

## Bibliography

---

### Research papers

- Groszer, M., Keays, D.A., Deacon R.M.J., de Bono J.P., Prasad-Mulcare S., Gaub, S., Baum, M.G., French, C.A., Nicod, J., Coventry, J.A., Enard, W., Fray, M., Brown, S.D.M., Nolan, P.M., Pääbo, S., Channon, K.M., **Costa, R. M.**, Eilers, J., Ehret, G., J., Rawlins N.P., Fisher, S.E. (2008). Impaired motor learning and synaptic plasticity in mice carrying a point mutation implicated in human speech deficits. **Submitted**.
- Hilario, M.R.F., Clouse, E., Yin, H.H., **Costa, R.M.** (2007). Endocannabinoid signaling is critical for habit formation. **Frontiers in Integrative Neuroscience**. **1**:6, doi: 10.3389/neuro.07/006.2007.
- **Costa, R.M.**, Lin, S.C., Sotnikova, T.D., Cyr, M., Gainetdinov, R.R., Caron, M.G., Nicolelis M.A.L. (2006). Rapid alterations in corticostriatal ensemble coordination during acute dopamine-dependent motor dysfunction. **Neuron**, **52**(2):359-69.
- Dzirasa, K., Ribeiro. S., **Costa, R.**, Santos, L.M., Lin, S.C., Grosmark, A., Sotnikova, T.D., Gainetdinov, R.R., Caron, M.G., Nicolelis M.A.L. (2006). Dopaminergic Control of Sleep-Wake States. **Journal of Neuroscience**, **26**(41):10577-89.
- **Costa, R.M.**, Gutierrez, R., Kloth, A., Coelho, M.R.P., de Araujo, I.E., Gainetdinov, R.R., Caron, M.G., Nicolelis M.A.L., Simon, S.A. (2007). Dopamine levels modulate the updating of tastant values. **Genes, Brain and Behavior**, **6**(4):314-20.
- Nagy, V., Bozdagi, O., Matynia, A., Balcerzyk, M., Okulski, P., Dzwonek, J., **Costa, R.M.**, Silva, A. J., Kaczmarek, L., and Huntley G. W. (2006). Matrix metalloproteinase (MMP)-9 is required for hippocampal late-phase LTP and memory. **Journal of Neuroscience**, **26**: 1923-1934.
- **Costa, R.M.**, Liu, L., Nicolelis, M.A.L., Simon, S.A. (2005). Gustatory Effects of Capsaicin that are Independent of TRPV1 Receptors. Proc. ISOT XIV, **Chemical Senses**, **30** S1:i198-i200.
- Israely, I., **Costa, R.M.**, Silva, A.J., Kosik, K., Liu, X. (2004). Deletion of the neural specific protein Delta-Catenin leads to severe cognitive and synaptic dysfunction. **Current Biology**, **14**(18):1657-63.
- **Costa, R.M.\***, Cohen, D.\*., Nicolelis M.A.L. (2004). Differential corticostriatal plasticity during fast and slow motor skill learning in mice. **Current Biology**, **14**(13):1124-34.
- **Costa R.M.**, Honjo T., and Silva A.J. (2003). Learning and memory deficits in Notch mutant mice. **Current Biology**, **13** (15): 1348-54.
- Ajay A., **Costa R.M.**, Irvin D., Patel A., Hu H., Kornblum H., Silva A.J., O'Dell T., and Colicelli J. (2003). The RAS Effector RIN1 Modulates the Formation of Aversive Memories. **Journal of Neuroscience**, **23** (3): 748-757.

- Costa, R.M., Federov, N.B., Kogan, J.H., Murphy, G.G., Stern, J., Ohno, M., Kucherlapati, R., Jacks, T. and Silva, A.J. (2002). Mechanism for the learning deficits in a mouse model of neurofibromatosis type 1. Nature, **415** (6871):526-30.
- Givogri M.I., Costa R.M., Schonmann V., Howard S., Silva A.J., Campagnoni A.T., Bongarzone E.R. (2002) The Jagged/Notch pathway is critical for oligodendrocyte differentiation and myelination in vivo. Journal of Neuroscience Research, **67** (3):309-20.
- Ohno, M., Frankland, P.W., Chen, P.A., Costa R.M. and Silva A.J. (2001). Inducible pharmacogenetic approaches to the study of learning and memory. Nature Neuroscience, **4**, 1238-1243.
- Costa, R.M.\* , Yang, T.\* , Huynh, D.P., Pulst S.M., Viskochil, D.H., Silva, A.J. and Brannan, C.I. (2001). Learning deficits, but normal development and tumor predisposition, in mice lacking exon 23a of the Neurofibromatosis type I gene. Nature Genetics, **27**, 399-405.
- Mayntz, M. and Costa, R. (1998). Effect of pharmacologically induced changes of ejection on suckling in *Bos taurus*. Physiology and Behavior, **65** (1), 151-156.
- Costa, R., Mayntz, M. and Sender, G. (1998). Changes of milk compounds and fatty acid composition during suckling meals and the effect of after-stimulation on fatty acid composition in cows' milk. A pre-study. Milchwissenschaft, **53** (8), 430-434.

