

## Short Curriculum Vitae

### 1. Personal data

**Full name** Silvia Margarida Vilares Santos Conde

**National identity card**

10834223

**Birth place and date**

Lisboa 12-01-1977

**Nationality**

Portugal

**Institutional address**

CEDOC, Centro Estudos Doenças Crónicas, Rua Câmara Pestana, nº6, 6-A Edifício II,  
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**Education**

**Nov 2007** PhD in Life Sciences, Pharmacology. Faculty of Medical Sciences, New Univ. of Lisbon, Portugal

**Nov 2007** PhD in Biotechnology: Biomedical Applications. Faculty of Medicine, Univ. of Valladolid, Spain

**Nov 2005** Investigation Sufficiency Certificate. Faculty of Medicine, Univ. of Valladolid, Spain

**July 2000** Degree in Biochemistry – grade 15 (the scale is 0-20). Faculty of Science, Univ. of Lisbon, Portugal

**Professional Experience**

**Since 2013**– Principal Investigator at CEDOC, NOVA Medical School, Lisbon, Portugal

**Since Oct 2012** – Tenured Assistant Professor of Pharmacology and Neuroscience, Faculty of Medical Sciences, New University of Lisbon, Lisbon, Portugal

**Since 2007** – Researcher at CEDOC, Centro de Estudos Doenças Crónicas, Faculty of Medical Sciences, New University of Lisbon, Portugal

**Oct 2007- July 2012** – Invited Assistant Professor of Pharmacology, Faculty of Medical Sciences, New University of Lisbon, Lisbon, Portugal

**July 2004 - Sep 2007** –Portuguese Science and Technology Foundation PhD Fellow in Prof. Gonzalez Laboratory, Department of Biochemistry, Molecular Biology and Physiology, Faculty of Medicine, IBGM, Univ of Valladolid, Valladolid, Spain.

**Sep 2003 - June 2004** – Calouste Gulbenkian Foundation Fellow in Prof. Gonzalez Laboratory, Department of Biochemistry, Molecular Biology and Physiology, Faculty of Medicine, IBGM, Univ of Valladolid, Valladolid, Spain.

**June 2002 - Sep 2003** – Researcher in rotation between the Department of Pharmacology, Faculty of Medical Sciences, New University of Lisbon, Lisbon, Portugal and Prof. Gonzalez Laboratory, Department of Biochemistry, Molecular Biology and Physiology, Faculty of Medicine, IBGM, Univ of Valladolid, Valladolid, Spain.

**Sep 2000 - June 2002** – Researcher in Prof. Monteiro laboratory at the Department of Pharmacology, Faculty of Medical Sciences, New University of Lisbon, Lisbon, Portugal

#### **Selected publications (of 22)**

Gonzalez C, **Conde SV**, Gallego-Martin T, Olea E, Gonzalez-Obeso E, Ramirez M, Yubero S, Agapito MT, Gomez-Niño A, Obeso A, Rigual R, Rocher A (2014) Fernando De Castro and the discovery of the arterial chemoreceptors. *Front. Neuroanat.* (in press)

**Conde SV** and Peers C (2013) Carotid body chemotransduction gets the human touch. *J Physiol* 591:6131-2.

Ribeiro MJ, Sacramento JF, Gonzalez C, Guarino MP, Monteiro EC, **Conde SV** (2013) Carotid body denervation prevents the development of insulin resistance and hypertension induced by hypercaloric diets. *Diabetes* 62:2905-16

Guarino MP, Ribeiro MJ, Sacramento JF, **Conde SV** (2013) Chronic caffeine intake reverses age-induced insulin resistance in the rat: effect on skeletal muscle Glut4 transporters and AMPK activity. *Age* 35:1755-65

**Conde SV**, Ribeiro MJ, Obeso A, Rigual R, Monteiro EC, Gonzalez C (2012) Chronic caffeine intake in adult rat inhibits carotid body sensitization produced by chronic sustained hypoxia but maintains intact chemoreflex output. *Mol Pharmacol* 2012 82:1056-65.

**Conde SV**, Monteiro EC, Rigual R, Obeso A, Gonzalez C (2012) Hypoxic intensity: a determinant for the contribution of ATP and adenosine to the genesis of carotid body chemosensory activity. *J Appl Physiol.* 112:2002-10.

