Cellular & Molecular Immunology (2013) 10, 1

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EDITORIAL

Diverse immunological roles of γδ T cells

Cellular & Molecular Immunology (2013) **10,** 1; doi:10.1038/cmi.2012.73; published online 24 December 2012

Accumulating evidence suggests that γδ T cells play roles in host immune responses to inflammations/damages, tumors and infections. Recent studies have demonstrated that roles of γδ T cells can be quite broad or diverse. In this special issue, seven review articles discuss recent progress conceiving the diverse immunologic roles in γδ T cells.

Born *et al.*[1] summarize experimental findings implicating that γδ T cells recognize a diverse array of antigens including self and foreign, large and small, and peptidic and non-peptidic molecules. In parallel, Kalyan and Kabelitz[2] discuss unique and empathetic aspects of γδ T cells in terms of antigen recognition, immune response and effector function. Caccamo *et al.*[3] present recent observations suggesting that human γδ T cells can evolve into multiple T helper-like effector functions, with plasticity feature. While Fournié *et al.*[4] identify recently gained information regarding human γδ T cell-targeted clinical trials for immunotherapy against late-stage cancers, Li *et al.*[5] summarize results in studies of γδ T cells in HIV-infected humans. Tu's group[6] outlines anti-infection potential of γδ T cells. Finally, Chen[7] reviews recent publications suggesting multifunctional immune responses and effector functions of phosphoantigen-specific γδ T cells in tuberculosis and other infections in humans and nonhuman primates.

These reviews are comprehensive and up-to-date, supporting the view that γδ T cells play broad immunological roles in host responses. The in-depth discussions also provide provocative speculations and hypotheses that will facilitate future studies of γδ T cells.

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Received: 7 October 2012; accepted: 10 October 2012