

CURRICULUM VITAE

NOMBRE : **ROMMY von BERNHARDI MONTGOMERY, MD., Ph.D.**
NACIDA : **Noviembre 24 de 1961 Santiago, Chile**
CEDULA DE IDENTIDAD : **7.407.687 – 4**
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FORMACION

1987 : **Licenciada en Medicina, Médico-Cirujano**
1989-92 : Investigación Experimental Tesis para el grado de Doctor, Lab. Dr. Michael Bastiani, Department of Biology, University of Utah. Salt Lake City, Utah, Estados Unidos.
1993 : **Doctor en Ciencias Biológicas**, Mención en Biología Celular, PUC de Chile.
1993-95 : **Post-Doctorado en Neurociencias**, Prof. Dr. John Nicholls, Biozentrum der Universität Basel, Basilea, Suiza.

ACTIVIDADES ACADEMICAS

2001-presente : **Profesor Adjunto**, Departamento de Neurología y Programa de Doctorado en Ciencias Médicas, Facultad de Medicina, PUC de Chile.
: Profesora Programa de Doctorado en Ciencias Médicas
: Profesora Curso "Mecanismos Biológicos de la Patología del Sistema Nervioso Central"
Programa de Especialización en Neurología, Departamento de Neurología.

INVESTIGACION

1996 - Investigador independiente cabeza de laboratorio.
Estudio en la participación de las células gliales en la etiopatogenia de la Enfermedad de Alzheimer:
Neurotoxicidad y procesamiento de la proteína precursora del amiloide por glía. Ensayos in vitro con líneas celulares y cultivos primarios. Bioquímica, Cultivo celular, estudios funcionales in vitro de interacción microglia-neurona. Morfología e inmunoreconocimiento.
Dirección de Tesis de Grado.
Tutorías de investigación para alumnos de pregrado y postgrado.

PUBLICACIONES EN EXTENSO

von Bernhardt R. and Eugén, J. (2003) Microglia – astrocyte interaction in Alzheimer's disease: modulation of cell reactivity to A β . Submitted to Febs Letters.

Infante, CD., von Bernhardt, R., Rovgen, M., Llona, I., and Eugén, J. (2003) Respiratory responses to pH in absence of pontine and dorsal medullary areas in the newborn mouse in vitro. Submitted to Brain Res.

von Bernhardt, R., Ramírez, G., De Ferrari G.V. and Inestrosa, N.C. (2003). Acetylcholinesterase induces the expression of the b-Amyloid Precursor Protein in glia and activates glial cells in culture. Neurobiol Disease, final referees review (after comments).

von Bernhardt, R., Ramírez, G., and Inestrosa, N.C. (2003). Activation of Astrocytes by Acetylcholinesterase. Proceedings of the VII Cholinesterase Meeting. In Press.

von Bernhardt, R., Alarcón, R., Mezzano, D., and Inestrosa, N.C. (2003). Blood cells cholinesterase activity in Alzheimer's disease patients. Proceedings of the VII Cholinesterase Meeting. In Press.

von Bernhardt, R., Ramírez, G., Matile, H. and Döbeli, H. (2001). Immobilized APP constructs: a tool for the in vitro screening of glial cells reactivity. *Europ J. Neurosci.* 14:946-956.

von Bernhardt, R. and Ramírez, G (2001). Microglia-astrocyte interaction in Alzheimer's disease: friends or foes for the nervous system? *Biol Res.* 34: 123-128

Marzolo, M.P., von Bernhardt, R. and Inestrosa, N.C. (2000) Expression of $\alpha 2$ -macroglobulin receptor/low density lipoprotein receptor-related protein (LRP) in rat microglial cells. *J. Neurosci. Research.* 60:401-411.

