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Speaker Introduction



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**Emerging Field II:
Neuro-immune crosstalk
and microbiota in
inflammatory diseases**

Bio

Postdoctoral research associate Weill Cornell Medicine Division of Pulmonary and Critical Care Medicine Dr. Yen-Hua Chen completed her M.S. in Microbiology at the Department of Microbiology at National Taiwan University Medical School and Ph.D. in Microbiology, Immunology and Infection at the Columbia University Medical Center. His PhD study was focused on the metabolic regulation of lymphocyte differentiation and self-renewal under the supervised of Dr. Steven Reiner. He demonstrated that mitochondrial signals guide the differentiation of effector lymphocytes and maintaining of memory and progenitor cells. He started his postdoctoral training at the Weill Cornell Medical Center under the supervised of Dr. David Artis and Dr. Laurel Monticelli. Dr. Chen was interested in immunometabolism with an emphasize how ligand gated transcription factors modulate the immune function of innate lymphoid cells at barrier sites, and on how metabolism affect different immune cell types involved the type 2 immune response on mucosal inflammatory disease.

Abstract

The neuronal and immune systems exhibit bidirectional interactions that play a critical role in tissue homeostasis, infection, and inflammation. In recent years, accumulating evidence suggests that neurons use both neurotransmitters and neuropeptides to regulate immune cell functions, whereas immune cells produce inflammatory mediators, which enhance neuronal activation. This talk will discuss the recent findings regarding neuro-immune crosstalk that are uncovering molecular mechanisms that regulate inflammation at barrier sites and recent advance in bioelectronic medicine provides a new approach to and replacing drugs and limiting side effects. Furthermore, accumulating evidence revealed the interplay of gut microbiota and immune system in orchestrating neuroinflammation, autoimmunity, and neurogenesis. Here we highlight new insights in translational therapies of inflammatory diseases stemming from research on host-microbiota interactions.