BIOGRAPHICAL SKETCH

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NAME	POSITION TITLE
Antonio Henrique Baccin Martins	Assistant Professor
eRA COMMONS USER NAME (credential, e.g., agency login) AHMARTINS	

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

INSTITUTION AND LOCATION	DEGREE *(if applicable)*	MM/YY	FIELD OF STUDY
University of Mogi das Cruzes	Bachelor	12/1999	Biomedical Sciences
University Federal of Sao Paulo	Master	04/2002	Molecular Biology
University of Sao Paulo	Ph.D.	03-2006	Neuroscience
University of Sao Paulo	Post. Doc	04/2006-2008	Neuroscience

A. Personal Statement

The present project proposes as a principal objective to test anti-inflammatory properties of 4R cembranoid in human blood of patients who have suffered a stroke episode. I have an expertise in rat stroke model and the effect of 4R as neuroprotective drug. My current research focuses in the effect of 4R in neural progenitor cells and neurons in rats after in vivo model of stroke. My next aim is to test the anti-inflammatory activity of 4R in rat brain. Therefore, I believe that I have the necessary expertise to help the other investigators to achieve the goals of this project.

B. Positions and Honors

1998-2000	*Internship in sciences*	*Department of Biophysics, University Federal of São Paulo*
2000-2002	*Master student*	*Department of Biophysics, University Federal of São Paulo*
2004	*Internship in laser scanning cytometry*	*University of Leipzig- Germany*
2002-2006	*Ph. D. Student*	*Department of Biophysics University Federal of São Paulo and University of São Paulo*
2006-2008	*Postdoctoral training*	*Department of Biochemistry, University of São Paulo*
2008-to date	*Assistant Professor*	*Department of Biochemistry, Universidad Central del Caribe*

Honors

2005 Honor mention, Menção Honrosa do 16o. Simpósio Internacional de Iniciação Científica da Universidade de São Paulo, Universidade de São Paulo.
2005 Honor mention, Federacao de Sociedades de Biologia Experimental
2005 Prize SBBq, Sociedade Brasileira de Bioquimica de Biologia Molecular
2006 Prize SBBq, Sociedade Brasileira de Bioquímica e Biologia Molecular
2008 Honor mention, XIII International Symposium on Cholinergic Mechanisms (ISCM).
2009 Honor mention, Federação de Sociedades de Biologia Experimental.

C. Selected peer review publications (total 10)

Additional recent publications of importance to the field *(in chronological order)*

1. Ulrich, H**., Martins, AH**., Pesquero, JB. (2004). RNA and DNA aptamers in cytomics analysis. *Cytometry 59 A, 220-231.*
2. **Martins, AH.,** Resende, R.R., Majumder, P., Faria, M., Casarini, DE., Tárnok, A., Colli, W., Pesquero, JB., Ulrich, H. (2005) Neuronal differentiation of P19 embryonal carcinoma cells modulates kinin B2 receptor gene expression and function. *Journal of Biological Chemistry* 280*,* 19576-19586.
3. Magdesian MH, Nery AA, **Martins AH**, Juliano MA, Juliano L, Ulrich H, Ferreira ST (2005). Peptide blockers of the inhibition of neuronal nicotinic acetylcholine receptors by amyloid beta..J Biol Chem. 280 :31085-31090.
4. Trujillo, CA., Nery, AA., **Martins, AH**., Majumder, P., Gonzalez, FA., Ulrich, H. (2006). Inhibition mechanism of the recombinant rat P2X2 receptor in glial cells by suramin and TNP-ATP. *Biochemistry 62,* 224-233.
5. Ulrich H, Trujillo CA, Nery AA, Alves JM, Majumder P, Resende RR, **Martins AH**. (2006). DNA and RNA aptamers: from tools for basic research towards therapeutic applications. *Comb Chem High Throughput Screen*.9: 619-632.
6. Trujillo CA, Nery AA, Alves JM, **Martins AH**, Ulrich H (2007) Anti-VEGF aptamer as a therapeutic agent in clinical ophtamalogy trials. Clinical Ophthamology, 1, 393-402.
7. **Martins AH**,. Alves JM, Trujillo CA, Schwindt TT, Barnabé GF, Motta FLT, Guimarães AO, Casarini DE, Luiz Mello EA, Pesquero, JB, Ulrich H (2008). Kinin-B2 receptor expression and activity during differentiation of embryonic neurospheres. Cytometry Part A; 73:361-368.
8. Trujillo CA, Schwindt TT, **Martins AH**, Alves JM, Mello LE, Ulrich H (2009). Novel perspectives of neural stem cell differentiation: from neurotransmitters to therapeutics. Cytometry Part A.;75: 38-53.
9. Nery AA, Resende RR, **Martins AH**, Trujillo CA, Eterovic VA, Ulrich H (2010) Alpha7 nicotinic acetylcholine receptor expression and activity during neuronal differentiation of PC12 pheochromocytoma cells J Mol Neurosci.;41 (3):329-39.
10. Oliveira CR, Paredes-Gamero EJ, Barbosa CM, Nascimento FD, Batista EC, Reis FC, **Martins AH**, Ferreira AT, Carmona AK, Pesquero JB, Tersariol IL, Araújo RC, Bincoletto C (2010) Myelopoiesis modulation by ACE hyperfunction in kinin B(1) receptor knockout mice: Relationship with AcSDKP levels. Chem Biol Interact ;184(3):388-95.

Book articles (total of 1)

1. Ulrich, H., Martins, A.H.B., and Pesquero, J.B. (2005). RNA and DNA aptamers in cytomics analysis. In: *Current Protocols in Cytometry*, J. Paul Robinson (Managing Editor); Zbigniew Darzynkiewicz; William Hyun; Alberto Orfao; Peter Rabinovitch (eds.), John Wiley & Sons, Inc., Hoboken, New York.

D. Research support

Ongoing support

U54RR022762 Rios, E (PD) 09/01/09 – 08/31/11
NCRR
Neuroprotection of Progenitor and Mature Neurons in Experimental Stroke

The overall goal is to evaluate whether the 4R cembranoid can protect the neurogenesis and exogenous neural progenitors grafted after the stroke episode.
Role: PI

1U01NS063555-01 Ferchmin (PI) 06/01/08 – 05/31/11
NINDS-*Protection Against Organophosphate Neurotoxins By Tobacco Cembranoids*
The objective of this project is to develop 4R cembranoid as a novel antidote against the organophosphate nerve toxins like soman and sarin.
Role: Co-investigator

Completed Research Support

P20 RR016470 Gonzalez, F. (PD/PI) 08/01/08-07/31/09
NCRR
Neuroprogenitor Cells Combined with Antiapoptotic Treatment as Stroke Therapy

The major goal of this project was to determine whether 4R increases the survival of neurospheres after oxygen glucose deprivation (OGD) in the hippocampal slice. This knowledge will be useful to develop future neurosphere transplantation.
Role: PI