

# Cristina Blanco Duque

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## EDUCATION

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- 09/16 – Present **Wellcome Trust Doctoral Programme in Neuroscience.** *University of Oxford, UK*
- 09/15 – 08/16 **MSc. in Neuroscience.** *University of Oxford, UK*
- 10/12 – 10/14 **Research Master in Neuropsychology.** *Maastricht University, Netherlands - University of Cambridge, UK*
- 06/06 – 06/11 **BSc. (Hons) Psychology.** *Pontificia Universidad Javeriana, Colombia*

## OTHER EDUCATION - SPECIALIZATIONS

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- 06/10 – 06/11 **Specialization in Clinical Neuropsychology.** *Pontificia Universidad Javeriana, Colombia*
- 01/10 – 06/10 **Specialization in Clinical Psychology and Family Therapy.** *Pontificia Universidad Javeriana, Colombia*
- 06/09 – 12/09 **Specialization in Neuropsychology of Dementias.** *Pontificia Universidad Javeriana, Colombia*

## AWARDS

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- 2015 **Wellcome Trust Four-Year PhD Studentship – Wellcome Trust** (£ 221,673)  
Funding for MSc and subsequent DPhil.
- 2015 **Clarendon Scholarship – Oxford University Press** (£ 53,420)  
Awarded to academically excellent students with the best proven and future potential.
- 2015 **Santander Graduate Award for Oxford University Students – Santander Bank** (£5,000)  
One year funding for postgraduate studies at the University of Oxford.
- 2014 **Alzheimer's Research UK Cambridge Network Scholarship – ARUK** (£5,000)  
Support for project on early detection of Alzheimer's Disease.
- 2012 **University of Maastricht High Potential Scholarship – Maastricht University** (€55,000)  
Scholarship to highly talented students.
- 2011 **Xavierian University Academic Excellence Merit Award – Pontificia Universidad Javeriana**  
Awarded First-Class Honors with Distinction for BSc Psychology. Top 1% each year of BSc.
- 2010 **Best Conference Presentation Award.** Talk: Tobacco consumption biases information processing in the brain.  
*III International Congress of Neuroscience, Colombia. Oct 14-16, 2010.*

## SELECTED RESEARCH EXPERIENCE

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- 08/16 – 08/19 **PhD Student - Sleep and Circadian Neuroscience Institute, University of Oxford.** *Oxford, UK*  
*Supervisors:* Prof. Vladyslav Vyazovskiy and Prof. David Bannerman. *Topic:* The role of sleep oscillations in sensory and memory processing in mice.
- 01/16 – 08/16 **MSc Research Rotations in Neuroscience – University of Oxford.** *Oxford, UK*  
*Supervisor 1:* Prof. Richard Wade-Martins. *Topic:* Stem cell modelling of Alzheimer's Disease.  
*Supervisor 2:* Prof. Tim Behrens. *Topic:* The role of the orbitofrontal cortex in the formation of cognitive maps.
- 04/15 – 09/15 **Research Assistant – Nuffield Department of Clinical Neurosciences, University of Oxford.** *Oxford, UK*  
*Supervisor:* Dr. Christopher Butler. *Topic:* Memory deficits in Epilepsy and Posterior Cortical Atrophy.

- 09/14 – 02/15** **Research Assistant – Medical Research Council, Cognition and Brain Sciences Unit.** *Cambridge, UK*  
*Supervisors:* Prof. Richard Henson and Dr. Andrea Greve. *Topic:* Comparison of the ability of MRI and MEG to detect early stages of Alzheimer’s Disease.
- 11/13 – 09/14** **MSc Student – Medical Research Council, Cognition and Brain Sciences Unit.** *Cambridge, UK*  
*Supervisors:* Prof. Richard Henson and Dr. Andrea Greve. *Topic:* Classification of Alzheimer Disease stages using MRI and behavioral memory measures.
- 02/13 – 11/13** **Student Researcher – Faculty of Neuroscience, Maastricht University.** *Maastricht, Netherlands*  
*Supervisors:* Prof. Peter Stiers. *Topic:* Contribution of the prefrontal cortex to cognition and motivation during a gambling task.
- 04/13 – 08/13** **Student Researcher – Faculty of Neuroscience, Maastricht University.** *Netherlands*  
*Research project:* The influence of number-cues on disrupted binocular rivalry. *Supervisor:* Dr. Dennis Croonenberg,
- 01/07 – 12/11** **Research Intern and Trainee – Neuroscience Research Group and Neurosketch.** *Bogota, Colombia*  
 Training in basic skills for research in neural and behaviour science. Various research projects on behavioural and cognitive neuroscience.

