Amarylis Claudine Bonito Azeredo Wanschel

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I. Personal Information

Name: Amarylis Claudine Bonito Azeredo Wanschel
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Address: One University Parkway, High Point, NC 27268
Current Academic Rank: Assistant Professor
Appointment: High Point University
Citizenship: Brazilian
Visa Type: Permanent Resident

II. Higher Education

Institutional:

2023 – **High Point University, High Point, NC,** Assistant Professor.

2016-2022 **University of Miami, Florida, USA,** Postdoctoral training in Stem Cell Biology.

2010-2013 **New York University, New York, USA**, Postdoctoral training in Vascular Biology.

2006-2010 **University of Campinas, Sao Paulo, Brazil**, PhD in Physiology (Molecular and Cellular Biology).

2003-2006 **University of Campinas, Sao Paulo, Brazil**, Master in Human Physiology.

1998-2002 **Pontifical Catholic University of Campinas, Sao Paulo, Brazil,** Bachelor of Science.

III. Experience

Academic:

- University of Miami, Postdoctoral 2016-2022.
- University of Campinas, Sao Paulo, Brazil Scientist Associated 2013-2016.
- New York University, Postdoctoral 2010-2013.
- University of Campinas, Sao Paulo, Brazil; PhD in Cellular and Molecular Biology, 2006-2010.
- University of Campinas, Sao Paulo, Brazil; Master in Physiology, 2003-2006.

Honors and Awards:

2019 Best Poster Award, World Stem Cell Summit

2018 Outreach Award for Early Career Investigators, Basic Cardiovascular Science Annual Meeting.

2014 The 10 Most Read Articles Published in Circulation Research in 2013.

2012 The 10 more relevant topics from ATVB, Atherosclerosis Thrombosis and Vascular Biology.

2012 Travel Award for Young Investigators, New York University.

2009 Travel Award 10 best students outside USA, Free Radical Biology and Medicine.

2007 Travel Award 10 best students outside USA, Free Radical Biology and Medicine.

Editorial board member:

• Frontiers in Cardiovascular Medicine
• Biomolecules
• Antioxidants

Scientific Reviewer:

• Biomolecules
• International Journal of Environmental Research and Public Health
• Drug Development Research
• Stem Cells International
• Journal of Chromatography B
• Science of the Total Environment
• Frontiers in Cardiovascular Medicine
• ATVB

Grant Reviewer:

• National Institutes of Health (NIH) - IVPP Section
• American Heart Association (AHA) - Fellowship and Career Development Award
• French National Research Agency (ANR)
• Canadian Stem Cell Network (SCN) “Disease Team and Impact Program”

Research Expertise and Technical Skills:

• Areas of Expertise: Lipid metabolism, Endothelium, Inflammation, Apoptosis, signal transduction pathways.
• Analytical techniques GC-FID, GC-Mass spectroscopy, HPLC
• In vivo studies: Animal handling both normal and transgenic models
• In vitro studies: Mammalian cell culture techniques with human and bovine endothelial cells, mouse and human monocytes/macrophages, mesenchymal stem cells, rat cardiomyocytes and inducible pluripotent stem cells derived cardiomyocytes.
• Molecular Biology techniques Western Blot analysis, qPCR, Fluorescence studies, protein assays, protein extraction, Flow cytometry (FACS analysis).
• Plasmid and siRNA transfection studies.
• Other skills include usage of Microsoft Office (MS Word, Excel and Power Point) and Graph pad prism statistical software, Confocal microscopy, Transmission Electron Microscopy.

IV. Publications

1. Moretti AIS, Schreiber R, **Wanschel ABA.** Editorial: COVID-19 mechanisms on cardio-vascular dysfunction: from membrane receptors to immune response, volume II. Front Cardiovasc Med. 2023 Oct 13;10:1278067. doi: 10.3389/fcvm.2023.1278067. PMID: 37900568