Marzolo, M.P., von Bernhardt, R. and Inestrosa, N.C. (1999) The mannose receptor is present in a functional state in rat microglial cells. *J. Neurosci. Research.* 58: 387-395.

von Bernhardt, R., Carpenter, E.M. (1999) Monoclonal Antibody against a Neural Antigen impairs Formation of the Axon Scaffold of Grasshopper CNS. *Developmental Neuroscience* 21(6): 423-435.

von Bernhardt, R. and Nicholls, JG. (1999) Transformation of leech microglial morphology and properties following co-culture with injured central nervous system tissue. *J. Exp. Biol.* 202, 723-728.

von Bernhardt, R. (1998) Contact between identified leech neurons in culture prevents retraction of neurites following electrical activity. *J. Exp. Biol.*, 201:1035-1041.

DeFerrari G.C., von Bernhardt, R., Calderón, F.H., Luza, S., and Inestrosa, N.C. (1998) Responses Induced by Tacrine in Neuronal and non Neuronal cell lines. *J. Neuroscience Res.*, 52:435-444.

Calderón, F., von Bernhardt, R., DeFerrari, G.C., Luza, S., Aldunate, R., and Inestrosa, N.C. (1998) Toxic effects of acetylcholinesterase on neuronal and glial-like cells in vitro. *Molec. Psiquiat.* 3:247-255.

von Bernhardt, R., and Bastiani, M.J. (1995) The requirement of RNA synthesis for pathfinding by growing axons. *J. Comp. Neurol.* 357: 52-64.

von Bernhardt, R., and Muller, K.J. (1995) Repair of the CNS: Lessons from Lesions in Leeches. *J. Neurobiol.* 27: 353-366.

von Bernhardt, R. (1993) Generation of guidance cues for axon pathway choice during embryonic development: its dependence upon RNA synthesis. Ph.D. Thesis (Catholic University of Chile). Experimental work done under the Direction of Dr. M. Bastiani, Department of Biology, University of Utah (USA).

von Bernhardt, R. and Inestrosa, N.C. (1990) Dermatan sulfate and de-sulfated heparin solubilized collagen-tailed acetylcholinesterase from the rat neuromuscular junction. *Brain Res.* 529: 91-95

von Bernhardt, R., Ayal, H. and Inestrosa, N.C. (1990) Carrageenans solubilize asymmetric acetylcholinesterase from nicotinic cholinergic synapses. *Comp. Biochem. Physiol* 96C(1):77-81

von Bernhardt, R. and Alvarez, J. (1989) Is the supply of axoplasmic proteins a burden for the perikaryon? Morphometry of sensory neurons and amino acid incorporation into their perikarya. *Brain Res.* 478: 301-308

von Bernhardt, R., De Ioannes, A.E., Blanco, L.P., Herrera, E., Bustos-Obregon, E. and Vigil, P. (1989) Round-headed spermatozoa: a model to study the role of acrosome in early events of gamete interactions. *Andrologia* 22(1):12-20.

COMUNICACIONES: (últimos 5 años)

von Bernhardt, R., Ramírez, G., and Inestrosa, N.C. Acetylcholinesterase induces the expression of the b-Amyloid Precursor Protein in Astrocytes and activates Glial cultures. Seven International Meeting on Cholinesterase. Nov 8-12, 2002.

von Bernhardt, R., Alarcón, R., Mezzano, D., and Inestrosa, N.C. Blood cells cholinesterase activity and Dementia: Decreased activity is Established from Early Stages in Alzheimer's Disease and is Common to Various Organic Dementias. Seven International Meeting on Cholinesterase. Nov 8-12, 2002.

Valenzuela, A., **R. von Bernhardt**, V. Valenzuela, G. Ramírez, R. Alarcón y S. Nieto. "Differential accretion of omega-3 and omega-6 LC-PUFA to the fetal brain of the rat after supplementation of the mothers with alpha linolenic acid or docosahexaenoic acid." 93rd AOCS (American Oil Chemist Society) Meeting. Montreal, Canadá. May 5-8 (2002).

von Bernhardt R., Ramírez, G., Alarcón, R. and Döbeli, H. Astrocytes modulate the Neurotoxic Activation of Microglia induced by Ab. Society for Neuroscience 32TH Annual Meeting. Orlando, 2-7 November 2002.

