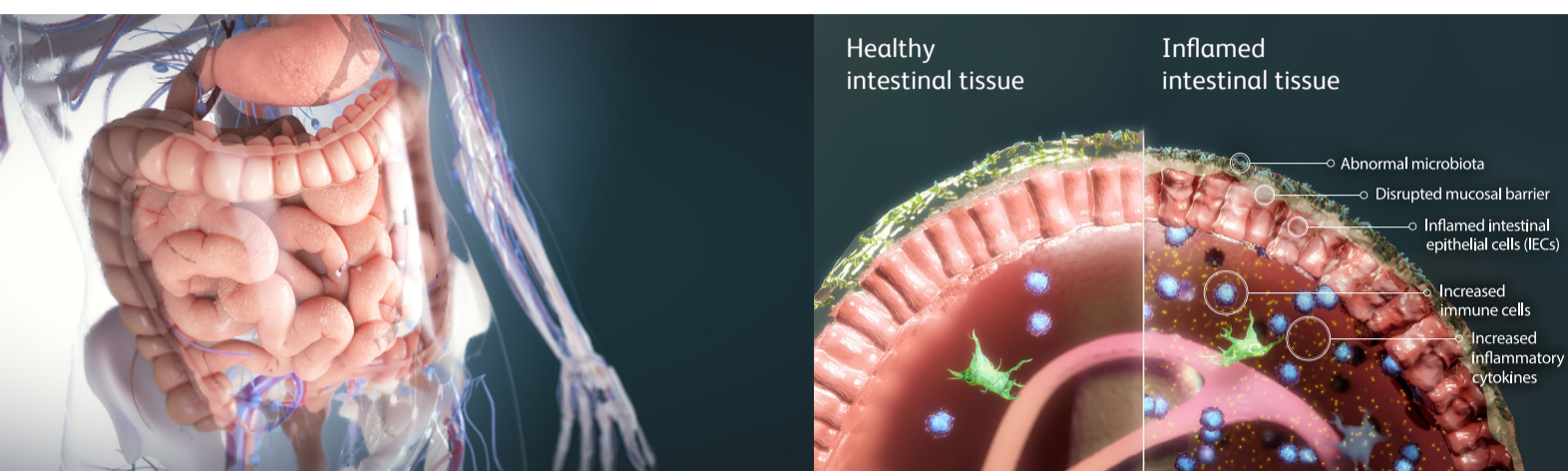


Sphingosine-1-phosphate (S1P) Signaling in Inflammatory Bowel Disease

The Gut's Immune System

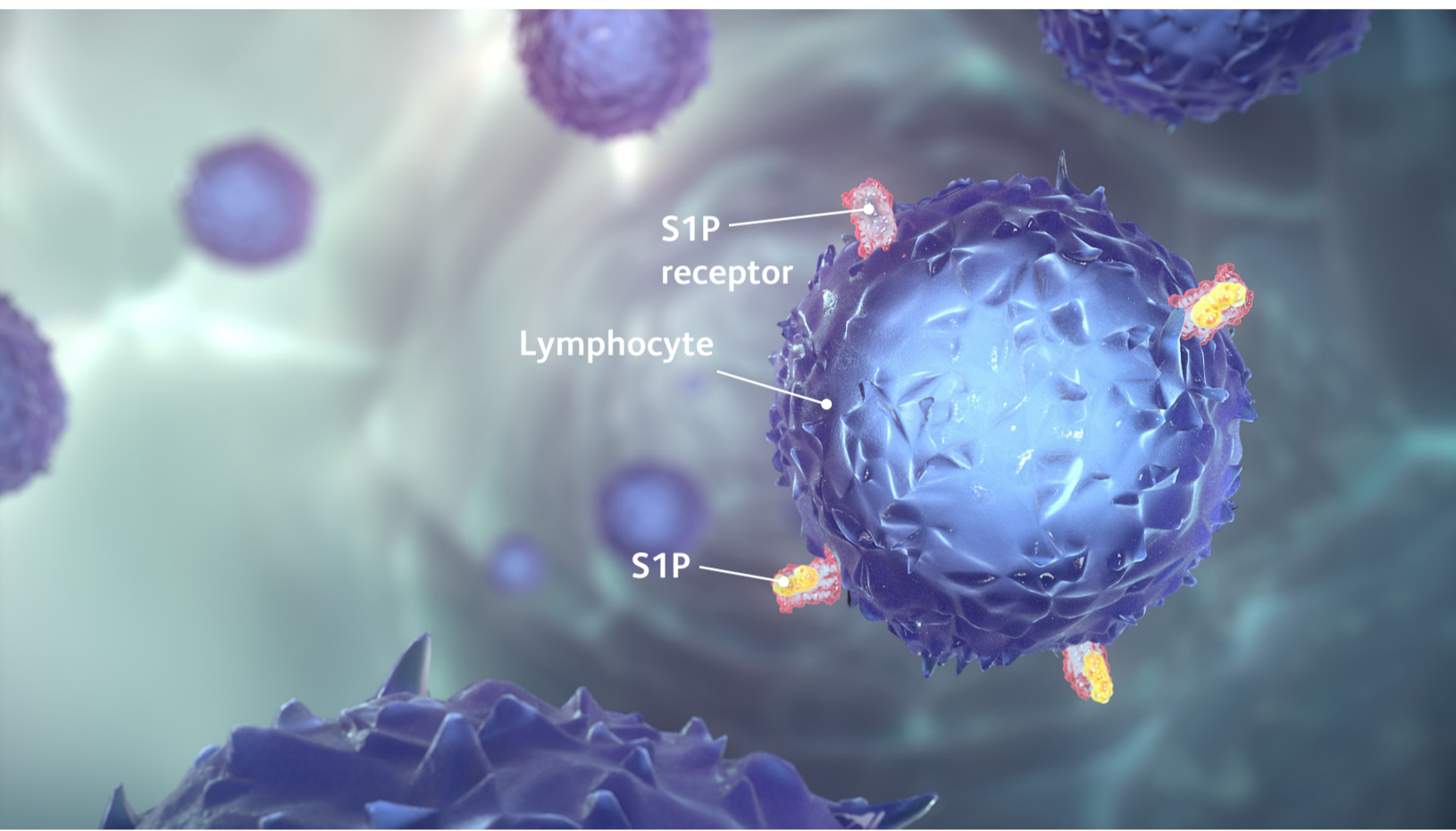
Within the gut, the immune system tightly controls the response to potentially harmful foreign substances (also known as antigens).¹

In inflammatory bowel disease (IBD), which includes ulcerative colitis and Crohn's disease, immune homeostasis is disrupted, leading to swelling or inflammation of the intestinal tissue.^{2,3}