2. **Wanschel ACBA**, Hatzistergos KE, Salerno AG, Kuznetsov J, Kurtenbach S, Rodriguez DA, Valasaki K, Balkan W, Dykxhoorn D, Schally AV, Hare JM. The Growth Hormone Releasing Hormone Signaling Pathway Governs Cardiomyocyte differentiation in human iPS cells. bioRxiv. 2022:2022.01.31.478572.
3. Salerno AG, **Wanschel ACBA**, Dulce RA, Hatzistergos KE, Balkan W, Hare JM. S-nitrosoglutathione reductase (GSNOR) deficiency accelerates cardiomyocyte differentiation of induced pluripotent stem cells. J Cardiovasc Aging 2021;1:13. http://dx.doi.org/10.20517/jca.2021.19
4. van Solingen C, Oldebeken SR, Salerno AG, **Wanschel ACBA**, Moore KJ. High-Throughput Screening Identifies MicroRNAs Regulating Human PCSK9 and Hepatic Low-Density Lipoprotein Receptor Expression. Front Cardiovasc Med. 2021 Jul 12;8:667298. doi: 10.3389/fcvm.2021.667298. PMID: 34322524 PMCID: PMC8310920
5. **Wanschel ACBA**, Moretti AIS, Ouimet M. Editorial: Covid-19 Mechanisms on Cardio-Vascular Dysfunction: From Membrane Receptors to Immune Response. Front Cardiovasc Med. 2021 Apr 27;8:686495. doi: 10.3389/fcvm.2021.686495. PMID: 33987214; PMCID: PMC8110721.
6. Rieger AC, Bagno LL, Salerno A, Florea V, Rodriguez J, Rosado M, Turner D, Dulce RA, Takeuchi LM, Kanashiro-Takeuchi RM, Buchwald P, **Wanschel ACBA**, Balkan W, Schulman IH, Schally AV, Hare JM. Growth hormone-releasing hormone agonists ameliorate chronic kidney disease-induced heart failure with preserved ejection fraction. Proc Natl Acad Sci U S A. 2021 Jan 26;118(4). doi: 10.1073/pnas.2019835118. PubMed PMID: 33468654; PubMed Central PMCID: PMC7848727.
7. **Wanschel ACBA**, Guizoni DM, Lorza-Gil E, Salerno AG, Paiva AA, Dorighello GG, Davel AP, Balkan W, Hare JM, Oliveira HCF. The Presence of Cholesteryl Ester Transfer Protein (CETP) in Endothelial Cells Generates Vascular Oxidative Stress and Endothelial Dysfunction. Biomolecules. 2021 Jan 7;11(1). doi: 10.3390/biom11010069. PubMed PMID: 33430172; PubMed Central PMCID: PMC7825632.
8. Hatzistergos KE, Durante MA, Valasaki K, **Wanschel ACBA**, Harbour JW, Hare JM. A novel cardiomyogenic role for Isl1+ neural crest cells in the inflow tract. Sci Adv. 2020 Dec;6(49). doi: 10.1126/sciadv.aba9950. Print 2020 Dec. PubMed PMID: 33268364; PubMed Central PMCID: PMC7821887.
9. Rentz T, **Wanschel ACBA**, de Carvalho Moi L, Lorza-Gil E, de Souza JC, Dos Santos RR, Oliveira HCF. The Anti-atherogenic Role of Exercise Is Associated With the Attenuation of Bone Marrow-Derived Macrophage Activation and Migration in Hypercholesterolemic Mice. Front Physiol. 2020;11:599379. doi: 10.3389/fphys.2020.599379. eCollection 2020. PubMed PMID: 33329050; PubMed Central PMCID: PMC7719785.
10. Salerno AG, van Solingen C, Scotti E, **Wanschel ACBA**, Afonso MS, Oldebeken SR, Spiro W, Tontonoz P, Rayner KJ, Moore KJ. LDL Receptor Pathway Regulation by miR-224 and miR-520d. Front Cardiovasc Med. 2020;7:81. doi: 10.3389/fcvm.2020.00081. eCollection 2020. PubMed PMID: 32528976; PubMed Central PMCID: PMC7256473.
11. Salerno AG, Rentz T, Dorighello GG, Marques AC, Lorza-Gil E, **Wanschel ACBA**, de Moraes A, Vercesi AE, Oliveira HCF. Lack of mitochondrial NADP(H)-transhydrogenase expression in macrophages exacerbates atherosclerosis in hypercholesterolemic mice. Biochem J. 2019 Dec 23;476(24):3769-3789. doi: 10.1042/BCJ20190543. PubMed PMID: 31803904.
12. Premer C, **Wanschel A**, Porras V, Balkan W, Legendre-Hyldig T, Saltzman RG, Dong C, Schulman IH, Hare JM. Mesenchymal Stem Cell Secretion of SDF-1α Modulates Endothelial Function in Dilated Cardiomyopathy. Front Physiol. 2019;10:1182. doi: 10.3389/fphys.2019.01182. eCollection 2019. PubMed PMID: 31616309; PubMed Central PMCID: PMC6769040.

