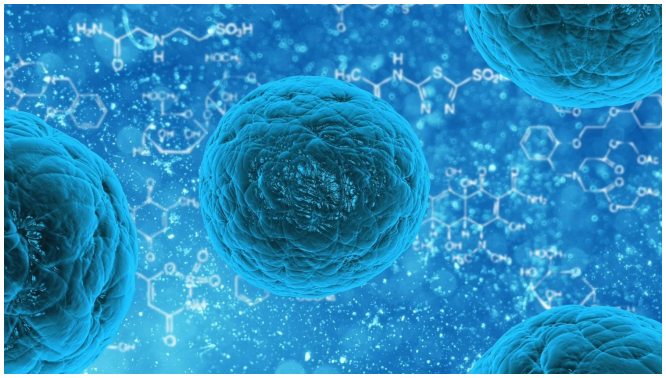
Using light to fight GVHD

31 August 2018



Credit: CC0 Public Domain

More information: Jocelyn S. Gandelman et al. A Prospective Trial of Extracorporeal Photopheresis for Chronic Graft-versus-Host Disease Reveals Significant Disease Response and No Association with Frequency of Regulatory T Cells, *Biology of Blood and Marrow Transplantation* (2018). DOI: 10.1016/j.bbmt.2018.06.035

Provided by Vanderbilt University

Extracorporeal photopheresis (ECP) is used to treat chronic graft-versus-host disease (cGVHD)—a complication of bone marrow or stem cell transplant that occurs when donor cells attack the recipient. How ECP works is unclear, and standardized treatment guidelines have not been established.

Vanderbilt medical student Jocelyn Gandelman, Madan Jagasia, MBBS, and colleagues conducted a prospective, multicenter clinical trial of ECP for cGVHD. They found that in a highly pretreated group of patients, 62.3 percent had a provider-assessed response to ECP and 43.5 percent had a response according to National Institutes of Health consensus criteria.

The researchers found no difference in peripheral blood T regulatory cells (Tregs), immune cells that may play a role in suppressing GVHD, in ECP responders versus non-responders. ECP was associated with a meaningful decrease in steroid dose, and overall severity and body surface area redness decreased with treatment.

The findings, reported in the journal *Biology of Blood and Marrow Transplantation*, support further study of ECP therapy.