

## References Describing Use of LACTEL® PLA

L00364 Manna S, Banerjee RK, Augsburger JJ, Al-Rjoub MF, Correa ZM. Ultrasonographical assessment of implanted biodegradable device for long-term slow release of methotrexate into the vitreous. *Experimental Eye Research* 2016; 148:30-32. >>> Poly(DL-lactide); IV 1.16 dL/g at 30C in chloroform; Drug delivery (implant, methotrexate); rabbit (New Zealand); targeted delivery (eye, vitreous).

L00353 Gupta A, Sharma D, Meena J, Pandya S, Sachan M, Kumar S et al. Preparation and Preclinical Evaluation of Inhalable Particles Containing Rapamycin and Anti-Tuberculosis Agents for Induction of Autophagy. *Pharm Res* 2016; 33:1899-1912. >>> Poly(DL-lactide-co-glycolide); Poly(L-lactide); 50:50; IV 0.55-0.75 dL/g (PLGA), IV 0.90-1.20 dL/g (PLA); Drug delivery (particles, rapamycin, isoniazid, rifabutin); mice (BALB/c); particles prepared by spray-drying; targeted delivery (lung).

L00369 Puntel A, Maeda A, Golczak M, Gao S, Yu G, Palczewski K et al. Prolonged prevention of retinal degeneration with retinylamine loaded nanoparticles. *Biomaterials* 2015; 44:103-110. >>> Poly(L-lactide); MW 91-130 kDa; Drug delivery (nanoparticles, retinylamine); Mice (C57BL/6J); nanoparticles containing retinylamine were fabricated by a single emulsion technique; prevention of retinal degeneration.

L00317 Barati D, Walters JD, Shariati SRP, Moeinzadeh, S., Jabbari E. Effect of Organic Acids on Calcium Phosphate Nucleation and Osteogenic Differentiation of Human Mesenchymal Stem Cells on Peptide Functionalized Nanofibers. *Langmuir* 2015; 31:5130-5140. >>> Poly(DL-lactide); Poly(DL-lactide-co-glycolide); 50:50; DLPLA: IV 0.65 dL/g & Mw 90 kDa; PLGA: IV 1.1 dL/g & Mw 105 kDa; Tissue engineering (orthopedic); electrospinning.

L00365 Rescignano N, Gonzalez-Alfaro Y, Fantechi E, Mannini M, Innocenti C, Ruiz-Hitzky E et al. Design, development, and characterization of a nanomagnetic system based on iron oxide nanoparticles encapsulated in PLLA-nanospheres. *European Polymer Journal* 2015; 62:145-154. >>> Poly(L-lactide); IV 0.9-1.2 dL/g - MW 140-160 kDa; Biomaterial (composite, iron oxide); degradation process (pg. 151); nanospheres made through single-emulsion process; Iron oxide nanoparticles synthesized by a co-precipitation method.

L00363 Rowe M, Kamocki K, Pankajakshan D, Li D, Bruzzaniti A, Thomas V et al. Dimensionally stable and bioactive membrane for guided bone regeneration: An in vitro study. *J Biomed Mater Res Part B* 2015;1-12. >>> Poly(DL-lactide), Poly( $\epsilon$ -caprolactone); IV 0.55-0.75 dL/g in chloroform (DL-PL); IV 1.29 dL/g in chloroform (PCL); Tissue engineering (microfibers, orthopedic, in vitro); electrospinning; two-step method used to obtain BBG-containing PLA:PCL membranes.

L00264 Admane P, Anish C, Panda AK. Fusion and self assembly of biodegradable polymer particles into scaffold and membrane like structures at room temperature for regenerative medicine. *Molecular Pharmaceutics* 2014; 11:2190-2202. >>> Poly(DL-lactide); Poly(DL-lactide-co-glycolide); Poly(L-lactide); IV 0.55-0.75 dL/g in chloroform (DLPLA), 0.26-0.54 (PLGA); 50 kDa (PLA); tissue engineering (scaffold, membrane); drug delivery; rat; particles prepared using double emulsion solvent evaporation method; scaffold was evaluated in vivo as skin substitute.

