Curriculum Vitae of
Cristián Gutiérrez-Ibáñez
April, 2021

1. Citizenship

Chilean (Canadian permanent resident)

2. Address

University of Alberta
Department of Biology
Biological Sciences Bldg, P-217
Edmonton, Alberta
Canada
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3. Education

2009 -2013	PhD, Neuroscience graduate program, Centre for Neuroscience, University of Alberta. Edmonton, Canada.
2008-2009	Master student, Neuroscience graduate program, Centre for Neuroscience, University of Alberta. Edmonton, Canada
2000-2004	BSc (Hons) in Science with mention in Biology (Licenciatura en Ciencias mención Biología), Universidad de Chile. Santiago, Chile.

4. Research Interests

- Neural circuit evolution
- Comparative neuroanatomy
- Evolutionary neurobiology
- Sensory-motor control

5. Employment History

2016-	Post-doctoral Fellow, Department of Psychology, University of Alberta
2013-2016	Post-doctoral Fellow, Zoology department, Technical University of Munich
2006-2007	Research assistant, Laboratory of Neurobiology and Biology of Cognition, Faculty of Sciences, Universidad de Chile.
2004-2005	Research assistant, Laboratory Chemical ecology, Faculty of Sciences, Universidad de Chile.

6. Honours, Awards and Fellowships

2019 Grass Fellowship in Neuroscience.
2013 Technical University of Munich (TUM) University Foundation Fellowship (TUFF)
2013 Research opportunity week (ROW), Technical University of Munich (TUM)
2007 President of the Republic scholarship to study abroad. This is 4 year full tuition plus stipend scholarship granted by the government of Chile.

7. Scholarly and Professional Academic Activities

Professional Memberships

- J.B. Johnston Club for Comparative Neuroanatomy (2008-)
- Society for Neuroscience (2008-)
- Society of Canadian Ornithologist (2008-)
- International Society for Neuroethology (2008-)
- German Society for Neuroscience

Peer Reviewer

Journal of Comparative Neurology, PLoS ONE, Brain Behavior and Evolution, PeerJ, Journal of Chemical Neuroanatomy, Visual neuroscience, Journal of Anatomy, Journal of Experimental Biology, Integrative and Comparative Biology, Frontiers in neuroanatomy, Behavioral Brain Research.

8. Supervisory and Teaching Experience

Student Supervision Undergraduate Bachelor thesis…....……8
Undergraduate independent studies projects……18
Total…….... 26

Teaching experience

2018 Fall/winter Instructor, Perception, (3nd year course), 120 students.

2014-2016 In-vitro Neuroscience methods, practical course. (4th year and Masters course) Lecturer (5 students)
2013 Perception (4nd year course) Invited Lecturer and Teaching Assistant (100 students)
2011-2013 Neuroscience of Perceptual Systems (4nd year course) Invited Lecturer and Teaching Assistant (100 students)
2009-2013 Principles of Learning Course (2nd year course) Invited Lecturer (100 students)
2005-2006 Evolution (4th year course) Invited Lecturer (20 students)
2006 Introductory Biology (1st year course) Teaching Assistant (50 students)
Evolution and Development (4th year course) Teaching Assistant (20 students) Evolution (4th year course) Teaching Assistant (20 students)
2005 Entomology (3th year course) Invited Lecturer (10 Students)
General Physiology Course (4th year course) Teaching Assistant (20 students)

11. Research Grants

2015 Dr.-Ing. Leonhard-Lorenz grant. Title: "Morphological and neurochemical characterization of the component of the centrifugal pathway in the chicken". **EUR$ 4500**

12. Invited lectures

4. Organization and evolution of telencephalon cerebellar pathways in birds. Avian Cognitive Neuroscience (ACN) conference at the Ruhr-University Bochum in Bochum, Germany. 16 and 17th of March 2020 (suspended do to COVID)

3. Neural basis of skilled movements in birds. Departmental Seminar. Psychology Department. Western University. January 29, 2020

2. Organization and evolution of forebrain-cerebellar pathways in birds. Departmental Seminar. Biology Department. University of Vermont. January 16, 2020.

1. Organization and evolution of telencephalon-cerebellar pathways in birds. MCS Seminar series. Biology Department. University of Alberta. October 19, 2018.

13. Outreach

2018 Presentation about the sensory systems of birds to a group of bird watching enthusiasts in Chile.

2019-2020 Skype a scientist. Program that pairs student in schools across north America with scientist. Thre times with student in USA, from grade 3 to high school.

