

PERSONAL INFORMATION

NAME: KONSTANTINOS LAZARIDIS
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CURRENT POSITION(S)

- 10.2022 – present** **Researcher B'**
Laboratory of Immunology, Hellenic Pasteur Institute, Greece

PREVIOUS POSITION(S)

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| 07.2018 – 10.2022 | Researcher C'
Laboratory of Immunology, Hellenic Pasteur Institute, Greece |
| 10.2016 - 06.2018 | Senior Post doc

Laboratory of Molecular Neurobiology and Immunology, Hellenic Pasteur Institute, Greece |
| 02.2006 - 09.2016 | Post doc

Laboratory of Molecular Neurobiology and Immunology, Hellenic Pasteur Institute, Greece |

EDUCATION

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| 09.2000 – 07.2014 | PhD: School of Biological Sciences, University of East Anglia, UK.
Thesis title: “Investigation of the Smad-dependency for protease and inhibitor gene expression in response to TGF- β 1”. |
| 09.1997 - 05.2000 | BSc: School of Biological Sciences, University of Surrey, UK.
Dissertation title: “Translation initiation mechanisms in insect picornaviruses”. |

PERSONAL STATEMENT

Dr Lazaridis has worked in the field of autoimmunity and especially myasthenia gravis (MG) over the past 17 years. During this time, he has participated, among others, in three European (FP7) projects (Euromyasthenia, Fight-MG and NeuroCypress), and several other National and International programs, where he studied pathogenic mechanisms in MG, heterologous expression of acetylcholine receptor domains, the development of animal models for MG, and their use in preclinical studies of novel therapies.

Dr Lazaridis contributed to the improvement of the antigenic properties of heterologously-expressed AChR domains, and he was responsible for the *in vivo* studies on immunoadsorption, which successfully proved its therapeutic potential. He has led the development and characterization of novel animal models for MG in rats, better suited for preclinical studies on novel antigen-specific therapeutics (based on human sequences). He has participated in the activities of an international consortium of researchers in the field of animal models of autoimmunity, aiming at the generation of specific guidelines for preclinical drug-testing studies.

His current research activity is focused mainly on the development of novel antigen-specific therapies for MG. These efforts have yielded considerable results in support of the efficacy of new therapeutic approaches based on restoring the immunological tolerance for autoantigens, and have generated long-term collaborations with pharmaceutical industry companies. Ongoing studies of the immunological mechanism of action are expected

to increase our understanding and facilitate progression towards clinical application, but also allow the development of next generation approaches.

During this time, he has been able to attract a number of research grants, including from pharmaceutical sector R&D actions, fully supporting these efforts and attracting new young researchers at the Institute. His future aspiration is to not only maintain the progress of current projects, but also to expand towards new technologies so as to promote feasible and effective personalized medicine for MG and related autoimmune diseases.

CONFERENCES/WORKSHOPS

- 70th annual conference of the HSBMB: “Investigation of autoantigen derived polypeptides as immunotherapeutic agents for Myasthenia gravis”, December 2019, Athens, Greece
- MGTX international conference: “Antigen-specific immunoabsorption ameliorates rat EAMG”, January 2016, Oxford, UK.
- MGTX international conference: “Titin antibodies in seronegative MG – A new role for an old antigen”, January 2016, Oxford, UK.
- 66th annual conference of the HSBMB: “Characterization of a novel animal model for MG induced by human acetylcholine receptor domains”, December 2015, Athens, Greece.
- 8th international autoimmunity conference: “Antigen-specific immunoabsorption for myasthenia gravis: addressing safety aspects”, May 2012, Granada, Spain.
- 63rd annual conference of the HSBMB: “Antigen-specific therapeutic immunoabsorption for myasthenia gravis: up-scaling and safety aspects”, November 2012, Heraklio, Greece.
- School on the “Heterologous protein expression in insect cell systems”, 2011, Oxford Brookes University, Oxford, UK.
- School on “Human and microbial microarrays”, 2006, Hellenic Pasteur Institute, Athens, Greece

INVITED PRESENTATIONS & ROUNDTABLES

- 14th International Conference on Myasthenia Gravis and Related Disorders: “Development of an antigen-specific immunotherapy for myasthenia gravis”, May 10–12, 2022, Miami, USA.
- Conference on Molecular Medicine: “Development of antigen-specific immunotherapies for autoimmune myasthenia gravis”, Institute of Molecular Medicine and Biomedical Research, June 2021, Athens, Greece.
- COST TD1402-radiomag workshop: “Use of functionalized nanoparticles for the targeted manipulation of the immune system”, November 2017, Athens, Greece.
- NIH meeting - Pre-clinical models of Myasthenia gravis: “mAb35 use in passive rat model”, and Roundtable on “The methodology of EAMG in the rat model, care and outcome measurements”, October 2014, Bethesda, USA.

