

PEDRO MONTOYA, PHD

PRESENT POSITION

Full Professor of Biological Psychology
Department of Psychology
University of the Balearic Islands
Carretera de Valldemossa km 7.5
E-07122 Palma, Spain
Institutional email: pedro.montoya@uib.es

CITIZENSHIP

Spanish

EDUCATION

Oct 1988 - May 1993	PhD in Psychology at the <i>Ludwig-Maximilians</i> University (Munich, Germany)
1981-1986	Degree in Psychology at the Complutense University (Madrid, Spain)

ACADEMIC APPOINTMENTS

Oct 2009 – present	Full Professor of Biological Psychology (<i>Catedrático</i>) at the University of Balearic Islands (Spain), Department of Psychology
Aug 2021 – present	Senior Visiting Professor, Center for Mathematics, Computing and Cognition - <i>Universidade Federal do ABC</i> (UFABC) (Sao Paulo, Brazil)
Dec 1997 – Oct 2009	Associate Professor (<i>Profesor Titular</i>) at the University of Balearic Islands (Spain), Department of Psychology
Oct – Dec 1997	Visiting Lecturer at the University of Balearic Islands (Spain), Department of Psychology
May 1993 – Sep 1997	Research Associate at the <i>Karl-Eberhards</i> University (Tübingen, Germany), Institute of Medical Psychology and Behavioral Neurobiology
Jul 1996 – Apr 1997	Visiting Research Fellow at the Vienna General Hospital (Austria), Department of Neurology (Prof. Dr. L. Deecke)
May 1991 – Apr 1993	Adjunct Professor at the <i>Ludwig-Maximilians</i> University (Munich, Germany), Institute of Clinical Psychology
Jul – Aug 1991	Visiting Research Fellow at the State University of New York (SUNY) at Stony Brook (USA), Department of Psychology,
Jan – Dec 1987	Visiting Post Graduate Fellow at the Max-Planck Institute of Psychiatry (Munich, Germany), Department of Psychology

FELLOWSHIPS AND AWARDS

Aug 2013 – Jul 2016	Visiting Professor Fellowship (<i>Bolsa Pesquisador Visitante</i>) from the Brazilian Research Agency Coordination for the Improvement of Higher Education (CAPES, Ministry of Higher Education)
Jul - Sep 2001	Postdoctoral Fellowship of the <i>Deutscher Akademischer Austauschdienst</i> - DAAD (Germany)
Oct 1997	Award of the German Society for the Study of Pain
Jul 1996 - Apr 1997	Postdoctoral Fellowship of the European Science Foundation (European Neuroscience Programme)
Oct 1988 - Jul 1992	Postgraduate Fellowship of the <i>Deutscher Akademischer Austauschdienst</i> - DAAD (Germany)
Oct - Dec 1987	Postgraduate Fellowship of the Max-Planck Society (Germany)
Jan - Jun 1987	Postgraduate Fellowship of the Regional Government of Madrid (Spain)

RESEARCH GRANTS

2023-2026	Spanish Ministry of Science and Innovation Spanish Research Agency), “Effects of non-invasive brain stimulation on brain processing of emotions in chronic pain (MODU4PAIN)” (reference: PID2022-140561NB-I00). Budget: 150.625€. PI: Pedro Montoya
2018-2021	Spanish Ministry of Economy and Competitiveness, “Pain and cerebral plasticity: Somatosensory and motor modulation” (reference: PSI2017-88388-C4-1-R). Budget: 90,000€. PI: Pedro Montoya; Co-PI: Miguel A Munoz
2015-2017	Grant from BIAL Foundation (Portugal), “Affective and cognitive modulation of brain activity to alleviate pain by using real-time fMRI neurofeedback” (reference: 385/14). Budget: 40,000€.
2014-2017	Grant from Spanish Ministry of Economy and Competitiveness, “Modulation of brain activity to alleviate pain: neurofeedback for self-regulation of functional connectivity using fMRI” (reference: PSI2013-48260-C3-1-R). Budget: 90,000€.
2011-2013	Grant from Spanish Ministry of Science and Innovation, “Analysis of genetic factors involved in the modulation of brain dynamic of chronic pain” (reference: PSI2010-19372). Budget: 70,000€.
2010-2011	Grant from Spanish Ministry of Health and Social Affairs, “Application of neurofeedback techniques in patients with motor deficits after cerebrovascular accident” (reference 141/2010). Budget: 40,000€.
2010-2011	Grant from Regional Government of the Balearic Islands, “The role of

sexual hormones and stress on the brain processing of pain in fibromyalgia patients" (reference: AAEE0111/09). Budget: 9,000€.