14. International collaboration network

Prof. Jerome Baron, Federal University of Minas Gerais. Belo Horizonte, Brazil. Sensory and motor pathways in owls.

Prof. Jorge Mpodozis, Universidad de Chile. Santiago, Chile. Several projects related to sensory and motor pathways in birds.

Prof. Catherine Carr. Biology department, University of Maryland. Evolution of cerebellar pathways in reptiles

Maude Baldwin, PhD. Max Plank Institute for Ornithology. Anatomy of taste pathways in birds.

Prof Douglas Althsuler, UBC, Vancouver, Canada. Several projects related to visual pathways and control of flight in birds.

15. Publications and Presentations

Career Totals:

Papers in peer-reviewed journals: …….. 39
Commentaries:……1
Conference presentations:…… 43
Citations *(self citations removed):* ……...657
h-index*: ……..15*

Papers in peer-reviewed journals

39. **Gutierrez-Ibanez C,** Kohl T, Gutiérrez-Ibáñez C Long RM, Carr CE, Tisdale RK, Craciun I, Iwaniuk AN, Luksch H,, Wylie DR. Zebrin (ZII) expression in the cerebellum of two species of crocodilians. ***Brain behavior and evolution***. 95 (1), 1-11.
38. Craciun I, **Gutierrez-Ibanez C**, Chan ASM, Luksch H, Wylie DR. (2019) Secretagogin Immunoreactivity Reveals Lugaro Cells in the Pigeon Cerebellum. ***The Cerebellum*** 18 (3), 544-555.
37. Gaede AH*, **Gutierrez-Ibanez C****, MS Armstrong, DL Altshuler, DR Wylie (2019) Pretectal projections to the oculomotor cerebellum in hummingbirds (Calypte anna), zebra finches (Taeniopygia guttata), and pigeons (Columba livia). ***Journal of Comparative Neurology*. In press.** Online on 05 April 2019. Authors contributed equally to this manuscript
36. Garrido-Charad* F, **Gutiérrez-Ibáñez* C,** Vega-zuniga* T, Weigel S, Mpodozis M, Luksch H, Marin GJ. (2018) "Shepherd's crook" neurons drive and synchronize the enhancing and suppressive mechanisms of the midbrain stimulus selection network. ***Proceedings of the National Academy of Sciences*** 115 (32), E7615-E7623*Authors contributed equally to this manuscript
35. **Gutierrez-Ibanez C**, Wylie DR, Iwaniuk AN (2018) Parrots have evolved a primate-like telencephalic-midbrain-cerebellar circuit., ***Scientific reports***. 8 (1), 9960
34. Gutierrez-Ibanez, Gaede AH, Dannish MR, Altshuler ML, Wylie DR. The retinal projection to the nucleus lentiformis mesencephali in zebra finch (*Taeniopygia guttata*) and Anna's hummingbird (*Calypte anna*) ***Journal of Comparative Physiology A*** 204 (4), 369-376
33. Wylie DR, **Gutierrez-Ibanez C**, Iwaniuk AN (2018). Visual-Cerebellar Pathways and their Roles in the Control of Avian Flight. ***Frontiers in Neuroscience***. 12:223
32. Long RM, Pakan JMP, Graham DJ, Hurd PL, Gutierrez-Ibañez C, Wylie DR (2018) Modulation of complex spike activity differs between zebrin positive and negative Purkinje cells in the pigeon cerebellum. Jo**urnal of Neurophysiology**. Published online. doi: 10.1152/jn.00797.2017
31. Craciun I, **Gutiérrez-Ibáñez C**, Corfield JR, Hurd PL, Wylie DR. (2018). Topographic Organization of Inferior Olive Projections to the Zebrin II Stripes in the Pigeon Cerebellar Uvula **Frontiers in Neuroanatomy** 12, 18.
30. Grigg NP, Krilow JM, **Gutierrez-Ibanez C**, Graves GR, Iwaniuk AN (2018) Anatomical evidence for extreme olfactory sensitivity in the Turkey Vulture**.** ***Scientific reports*** 7 (1), 1740829.
29. Wylie DR, **Gutiérrez-Ibáñez C**, Corfield JR, Craciun I, Graham DJ, & Hurd PL (2017). Inferior olivary projection to the zebrin II stripes in lobule IXcd of the pigeon flocculus: A retrograde tracing study. *Journal of Comparative Neurology*, *525*(14), 3158–3173.
28**.** Krabichler Q, Vega-Zuniga T, Carrasco D, Fernandez M, **Gutiérrez-Ibáñez C**, Marín G, Luksch H.The Centrifugal Visual System of a Palaeognathous Bird, the Chilean Tinamou (*Nothoprocta perdicaria*). *J Comp Neurol.* 525(11):2514-2534.
27. Niederleitner B, **Gutierrez-Ibanez C**, Krabichler Q, Weigel S, Luksch, H, 2017. A novel relay nucleus between the inferior colliculus and the optic tectum in the chicken (Gallus gallus). *J Comp Neurol*. 525 (3), 513-534

