Marcelo de Oliveira Dietrich, M.D., Ph.D.

Professor of Comparative Medicine and of Neuroscience
Robert T. McCloskey Scholar
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EDUCATION AND DEGREES:

2007 **Doctor of Medicine** (M.D.), December 2007
Universidade Federal do Rio Grande do Sul, Porto Alegre, RS, Brazil

2012 **Doctor of Philosophy in Biochemistry** (Ph.D.), January 2012
Universidade Federal do Rio Grande do Sul, Porto Alegre, RS, Brazil

POSITIONS AND EMPLOYMENT:

2007-2008 **Clinician**
Worked as a licensed clinician in the Brazilian health care system.

2014-2020 **Assistant Professor of Comparative Medicine and of Neuroscience**
Yale University School of Medicine.

2020-2021 **Associate Professor of Comparative Medicine and of Neuroscience**
Yale University School of Medicine.

2022-2023 **Associate Visiting Professor (on Sabbatical)**
Rockefeller University (Kavli NSI).

2023-2025 **Associate Professor (tenured) of Comparative Medicine and of Neuroscience**
Yale University School of Medicine.

07/2025- **Professor of Comparative Medicine and of Neuroscience**
Yale University School of Medicine.

OTHER PROFESSIONAL ACTIVITIES:

2014-present **Faculty Member**
Center for Molecular and Systems Metabolism (former Program in Integrative Cell Signaling and Neurobiology of Metabolism), Yale University.

2015- present **Founder and Director**
Iniciativa Proxima (www.iniciativa-proxima.org).

2016-2021 **Lecturer**
Yale University School of Drama.

ACADEMIC TRAINING:

2000-2007 **Doctor in Medicine**
Universidade Federal do Rio Grande do Sul, Porto Alegre, RS, Brazil.
Includes a break in medical school for scientific training at the Cajal Institute, Madrid, Spain, from January 2004 to August 2005.

2003 **Summer student**
National Institute of Neurological Disorders and Stroke, Bethesda, MD, USA.
Laboratory: Thomas S. Reese.

2004-2005 **Research assistant**
Cajal Institute, Madrid, Spain.
Advisor: Ignacio Torres-Aleman.

2005-2006 **Visiting Medical Student**
Yale NH Hospital and Yale School of Medicine, New Haven, CT, USA.

2008-2012 **Ph.D. Candidate in Biochemistry**
Department of Biochemistry, Universidade Federal do Rio Grande do Sul, Porto Alegre, RS, Brazil. Advisor: Diogo O. Souza.

2008 **Summer student**
Course in Theoretical Neuroscience, Max-Plank Institute, Frankfurt, Germany.

2012-2014 **Postdoctoral Fellow**
Young Talent Award Fellowship, Science Without Borders program, CNPq, Brazil.
Yale University School of Medicine, New Haven, CT, USA.
Advisor: Tamas L. Horvath.

2022-2023 **Kavli Neural Systems Institute Visiting Associate Professor**
On sabbatical leave, Rockefeller University, New York, NY, USA.

HONORS AND AWARDS:

2006 **Cristália Award for Research**, Brazil.

2008 **PENS Summer School Award**, Max-Plank Institute, Frankfurt, Germany.

2009 **OROBOROS Scholarship**, Austria.

2009 **Keystone Symposia Scholarship**.

2009 **Latin American Young Talent Award in Life Sciences**, GE Healthcare and SBBq.

2012 **Junior Member**, Brazilian Academy of Sciences.

2014 **NARSAD Young Investigator Award**, Brain & Behavior Research Foundation.

2014 **Scholar Award**, Yale Center for Clinical Investigation (YCCI).

2015 **Young Talent Award**, Science Without Borders, CNPq, Brazil.

2017 **CSURM Fellowship**, Gordon Research Conference.

2017 **Early Career Investigator Award**, Keystone Symposia.

2017 **Freedman Prize** (Honorable Mention), Brain & Behavior Research Foundation.

2019 **Reginald and Michiko Spector Award in Neuroscience**, Yale School of Medicine.

2020 **CAPES Thesis Prize (advisor).**

2021 **Odyssey Award**, Smith Family Foundation.

2024 **Robert T. McCloskey Scholar**, Yale School of Medicine

ACADEMIC AND RESEARCH SUPPORT:

Fellowships and awards:

2001-2003 Fellowship for undergraduate science studies, FAPERGS.

2006-2007 Fellowship for undergraduate science studies, CAPES.

2012-2014 Postdoctoral Fellowship, CNPq.

2014-2018 Young Talent Award Fellowship, CNPq.

2022-2023 Kavli Neural Systems Institute, Rockefeller University (Sabbatical fellowship).

2024-2027 Robert T. McCloskey Scholar, Yale School of Medicine

Active funding:

2020-2025 (PI) National Institutes of Mental Health
R01: Dissecting the modulatory function of hypothalamic neurons in the temporarily restricted emission of vocalizations by neonatal mice.

2022-2027 (MPI) National Institutes of Mental Health
R01: Dysregulation of the opioid system in early life adversity (Co-PI: Arie Kaffman)

2024-2025 (PI) Food Allergy Science Initiative
Fasting-induced suppression of food allergy.

2024-2026 (PI) Yale School of Medicine
Robert T. McCloskey Scholar Award.

2025-2027 (PI) National Institutes of Mental Health (NIH R21MH138997)
R21: Cellular and circuit investigation of age-dependent social behaviors.

2025-2026 (PI) Food Allergy Science Initiative
Neuro-immune mechanisms involved in behavioral and physiological responses to food allergens

Pending funding:

2026-2030 (PI) National Institutes of Mental Health (NIH R01MH142603)

Title: Regulation of infant social behaviors and learning by the zona incerta.
Impact score: 25; Percentile: 7

2026-2030 (PI) National Institutes of Mental Health (NIH 1R01MH142819)
Title: Neural mechanisms of social homeostasis in adolescence.
Impact score: 32; Percentile: 11

2026-2030 (MPI) National Institute of Allergy and Infectious Diseases (NIH R01AI194235)
Title: Gut-brain contributions to food allergy responses.
Pending review

Awarded but declined funding:

2021-2025 (PI) European Research Council, Starting Grant

Completed funding:

2020-2024 (PI) FASI/FARE/BROAD Institute Consortium
Untangling neuroimmune communications in food allergy (Co-PI: Ruslan Medzhitov).

2021-2024 (PI) Smith Family Foundation, Odyssey Award
Opioid-Producing Neurons that Mediate the Attachment of Infants to their mothers.

2020-2023 (Co-PI) Chan Zuckerberg Initiative, Single-Cell Analysis of Inflammation
Convergent and divergent features of meta-inflammatory processes; project in collaboration with Noah Palm and Andrew Wang.

2019-2022 (Co-PI) Gilliam Fellowship for Advanced Studies, HHMI
Student-advisor award for graduate studies.

