

CURRICULUM VITAE

Surname: Babes

First name: Alexandru

Title: Professor

Date and place of birth: January 27-th, 1971, Bucharest

Marital status: married, two children

Work address: Department of Anatomy, Physiology and Biophysics, Faculty of Biology, University of Bucharest, Splaiul Independentei 91-95, 050095 Bucharest, Romania

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Education and degrees:

1995, Faculty of Physics, University of Bucharest, BSc in Physics

1997, Faculty of Biology, University of Bucharest, MSc in Neurobiology

2002, University of Bucharest, Ph.D. in Biology “Summa cum laude”

Past appointments:

1. 1996–2008 junior teaching assistant, teaching assistant, lecturer and reader at the Department of Animal Physiology and Biophysics, Faculty of Biology, University of Bucharest

2. May-July, September-December, 2002, post-doctoral research associate at the Department of Pharmacology, Cambridge University, UK

3. Since October 2008 Professor in Neurobiology at the Department of Animal Physiology and Biophysics, Faculty of Biology, University of Bucharest

Fellowships:

1. 1995, TEMPUS fellowship at INSERM, Unite 299, Hopital de Bicetre, Institut de Pathologie Cellulaire, Paris, France

2. 1997, TEMPUS fellowship at the Max-Planck-Institut fuer Biophysik, Frankfurt am Main, Germany

1998-1999-2000, Max-Planck and DAAD fellowships at the Max-Planck-Institut fuer Biophysik, Frankfurt am Main, Germany

3. 2000, 2001, research-assistant at the Sobell Department, Institute of Neurology, University College, London, UK

4. 2001, NATO fellowship at the Institute of Physiology, Justus-Liebig-Universitaet Giessen, Germany

5. 2002, Junior Fellowship, Physiological Society, Department of Pharmacology, Cambridge University

6. 2003, 2005, visiting scientist and FEBS fellowship at the Instituto de Neurociencias, Universidad Miguel Hernandez, San Juan de Alicante, Spain.

7. 2006, 2009, 2016, Alexander von Humboldt fellowship at the Institut fuer Physiologie und Experimentelle Pathophysiologie, Friedrich-Alexander Universitaet Erlangen-Nuernberg, Erlangen, Germany

8. 2011, EMBO short-term fellowship, Institute de Pharmacologie Moleculaire et Cellulaire, Sophia Antipolis, France

Awards:

1. 2016 - IASP (International Association for the Study of Pain) Award for Excellence in Pain Research and Management in Developing Countries
2. 2009, The Luigi Galvani Prize for outstanding contributions to the field of bioelectrochemistry, The Bioelectrochemical Society
3. 2005, Award for an outstanding poster presentation, The International Workshop on Ion Channels, Physiological Society, Seville, Spain
4. 2002, Young Investigator Award, Romanian Research Council

Oral presentations at international conferences:

1. The 95th Annual Meeting of the German Physiological Society, Lübeck, Germany, 2016
2. The 90th Annual Meeting of the German Physiological Society, Regensburg, Germany, 2011
3. The 20th International Symposium on Bioelectrochemistry and Bioenergetics, Sibiu, Romania, 2009
4. The 87th Annual Meeting of the German Physiological Society, Köln, Germany, 2008
5. The Joint Meeting of the Physiological Society, the Federation of European Physiological Society and the Slovak Physiological Society, Bratislava, Slovakia, 2007
6. The 86th Annual Meeting of the German Physiological Society, Hannover, Germany, 2007
7. The 2nd International Conference of the National Neuroscience Society of Romania, Bucharest, Romania, 2006
8. The Annual Physiological Society Meeting, Bristol University, Bristol, UK, 2005
9. The Physiological Society Meeting, Glasgow University, Glasgow, UK, 2004
10. The 1st International Conference of the National Neuroscience Society of Romania, Bucharest, Romania, 2003
11. The 4th EFIC (The European Federation of the International Association for the Study of Pain) Congress, Prague, The Czech Republic, 2003
12. The 12th Balkan Biochemical and Biophysical Meeting – Bucharest, Romania, 2001
13. The Young Scientist Symposium at the 18th International FEBS Congress, Birmingham, UK, 2000.

Lecturer at International Schools

1. The international Autumn School “Biophysics & Bioelectrochemistry for Medicine: Basic Concepts, New Techniques and Application Perspective”, October 1-6, 2010, Vulcan, Romania
2. The International Spring School in Biophysics & Bioelectrochemistry for Medicine, May 6-10, 2009, Cisnadioara, Romania

Organizer of international conferences:

1. PENS Workshop on “Mechano-transduction and nociception”, University of Bucharest, August 25-30, 2007
2. International IBRO Course in Neuroscience: University of Bucharest, May 3-11, 2004, with Prof. Uel Jackson McMahan, Stanford University, USA

Member of scientific organizations:

The National Neuroscience Society of Romania (affiliate to FENS)

The International Brain Research organization (IBRO), the International Association for the Study of Pain (IASP)

Reviewer for Neuroscience, Nature protocols, Journal of the Peripheral Nervous System, Molecular and Cellular Neuroscience, Journal of Neurophysiology, British Journal of Pharmacology, Molecular Pain, Pflüger's Archiv, the Wellcome Trust, the Human Brain Project, the European Commission (Marie Curie Actions).

Science administration and policy activities

President of the Romanian Research Council (CNCS) between 2011 and 2013.

Current President of the Romanian Research Council since December 2016.

Scientometric data (according to Web of Science on 28.07.2016)

Sum of Times Cited without self-citations: 864

Citing Articles without self-citations: 739

Average Citations per Item: 37.21

h-index: 13

Scientific interests:

My research is currently focused on the molecular mechanisms of sensory transduction in peripheral mammalian thermoreceptors and nociceptors. Using a combination of electrophysiological and imaging techniques, I have been involved in the characterization of cold-sensitive neurons in rodent dorsal root ganglia. We have shown that more than one neuronal population is involved in cold detection and we have described for the first time a novel type of cold-sensitive neuron with rapid adaptation to cooling stimuli. Recently, we have begun to investigate the modulation of the two ion channels most likely to be involved in cold-sensing: TRPM8 and TRPA1. We have shown that pro-inflammatory mediators such as bradykinin and prostaglandin E2 have an inhibitory effect on TRPM8 expressing neurons, which is mediated by activation of protein kinase C and protein kinase A, respectively. Pharmacological investigation of TRPA1 is work in progress: we have already shown that the anti-diabetic drug glibenclamide may exert some of its beneficial effects through activation of TRPA1. We also focused on voltage-gated sodium channels and have been involved in investigating the role of Nav1.8 in maintaining sensitivity to noxious cold and painful stimuli at low temperatures (work published in Nature). Recently, we became interested in unraveling the cellular mechanisms involved in diabetic neuropathy, and, in a truly collaborative project, we uncovered a role for Nav1.8 as a target of advanced glycation in diabetes (published in Nature Medicine).