**Conde SV**, Nunes da Silva T, Gonzalez C, Mota Carmo M, Monteiro EC, Guarino MP. (2012) Chronic caffeine intake decreases circulating catecholamines and prevents diet-induced insulin resistance and hypertension in rats. *Br J Nutr* 107:86-95

**Conde SV**, Gonzalez C, Batuca JR, Monteiro EC, Obeso A (2008) An antagonistic interaction between A2B adenosine and D2 dopamine receptors modulates the function of rat carotid body chemoreceptor cells. *J Neurochem* 107:1369-8.

**Conde SV**, Obeso A, Gonzalez C (2007) Low glucose effects on rat carotid body chemoreceptor cells' secretory responses and action potential frequency in the carotid sinus nerve. *J Physiol.* 585:721-30.

**Conde SV**, Obeso A, Vicario I, Rigual R, Rocher A, Gonzalez C (2006) Caffeine inhibition of rat carotid body chemoreceptors is mediated by A2A and A2B adenosine receptors. *J Neurochem.* 98:616-28.

**Conde SV**, Monteiro EC (2006) Activation of nicotinic ACh receptors with alpha4 subunits induces adenosine release at the rat carotid body. *Br J Pharmacol* 147:783-9.

**Conde SV**, Monteiro EC (2004) Hypoxia induces adenosine release from the rat carotid body. *J Neurochem* 89:1148-56.

#### **Selected recent abstracts in International Conferences (of 31)**

Ribeiro MJ, Sacramento JF, Guarino MP, **Conde SV** (2013) Can carotid sinus nerve resection be a therapeutic approach for the treatment of insulin resistance? 49<sup>th</sup> Meeting of the European Association for the Study of Diabetes, Barcelona, Spain

Ribeiro MJ, Sacramento JF, Monteiro EC, **Conde SV** (2012) Chronic carotid sinus nerve resection prevents the development of insulin resistance in rats fed with hypercaloric diets. 48<sup>th</sup> Meeting of the European Association for the Study of Diabetes, Berlin, Germany. *Selected for oral communication*

Sacramento JF, Ribeiro MJ, Gonzalez C, Antunes DD, Guarino MP, **Conde SV** (2012) Effect of chronic caffeine administration on Glut-4, AMPK  $\alpha$ 1 expression and plasma catecholamines in age-induced insulin resistance, 48th Meeting of the European Association for the Study of Diabetes, Berlin, Germany.

Sacramento JF, Ribeiro MJ, Guarino MP, **Conde SV** (2012) The effect of acute caffeine administration on insulin sensitivity is mediated by A1 and A2B adenosine receptors. 6<sup>th</sup> European Congress of Pharmacology, Granada, Spain. *Selected for oral communication*

Ribeiro MJ, Gonzalez C, Guarino MP, Monteiro EC, **Conde SV** (2012) Is insulin a stimulus for carotid body activation? 6<sup>th</sup> European Congress of Pharmacology, Granada, Spain. *Selected for oral communication*

Guarino MP, Monteiro EC, Mota Carmo M, **Conde SV** (2011) Carvedilol restores insulin sensitivity in high-sucrose and high-fat diet rats through the blockade of the sympathetic nervous system. 47<sup>th</sup> EASD Annual Meeting. Lisbon, Portugal

### **Supervising experience**

#### **PhD students**

Since Nov 2013 - Joana Sacramento – “Modulation of carotid body activity as a therapeutic intervention in metabolic diseases” (ongoing)

Since May 2011- Maria João Ribeiro - “Role of carotid body in metabolic disturbances” (ongoing)

#### **Master students**

Since Sep 2013 –Bernardete Melo – “Carotid sinus nerve resection: therapeutic tool for the treatment of type 2 diabetes” (ongoing)

Since Sep 2013 – Joana Coelho – “Disclosing the caffeine dose to be administered that restores insulin sensitivity in type 2 diabetes animal models” (ongoing)

Dec 2013 – Patricia Rodrigues – “Biotransformation of Nevirapine in an animal model of insulin-resistance”

Oct 2012 - Joana Sacramento – “Caffeine and insulin resistance: what’s the role of adenosine”

### **Selected Invited Lectures**

**2013** Conde SV. “Unraveling the role of carotid body in metabolic disturbances”. VII PhD students Meeting. Doctoral Program of the Lisbon Academic Medical Centre. Lisbon, Portugal

**2013** Conde SV. “Significance of carotid body in insulin resistance and hypertension”, Symposium “Dysfunctional chemoreceptors: cause or consequence of the symptoms of cardiorespiratory disease?” International Union of Physiological Societies 2013, Birmingham, United Kingdom.

