IMMUNOGENIC PEPTIDES OF AQP4 FOR THE DIAGNOSIS AND TREATMENT OF NEUROMYELITIS OPTICA (NMO)

Tech ID: 24790 / UC Case 2010-074-0

INVENTION NOVELTY

This invention identifies the exact regions within AQP4 that trigger an immune response, which provide promising therapeutic potential for the diagnosis and treatment of Neuromyelitis Optica.

VALUE PROPOSITION

This novel invention can be used to develop therapeutics that specifically target the disease process of NMO and stop further progression of the disease.

TECHNOLOGY DESCRIPTION

In the last decade, it was determined that the key auto-antigen in NMO that erroneously activates the immune system, causing it to attack and destroy myelin, is aquaporin-4 (AQP4). Researchers at UCSF have recently determined the exact regions within AQP4 that trigger an immune response. The knowledge of these specific regions can be applied to the development of treatments to re-establish self-tolerance to AQP4, directly targeting the underlying cause of NMO. Unlike current treatments which mainly treat symptoms, this approach could stop progression of NMO and prevent any future attacks.

APPLICATION

- Diagnostics to test for NMO
- Diagnostics to distinguish NMO from multiple sclerosis and other disorders
- Development of NMO-specific therapeutics

LOOKING FOR PARTNERS

To develop and commercialize this technology as an effective method for drug delivery medical devices

STAGE OF DEVELOPMENT

Preclinical

RELATED MATERIALS


**DATA AVAILABILITY**

Under NDA/CDA

**PATENT STATUS**

<table>
<thead>
<tr>
<th>Country</th>
<th>Type</th>
<th>Number</th>
<th>Dated</th>
<th>Case</th>
</tr>
</thead>
<tbody>
<tr>
<td>United States Of America</td>
<td>Issued Patent</td>
<td>9,234,017</td>
<td>01/12/2016</td>
<td>2010-074</td>
</tr>
</tbody>
</table>