About S1P Signaling

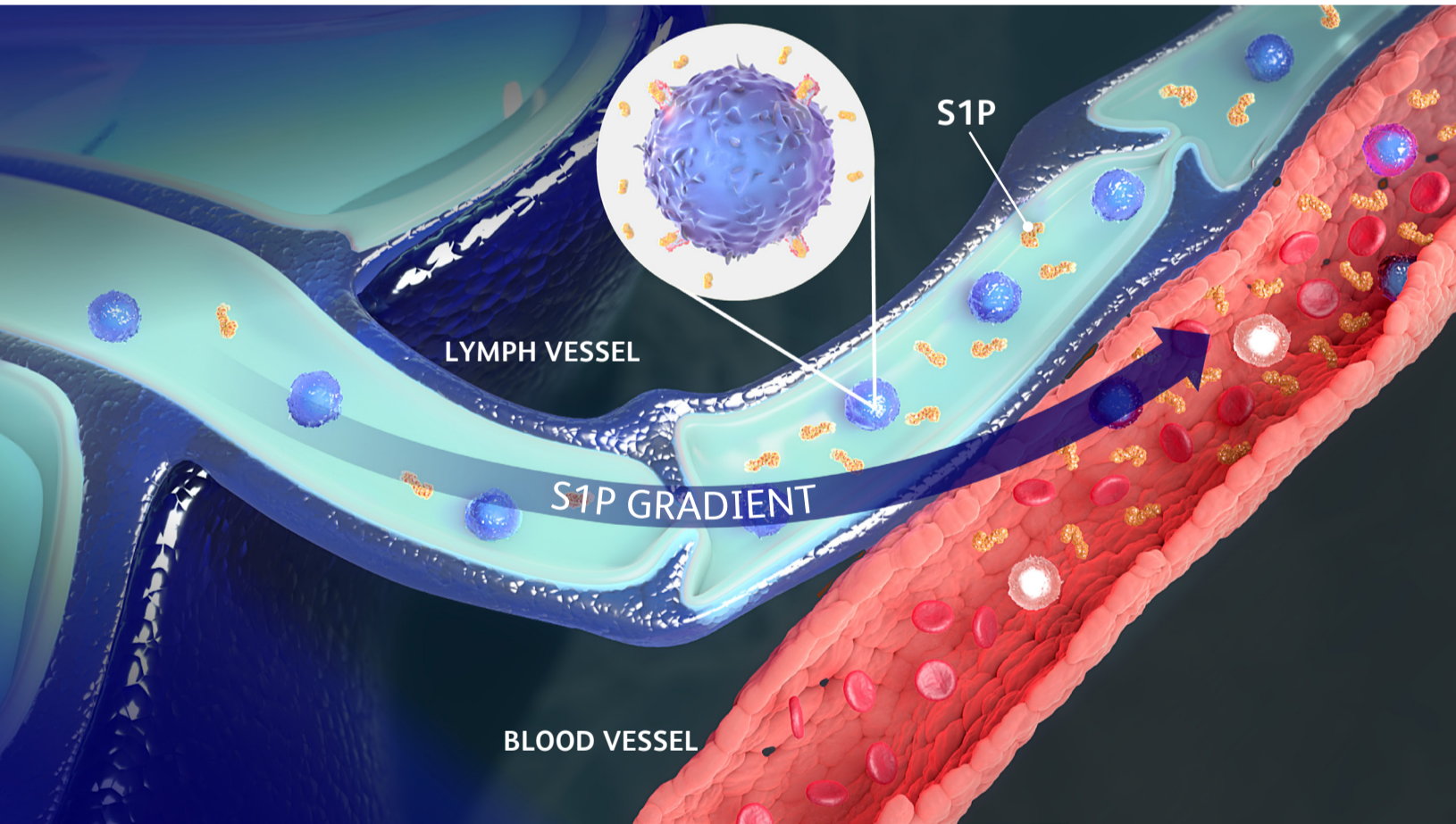
Sphingosine-1-phosphate (S1P) signaling helps to regulate the immune system, particularly the migration of white blood cells, also known as lymphocytes, from lymphoid tissues into circulation.⁴⁻⁶



S1P Signaling and Disease

In patients with IBD, there are higher levels of S1P in the swollen and inflamed tissues of the gut.³⁻⁶