2019-2021 (PI) Foundation for Prader-Willi Research
The functional development of hunger neurons in Prader-Willi syndrome

2018-2021 (Co-PI) General Program for International Collaboration, CAPES
Neuroendocrine mechanisms involved in metabolism and behavior control

2019-2020 (PI) Reginald and Michiko Spector Award in Neuroscience
Endowed funds from Yale University School of Medicine

2015-2020 (PI) National Institute of Diabetes and Digestive and Kidney Diseases
R01: The Intracellular Dynamics of AGRP Neurons under Different Metabolic Conditions

2015-2019 (PI) CAPES (88881.068059/2014-01)
Interoceptive hypothalamic neurons as critical mediators of cognitive outputs

2015-2018 (PI) Research Grant, Whitehall Foundation
Dissecting interoceptive circuits critical for cognitive outputs

2016-2018 (PI) Pilot Grant, Yale Diabetes Research Center (P30 DK045735)
Role of Agrp neurons in exercise-induced physiological adaptations

2015-2017 (PI) NARSAD Young Investigator Award, BBRF

Interplay between sustained activation of Agrp neurons and DA signaling in the etiology of anorexia nervosa

2015-2017 (PI) Child Health Research Award, Charles H. Hood Foundation
Hypothalamic circuits underlying brain development during childhood

2014-2016 (PI) Yale Center for Clinical Investigation Scholar Award
Hunger-promoting AGRP neurons and their cellular substrates in the etiology of anorexia nervosa

2013-2016 (PI) CNPQ (487096/2013-4)
Hypothalamic regulation of cognitive functions and development of a new platform for analyzes of complex behaviors in animal models

2016-2017 (Co-PI) Pilot Grant, Modern Diet, and Physiology Research Center
Uncovering a novel circuit linking neurons encoding homeostatic needs to motor output areas in the brainstem

2012-2016 (Co-I) CNPQ (401476/2012-0; PI: Souza)
Hypothalamic regulation of schizophrenia-like phenotypes in mice

UNIVERSITY SERVICE:

2014-2023 **Organizer**. Organization Psychology Workshop for Junior Faculty Development.

2015 **Co-organizer**. Yale Junior Faculty Retreat. October 20, 2015.

2015 **Junior Faculty Representative** for the Yale School of Medicine accreditation by the Liaison Committee for Medical Education (LCME) team. October 27, 2015.

2017-2018 **Program developer**, actively participated in bringing the Course in Laboratory Management for Group Leader to Yale University School of Medicine.

2014-2018 **Program developer,** conceived and created the CAPES-Yale Scholars Program in Biomedical Sciences, a Ph.D. program in Biomedical Sciences at Yale University targeted to Brazilian students.

2018-2020 **Admissions Committee**, CAPES-Yale Scholars Program in Biomedical Sciences.

2019-2020 **Faculty Advisory Committee**, Center for Collaborative Arts and Media.

2020-present **Admissions Committee**, Yale University Interdepartmental Neuroscience Program.

2020 **Organizer**. Rock the Room Workshop with Victoria Labalme.

2021 **Committee Member**, Yale School of Medicine Science Fellows program working group.

2021 **Committee Member**, Neuroscience Chair Search, Yale School of Medicine.

2021-2022 **Member,** Working Group for Self and Society Initiative, Wu Tsai Institute, Yale University.

2023 **Committee Member**, Genetics Chair Search, Yale School of Medicine.

2024 **Committee Member**, Neurology Chair Search, Yale School of Medicine.

EDITORIAL BOARD:

2012-2018 **Associate Editor**, Molecular Metabolism.

2015-2019 **Review Editor**, Molecular and Structural Endocrinology (Frontiers Editorial Board).

2018-2020 **Review Editor**, Frontiers in Integrative Neuroscience.

2022-2025 **Editorial Board**, American Journal of Physiology-Endocrinology and Metabolism

REVIEWER:

Peer Review Groups, Panels, and Grant Study Sections:

2012-2013 Auckland Medical Research Foundation, New Zealand.
2012, 2017 French National Research Agency, France.
2014 National Science Foundation, United States.
2015 BBSRC, United Kingdom.
2016 Institute for Advanced Study, Germany.
2016 Alzheimer's Association.
2016, 2018, 2019 Millennium Science Initiative, Chile.
2016 Marsden Fund, Royal Society of New Zealand.
2016, 2019 Medical Research Council, United Kingdom.
2018 ETH Zurich Research Commission.
2019 Foundation for Prader-Willi Research.
2019 Austrian Science Fund.
2020, 2021 Israel Science Foundation.
2020 Molecular, Cellular, and Behavior Neuroscience Fellowship Study Section (NIH)
[ZRG1 F02C-A(20)] The F2C-A(20) Study Section reviews fellowship applications (F30, F31, F32) for NINDS, NIMH, NIDA, NIA, and three other institutes.
2020 Learning and Memory (LAM) Study Section (NIH)
2021 HHMI, Gilliam Fellowships.
2021 Special Panel ZRG1 IFCN-U (02) Study Section (NIH)
2024 International OCD Foundation
2024 Learning, Memory and Decision Neuroscience (LMDN) Study Section (NIH)

BIBLIOGRAPHY AND CITATIONS (from the most recent to the oldest):

Google Scholar: goo.gl/W7deTY

PubMed: goo.gl/eUG4nW

My Bibliography: goo.gl/AzuXQM

PREPRINT MANUSCRIPTS:

1. MacDowell Kaswan, ZA; Bowers, C; Teplyakov, I; Munoz-Martin, J; Ahmed, S; Kaffman, L; Giuliano, L; **Dietrich, MO**; Kaffman, A. Erratic Maternal Care Induces Avoidant-Like Attachment Deficits in a

Mouse Model of Early Life Adversity. *bioRxiv* 2025.06.13; doi: https://doi.org/10.1101/2025.06.13.659607

2. Iyilikci, O; Kim, L; Zimmer, MR; Bober, J; Li, Y; Pelts, M; Santana, GM; **Dietrich, MO**. Age-specific regulation of sociability by hypothalamic Agrp neurons. *bioRxiv* 2025.05.05.652061; doi: https://doi.org/10.1101/2025.05.05.652061 (published in *Current Biology*)
3. Santana, GM, **Dietrich, MO**. SqueakOut: Autoencoder-based segmentation of mouse ultrasonic vocalizations. *bioRxiv* 2024.04.19.590368; doi: https://doi.org/10.1101/2024.04.19.590368
4. Florsheim EB, Bachtel ND, Cullen J, Lima BGC, Godazgar M, Zhang C, Carvalho F, Gautier G, Launay P, Wang A, **Dietrich MO**, Medzhitov R. Immune sensing of food allergens promotes aversive behaviour. *bioRxiv*. 2023 Jan 20:2023.01.19.524823. doi: 10.1101/2023.01.19.524823. PMID: 36712030. (published in *Nature*).
5. Bosque Ortiz GM, **Dietrich MO**. POMC neurons modulate infant vocalizations through opioid signaling. *bioRxiv* 2022.08.15.504046; doi: https://doi.org/10.1101/2022.08.15.504046
6. Bosque Ortiz GM, Santana GM, **Dietrich MO**. Deficiency of the paternally inherited gene Magel2 alters the development of separation-induced vocalization in mice. *bioRxiv* 2021; doi: https://doi.org/10.1101/2021.04.01.438102 (published in *Genes, Brain, and Behavior*).
7. Ryu S, Shchukina I, Youm Y-H, Qing H, Hilliard BK, Dlugos T, Zhang X, Yasumoto Y, Booth CJ, Fernández-Hernando C, Suárez Y, Khanna KM, Tamas L. Horvath, **Dietrich MO**, Artyomov MN, Wang A, Dixit VD. Ketogenesis restrains aging-induced exacerbation of COVID in a mouse model. *bioRxiv* 2020.09.11.294363; doi: https://doi.org/10.1101/2020.09.11.294363. PMID: 33236006 (published in *eLife*).
8. Fonseca AHO, Santana GM, Bampi S, **Dietrich MO**. Analysis of ultrasonic vocalizations from mice using machine learning. *bioRxiv*. 2020; doi: https://doi.org/10.1101/2020.05.20.105023. (published in *eLife*).
9. Albuquerque JP, Zimmer MR, Bober J, **Dietrich MO**. Rapid shift in substrate utilization driven by hypothalamic Agrp neurons. *bioRxiv*. 2016 Nov 086348; doi: http://dx.doi.org/10.1101/086348. (published in *Nature Communications*)