13. Montes Nino AM, Granja RHMM, Reche KVG, Giannotti FM, de Souza JKG, Ferrari SPG, Dos Santos AD, **Wanschel ACBA**, Salerno AG. Laboratory validation of an LC-MS/MS method for the detection of ractopamine, clenbuterol and salbutamol in bovine and swine muscle at sub-μg kg-1 regulatory limits. Food Addit Contam Part A Chem Anal Control Expo Risk Assess. 2017 May;34(5):785-792. doi: 10.1080/19440049.2017.1298847. PubMed PMID: 28278125.
14. Nino AM, Granja RH, **Wanschel AC**, Salerno AG. The Challenges of ractopamine use in meat production for export to European Union and Russia. Food control. 2017 February.
15. Paiva AA, Raposo HF, **Wanschel AC**, Nardelli TR, Oliveira HC. Apolipoprotein CIII Overexpression-Induced Hypertriglyceridemia Increases Nonalcoholic Fatty Liver Disease in Association with Inflammation and Cell Death. Oxid Med Cell Longev. 2017;2017:1838679. doi: 10.1155/2017/1838679. Epub 2017 Jan 10. PubMed PMID: 28163820; PubMed Central PMCID: PMC5259655.
16. Santos RS, Batista TM, Camargo RL, Morato PN, Borck PC, Leite NC, Kurauti MA, **Wanschel AC**, Nadal Á, Clegg DJ, Carneiro EM. Lacking of estradiol reduces insulin exocytosis from pancreatic β-cells and increases hepatic insulin degradation. Steroids. 2016 Oct;114:16-24. doi: 10.1016/j.steroids.2016.05.002. Epub 2016 May 15. PubMed PMID: 27192429.
17. Aryal B, Rotllan N, Araldi E, Ramírez CM, He S, Chousterman BG, Fenn AM, **Wanschel A**, Madrigal-Matute J, Warrier N, Martín-Ventura JL, Swirski FK, Suárez Y, Fernández-Hernando C. ANGPTL4 deficiency in haematopoietic cells promotes monocyte expansion and atherosclerosis progression. Nat Commun. 2016 Jul 27;7:12313. doi: 10.1038/ncomms12313. PubMed PMID: 27460411; PubMed Central PMCID: PMC4974469.
18. Lorza-Gil E, Salerno AG, **Wanschel AC**, Vettorazzi JF, Ferreira MS, Rentz T, Catharino RR, Oliveira HC. Chronic use of pravastatin reduces insulin exocytosis and increases β-cell death in hypercholesterolemic mice. Toxicology. 2016 Feb 17;344-346:42-52. doi: 10.1016/j.tox.2015.12.007. Epub 2016 Feb 10. PubMed PMID: 26875785.
19. Rotllan N, **Wanschel AC**, Fernández-Hernando A, Salerno AG, Offermanns S, Sessa WC, Fernández-Hernando C. Genetic Evidence Supports a Major Role for Akt1 in VSMCs During Atherogenesis. Circ Res. 2015 May 22;116(11):1744-52. doi: 10.1161/CIRCRESAHA.116.305895. Epub 2015 Apr 13. PubMed PMID: 25868464; PubMed Central PMCID: PMC4561531.
20. Rotllan N, Chamorro-Jorganes A, Araldi E, **Wanschel AC**, Aryal B, Aranda JF, Goedeke L, Salerno AG, Ramírez CM, Sessa WC, Suárez Y, Fernández-Hernando C. Hematopoietic Akt2 deficiency attenuates the progression of atherosclerosis. FASEB J. 2015 Feb;29(2):597-610. doi: 10.1096/fj.14-262097. Epub 2014 Nov 12. PubMed PMID: 25392271; PubMed Central PMCID: PMC4314230.
21. Granja RH, Salerno AG, de Lima AC, Montalvo C, Reche KV, Giannotti FM, **Wanschel AC**. Liquid chromatography/tandem mass spectrometry method to determine boldenone in bovine liver tissues. J AOAC Int. 2014 Sep-Oct;97(5):1476-80. doi: 10.5740/jaoacint.13-335. PubMed PMID: 25903003.
22. Goedeke L, Salerno A, Ramírez CM, Guo L, Allen RM, Yin X, Langley SR, Esau C, **Wanschel A**, Fisher EA, Suárez Y, Baldán A, Mayr M, Fernández-Hernando C. Long-term therapeutic silencing of miR-33 increases circulating triglyceride levels and hepatic lipid accumulation in mice. EMBO Mol Med. 2014 Sep;6(9):1133-41. doi: 10.15252/emmm.201404046. PubMed PMID: 25038053; PubMed Central PMCID: PMC4197861.
23. Ramkhelawon B, Hennessy EJ, Ménager M, Ray TD, Sheedy FJ, Hutchison S, **Wanschel A**, Oldebeken S, Geoffrion M, Spiro W, Miller G, McPherson R, Rayner KJ, Moore KJ. Netrin-1 promotes adipose tissue macrophage retention and insulin resistance in obesity. Nat Med. 2014 Apr;20(4):377-84. doi: 10.1038/nm.3467. Epub 2014 Mar 2. PubMed PMID: 24584118; PubMed Central PMCID: PMC3981930.

