



## Profolio of Researchers and Research Teams

# SYSTEMS NEUROSCIENCE

(Last update 03/04/2013)

**Code:** GI-1909

**Department:** Fisioloxía

**Contact:**

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### Research field

- Sensorimotor neuroscience.
- Neuroscience of vision.
- Cognitive functions: memory and decision making.
- Neuronal computation.

### Technology services

- Studies on experimental neuropharmacology (behavior and neural function).
- Techniques available for electrophysiological recordings(experimental neurophysiology).

### Key words

Electrophysiology; neuropharmacology; neural systems' simulation, working memory, decision making.

### Researchers

<b>Name</b>	<b>Position</b>
Martín Cora,F.J.	Coordinator
Acuña Castroviejo,C.	Member
Canedo Lamas,A.	Member
Dominguez Arcos,M.	IFP

<b>External collaborators</b>	<b>Institution</b>

### **RTD PROJECTS ( period: 2009 - 2013 )**

**Title:**

Relaciones funcionales entre las neuronas nociceptivas del subnúcleo reticular dorsal y del núcleo reticular gigantocelular en gatos anestesiados.

**Tipology:** (PN) Plan Nacional

**Duration:** 01/01/2013 - 31/12/2015

**Main investigator:** Canedo Lamas, Antonio

**Title:**

Correlatos psicofísicos y neurales de la toma de decisiones y la memoria de trabajo (subproyecto)

**Tipology:** Plan Nacional

**Duration:** 01/01/2011 - 31/12/2013

**Main investigator:** Acuña Castroviejo, Carlos

**Title:**

Estudio electrofisiológico de las neuronas talámicas nociceptivas en gatos anestesiados

**Tipology:** Plan Nacional

**Duration:** 01/01/2010 - 31/12/2012

**Main investigator:** Canedo Lamas, Antonio

**Title:**

Estudo do procesamento nociceptivo a nivel talámico

**Tipology:** Proyectos Xunta

**Duration:** 06/08/2009 - 03/12/2012

**Main investigator:** Canedo Lamas, Antonio

### **SCIENTIFIC PRODUCTION ( period: 2007 - 2011 )**

**Articles in scientific journals**

**Article:**

A flexible method to measure synchrony in neuronal firing

**Journal:** JOURNAL OF THE AMERICAN STATISTICAL ASSOCIATION, ISSN: 0162-1459  
2008

**Article:**

Neural correlates of decision and their outcomes in the ventral premotor cortex

**Journal:** JOURNAL OF NEUROSCIENCE, ISSN: 0270-6474  
2008

**Article:**

Processing noxious information at the subnucleus reticularis dorsalis (SRD) of anesthetized cats.  
Wind-up mechanisms

**Journal:** PAIN, ISSN: 0304-3959

2008

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**Article:**

A role for the ventral premotor cortex beyond performance monitoring

**Journal:** PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA, 2009

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**Article:**

Processing afferent proprioceptive information at the main cuneate nucleus of anesthetized cats.

**Journal:** JOURNAL OF NEUROSCIENCE, ISSN: 0270-6474  
2010

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**Article:**

Decision-Making, Behavioral Supervision and Learning: An Executive role for the ventral premotor cortex?

**Journal:** NEUROTOXICITY RESEARCH, ISSN: 1029-8428  
2010

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**Article:**

Assesing neural activity related to decision-making through flexible odds ratio curves and their derivatives.

**Journal:** STATISTICS IN MEDICINE, ISSN: 0277-6715  
2011

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**Article:**

Ventral premotor cortex neuronal activity matches perceptual decisions.

**Journal:** EUROPEAN JOURNAL OF NEUROSCIENCE, ISSN: 0953-816X  
2011

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**Article:**

Intracellular recordings of subnucleus reticularis dorsalis neurones revealed novel electrophysiological properties and windup mechanisms.

**Journal:** JOURNAL OF PHYSIOLOGY-LONDON, ISSN: 0022-3751  
2011

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**Doctoral theses:**

**Title:**

Papel de la corteza premotora ventral en la toma de decisiones

**Date of dissertation:** 12/12/2008

**Director:** Carlos Acuña Castroviejo

**Author:** José Luis Pardo Vázquez

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