PEER-REVIEWED ARTICLES:

1. Iyilikci, O; Kim, L; Zimmer, MR; Bober, J; Li, Y; Pelts, M; Santana, GM; **Dietrich, MO**. Age-specific regulation of sociability by hypothalamic Agrp neurons. *Current Biology*. 2025. In press.
2. Li Y, Liu ZW, Santana GM, Capaz AM, Doumazane E, Gao XB, Renier N, **Dietrich MO**. Neurons for infant social behaviors in the mouse zona incerta. *Science*. 2024 Jul 26;385(6707):409-416. doi: 10.1126/science.adk7411. PMID: 39052814
3. Florsheim EB, Bachtel ND, Cullen J, Lima BGC, Godazgar M, Carvalho F, Chatain CP, Zimmer MR, Zhang C, Gautier G, Launay P, Wang A, **Dietrich MO**, Medzhitov R. Immune sensing of food allergens promotes avoidance behaviour. *Nature*. 2023 Jul 12. doi: 10.1038/s41586-023-06362-4.

PMID: 37437602

4. Stutz B, Waterson MJ, Šestan-Peša M, **Dietrich MO**, Škarica M, Sestan N, Racz B, Magyar A, Sotonyi P, Liu ZW, Gao XB, Matyas F, Stoiljkovic M, Horvath TL. AgRP neurons control structure and function of the medial prefrontal cortex. *Mol Psychiatry*. 2022 Jul 29. doi: 10.1038/s41380-022-01691-8. PMID: 35906488

5. Bosque Ortiz GM, Santana GM, **Dietrich MO**. Deficiency of the paternally inherited gene Magel2 alters the development of separation-induced vocalization and maternal behavior in mice. *Genes, Brain, and Behavior*. 2022 Jan;21(1):e12776. doi: 10.1111/gbb.12776. PMID: 34812568

6. Ryu S, Shchukina I, Youm YH, Qing H, Hilliard B, Dlugos T, Zhang X, Yasumoto Y, Booth CJ, Fernández-Hernando C, Suárez Y, Khanna K, Horvath TL, **Dietrich MO**, Artyomov M, Wang A, Dixit VD. Ketogenic diet restrains aging-induced exacerbation of coronavirus infection in mice. *elife*. 2021 Jun 21;10:e66522. doi: 10.7554/eLife.66522. PMID: 34151773

7. Han Y, Xia G, Srisai D, Meng F, He Y, Ran Y, He Y, Farias M, Hoang G, Tóth I, **Dietrich MO**, Chen MH, Xu Y, Wu Q. Deciphering an AgRP-serotoninergic neural circuit in distinct control of energy metabolism from feeding. *Nature Communications***.** 2021 Jun 10;12(1):3525. doi: 10.1038/s41467-021-23846-x. PMID: 34112797

8. Fonseca AHO, Santana GM, Bosque Ortiz GM, Bampi S, **Dietrich MO**. Analysis of ultrasonic vocalizations from mice using computer vision and machine learning. *eLife* 2021 Mar 31;10:e59161. doi: 10.7554/eLife.59161. PMID: 33787490

9. Miletta MC, Iyilikci O, Shanabrough M, Šestan-Peša M, Cammisa A, Zeiss CJ, **Dietrich MO**, Horvath TL. AgRP neurons control compulsive exercise and survival in an activity-based anorexia model. *Nature Metabolism*. 2020 Nov;2(11):1204-1211. doi: 10.1038/s42255-020-00300-8. PMID: 33106687

10. Zimmer MR, Fonseca AF, İyilikci O, Dai Pra R, **Dietrich MO**. Functional ontogeny of hypothalamic Agrp neurons in neonatal mouse behaviors. *Cell*. 2019 June 27. doi: 10.1016/j.cell.2019.04.026

11. Albuquerque JP, Zimmer MR, Bober J, **Dietrich MO**. Regulation of substrate utilization and adiposity by Agrp neurons. *Nature Communications*. 2019 Jan 18;10(1):311. doi: 10.1038/s41467-018-08239-x. PMID: 30659173.

12. Zimmer MR, Schmitz AE, **Dietrich MO**. Activation of Agrp neurons modulates memory-related cognitive processes in mice. *Pharmacological Research*. 2019 Jan 2;141:303-309. doi: 10.1016/j.phrs.2018.12.024. PMID: 30610962.

13. Suyama S, Ralevski A, Liu ZW, **Dietrich MO**, Yada T, Simmonds SE, Cowley MA, Gao XB, Diano S, Horvath TL. Plasticity of calcium-permeable AMPA receptors in POMC neurons. *Elife*. 2017 Aug 1;6. PMID: 28762946.

14. Pereira MMA, Mahú I, Seixas E, Martinéz-Sánchez N, Kubasova N, Pirzgalska RM, Cohen P, **Dietrich MO**, López M, Bernardes GJL, Domingos AI. A brain-sparing diphtheria toxin for chemical genetic

ablation of peripheral cell lineages. *Nature Communications*. 2017 May 17;8:15673. PMID: 28367972.

15. Kim JG, Sun BH, **Dietrich MO**, Koch M, Yao GQ, Diano S, Insogna K, Horvath TL. AgRP Neurons Regulate Bone Mass. *Cell Rep*. 2015 Oct 6;13(1):8-14. PMID: 26411686.
16. **Dietrich MO**, Zimmer MR, Bober J, Horvath TL. Hypothalamic Agrp neurons drive stereotypic behaviors beyond feeding. *Cell*. 2015 March 12; 160(6):1222-1232. Featured article. PMID: 25748653.
17. Koch M, Varela L, Kim JG, Kim JD, Hernandez F, Simonds SE, Castorena CM, Vianna CR, Elmquist JK, Morozov YM, Rakic P, Bechmann I, Cowley MA, Szigeti-Buck K, **Dietrich MO**, Gao X-B, Diano S, Horvath TL. Hypothalamic POMC neurons promote cannabinoid-induced feeding. *Nature*. 2015 Mar 5;519(7541):45-50. PMID: 25707796.
18. Ruan HB, **Dietrich MO**, Liu ZW, Zimmer MR, LI MD, Singh JP, Zhang K, Wu J, Horvath TL, Yang X. O-GlcNAc transferase-controlled Agrp neurons suppress browning of white fat. *Cell*. 2014 Oct 9; 159(2):306-317. PMID: 25303527.
19. Kim JG, Suyama S, Koch M, Jin S, Argente-Arizon P, Argente J, Liu ZW, Zimmer MR, Jeong JK, Szigeti-Buck K, Gao Y, Garcia-Caceres C, Yi CX, Salmaso N, Vaccarino FM, Chowen J, Diano S, **Dietrich MO**, Tschöp MH, Horvath TL‡. Leptin signaling in astrocytes regulates hypothalamic neuronal circuits and feeding. *Nature Neuroscience*. 2014 Jul;17(7):908-10. PMID: 24880214.
20. Domingos AI, Sordillo A, **Dietrich MO**, Liu ZW, Tellez L, Vaynshteyn J, Ferreira J, Ekstrand MI, Horvath TL, de Araujo IE, Friedman J. Hypothalamic MCH neurons mediate the nutrient value of sugar. *eLife* 2013 Dec 31;2(0):e01462. PMID: 24381247.
21. **Dietrich MO**, Liu Z-W, Horvath TL. (2013) Mitochondrial dynamics controlled by mitofusins regulate Agrp neuronal activity and diet-induced obesity. *Cell*. 2013 Sep 26;155(1):188-99. Journal Cover. PMID: 24074868.
22. Schneeberger M, **Dietrich MO**, Sebastián D, Imbernón M, Castaño C, Garcia A, Esteban Y, Gonzalez-Franquesa A, Castrillón Rodríguez I, Bortolozzi A, Garcia-Roves PM, Gomis R, Nogueiras R, Horvath TL, Zorzano A, Claret M (2013) Mitofusin 2 in POMC Neurons Connects ER Stress with Leptin Resistance and Energy Imbalance. *Cell*. 2013 Sep 26;155(1):172-87. Journal Cover. PMID: 24074867.
23. Hess ME, Hess S, Meyer KD, Verhagen LA, Koch L, Brönneke HS, **Dietrich MO**, Jordan SD, Saletore Y, Elemento O, Belgardt BF, Franz T, Horvath TL, Rüther U, Jaffrey SR, Kloppenburg P, Brüning JC. The fat mass and obesity associated gene (Fto) regulates activity of the dopaminergic midbrain circuitry. *Nature Neuroscience*. 2013 Aug;16(8):1042-8. PMID: 23817550.
24. Matarese G, Procaccini C, Menale C, Kim JG, Kim JD, Diano S, Diano N, De Rosa V, **Dietrich MO**, Horvath TL. Hunger-promoting hypothalamic neurons modulate effector and regulatory T-cell responses. *Proc Natl Acad Sci U S A*. 2013 Apr 9;110(15):6193-8.

