

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

(19) World Intellectual Property Organization  
International Bureau



(43) International Publication Date  
29 January 2009 (29.01.2009)

PCT

(10) International Publication Number  
**WO 2009/015274 A3**

(51) International Patent Classification:

*C08F 36/02* (2006.01)      *C08K 11/00* (2006.01)  
*C08F 236/02* (2006.01)      *A61K 31/745* (2006.01)

(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, 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, 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.

(21) International Application Number:

PCT/US2008/071020

(22) International Filing Date: 24 July 2008 (24.07.2008)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:

60/951,666                          24 July 2007 (24.07.2007) US

(71) Applicant (for all designated States except US): UNIVERSITY OF FLORIDA RESEARCH FOUNDATION, INC. [US/US]; 223 Grinter Hall, Gainesville, FL 32611 (US).

(72) Inventors; and

(75) Inventors/Applicants (for US only): LEONARD, James, Klein [US/US]; 2145 S.w. 72nd Street, Gainesville, FL 32607 (US). WAGENER, Kenneth, Boone [US/US]; 5012 N.w. 15th Place, Gainesville, FL 32605 (US).

(74) Agents: SALIWANCHIK, David, R. et al.; Saliwanchik, Lloyd & Saliwanchik, A Professional Association, P.O. Box 142950, Gainesville, FL 32614-2950 (US).

(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, MT, NL, NO, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

- with international search report
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

(88) Date of publication of the international search report:

26 March 2009

WO 2009/015274 A3

(54) Title: POLYETHYLENE BASED BIOACTIVE AGENTS

(57) Abstract: The present invention concerns an acyclic diene metathesis (ADMET) chemistry-based method of making polymers incorporating biologically active molecules, and the polymers formed thereby. Functionalized polymers prepared by this method can be used to produce a broad range of commercially important products such as drug delivery agents (prodrugs), chromatography reagents (e.g., for use in separatory reagents), biomimetics, and biodegradable synthetic polymers.