

CURRICULUM VITAE

10.2023

PERSONAL DATA

Name Antonios Chatzigeorgiou
Date and place of birth: 25.02.1982, Athens, Greece
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Current position(s) and address: **Associate Professor of Experimental and Clinical Physiology**
Department of Physiology, School of Medicine, National and Kapodistrian University of Athens, Mikras Asias 75, 11527, Athens, Greece
Website: <https://physiology.med.uoa.gr/en/research-infrastructure-services/research-laboratories/xatzigeorgiou-antonis/>

DEGREES / DIPLOMAS

3. 2019 **Board-certified Medical Specialty in Laboratory Medicine (Facharzt für Laboratoriumsmedizin)**, Medical Association of Saxony, Germany
7. 2009 **PhD**, Department of Physiology, Medical School, National & Kapodistrian University of Athens, Greece
7. 2009 **MD**, School of Medicine, National & Kapodistrian University of Athens, Greece
11. 2004 **BSc** in Biology, National & Kapodistrian University of Athens, Greece

WORK EXPERIENCE IN SCIENTIFIC POSITIONS

2022-present **Associate Professor**, Department of Experimental Physiology, School of Medicine, National & Kapodistrian University of Athens, Greece
2018 – 2022 **Assistant Professor**, Department of Experimental Physiology, School of Medicine, National & Kapodistrian University of Athens, Greece
2018 - present **Affiliated Researcher**, Institute for Clinical Chemistry and Laboratory Medicine, University Clinic, Germany
2013 – 2018 **Medical Resident**, University Clinic, University Dresden, Germany
A) 2013 - 2015 in Internal Medicine, Department of Internal Medicine III
B) 2015 - 2018 in Laboratory Medicine, Institute for Clinical Chemistry and Laboratory Medicine
10/2016-3/2018: **Head of the Clinical Endocrinology Lab** of the Institute
2013 - 2018 **Senior Postdoctoral Fellow / Research Associate**, Institute for Clinical Chemistry and Laboratory Medicine, Medical Faculty, University Dresden, Germany
2011 – 2013 **Postdoctoral Fellow**, Department of Internal Medicine III and Institute of Physiology, Medical Faculty, University Dresden, Germany
2009 - 2010 *Pause in Scientific Activities due to Compulsory Military Service in Greece*
2005 – 2009 **PhD student**, Department of Experimental Physiology, School of Medicine, National & Kapodistrian University of Athens, Greece
2003 – 2004 **Diploma Thesis student** (for obtaining the BSc in Biology), Dept. of Exp. Physiology, School of Medicine, National & Kapodistrian University of Athens (in cooperation with the Department of Biology, National & Kapodistrian University of Athens, Greece)

AWARDS / HONORS

1. **Young Investigator Award 2020 in the field of Molecular Medicine**, International Journal of Molecular

Science

2. **Young Investigator Research Award Program 2019** of the European Foundation for the Study of Diabetes
3. **Research Award 2019 of the Athens Medical Society (Greece)** in the category 'Basic Research'
4. **Herrmann Rein Award 2018** (2nd position) of the German Society for Microcirculation and Vascular Biology
5. **Young Investigator Award 2015** (Ivar Trautschold Award), German Society for Clinical Chemistry and Laboratory Medicine (DGKL)
6. **Young Investigator Award 2014** (G. Schettler Award), German Atherosclerosis Society (DGAF)
7. **Research Award 2013** of the German Centre for Diabetes Research (DZD)
8. **Young Investigator Award 2013, European Society of Endocrinology**
9. **Basic science meeting grant**, European Congress of Endocrinology 2013.
10. The paper with title 'A self-sustained loop of inflammation-driven inhibition of beige adipogenesis in obesity' by Chatzigeorgiou*, Chung* et al (Nat. Immunol 2017) was presented as **research highlight in Nat. Rev. Endocrinology** (April 2017) under the title 'Macrophage retention inhibits beige adipogenesis in obesity' (*equal first authors)
11. The paper 'Blocking CD40-TRAF6 signaling is a therapeutic target in obesity-associated insulin resistance' by Chatzigeorgiou et al (PNAS 2014) was presented as **research highlight in Nature Reviews Drug Discovery** (April 2014) under the title 'Diabetic interactions broken up'

COMMISSIONS OF TRUST

Ad hoc Grant Reviewer for over 10 Foundations: Swiss National Science Foundation, Institute Pasteur Incentive Research Programs and Partnerships, German-Israeli Foundation for Scientific Research, Czech Science Foundation, Austrian Research Fund, Worldwide Cancer Research etc.