ADMINISTRATIVE EXPERIENCE

- Member of the Committee for Animal Wellbeing of the Hellenic Pasteur Institute.
- Member of the Protocols Approval Committee of the Hellenic Pasteur Institute, for protocols involving the use of experimental animals.
- Member of the 5-member Committee which authored the self-study reports for the quinquennial External Evaluation of the Hellenic Pasteur Institute for the years 2013-2017 and 2018-2021.

PUBLICATIONS

Publications: 34

Total citations: 1765; H-index: 18 (Scopus)

Book chapters: 3

Complete list of publications can be found at:

<https://www.ncbi.nlm.nih.gov/myncbi/1lOIbpCvXiO/bibliography/public/>

PUBLICATION LIST

1. Koral G, Ulusoy C, Cossins J, **Lazaridis K**, Türkoğlu R, Dong YY, Tüzün E, Yılmaz V. Silencing of FCRLB by shRNA ameliorates MuSK-induced EAMG in mice. *J Neuroimmunol.* 2023 Oct 15;383:578195. doi: 10.1016/j.jneuroim.2023.578195.
2. Sarrigeorgiou I, Moschandreas D, Dimitriadis A, Tsinti G, Sotiropoulou E, Ntoukaki E, Eliadis P, Backovic M, Labropoulou S, Escriou N, Pouliakis A, Giannopoulou G, Gaitanarou E, **Lazaridis K**, Mentis A, Mamalaki A, Grouzi E, Lymberi P. Combined monitoring of IgG and IgA anti-Spike and anti-Receptor binding domain long term responses following BNT162b2 mRNA vaccination in Greek healthcare workers. *PLoS One.* 2022;17(11):e0277827. doi: 10.1371/journal.pone.0277827.
3. **Lazaridis K***, Fernandez-Santoscoy M, Baltatzidou V, Andersson JO, Christison R, Grünberg J, Tzartos S, Löwenadler B, Fribert C. A Recombinant Acetylcholine Receptor α 1 Subunit Extracellular Domain Is a Promising New Drug Candidate for Treatment Of Myasthenia Gravis. *Front Immunol.* 2022;13:809106. doi: 10.3389/fimmu.2022.809106.
4. Koneczny I, Tzartos J, Mané-Damas M, Yilmaz V, Huijbers MG, **Lazaridis K**, Höftberger R, Tüzün E, Martinez-Martinez P, Tzartos S, Leypoldt F. IgG4 Autoantibodies in Organ-Specific Autoimmunopathies: Reviewing Class Switching, Antibody-Producing Cells, and Specific Immunotherapies. *Front Immunol.* 2022;13:834342. doi: 10.3389/fimmu.2022.834342.
5. Yilmaz V, Ulusoy C, Hajtovic S, Turkoglu R, Kurtuncu M, Tzartos J, **Lazaridis K**, Tuzun E. Effects of Teriflunomide on B Cell Subsets in MuSK-Induced Experimental Autoimmune Myasthenia Gravis and Multiple Sclerosis. *Immunol Invest.* 2020 Jun 29;1-14. doi: 10.1080/08820139.2020.1785491.
6. Koneczny I, Yilmaz V, **Lazaridis K**, Tzartos J, Lenz TL, Tzartos S, Tüzün E, Leypoldt F. Common Denominators in the Immunobiology of IgG4 Autoimmune Diseases: What Do Glomerulonephritis, Pemphigus Vulgaris, Myasthenia Gravis, Thrombotic Thrombocytopenic Purpura and Autoimmune Encephalitis Have in Common? *Front Immunol.* 2020;11:605214. doi: 10.3389/fimmu.2020.605214.
7. **Lazaridis K***, Tzartos SJ. Myasthenia Gravis: Autoantibody Specificities and Their Role in MG Management. *Front Neurol.* 2020;11:596981. doi: 10.3389/fneur.2020.596981.
8. **Lazaridis K***, Baltatzidi V, Tzartos S. Immunoabsorption of MuSK autoantibodies as a specific treatment of MuSK-induced experimental autoimmune myasthenia gravis. *J Neuroimmunol.* 2020 Feb 15;339:577136. doi: 10.1016/j.jneuroim.2019.577136.
9. **Lazaridis K***, Tzartos SJ. Autoantibody Specificities in Myasthenia Gravis; Implications for Improved Diagnostics and Therapeutics. *Front Immunol.* 2020;11:212. doi: 10.3389/fimmu.2020.00212.
10. Hahtapornsawan S, **Lazaridis K**, Criado FJ, Torsello GF, Bisdas T, Austermann M, Donas KP. CTA Assessment of Midterm Morphological Changes to Chimney Grafts Used in the Treatment of Juxtarenal Aortic Aneurysms. *J Endovasc Ther.* 2019 Jul 8. doi: 10.1177/1526602819861747.
11. Koneczny I, Rennspieß D, Marcuse F, Dankerlui N, Abdul Hamid M, Mané-Damas M, Maessen J, Van Schil P, Saxena A, Zisisopoulou P, **Lazaridis K**, Woodhall M, Karagiorgou K, Tzartos J, Tzartos S, De Baets MH, Molenaar PC, Marx A, Zur Hausen A, Losen M, Martinez-Martinez P. Characterization of the thymus in Lrp4 myasthenia gravis: Four cases. *Autoimmun Rev.* 2019 Jan;18(1):50-55. doi: 10.1016/j.autrev.2018.07.011.
12. Saxena A, Stevens J, Cetin H, Koneczny I, Webster R, **Lazaridis K**, Tzartos S, Vrolix K, Nogales-Gadea G, Machiels B, Molenaar PC, Damoiseaux J, De Baets MH, Simon-Keller K, Marx A, Vincent A, Losen

