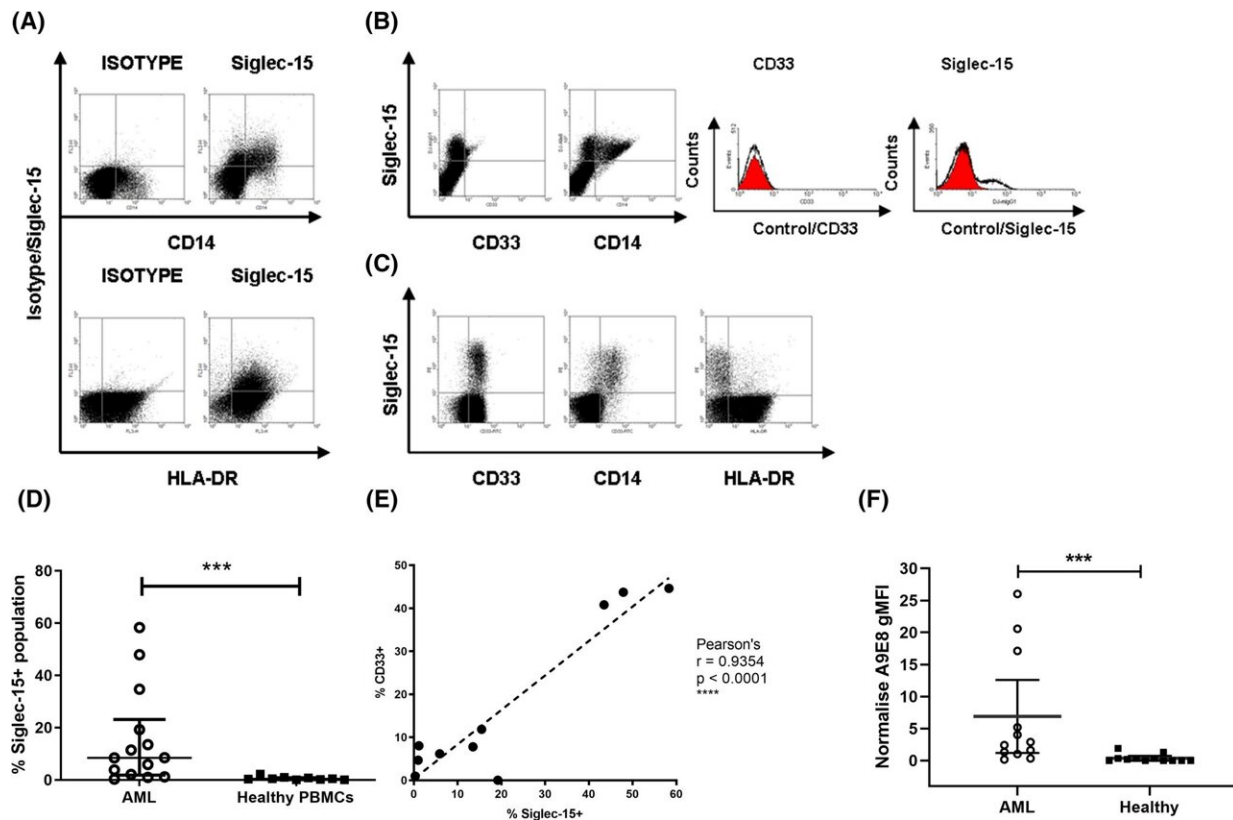


'Magic bullet' found in fight against leukemia

November 10 2021



High sialic acid-binding immunoglobulin-like lectin (Siglec)-15 surface expression on circulating blood cells from patients with acute myeloid leukaemia (AML). Cell surface expression of Siglec-15 on peripheral blood leucocyte preparations from the peripheral blood of patients with AML. Nine out of 12 patients with AML showed significant cell surface expression of Siglec-15 compared to healthy peripheral blood leucocytes. (A) Representative plots from 'Patient A' showing high levels of cell-surface Siglec-15 expression on AML blasts [36% of all peripheral blood mononuclear cells (PBMCs)]. Siglec-15 is co-

expressed with CD14 and human leucocyte antigen-DR isotype (HLA-DR). Negative control: mouse immunoglobulin G1 (IgG1) isotype antibody. (B) Representative plots (left panels) from 'Patient B' showing negative cell surface staining for CD33 on AML blasts, although 20% of blasts are positive for Siglec-15. Histograms (right panels) comparing cell surface expression of CD33 and Siglec-15 on AML blasts from 'Patient B' (isotype control staining, filled histograms; anti-CD33/Siglec-15 antibody staining, open histograms). (C) Representative plots from 'Patient C' showing 10% of AML blasts express Siglec-15 on the cell surface, most of which were CD33+CD14+HLA-DR-. (D) Percentage of total circulating PBMCs expressing cell-surface Siglec-15 from 14 patients with AML (open circles) and nine healthy donors (solid squares). Normalised percentage positive expression shown. Mann-Whitney two-tailed t-test, median and interquartile ranges are indicated (**P = 0.0002). (E) Correlation between normalised percentage Siglec-15+ and CD33+ populations from 10 patients with AML. Pearson's correlation: $r = 0.9354$, P

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