

January 14, 2019

*Curriculum Vitae*  
**ANA MARIN DIAS CARNEIRO, PH.D.**

Department of Pharmacology, Vanderbilt University School of Medicine  
461 Preston Research Building (PRB), 23<sup>rd</sup> Avenue South at Pierce  
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**EDUCATION**

**Undergraduate**

1995-1999 Federal University of Minas Gerais, Brazil  
Bachelor in Biology, with emphasis in Biochemistry and Immunology

**Graduate**

1999-2000 Federal University of Minas Gerais, Brazil  
Master in Sciences with emphasis in Biochemistry  
Thesis: *Expression and characterization of a recombinant Phoneutria nigriventer toxin active on K<sup>+</sup> channels* (Portuguese). (Advisor: Vania F. Prado)

2000-2002 Federal University of Minas Gerais, Brazil  
Ministry of Education (CAPES, Brazil) Sandwich Fellowship/Duke University  
Doctor in Biochemistry (Ph.D.)  
Dissertation: *Protein interactions modulating neurotransmitter transporters* (Portuguese). (Advisor: Vania F Prado. Co-advisor: Marc G. Caron)

**Postdoctoral Training**

2003-2007 Vanderbilt University Medical Center, Department of Pharmacology  
Mentor: Randy D. Blakely

**ACADEMIC APPOINTMENTS**

2007- 2008 Research Instructor  
Vanderbilt University, Department of Pharmacology

2008-2010 Research Assistant Professor  
Vanderbilt University, Department of Pharmacology

2010- present Assistant Professor  
Tenure-track position  
Vanderbilt University, Department of Pharmacology

### ***Faculty membership***

Neuroscience Honors  
Biomedical Research Education and Training (BRET)  
Vanderbilt Kennedy Center  
Vanderbilt Brain Institute  
Vanderbilt Vascular Biology

### ***HONORS AND AWARDS***

Ministry of Science and Technology Graduate Fellowship (CNPq, Brazil) 1999-00  
Ministry of Education (CAPES) Sandwich Fellowship/ Duke University 2001  
Ruth L. Kirschstein National Research Service Award/ Neurogenomics Training Program(MH655215), 2003  
Ruth L. Kirschstein National Research Service Award/ Alliance for Research Training in Neuroscience Program (MH65782), 2004-06  
Minority Travel Award, American College of Neuropsychopharmacology (ACNP), 2004  
Society for Neuroscience Scholars Award, 2004-2007  
Carl Storm Underrepresented Minority Fellowship/Cell Contact & Adhesion GRC, 2007  
The Mental Health Research Association (NARSAD) Young Investigator Award, 2007-08  
Winter Brain Conference Travel Fellowship, 2011  
Junior Faculty Leadership Development Fellow, 2012

### ***PROFESSIONAL SOCIETIES***

Society for Neuroscience  
American Society for Pharmacology and Experimental Therapeutics (ASPET)  
American Heart Association

### ***ACADEMIC AND PROFESSIONAL DUTIES***

#### ***ACADEMIC COMMITTEES***

PhD Thesis Committees  
Rebecca Jane Bluett– Neuroscience (2017)  
Meagan Anne Quinlan - Pharmacology  
Seyedmohammad Ebrahim Tahaei - Pharmacology  
Sahana Nagabhushan Kalburgi – Neuroscience

#### Qualifying Exam Committees

Rebecca Bluett – August 2014  
Monika Murphy – August 2014  
Christian Marks – July 2014  
Victoria Cavener - September 2013  
Raaj Gowrishankar - September 2013  
Gwynne Davis - June 2013  
Mika Garret - August 2012  
Daniel Bermingham - June 2012  
Benjamin Dean - September 2011  
Margaret Adams - May 2010

#### Vanderbilt University School of Medicine

Interview Admissions Committee- 2012  
Dolores Shockley Partnership Award- Committee Chair: 2011-present

## ***TEACHING AND MENTORING***

### Vanderbilt Summer Undergraduate Program in Pharmacology

Program Director, 2011-2015.

The Summer Research Program in Pharmacology is a 10-week research program for students interested in pursuing a PhD (10-15 students/year). The program consisted of 35 hours/week laboratory research experience, under the mentoring of a Pharmacology faculty sponsor and weekly, 1:30 hour classes with the program director. The goal of the program was to expose students to a complete research experience, including development of an independent research project and acquisition of Scientific Communication skills, both oral and written. As the program director I recruited and selected the students, pursued funding, developed the curriculum for the program and taught all classes.