#### Review papers

- Wickens, J.R., Horvitz, J.C., Costa, R.M., Killcross, S. (2007). Dopaminergic mechanisms in actions and habits. Journal of Neuroscience, **27**:8181-3
- Costa, R.M., (2007). Plastic corticostriatal circuits for action learning: What's dopamine got to do with it? Annals of the New York Academy of Sciences, **1104**:172-91.
- Costa, R.M., Drew, C. and Silva, A.J. (2005). To Remember or Notch to Remember. Trends in Neurosciences, **28**, 429-35.
- Costa, R.M. and Silva, A.J. (2003). Mouse models of Neurofibromatosis type I: Bridging the GAP. Trends in Molecular Medicine, **9**, 19-23.
- Frankland, P.W., Ohno M., Takahashi, E., Chen, A.P., Costa R.M., Kushner, S.A. and Silva, A.J. (2003). Synomics: Pharmacologically Regulated Induction of Silent Mutations (PRISM): Combined pharmacological and genetic approaches for learning and memory. The Neuroscientist, **9**:104-9.
- Costa, R.M. and Silva, A.J. (2002). Molecular and cellular mechanisms underlying the cognitive deficits associated with Neurofibromatosis type I. Journal of Child Neurology, **17**, 622-626.
- Silva, A.J., Elgersma, Y. and Costa, R.M. (2001). From genes to therapies: the role of animal models. Clinical Neuroscience Research, **1**, 187-193.

- Silva, A.J., Elgersma, Y. and **Costa, R.M.** (2000). Molecular and Cellular Mechanisms of Cognitive Function: Implications for Psychiatric Disorders. **Biological Psychiatry**, **47**, 200-210.

### **Book Chapters and Monographs**

- **Costa, R.M.**, and Silva, A.J. (2004). Learning Deficits associated with NF1: from models to therapies. *in Neurofibromatose: Clínica, Genética e Terapêutica*, Ed. Mauro Geller, Editora Guanabara Koogan SA, Rio de Janeiro, Brazil (Portuguese).
- **Costa, R.M.**, Elgersma, Y. and Silva, A.J. (2003). Modeling cognitive disorders: from genes to therapies. *in Genetics and Genomics of Neurobehavioral Disorders*, Ed. Gene Fisch, Humana Press, Totowa, NJ, USA
- **Costa, R.M.** (2002). Molecular and cellular mechanisms of cognitive dysfunction in Neurofibromatosis type I. **Thesis**. Abel Salazar Biomedical Institute, University of Porto, Portugal.

### **Abstracts in International Conferences**

- Cui, G., Pham, M, Thaler, C., Vogel, S.S., **Costa, R.M.** (2007) In vivo detection of changes in gene expression in the brain of awake behaving mice using fiber optics. Society for Neuroscience Abstracts, 36<sup>th</sup> Annual Meeting, San Diego, CA, USA.
- Hilario, M.R.F., Clouse, E., Yin, H.H., **Costa, R.M.** (2007). Endocannabinoids and habit formation. Society for Neuroscience Abstracts, 36<sup>th</sup> Annual Meeting, San Diego, CA, USA.
- Prasad-Mulcare, S., Yin, H.H., Clouse, E., Adermark, L., **Costa, R.M.** (2007). Subregion specific striatal changes during skill learning. Society for Neuroscience Abstracts, 36<sup>th</sup> Annual Meeting, San Diego, CA, USA.
- Yin, H.H., Prasad-Mulcare, S., Clouse, E., Lovinger, D.M., **Costa, R.M.** (2007). Changes in intrinsic excitability and synaptic strength in striatal subregions accompanying fast and slow skill learning. Society for Neuroscience Abstracts, 36<sup>th</sup> Annual Meeting, San Diego, CA, USA.
- **R.M.Costa**; S.Lin; T.D.Sotnikova; R.R.Gainetdinov; M.G.Caron; M.A.L. Nicolelis (2005). Corticostriatal neuronal ensemble dysfunction during dopamine - related hyperkinesia and akinesia. Society for Neuroscience Abstracts, 35<sup>th</sup> Annual Meeting, Washington, DC, USA.
- I.Lev; **R.M.Costa**; M.A.L.Nicolelis; D.Cohen (2005). Neural interactions in the mouse striatum and motor cortex during motor skill learning. Society for Neuroscience Abstracts, 35<sup>th</sup> Annual Meeting, Washington, DC, USA.
- Y.Cui; **R.Costa**; Y.Elgersma; G.Murphy; I.Mody; A.Silva (2005). Learning disabilities in NF1: higher GABA release in hippocampal interneurons. Society for Neuroscience Abstracts, 35<sup>th</sup> Annual Meeting, Washington, DC, USA.
- C.Shilyansky; Y.Cui; W.Li; A.Matynia; **R.M.Costa**; R.A.M.Brown; D.J.Jentsch; A.J.Silva (2005). Role of neurofibromin in prefrontal cortex. Society for Neuroscience Abstracts, 35<sup>th</sup> Annual Meeting, Washington, DC, USA.