Ad hoc Reviewer for over 75 journals including Am.J. Physiol. End. Metab., Hepatology, J. Hepatology, Metabolism, iScience, Aging Cell, Eur.J.Endocrinology, Cellular & Molecular Immunology, Plos One, Front.Immunology, Cellular & Molecular Life Sciences, Thrombosis & Haemostasis etc

Invited Speaker in more than 20 national / international Institutes and Meetings such as the Institute of Hepatology (London), University of South Bohemia (Czech republic), Paris NASH meeting etc.

Member of the Organizing Committee of all meetings and online webinars organized by the Hellenic Society of Physiology from 2019 until today (<https://hps.org.gr/>)

SOCIETY MEMBERSHIPS

1. Hellenic Society of Physiology (Secretary General of the Society)
2. Hellenic Association for the Study of Liver
3. European Association for the Study of Diabetes (EASD)
4. American Association for the Study of Liver Diseases
5. Medical Association of Athens, Greece
6. Medical Association of Saxony, Germany (Sächsische Landesärztekammer)
7. German Society for Clinical Chemistry and Laboratory Medicine (DGKL)

TEACHING / SUPERVISING EXPERIENCE

2005-2009 Teaching Assistant in laboratory training of medical students for the course "**Medical Physiology**" (Department of Experimental Physiology, School of Medicine, National &

Kapodistrian University of Athens, Greece)

- 2013-2015 **Lecturer** in the PhD/MD program, “Molecular Endocrinology” as well as in the PhD program “Endothelium in Health and Disease” (both in Medical Faculty, University of Dresden, Germany)
- 2013-2018 Supervision of **3 PhD students** in the Department of Clinical Pathobiochemistry, Medical Faculty, University Dresden, Germany
- 2014-2015 **Lecturing and Practical training** of 4th year medical students in disease pathophysiology, physical examination, medical history and disease therapy. Department of Internal Medicine III, University Clinic, University Dresden, Germany
- 2015-2018 **Lecturing and Practical training** of 3th year medical students in Laboratory Medicine. Institute of Clinical Chemistry and Laboratory Medicine, University Clinic, University Dresden, Germany
- 2018-present **Lecturer and Research Supervisor** in the following MSc programs of the National & Kapodistrian University of Athens, Greece: 1. Molecular Biomedicine, 2. Molecular and Applied Physiology, 3. Physiology of Senescence, 4. Clinical Neurophysiology, 5. Cardiometabolic Medicine, 6. Applications of Biology in Medicine
- 2018-present Supervision of 3 **postdoctoral fellows**, 6 **PhD students** as well as 7 **MSc students** in the Department of Exp. Physiology, School of Medicine, National & Kapodistrian University of Athens, Greece
[\(https://physiology.med.uoa.gr/en/research-infrastructure-services/research-laboratories/xatzigeorgiou-antonis/\)](https://physiology.med.uoa.gr/en/research-infrastructure-services/research-laboratories/xatzigeorgiou-antonis/)

FUNDING AS PRINCIPAL INVESTIGATOR

Funding Body	Title of project	Role	Time
MeDDrive-Start Grant - Medical Faculty of University Dresden, Germany	The role of CD28 in obesity-related insulin resistance	PI	2015-2016
German Research Foundation (DFG)	Crosstalk between Foxp3+ Tregs and Type 2 Immunity in Maintaining Adipose Tissue Homeostasis	PI	2017-2020
German Research Foundation (DFG)	Co-stimulatory interactions in the development of Non-Alcoholic Steatohepatitis and Liver Fibrosis	PI	2018-2021
Hellenic Association for the Study of Liver (HASL)	Epigenetic regulation of NAFLD-related senescence	PI	2019-2021
European Foundation for the Study of Diabetes (EFSD)	Immune regulation of cardiometabolic disease in obesity-induced diabetes	PI	2019-2021
Hellenic Foundation for Research and Innovation (HFRI)	Robo4 as regulator and biomarker of obesity-related adipose tissue dysfunction and insulin resistance	PI	2020-2023
Hellenic Foundation for Research and Innovation (HFRI)	Immunometabolic regulation of hematopoietic stem cell niche in myelodysplasia and ageing	Co-PI	2020-2023
Taconic Biosciences Academic Grant Program	In vivo imaging for non-invasive characterization of NAFLD/NASH progression	PI	2021-2022
Hellenic Foundation for Research and Innovation (HFRI) – <i>grant for postdocs</i>	Exploring the role of Hes3 in the transition from NAFLD to NASH and hepatocellular carcinoma (HCC)	Co-PI / Supervisor	2022-2024
Hellenic Association for the Study of Liver (HASL)	Spatiotemporal analysis of the hepatic senescent and immune populations in NAFLD-related HCC	PI	2023-2025