L00275 Deng Y, Saucier-Sawyer JK, Hoimes CJ, Zhang J, Seo YE, Andrejcsk JW et al. The effect of hyperbranched polyglycerol coatings on drug delivery using degradable polymer nanoparticles. *Biomaterials* 2014; 35(24):6595-6602. >>> Poly(L-lactide); MW 20.2 kDa; drug delivery (nanoparticles, fluorescent dye, camptothecin); mice; biodistribution evaluated after IV injection in mice with Lewis lung carcinoma tumors; "no significant in vivo toxicity was observed for all formulations" (p. 6599).

L00188 Xia Y, Xu Q, Wang C, Pack DW. Protein Encapsulation in and Release from Monodisperse Double-Wall Polymer Microspheres. *Journal of pharmaceutical sciences* 2014; 102(5):1601-1609. >>> Poly(DL-lactide-co-glycolide); poly(L-lactide); 50:50; MW 4.2 kDa (PLGA); MW 43 kDa, 106 kDa, 192 kDa (PLA); drug delivery (microspheres, BSA); 70-80 days; biodegradable polymer double-wall microspheres (DWMS).

L00237 Kulkarni SS, Kompella UB. Nanoparticles for Drug and Gene Delivery in Treating Diseases of the Eye. *Methods in Pharmacology and Toxicology* 2014;291-316. >>> Poly(L-lactide); IV 0.9-1.2 dL/g in chloroform (PLA); drug delivery (nanoparticles); detailed steps for nanoparticle preparation by single emulsion method for hydrophobic drugs and double emulsion method for hydrophilic drugs; also used 50:50 PLGA from another manufacturer; detailed methods for nanoparticle characterization and drug release analysis.

L00295 Palacios J, Albano C, González G, Castillo RVn, Karam Am, Covis Ma. Characterization and thermal degradation kinetics of poly(L-lactide) nanocomposites with carbon nanotubes. *Polymer Engineering & Science* 2014;1-9. >>> Poly(L-lactide); biomaterial (composite with carbon nanotubes); composite prepared by solvent casting.

L00297 Pu J, Komvopoulos K. Mechanical properties of electrospun bilayer fibrous membranes as potential scaffolds for tissue engineering. *Acta Biomaterialia* 2014; 10(6):2718-2726. >>> Poly(L-lactide); IV 1.09 dL/g; tissue engineering (scaffold); electrospinning.

L00277 Eftekhari S, El Sawi I, Bagheri ZS, Turcotte G, Bougherara H. Fabrication and characterization of novel biomimetic PLLA/cellulose/hydroxyapatite nanocomposite for bone repair applications. *Materials Science and Engineering: C* 2014; 39:120-125. >>> Poly(L-lactide); MW ≥ 85 kDa; tissue engineering (orthopedic nanocomposite, hydroxyapatite, microcrystalline cellulose);

L00281 Gadde S, Even-Or O, Kamaly N, Hasija A, Gagnon PG, Adusumilli KH et al. Development of Therapeutic Polymeric Nanoparticles for the Resolution of Inflammation. *Advanced healthcare materials* 2014. >>> Poly(DL-lactide); Poly(DL-lactide-co-glycolide); 50:50; IV 0.55-0.75 and 0.15-0.25 dL/g (PLGA); drug delivery (nanoparticles, LXR agonist GW3965); mice (C57Bl6); nanoparticles synthesized by nanoprecipitation process; in vivo evaluation in model of peritonitis.

L00201 Xia Y, Ribeiro PF, Pack DW. Controlled protein release from monodisperse biodegradable double-wall microspheres of controllable shell thickness. *Journal of Controlled Release* 2013; 172:707-714. >>> Poly(DL-lactide-co-glycolide); Poly(DL-lactide); 50:50; MW 4.2 kDa; MW 43 kDa; drug delivery (microsphere, BSA);

L00196 Albano C, Gonzalez G, Palacios J, Karam A, Covis M. PLLA-HA vs. PLGA-HA Characterization and Comparative Analysis. *Polymer Composites* 2013;1433-1442. >>> Poly(L-lactide); poly(DL-lactide-co-glycolide); poly(glycolide); 75:25; 50:50; MW 107 kDa; MW 66 kDa; MW 60 kDa; biomaterial (composite, hydroxyapatite);