- M, Martinez-Martinez P. Characterization of an anti-fetal AChR monoclonal antibody isolated from a myasthenia gravis patient. *Sci Rep.* 2017 Oct 31;7(1):14426. doi: 10.1038/s41598-017-14350-8
13. **Lazaridis K***, Dalianoudis I, Baltatzidi V, Rougkou V, Tzartos S.J. Specific removal of autoantibodies by extracorporeal immunoabsorption ameliorates experimental autoimmune myasthenia gravis. *Journal of Neuroimmun.* 2017 Nov 15;312:24-30.. doi:10.1016/j.jneuroim.2017.09.001.
14. **Lazaridis K***, Baltatzidi V, Trakas N, Koutroumpis E, Karandreas N and Tzartos Socrates. Characterization of a reproducible rat EAMG model induced with various human acetylcholine receptor domains. *J. Neuroimmun.* 2017 Feb 15;303:13-21. doi: 10.1016/j.jneuroim.2016.12.011.
15. Koneczny I, Stevens J, de Rosa A, Huda S, Huijbers M, Saxena A, Maestri M, **Lazaridis K**, Zisimopoulou P, Tzartos S, Verschuuren J, van der Maarel S, van Damme P, Vincent A, de Baets M, Molenaar P, Ricciardi R, Martinez-Martinez P, Losen M. IgG4 autoantibodies against muscle-specific kinase undergo Fab-arm exchange in myasthenia gravis patients. *J. Autoimm.* 2016 Dec 10. pii: S0896-8411(16)30160-3. doi: 10.1016/j.jaut.2016.11.005. [Epub ahead of print]
16. Gilhus NE, Skeie GO, Romi F, **Lazaridis K**, Zisimopoulou P, Tzartos S. Myasthenia gravis - autoantibody characteristics and their implications for therapy. *Nat Rev Neurol.* 2016 May;12(5):259-68. doi: 10.1038/nrneurol.2016.44. Epub 2016 Apr 22.
17. Stergiou C, **Lazaridis K**, Zouvelou V, Tzartos J, Mantegazza R, Antozzi C, Andreetta F, Evoli A, Deymeer F, Saruhan-Direskeneli G, Durmus H, Brenner T, Vaknin A, Berrih-Aknin S, Behin A, Sharshar T, De Baets M, Losen M, Martinez-Martinez P, Kleopa KA, Zamba-Papanicolaou E, Kyriakides T, Kostera-Pruszczak A, Szczudlik P, Szyluk B, Lavrnic D, Basta I, Peric S, Tallaksen C, Maniaol A, Gilhus NE, Casasnovas Pons C, Pitha J, Jakubikova M, Hanisch F, Bogomolovas J, Labeit D, Labeit S, Tzartos SJ. Titin antibodies in "seronegative" myasthenia gravis - A new role for an old antigen. *J Neuroimmunol.* 2016 Mar 15;292:108-15. doi: 10.1016/j.jneuroim.2016.01.018.
18. Losen M, Martinez-Martinez P, Molenaar PC, **Lazaridis K**, Tzartos S, Brenner T, Duan RS, Luo J, Lindstrom J, Kusner L. Standardization of the experimental autoimmune myasthenia gravis (EAMG) model by immunization of rats with Torpedo californica acetylcholine receptors--Recommendations for methods and experimental designs. *Exp Neurol.* 2015 Aug;270:18-28. doi: 10.1016/j.expneurol.2015.03.010.