25. Muller AP, **Dietrich MO**, de Assis AM, Souza DO, Portela LV. High saturated fat and low carbohydrate diet decreases lifespan independent of body weight in mice. *Longevity & Healthspan* 2013 Jun 3;2(1):10. PMID: 24472284.

26. Fuente-Martín E, García-Cáceres C, Granado M, de Ceballos ML, Sánchez-Garrido MÁ, Sarman B, Liu ZW, **Dietrich MO**, Tena-Sempere M, Argente-Arizón P, Díaz F, Argente J, Horvath TL, Chowen JA. Leptin regulates glutamate and glucose transporters in hypothalamic astrocytes. *J Clin Invest*. 2012 Nov 1;122(11):3900-13.

27. Horvath TL, Abizaid A, **Dietrich MO**, Li Y, Takahashi JS, Bass J. Ghrelin-labeled hypothalamic neurons tie the circadian clock and visual system to the lateral hypothalamic arousal center. *Molecular Metabolism*. 2012. Aug 18;1(1-2):79-85.

28. Simon-Areces J, **Dietrich MO**, Hermes G, Garcia-Segura LM, Arevalo MA, Horvath TL. UCP2 induced by natural birth regulates neuronal differentiation of the hippocampus and related adult behavior. *PLoS One*. 2012;7(8):e42911.

29. **Dietrich MO**, Bober J, Ferreira JG, Tellez LA, Mineur Y, Souza DO, Gao XB, Picciotto M, Liu ZW, Horvath TL. AgRP neurons regulate development of dopamine neuronal plasticity and non food-associated behaviors. *Nature Neuroscience*. 2012 Jun 24;15(8):1108-10.

30. Coupé B, Ishii Y, **Dietrich MO**, Komatsu M, Horvath TL, Bouret SG. Loss of Autophagy in Pro-opiomelanocortin Neurons Perturbs Axon Growth and Causes Metabolic Dysregulation. *Cell Metabolism*. 2012 Feb 8;15(2):247-55.

31. Thaler JP, Yi CX, Schur EA, Guyenet SJ, Hwang BH, **Dietrich MO**, Zhao X, Sarruf DA, Izgur V, Maravilla KR, Nguyen HT, Fischer JD, Matsen ME, Wisse BE, Morton GJ, Horvath TL, Baskin DG, Tschöp MH, Schwartz MW. Obesity is associated with hypothalamic injury in rodents and humans. *J Clin Invest*. 2012 Jan 3;122(1):153-62.

32. Diano S, Liu ZW, Jeong JK, **Dietrich MO**, Ruan H, Kim E, Suyama S, Kelly K, Gyengesi E, Arbiser JL, Belsham DD, Sarruf DA, Schwartz MW, Bennet A, Shanabrough M, Mobbs CV, Yang X, Gao XB, Horvath TL. Peroxisome proliferation-related hypothalamic control of ROS sets melanocortin tone and feeding in diet-induced obesity. *Nature Medicine*. 2011 Aug 28;17(9):1121-7.

33. **Dietrich MO**, Antunes C, Geliang G, Liu ZW, Borok E, Nie Y, Xu AW, Souza DO, Gao Q, Diano S, Gao XB, Horvath TL. Agrp neurons mediate Sirt1's action on the melanocortin system and energy balance: roles for Sirt1 in neuronal firing and synaptic plasticity. *J Neurosci*. 2010. Sep 1;30(35):11815-25.

34. Maejima Y, Sedbazar U, Suyama S, Kohno D, Onaka T, Takano E, Yoshida N, Koike M, Uchiyama Y, Fujiwara K, Yashiro T, Horvath TL, **Dietrich MO**, Tanaka S, Dezaki K, Oh-I S, Hashimoto K, Shimizu H, Nakata M, Mori M, Yada T. Nesfatin-1-regulated oxytocinergic signaling in the paraventricular nucleus causes anorexia through a leptin-independent melanocortin pathway. *Cell Metabolism*. 2009 Nov;10(5):355-65.

35. Nie Y, Erion DM, Yuan Z, **Dietrich MO**, Shulman GI, Horvath TL, Gao Q. STAT3 inhibition of gluconeogenesis is downregulated by SirT1. *Nat Cell Biol*. 2009 Apr;11(4):492-500.

36. **Dietrich MO**, Andrews ZB, Horvath TL. Exercise-induced synaptogenesis in the hippocampus is dependent on UCP2-regulated mitochondrial adaptation. *J Neurosci*. 2008 Oct 15;28(42):10766-71.

37. **Dietrich MO**, Spuch C, Antequera D, Rodal I, de Yébenes JG, Molina JA, Bermejo F, Carro E. Megalin mediates the transport of leptin across the blood-CSF barrier. *Neurobiol Aging*. 2008 Jun;29(6):902-12.

38. Muller AP, Cammarota M, **Dietrich MO**, Rotta LN, Portela LV, Souza DO, Izquierdo I, Bevilaqua LR, Perry ML. Different effect of high fat diet and physical exercise in the hippocampal signaling. *Neurochem Res*. 2008 May;33(5):880-5.

39. **Dietrich MO**, Muller A, Bolos M, Carro E, Perry ML, Portela LV, Souza DO, Torres-Aleman I. Western style diet impairs entrance of blood-borne insulin-like growth factor-1 into the brain. *Neuromolecular Med*. 2007;9(4):324-30.

40. Lopez-Lopez C, **Dietrich MO**, Metzger F, Loetscher H, Torres-Aleman I. Disturbed cross talk between insulin-like growth factor I and AMP-activated protein kinase as a possible cause of vascular dysfunction in the amyloid precursor protein/presenilin 2 mouse model of Alzheimer's disease. *J Neurosci*. 2007 Jan 24;27(4):824-31.

41. Machado-Vieira R, **Dietrich MO**, Leke R, Cereser VH, Zanatto V, Kapczinski F, Souza DO, Portela LV, Gentil V. Decreased plasma brain derived neurotrophic factor levels in unmedicated bipolar patients during manic episode. *Biol Psychiatry*. 2007 Jan 15;61(2):142-4.