### Postdoctoral Fellows

Matthew Mazalouskas PhD, February 2014- 2016

### Graduate Students

Kendra Oliver, PhD, Pharmacology 2012-2016

Alonzo Whyte, MS, Neuroscience 2011-2013

### Undergraduate Honors Program in Neuroscience

Austin McMeekin, January 2016-May 2017

Christopher Grant Kooker, August 2014-2015

Heeweon Kim, Vanderbilt University, August 2012-May 2015

Keith F. Polston, Vanderbilt University, May 2011-May 2013

Seth A. Varney, Vanderbilt University, September 2010-May 2011

### Undergraduate Students – Other

Mallory Moore – Vanderbilt, 2010

Stephanie Walsh - Vanderbilt, 2011

Linda Quinones- MARC/TSU student, 2013

Cynthia Mayrink- Science Without Borders- Brazil, 2013

Mariana Borges - Science Without Borders- Brazil, 2013

Ben Basset – Vanderbilt, 2013

Hannury Lee – Vanderbilt, 2014

Kirtan Patel – Vanderbilt, 2015

Cynthia Li- ASPET/ Pharmacology (University of Michigan)- 2015

Capria Rinaldi- MCB Vanderbilt (Arizona State University)- 2015

Rody Kingston- Leadership Alliance (Morehouse)- 2015

Hope Pan - Vanderbilt, 2014-2016

Nivedita Kukreti- Vanderbilt, 2015-2016

Nikhil Reddy- Vanderbilt, 2015-2016

### High School Students

Jordan A. Winters. School for Science and Math at Vanderbilt, 2011.

Keaton Wadzinski, Summer 2011

### Undergraduate students-

#### MentorNet

Vanessa Joyce Eriacho. University of New Mexico, 2011

Obehi Ilenikhen. University of Illinois at Chicago, 2012

## Point Foundation

Kyle Vey, 2011-2014.

Panel participant in the 2014 Out to Innovate Biannual meeting.

## **PROFESSIONAL RESPONSIBILITIES**

### Peer Review: Grants

Peer Review Medical Research Program (PRMRP) for the Department of Defense Congressionally Directed Medical Research Programs (CDMRP). 2014-2017 Scientific Review Officer: 2018-present

Parkinson's Disease Research Program (PRP) for the Department of Defense Congressionally Directed Medical Research Programs (CDMRP). Scientific Review Officer: 2018-present

Breast Cancer Research Program (BCRP) for the Department of Defense Congressionally Directed Medical Research Programs (CDMRP). Scientific Review Officer: 2019-present

Autism Research Program (ARP) for the Department of Defense Congressionally Directed Medical Research Programs (CDMRP). 2011-2018 (Co-chair in 2015)

National Science Centre of Poland grant reviewer. 2014-present

NIH ZNS1 SRB-B (60)- K01 Award panel reviewer. 2018

### Peer Review: Journals

Reviewer: Neuropsychopharmacology, Life Sciences, Journal of Autism and Developmental Disorders, ACS Chemical Neuroscience, PLOS One, Journal of Cell Science, British Journal of Pharmacology

Associate Editor: Scientific Reports-Nature and Frontiers in Neuroscience

### Student Recruitment

Annual Biomedical Research Conference for Minority Students (ABRCMS) 2011, 2012, 2015, 2018  
Morehouse College, Atlanta. September 2012

Leadership Alliance Annual Symposium. 2013-2015

Out to Innovate Biannual Conference 2014

Leadership Alliance IPERT- faculty consultant. 2015

## **RESEARCH PROGRAM**

### **PUBLICATIONS**

#### **Articles in preparation or submitted**

Oliver K and Carneiro AMD. *Untangling the Antiplatelet Effects of SSRIs*. Submitted to Mol. Pharm (under review).

Hope Pan, Michael Dohn, Rody Kingston, Ana MD Carneiro. *Integrin  $\alpha\beta3$  function influence citalopram immobility behavior in the tail suspension test*. Submitted to Frontiers in Neuroscience (under review).