## CLINICAL EXPERIENCE

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- 01/11 – 06/11** **Intern in Child Neuropsychology** – Psychological Consulting Center PUJ. *Colombia*  
 Neuropsychological assessment. Rehabilitation programs development. *Research project:* Effects of cognitive and behavioural training for children with attention and executive functions deficits.
- 06/10 – 12/10** **Intern in Adult Neuropsychology** – San Ignacio University Hospital. *Colombia*  
 Neuropsychological assessment and follow up of neurosurgical and neurological patients. *Research Project:* Neuropsychological impact of deep brain stimulation treatment in Parkinson Disease and Epilepsy.
- 01/10 – 06/10** **Intern in Systemic Clinical Intervention** – International Organization Fe y Alegría. *Colombia*  
 Clinical intervention. *Social Project:* Citizenship Education - from indifference to commitment.
- 06/09 – 12/09** **Intern in Neuropsychology and Intervention in Dementias** – Casa Nostra Nursing Home. *Colombia*  
 Neuropsychological assessment and follow up for elderly patients with suspected dementia. Rehabilitation program development.

## TEACHING AND OTHER RELEVANT EXPERIENCE

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- 01/12 – 07/12** **Psychology Laboratory Manager and Teacher of Neuropsychology** – University of Health Sciences. *Colombia*  
 Teaching Assistant. Laboratory workshops development and scoring. Management of laboratory equipment.
- 06/07 – 06/11** **Editorial Management Assistant** – Universitas Psychologica Panamerican Journal of Psychology (ISSN 1657-9267 / EISSN 2011-2777). International collaboration committee member. Review of publication requirements of received articles. Editorial support.
- 01/07 – 06/11** **Tutor for Neuropsychology and Social Psychology Programs** – Pontifical Xavierian University. *Colombia*  
 Teaching Assistant. Laboratory workshops development and scoring. Management of laboratory equipment.
- 01/07 – 06/08** **Editorial Assistant** – United States Agency for International Development and Pontifical Xavierian University  
 Assistant in the publication and edition of the books: “Victimología atención psicosocial a las víctimas” and “Publicar em Psicologia um Enfoque para a Revista Científica”.
- 06/05 – 06/08** **Social Work Volunteer - Foundation for the research and development of special education (FIDES)**  
 Cognitive and motor training for individuals with cognitive deficits (Down syndrome).

## PUBLICATIONS AND PROCEEDINGS

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- **Blanco, C.**, Greve, A., Cooper, E., Henson, R. (In preparation). Structural MRI and MEG as candidate biomarkers for Alzheimer Disease.
- Purple, R. J., McKillop, L.E., Fisher, S.P., Krone, L., **Blanco-Duque, C.**, Kahn, M., Yamagata, T., Meisel, C., Ramkisoensing, A., Hasan, S., Bannerman, D.M., Foster, R.G., Wulff, K., Vyazovskiy, V. V. (In preparation). Local cortical spindles and the emergence of unitary states during sleep in mice.
- Gauri, A., McKillop, L.e., Purple, R., **Blanco-Duque, C.**, Peirson, S.N., Foster, R.G., Harrison, P.J., Sprengel, R., Davies, K.E., Oliver, P.L., Bannerman, D.M., Vyazovskiy, V.V. (2018). Absent sleep EEG spindle activity in GluA1 (Gria1) knockout mice: relevance to neuropsychiatric disorders. *Translational Psychiatry*, 8:154.
- Ahmed, S., Irish, M., Loane, C., Baker, I., Husain, M., Thompson, S., **Blanco-Duque, C.**, Mackay, C., Zambonia, G., Fox, D., Hodges, J.R., Piguet, O., Butler, C. (2018). Association between precuneus volume and autobiographical memory impairment in posterior cortical atrophy: Beyond the visual syndrome. *Neuroimage: Clinical*, 18: 822-834.
- **Blanco-Duque, C.**, Ang, G., Purple, R.J., McKillop, L.E., Yamagata, T., Oliver, P.L., Bannerman, D.M., Vyazovskiy, V.V. (2017). GluA1 knockout mice show reduced EEG sleep spindle activity without presenting long-term memory deficits. *Sleep Medicine*: 40(1): e38.
- Kaller, M., **Blanco, C.**, Sampaio-Baptista, C., Lazari, A., Johansen-Berg, H. (2017). Myelin plasticity and behaviour – connecting the dots. *Current Opinion in Neurobiology*, 47:86-92.
- Salgado-Montejo, A., Velasco, C., **Blanco, C.**, Guarín, E. (2011). What can tobacco addiction teach us about consumer decision making? Consumer behavior, hedonic forecast and reward. *Research World - ESOMAR*. ISBN 92-831-0253-3.
- **Blanco, C.**, Forero, D., Salgado-Montejo, A., Salgado, C.J. (2009). A neuro-social perspective of business cooperation. *Revista PSIKÉ*, 7(1), 18-27. ISSN 1794-1091.
- **Blanco, C.**; Mejía, M. (2007). Empathy beyond neurochemistry and evolution. *Revista PSIKÉ*, 7, 15-21. ISSN 1794-1091.