42. **Dietrich MO**, Mantese CE, Porciuncula LO, Ghisleni G, Vinade L, Souza DO, Portela LV. Exercise affects glutamate receptors in postsynaptic densities from cortical mice brain. *Brain Res*. 2005 Dec 14;1065(1-2):20-5.

43. **Dietrich MO**, Mantese CE, Anjos G, Souza DO, Farina M. Motor impairment induced by oral exposure to methylmercury in adult mice. *Environmental Toxicology and Pharmacology*. 2005 Jan; 19(1):169-175.

44. **Dietrich MO**, Mantese CE, Dos Anjos GM, Rotta LN, Perry ML, Souza DO, Lara DR. Increased locomotor response to amphetamine, but not other psychostimulants, in adult mice submitted to a low-protein diet. *Physiol Behav*. 2004 Oct 30;83(1):129-33.

45. Tort AB, Mantese CE, dos Anjos GM, **Dietrich MO**, Dall'Igna OP, Souza DO, Lara DR. Guanosine selectively inhibits locomotor stimulation induced by the NMDA antagonist dizocilpine. *Behav Brain Res*. 2004 Oct 5;154(2):417-22.

46. **Dietrich MO**, Tort AB, Schaf DV, Farina M, Gonçalves CA, Souza DO, Portela LV. Increase in serum S100B protein level after a swimming race. *Can J Appl Physiol*. 2003 Oct;28(5):710-6.

47. Tort AB, **Dietrich MO**, Gonçalves CA, Souza DO, Portela LV. Influence of anticoagulants on the measurement of S100B protein in blood. *Clin Biochem*. 2003 Oct;36(7):519-22.

48. Farina M, Frizzo ME, Soares FA, Schwalm FD, **Dietrich MO**, Zeni G, Rocha JB, Souza DO. Ebselen protects against methylmercury-induced inhibition of glutamate uptake by cortical slices from adult mice. *Toxicol Lett*. 2003 Oct 15;144(3):351-7.

49. Lourenço Da Silva A, Hoffmann A, **Dietrich MO**, Dall'Igna OP, Souza DO, Lara DR. Effect of riluzole on MK-801 and amphetamine-induced hyperlocomotion. *Neuropsychobiology*. 2003;48(1):27-30.

50. Dall'Igna OP, Da Silva AL, **Dietrich MO**, Hoffmann A, de Oliveira RV, Souza DO, Lara DR. Chronic treatment with caffeine blunts the hyperlocomotor but not cognitive effects of the N-methyl-D-aspartate receptor antagonist MK-801 in mice. *Psychopharmacology* (Berl). 2003 Mar;166(3):258-63.

51. Coitinho AS, **Dietrich MO**, Hoffmann A, Dall'Igna OP, Souza DO, Martins VR, Brentani RR, Izquierdo I, Lara DR. Decreased hyperlocomotion induced by MK-801, but not amphetamine and caffeine in mice lacking cellular prion protein (PrP(C)). *Brain Res Mol Brain Res*. 2002 Nov 15;107(2):190-4.

52. Dall'Igna OP, **Dietrich MO**, Hoffmann A, Neto W, Vendite D, Souza DO, Lara DR. Catalepsy and hypolocomotion induced by a nitric oxide donor: attenuation by theophylline. *Eur J Pharmacol*. 2001 Nov 30;432(1):29-33.

REVIEW ARTICLES (Peer-Reviewed):

53. Leao DL, Duque A, **Dietrich MO.** What makes each of us unique? The nine-banded armadillo as a model to study individuality. *Front. Mamm. Sci*., 02 September 2024. doi: https://doi.org/10.3389/fmamm.2024.1450655

54. İyilikci O, Zimmer MR, **Dietrich MO**. Development of "hunger neurons" and the unanticipated relationship between energy metabolism and mother-infant interactions. *Biological Psychiatry*. 2022. doi.org/10.1016/j.biopsych.2022.02.962. PMID: 35397878

55. **Dietrich MO**, Horvath TL. Hypothalamic control of energy balance: insights into the role of synaptic plasticity. *Trends Neurosci*. 2013 Feb;36(2):65-73.

56. **Dietrich MO**, Horvath TL. Neuroendocrine Regulation of Energy Metabolism. *Endocrinol Metab*. 2012 Dec;27(4):268-273.

57. **Dietrich MO**, Horvath TL. Limitations in anti-obesity drug development: a critical role of hunger-promoting neurons in integrative physiology. *Nat Rev Drug Discov*. 2012 Sep;11(9):675-91. Journal Cover.

58. Nogueiras R, Habegger KM, Chaudhary N, Finan B, Banks AS, **Dietrich MO**, Horvath TL, Sinclair DA, Pfluger PT, Tschöp MH. Sirtuin 1 and sirtuin 3: physiological modulators of metabolism. *Physiol Rev*. 2012 Jul;92(3):1479-514.

59. **Dietrich MO**, Horvath TL. The role of mitochondrial uncoupling proteins in lifespan. *Pflugers Arch*. 2010 Jan;459(2):269-75.

60. **Dietrich MO**, Horvath TL. Feeding signals and brain circuitry. *Eur J Neurosci*. 2009 Nov;30(9):1688-96.

EDITORIALS:

61. Iyilikci O, **Dietrich MO**. Preparatory neurons for building a nest. Neuron. 2022 Apr 20;110(8):1283-1285. doi: 10.1016/j.neuron.2022.03.023. PMID: 35447098
62. **Dietrich MO**. Visualizing browning in vivo. *Molecular Metabolism*. 2013. 10.1016/j.molmet.2013.07.004.
63. **Dietrich MO**, Horvath TL. A marriage made to last in drug design. *Nature Medicine*. 2012 Dec 6; 18(12):1737-1738.
64. **Dietrich MO**, Horvath TL. Phosphoribosomes for fingerprinting neurons. *Cell*. 2012 Nov 21;151(5):934-6.
65. **Dietrich MO**, Horvath TL. Fat incites tanycytes to neurogenesis. *Nature Neuroscience*. 2012 Apr 25;15(5):651-3.
66. **Dietrich MO**, Horvath TL. AgRP neurons: The foes of reproduction in leptin-deficient obese subjects. *Proc Natl Acad Sci U S A*. 2012 Feb 21;109(8):2699-700.
67. **Dietrich MO**, Horvath TL. Synaptic plasticity of feeding circuits: hormones and hysteresis. *Cell*. 2011 Sep 16;146(6):863-5.
68. **Dietrich MO**, Horvath TL. GABA keeps up an appetite for life. *Cell*. 2009 Jun 26;137(7):1177-9.
69. **Dietrich MO**, Souza DO, Portela LV. Serum S100B protein: what does it mean during exercise? *Clin J Sport Med*. 2004 Nov;14(6):368; author reply 368-9. Comment on: Clin J Sport Med. 2003 Sep;13(5):292-302.

BOOKS:

70. **Dietrich MO**, Horvath TL. Chapter 16: Neuroendocrine Regulation of Energy Balance. In: Food and Addiction: A Comprehensive Handbook, edited by Kelly Brownell and Mark Gold. Oxford University Press. 2012.
71. **Dietrich MO**, Horvath TL. Wired for Hunger: The Brain and Obesity and Anorexia Nervosa: A Mortal Clash between Reward and Hunger. Cerebrum 2010. Dana Foundation.

OTHER PUBLICATIONS:

72. **Dietrich MO**‡, Horvath TL‡. Neural regulation of food intake and energy balance. *Nature Reviews Neuroscience***.** August 2010. http://www.nature.com/nrn/posters/feeding/nrn_feeding_poster.pdf

SOFTWARE, PATENTS, AND INVENTIONS:

1. **VocalMat:** an open-source software tool based on machine learning algorithms to detect and analyze ultrasonic vocalizations emitted by mice in an automated and high-throughput manner. www.dietrich-lab.org/vocalmat
2. **SqueakOut:** an open-source tool to segment mouse vocalizations from audio files.