26. **Gutierrez-Ibanez C**, Iwaniuk, AN, Jensen M, Graham DJ, Pogány Á, Mongomery BC, Stafford J.L., Luksch, H,Wylie DR. 2016. Immunohistochemical localization of cocaine-and amphetamine - regulated transcript peptide (CARTp) in the brain of the pigeon (Columba livia) and zebra finch (Taeniopygia guttata). *J Comp Neurol*. 524 (18), 3747-3773
25. Wylie DR, **Gutiérrez-Ibáñez C**, Iwaniuk AN. 2015. Integrating brain, behavior, and phylogeny to understand the evolution of sensory systems in birds. *Front Neurosci* 9. 281
24. Corfield JR, Price K, Iwaniuk AN, **Gutiérrez-Ibáñez C**, Birkhead T, Wylie DR. 2015. Diversity in olfactory bulb size in birds reflects allometry, ecology, and phylogeny. *Front Neuroanat* 9.102
23. Aspden JW, Armstrong CL, **Gutiérrez-Ibáñez C**, Hawkes R, Iwaniuk AN, Kohl T, Graham DJ, Wylie DR. 2015. Zebrin II/aldolase C expression in the cerebellum of the western diamondback rattlesnake (Crotalus atrox). *PLoS One* 10. pp.e0117539-e0117539
22. Wylie DR, Kolominsky J, Graham DJ, Lisney TJ**, Gutierrez-Ibanez C**. 2014. Retinal projection to the pretectal nucleus lentiformis mesencephali in pigeons (Columba livia). *J Comp Neurol* 522: 3928-3942
21. Nesjan E, **Gutiérrez-Ibáñez C**, Cameron JR, Merrigan S, Wylie DR, Hurd PL. 2014. Social status and GnRH soma size in female convict cichlids (Amatitlania nigrofasciatus*). Behav Brain Res* 272:205–208.
20. **Gutiérrez-Ibáñez C**, Iwaniuk AN, Moore BA, Fernández-Juricic E, Corfield JR, Krilow JM, Kolominsky J, Wylie DR. 2014. Mosaic and concerted evolution in the visual system of birds. *PLoS One* 9:e90102.
19. Franklin DC, Garnett ST, Luck GW, **Gutiérrez-Ibáñez C**, Iwaniuk AN. 2014. Relative brain size in Australian birds. *Emu* 114:160–170.
18. Wylie DR, Jensen M, **Gutiérrez-Ibáñez C**, Graham DJ, Iwaniuk AN. 2013. Heterogeneity of calretinin expression in the avian cerebellar cortex of pigeons and relationship with zebrin II. *J Chem Neuroanat* 52:95–103.
17. Corfield JR, Birkhead TR, Spottiswoode CN, Iwaniuk, AN, Boogert NJ, Gutiérrez-Ibáñez C, Overington SE, Wylie DR 2013. Brain Size and Morphology of the Brood-Parasitic and Cerophagous Honeyguides (Aves: Piciformes). *Brain Behav Evol* 81: 170-186
16. Faunes M, Fernández S, **Gutiérrez-Ibáñez C**, Iwaniuk AN, Wylie DR, Mpodozis J, Karten HJ, Marín G. 2013. Laminar segregation of GABAergic neurons in the avian nucleus isthmi pars magnocellularis: a retrograde tracer and comparative study. *J Comp Neurol* 521:1727–42.
15. **Gutiérrez-Ibáñez C**, Iwaniuk AN, Lisney TJ, Wylie DR. 2013. Comparative study of visual pathways in owls (aves: strigiformes). *Brain Behav Evol* 81:27–39.
14. Chee SSA, Espinoza WA, Iwaniuk AN, Pakan JM, **Gutiérrez-Ibáñez C**, Wylie DR, Hurd PL. (Social status, breeding state, and GnRH soma size in convict cichlids (Cryptoheros nigrofasciatus). *Behav Brain Res.* 237:318-24
13. **Gutiérrez-Ibáñez C**, Iwaniuk AN, Lisney TJ, Faunes M, Marín GJ, Wylie DR. (2012) Functional implications of species differences in the size and morphology of the isthmo optic nucleus (ION) in birds. *PLoS ONE* 7(5): e37816.
12. **Gutiérrez-Ibáñez C**, Iwaniuk AN, Wylie DR. (2011) Relative size of auditory pathways in symmetrically and asymmetrically eared owls (Strigiformes). *Brain Behav Evol*. 78:286-301.
11. Pakan JMP, Graham DJ, **Gutiérrez-Ibáñez C**, Wylie DR. (2011) Organization of the cerebellum: Correlating zebrin immunochemistry with optic flow zones in the pigeon flocculus. *Visual Neurosc* 28: 163-174.
10. Wylie DR, **Gutiérrez-Ibáñez C**, Graham DJ, Kreuzer MB, Pakan JMP and Iwaniuk AN. (2011) Heterogeneity of Parvalbumin Expression in the Avian Cerebellar Cortex and Comparisons with Zebrin II. *Neuroscience* 185: 73-84.