Elizabeth Aaron; Alicia Montgomery; Xinguo Ren; Stephen J. Guter; George Anderson; Ana MD Carneiro; Suma Jacob; Matthew Mosconi; Ghanshyam N. Pandey; Edwin H. Cook; Jeremy Veenstra-VanderWeele. *Whole Blood Serotonin Levels and Platelet 5-HT<sub>2A</sub> Binding in Autism Spectrum Disorder*. Submitted to Journal of Autism and Developmental Disorders

Hope Pan, Seth Varney, Ana M.D. Carneiro, Chang Y. Chung. *Minocycline reduces microglial phagocytic activity in response to stress*. In preparation.

**Articles in refereed journals (most recent first)**

1. Yang Fan, Zhilu Chen, Janak Pathak, Ana Carneiro, Chang Chung. *Differential Regulation of Adhesion and Phagocytosis of Resting and Activated Microglia by Dopamine*. *Frontiers in Cellular Neuroscience*.
2. Rebecca L. Brindley, Mary Beth Bauer, L. Anne Walker, Meagan A. Quinlan, Ana M. Carneiro, Ji-Ying Sze, Randy D. Blakely, and Kevin P. M. Currie. *Adrenal serotonin derives from accumulation by the antidepressant-sensitive serotonin transporter*. *Pharmacol Res.* 2018 Jun 9. pii: S1043-6618(18)30429-8. doi: 10.1016/j.phrs.2018.06.008. PMID: 29894763
3. Dohn MR, Kooker CG, Bastarache L, Jessen T, Rinaldi C, Varney S, Mazaloukas MD, Pan H, Oliver KH, Velez Edwards DR, Sutcliffe JS, Denny JC, Carneiro AMD. *The Gain-of-Function Integrin  $\beta 3$  Pro33 Variant Alters the Serotonin System in the Mouse Brain*. *J Neurosci*. 2017 Oct 16. PMID: 29038237
4. Oliver KH, Duvernay M, Hamm H, Carneiro AMD. *Loss of Serotonin Transporter Function Alters ADP-Mediated Integrin  $\alpha IIb\beta 3$  Activation Through Dysregulation of the Serotonin 2A Receptor*. *J Biol Chem*. 2016 Sep 16;291(38):20210-9. *J Biol Chem*. 2016 Sep 16;291(38):20210-9. PMID: 27422820.
5. Varney S, Polston KF, Jessen T, Carneiro AMD. *Mice lacking integrin  $\beta 3$  expression exhibit altered response to chronic stress*. *Neurobiology of Stress*. Volume 2, 2015, Pages 51–58. PMID: 25684064
6. Mazaloukas M, Jessen T, Varney S, Sutcliffe JS, Veenstra-VanderWeele J, Cook EH Jr, Carneiro AM. *Integrin  $\beta 3$  Haploinsufficiency Modulates Serotonin Transport and Antidepressant-Sensitive Behavior in Mice*. *Neuropsychopharmacology*. 2015 Feb 16. PMID: 25684064
7. Kendra H Oliver, Tammy Jessen, Emily L Crawford, Chang Y Chung, James S Sutcliffe, and Ana M Carneiro. *Pro32Pro33 Mutations in the Integrin  $\beta 3$  PSI Domain Results in  $\alpha IIb\beta 3$  Priming and Enhanced Adhesion: Reversal of the Hypercoagulability Phenotype by the Src Inhibitor SKI-606*. *Mol Pharmacol* 2014 Jun;85(6):921-31. PMID: 24695082
8. Alonzo Whyte, Tammy Jessen, Seth Varney, Ana MD Carneiro. *Serotonin transporter and integrin beta3 genes interact to modulate serotonin uptake in the mouse brain*. *Neurochem Int*. 2013 Sep 29. pii: S0197-0186(13)00241-6. PMID: 24083985
9. Ran Ye, Ana M.D. Carneiro, Qiao Han, David Airey, Elaine Sanders-Bush, Bing Zhang, Lu Lu, Robert Williams and Randy D. Blakely. *Quantitative Trait Loci Mapping and Gene Network Analysis Implicate Protocadherin-15 as A Determinant of Brain Serotonin*