BIBLIOGRAPHY

A. OVERVIEW

Total number of publications in Pubmed: 85

H-index (Scopus / Google Scholar): 33 / 36

Citations (Scopus / Google Scholar): 3718 / 5202

B. MOST IMPORTANT ORIGINAL ARTICLES (with reverse chronological order)

1. Papadopoulos G, Legaki AI, Georgila K, Vorkas P, Panayotou G, Gika H, Samiotaki M, Eliopoulos AG, **Chatzigeorgiou A**: Integrated omics analysis for characterization of the contribution of high fructose corn syrup to non-alcoholic fatty liver disease in obesity. **Metabolism**. 2023 Mar 28;144:155552.
2. Chung KJ, Legaki AI, Papadopoulos G, Gercken B, Gebler J, Schwabe RF, Chavakis T, **Chatzigeorgiou A**. Analysis of the Role of Stellate Cell VCAM-1 in NASH Models in Mice. **Int J Mol Sci**. 2023 Mar 2;24(5):4813. doi: 10.3390/ijms24054813.
3. Arida A. , Legaki A-I, Kravvariti E, Protogerou A, Sfrikakis PP, **Chatzigeorgiou A**: PCSK9/LDLR System and Rheumatoid Arthritis-Related Atherosclerosis **Front Cardiovasc Med** 2021 Oct 8;8:738764.
4. Moustakas, II, Katsarou A, Legaki AI, Pyrina I, Ntostoglou K, Papatheodoridi AM, Gercken B, Pateras IS, Gorgoulis VG, Koutsilieris M, Chavakis T, **Chatzigeorgiou A**: Hepatic Senescence Accompanies the Development of NAFLD in Non-Aged Mice Independently of Obesity. **Int J Mol Sci** 2021;22
5. Troullinaki M, Chen LS, Witt A, Pyrina I, Phieler J, Kourtzelis I, Chmelar J, Sprott D, Gercken B, Koutsilieris M, Chavakis T, **Chatzigeorgiou A**: Robo4-mediated pancreatic endothelial integrity decreases inflammation and islet destruction in autoimmune diabetes. **FASEB J** 2020;34:3336-3346
6. Kalafati L, Kourtzelis I, Schulte-Schrepping J, Li X, Hatzioannou A, Grinenko T, Hagag E, Sinha A, Has C, Dietz S, de Jesus Domingues AM, Nati M, Sormendi S, Neuwirth A, **Chatzigeorgiou A**,.....Verginis P, Mitroulis I, Chavakis T: Innate Immune Training of Granulopoiesis Promotes Anti-tumor Activity. **Cell** 2020;183:771-785 e712
7. **Chatzigeorgiou A**, Mitroulis I, Chrysanthopoulou A, Legaki AI, Ritis K, Tentolouris N, Protogerou AD, Koutsilieris M, Sfrikakis PP: Increased Neutrophil Extracellular Traps Related to Smoking Intensity and Subclinical Atherosclerosis in Patients with Type 2 Diabetes. **Thromb Haemost** 2020;120:1587-1589
8. Sprott D, Poitz DM, Korovina I, Ziogas A, Phieler J, **Chatzigeorgiou A**, Mitroulis I, Deussen A, Chavakis T, Klotzsche-von Ameln A: Endothelial-Specific Deficiency of ATG5 (Autophagy Protein 5) Attenuates Ischemia-Related Angiogenesis. **Arterioscler Thromb Vasc Biol**. 2019 Jun;39(6):1137-1148.
9. Nikolakopoulou P, **Chatzigeorgiou A**, Kourtzelis I, Toutouna L, Chrousos G, Yi CX, García-Cáceres C, Tschöp MH, Bornstein SR, Androutsellis-Theotokis A. Streptozotocin-induced β -cell damage, high fat diet, and metformin administration regulate Hes3 expression in the adult mouse brain. **Sci Rep**. 2018 Jul 27;8(1):11335.
10. Mitroulis I, Ruppova K, Wang B, Chen LS, Grzybek M, Grinenko T, Eugster A, Troullinaki M, Palladini A, Kourtzelis I, **Chatzigeorgiou A**, Schlitzer A, Beyer M, Joosten LAB, Isermann B, Lesche M, Petzold A, Simons K, Henry I, Dahl A, Schultze JL, Wielockx B, Zamboni N, Mirtschink P, Coskun Ü, Hajishengallis G, Netea MG, Chavakis T. Modulation of Myelopoiesis Progenitors Is an Integral Component of Trained Immunity. **Cell**. 2018 Jan 11;172(1-2):147-161.e12.
11. Chung KJ*, **Chatzigeorgiou A***, Economopoulou M, Garcia-Martin R, Hajishengallis G, Chavakis T: A self-sustained loop of inflammation-driven inhibition of beige adipogenesis in obesity. **Nat. Immunol** 2017;18:654-664 *equal first authors
12. Chmelar J, **Chatzigeorgiou A**, Chung KJ, Prucnal M, Voehringer D, Roers A, Chavakis T: No Role for Mast Cells in Obesity-Related Metabolic Dysregulation. **Front Immunol** 2016;7:524

