J Clin Cell Immunol 2015, 6:5
http://dx.doi.org/10.4172/2155-9899.C1.025

OMICS International
conferenceseries.com

4th International Conference and Exhibition on
Immunology
September 28-30, 2015 Crowne Plaza Houston River Oaks, Houston, TX, USA

Immune tolerance induction as a potential therapeutic tool to modulate inflammation in neurodegenerative diseases

Ana Laura Pelayo Gómez, Lorena Martínez Alcantar, Diana Karina Talavera Carrillo, Jonhatan Uriel Pineda Salazar, Dra Alma Lilia Fuentes, Farías y Dra and Esperanza Meléndez Herrera
Michoacan University of San Nicolas de Hidalgo, México

The eye is able to regulate the inflammatory response by activating a specific and systemic tolerance to antigens that are inoculated within it. This ability can be exploited to regulate the inflammatory response in degenerative diseases. A great number of neurodegenerative diseases occur with a primary or secondary inflammation as a homeostatic mechanism to monitor and repair tissue. Among the main negative effects of chronic inflammation include inability to repair tissue and the establishment of an autoimmune response that helps to extend the injury. Thus, adequate regulation of antigen-dependent inflammatory response through the establishment of immune tolerance could be an efficient mechanism to restrict the injury and promote tissue repair in degenerative diseases. However, the time during which this state of immuno-tolerance is maintained and whether its permanence depends on the age of induction is unknown to this date. The aim of the present work is to evaluate the persistence of immuno-tolerance to neural auto-antigens, inoculated in the anterior chamber of the eye. The rats were subsequently immunized with the same antigens to assess specific immuno-tolerance to the antigen throughout time. Rats were tolerized to neural antigens ($t(16): 6.022$, $p<0.001$) and this state remained at least for six months post-induction ($t(15): 4.246$, $p<0.01$). These results show that immune response can be induced and the systemic antigen specific tolerance is maintained at least until the six months post-induction. This strategy can potentially be used in any degenerative disease.

any.lun@gmail.com

Available intravenous immunoglobulins to treat systemic autoimmune disorders

Angel Justiz Vaillant[1], Suzette Curtello[2] and Hellen Asemota[2]
[1]University of the West Indies, Trinidad and Tobago
[2]University of the West Indies, Jamaica

The aim of this study was to vaccinate layer hen chickens against *Salmonella* infection. Two vaccines were assessed for efficacy and safety: A DNA vaccine containing *Salmonella* genomic DNA encapsulated in a liposome as a vector and a live attenuated *Salmonella* vaccine comprising 5 attenuated *Salmonella* serovars that were attenuated using indigenous plant extracts such as garlic and onion. The results showed that both vaccines had a high protection capacity, preventing *Salmonella* infection after challenge with a wild type of *Salmonella* typhimurium. Hyper-immune eggs inhibited the growth of *Salmonella* spp *in vitro* in immunized chickens. ELISA demonstrated the specific antibody production to LPS of *S. typhimurium*. Post-mortem studies confirmed the presence of salmonellosis in the control group but not in immunized chickens with either vaccine. This study shows that poultry salmonellosis can be prevented by the use of prophylactic DNA or live-attenuated vaccines (LAV).

angel.vaillant@sta.uwi.edu