## SELECTED CONFERENCE PRESENTATIONS

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- **Blanco, C.**, Purple, R., McKillop, L.E., Yamagata, T., Bannerman, M.D., Vyazovskiy, V.V. (2018). Thalamocortical Interactions Gordon Research Conference. **Poster**: *GluA1 knockout mice show reduced EEG sleep spindle activity without presenting long-term memory deficits*. February 18-23.
- **Blanco, C.**, Purple, R., McKillop, L.E., Yamagata, T., Bannerman, M.D., Vyazovskiy, V.V. (2017). World Sleep Society Conference. **Poster**: *GluA1 knockout mice show reduced EEG sleep spindle activity and preserved local LFP spindle activity*. October 7-11.
- **Blanco, C.**, Greve, A., Brindley, L., Cooper, E., Taylor, J., Olichney, J., Watson, P., Nestor, P., Henson, R. (2015). Comparing MEG with MRI for Early Detection of Alzheimer's Disease. **Poster**: *Organization for Human Brain Mapping (oHBM)*, Hawaii (US). June 14-18.
- Henson, R., **Blanco, C.**, Greve, A., Nestor, P. (2015). Neuroimaging approaches to detecting early Alzheimer's disease. **Talk**: *Alzheimer Research Cambridge Network Meeting*, Cambridge (UK). May 17-18.
- **Blanco, C.**, Greve, A., Cooper, E., Henson, R. (2014). Is there a benefit of combining MRI and associative memory measures in the classification of Alzheimer Disease? **Talk**: *Cambridge Memory Meeting*, Cambridge (UK), May 13-15.
- **Blanco, C.**, Salgado-Montejo, A., Gómez, N., Velasco, C., Ono, Y. (2011). Anti-tobacco advertising through the lens of addiction: evidence from EEG gamma and alpha band activity. **Poster**: *43<sup>rd</sup> European Brain and Behavior Society Meeting (EBBS)*, Seville (Spain), Sep 9-12.
- **Blanco, C.**, Salgado-Montejo, A., Velasco, C., Guarín, E. (2011). What can tobacco addiction teach us about consumer decision making? **Talk**: *Impact, research reloaded*, ESOMAR world research, Amsterdam (Netherlands), Sep 18-21.
- Gómez, N., Salgado-Montejo, A., Velasco, C., **Blanco, C.** (2011). Mirrors and Actions: How are empathy and simulation linked to emotional regulation and attachment? **Poster**: *II International Meeting of Neuroscience: Neuropsychiatry and Social Neuroscience*, Cartagena (Colombia), Sep 1-2.
- **Blanco, C.**, Salgado-Montejo, A., Ono, Y. (2010). Tobacco consumption biases information processing in the brain. **Talk**: *III National meeting of research groups and III International Congress of Neuroscience and Neuropsychology*, Bogota (Colombia), Oct 14-16.
- Avendaño, B., Avila, M., **Blanco, C.**, Casilimas, D., García, M., Rodríguez, J.M. (2010). Possible correlations between Depression and Alzheimer Disease. **Poster**: *XLIX Colombian Psychiatry Congress*, Santa Marta (Colombia), Oct 14-17.

## SKILLS

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- **Neuroscience Techniques:** Electrophysiology and Behavioral Analysis (humans and rodents), Histological Techniques, Human Neuroimaging (f/MRI, M/EEG), Neuropsychological Assessment, Eye and Movement Tracking.
- **Software:** Matlab, SPSS, Synapse, Sleep Sign, Any-Maze, Med-PC, ImageJ, SPM, FSL, Freesurfer, PRoNTTo, and E-Prime.
- **Languages:** Spanish: Native Language. English: Proficient. IELTS (8/9). French: Intermediate-Advanced Level (C1).

## REFERENCES

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### **Prof. Richard Henson**

Deputy Director  
MRC Cognition & Brain Sciences Unit  
University of Cambridge  
15 Chaucer Road Cambridge, CB2 7EF England  
Email: rik.henson@mrc-cbu.cam.ac.uk  
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