Herrera, R., Ramírez, G., Cabrera, R and **von Bernhardt R.** Low pH decreases neurodegeneration induced by Ab *in vitro*. Joint Meeting Sociedad Chilena Cs. Fisiológicas & Sociedad de Farmacología de Chile. La Serena, Chile. September 23-26, 2002

Alarcón, R., Fuenzalida, C. and **von Bernhardt R.** Glial adhesion to fibrillar and soluble b-Amyloid. Joint Meeting Sociedad Chilena Cs. Fisiológicas & Sociedad de Farmacología de Chile. La

Serena, Chile. September 23-26, 2002

von Bernhardt R., Rojas, L., and Pavez, D. Metabolic changes induced by APP in microglia. XLIV Annual Meeting of Sociedad de Biología de Chile. Pucón. November 2001. *Biological Research* 34 (2001): R-74.

Irarrázaval, P., Droppelmann, N., Florenzano, P., Ramírez, G. and **von Bernhardt R.** Astrocytes reduce neurotoxic activation of microglia. XLIV Annual Meeting of Sociedad de Biología de Chile. Pucón. November 2001. *Biological Research* 34 (2001): R-74.

Ramírez, G. and **R. von Bernhardt**. Non-phagocytatable APP induces glial cell proliferation. XXXIV International Congress of Physiological Sciences- Christchurch, New Zealand 2001.

Ramírez, G. and **R. von Bernhardt**. "Alzheimer's Disease: Neuroprotection mediated by proinflammatory molecules." XLIII Annual Meeting of Sociedad de Biología de Chile. Pucón. 14-17 November 2000. *Biological Research* 33 (2000): R-73.

von Bernhardt R., Ramírez, G., Döbeli, H and Eugenín, J. Reactivity of glial cells to immobilized APP. Society for Neuroscience 30TH Annual Meeting. New Orleans, 4-9 November 2000.

von Bernhardt R., Toro, R., & Döbeli, H. Reactivity and phagocytic behaviour of glial cells exposed to APP. Joint Meeting Sociedad Chilena Cs. Fisiológicas & The Physiological Society. Pucón, November 1999.

von Bernhardt R., Toro, R., Jara, I., Hananías, K., Repetto, P. & Eugenín, Effect of proinflammatory molecules on neuronal death induced by β -amyloid. Society for Neuroscience Annual Meeting. Miami, October 1999. Abstracts Society for Neuroscience 25: 1089.

von Bernhardt R., Toro, R., & Döbeli, H. Microglia-astrocyte interaction in Alzheimer disease: synergic activation by β -amyloid and proinflammatory molecules. IBRO Neuroscience World Congress. Jerusalem, July 1999. p 211

von Bernhardt R., Godoy, P., Alvarez, R., & Döbeli, H. Glial Reaction to APP (Amyloid Precursor Protein): its participation as processor of Beta Amyloid. Annual Meeting Society for Biology of Chile p 1998.

Marzolo, M.P., Reyes, A., von Bernhardt, R., & Inestrosa, N.C. Presence of Mannose Receptor in Microglia of Rat Brain. Annual Meeting Society for Biochemistry and Molecular Biology of Chile, 1998.

SOCIEDADES

- Miembro Regular de la "Society for Neurosciences" Estados Unidos
- Miembro de la IBRO "International Brain Research Organization"
- Miembro Regular de la Sociedad de Biología de Chile.

DISTINCIONES

1987-90 : **Beca Residencia en Ciencias Básicas**, Facultad de Medicina, PUC de Chile.
1991-92 : **Beca de Entrenamiento de la Organización de Estados Americanos.**
1994 : **Beca Marine Biology Laboratories.**

CONTACTO

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