9. **Gutiérrez-Ibáñez C***, Reddon AR*, Kreuzer MB, Wylie DR, Hurd PL (2011) Variation in asymmetry of the habenular nucleus correlates with behavioural, asymmetry in a cichlid fish. *Behav Brain Res* 221:189-196. *Both authors contributed equally to this manuscript
8. Iwaniuk AN, **Gutiérrez-Ibáñez C**, Pakan JMP, Wylie DR. (2010) Allometric Scaling of the Tectofugal Pathway in Birds. *Brain Behav Evol*. 75(2):122-37.
7. **Gutiérrez-Ibáñez C**, Iwaniuk AN, Wylie DRW. (2009) The Independent Evolution of the Enlargement of the Principal Sensory Nucleus of the Trigeminal Nerve (PrV) in Three Different Groups of Birds. *Brain Behav Evol* 74:280–294.
6. Wylie DRW **Gutiérrez-Ibáñez C**, Pakan JMP, Iwaniuk AN (2009) The optic tectum of birds:mapping our way to understanding visual processing. *Canadian Journal of Experimental Psychology* 63:328338.
5. Hall MI, **Gutiérrez-Ibáñez C**, and Iwaniuk AN. (2009) The morphology of the optic foramen and activity pattern in birds. *Anat Rec (Hoboken)*. 292(11):1827-45.
4. Iwaniuk AN, Pakan JMP, **Gutiérrez-Ibáñez C**, Wylie DRW. (2009) Expression of Expression of calcium-binding proteins in cerebellar- and inferior olivary-projecting neurons in the nucleus lentiformis mesencephali of pigeons. *Vis Neurosc.* 26(3):341-347
3. Reddon* AR, **Gutiérrez-Ibáñez C *,** Wylie DR, Hurd PL (2009) The relationship between growth, brain asymmetry and behavioural lateralization in a cichlid fish. *Behav Brain Res* 201:223-228. *Both authors contributed equally to this manuscript
2. Wylie DRW, Pakan JMP, **Gutiérrez-Ibáñez C**, Iwaniuk AN (2008) Expression of Calcium Binding Proteins in Pathways from the nucleus of the Basal Optic Root to the Cerebellum in Pigeons. *Vis Neurosc.* 25 (5-6) 701-707.
1. **Gutierrez-Ibanez C**, Villagra CA, Niemeyer HM (2007) Pre-pupation behaviour of the aphid parasitoid *Aphidius ervi* (Haliday) and its consequences for preimaginal learning. *Naturwissenschaften* ,94 (7) 595-600.

Non- peer reviewed contributions

1. **Gutierrez-Ibanez C** (2017). Passerine sensory systems. In: The Encyclopedia of Animal Cognition and Behavior. Vonk, J, Shackelford, TK. (Eds.). Springer International Publishing.

