

# International Conference and Exhibition on **Gastrointestinal Therapeutics** August 25-27, 2015 Valencia, Spain

## The role of the novel IL33/ST2 system in the causation of ulcerative colitis

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ST2/IL33 signaling pathway has been related to many inflammatory disorders as well as inflammatory bowel disease (IBD). IL-33, an IL-1 family member, is expressed in many cell types and its nuclear localization regulates gene transcription. IL-33 is released upon necrosis and the precursor form is enzymatically processed to promote an inflammatory response as a damage-associated molecular pattern or alarmin. The IL-33 receptor ST2, encoded by IL1RL1, is expressed as both a membrane-anchored receptor (ST2L) activated by IL-33 and as a soluble variant (sST2) that exhibits increased anti-inflammatory properties in inflammatory conditions and has been proposed as a prognostic disease biomarker. We characterized the IL33/ST2 system in mucosa from IBD patients and the effect of clinical course and therapy on sST2 content and cellular distribution as predictive markers of response to treatment, disease activity and outcome. These are the first findings demonstrating molecular and cellular mechanisms on the regulation of ST2 system in mucosa inflammation. This conference will offer cutting edge biomedical data on recent advances in the role of ST2 in these diseases.

### Biography

Marcela Hermoso R is a Professor of Immunology at the Disciplinary Program of Immunology of the Institute of Biomedical Sciences, Faculty of Medicine, University of Chile, Santiago, Chile. Her research focuses on the pathogenesis of intestinal inflammation and how altered immune responses can promote the ensuing diseases.

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