- **Costa, R.M.**, Sotnikova, T.D., Gainetdinov, R.R., Cyr, M., Caron, M.G., Nicolelis M.A.L. (2004). In-vivo assesment of corticostriatal neuronal activity during dopamine-related hyperactivity and akinesia in DAT-KO mice. Society for Neuroscience Abstracts, 34<sup>th</sup> Annual Meeting, San Diego, CA, USA.
- Cohen, D., **Costa, R.M.**, Nicolelis M.A.L. (2004). Differential plasticity in the mouse striatum and motor cortex during fast and slow motor skill learning. Society for Neuroscience Abstracts, 34<sup>th</sup> Annual Meeting, San Diego, CA, USA.
- Coelho, M.R.P., Gutierrez, R., **Costa, R.M.**, Gainetdinov, R.R., Caron, M.G., Simon, S.A., Nicolelis M.A.L. (2004). Alterations in voluntary licking behavior in hyperdopaminergic mice. Society for Neuroscience Abstracts, 34<sup>th</sup> Annual Meeting, San Diego, CA, USA.
- Drew, C.A., **Costa, R.M.**, Matynia, A., Weinmaster, G., Silva, A.J. (2004). Characterization of inducible Notch transgenic mice. Society for Neuroscience Abstracts, 34<sup>th</sup> Annual Meeting, San Diego, CA, USA.
- **Costa, R.M.**, Cohen, D., Nicolelis M.A.L. (2004). Cortico-striatal plasticity during motor skill learning in mice. 4th FENS Meeting, Lisbon, Portugal.
- **Costa, R.M.**, Cohen, D., Nicolelis M.A.L. (2004). In-vivo assessment of neuronal dysfunction in neurodegenerative disorders. Inaugural symposium, IINN, Natal, Brazil.
- Cohen, D., **Costa, R.M.**, Nicolelis M.A.L. (2004). Fast neural activity modulation in the mouse striatum and motor cortex during rotarod practice. Inaugural symposium, IINN, Natal, Brazil.
- Israely, I., **Costa, R.M.**, Silva, A.J., Kosik, K., Liu, X. (2004). The neuron-specific protein Delta-Catenin is essential for cognitive function. Inaugural Symposium, IINN, Natal, Brazil.
- **Costa, R.M.**, Cohen, D., Nicolelis M.A.L. (2003). Neuronal ensemble recordings in mouse models of Huntington's disease. Society for Neuroscience Abstracts, 33<sup>rd</sup> Annual Meeting, New Orleans, LA, USA.
- Cohen, D., **Costa, R.M.**, Nicolelis M.A.L. (2003). Modulation of neural activity in the mouse striatum during rotarod practice. Society for Neuroscience Abstracts, 33<sup>rd</sup> Annual Meeting, New Orleans, LA, USA.
- Israely, I., **Costa, R.M.**, Silva, A.J., Kosik, K., Liu, X. (2003). Delta Catenin is a neuron specific protein critical for synaptic and behavioral plasticity. Society for Neuroscience Abstracts, 33<sup>rd</sup> Annual Meeting, New Orleans, LA, USA.
- **Costa, R.M.**, Cohen, D., Nicolelis M.A.L. (2003). Chronic differential recording of neuronal activity in awake mice. 6<sup>th</sup> Learning and Memory Meeting, Cold Spring Harbor Laboratory, NY, USA.
- Israely, I., **Costa, R.M.**, Silva, A.J., Kosik, K., Liu, X. (2003). The neuron specific protein Delta Catenin is critical for synaptic plasticity and spatial learning. 6<sup>th</sup> Learning and Memory Meeting, Cold Spring Harbor Laboratory, NY, USA.
- Ajay A., **Costa R.M.**, Irvin D., Patel A., Hu H., Kornblum H., Silva A.J., O'Dell T., and Colicelli J. (2003). The RAS Effector RIN1 Modulates the Formation of Aversive Memories. 6<sup>th</sup> Learning and Memory Meeting, Cold Spring Harbor Laboratory, NY, USA.
- Y. Cui, **R.M. Costa**, A.J. Silva (2002). An heterozygous null mutation of the Nf1 gene affects the Ras-Mapk pathway during learning of cued and contextual conditioning. Society for Neuroscience Abstracts , 32<sup>nd</sup> Annual Meeting, Orlando, Florida, USA.
- Israely, **R.M. Costa**, A.J. Silva, K. Kosik, X. Liu (2002). The neuronal armadillo protein Delta Catenin is critical for spatial learning. Society for Neuroscience Abstracts , 32<sup>nd</sup> Annual Meeting, Orlando, Florida, USA.