Commentaries

1. **Gutierrez-Ibanez C**, Iwaniuk, A.N. and Wylie, D.R., 2016. Relative Brain Size Is Not Correlated with Display Complexity in Manakins: A Reanalysis of Lindsay et al. *Brain, behavior and evolution* 87 (4), 223-226.

16. Conference presentations

43. **Gutierrez-Ibanez C**, and Wylie DR. (2019) Parallel cortico-cerebellar pathways through a pretectal cerebellar relay nucleus in birds. 13th Göttingen Meeting, German society for neuroscience.
42. **Gutierrez-Ibanez C**, Wylie DR, Kettler L., and Carr C. (2018) Pretectal but not pontine inputs to the cerebellum of the American alligator. JBJC, San Diego.
41. Wylie DR, Craciun I**, Gutierrez-Ibanez C**, Chan SM, Luksch H. Lugaro cells in the avian cerebellum (?) Society for Neuroscience, San Diego, CA, Nov 11-15. 2018

39. **Gutierrez-Ibanez C,** Fernández M, Marín J, Wylie DR. Organization of telencephalic inputs to the medial spiriform nucleus, a pretectal cerebellar relay nucleus in birds. Society for Neuroscience, San Diego, CA, Nov 11-15. 2018
38. Long RM, Bothe MS, **Gutierrez-Ibanez C**, Kohl T, Luksch H, Straka H, Wylie DR. Primary projections of the VIIIth nerve in a reptilian in vitro preparation. Canadian spring conference for behaviour and brain - Fernie, BC. Canada February 21-23.
37. **Gutierrez-Ibanez C**, Iwaniuk AN, Wylie DR. (2018) Parrots have evolved a primate-like telencephalicmidbrain-cerebellar circuit. Canadian spring conference for behaviour and brain - Fernie, BC. Canada February 21-23.
36. Craciun I, **Gutierrez-Ibanez C**, Chan A, Wylie DR. (2018)First description of Lugaro cells in the cerebellum of birds. Canadian spring conference for behaviour and brain - Fernie, BC. Canada February 21-2335.
35. Dannish MR Long RM, **Gutierrez-Ibanez C**, Kohl T, Carr CE, Tisdale RK, Craciun I, Iwaniuk AN, Wylie DR . (2018) Zebrin expression in the cerebellum of two species of crocodilians, the Nile crocodile (Crocodylus niloticus) and the American alligator (Alligator mississippiensis). Canadian spring conference for behaviour and brain - Fernie, BC. Canada February 21-23
34. **Gutierrez-Ibanez C**, Iwaniuk AN, Wylie DR (2017) Enlargement of telencephalic-cerebellar pathways in parrots: Convergent evolution with primates? **Annual Meeting of the J.B. Johnston Club**, Washington DC, Nov 10. **Brain Behavior and Evolution, 89**:290.
33. **Gutierrez-Ibanez C**, Long RM, Wylie DR (2017) Spatial organization of pontine and medial spiriform afferents to the oculomotor cerebellum of pigeons (*Columba livia*). **Society for Neuroscience**, Washington DC, Nov 11-15.
32. Gaede AH, **Gutierrez-Ibanez C**, Armstrong MS, Long RM, Altshuler DL, Wylie DR (2017) Pretectal projections to the oculomotor cerebellum in hummingbirds (C. anna), zebra finches (T. guttata), and pigeons (*Columba livia*). **Society for Neuroscience**, Washington DC, Nov 11-15.
31. Dannish MR, Long RM, **Gutierrez-Ibanez C**, Kohl T, Carr CE, Tisdale RK, Craciun I, Iwaniuk AN, Wylie DR (2017) Zebrin expression in the cerebellum of crocodilians. **Society for Neuroscience**, Washington DC, Nov 11-15.
30. Long RM, Bothe MS, **Gutierrez-Ibanez C**, Kohl T, Luksch H, Straka H, Wylie DR (2017) Primary projections of the VIIIth nerve in two species of snakes, the western diamondback rattlesnake (Crotalus atrox) and amazon tree boa (*Corallus hortulanus*). **Society for Neuroscience**, Washington DC, Nov 11-15.
29. Wylie DR, Gaede AH, **Gutierrez-Ibanez C**, Altshuler DL (2017) Displaced ganglion cells project to the pretectal nucleus lentiformis mesencephali in zebra finches (*Taeniopygia guttata*) and hummingbirds (*Calypte anna*). **Society for Neuroscience**, Washington DC, Nov 11-15.
28. Iwaniuk AN, El-Andari R, Fernandez-Juricic E, Moore B, Lisney TJ, **Gutierrez-Ibanez C**, Wylie DR (2017) The total number of retinal ganglion cells is correlated with relative optic tectum size in birds. **Society for Neuroscience**, Washington DC, Nov 11-15.
27**.** Iwaniuk AN**, Gutierrez-Ibanez C**, Wylie DR. Relative size of the pontine nuclei in birds and its relation with their visual environment. *43th annual meeting of the Society for Neuroscience, San Diego, CA, U.S.A. November 2016*
26. Luksch H, Schnyder HA, Niederleitner B, Krabichler Q, **Gutierrez-Ibanez C**, Firzlaff U. Auditory input and receptive fields in the optic tectum of the chicken, an auditory generalist avian species. *45th annual meeting of the Society for Neuroscience, San Diego, CA, U.S.A. November 2016*
25. Wylie DR, **Gutiérrez-Ibáñez C**, Iwaniuk AN. Neural Pathways Subserving Visual Control of Flight in Birds. *Society for Experimental Biology in Brighton, UK, 2016*
24. **Gutiérrez-Ibáñez C**, Kohl T, Kloos M, Luksch H. Brain Distribution and Effect Of Feeding Status On The Expression Of Cocaine- And Amphetamine-Regulated Transcript Peptide (Cartp) In The