L00203 Xu Q, Leong J, Chua QY, Chi YT, Chow PKH, Pack DW et al. Combined modality doxorubicin-based chemotherapy and chitosan-mediated p53 gene therapy using double-walled microspheres for treatment of human hepatocellular carcinoma. *Biomaterials* 2013; 34:5149-5162. >>> Poly(DL-lactide-co-glycolide); Poly(L-lactide); 50:50; IV 0.61 dL/g in HFIP; IV 1.05 dL/g in chloroform; drug delivery (microsphere, doxorubicin, chitosan-mediated p53); cancer; gene therapy.

L00205 Xu Q, Qin H, Yin Z, Hua J, Pack DW. Coaxial electrohydrodynamic atomization process for production of polymeric composite microspheres. *Chemical Engineering Science* 2013; 104:330-346. >>> Poly(DL-lactide-co-glycolide); Poly(DL-lactide); 50:50; IV 0.61 dL/g in HFIP; IV 0.37 dL/g in chloroform; IV 0.70 dL/g in chloroform; drug delivery (microsphere, doxorubicin); PLGA and PDLLA were individually dissolved in dichloromethane (DCM) to prepare polymer concentrations that ranged from 5% to 20% (w/v).

L00204 Xu Q, Chin SE, Wang CH, Pack DW. Mechanism of drug release from double-walled PDLLA(PLGA) microspheres. *Biomaterials* 2013; 34:3902-3911. >>> Poly(DL-lactide-co-glycolide); poly(lactide); poly(DL-lactide); poly(L-lactide); 50:50; IV 0.61 dL/g in HFIP; IV 0.37 dL/g in chloroform; IV 0.70 dL/g in chloroform; IV 1.05 dL/g in chloroform; drug delivery (microsphere, doxorubicin); 40 days; "Double-walled PLA(PLGA) microspheres consisting of a PLGA core surrounded by a PLA shell were produced by using the established precision particle fabrication (PPF) technique" pg 3903; molecular weight of the shell layer (PDLLA) did not influence the subsequent drug release from the microspheres..." pg 3910.

L00175 Stojanovic Z, Otonicar M, Lee J, Stevanovic MM, Hwang MP, Lee KH et al. The solvothermal synthesis of magnetic iron oxide nanocrystals and the preparation of hybrid poly(L-lactide)-polyethyleneimine magnetic particles. *Colloids and Surfaces B: Biointerfaces* 2013; 109:236-243. >>> Poly(L-lactide); MW 160 kDa in chloroform; drug delivery (nanoparticles, genes/gene transfection);

L00170 Cheng Q, Lee BLP, Komvopoulos K, Li S. Engineering the Microstructure of Electrospun Fibrous Scaffolds by Microtopography. *Biomacromolecules* 2013; 14(5):1349-1360. >>> Poly(L-lactide); IV 1.09 dL/g; tissue engineering (scaffold); electrospinning; "PLLA pellets were first dissolved in HFIP (19% w/v) in an ultrasonic water bath. The polymer solution was then delivered through a stainless steel 23G dispensing needle by a syringe pump." pg 1350.

L00179 Saito E, Suarez-Gonzalez D, Rao RR, Stegemann JP, Murphy WL, Hollister SJ. Use of Micro-Computed Tomography to Nondestructively Characterize Biomineral Coatings on Solid Freeform Fabricated Poly (L-Lactic Acid) and Poly (e-Caprolactone) Scaffolds In Vitro and In Vivo. *Tissue Engineering: Part C* 2013; 19(7):507-517. >>> Poly(L-lactide); IV 0.65 dL/g; tissue engineering (scaffold); "Cylindrical porous PLLA... scaffolds 5mm diameter and 3mm height were fabricated using an indirect SFF" pg 508.

L00189 Janairo RR, Zhu Y, Chen T, Li S. Mucin Covalently Bonded to Microfibers Improves the Patency of Vascular Grafts. *Tissue Engineering Part A* 2013; 20(1-2):285-293. >>> Poly(L-lactide); IV 1.09 dL/g; tissue engineering (scaffold); rat; electrospinning.

