Catálogo de Investigadores e Grupos de Investigación

DESENVOLVEMENTO DO SISTEMA NERVIOSO DE PEIXES ÓSEOS E CARTILAXINOSOS

(Última actualización 03/04/2013)

Código: GI-1853
Departamento: Bioloxía Celular e Ecoloxía
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Liñas de Investigación

- Morfoxénese e rexionalización do sistema nervioso central de peixes cartilaxinosos
- Organización neuroquímica do sistema nervioso central de peixes gnatóstomos durante o desenvolvemento e en etapas adultas.
- O saco vasculoso como modelo para o estudio de neuroepitelios e as súas relacións co sistema nervioso central

Servizos e Recursos

- Inmunohistoquímica
- Hibridación "in situ"
- Microscopía electrónica

Palabras chave

Morfoxénese, neuroanatomía, teleósteos, esturión, elasmobranquios, sistema GABAérxico, monoaminas, acetilcolina, neuropéptidos.

Investigadores

Nome	Cargo
Rodríguez-Moldes Rey,M.I.	Coordinador
Adrio Fondevila,M.F.	Membro
Candal Suárez,E.	Membro
Rodríguez Díaz,M.Á.	Membro
Pose Mendez,S.M.	IFP
Quintana Urzainqui,I.	IFP
Sánchez Farías,N.	IFP
Santos Durán,G.	IFP

Colaboradores externos

Pilar Molist García	Universidade de Vigo
Iván Manuel Carrera Figueiredo	Ebiotec (EuroEspes Biotecnología)

PROXECTOS DE INVESTIGACIÓN 2009 - 2013

Título:
BRAINSHARK. Consolidacion e estruturacion de unidades de investigacion competitivas. (GPC)
Tipo: (PG) Plan Galego
Fechas: 17/06/2012 - 30/11/2014
Investigador principal: Rodríguez-Moldes Rey, María Isabel

Título:
Buscando la condición ancestral de la organización cerebral de gnatóstomos: regionalización, migración, proyecciones y asimetrías en el cerebro en desarrollo de un tiburón
Tipo: Plan Nacional
Fechas: 01/01/2011 - 31/12/2013
Investigador principal: Rodríguez-Moldes Rey, María Isabel

Título:
Control da expresión xénica in ovo durante o desenvolvemento do sistema nervioso de peixes. Identificación de mecanismos conservados evolutivamente.
Tipo: Proxectos Xunta
Fechas: 10/08/2010 - 30/09/2013
Investigador principal: Candal Suárez, Eva María

PRODUCCIÓN CIENTÍFICA 2007 - 2011

Artigos en revistas científicas

Artigo:
Organization of the Torus Longitudinalis in the Rainbow Trout (Oncorhynchus mykiss): An Immunohistochemical Study of the GABAergic System and a DiI
Tract-Tracing Study
Revista: JOURNAL OF COMPARATIVE NEUROLOGY, ISSN: 0021-9967
2007

Artigo:

Developmental mechanisms for retinal degeneration in the blind cavefish Astyanax mexicanus
Revista: JOURNAL OF COMPARATIVE NEUROLOGY, ISSN: 0021-9967
2007

Artigo:

Transverse and longitudinal domains in the forebrain of elasmobranch
embryos revealed by Pax6, tyrosine hydroxylase, calretinin, and GAD immunostaining
Revista: INTERNATIONAL JOURNAL OF DEVELOPMENTAL NEUROSCIENCE, ISSN: 0736-5748
2006

Artigo:

Spatial organization of pax6-protein-containing cells, proliferating
cells and differentiated cells in the embryonic shark forebrain
Revista: INTERNATIONAL JOURNAL OF DEVELOPMENTAL NEUROSCIENCE, ISSN: 0736-5748
2006

Artigo:

Ol-insm1b, a SNAG family transcription factor involved in cell cycle arrest during medaka development
Revista: DEVELOPMENTAL BIOLOGY, ISSN: 0012-1606
2007

Artigo:

Peripheral serotonin dynamics in the rainbow trout (Oncorhynchus mykiss)
Revista: COMPARATIVE BIOCHEMISTRY AND PHYSIOLOGY C-TOXICOLOGY & PHARMACOLOGY, ISSN: 1532
2007

Artigo:

New insights on Saccus vasculosus evolution: a developmental and immunohistochemical study in elasmobranchs.

