

ASHBi DISTINGUISHED SEMINAR

2024
12.6 Fri
16:00 - 17:00

Register here



Venue

Conference Room
B1F, Faculty of Medicine Bldg. B

Lecturer

Iñaki Sanz M.D.

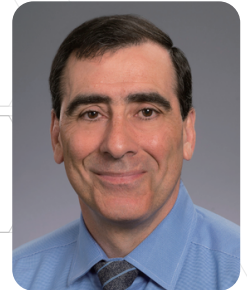
Professor of Medicine, Emory University

Frances Eun-Hyung Lee M.D.

Professor of Medicine, Emory University

Regulation of pathogenic and protective B cell responses in SLE and infection

Lecturer: **Iñaki Sanz M.D.**
Professor of Medicine, Emory University



Numerous studies indicate a large degree of heterogeneity of human B cells whether by phenotypic, molecular and occasionally, by functional analyses. However, the origin and function of different phenotypic subsets and their role in protective and autoimmune responses remain to be understood and is often complicated by the aggregation of multiple populations under a single marker such as CD11c.

We have demonstrated that human B cell responses can proceed through conventional germinal center reactions (GC), as well as extrafollicular reactions (EF), and defined the cellular components of the EF pathway and their regulomes. Importantly, we have demonstrated that naïve-derived EF reactions play important pathogenic roles in SLE despite the presence of pre-formed, long-standing memory responses. Moreover, we have shown that naïve-derived EF reactions are also inducers of pathogenic B cell responses in patients with severe COVID-19 infection. Finally, the recognition of naïve B cell participation in SLE pathogenesis has enabled us to: 1) define a molecular SLE B cell signature; and 2) differentiate EF and GC/memory B cell endotypes and define their contribution to pathogenic and protective responses, including the antibody response to mRNA vaccines in SLE.



On Becoming a Human Long-lived Plasma Cells

Lecturer: **Frances Eun-Hyung Lee M.D.**
Professor of Medicine, Emory University

Human long-lived plasma cells (LLPCs) are responsible for the durability of life-long protection from vaccines and are found in the bone marrow (BM). We study the fundamental processes underlying the development, maturation, and survival of human plasma cells in the specialized BM microniches. By dissecting these molecular mechanisms, we hope to understand how to generate protective long-lived plasma cells better and to find novel targets to eliminate pathogenic ones.

Hosted by Institute for the Advanced Study of Human Biology (WPI-ASHBi), Kyoto University

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