*Transporter Expression*. 2014 Mar;13(3):261-75. PMID: 24405699

10. Ye R, Carneiro AM, Airey D, Sanders-Bush E, Williams RW, Lu L, Wang J, Zhang B, Blakely RD. *Evaluation of heritable determinants of blood and brain serotonin homeostasis using recombinant inbred mice*. *Genes Brain Behav*. 2013 Oct 4. PMID: 24102824
11. Jerry C. Chang, Ian D. Tomlinson, Michael R. Warnement, Alessandro Ustione, Ana M. D. Carneiro, David W. Piston, Randy D. Blakely, and Sandra J. Rosenthal. *Single Molecule Analysis of Serotonin Transporter Regulation Using Antagonist-Conjugated Quantum Dots Reveals Restricted, p38 MAPK-Dependent Mobilization Underlying Uptake Activation*. *The Journal of Neuroscience*, June 27, 2012 32(26): 8919–8929 PMID: 22745492
12. Jeremy Veenstra-VanderWeele, Christopher L. Muller, Hideki Iwamoto, Jennifer E. Sauer, W. Anthony Owens, Charisma R. Shah, Jordan Cohen, Padmanabhan Mannangatti, Tammy Jessen, Brent J. Thompson, Ran Ye, Travis M. Kerr, Ana M. Carneiro, Jacqueline N. Crawley, Elaine Sanders-Bush, Douglas G. McMahon, Sammanda Ramamoorthy, Lynette C. Daws, James S. Sutcliffe, Randy D. Blakely. *(SERT) Autism Gene Variant Causes Hyperserotonemia, Serotonin Receptor Hypersensitivity, Social Impairment and Repetitive Behavior*. *Proc Natl Acad Sci U S A*. 2012 Apr 3;109(14):5469-74. PMID: 22431635
13. Carter MD, Shah CR, Muller CL, Crawley JN, Carneiro AM, Veenstra-Vanderweele J. *Absence of preference for social novelty and increased grooming in integrin  $\beta 3$  knockout mice: Initial studies and future directions*. *Autism Res*. 2011 Jan 19. doi: 10.1002/aur.180. PMID: 21254450
14. Thompson BJ, Jessen T, Henry LK, Field JR, Gamble KL, Gresch PJ, Carneiro AM, Horton RE, Chisnell PJ, Belova Y, McMahon DG, Daws LC, Blakely RD. *Transgenic elimination of high-affinity antidepressant and cocaine sensitivity in the presynaptic serotonin transporter*. *Proc Natl Acad Sci U S A*. 2011 Mar 1;108(9):3785-90. Erratum in: *Proc Natl Acad Sci U S A*. 2011 Apr 19;108(16):6689. PMID: 21282638
15. Carneiro AMD. *The emerging role of integrins in neuropsychiatric disorders*. *Neuropsychopharmacology Reviews*. Jan 2010.
16. Carneiro AM, Airey DC, Thompson B, Zhu CB, Lu L, Chesler EL, Erikson KM and Blakely RD. *Functional Coding Variation in Recombinant Inbred Mouse Lines Reveals Novel Serotonin Transporter-Associated Phenotypes*. *Proc Natl Acad Sci U S A*. 2009 Feb 10;106(6):2047-52. PMID: 19179283
17. Steiner JA, Carneiro AM, Wright J, Matthies HJG, Prasad H, Nickl CK, Dostmann WR, Corbin JD, Francis SH, Blakely RD. *Protein Kinase G Associates with the Antidepressant-Sensitive Serotonin Transporter and Dictates Rapid Modulation of Serotonin Uptake*. *Mol Brain*. 2009 Aug 5;2(1):26. PMID: 19656393
18. Carneiro, A.M. & Blakely, R. D. *SERT. UCSD-Nature Molecule Pages* (2009). (10.1038/mp.a002762.01).