- **Costa, R.M.**, Frankland, P.W., Shimizu, T., Wang, Y.-F., and Silva, A.J. (2002). Attentional deficits rescued by manipulations that decrease Ras signaling in a mouse model of Neurofibromatosis type I. Society for Neuroscience Abstracts , 32<sup>nd</sup> Annual Meeting, Orlando, Florida, USA.
- **Costa, R.M.**, Miyamoto, A., Kida, S., Honjo, T., Weinmaster, G., Silva, A.J. (2002). Role of the Notch pathway in adult brain function. Forum of European Neuroscience, Paris, France.
- **Costa R.M.**, Miyamoto A., Honjo T., Weinmaster G., Silva A.J. (2001). The Notch pathway is critical for adult brain function. Society for Neuroscience Abstracts , 31<sup>st</sup> Annual Meeting, San Diego, California, USA.
- **Costa R.M.**, Elgersma Y., Federov, N.B., Zhuo Y., Kogan J.H. Parada L. F., Silva A.J. (2001). Learning disabilities in NF1: molecular and cellular mechanisms. Keystone Symposia, Hippocampus: The integration of Molecular Mechanisms and Cognitive Function, Taos, New Mexico, USA.
- **Costa R.M.**, Yang T., Kogan J.H., Ohno M., Brannan C.I., Silva A.J. (2000). Molecular mechanisms of cognitive dysfunction in Neurofibromatosis type I. Society Neuroscience Abstracts , 30<sup>th</sup> Annual Meeting, New Orleans, Louisiana, USA.
- Federov, N.B., **Costa R.**, Silva A. (2000). Enhanced GABA inhibition and increased threshold for LTP induction in NF1 heterozygous mice. Society Neuroscience Abstracts, 30<sup>th</sup> Annual Meeting, New Orleans, Louisiana, USA.
- **Costa R.M.**, Kogan J.H., Ohno M., Cohen J., Silva A.J. (2000). The learning deficits of the mouse model of NF1 are rescued by decreased Ras activity. NNFF International Consortium for the Molecular Biology of NF1 and NF2, Aspen, Colorado, USA.
- Federov, N.B., **Costa R.M.**, Silva A. J. (2000). Enhanced GABA inhibition and increased threshold for LTP induction in NF1 heterozygous mice. NNFF International Consortium for the Molecular Biology of NF1 and NF2, Aspen, Colorado, USA.
- **Costa, R.M.\***, Yang, T.\*., Huynh, D.P., Pulst S.M., Viskochil, D.H., Silva, A.J. and Brannan, C.I. (2000). Learning deficits but normal development and tumor predisposition in mice lacking exon 23a of the Neurofibromatosis type I gene. NNFF International Consortium for the Molecular Biology of NF1 and NF2, Aspen, Colorado, USA.
- Elgersma Y., Zhuo Y., **Costa R.M.**, Parada L. F., Silva A.J. (2000). Role of neuronal NF1 in learning and memory. NNFF International Consortium for the Molecular Biology of NF1 and NF2, Aspen, Colorado, USA.
- **Costa R.M.**, Elgersma Y., Yang T., Kogan J.H., Brannan C.I., Silva A.J. (2000). Molecular mechanisms of Cognitive dysfunction in Neurofibromatosis type I. Forum of European Neuroscience, Brighton, UK.
- **Costa, R.M.**, Yang, T., Huynh, D.P., Brannan, C.I. and Silva, A.J. (1999). Learning deficits in mice lacking the exon 23a of *Nf1*. Society for Neuroscience Abstracts, 29<sup>th</sup> Annual Meeting, Miami Beach, Florida, USA.
- **Costa, R.M.**, Yang, T., Kogan, J.H., Frankland P.W., Brannan, C.I. and Silva, A.J. (1999). Learning deficits in mice lacking the exon 23a of *Nf1*. Cold Spring Harbor Laboratory Meeting on Learning and Memory, CSHL, New York, USA.
- Mayntz, M. and **Costa, R.** (1996). The ontogeny of suckling behaviour in *Bos taurus*. 8th Nordic ISAE (International Society for Applied Ethology) Winter Meeting, Uppsala, Sweden.
- **Costa, R.** and Mayntz, M. (1996). Pharmacologically induced changes of the inflow-rate into the udder cistern in *Bos taurus* and their effect on suckling behaviour. 6th Crane Seminar on Parental Behavior, Swedish University of Agricultural Sciences, Skara, Sweden.