sepsis-induced immunosuppression.** Sepsis 2017, Paris, 11-13/9/2017
- Diamantaki E., Theodorakis M., Akoumianaki T., Chamilos G., Condili E., Georgopoulos D., Vaporidi A. **Disfunction of human primary monocytes from patients with patients with severe septic shock.** 15th Greek Conference of Intensive Care Unit, Athens, Greece, 14-16/11/2014
- Oral Presentation, Akoumianaki T. et al, **Noncanonical autophagy is a target of fungal cell wall melanin.** 6th Advances Against Aspergillosis, Madrid, Spain, 27/2-1/3/2014
- Kyrmizi E, Akoumianaki T., Gresnigt MS, Samonis S, Netea MG, van de Veerdonk FL, Kontoyiannis DP, Chamilos G. **β -glucan mediated autophagy induction regulates intracellular killing of *Aspergillus fumigatus* in human monocytes.** 5th Advances Against Aspergillosis, Istanbul, Turkey, 26-28/01/ 2012
- A. Akoumianaki, D. AF. Gillespie and G. Zachos. **Chk1 Phosphorylates a Newly Identified Site of Aurora-B.** Beatson Institute Workshop "The mitotic spindle as an Oncology target", Glasgow, 2009
- A. Akoumianaki, D. Kardassis, S.D. Georgatos, and P.A. Theodoropoulos. **Nucleo-cytoplasmic shuttling of soluble tubulin in mammalian cells.** 33rd FEBS Congress, Athens, 2008
- Akoumianaki A., Dialynas G., Polioudaki H., Kourmouli N., Georgatos S.D and Theodoropoulos P.A. **Tubulin binds to the nuclear envelope and inhibits nuclear envelope reassembly in vitro.** 55th Meeting of Hellenic Society of Biochemistry & Molecular Biology, Athens, Greece, 2003.
- A. Akoumianaki, M. Dakanali, A.R.Kay, H. E. Katerinopoulos. **Synthesis of Potential Fluorescent Zinc Indicators.** NATO/FEBS Meeting on Chemical Probes in Biology, August 2002, Island of Spetses, Greece, 2002.
- A. Akoumianaki, M. Dakanali, A.R.Kay and H. E. Katerinopoulos. **Synthesis of Potential Fluorescent Zinc Indicators.** 19th Hellenic Chemical Society Meeting, Heraklion Crete, Greece, 2002.
- H. E. Katerinopoulos, E. Foukaraki, F. Liepouri, A. Akoumianaki, T. G. Deligeorgiev. **Synthesis and Fluorescent Spectra of Potential Fluorescent Ion Indicators.** 220th American Chemical Society Meeting, Washington DC, USA, 2000

RESEARCH GRANTS

Project Title	Funding source	Period	Role
Delineating molecular mechanisms of PHAGosome dysFUNction underlying Sepsis Immunosuppression: A Roadmap to Personalized Medicine in Sepsis	Hellenic Foundation for Research and Innovation	01.01.2018-31.01.2022	Head researcher

