(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
28 June 2012 (28.06.2012)

WIPO | PCT

(10) International Publication Number
WO 2012/087160 A3

(51) International Patent Classification:
C07K 14/76 (2006.01) *G01N 33/533* (2006.01)
A61K 38/38 (2006.01) *A61P 29/00* (2006.01)
G01N 33/68 (2006.01)

(21) International Application Number:
PCT/NZ2011/000271

(22) International Filing Date:
22 December 2011 (22.12.2011)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
590143 22 December 2010 (22.12.2010) NZ

(71) Applicant *(for all designated States except US)*: **MANUKAMED LIMITED** [NZ/NZ]; 17 Edwin Feist Place, Masterton 5810 (NZ).

(72) Inventors: **BEAN, Amanda**; c/- The University of Waikato, B Block, Hillcrest Road, Hamilton 3216 (NZ). **MOLAN, Peter**; c/- The University of Waikato, B Block, Hillcrest Road, Hamilton 3216 (NZ). **CURSONS, Ray**; c/- The University of Waikato, B Block, Hillcrest Road, Hamilton 3216 (NZ).

(74) Agent: **CALVERT, Jane**; ManukaMed Limited, 17 Edwin Feist Place, Masterton 5810 (NZ).

(81) Designated States *(unless otherwise indicated, for every kind of national protection available)*: AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CL, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PE, PG, PH, PL, PT, QA, RO, RS, RU, RW, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TH, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.

(84) Designated States *(unless otherwise indicated, for every kind of regional protection available)*: ARIPO (BW, GH, GM, KE, LR, LS, MW, MZ, NA, RW, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AL, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MK, MT, NL, NO, PL, PT, RO, RS, SE, SI, SK, SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

— *with international search report (Art. 21(3))*

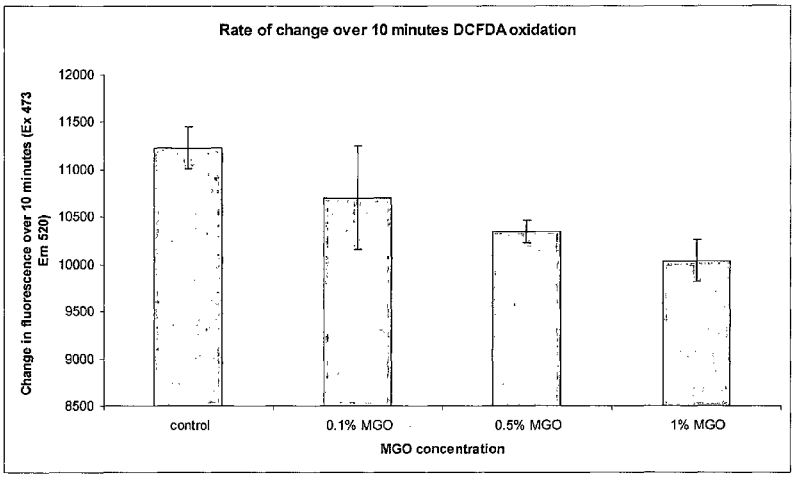
— *before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments (Rule 48.2(h))*

— *with sequence listing part of description (Rule 5.2(a))*

(88) Date of publication of the international search report:
1 November 2012

(54) Title: ANTI-INFLAMMATORY PROTEINS AND METHODS OF PREPARATION AND USE THEREOF

Figure 12



(57) Abstract: The present disclosure relates to anti-inflammatory proteins, their uses, methods of preparation and methods of their detection. In particular, the invention relates to major royal jelly proteins modified by methyglyoxal and fragments thereof from manuka honey.

WO 2012/087160 A3