EDUCATIONAL AND INTERNATIONAL ACTIVITIES

When I finished my Ph.D., I aspired to increase opportunities for young students from my native country, Brazil, to become world-class scientists. In pursuit of this goal, I created some very successful initiates that are shaping the scientific community.

I have founded and launched the *Iniciativa Proxima* (www.iniciativa-proxima.org), an organization that seeks to inspire and advance the career of talented young Brazilian scientists with an interest in the field of biological and biomedical sciences to contribute to a stronger scientific education in Brazil and build a generation of competitive scientific leaders committed to improving society and their local communities. As part of this initiative, we have launched the Yale-Proxima Mentorship Program to support students in developing the necessary skills to pursue a career in biological and biomedical sciences. In the first class (Class 2021), 95 students were selected to join the mentorship program. In the second and third classes (2022, 2023), 50 students were selected to participate in the program in each year. As an example of the impact of this initiative, several students have been admitted to some of the world's most renowned Ph.D. programs with an admission rate of more than 90%.

As part of Iniciativa Proxima, we also organize the Proxima Symposium (https://proximasymposium.org/), a scientific meeting in which world-renowned scientists visit Brazil for a multi-day event to interact with and train local students. Dozens of students from this program have already received opportunities to further their training at the world's best academic institutions. Some of these students are now building their own scientific groups in Brazil, which contributes to a more competitive scientific workforce nationally.

I also spearheaded a cooperative agreement between Yale University and the Brazilian government to create a Ph.D. training program in biomedical sciences at Yale exclusively for Brazilians. There are already two classes of students at Yale (5 in the first class, 6 in the second class). These initiatives capture one of the things that I value most, which is to educate the next generation of scientists.

ORGANIZATION OF SCIENTIFIC MEETINGS:

2014	I Advanced School in Neuroscience, Brazil.
2015	II Advanced School in Neuroscience, Brazil.
2016	Seminars in Neuroscience I, Brazil.
2017	Seminars in Neuroscience II, Brazil.
2017	Seminars in Neuroscience III, Brazil.
2018	Seminars in Biomedical Sciences, Brazil.
2019	YALE-CAPES Seminars in Biomedical Sciences, Brazil.
2023	Proxima Symposium.

Grants and financial support for scientific meetings:

2014 **CNPQ-ARC (466467/2014-1)**
Meeting: School for Advanced Studies in Neurosciences

2015 **CAPES-PAEP (333674)**
Meeting: School for Advanced Studies in Neurosciences

2015 **CAPES-EAE (EAE-2015)**

Meeting: School for Advanced Studies in Neurosciences

2016 **FAPERGS (AOE 06/2016 - 24006.395.24734.25112016)**

Meeting: Seminars in Neuroscience

2018 **CAPES-PAEP (88887.192803)**

Meeting: Seminars in Biomedical Sciences

2018 **Yale Office of International Affairs**

Meeting: Seminars in Biomedical Sciences

2019 **CAPES-PAEP (88887.360246)**

Meeting: YALE-CAPES Seminars in Biomedical Sciences

2019 **Yale Office of International Affairs**

Meeting: YALE-CAPES Seminars in Biomedical Sciences

2023 **IBRO Diversity Grant**

Meeting: Proxima Symposium

2023 **Fundraising ($25,000)**

Meeting: Proxima Symposium

SEMINARS, SYMPOSIA, AND OTHER LECTURES:

2011

1. Nanjing University, China. May 2011. Host: Qian Gao.
2. Xijing Hospital, Fourth Military Medical University, China. May 2011. Host: Hai-long Dong.
3. Dipartimento di Farmacologia Sperimentale, Universitá degli Studi di Napoli Federico II, Italy. July 2011. Host: Antonio Calignano.

2012

4. Seminar Speaker, Yale Biology of Aging Interest Group.
5. Speaker, Experimental Biology 2012. San Diego, EUA.
6. Keynote Speaker, DiabeteSul, Porto Alegre, RS, Brazil. May 2012.
7. Carleton University, Ottawa, Canada. November 2012. Host: Alfonso Abizaid.

2013

8. Nutrition, Metabolism and the Brain, Amsterdam, Netherlands. April 2013.
9. Universidade Federal do Rio de Janeiro, Brazil. May 2013. Host: Antonio Galina.
10. 73rd American Diabetes Association Scientific Sessions. Chicago, US. June 2013.
11. XXXVII Reunião Anual da Sociedade Brasileira de Neurociências e Comportamento (SBNec). Belo Horizonte, Brazil. September 2013.
12. Universidade Federal do ABC. Santo André, SP, Brazil. September 18. Host: Marcelo Caetano.
13. Weizmann Institute, Israel. October 1. Host: Tali Kimchi.
14. Cajal at Yale Symposium. Yale University. November 5-6, 2013.

2014

15. Special Seminar, John B Pierce Laboratory. New Haven, CT, US. February 26, 2014.
16. 43rd Annual Meeting of the SBBq, Iguaçu Falls, Brazil.
17. The 2nd Annual Helmholtz-Nature Medicine Diabetes Conference.

2015

18. Neurology Research Happy Hour. Yale University. February 12, 2015.
19. Wellcome Trust-MRC Institute of Metabolic Science, Cambridge, UK. March 4, 2015.
20. 2nd Advanced Studies in Neurosciences. April 19-23, 2015. Porto Alegre, RS, Brazil.
21. IBRO 2015. Symposium 2. Chair: Diogo Souza. July 7, 2015. Rio de Janeiro, Brazil.
22. New INP Faculty Talks. NeuroDay, Yale University. August 31, 2015.
23. CNP Colloquia. Champalimaud Foundation. September 21, 2015. Lisbon, Portugal.
24. State-of-the-art Methods in Neuroscience Research (Argentinian Society for Neurosciences). September 27-29, 2015. Mar del Plata, Argentina.
25. XXX Annual Meeting of the Argentinian Society for Neurosciences. September 29, 2015.
26. III Joint Yale-Cajal Meeting. Cajal Institute. October 7, 2015. Madrid, Spain.
27. Obesity Society Annual Scientific Meeting, Obesity Week. November 5, 2015. Los Angeles, CA.

2016

28. Research in Progress. Yale Center for Clinical Investigation (YCCI). May 23, 2016.
29. The Fourth NeuroSur Symposium. March 21-22, 2016. Santiago, Chile.
30. EMBO Workshop on Metabolism and Eating Behavior. May 5-7, 2015. Lisbon, Portugal.
31. Current Works in Neurosciences. October 20-22, 2016. Porto Alegre, RS, Brazil.
32. Rockefeller University Seminars. Nov 9, 2016. Rockefeller University.

2017

33. Yale Biological Science Training Program. March 12, 2017.
34. University of Ozarks, Ozarks AR. April 25, 2017.
35. Keystone Symposia: Neuronal Control of Appetite, Metabolism and Weight. Copenhagen, Denmark. May 9-13, 2017.
36. Aberdeen University, Scotland (UK). May 18, 2017.
37. UT Southwestern, School of Medicine. July 11, 2017.

2018

38. UCSF, San Francisco, CA. March 21, 2018.
39. Brain-Periphery Communications in Metabolic Control. April 16-21, 2018. Fondation des Treilles, France.
40. Cornell University, Ithaca, NY. September 19, 2018.
41. Yale Biological Science Training Program. October 1, 2018.
42. Neuro-Immunometabolism. October 26-27, 2018. Florianopolis, Brazil.

