FROM THE EDITORS



nature REVIEWS IMMUNOLOGY d SLAN

 COVER: 'Freight delivery' by Simon Bradbrook, inspired by the Review on p15.





LAINE BELL







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he 'middle man' (typically a sales agent) is often someone who consumers strive to cut out, preferring instead to deal directly with the manufacturer. But cutting out the indirect transfer of information to adaptive immune cells via the middle men of the immune system — such as dendritic cells (DCs), monocytes and natural killer T (NKT) cells - means that the immune response loses out. How antigenic information is communicated to B cells through interactions with various antigen-presenting cells is a subject discussed in the Review by Facundo Batista and Naomi Harwood on page 15. They describe the recent insights gained from high-resolution imaging studies that reveal the numerous ways in which B cells can encounter antigen in the secondary lymphoid organs by interacting with macrophages, DCs, follicular DCs and other B cells. In addition, the authors explain how B cells themselves can act as cellular go-betweens by picking up antigen that is tethered to macrophages which line the sinus network of lymphoid organs and then transferring it to follicular DCs for subsequent presentation to other B cells.

Once activated by antigen, B cells then relay information to neighbouring T cells. On page 39, Pamela Schwartzberg and colleagues discuss the recent work showing that the dialogue between B cells and T cells during germinal-centre formation is facilitated by signalling lymphocytic activation molecule (SLAM) receptors, which are also involved in assisting lymphocyte interactions during innate-like T-cell development and differentiation.

Finally, in the Review on page 28, Vincenzo Cerundolo and colleagues report that making the most of invariant NKT cells as middle men can help to improve adaptive immune responses to vaccines; specifically, by taking advantage of the ability of invariant NKT cells to bridge innate and adaptive immune responses.

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