13. **Chatzigeorgiou A**, Seijkens T, Zarzycka B, Engel D, Poggi M, van den Berg S, van den Berg S,Schally AV, Weber C, Bornstein SR, Nicolaes G, Chavakis T, Lutgens E: Blocking CD40-TRAF6 signaling is a therapeutic target in obesity-associated insulin resistance. **Proc Natl Acad Sci USA** 2014;111:2686-2691

14. **Chatzigeorgiou A**, Chung KJ, Garcia-Martin R, Alexaki VI, Klotzsch-von Ameln A, Phieler J, Sprott D, Bornstein SR, Muders MH, Boon L, Karalis KP, Lutgens E, Chavakis T: Dual role of B7 costimulation in obesity-related nonalcoholic steatohepatitis and metabolic dysregulation. **Hepatology** 2014;60:1196-1210

15. **Chatzigeorgiou A**, Kandaraki E, Piperi C, Livadas S, Papavassiliou AG, Koutsilieris M, Papalois A, Diamanti-Kandaraki E: Dietary glycotoxins affect scavenger receptor expression and the hormonal profile of female rats. **J Endocrinol.** 2013 Aug 29;218(3):331-7.

16. Kanczkowski W*, **Chatzigeorgiou A***, Grossklaus S, Sprott D, Bornstein SR, Chavakis T: Role of the endothelial-derived endogenous anti-inflammatory factor Del-1 in inflammation-mediated adrenal gland dysfunction. **Endocrinology.** 2013 Mar;154(3):1181-9. IF: 4.74

17. Phieler J, Chung KJ*, **Chatzigeorgiou A***, Klotzsch-von Ameln A,, Mziaut H, Solimena M, Karalis KP, Economopoulou M, Lambris JD, Chavakis T. The complement anaphylatoxin C5a receptor contributes to obese adipose tissue inflammation and insulin resistance. **J Immunol.** 2013 Oct 15;191(8):4367-74.

18. Langer HF, Choi EY, Zhou H, Schleicher R, Chung KJ, Tang Z, Gobel K, Bdeir K, **Chatzigeorgiou A**, Wong C, Bhatia S, Kruhlak MJ, Lambris JD, Li X, Meuth SG, Kubes P, Chavakis T: Platelets contribute to the pathogenesis of experimental autoimmune encephalomyelitis. **Circ Res** 2012;110:1202-1210

19. **Chatzigeorgiou A***, Ellina O*, Kouyanou S, Lymberi M, Mylona-Karagianni C, Tsouvalas E, Kamper EF: Extracellular matrix-associated (GAGs, CTGF), angiogenic (VEGF) and inflammatory factors (MCP-1, CD40, IFN-gamma) in type 1 diabetes mellitus nephropathy. **Clin Chem Lab Med** 2012;50:167-174 *equal first authors

20. **Chatzigeorgiou A**, Harokopos V, Mylona-Karagianni C, Tsouvalas E, Aidinis V, Kamper EF: The pattern of inflammatory/anti-inflammatory cytokines and chemokines in type 1 diabetic patients over time. **Ann Med** 2010;42:426-438

C) MOST IMPORTANT REVIEWS

1. Velliou R, Legaki AI, Nikolakopoulou P, Vlachogiannis N, Chatzigeorgiou A. Liver endothelial cells in NAFLD and transition to NASH and HCC. **Cell Mol Life Sci.** 2023 Oct 5;80(11):314.

2. Papatheodoridi AM, Chrysavgis L, Koutsilieris M, **Chatzigeorgiou A**. The Role of Senescence in the Development of Nonalcoholic Fatty Liver Disease and Progression to Nonalcoholic Steatohepatitis. **Hepatology.** 2020 Jan;71(1):363-374.

3. Chung KJ, Nati M, Chavakis T, **Chatzigeorgiou A**. Innate immune cells in the adipose tissue. **Rev Endocr Metab Disord.** 2018 Dec;19(4):283-292.

4. **Chatzigeorgiou A**, Kandaraki E, Papavassiliou AG, Koutsilieris M. Peripheral targets in obesity treatment: a comprehensive update. **Obes Rev.** 2014 Jun;15(6):487-503.

5. **Chatzigeorgiou A**, Karalis KP, Bornstein SR, Chavakis T. Lymphocytes in obesity-related adipose tissue inflammation. **Diabetologia.** 2012 Oct;55(10):2583-2592.

D) MOST IMPORTANT CHAPTERS IN BOOKS

1. The 'Interdisciplinary Cancer Research' book series, Title: The role of senescence in NASH-related HCC. L. Chrysavgis, G. Papadopoulos and **A.Chatzigeorgiou** 2023

2. Handbook of Experimental Pharmacology (HEP) book series, Volume: Metabolic Control, Title: Immune cells and metabolism.

A. Chatzigeorgiou and T.Chavakis 2016