19. Kusner LL, Losen M, Vincent A, Lindstrom J, Tzartos S, **Lazaridis K**, Martinez-Martinez P. Guidelines for pre-clinical assessment of the acetylcholine receptor-specific passive transfer myasthenia gravis model--Recommendations for methods and experimental designs. *Exp Neurol.* 2015 Aug;270:3-10. doi:10.1016/j.expneurol.2015.02.025.
20. Tsonis AI, Zisimopoulou P, **Lazaridis K**, Tzartos J, Matsigkou E, Zouvelou V, Mantegazza R, Antozzi C, Andreetta F, Evoli A, Deymeer F, Saruhan-Direskeneli G, Durmus H, Brenner T, Vaknin A, Berrih-Aknin S, Behin A, Sharshar T, De Baets M, Losen M, Martinez-Martinez P, Kleopa KA, Zamba-Papanicolaou E, Kyriakides T, Kostera-Pruszczak A, Szczudlik P, Szyluk B, Lavrnic D, Basta I, Peric S, Tallaksen C, Maniaol A, Casasnovas Pons C, Pitha J, Jakubikova M, Hanisch F, Tzartos SJ. MuSK autoantibodies in myasthenia gravis detected by cell based assay--A multinational study. *J Neuroimmunol.* 2015 Jul 15;284:10-7. doi:10.1016/j.jneuroim.2015.04.015.
21. **Lazaridis K**, Evangelakou P, Bentenidi E, Sideri A, Grapsa E, Tzartos SJ. Specific adsorbents for myasthenia gravis autoantibodies using mutants of the muscle nicotinic acetylcholine receptor extracellular domains. *J Neuroimmunol.* 2015 Jan 15;278:19-25. doi: 10.1016/j.jneuroim.2014.12.001.
22. Vrolix K, Fraussen J, Losen M, Stevens J, **Lazaridis K**, Molenaar PC, Somers V, Bracho MA, Le Panse R, Stinissen P, Berrih-Aknin S, Maessen JG, Van Garsse L, Buurman WA, Tzartos SJ, De Baets MH, Martinez-Martinez P. Clonal heterogeneity of thymic B cells from early-onset myasthenia gravis patients with antibodies against the acetylcholine receptor. *J Autoimmun.* 2014 Aug;52:101-12. doi:10.1016/j.jaut.2013.12.008.
23. Zisimopoulou P, Evangelakou P, Tzartos J, **Lazaridis K**, Zouvelou V, Mantegazza R, Antozzi C, Andreetta F, Evoli A, Deymeer F, Saruhan-Direskeneli G, Durmus H, Brenner T, Vaknin A, Berrih-Aknin S, Frenkian Cuvelier M, Stojkovic T, DeBaets M, Losen M, Martinez-Martinez P, Kleopa KA, Zamba-Papanicolaou E, Kyriakides T, Kostera-Pruszczak A, Szczudlik P, Szyluk B, Lavrnic D, Basta I, Peric S, Tallaksen C, Maniaol A, Tzartos SJ. A comprehensive analysis of the epidemiology and clinical characteristics of anti-LRP4 in myasthenia gravis. *J Autoimmun.* 2014 Aug;52:139-45. doi: 10.1016/j.jaut.2013.12.004. Epub 2013 Dec 24. PubMed PMID:24373505.