19. Steiner J, Carneiro AM, Blakely RD. *Going with the flow: Trafficking-dependent and independent regulation of serotonin transport*. Traffic 2008 Apr 28. PMID: 18445122
20. Carneiro AM, Cook EH, Murphy DL and Blakely RD. *Interactions between integrin  $\alpha\text{IIb}\beta\text{3}$  and the serotonin transporter regulate serotonin transport and platelet aggregation*. J Clin Invest. 2008 Apr 1;118(4):1544-1552. PMID: 18317590
21. Carneiro AM, Blakely RD. *Serotonin, Protein Kinase C and Hic-5 Associated Redistribution of the Platelet Serotonin Transporter*. J Biol Chem. 2006 Jun 27. PMID: 16803896
22. Zhu CB, Carneiro AM, Dostmann WR, Hewlett WA, Blakely RD. *p38 MAPK activation elevates serotonin transport activity via a trafficking-independent, protein phosphatase 2A-dependent process*. J Biol Chem. 2005 Apr 22;280(16):15649-58. PMID: 15728187
23. Carneiro AM, Kushmerick C, Koenen J, Arndt MH, Cordeiro MN, Chavez-Olortegui C, Diniz CR, Gomez MV, Kalapothakis E, Prado MA, Prado VF. *Expression of a functional recombinant Phoxo-1 toxin active on K<sup>+</sup> channels*. Toxicon. 2003 Mar 1;41(3):305-13.
24. Torres GE, Carneiro AM, Seamans K, Fiorentini C, Sweeney A, Yao WD, Caron MG. *Oligomerization and trafficking of the human dopamine transporter. Mutational analysis identifies critical domains important for the functional expression of the transporter*. J Biol Chem. 2003 Jan 24;278(4):2731-9. PMID: 12429746
25. Carneiro AM, Ingram SL, Beaulieu JM, Sweeney A, Amara SG, Thomas SM, Caron MG, Torres GE. *The multiple LIM domain-containing adaptor protein Hic-5 synaptically colocalizes and interacts with the dopamine transporter*. J Neurosci. 2002 Aug 15;22(16):7045-54. PMID: 12177201
26. Lawinger P, Venugopal R, Guo ZS, Immaneni A, Sengupta D, Lu W, Rastelli L, Marin Dias Carneiro A, Levin V, Fuller GN, Echelard Y, Majumder S. *The neuronal repressor REST/NRSF is an essential regulator in medulloblastoma cells*. Nat Med. 2000 Jul;6(7):826-31. Erratum in: Nat Med 2000 Sep;6(9):1062
27. Genelhu MS, Zanini MS, Veloso IF, Carneiro AM, Lopes MT, Salas CE. *Use of a cysteine proteinase from Carica candamarcensis as a protective agent during DNA extraction*. Braz J Med Biol Res. 1998 Sep;31(9):1129-32.

### **Completed Research Support**

- Title: Regulation of Serotonin Transporters
- Source: Research Supplements to Promote Diversity in Health-Related Research Program (3 R01 DA007390-17S1)
- Amount: \$100,000
- Inclusive dates: 2007-09

- Title: Integrin regulation of the serotonin transporter  
Source: National Alliance for Research on Schizophrenia and Depression, Inc (NARSAD).  
Young Investigator Award  
Amount: \$60,000  
Inclusive dates: July 2007-09
- Title: Discovery of serotonin regulatory genes in recombinant inbred mice  
Source: Vanderbilt Silvio O. Conte Center Pilot Grant  
Amount: \$20,000  
Inclusive dates: 2008-09
- Title: Regulation of the Serotonin Transporter Function by Integrins in the Mouse Brain (PI)  
Source: NIMH (1R01MH090256-01A1)  
Direct costs: \$1,250,000  
Inclusive dates: 2010-16
- Understanding the molecular Basis of resiliency during chronic stress response. (Co-PI)  
Source: United States- Israel Binational Science Foundation  
Total costs: \$105,000  
Inclusive Dates: 2014-17
- Environmentally-induced, integrin  $\alpha\beta3$  receptor-dependent alterations in synaptic 5-HT diversity  
Source: Vanderbilt Silvio O. Conte Center Pilot Grant  
Amount: \$20,000  
Inclusive dates: 2016-17

### ***Invited presentations***

University of Illinois at Chicago, Institute for Juvenile Research. Chicago, IL September 2007, April 2011.

Vanderbilt University

Department of Pharmacology: September 2008, April 2009, October 2012, November 2016.

Medical University of Vienna, Institute of Pharmacology. Vienna, Austria, April 2008 and September 2011.

University of Texas Health Science Center, Department of Physiology January 12<sup>th</sup>, 2009

The Panum Institute Molecular Neuropharmacology Grp, Dept. of Pharmacology Copenhagen, Denmark, September 2011.