2019

43. IDIBAPS, Barcelona, Spain. March 27-28, 2019.
44. Cell and Molecular Physiology, Loyola University, Chicago. April 25, 2019.
45. Rockefeller University, Kavli Symposium. May 15, 2019.
46. NPY-PYY-PP Meeting, Edmonton, Alberta, Canada. July 27-31, 2019.
47. Association for the Study of the Arts of the Present, Ecologies of the Present. University of Maryland. October 10-12, 2019.
48. Advances in Metabolic Communication, Nature Press and Instituto Serrapilheira Conference. Rio de Janeiro, Brazil. October 15-18, 2019.
49. University of Oxford, UK. October 25, 2019.
50. School of Life Sciences, Peking University, China. October 29, 2019.
51. Xijing Hospital, Fourth Military Medical University, China. October 30, 2019.
52. Third International Neural Control of Metabolism Symposium, Chongqing, China. November 1-3,

2019.

53. Think Tank on Brain Body Interactions, Janelia Farms. November 4-5, 2019.

2020

54. Duke University. February 4, 2020.
55. Universidade Federal de Minas Gerais, Belo Horizonte, Brazil. February 14, 2020.
56. Section of Endocrinology, Grand Rounds, Yale School of Medicine. February 29, 2020.
57. Keynote, International Symposium for Networking in Neuroscience. Sep 11-12, 2020.
58. Symposium Covian, Graduate Program in Physiology. Oct 2-3, 2020.
59. Annual Meeting of Brazilian Physiological Society – SBFis. Oct 4-7, 2020.
60. III Simpósio Brasileiro de Neurociências, Dec 12, 2020.

2021

61. Gastronauts Global, Virtual. May 11-13, 2021.
62. CNS Virtual Seminar Series, Queen's University, Canada. May 26, 2021.
63. ECRO 50th Anniversary, Cascais, Portugal. September 13-16, 2021.
64. Body-Brain Interactions Virtual Seminar Series. October 18, 2021.
65. KAVLI NSI Symposium, Rockefeller University. November 29, 2021.
66. University of Ozarks, Ozarks AR. December 3, 2021.

2022

67. Neuronal Control of Appetite/Gut-Brain Axis, Keystone Meeting. March 20-24, 2022.
68. Gastronauts Mini-symposium, University of Zamorano, Honduras. March 27-29, 2022.
69. Mahoney Institute of Neurosciences, University of Pennsylvania. April 13, 2022.
70. Inaugural Hypothalamus Gordon Research Conference, Ventura, California, July 24-29, 2022.
71. Seoul National University College of Medicine Seminar, Korea. September 1, 2022.
72. International Congress on Obesity and Metabolic Syndrome, Seoul, Korea. September 1-3, 2022.
73. Precision Medicine and Functional Genomics Conference, Doha (Qatar), September 23-26, 2022.
74. Breakthrough Discoveries in Diabetes and Obesity. Melbourne, Australia. October 23-25, 2022.
75. Monash-Yale Symposium. Melbourne, Australia. October 26, 2022.
76. Department of Physiology and Neurobiology, University of Connecticut. November 30, 2022.

2023

77. 36th Annual Winter Conference in Developmental Psychobiology, Punta Cana, Dominican Republic. January 5-7, 2023.
78. Leon Levy Neuroscience Seminar, Rockefeller University, NY. April 27, 2023.
79. Brain and Body Seminar Series, Icahn School of Medicine at Mount Sinai, June 27, 2023.

2024

80. Monell Science Apprenticeship Program (MSAP) Seminar Series, Monell Chemical Senses Center, Philadelphia, PA, July 16, 2024.
81. NeuroFood: Brain-Nutrition interactions: From metabolic to psychiatric and neurodegenerative diseases, Bordeaux, France, October 16-18, 2024.
82. The First C. C. Tan Foundation-China Feihe Brain Development Science Global Summit. Beijing, China. October 21-22, 2024.

2025

83. Pioneers in Biomedical Research Seminar Program, Fralin Biomedical Research Institute, Virginia Tech, Roanoke, VA, January 24.
84. 2025 James McGrath Symposium, Yale School of Medicine. New Haven, CT. April 8, 2025.

85. Neuroscience School of Advanced Studies, Venice, Italy. May 31-June 7, 2025.
86. Child Health Institute of New Jersey, Rutgers. New Brunswick, NJ. June 27, 2025.
87. 48th Annual Meeting of the Japan Neuroscience Society. Symposium: Neurobiology of physiology and behavior across life stages. Niigata City, Japan. July 24-27, 2025.
88. Center for Excellence in Brain Science and Intelligence Technology, Institute of Neuroscience, Chinese Academy of Sciences. Shanghai, China. July 26, 2025.
89. 18th Annual meeting of the Chinese Neuroscience Society. Symposium: Regulation of social interaction in health and disease. Xi'an, China. September 25-28, 2025.
90. Disease Modeling and Therapeutics (DMT) Conference, Sidra Medicine. Doha, Qatar. September 29-30, 2025.
91. 1st Himalayan Symposium on Immunology, India. December 19-22, 2025.

TEACHING

- Medical Biochemistry. Universidade Federal do Rio Grande do Sul (Brazil). Guest lectures as Visiting Lecturer (2008-2017).
- Organizer of a Course in Organizational Psychology for Junior Faculty Development at Yale School of Medicine by Professor David Berg. From 2014-current.
- Lecturer at Yale School of Drama. Workshop on creativity in arts and sciences. From 2016-2021.
- Principles of Neuroscience Course. Special lectures (2017, 2020).
- Bioethics. Special Lectures. Interdepartmental Neuroscience Program (2019, 2020)
- Panelist. Yale Ciencia Academy virtual meetings. An NIH-funded career development program for students from underrepresented backgrounds who are pursuing PhDs in biomedical and behavioral sciences (2020).
- Panelist. Yale PATHS. Program for undergraduate students from underrepresented groups to prepare them for a career in sciences (2020).
- C&MP 580b: Mitochondrial Bioenergetics and Intermediary Metabolism. Neurobiology of Metabolism (Spring 2022).

UNDERGRADUATE AND GRADUATE PROGRAMS

2014- **PhD Advisor**, Molecular Cell Biology, Genetics, and Development, Yale University
2014- **PhD Advisor,** Interdepartmental Neuroscience Program, Yale University
2014- **MD/PhD Advisor**, Office of Student Research, Yale School of Medicine
2015- **MSc and PhD Advisor**, Graduate Program in Biological Sciences, Biochemistry, Universidade Federal do Rio Grande do Sul, Brazil.
2018- **Faculty Advisor**, Major in Neuroscience, Yale College.

UNDERGRADUATE FACULTY ADVISOR

2016 **Annie Jin**, Univ. of Connecticut.
2016 **Sarah Ornellas**, Yale University.
2016-2017 **Le'Vena Tan**, King's College (final project)

2018-2019 **Jamachi Eliche**, Yale College (final project)
2018-2019 **Gabriel Baldissera**, Universidade Federal do Rio Grande do Sul (final project)
2018-2019 **Gustavo Santana**, Comp. Sciences, Univ. Fed. do Rio Grande do Sul.
2018-2021 **Lucas Kim**, Yale College (final project).
2018-2020 **Heidi Dong**, Yale College.
2019 **Shivangi Goswami,** UCLA.
2020-2021 **Luis Augusto Weber Mercado**, Comp. Sciences, UFRGS (final project).
2024-2025 **Dorina Azizova,** Yale College.
2025- **Valerie Rakotomalala,** Yale College.

ADVISOR (Doctor of Medicine, M.D.)

