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(71) Applicant *(for all designated States except US)*: **NEOSE TECHNOLOGIES, INC.** [US/US]; 102 Witmer Road, Horsham, PA 19044 (US).

(72) Inventors; and

(75) Inventors/Applicants *(for US only)*: **DEFREES, Shawn** [US/US]; 126 Filly Drive, North Wales, PA 19454 (US). **BAYER, Robert, J.** [US/US]; 6105 Dirac Street, San Diego, CA 92122 (US). **ZOPF, David, A.** [US/US]; 560 Beechtree Lane, Wayne, PA 19087 (US).

(74) Agents: **SAMPSON, Elizabeth, R.** et al.; Morgan, Lewis & Bockius LLP, Two Palo Alto Square, 3000 El Camino Real, Suite 700, Palo Alto, CA 94304 (US).

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(54) Title: GLYCOPEGYLATED ERYTHROPOIETIN

(57) Abstract: The present invention provides conjugates between erythropoietin and PEG moieties. The conjugates are linked via an intact glycosyl linking group interposed between and covalently attached to the peptide and the modifying group. The conjugates are formed from glycosylated peptides by the action of a glycosyltransferase. The glycosyltransferase ligates a modified sugar moiety onto a glycosyl residue on the peptide. Also provided are methods for preparing the conjugates, methods for treating various disease conditions with the conjugates, and pharmaceutical formulations including the conjugates.