Department of Biochemistry and Molecular Biology. University of Arkansas for Medical Sciences. Arkansas, May 2012



Summer Program in Neuroscience, Ethics & Survival (SPINES) June, 2012

Department of Psychology, The Ohio State University, Columbus, Ohio February, 2013.

Stark Insitute, Indiana University Medical Center, Indiana April 2013.

College of Pharmacy, Purdue University, Indiana September, 2015.

Department of Biology, Indiana University Purdue University Indianapolis (IUPUI), Indiana September, 2016.

### ***Presentations in Conferences***

#### Winter Conference on Brain Research

Regulation of serotonin transporter function by direct interactions with integrins: modulation of SSRI response in vivo. Keystone, Colorado, January 22<sup>nd</sup> – 27<sup>th</sup>, 2011.

Panel organizer: Cell Adhesion Molecules In Synapse Function And Disease. January, 2016  
Deciphering the role of Integrins in the CNS. Beckenridge, Colorado, January 23-29, 2016

#### Experimental Biology

Integrin regulation of the serotonin system. San Diego, California, April 21-15, 2012

The Role of Integrin Proteins in Coordinating Serotonin Synaptic Signaling and Neurotransmitter Reuptake. San Diego, California, April 25, 2018

#### Brain In Flux: ISN Satellite Conference

Integrin  $\alpha\beta3$  interacts with the serotonin transporter to modulate 5-HT uptake activity in mouse brain preparations. Cancun, May 2013

#### American Heart Association Scientific Sessions

Enhanced Src signaling is the key step mediating platelet hypercoagulability in mice expressing the human integrin  $\beta3$  Pro33 polymorphism. Dallas, TX, November 2013

#### 14th INTERNATIONAL CONGRESS ON AMINO ACIDS AND PROTEINS

Some, but not all: integrin modulation of serotonin neurotransmission. Vienna, August, 2015

### ***Abstracts and Conference Proceedings***

AM Carneiro, S.L. Ingram, J.-M. Beaulieu, S.G. Amara, S.M. Thomas, G.E. Torres, M.G. Caron. The multiple LIM domain-containing adaptor protein Hic-5 synaptically co-localizes and interacts with the dopamine transporter. Program No. 442.12. Washington, DC: Society for Neuroscience, 2002.

C. Zhu, A.M. Carneiro, W.A. Hewlett, R.D. Blakely. P38 MAPK activators enhance serotonin transporter catalytic activity. Program No. 54.4. Washington, DC: Society for Neuroscience, 2004.

- AM Carneiro, R.D. Blakely. A regulated association of the LIM-domain protein Hic-5 with the antidepressant-sensitive serotonin transporter (SERT) in native tissues. Program No. 54.8 Washington, DC: Society for Neuroscience, 2004.
- AM Carneiro, R.D. Blakely. A regulated association of the LIM-domain protein Hic-5 with the antidepressant-sensitive serotonin transporter (SERT) in native tissues. American College for Neuropsychopharmacology Meeting. San Juan, Puerto Rico, 2004.
- AM Carneiro, R.D. Blakely. Serotonin transporters translocate between compartments in an activity-dependent manner supported by differential associations with the cytoskeleton-associated protein Hic-5. 15<sup>th</sup> Neuropharmacology Conference 2005 Washington, DC
- AM Carneiro, R.R. Blakely. Regulated alterations in platelet serotonin transporter localization and protein interactions. Program No. 156.15. Washington, DC: Society for Neuroscience, 2005.
- AM Carneiro, D. C. Airey, C. Zhu, L. Lu, R. D. Blakely; A serotonin transporter coding variant associated with anatomical and behavioral traits linked to neuropsychiatric disorders. Program No. 531.8. Atlanta, GA: Society for Neuroscience, 2006
- B. J. Thompson, J. Wright, AM Carneiro, E. Deneris, R. D. Blakely. Production and characterization of transgenic mice expressing the human serotonin transporter. Program No. 531.4. Atlanta, GA: Society for Neuroscience, 2006.
- J. Veenstra-VanderWeele, AM Carneiro, J.S. Sutcliffe, R.D. Blakely. Brain and behavioral studies in Integrin  $\beta 3$  deficient mice: dissecting platelet hyperserotonemia to understand autism. Neuroscience Meeting. San Diego, CA: Society for Neuroscience, 2007
- J.K. Lerch, AM Carneiro, R.D. Blakely, E.S. Deneris, Control of peripheral serotonin levels by the Pet-1 ETS transcription factor gene. Neuroscience Meeting. San Diego, CA: Society for Neuroscience, 2007.
- R.D. Blakely , J. Veenstra-VanderWeele, T. Jessen, B.J. Thompson, AM Carneiro, H.C. Prasad, J.S. Sutcliffe. Rigid-compulsive traits in the mouse? Production and initial characterization of the serotonin transporter Gly56Ala knock-In mouse. Neuroscience Meeting. San Diego, CA: Society for Neuroscience, 2007.
- AM Carneiro, E.H. Cook, R.D. Blakely. Two genes associated with serotonin-linked traits of autism exhibit physical and functional interactions. Neuroscience Meeting. San Diego, CA: Society for Neuroscience, 2007.
- Veenstra-VanderWeele J., Cohen J.J., Jessen T., Thompson B.J., Carneiro AM, Zhu C., Carter M.D., Prasad H.C., Sutcliffe J.S., Blakely R.D., A hyperserotonemic mouse: initial characterization of the serotonin transporter Gly56Ala knock-in mouse, American Academy of Child and Adolescent Psychiatry, October 2008.
- Veenstra-VanderWeele J, Jessen T, Thompson BJ, Carneiro AM, Zhu CB, Carter MD, Prasad HC, Sutcliffe JS, Blakely RD. Hyperserotonemia in the Serotonin Transporter Gly56Ala Knock-In Mouse. Society for Neuroscience Annual Meeting. Washington, DC, 2008