24. Butkinaree C, Guo L, Ramkhelawon B, **Wanschel A**, Brodsky JL, Moore KJ, Fisher EA. A regulator of secretory vesicle size, Kelch-like protein 12, facilitates the secretion of apolipoprotein B100 and very-low-density lipoproteins--brief report. Arterioscler Thromb Vasc Biol. 2014 Feb;34(2):251-4. doi: 10.1161/ATVBAHA.113.302728. Epub 2013 Dec 12. PubMed PMID: 24334870; PubMed Central PMCID: PMC3919549.
25. **Wanschel AC**, Caceres VM, Moretti AI, Bruni-Cardoso A, de Carvalho HF, de Souza HP, Laurindo FR, Spadari RC, Krieger MH. Cardioprotective mechanism of S-nitroso-N-acetylcysteine via S-nitrosated betadrenoceptor-2 in the LDLr-/- mice. Nitric Oxide. 2014 Jan 30;36:58-66. doi: 10.1016/j.niox.2013.12.003. Epub 2013 Dec 12. PubMed PMID: 24333561.
26. Ramírez CM, Rotllan N, Vlassov AV, Dávalos A, Li M, Goedeke L, Aranda JF, Cirera-Salinas D, Araldi E, Salerno A, **Wanschel A**, Zavadil J, Castrillo A, Kim J, Suárez Y, Fernández-Hernando C. Control of cholesterol metabolism and plasma high-density lipoprotein levels by microRNA-144. Circ Res. 2013 Jun 7;112(12):1592-601. doi: 10.1161/CIRCRESAHA.112.300626. Epub 2013 Mar 21. PubMed PMID: 23519695; PubMed Central PMCID: PMC3929583.
27. Granja RH, Nino AM, Reche KV, Giannotti FM, de Lima AC, **Wanschel AC**, Salerno AG. Determination and confirmation of metronidazole, dimetridazole, ronidazole and their metabolites in bovine muscle by LC-MS/MS. Food Addit Contam Part A Chem Anal Control Expo Risk Assess. 2013;30(6):970-6. doi: 10.1080/19440049.2013.787653. Epub 2013 May 24. PubMed PMID: 23701281.
28. **Wanschel A**, Seibert T, Hewing B, Ramkhelawon B, Ray TD, van Gils JM, Rayner KJ, Feig JE, O'Brien ER, Fisher EA, Moore KJ. Neuroimmune guidance cue Semaphorin 3E is expressed in atherosclerotic plaques and regulates macrophage retention. Arterioscler Thromb Vasc Biol. 2013 May;33(5):886-93. doi: 10.1161/ATVBAHA.112.300941. Epub 2013 Feb 21. PubMed PMID: 23430613; PubMed Central PMCID: PMC3647027.
29. Granja RH, De Lima AC, Salerno AG, **Wanschel AC**. Development and validation of a liquid chromatography-UV detection method for the determination of sulfonamides in fish muscle and shrimp according to European Union Decision 2002/657/EC. J AOAC Int. 2013 Jan-Feb;96(1):212-5. doi: 10.5740/jaoacint.11-541. PubMed PMID: 23513979.
30. Granja RH, de Lima AC, Salerno AG, **Wanschel AC**. Validation of a liquid chromatography with ultraviolet detection methodology for the determination of sulfonamides in bovine milk according to 2002/657/EC. Food control. 2012 December; 28(2):304-308. doi: 10.1016/j.foodcont.2012.05.018.
31. Granja RH, de Lima AC, Salerno AG, **Wanschel AC**. Validation of a liquid chromatography with ultraviolet detection methodology for the determination of sulfonamides in bovine milk according to 2002/657/EC. Food Control. 2012 December.
32. Granja RH, de Lima AC, Patel RK, Salerno AG, **Wanschel AC**. Monitoring of florfenicol residues in fish muscle by HPLC-UV with confirmation of suspect results by LC-MS/MS. Drug Test Anal. 2012 Aug;4 Suppl 1:125-9. doi: 10.1002/dta.1362. PubMed PMID: 22851369.
33. Cirera-Salinas D, Pauta M, Allen RM, Salerno AG, Ramírez CM, Chamorro-Jorganes A, **Wanschel AC**, Lasuncion MA, Morales-Ruiz M, Suarez Y, Baldan Á, Esplugues E, Fernández-Hernando C. Mir-33 regulates cell proliferation and cell cycle progression. Cell Cycle. 2012 Mar 1;11(5):922-33. doi: 10.4161/cc.11.5.19421. Epub 2012 Mar 1. PubMed PMID: 22333591; PubMed Central PMCID: PMC3323796.
34. Grosso DM, Ferderbar S, **Wanschel AC**, Krieger MH, Higushi ML, Abdalla DS. Antibodies against electronegative LDL inhibit atherosclerosis in LDLr-/- mice. Braz J Med Biol Res. 2008 Dec;41(12):1086-92. doi: 10.1590/s0100-879x2008001200007. PubMed PMID: 19148370.
35. Garcia JA, dos Santos L, Moura AL, Ricardo KF, **Wanschel AC**, Shishido SM, Spadari-Bratfisch RC, de Souza HP, Krieger MH. S-nitroso-N-acetylcysteine (SNAC) prevents myocardial alterations in hypercholesterolemic LDL receptor knockout mice by

