

(43) International Publication Date
14 May 2010 (14.05.2010)(10) International Publication Number
WO 2010/054266 A3

(51) International Patent Classification:

C08F 297/00 (2006.01) *C08F 212/06* (2006.01)
C08F 220/18 (2006.01) *A61K 48/00* (2006.01)
C08F 220/56 (2006.01)

Avenue Ne, Suite 500, Seattle, WA 98105-4608 (US).
PHASERX, INC. [US/US]; 454 N. 34th Street, Seattle,
 WA 98103-8602 (US).

(21) International Application Number:

PCT/US2009/063648

(72) Inventors; and

(75) Inventors/Applicants (for US only): **PRIEVE, Mary, G.** [US/US]; 4663 Ne 178th Street, Lake Forest Park, WA 98155 (US). **JOHNSON, Paul, H.** [US/US]; 12020 211th Place Se, Snohomish, WA 98296 (US). **STAY-TON, Patrick, S.** [US/US]; 3701 Nw 68th Street, Seattle, WA 98177 (US). **HOFFMAN, Allan, S.** [US/US]; 10616 Riviera Place Ne, Seattle, WA 98125 (US). **OVERELL, Robert, W.** [US/US]; 1854 Nw 195th Street, Unit 302, Shoreline, WA 98177 (US). **GALL, Anna, S.** [US/US]; 20051 170th Avenue Ne, Woodinville, WA 98072 (US). **PASCHAL, Amber, E. E.** [US/US]; 3420 Woodlawn Avenue N, Seattle, WA 98103 (US). **DIAB, Charbel** [CA/US]; 4431 Evanston Avenue N, Apt. 102, Seattle, WA 98103 (US). **DE, Priyadarsi** [IN/US]; 11244 Greenwood Avenue N, Apt. 302, Seattle, WA 98133 (US). **DE-CLUE, Michael, S.** [US/US]; 2801 Nw 68th Avenue, Seattle, WA 98117 (US). **MONAHAN, Sean, D.** [US/US]; 5325 Ne 187th Street, Lake Forest Park, WA 98155 (US).

(22) International Filing Date:

6 November 2009 (06.11.2009)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

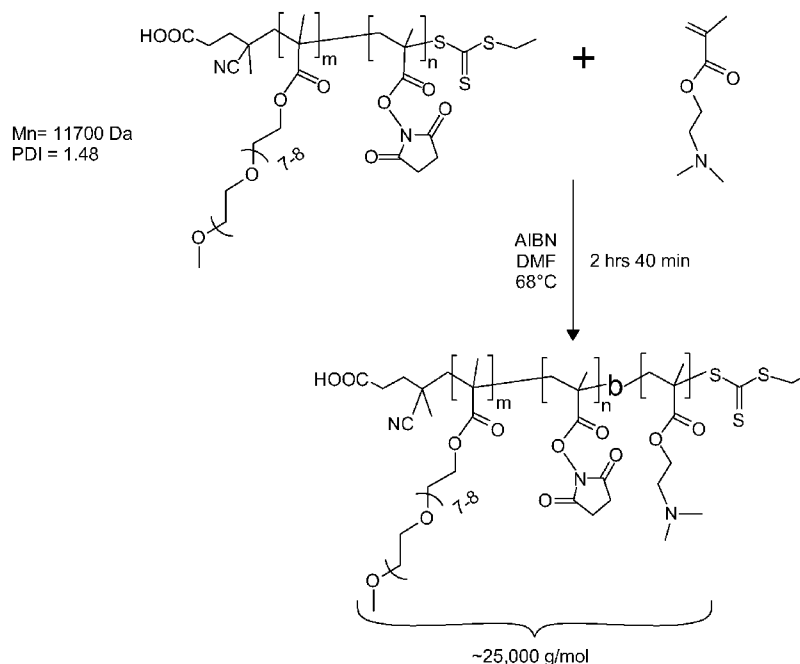
61/112,054	6 November 2008 (06.11.2008)	US
61/112,048	6 November 2008 (06.11.2008)	US
61/140,779	24 December 2008 (24.12.2008)	US
61/140,774	24 December 2008 (24.12.2008)	US
61/171,358	21 April 2009 (21.04.2009)	US
61/171,369	21 April 2009 (21.04.2009)	US
61/177,921	13 May 2009 (13.05.2009)	US
61/243,898	18 September 2009 (18.09.2009)	US

(71) Applicants (for all designated States except US): **UNIVERSITY OF WASHINGTON** [US/US]; 4311 11th

[Continued on next page]

(54) Title: MULTIBLOCK COPOLYMERS

Fig. 1 Synthesis of poly(PEGMA-MANHS)-b-(DMAEMA)



(57) Abstract: Provided herein are multiblock copolymers, as well as micelles and therapeutic compositions thereof.



(74) **Agent:** RENZONI, George, E.; Christensen O'Connor Johnson Kindness PLLC, 1420 Fifth Avenue, Suite 2800, Seattle, WA 98101 (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, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, 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, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM,

ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (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, 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:**

29 July 2010