2015 **Julia Fabião**, Universidade Federal de Pelotas (visiting student).
2018-2020 **Arthur Albuquerque**, Univ. Fed. do Rio de Janeiro (visiting student).
2019-2021 **Marcelo Teixeira Garroni**, Univ. Fed. do Rio Grande do Sul (visiting student).

ADVISOR (Master of Science, M.Sc.)

2017-2019 **André Borba**, Universidade Federal do Rio Grande do Sul (Biological Sciences)
2017-2019 **Antonio Fonseca**, Universidade Federal do Rio Grande do Sul (Microelectronics)
2017-2019 **Rafael Dai Pra**, Universidade Federal do Rio Grande do Sul (Biological Sciences)
2019-2021 **Gustavo Santana**, Universidade Federal do Rio Grande do Sul (Biological Sciences)

ADVISOR (Doctor of Philosophy, Ph.D.)

2014-2019 **Marcelo R. Zimmer**, Universidade Federal do Rio Grande do Sul
Awarded the CAPES Thesis Prize for the best PhD Thesis in Biological Sciences.
2017-2022 **Gabriela Bosque Ortiz**, Yale University (INP; Gilliam Fellow, HHMI)
2019-2024 **Yuexuan Li**, Yale University (INP; CSC Scholar)
Awarded the 2024 INP Thesis Prize.
2018-2025 **Delva Leão**, Universidade Federal do Rio Grande do Sul
2024-current **Hector Haddock-Martinez**, Yale University (INP)

Ph.D. QUALIFYING COMMITTEE

2018 **Joon Lee**, Interdepartmental Neuroscience Program (INP), Yale University
2018 **Megan Kelley**, Interdepartmental Neuroscience Program (INP), Yale University
2019 **Alex Wang**, Interdepartmental Neuroscience Program (INP), Yale University
2020 **Nathaniel Bachtel**, Department of Immunobiology, Yale University
2025 **Samuel Ovadia,** Immunobiology, Yale University

Ph.D. THESIS COMMITTEE

2019 **Paul Muller**, Rockefeller University (Mucida Lab)
2020 **Gabriela de Paula**, UFSC
2020-2024 **Alex Wang**, Neuroscience Program, Yale University (Advisor: Jess Cardin)

2020 **Caner Caglar**, Rockefeller University (Advisor: Jeffrey Friedman)
2021- **Alexa Soares**, Neuroscience Program, Yale University (Advisor: Marina Picciotto)
2021-2024 **Nathaniel Bachtel**, Immunobiology, Yale University (Advisor: Ruslan Medzhitov)
2021- **Anna Gruzdeva**, Cornell University (Advisor: Nilay Yapici).
2022- **Julia Deere**, Rockefeller University (Advisor: Daniel Mucida).
2024- **Ijeoma Nwabudike,** Neuroscience Program, Yale University (Advisor: Alicia Che)
2025 **Ivan C. Alcantara**, PhD Student in Neuroscience, Brown University | NIDDK (external committee member; Advisor: Michael Krashes).
2025 **Reem Hasnah**, Hamad bin Khalifa University, Doha, Qatar (Advisor: Luis Saraiva).
2025- **Samuel Ovadia,** Immunobiology, Yale University (Advisor: Ruslan Medzhitov)

Ph.D. THESIS EVALUATOR

2020 **Jae Eun Song**, Yale University.

CURRENT LABORATORY MEMBERS (name, position, year when position started)

1. **Jeremy Bober** Research Associate 2014
2. **Zhongwu Liu** Electrophysiologist 2025
3. **Delva Leão** Bioinformatician 2025
4. **Marcelo Zimmer** ARS 2021
5. **Hector H.-Martinez** PhD Student 2024
6. **Nathalia Ferreira** Postgraduate 2023
7. **Dorina Azizova** Undergrad 2024
8. **Valerie Rakotomalala** Undergrad 2025

LABORATORY ALUMNI

Name	Position in the lab	Years in lab	Next Position	Current position
Onur Iyilikci	Postdoc	2016-2025	Faculty at Koç University, Turkey	
Mahdieh Godazgar	Postdoc	2020-2025	Associate Research Scientist (lab Ruslan Medzhitov, Yale)	
Priyanka Agochiya	Postgraduate associate	2024-2025	Medical student	
Yuexuan Li	PhD Student	2019-2024	Postdoc, Caltech (David Anderson)	
Samantha Hall	Postgraduate associate	2022	Postgraduate associate (Horvath)	

Gabriela Bosque *Gilliam Fellow HHMI*	PhD student	2017-2022	Clinical and Scientific Writer, University of Puerto Rico	
Bruna Costa Lima	Postgraduate associate	2020-2022	PhD Student, Arizona State University	
Luis Mercado	Undergraduate student	2020-2021	Private sector / data analyst	
Gustavo Santana *PGCI Fellow*	M.Sc. student	2019-2021	Yale PhD student	
Lucas Kim	Undergrad and postgrad	2017-2021	Medical Student (Yale)	Medical doctor.
Marcelo Garroni *PGCI Fellow*	Visiting Medical Student	2020-2021	MD/PhD student (UFRGS)	Medical doctor.
Esther Florsheim	Postdoc in the Medzhitov lab (co-mentorship)	2017-2020	Assistant Professor, School of Life Sciences, Arizona State University	
Juliana Fan	Undergraduate student (Yale)	2017-2020	Medical student at John Hopkins School of Medicine	
Heidi Dong	Undergraduate student (Yale)	2018-2020	Postgrad, Yale School of Medicine	Medical Student (NYU)
Arthur Albuquerque *PGCI Fellow*	Visiting Medical Student	2018-2020	Medical Student at UFRJ.	Medical doctor.
Shivangi Goswami *BioMed Amgen Scholar*	Summer student (undergrad from UCLA)	2019	Undergrad (UCLA)	
Rafael Dai Prá *PGCI Fellow*	M.Sc. student (Biochemistry)	2016-2019	Yale PhD Student (Elena Gracheva Lab)	
Antonio Fonseca *PGCI Fellow*	M.Sc. student (microelectronics)	2016-2019	Yale Graduate Student (David van Dijk lab)	Private sector
Jamachi Eluchie	Undergraduate student (Yale)	2018-2019	Postgrad, University of Maryland.	Private sector.
André Borba	M.Sc. student (Biochemistry)	2016-2020		
Marcelo R. Zimmer *Science Without Borders Fellow*	PhD Student	2014-2019	Postdoc Fellow, UFRGS.	Returned to my lab at Yale in 2021 as a postdoc.

Julie Nguyen	Research Assistant	2017-2018		
Fernando Carvalho	Postdoc	2016-2017	Postdoc in Ruslan Medzhitov lab	Private sector
Le'Vena Tan	Undergrad (King's College)	2016-2017	Undergrad (King's College, London)	M.P.H. student, UNC Chapel Hill
Sarah Ornellas *STARS Fellow*	Undergraduate (Yale College)	2016		Private sector.
Bernardo Arús	Undergraduate (UFRGS)	2016-2017	M.Sc. (Ana Domingos)	PhD Candidate, Helmholtz Pioneer Campus, Munich
Ariana Schmitz *Science Without Borders Fellow*	Visiting PhD Student	2015	PhD Student (UFSC, Brazil)	Clinical nutrition specialist
Julia Fabião	Summer M.D. student	2015	Graduated in Medicine	Medical doctor.
João Albuquerque *Science Without Borders Fellow*	Visiting PhD Student	2015-2016	Postdoc at University of Manchester	
Istvan Toth	Visiting PhD Student	2014	Postdoc, Szent Istvan University	