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(21) International Application Number: PCT/US00/01753 (22) International Filing Date: 26 January 2000 (26.01.00) (30) Priority Data: 09/237,405 26 January 1999 (26.01.99) US (63) Related by Continuation (CON) or Continuation-in-Part (CIP) to Earlier Application US 09/237,405 (CON) Filed on 26 January 1999 (26.01.99) (71) Applicants (for all designated States except US): BIOMEASURE INCORPORATED [US/US]; 27 Maple Street, Milford, MA 01757-3650 (US). POLY-MED [US/US]; 6309 Highway-187, Anderson, SC 29625 (US). (72) Inventors; and (75) Inventors/Applicants (for US only): SHALABY, Shalaby, W. [US/US]; 6309 Highway-187, Anderson, SC 29625 (US). JACKSON, Steven, A. [US/US]; 81 North Mill Street, Holliston, MA 01746 (US). MOREAU, Jacques-Pierre [US/US]; 159 Westboro Road, Upton, MA 01568 (US).		(74) Agents: TSAO, Y., Rocky et al.; Fish & Richardson P.C., 225 Franklin Street, Boston, MA 02110-2804 (US). (81) Designated States: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG). Published <i>With international search report.</i> <i>Before the expiration of the time limit for amending the claims and to be republished in the event of the receipt of amendments.</i>



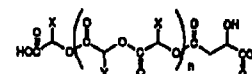
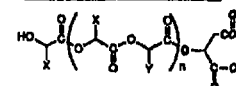
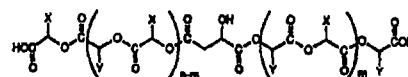
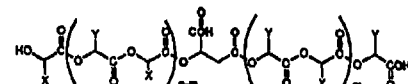
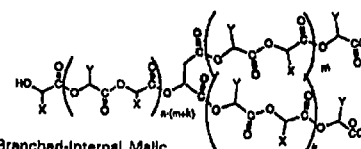
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(54) Title: IONIC MOLECULAR CONJUGATES OF BIODEGRADABLE POLYESTERS AND BIOACTIVE POLYPEPTIDES**(57) Abstract**

Disclosed is a sustained release pharmaceutical composition. The composition includes a polyester containing a free COOH group ionically conjugated with a bioactive polypeptide comprising at least one effective ionogenic amine, wherein at least 50 % by weight of the polypeptide present in the composition is ionically conjugated to the polyester.



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**Forms of Lactate / Glycolate -
Type Polymers of Polycarboxylic
Acid-Tipped Chains**
LINEAR CHAINSDi End Acid-Terminal MalicEnd Hydroxy-Terminal Malic**BRANCHED CHAINS**Di End Acid-Internal MalicEnd Hydroxy-Internal MalicFully Branched-Internal Malic

Y = CH₃ for Lactic, H for Glycolic; X = H for Glycolic, CH₃ for Lactic
 Distribution of X + Y is formula dependent and polymerization dependent