

## Special Issue on Intestinal Microbiota as Modulators of the Immune System

### Call for Papers

The gastrointestinal immune system is exposed to a large amount of different products mainly innocuous (derived from "friendly" bacteria and/or food antigens) but sometimes also dangerous (such as infectious bacteria). The commensal microbiota plays a central role modulating the outcome of immune responses in the gastrointestinal tract helping therefore to maintain immune homeostasis. Commensals also have the capacity to modulate several aspects of the host including not only the physiology and/or its nutritional status but also contributing to several diseases affecting the gut and distant organs. Therefore, it is not surprising that the modulation of the gut microbiota has been revealed as a very promising area of research aiming at modulating the development and/or outcome of the immune system looking for an impact in the clinics.

Nonetheless, there are still many issues which remain obscure regarding the host/microbiota interaction. In this issue, we aim to gain depth into the current understanding of the microbiota as a modulator of the immune system in health and disease. Potential topics include, but are not limited to:

- Animal models, cell lines, human studies and/or clinical trials
- Microbiota composition in different locations (e.g. faecal Vs tissue samples) and/or changes with the age/gender of the host
- Commensal microbiota and its effect on gastrointestinal diseases (inflammatory bowel diseases, coeliac disease, colorectal cancer, *Helicobacter pylori*...) and/or systemic diseases (multiple sclerosis, allergy, obesity, cardiovascular system/metabolism...)
- Microbiota metabolism and effects on the host in the framework health/disease
- Molecular mechanisms (target cells, receptors, signalling...) mediating the host/microbiota cross-talk
- Effect of the host as selection factor for the microbiota (e.g. genetics, host-derived soluble factors...)
- Modulating the commensal microbiota (e.g. prebiotics, probiotics, symbiotics, and/or faecal transplants) as a way to modulate the immune system

- Protective effect of natural compounds on the gastrointestinal tract

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Manuscript Due	Friday, 18 July 2014
First Round of Reviews	Friday, 10 October 2014
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### Lead Guest Editor

**David Bernardo Ordiz**, Antigen Presentation Research Group, Imperial College London & St Mark's Hospital, Harrow, United Kingdom; [d.bernardo-ordiz@imperial.ac.uk](mailto:d.bernardo-ordiz@imperial.ac.uk)

### Guest Editors

**Amado Salvador Peña**, Laboratory of Immunogenetics, Department of Medical Microbiology and Infection Control, VU University Medical Centre, Amsterdam, The Netherlands; [pena.as@gmail.com](mailto:pena.as@gmail.com)

**Borja Sánchez**, Nutrition and Bromatology Group, Department of Analytical and Food Chemistry; Food Science and Technology Faculty, University of Vigo - Ourense Campus, Spain; [borja.sanchez@uvigo.es](mailto:borja.sanchez@uvigo.es)

**Miguel Gueimonde**, Departamento de Microbiología y Bioquímica de Productos Lácteos, Instituto de Productos Lácteos de Asturias, Consejo Superior de Investigaciones Científicas, Villaviciosa, Spain; [mgueimonde@ipla.csic.es](mailto:mgueimonde@ipla.csic.es)