Peptide Mimotopes to Oxidation Specific Epitopes

Tech ID: 22613 / UC Case 2012-183-0

BACKGROUND

Autoantibodies specific for malondialdehyde-modified LDL (MDA-LDL) represent potential biomarkers to predict cardiovascular risk. However, MDA-LDL is a high variability antigen with limited reproducibility. To identify peptide mimotopes of MDA-LDL, phage display libraries were screened and the specificity and antigenic properties of MDA mimotopes were assessed *in vitro* and *in vivo*.

TECHNOLOGY DESCRIPTION

UCSD researchers have identified two peptide mimotopes that form a three dimensional representation of critical epitopes of MDA. These mimotopes have been shown to be representative of oxidation-specific epitopes that are proinflammatory and proatherogenic.

APPLICATIONS

In conjunction with different carriers, the newly identified peptides can be used as immunogens to study the mechanistic role of MDA-specific immune responses in immunization studies, and may provide the basis for potential atheroprotective vaccines, and could also be useful as imaging agents for inflammatory sites and/or atherosclerotic lesions.

PATENT STATUS

Country	Type	Number	Dated	Case
Patent Cooperation Treaty	Reference for National Filings	WO 2013/158841	10/24/2013	2012-183

Patent Pending

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OTHER INFORMATION

CATEGORIZED AS

- **Medical**
  - Disease: Cardiovascular and Circulatory System

RELATED CASES

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