Rattlesnake (Crotalus atrox). *8th European Conference on Comparative Neurobiology. Munich, Germany, 2016*

23. **Gutiérrez-Ibáñez C**, González-Cabrera C, Marin G, Luksch H. Neuronal Morphology And Neurochemistry Of Tecto-Isthmoptic Circuit In The Chicken (Gallus domesticus). *8th European Conference on Comparative Neurobiology. Munich, Germany, 2016.*
22. Krabichler Q, **Gutiérrez-Ibáñez C**, Wossidlo N, Carrasco D, Vega-Zuniga T, Luksch H. Comparative Study Of The Distribution Of Centrifugal Visual Fibers And Their Targets In Avian Retinas. *8th European Conference on Comparative Neurobiology. Munich, Germany, 2016.*
21. Garrido-Charad F[1], Vega-zuniga T, **Gutiérrez-Ibáñez C**, Weigel S, Mpodozis M , Luksch H , Marin GJ. Common tectal input to different nuclear components of the midbrain stimulus selection network. *44th annual meeting of the Society for Neuroscience, Neuroscience, Chicago, IL, U.S.A 2015*
20. Krabichler Q, Vega-zuniga T, Carrasco D, **Gutiérrez-Ibáñez C**, Marin GJ, Luksch H. The centrifugal visual system of a palaeognathous bird, the Chilean Tinamou (Nothoprocta perdicaria). *44th annual meeting of the Society for Neuroscience, Neuroscience, Chicago, IL, U.S.A 2015*
19. Wylie DR, Kolominsky J , Graham DJ, Lisney TJ, **Gutiérrez-Ibáñez C**. The retinal projection to the pretectal nucleus lentiformis mesencephali in pigeons. *43th annual meeting of the Society for Neuroscience, Neuroscience, Washington, DC, U.S.A 2014*
18. **Gutiérrez-Ibáñez C**, Jensen M , Iwaniuk AN, Wylie DR. Immunohistochemical localization of cocaine- and amphetamine-regulated transcript peptide in the brain of the pigeon (*Columba livia*) and zebra finch (Taeniopygia guttata) *42th annual meeting of the Society for Neuroscience, San Diego, CA, U.S.A. November 2013*
17. Lam JP, Graham DJ, **Gutiérrez-Ibáñez C**, Wylie DR. Parasagittal organization of visual mossy fiber projections from the nucleus lentiformis mesencephali to folium VIII of the pigeon cerebellum in relation to Zebrin II stripes *42th annual meeting of the Society for Neuroscience, San Diego, CA, U.S.A. November 2013*
16. Jensen M, **Gutiérrez-Ibáñez C**, Graham DJ, Iwaniuk AN. Heterogeneity of calretinin expression in the avian cerebellar cortex of pigeons and relationship with zebrin II. *42th annual meeting of the Society for Neuroscience, San Diego, CA, U.S.A. November 2013*
15. Gutiérrez-Ibáñez C**, Iwaniuk AN, Lisney TJ and Wylie DR. Is activity pattern reflected in the relative size of visual pathways in owls (Aves: Strigiformes)?** ***Front. Behav. Neurosci. Conference Abstract: Tenth International Congress of Neuroethology 2012***
14. **Gutiérrez-Ibáñez C**, Iwaniuk AN, Lisney TJ, Faunes M, Marín GJ, Wylie DR. Functional implications of species differences in the size and morphology of the isthmo optic nucleus (ION) in birds. *Canadian spring conference of brain and behavior. Ferni, BC. Canada. 2012.*
13. **Gutiérrez-Ibáñez C**, Iwaniuk AN, Kolominsky J, Lisney TJ, Wylie DR. Comparative study of the relative size of the isthmo optic nucleus (ION) and its association to other visual brain structures in birds (Aves). *41th annual meeting of the Society for Neuroscience, Washington, DC, U.S.A. November 2011.*
12. **Gutiérrez-Ibáñez C**, Iwaniuk AN, Wylie DR. Relative size of visual and auditory pathways in symmetrically and asymmetrically eared owls. *40th annual meeting of the Society for Neuroscience, San Diego, CA, U.S.A. November 2010.*
11. **Gutiérrez-Ibáñez C**, Iwaniuk AN, Wylie DR. Relative size of visual and auditory pathways in owls. *Canadian Neuroscience Meeting, Ottawa, Canada. May, 2010.*
10. Iwaniuk AN, Wylie DR, **Gutiérrez-Ibáñez C**, Overington SE, Boogert NJ, Lefebvre L.Do honeyguides (Indicatoridae) have big or small brains? *6th European Conference on. Comparative Neurobiology. (ECCN6). Valencia, Spain. April 2010*
9. Iwaniuk AN, Wylie DR, **Gutiérrez-Ibáñez C**, Overington SE, Boogert NJ, Lefebvre L. Les Indicateurs ont-ils un gros ou un petit cerveau? *34th annual meeting of the Société québécoise pour*

