Claims

[Claim 1] A method for increasing the absolute neutrophil count, the number of granulocytes, stem cell production, hematopoiesis, the number of hematopoietic progenitor cells, or stem cell production, or for treating or preventing the condition characterized by compromised white blood cell production in a patient in need thereof,
the method comprising administering an effective amount of Eflapegrastim within a period of less than 24 hours after the patient is administered a chemotherapeutic agent or receives a radiotherapy.

[Claim 2] The method of claim 1, whereinthe condition characterized by compromised white blood cell production is selected from the group consisting of:
chemotherapy-induced neutropenia, radiotherapy-induced neutropenia, reduced hematopoietic function, reduced immune function, reduced neutrophil count, reduced neutrophil mobilization, mobilization of peripheral blood progenitor cells, sepsis, bone marrow transplants, infectious diseases, leucopenia, thrombocytopenia, anemia, enhancing engraftment of bone marrow during transplantation, enhancing bone marrow recovery in treatment of radiation, chemical or chemotherapeutic induced bone marrow aplasia or myelosuppression, radiotherapy-induced bone marrow aplasia or myelosuppression, and acquired immune deficiency syndrome

[Claim 3] The method of claim 1, wherein the condition is a chemotherapy-induced neutropenia or a radiotherapy-induced neutropenia.

[Claim 4] The method of claim 3, wherein the method reduces the duration of chemotherapy-induced neutropenia or radiotherapy-induced neutropenia in a patient in need thereof.

[Claim 5] The method of clam 1, wherein the method comprises administering an effective amount of Eflapegrastim on the same day when the patient is administered a chemotherapeutic agent or receives radiotherapy.

[Claim 6] The method of any one of claims 1-5, wherein administering the effective amount of Eflapegrastim reduces the duration of an absolute neutrophil count of less than about 0.5 x 10^9/L in the patient to less than about 6 hours, about 12 hours, or 24 hours.

[Claim 7] The method according to claim 6, wherein administering the effective amount of Eflapegrastim prevents the absolute neutrophil count in the patient from reaching less than about 0.5 x 10^9/L.

[Claim 8] The method of any one of claims 1-5, wherein upon administration of the effective amount of Eflapegrastim, an absolute neutrophil count of the patient increases from the first occurrence of less than about 0.5 x 10^9/L to greater than or equal to about 1.5 x 10^9/L within less than about about four days, about seven days, or about ten days.

[Claim 9] The method of any one of claims 1-8, wherein the effective amount of Eflapegrastim is administered concomitantly with the chemotherapeutic agent or the radiotherapy.

[Claim 10] The method of any one of claims 1-8, wherein the effective amount of Eflapegrastim is administered within about 0.5 hours, about 3 hours, or about 5 hours after the administration of the chemotherapeutic agent or the receipt of the radiotherapy.

[Claim 11] The method of any one of claims 1-8, wherein the effective amount of Eflapegrastim is administered within about 0.5 hours, about 1 hour, about 2 hours, about 3 hours, about 4 hours, about 5 hours, about 6 hours, about 7 hours, about 8 hours, about 9 hours, about 10 hours, about 11 hours, or about 12 hours after the administration of the chemotherapeutic agent or the receipt of the radiotherapy.

[Claim 12] The method of any one of claims 5-11, wherein the chemotherapeutic agent is a myelosuppressive chemotherapeutic agent.

[Claim 13] The method claim 12, wherein the myelosuppressive chemotherapeutic agent is selected from the group consisting of docetaxel, cyclophosphamide, doxorubicin, etoposide, cisplatin, paclitaxel, topotecan, vincristine, methylprednisolone, cytarabine, and combinations thereof.

[Claim 14] The method of any one of claims 1-13, wherein the patient is receiving the chemotherapeutic agent or the radiotherapy to treat a cancer selected from the group consisting of breast cancer, non-small cell lung cancer, small cell lung cancer, ovarian cancer, sarcoma, urothelial cancer, germ cell tumors and non-Hodgkin's lymphoma.

[Claim 15] The method of any one of claims 1-14, wherein administering an effective amount of Eflapegrastim comprises administering parenterally from about 2 to 18 mg of Eflapegrastim.

[Claim 16] The method of any one of claims 15, wherein administering an effective amount of Eflapegrastim comprises administering parenterally about 13.2 mg of Eflapegrastim.