



## (51) International Patent Classification:

A23L 1/29 (2006.01) A61P 39/06 (2006.01)  
A23L 1/30 (2006.01) A61K 31/7016 (2006.01)  
A61P 37/00 (2006.01) A61K 31/702 (2006.01)  
A61P 11/00 (2006.01) A23K 1/16 (2006.01)  
A61P 1/00 (2006.01) A23K 1/18 (2006.01)  
A61P 31/12 (2006.01)

## (21) International Application Number:

PCT/US2011/067022

## (22) International Filing Date:

22 December 2011 (22.12.2011)

## (25) Filing Language:

English

## (26) Publication Language:

English

## (30) Priority Data:

61/428,861 31 December 2010 (31.12.2010) US

(71) Applicant (for all designated States except US): **ABBOTT LABORATORIES** [US/US]; 100 Abbott Park Road, Dept. 0377 AP6A-1, Abbott Park, Illinois 60064 (US).

## (72) Inventors; and

(75) Inventors/Applicants (for US only): **BUCK, Rachael** [US/US]; 3710 Peak Ridge Drive, Gahanna, Ohio 43230 (US). **DUSKA-MCEWEN, Geralyn O.** [US/US]; 336

Spruce Hill Dr., Columbus, Ohio 43230 (US). **GOEHRING, Karen C.** [US/US]; 339 W. First Avenue, Columbus, Ohio 43201 (US). **SCHALLER, Joseph P.** [US/US]; 7843 Jordan Crossing, Reynoldsburg, Ohio 43068 (US).

(74) Agents: **GOFF, Christopher, M.** et al.; Armstrong Teasdale LLP, 7700 Forsyth Boulevard, Suite 1800, St. Louis, MO 63105-1847 (US).

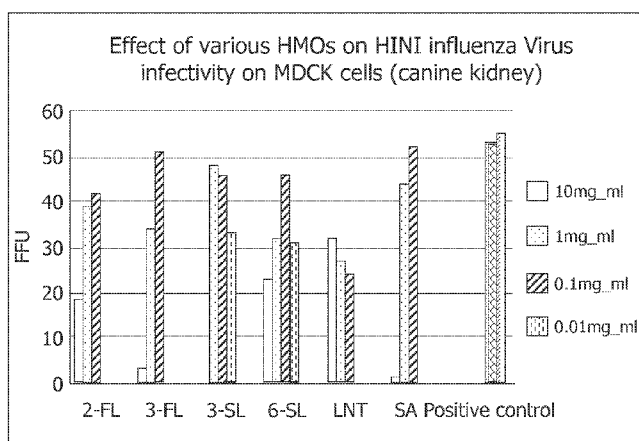
(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CL, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, 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,

[Continued on next page]

(54) Title: NUTRITIONAL FORMULATIONS INCLUDING HUMAN MILK OLIGOSACCHARIDES AND LONG CHAIN POLYUNSATURATED POLYUNSATURATED FATTY ACIDS AND USES THEREOF

FIG. 1



Infectious virus control = ~52-55 FFU

(57) Abstract: Disclosed are nutritional compositions including human milk oligosaccharides in combination with long chain polyunsaturated fatty acids and/or carotenoids that can be administered to preterm infants, term infants, toddlers, and children for reducing inflammation and the incidence of inflammatory diseases.



LV, MC, MK, MT, NL, NO, PL, PT, RO, RS, SE, SI, SK, (88) **Date of publication of the international search report:**  
SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, 30 August 2012  
GW, ML, MR, NE, SN, TD, TG).

**Published:**

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