antiinflammatory action. J Cardiovasc Pharmacol. 2008 Jan;51(1):78-85. doi: 10.1097/FJC.0b013e31815c39d4. PubMed PMID: 18209572.

36. Krieger MH, Santos KF, Shishido SM, **Wanschel AC**, Estrela HF, Santos L, De Oliveira MG, Franchini KG, Spadari-Bratfisch RC, Laurindo FR. Antiatherogenic effects of S-nitroso-N-acetylcysteine in hypercholesterolemic LDL receptor knockout mice. Nitric Oxide. Feb;14(1):12-20. doi: 10.1016/j.niox.2005.07.011. Epub 2005 Sep 28. PubMed PMID: 16198610.a).

Complete List of Published Work in My Bibliography

https://www.ncbi.nlm.nih.gov/myncbi/1R1h_ItqUvb/bibliography/public/

V. Funding

Completed Research Support:

1. Effects of mesenchymal stem cells on endothelial function. Grant number: 16/01746-4, Research Foundation from the State of Sao Paulo, Role: Principal Investigator U$ 75.000 (100% effort), 2016-2017.

2. Effect of the expression of the cholesteryl ester transfer protein on the endothelial function. Grant number: 13/09347-3, Research Foundation from the State of Sao Paulo, Role: Principal Investigator U$ 60.000 (100% effort), 2013-2016.

3. Genetic Evidence Supports a Major Role for Akt1 in VSMCs During Atherogenesis. Grant number: 5220-09-2, Coordination for the Improvement of Higher Education Personnel, Role: Principal Investigator U$35.300 (100% effort), 2010-2011.

4. Cardioprotective mechanism of S-nitroso-N-acetylcysteine via S-nitrosated betadrenoceptor-2 in the LDLr-/- mice. Grant number:13/09347-3, Research Foundation from the State of Sao Paulo U$11.000 and Coordination for the Improvement of Higher Education Personnel U$62.400, Role: Principal Investigator (100% effort), 2006-2010.

Editorial responsibilities:

2025-2026 Biomolecules Guest Editor – Myocarditis and Inflammatory Heart Disease

2022-2024 Frontiers in Cardiovascular Medicine Guest Associated Editor - COVID-19 Mechanisms on Cardio-Vascular Dysfunction: From Membrane Receptors to Immune Resp II.

2021-2022 Biomolecules Guest Editor - COVID-19 Endothelial Inflammation and Cardiovascular Dysfunction: Oxidative, Nitrosative and Reticulum Stress

2020-2021 Frontiers in Cardiovascular Medicine Guest Associated Editor - COVID-19 Mechanisms on Cardio-Vascular Dysfunction: From Membrane Receptors to Immune Response.

Professional and Honorary Organizations:

2022-2023 Arteriosclerosis, Thrombosis, and Vascular Biology

2019-2020 Journal of Chromatography B Reviewer.

2019-2020 Journal Science of the Total Environment Reviewer.

2016-2022 Basic Cardiovascular Sciences Member.

2012-2013 Arteriosclerosis, Thrombosis, and Vascular Biology Member.

2007-2010 Society for Free Radical Biology and Medicine Member.