SUMMARY OF THE INVENTION

In one aspect the present invention refers to use of a compound in the manufacture of a medicament for treating a cutaneous, neutrophilic, inflammatory disease in a subject, wherein the compound is an inhibitor of C5a activity, and wherein the cutaneous, neutrophilic, inflammatory disease is selected from the group consisting of hidradenitis suppurativa (HS); PASH (PG, acne and hidradenitis suppurativa); PAPASH (pyogenic arthritis, acne, PG and hidradenitis suppurativa), wherein the inhibitor of C5a activity inhibits binding between C5a and a C5a receptor and wherein the inhibitor of C5a activity is an antibody or antigen binding fragment thereof that specifically binds to C5a. In one example, there is disclosed compound for use in the treatment of a cutaneous, neutrophilic, inflammatory disease in a subject, wherein the compound is an inhibitor of C5a activity, and wherein the cutaneous, neutrophilic, inflammatory disease is selected from the group consisting of hidradenitis suppurativa (HS); Pyoderma gangrenosum (PG); PAPA (pyogenic arthritis, PG and acne); PASH (PG, acne and hidradenitis suppurativa); PAPASH (pyogenic arthritis, acne, PG and hidradenitis suppurativa); Sweet syndrome (SS); subcorneal pustular dermatosis (SPD); epidermolysis bullosa acquisita, erythema elevatum diutinum (EED); neutrophilic panniculitis; familial Mediterranean fever, cryopyrin-associated disorders, gout, and Schnitzler syndrome. In another example, there is disclosed a method for the treatment of a cutaneous, neutrophilic, inflammatory disease in a subject, comprising the step of administering to a subject in need thereof a therapeutic amount of a compound, wherein the compound is an inhibitor of C5a activity, and wherein the cutaneous, neutrophilic, inflammatory disease is selected from the group consisting of hidradenitis suppurativa (HS); Pyoderma gangrenosum (PG); PAPA (pyogenic arthritis, PG and acne); PASH (PG, acne and hidradenitis suppurativa); PAPASH (pyogenic arthritis, acne, PG and hidradenitis suppurativa); Sweet syndrome (SS); subcorneal pustular dermatosis (SPD); epidermolysis bullosa acquisita, erythema elevatum diutinum (EED); neutrophilic panniculitis; familial Mediterranean fever, cryopyrin-associated disorders, gout, and Schnitzler syndrome. In another example, there is disclosed a use of a compound for the preparation of a pharmaceutical composition for the treatment of a cutaneous, neutrophilic, inflammatory disease, wherein the compound is an inhibitor of C5a activity, and wherein the cutaneous, neutrophilic, inflammatory disease is selected from the group consisting of hidradenitis suppurativa (HS); Pyoderma gangrenosum (PG); PAPA (pyogenic arthritis, PG and acne); PASH (PG, acne and hidradenitis suppurativa); PAPASH (pyogenic arthritis, acne, PG and hidradenitis suppurativa); Sweet syndrome (SS); subcorneal pustular dermatosis (SPD); epidermolysis bullosa acquisita, erythema elevatum diutinum (EED); neutrophilic panniculitis; familial Mediterranean fever, cryopyrin-associated disorders, gout, and Schnitzler syndrome.

This summary of the invention does not necessarily describe all features of the present invention. Other embodiments will become apparent from a review of the ensuing detailed description.

Claims

1. Use of a compound in the manufacture of a medicament for treating a cutaneous, neutrophilic, inflammatory disease in a subject, wherein the compound is an inhibitor of C5a activity, and

wherein the cutaneous, neutrophilic, inflammatory disease is selected from the group consisting of hidradenitis suppurativa (HS); PASH (PG, acne and hidradenitis suppurativa); PAPASH (pyogenic arthritis, acne, PG and hidradenitis suppurativa), wherein the inhibitor of C5a activity

inhibits binding between C5a and a C5a receptor and wherein the inhibitor of C5a activity is an antibody or antigen binding fragment thereof that specifically binds to C5a.

2. The use of claim 1, wherein the inhibitor of C5a activity specifically binds to a conformational epitope formed by amino acid sequences NDETCEQRA (SEQ ID NO: 2) and SHKDMQL (SEQ ID NO: 3) of human C5a.

3. The use of claim 1 or 2, wherein the inhibitor of C5a activity comprises

(i) a heavy chain CDR3 sequence according to SEQ ID NO: 6, a heavy chain CDR2 sequence according to SEQ ID NO: 10, and a heavy chain CDR1 sequence according to SEQ ID NO: 14; and a light chain CDR3 sequence according to SEQ ID NO: 8, a light chain CDR2 sequence according to SEQ ID NO: 12, and a light chain CDR1 sequence according to SEQ ID NO: 16; or

(ii) a heavy chain CDR3 sequence according to SEQ ID NO: 7, a heavy chain CDR2 sequence according to SEQ ID NO: 11, and a heavy chain CDR1 sequence according to SEQ ID NO: 15 and a light chain CDR3 sequence according to SEQ ID NO: 9, a light chain CDR2 sequence according to SEQ ID NO: 12, and a light chain CDR1 sequence according to SEQ ID NO: 17;

4. The use of any one of claims 1 to 3, wherein the inhibitor of C5a activity is selected from the group consisting of:

(a) IFX-1, INab708, or an antigen-binding fragment thereof;

(b) an antibody or an antigen-binding fragment thereof, wherein said antibody or antigen-binding fragment thereof competes with one of the antibodies indicated under (a) for binding to C5a;

5. The use of any one of claims 1 to 4, wherein the compound is to be administered at a dose of 800 mg once per week or at a dose of 800 mg twice per week.