2009-2010 Grant from Regional Government of the Balearic Islands, "Study of the prevalence of the COMT gene polymorphism involved in pain sensitivity among patients with chronic pain". Budget: 7,700€.

2008-2011 Grant from La Marato de TV3 Foundation (Spain), "Brain dynamic of cognitive and affective processing in patients with fibromyalgia" (reference: 070110). Budget: 199,668€.

2007-2010 Grant from Spanish Ministry of Education and Science, "Dynamic of brain activity and pain perception in patients with chronic pain" (reference: SEJ2007-62312). Budget: 117,370€.

2004-2007 Grant from Spanish Ministry of Education and Science, "Assessment of information processing in chronic pain with fMRI" (reference: SEJ2004-01332). Budget: 147,200€.

2001-2004 Grant from Spanish Ministry of Science and Technology, "Psychophysiological assessment of central sensitization in chronic pain and the influence on emotional and cognitive processing" (reference: BSO2001-0693). Budget: 100,939€.

SHORT INVITED VISITS TO OTHER INSTITUTIONS

Mar 2014 – Sep 2016 Visiting Professor, Institute of Health Sciences, Federal University of Bahia (Salvador, BA, Brazil)

June 2013 – Sep 2014 Visiting Professor, Institute of Medical Psychology and Behavioral Neurobiology, Eberhard-Karls University of Tübingen (Germany)

Aug 2006 – July 2007 Visiting Scholar, Department of Physiology, Feinberg Medical School, Northwestern University, Chicago (USA)

July – Sep 2001 Visiting Research Fellow, Institute of Medical Psychology and Behavioral Neurobiology (Prof. Dr. Niels Birbaumer), Eberhard-Karls University of Tübingen (Germany)

July – Sep 2002 Visiting Research Fellow, Institute of Medical Psychology and Behavioral Neurobiology (Prof. Dr. Niels Birbaumer), Eberhard-Karls University of Tübingen (Germany)

July – Sep 2003 Visiting Research Fellow, Institute of Medical Psychology and Behavioral Neurobiology (Prof. Dr. Niels Birbaumer), Eberhard-Karls University of Tübingen (Germany)

July 1996 – Apr 1997 Visiting Research Fellow, Department of Neurology (Prof. Dr. L. Deecke), Vienna General Hospital (Austria)

July – Aug 1991 Visiting Research Fellow, Department of Psychology, State University of New York at Stony Brook (USA)

Jan – Dec 1987 Visiting Post Graduate Fellow, Department of Psychology (Prof. J. Brengelmann), Max-Planck Institute of Psychiatry, Munich (Germany)

OTHER RELEVANT ACADEMIC & RESEARCH ACTIVITIES

May – June 2001 Organization of the II International Workshop on Emotion and the Brain (Palma, Spain)

Oct 1999 – June 2004 Vice Dean of the Faculty of Psychology, University of Balearic Islands (Spain)

2011 – 2015 Organization of several editions of the Annual International Symposium on Fibromyalgia and Chronic Pain in Palma (Spain) (<http://www.fibrosymposium.org>)

Jan 2001 – present Academic tutor of the Erasmus Exchange Programme at the Faculty of Psychology, University of Balearic Islands (Spain)

MEMBERSHIPS

2011 – 2017 European Society for Cognitive and Affective Neuroscience (ESCAN) (board member)

2001 – 2015 International Association for the Study of Pain

1996 – 2002 European Neuroscience Association

1996 – present Spanish Society for Psychophysiology

1991 – 2002 Society for Psychophysiological Research

COURSES TAUGHT

University of Balearic Islands (Spain) [Pain and the brain – MNEU11246](#)
Master in Neuroscience