24. **Lazaridis K**, Zisimopoulou P, Giastas P, Bitzopoulou K, Evangelakou P, Sideri A, Tzartos SJ. Expression of human AChR extracellular domain mutants with improved characteristics. *Int J Biol Macromol.* 2014 Feb;63:210-7. doi: 10.1016/j.ijbiomac.2013.11.003.
25. Austermann M, Bisdas T, Torsello G, Bosiers MJ, **Lazaridis K**, Donas KP. Outcomes of a novel technique of endovascular repair of aneurysmal internal iliac arteries using iliac branch devices. *J Vasc Surg.* 2013 Nov;58(5):1186-91. doi:10.1016/j.jvs.2013.04.054.
26. Leivonen SK^{co}, **Lazaridis K^{co}**, Decock J, Chantry A, Edwards DR, Kähäri VM. TGF-β-elicited induction of tissue inhibitor of metalloproteinases (TIMP)-3 expression in fibroblasts involves complex interplay between Smad3, p38α, and ERK1/2. *PLoS One.* 2013;8(2):e57474. doi: 10.1371/journal.pone.0057474.
27. **Lazaridis K**, Zisimopoulou P, Lagoumintzis G, Skriapa L, Trakas N, Evangelakou P, Kanelopoulos I, Grapsa E, Poulias K, Tzartos S. Antigen-specific apheresis of autoantibodies in myasthenia gravis. *Ann N Y Acad Sci.* 2012 Dec;1275:7-12. doi: 10.1111/j.1749-6632.2012.06788.x.
28. Donas KP, Torsello G, **Lazaridis K**. Current status of hybrid procedures for thoracoabdominal and pararenal aortic aneurysm repair: techniques and considerations. *J Endovasc Ther.* 2010 Oct;17(5):602-8. doi: 10.1583/10-3051.1.
29. Lagoumintzis G, Zisimopoulou P, Kordas G, **Lazaridis K**, Poulias K, Tzartos SJ. Recent approaches to the development of antigen-specific immunotherapies for myasthenia gravis. *Autoimmunity.* 2010 Aug;43(5-6):436-45. doi: 10.3109/08916930903518099.
30. Kalamida D, Poulias K, Avramopoulou V, Fostieri E, Lagoumintzis G, **Lazaridis K**, Sideri A, Zouridakis M, Tzartos SJ. Muscle and neuronal nicotinic acetylcholine receptors. Structure, function and pathogenicity. *FEBS J.* 2007 Aug;274(15):3799-845. doi: 10.1111/j.1742-4658.2007.05935.x.
31. Denton CP, Lindahl GE, Khan K, Shiwen X, Ong VH, Gaspar NJ, **Lazaridis K**, Edwards DR, Leask A, Eastwood M, Leoni P, Renzoni EA, Bou Ghalios G, Abraham DJ, Black CM. Activation of key profibrotic mechanisms in transgenic fibroblasts expressing kinase-deficient type II Transforming growth factor-β receptor (TβRIIΔk). *J Biol Chem.* 2005 Apr 22;280(16):16053-65. doi: 10.1074/jbc.M413134200.
32. Wormstone IM, Tamiya S, Eldred JA, **Lazaridis K**, Chantry A, Reddan JR, Anderson I, Duncan G. Characterisation of TGF-beta2 signalling and function in a human lens cell line. *Exp Eye Res.* 2004 Mar;78(3):705-14. doi: 10.1016/j.exer.2003.08.006
33. Denton CP, Zheng B, Evans LA, Shi-wen X, Ong VH, Fisher I, **Lazaridis K**, Abraham DJ, Black CM, de Crombrugghe B. Fibroblast-specific expression of a kinase-deficient type II transforming growth factor beta (TGFbeta) receptor leads to paradoxical activation of TGFbeta signaling pathways with fibrosis in transgenic mice. *J Biol Chem.* 2003 Jul 4;278(27):25109-19. doi: 10.1074/jbc.M300636200.
34. Woolaway KE, **Lazaridis K**, Belsham GJ, Carter MJ, Roberts LO. The 5' untranslated region of Rhopalosiphum padi virus contains an internal ribosome entry site which functions efficiently in mammalian, plant, and insect translation systems. *J Virol.* 2001 Nov;75(21):10244-9. doi: 10.1128/JVI.75.21.10244-10249.2001.