N.L. Baganz, AM Carneiro, R.E. Horton, R.D. Blakely, L.C. Daws Reduced serotonin clearance in hippocampus after forced swim: is a "stressed-out" serotonin transporter to blame? Society for Neuroscience Annual Meeting. Washington, DC, 2008

AM Carneiro, Jeremy Veenstra-VanderWeele, Michelle Carter, Randy D. Blakely. Integrin regulation of serotonin transporter in mouse brain. Society for Neuroscience Annual Meeting. Washington, DC, 2008

Jessen TN, Carneiro AM, Weil ZM, Nelson RJ, Blakely RD Environmentally induced regulation of the serotonin transporter. Society for Neuroscience Annual Meeting. Washington, DC, 2008

AM Carneiro, Jeremy Veenstra-VanderWeele, Jonathan P. Dial, Michelle Carter, Randy D. Blakely. Integrin modulates antidepressant action through direct interactions with the serotonin transporter. American College for Neuropsychopharmacology Meeting. Scottsdale, AZ. 2008.

AM Carneiro, RD Blakely. Proteomic analysis of serotonin transporter interacting proteins reveal a novel network regulating serotonin homeostasis in brain and blood. Keystone Symposium "Omics Meets Cell Biology", Beaver Run Resort in Breckenridge, Colorado, 2009.

AM Carneiro, M Holinstat, RD Blakely, H Hamm. Serotonin transporter expression levels differentially regulate P-selectin and glycoprotein GPIIb/IIIa. Arteriosclerosis, Thrombosis and Vascular Biology Annual Conference, Washington DC, 2009.

J. Veenstra-VanderWeele, CL Muller, J Cohen, T Jessen, B. Thompson, AM Carneiro, CB Zhu, MD Carter, HC Prasad, J. Sutcliffe and RD Blakely Behavioral and Neurochemical Characterization of the Serotonin Transporter Gly56Ala Knock-in Mouse. International Meeting for Autism Research Chicago, 2009.

AM Carneiro, Airey DC, Erikson KM, Thompson B, Zhu CB, Ye R, Chesler EL, and Blakely RD. "Discovery of serotonin regulatory genes and associated phenotypes in recombinant inbred mice" Society for Neuroscience Annual Meeting. Chicago, IL, 2009

A Carneiro; J Veenstra-VanderWeele; R Blakely. "Integrin regulation of presynaptic serotonin function and behavior in the mouse." Keystone symposium: Synapses: Formation, Function and Misfunction. Snowbird, Utah. April 11 - April 15, 2010.

Michelle Carter, Jeremy Veenstra-VanderWeele, Ana MD Carneiro. "Integrin modulates responsiveness to SSRIs *in vivo*" American College for Neuropsychopharmacology Meeting, Miami Beach, FL, December 2010.

