

BIOGRAPHICAL SKETCH

Provide the following information for the Senior/key personnel and other significant contributors. Follow this format for each person. **DO NOT EXCEED FIVE PAGES.**

NAME: Bruder do Nascimento, Thiago

eRA COMMONS USER NAME (credential, e.g., agency login): tbruderdonasci

POSITION TITLE: Assistant Professor of Pediatrics

EDUCATION/TRAINING (Begin with baccalaureate or other initial professional education, such as nursing, include postdoctoral training and residency training if applicable. Add/delete rows as necessary.)

| INSTITUTION AND LOCATION | DEGREE (if applicable) | Completion Date MM/YYYY | FIELD OF STUDY |
|-------------------------------------|------------------------|-------------------------|----------------|
| University of Sao Paulo State-UNESP | MS | 02/2011 | Pharmacology |
| University of Sao Paulo-USP | PHD | 03/2024 | Pharmacology |
| Albert Einstein College, New York | Scholar | 04/2012 | Physiology |
| University of Ottawa, Ottawa, ON | Scholar | 07/2013 | Physiology |
| Georgia Regents University | Postdoctoral | 04/2014 | Physiology |
| University of Sao Paulo-USP | Postdoctoral | 05/2015 | Pharmacology |
| Augusta University | Postdoctoral | 06/2016 | Physiology |

Personal Statement

I have a long-standing interest in studying the mechanisms of vascular physiology and pathophysiology. My interest in vascular biology began during my undergraduate and master's studies at the University of São Paulo State (UNESP) in Brazil, where I explored the effects of anabolic steroids on vascular function, as well as the impact of high-fat diet and emotional stress on cardiovascular biology.

For my Ph.D., I joined Dr. Rita C. Tostes' laboratory at the University of São Paulo (USP) to investigate the pleiotropic effects of atorvastatin on Nox-derived reactive oxygen species (ROS) in the vasculature and kidneys in a mouse model of type 2 diabetes. Still in my Ph.D., I had the privilege of collaborating with leading vascular biologists. Thanks to an exchange program, I spent nearly half a year in Dr. Nicholas Sibinga's laboratory at Albert Einstein College in New York, USA, and a year in Dr. Rhian M. Touyz's lab in Ottawa, Canada. My Ph.D. findings resulted in multiple publications including JMCC and Clinical Science. Following my graduation, I joined Dr. Eric Belin de Chantemele's laboratory in the Department of Physiology at Augusta University in the USA. There, I investigated the connection between neuroscience and blood pressure regulation, with a focus on Ptp1b in pro-opiomelanocortin (POMC) neurons. Our data generated multiple publications (Pharm Res, 2015 and Clin Sci, 2016) and awards from APS and ASPET.

In 2015, due to family obligations, I returned to Brazil, where I received independent funding to study aldosteronism-associated hypertension and vascular injury. This research led to a publication in the renowned cardiovascular journal, Circulation, 2016.

In 2016, I rejoined Dr. Belin de Chantemele's lab to explore the role of adipose tissue in blood pressure regulation and vascular biology. Our work led to several publications, including articles in Hypertension (2019) and JAHA (2020). As a postdoctoral researcher, I was awarded an NIH-K99 grant. In 2019, I transitioned to an assistant professor position in the Department of Pediatrics at the University of Pittsburgh, where I remained until June 2024. In July 2024, I moved to the University of South Alabama as an assistant professor in the Department of Physiology & Cell Biology.

As a principal investigator, my lab focuses on exploring the interactions between vascular and immune cells in the context of vasculitis, hypertension, and associated end-organ damage. Our recent publications include studies in *Vascular Pharmacology* (2021), *Biochemical Pharmacology* (2022), *Shock* (2023), *Bioscience Reports* (2023), *Biomedicine and Pharmacotherapy* (2023), *JAHA* (2023), *AJP Endocrinology & Metabolism* (2024a, b), and *Hypertension* (2024). As a mentor, I am proud that our lab has successfully guided trainees in reaching their career goals, with many advancing to fellowships, PI positions, or transitioning into industry. Our lab is also well-funded, including support from an R01 grant from NHLBI.

Active and recently completed projects that I would like to highlight include:

R01HL169202

09/204-08/2025

Bruder-Nascimento (PI)

Molecular mechanisms of progranulin as a regulator of endothelial biology and blood pressure control

CDA-AHA-857268

08/21-07/2024

Bruder-Nascimento (PI)

Progranulin on Kawasaki's disease -induced vascular damage.

R00HL140139

09/19-08/2023

Bruder-Nascimento (PI)

Leptin, a therapeutic avenue for the treatment of vascular disease, focus on congenital and antiretroviral therapy-associated lipodystrophies.

B.

the effects of chronic stress and a high-fat diet on cardiovascular function and blood pressure control. During this period, I had the privilege of being mentored by distinguished Brazilian cardiologist, Dr. Cicogna, who contributed to the design and interpretation of my cardiac-related experiments. My dissertation work resulted in several publications and national awards.

- a. **Bruder-Nascimento T**, Campos DH, Cicogna AC, Cordellini S. Chronic stress improves NO- and Ca²⁺ flux-dependent vascular function: a pharmacological study. Arq Bras Cardiol. 2015;104(3):226-33. PubMed PMID: [25884770](#);
- b. **Bruder-Nascimento T**, Campos DH, Leopoldo AS, Lima-Leopoldo AP, Okoshi K, Cordellini S, Cicogna AC. Chronic stress improves the myocardial function without altering L-type Ca²⁺ channel

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cells from aldosteronism patients exhibit an exacerbated NLRP3 inflammasome activation. This work earned me the Young Investigator Award at the 41st International Aldosterone Conference and was published in the highly regarded journal, Circulation.

- a. **Bruder-Nascimento T**, Ferreira NS, Zanotto CZ, Ramalho F, Pequeno IO, Olivon VC, Neves KB, Alves-Lopes R, Campos E, Silva CA, Fazan R, Carlos D, Mestriner FL, Prado D, Pereira FV, Braga T, Luiz JP, Cau SB, Elias PC, Moreira AC, Câmara NO, Zamboni DS, Alves-Filho JC, Tostes RC. NLRP3 Inflammasome Mediates Aldosterone-Induced Vascular Damage. Circulation. 2016 6;134(23):1866-1880. PMID: [27803035](#)
- b. Teixeira LB, Parreiras-E-Silva LT, **Bruder-Nascimento T**, Duarte DA, Simões SC, Costa RM, Rodrigues AD, Ferreira DC, Silva AC, Azeiteiro AP, EP, SMC, ENB, B773e(s)g(0-Tc)0Body3/2611948518CTw