[Plasticity and neurorhabilitation – MNEU11253](#)
Master in Neuroscience

[Cognitive Neuroscience – MNEU11241](#)
Master in Neuroscience

 Psychobiology of chronic pain
 Doctoral program in Psychology

 Psychobiology of emotions
 Doctoral program in Psychology

 Brain maps and representation of knowledge
 Doctoral program in Psychology

[Biological Psychology – PSY21312](#)

Bachelor's program in Psychology

[Psychophysiology – PSY1925](#)

Bachelor's program in Psychology

[Cognitive Psychophysiology – PSY1957](#)

Bachelor's program in Psychology

[Health psychophysiology – PSY1958](#)

Bachelor's program in Psychology

Foundations on Neuroscience – PSY1164

Bachelor's program in Psychology

*Universidade Federal do ABC
(São Paulo, Brazil)*

Cognitive Psychology
Bachelor's program in Neuroscience

*University of Tübingen
(Germany)*

Medical Psychology and Sociology
Program in Medicine

*Valencian International
University*

Psychophysiology
Bachelor's program in Psychology (online)

*Autonomous University of
Barcelona (Spain)*

Somatosensory processing
[International Master Program in Psychobiology and
Cognitive Neuroscience](#) (online)

ACADEMIC ADVISING (by date)

Álvaro Sabater Gárriz

PhD thesis: Pain assessment based on biomarkers in people with cerebral palsy without cognitive-voluntary communication (2024)

Alex Novaes de Santana

PhD thesis: Chronic pain classification: a machine learning perspective (2021)

Juan Lorenzo Terrasa Navarro

PhD thesis: Effects of aging and neuromodulation on somatomotor cortex (2020)

José Antonio Mingorance
Rubiño

PhD thesis: Proprioception and chronic pain (2019)

Saliha Belmonte Darraz

PhD thesis: Event-related potentials elicited by affective pictures in a pediatric sample with cerebral palsy (2019)

Isis da Silva Costa

PhD thesis: Variations in EEG and motor functions related to COMT gene in patients with fibromyalgia (2017)

Francisca Rossello Muntaner

PhD thesis: Modulation of the defense system in patients with fibromyalgia (2016)

Cynthia Noguera Carrión	Master thesis: Differences between patients with fibromyalgia and chronic low back pain in balance and sensitivity to pain (2016)
Mercedes Martínez Jauand	PhD thesis: Genetic and psychosocial factors involved in pain modulation (2013)
Ana María González Roldán	PhD thesis: Dynamics of brain activity associated with the processing of nociceptive and affective stimuli in chronic pain patients (2013)
Juan P. Gea Ramón	Master thesis: Approach-avoidance tendencies to facial expressions (2013)
Marcello Meli	Master thesis: Changes in pain sensitivity associated with the application of pulsed radiofrequency (PRF) treatment in dorsal root ganglion (2013)
Pascal Maurice Aggensteiner	Master thesis: Application of neurofeedback techniques in patients with motor deficits due to stroke (2013)
Juana María Heredia Varón	Master thesis: Differences in Heart Rate Variability (HRV) before and after a treatment in fibromyalgia (2013)
Francisca Victoria Rossello Muntaner	Master thesis: Affective modulation of cerebral and autonomic responses to nociceptive stimulation by using virtual reality in fibromyalgia (2012)
César A. Walteros	Master thesis: Analysis of cognitive processing during decision-making in patients with fibromyalgia (2012)
Ana Mantecón Carrero	Master thesis: Learning and memory of words with emotional content in fibromyalgia (2012)
Inmaculada Riquelme Agulló	PhD thesis: Approaching the hypothesis of a sensorimotor deficit in cerebral palsy (2011)
Isis da Silva Costa	Master thesis: Gait and balance characteristics in patients with fibromyalgia (2011)
Ana María Zamorano Andrés	Master thesis: Assessment of touch sensitivity in professional musicians (2011)
Mercedes Martínez Jauand	Master thesis: Somatosensory activity modulation during observation of others' pain (2010)
Ana María González Roldán	Master thesis: Temporal dissociation in the brain processing of pain and anger faces with different intensities of emotional expression (2010)
Thomas Leo Kaufmayer	Master thesis: Pain and social support (2010)
Noemí Sánchez Nàcher	Master thesis: Temporal changes in brain activity elicited