l'étude biologique du comportement (SQEBC), Université du Québec à Trois-Rivières, November 2009

8. **Gutiérrez-Ibáñez C**, Iwaniuk AN, Wylie DR. Enlargement of the principal sensory nucleus of the trigeminal nerve (PrV) in three different groups of birds. *39th annual meeting of the Society for Neuroscience, Chicago, IL. October 2009*
7. Iwaniuk AN, Wylie DR, **Gutiérrez-Ibáñez C**, Overington SE, Boogert NJ, Lefebvre L.Brain size and morphology of the honeyguides (Aves: Piciformes) in comparison with related species. *39th annual meeting of the Society for Neuroscience, Chicago, IL. October 2009.*
6. **Gutiérrez-Ibáñez C**, Iwaniuk AN, Wylie DR. The relative size of the sensory nucleus of the trigeminal nerve (PrV) reflects the importance of somatosensation in avian. *28th Annual Meeting of the Society of Canadian Ornithologists, Edmonton Alberta, August 2009*
5. Reddon AR, **Gutiérrez-Ibáñez C**, Wylie DR, Hurd PL. The relationship between growth, brain asymmetry and behavioral lateralization in a cichlid fish. *23rd Annual Joseph R. Royce Research Conference, Edmonton , Alberta, March 2009*
4. Reddon AR, **Gutiérrez-Ibáñez C**, Wylie DR, Hurd PL The Relationship Between Growth, Brain Asymmetry and Behavioural Lateralization in a Cichlid, *The 48th Annual Meeting of the Canadian Society of Zoologists, Toronto, Canada, May 2009*
3. **Gutiérrez-Ibáñez C**, Wylie DRW, Pakan JMP. Topography of Tectal projections in the pigeon (Columbia livia): A double tracer study. *Poster presented at the 38th annual meeting of the Society for Neuroscience, Washington, D.C. November 2008.*
2. **Gutiérrez-Ibáñez C**, Villagra CA, Niemeyer HM Pupation Behavior of the aphid parasitoid *Aphidius ervi* (Haliday) and its consequences in the adult". *Annual Meeting of the Chilean Entomology Society, Valdivia, Chile. 2005*
1. **Gutiérrez-Ibáñez C**, Villagra CA., Niemeyer HM. Pupation Behavior of the aphid parasitoid *Aphidius ervi* (Haliday) and its consequences for preimaginal learning" *Annual Meeting of the Chilean Biology Society. Pucon, Chile. 2005*

14. References:

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