R. Ye, AMD Carneiro, Q Han, RD Blakely. "Association of multiple serotonin traits with iron homeostasis phenotypes in recombinant inbred mice." Society for Neuroscience Annual Meeting. San Diego, CA 2010

Varney SA, Gaskill C, Jessen T and Carneiro AMD The Autism-associated Integrin Beta 3 Gene Modulates the Behavioral and Neurochemical Response to Chronic Stress in Mice. American College for Neuropsychopharmacology Meeting, Hawaii, December 2011.

Whyte A, Varney SA, Polston K, Jessen T, Gaskill C, Veenstra-Vanderweele J and Carneiro AMD Genetic interaction between integrin  $\beta 3$  (*Itgb3*) and the serotonin transporter (*Slc6a4*) modifies anxiety and depression-like phenotype in the mouse. Gordon Research Conference: Synaptic Transmission. Waterville Valley, NH. July 2012 and Society for Neuroscience Annual Meeting, New Orleans, 2012.

Varney SA, Polston K, Jessen T and Carneiro AMD. Differential Response to Chronic Unpredictable Mild Stress in Integrin  $\beta 3$  Heterozygous and Knockout Mice. Society for Neuroscience Annual Meeting, New Orleans, 2012.

Kendra Oliver, Tammy Jessen, Emily Crawford, Christa Gaskill, James Sutcliffe and Ana MD Carneiro. Src activation is an essential step in the hypercoagulability induced by the integrin  $\beta 3$  Pro33 polymorphism in the mouse. Gordon Research Conference: Fibronectin, Integrins & Related Molecules Ventura Beach Marriott, Ventura, CA. February, 2013

Kendra Oliver, Mathew Duvernay, Heidi Hamm, Ana MD Carneiro. "Bleeding phenotype of SERT KO mice is Due to Reduced Platelet Function by GPIIb/IIIa Activation and  $\alpha$ -granule Exocytosis" American Heart Association Scientific Sessions. Dallas, TX. November 2013

James S. Sutcliffe, Emily L. Crawford, Keaton Wadzinski, Ana Carneiro. Characterization of Autism-associated De Novo Mutations Impacting Integrin Receptor. ACNP Annual Meeting Hollywood, FL. December, 2013

Seth Varney, Alonzo Whyte, Tammy Jessen, Ana Carneiro. Genetic Interaction Between Integrin  $\beta 3$  (*Itgb3*) and Serotonin Transporter (*Slc6a4*) Modifies Depressive-like Behaviors in the Mouse. ACNP Annual Meeting Hollywood, FL. December, 2013

Kendra Oliver, Heidi Hamm, Ana MD Carneiro. Serotonin and Selective Serotonin Reuptake Inhibitors (SSRIs) in Platelet Function and RhoA Activation. Atherosclerosis, Thrombosis, and Vascular Biology Conference. Toronto, Canada. May 2014

Kendra Oliver, Heidi Hamm, Ana MD Carneiro. Transporters in Health and Disease (SFB35) Vienna, Austria September 2014. "Bruise-blues with Chronic Selective Serotonin Reuptake Inhibitor Treatment: Lose of peripheral serotonin leads to bleeding phenotype"

Matthew Mazaloukas, Ana Carneiro. Dissecting the role of integrins in the modulation of the serotonin synapse. Society for Neuroscience Annual Meeting, 2014.

Michael Dohn, Ana Carneiro. Regulation of serotonin transporters by focal adhesion proteins. Society for Neuroscience Annual Meeting, 2014.

Ana Carneiro, Ben Basset, Seth Varney, Chang Chung. Role of microglia in the hippocampus of chronic stressed mice. Society for Neuroscience Annual Meeting, 2014.

Kendra Oliver, Heidi Hamm, Ana MD Carneiro. Chronic loss of serotonin transporter function alters platelet adhesion and spreading. Atherosclerosis, Thrombosis and Vascular Biology Scientific Sessions. San Francisco, CA, USA May 2015

Matthew Mazaloukas, Ana Carneiro. Integrin  $\alpha v\beta 3$  receptors define a subpopulation of serotonergic neurons and regulate serotonin transporter function. Society for Neuroscience Annual Meeting, 2015.

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