	by conditioned stimuli during associative aversive learning (2010)
Carolina Sitges Quiros	PhD thesis: Brain activity in patients with fibromyalgia: multidimensional aspects of chronic pain (2009)
Catalina Alorda Quetglas	Master thesis: Symptom perception in the patient with chronic respiratory disease and psychological functional variables (2009)
Dominik Fischerg	PhD thesis: Influence of social support on central processing of pain in fibromyalgia: a controlled fMRI study (2008)
Patrick Schlegel	PhD thesis: Influences of social support on the affective component of pain processing in fibromyalgia: a combined study using behavioral and fMRI data (2008)
Katrin Buck	PhD thesis: Changes in pain perception in fibromyalgia patients through Katadolon (2006)
Sonia Lamothe	PhD thesis: Effects of Katadolon on functional organization of the primary somatosensory cortex in fibromyalgia (2006)
Carolina Sitges Quiros	Master thesis: Analysis of emotional and cognitive variables in patients with fibromyalgia and patients with musculoskeletal pain (2006)
Uwe Köster	PhD thesis: Psychophysiological assessment of phantom limb pain under different stress conditions (2005)
Dirk Meine	PhD thesis: Changes in peripheral physiological parameters in amputees with and without phantom limb pain under experimentally-induced stress (2000)
Jutta Karmann	PhD thesis: Changes in cortical information processing in amputees with phantom limb pain (1995)
Gisela Bauersfeld	PhD thesis: Psychological predictors of phantom limb pain (1995)

RELEVANT EXPERT ACTIVITIES

June 2014 – present	Expert peer reviewer of the H2020 Research and Innovation programme of the European Commission
Feb 2009 – present	Expert peer reviewer for higher education accreditation in Spain (ANECA, DEVA, ACSUG), Costa Rica (SINAES) and Brazil (CNPq)

SELECTED PUBLICATIONS (recent peer-reviewed work on pain neurobiology, neuroimaging, and neuromodulation; full list available on <http://pedromontoya.com>)

González-Roldán, A.M., Delgado-Bitata, M., Dorado, A., Costa da Silva, I., & Montoya, P. (2025). Chronic pain and its association with cognitive decline and brain function abnormalities in older adults. *Neurobiol Aging*, 150: 172-181.

Santana, J.E.R.S., Carvalho, M.L., Lopes, T.S., Miranda, J.G.V., Montoya, P., et al. (2025). Distinct brain connectivity patterns in sickle cell disease: a biomarker for chronic pain severity. *Brain Connect*, 15(3):125-138.

Dorado, A., Terrasa, J.L., van der Meulen, M., Montoya, P., & González-Roldán, A.M. (2024). Altered endogenous pain inhibition and disrupted functional connectivity in older adults with chronic pain. *J Pain*.

Lopes, T.S., Santana, J.E., Silva, W.S., Fraga, F.J., Montoya, P., et al. (2024). Delta and theta power in sickle cell disease with chronic pain: a resting-state EEG study. *Brain Topogr*, 37(5): 859-873.

Sabater-Gárriz, A., Mestre-Sansó, F., Canals, V., Mingorance, J.A., Montoya, P., & Riquelme, I. (2024). Emotional modulation of proprioceptive beta rhythms in children with neurodevelopmental conditions. *Res Dev Disabil*, 154: 104842.

Belmonte-Darraz, S., Montoro, C.I., Andrade, N.C., Montoya, P., & Riquelme, I. (2021). Emotion knowledge and regulation in children with cerebral palsy. *J Autism Dev Disord*, 51: 1238-1248.

González-Roldán, A.M., Terrasa, J.L., Prats-Sedano, M.A., Sitges, C., van der Meulen, M., Anton, F., & Montoya, P. (2021). Pain modulation via controllability and expectations in aging. *Eur J Pain*, 25: 1472–1481.