Revista: BRAIN BEHAVIOR AND EVOLUTION, ISSN: 0006-8977
2007

Artigo:

The segmental organization of the developing shark brain based on neurochemical markers, with special attention to the prosencephalon
Revista: BRAIN RESEARCH BULLETIN, ISSN: 0361-9230
2008

Artigo:

Development of the serotoninergic system in the central nervous system of a shark, the lesser spotted dogfish Scyliorhinus canicula.
Revista: JOURNAL OF COMPARATIVE NEUROLOGY, ISSN: 0021-9967
2008

Artigo:

Early development of GABAergic cells of the retina in sharks: an immunohistochemical study with GABA and GAD antibodies.
Revista: JOURNAL OF CHEMICAL NEUROANATOMY, ISSN: 0891-0618
2008

Artigo:

Distribution of somatostatin immunoreactive neurons and fibres in the central nervous system of a chondrostean, the Siberian sturgeon (Acipenser baeri).
Revista: BRAIN RESEARCH, ISSN: 0006-8993
2008

Artigo:

Tangentially migrating GABAergic cells of subpallial origin invade massively the pallium in developing sharks.
Revista: BRAIN RESEARCH BULLETIN, ISSN: 0361-9230
2008

Artigo:

The segmental organization of the developing shark brain based on neurochemical markers, with special attention to the prosencephalon.
Revista: BRAIN RESEARCH BULLETIN, ISSN: 0361-9230
2008

Artigo:

Development of the cerebellar body in sharks: spatiotemporal relations of Pax6 expression, cell proliferation and differentiation.
Revista: NEUROSCIENCE LETTERS, ISSN: 0304-3940
2008

Artigo:

Morphogenesis in the retina of a slow-developing teleost: emergence of the GABAergic system in relation to cell proliferation and differentiation.
Revista: BRAIN RESEARCH, ISSN: 0006-8993
2008

Artigo:

Synthesis of estrogens in progenitor cells of adult fish brain: evolutive novelty or exaggeration of a more general mechanism implicating estrogens in neurogenesis?
Revista: BRAIN RESEARCH BULLETIN, ISSN: 0361-9230
2008

Artigo:

Calretinin immunoreactive systems in the cerebellum and cerebellum-related lateral-line medullary nuclei of an elasmobranch, Scyliorhinus canicula.
Revista: JOURNAL OF CHEMICAL NEUROANATOMY, ISSN: 0891-0618
2009

Artigo:

A Developmental approach to forebrain organization in elasmobranchs: new perspectives on the regionalization of the telencephalon
Revista: BRAIN BEHAVIOR AND EVOLUTION, ISSN: 0006-8977
2009

Artigo:

Patterns of cell proliferation and rod photoreceptor differentiation in shark retinas.
Revista: JOURNAL OF CHEMICAL NEUROANATOMY, ISSN: 0891-0618
2010

Artigo:

Autoantibodies to glial fibrillary acid protein and S100beta in diabetic
Revista: DIABETIC MEDICINE, ISSN: 0742-3071
2010

Artigo:

Calretinin immunoreactivity in the developing retina of sharks: Comparison with cell proliferation and GABAergic system markers.
Revista: EXPERIMENTAL EYE RESEARCH, ISSN: 0014-4835
2010

Artigo:

Distribution of glycine immunoreactivity in the brain of the Siberian sturgeon (Acipenser baeri). Comparison with gamma-aminobutyric acid (GABA)
Revista: JOURNAL OF COMPARATIVE NEUROLOGY, ISSN: 0021-9967
2011

Artigo:

Regionalization of the shark hindbrain: a survey of an ancestral organization
Revista: Frontiers in Neuroanatomy, ISSN: 1662-5129
2011

Artigo:

Comparative analysis of Met-enkephalin, galanin and GABA immunoreactivity in the developing trout preoptic-hypophyseal system.
Revista: GENERAL AND COMPARATIVE ENDOCRINOLOGY, ISSN: 0016-6480
2011

Capítulos de libro:

Título:

The dogfish Scyliorhinus canicula, a reference in jawed vertebrates.

Libros:

Emerging Model Organisms. A Laboratory Manual, Vol. 1.

(978-0-87969-826-3)Publicación: 2008
Editorial: Cold Spring Harbor

Título:

Functional Morphology of the Brains of Cartilaginous Fishes

Libros:

Encyclopedia of Fish Physiology: From Genome to Environment, Vol 1,

(978-0-12-374545-3)Publicación: 2011
Editorial: Academic Press

Teses doutorais:

Título:

Desarrollo de los sistemas gabaérgico y aminérgicos en el sistema nervioso central de peces cartilaginosos

Data lectura: 18/07/2008
Director: María Isabel Rodríguez-Moldes Rey

Autor: Iván Manuel Carrera de Figueiredo

Título:

Rexionalización do encéfalo e retina en quenllas estudo baseado nos patróns espaciotemporales de expresión de Pax6 e doutros marcadores neuroquímicos

Data lectura: 28/05/2010
Director: María Isabel Rodríguez-Moldes Rey, Eva María Candal Suárez
Autor: Susana Ferreiro Galve

Título:

EXPRESIÓN E MECANISMOS FUNCIONAIS DA PROTEÍNA DA MATRIZ EXTRACELULAR -REELINA- DURANTE O DESENVOLVEMENTO PRENATAL DO ENCÉFALO DE ROEDORES

Data lectura: 27/01/2010
Director: Hector Juan Caruncho Michinel, Miguel Ángel Rodríguez Díaz
Autor: Iria Mª González-Dopeso Reyes