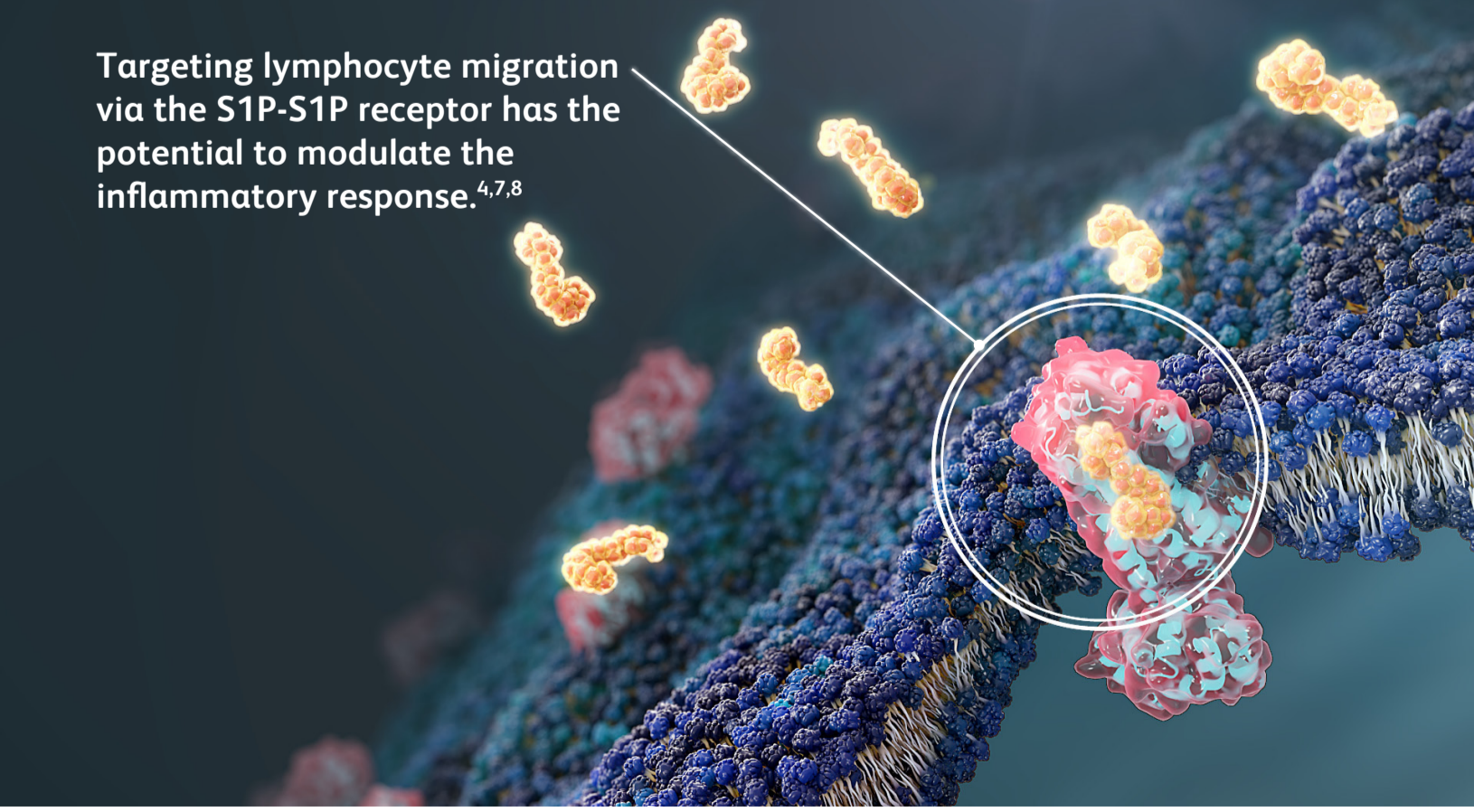
S1P signaling allows activated lymphocytes to leave the lymphoid tissue and go into circulation, traveling throughout the body.³⁻⁵ The activated lymphocytes migrate to the gut where they can cause inflammation and tissue destruction.⁵



Research Implications and Interactions

Advancements in the understanding of S1P signaling and lymphocyte migration have allowed scientists to advance research in IBD.

Targeting lymphocyte migration via the S1P-S1P receptor has the potential to modulate the inflammatory response.^{4,7,8}



S1P signaling is one of the many areas under investigation at Bristol Myers Squibb. Learn more about our work in Immunology by visiting: www.bms.com/researchers-and-partners/areas-of-focus.html

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