**2013** Conde SV. “Can carotid sinus nerve resection be a therapeutic approach for the treatment of hypertension and insulin resistance?” Lisbon Santa Marta Summer Meeting. Lisbon, Portugal

**2012** Conde SV. “Purinergic mechanisms in breathing control”. Symposium “Progress in Respiratory Physiology”. JOINT FEPS AND THE SPANISH PHYSIOLOGICAL SOCIETY SCIENTIFIC CONGRESS 2012, Santiago Compostela, Spain.

**2012** Conde SV. “Oxygen sensing and metabolic disturbances”, Symposium “The carotid body: Target for new drugs and advanced therapies”. 6th European Congress of Pharmacology, Granada, Spain.

### **Participation in projects**

#### **As Principal Investigator**

**Nov 2013- Nov 2014** - "Mapping carotid sinus nerve activity in diabetes rat models" Role in the project: Principal Investigator. Supported by: GSK Bioelectronic Exploratory Funding Ref: D00006317 - 96.105\$

**Mar 2011-Dec 2013** - "Insulin and carotid body: a new mechanism for insulin resistance and hypertension." Role in the project: Principal Investigator. Supported by Portuguese Foundation for Science and Technology Project Reference: PTDC/SAU-ORG/11149/2009 - 100.000€

**Nov 2009 - May 2012:** Effect of chronic caffeine intake on insulin resistance and hypertension: mechanistic and therapeutic approach. Role in the project: Principal Investigator. Supported by: Sociedade Portuguesa Diabetologia/Lilly Portugal - 10.000 €

#### **As Team member**

**Mar 2014- Feb 2015** – "Mapping the sympathetic efferent activity in carotid-body mediated insulin resistance". Role in the project: Researcher (15%). Supported by: Portuguese Foundation for Science and Technology (EXPL/NEU-SCC/2183/2013) – 48.371€

**Mar 2011 – Mar 2014** - Chronic Intermittent Eucapnic Hypoxia: systemic effects and evaluation of anti-hypertensive drugs efficacy". Role in the project: Researcher (15%) Supported by Portuguese Foundation for Science and Technology (PTDC/SAU-TOX/112264/2009). 194.000€

**2010- 2012** - Integrated Action "Luso-Espanhola" supported by CRUP. Title " Relative contribution of ATP and adenosine to carotid body chemotransduction in acute and chronic hypoxia. Role in the project: researcher, 7500€

**2003-2007-** Functional significance of adenosine receptors in carotid body chemosensory activity in control and chronic hypoxic animals and in ageing. Sponsored by CRUP/MEC and by CEPR/FCT. Role in the project: Researcher being this project her PhD project

**2001-2003** - Carotid body age-dependent functional alterations: Implications on carotid body transplants to treat Parkinson disease. Sponsored by CRUP/MEC (A.I. E -41/01) and by Calouste Gulbenkian Foundation. Role in the project: Researcher

#### **Prizes and Awards**

**2012** Hargreaves 2012 Award from the Portuguese Society of Diabetes /JABA RECORDATI

**2009** L'Oreal Portugal Medals of Honour for Women in Science from L'Oreal, Portuguese Science and Technology Foundation and UNESCO

**2009** Nuno Castel Branco Award from the Portuguese Society of Diabetes and Lilly Portugal

**2002** 1<sup>st</sup> Prize "De Castro - Heymans – Neil Award" from the International Society for Arterial Chemoreception

**2002** Pfizer Honour Young Researcher Prize from the Portuguese Society of Medical Sciences

**1999** Training Fellowship - nº1/3.2/PRODEPIII/2000 from Fundo Social Europeu e Estado Português

#### **Other skills**

Referee of the scientific journals: Journal of Neurochemistry since May 2003; Journal of histochemistry and cytochemistry since 2010; Neurochem Inter, J Physiol Pharmacol and J Caffeine Res since 2011, Journal of Physiology since 2012, Diabetes, Obesity and Metabolism since 2012

Certification accredited by FELASA as Category C Investigator for animal manipulation and research.