

FICHA DE TESIS

Nombre del graduado	Ana María Fernanda Vega Letter
Año de ingreso al programa	2011
Título de la tesis	Desarrollo de una nueva estrategia terapéutica para patologías autoinmunes: Potenciación de la Capacidad Inmunoreguladora de Células Madre Mesenquimales Mediada por Receptores de Reconocimiento de Patrones.
Director(a) de tesis	Claudia Altamirano
Fecha de la defensa de la tesis	12/2015
Publicaciones	<p>Indexada (identificar tipo de indexación: ISI, SCIELO, LATINDEX, u otra): <i>Autor(es), año, nombre, lugar, editorial, estado, ISSN. Incluir factor de impacto de revista, si es pertinente.</i></p> <p>1. Differential TLR Activation of Murine Mesenchymal Stem Cells Generates Distinct Immunomodulatory effects in EAE. Ana María Vega-Letter1,2, Mónica Kurte1, Catalina Fernández-O’Ryan1, Daniela Ruíz-Higgs1, Melanie Gauthier-Abeliuk1, Patricia Fuenzalida1, Ivon Moya-Uribe1, Claudia Altamirano2, Fernando Figueroa1, Carlos Irarrázabal3 and Flavio Carrión1*. Enviado a Stem Cell Research and Therapy. Esperando respuesta. Impact factor: 4,26</p> <p>2. Toll-like receptor 3 pre-conditioning increases the therapeutic efficacy of umbilical cord mesenchymal stromal cells in a dextran sulfate sodium-induced colitis model. Fuenzalida P, Kurte M, Fernández-O’ryan C, Ibáñez C, Gauthier-Abeliuk M, Vega-Letter AM, Gonzalez P, Irarrázabal C, Quezada N, Figueroa F, Carrión F. Cytotherapy. 2016 May;18(5):630-41. doi: 10.1016/j.jcyt.2016.02.002. Impact Factor: 3,6</p> <p>3. Intravenous administration of bone marrow-derived mesenchymal stem cells induces a switch from classical to atypical symptoms in experimental autoimmune encephalomyelitis.</p> <p>4. Kurte M, Bravo-Alegría J, Torres A, Carrasco V, Ibáñez C, Vega-Letter AM, Fernández-O’ryan C, Irarrázabal CE, Figueroa FE, Fuentealba RA, Riedel C, Carrión F.</p> <p>5. Stem Cells Int. 2015;2015:140170. doi: 10.1155/2015/140170. Epub 2015 Mar 9. Impact Factor: 2,8</p>

	No indexada: <i>Autor(es), año, nombre, lugar, editorial, estado</i>
	Patentes: <i>Autor(es), año, nombre, estado.</i>
Resumen de la Tesis	
<p>Mesenchymal Stem Cells (MSCs) are multipotent nonhematopoietic progenitor cells that exhibit potent immunosuppressive properties with a complex process dependent by its microenvironment. In fact, it has recently been described that MSCs according to the specific activation of different toll-like receptors (TLR), such as TLR3 and TLR4, can modulate the immunomodulatory capacities of MSCs. In this study we determined the effects of poly(I:C) and (LPS) pretreatment in murine MSCs and its effect in vitro and in vivo in an experimental model of multiple sclerosis. Our results show that MSCs pretreated with poly(I:C) reduce the proliferation of splenocytes, Th1 and Th17 cells, as well as the nitric oxide soluble factor production. In contrast, MSCs pretreated with LPS increase the splenocytes proliferation, Th1 and Th17 cells, as well as the expression of proinflammatory cytokine IL-6. The administration of pretreated MSCs in EAE reveal that poly(I:C) is able to reduce the clinical score and the proliferation of the Th1 and Th17 T lymphocytes. On the other hand, MSCs pretreatment with LPS reverts these effects in EAE model. Our results show that pretreatment of MSCs with poly(I:C) improved their immunosuppressive abilities of MSCs, which may provide an opportunity for potential novel therapies for autoimmune diseases.</p>	