L00181 Sawawi M, Wang TY, Nisbet DR, Simon GP. Scission of electrospun polymer fibres by ultrasonication. *Polymer* 2013; 54:4237-4252. >>> Poly(L-lactide); IV 0.9 - 1.2 dL/g in chloroform and acetone (3:1); biomaterial (fibers); electrospinning; "sonication is a promising method to produce significant quantities of short fibres of nanometre diameter and microns in length" pg 4237.

L00286 Kobsa S, Kristofik NJ, Sawyer AJ, Bothwell ALM, Kyriakides TR, Saltzman WM. An electrospun scaffold integrating nucleic acid delivery for treatment of full thickness wounds. *Biomaterials* 2013; 34:3891-3901. >>> Poly(L-lactide); Tissue engineering (scaffold); drug delivery (DNA plasmid coding for keratinocyte growth factor); mice; electrospinning; wound healing.

L00259 Ragaert K, De Baere I, Moerman M, Cardon L, Degrieck J. Design and thermoregulation of a new microextrusion dispense head for 3D-plotting of thermally sensitive thermoplastics. *Polymer Engineering & Science* 2013; 53(2):273-282. >>> Poly(L-lactide); IV 0.90-1.20 dL/g; biomaterial (3D printing);

L00288 Lavin DM, Zhang L, Furtado S, Hopkins RA, Mathiowitz E. Effects of protein molecular weight on the intrinsic material properties and release kinetics of wet spun polymeric microfiber delivery systems. *Acta Biomaterialia* 2013; 9(1):4569-4578. >>> Poly(L-lactide); Poly(DL-lactide-co-glycolide); 75:25 DLPLG; IV 1.04 dL/g in CHCl<sub>3</sub> (PLA); IV 0.55-0.75 dL/g in CHCl<sub>3</sub> (DLPLG); drug delivery (microfibers; bovine zinc insulin, lysozyme, bovine serum albumin); uniaxial tensile testing, protein release and thermal analysis conducted. "PLGA and PLLA were chosen for this study because they are commonly used biodegradable materials and have FDA approval for many medical applications." (p. 4575-4576).

L00293 Park MJ, Balakrishnan P, Yang SG. Polymeric nanocapsules with SEDDS oil-core for the controlled and enhanced oral absorption of cyclosporine. *International Journal of Pharmaceutics* 2013; 441(1):757-764. >>> Poly(DL-lactide); IV 0.26–0.54 dl/g; drug delivery (nanocapsules: cyclosporine); rat (PO); nanocapsules prepared by emulsion diffusion method.

L00290 Marszalek JE, Simon CG, Thodeti C, Adapala RK, Murthy A, Karim A. 2.5 D constructs for characterizing phase separated polymer blend surface morphology in tissue engineering scaffolds. *Journal of Biomedical Materials Research Part A* 2013; 101A(5):1502-1510. >>> Poly(e-caprolactone); Poly(DL-lactide); MW: 80 kDa (PCL), 107.3 kDa (DLPLA); tissue engineering (film, scaffold); Films prepared by spin coating 50:50 blend of two polymers onto glass substrates or silicon wafers; scaffolds created by pouring polymer solution into Teflon molds filled with NaCl.

L00240 Lee BL-P, Tang Z, Wang A, Huang F, Yan Z, Wang D et al. Synovial Stem Cells and Their Responses to the Porosity of Microfibrous Scaffold. *Acta Biomaterialia* 2013; 9:7264-7275. >>> Poly(L-lactide); IV 1.09 dL/g - MW 131 kDa; tissue engineering (scaffold); rat; electrospinning.

L00206 Yandrapu S, Kompella UB. Development of Sustained-Release Microspheres for the Delivery of SAR 1118, an LFA-1 Antagonist Intended for the Treatment of Vascular Complications of the Eye. *Journal of Ocular Pharmacology and Therapeutics* 2013; 29(2):236-248. >>> Poly(L-lactide); poly(DL-lactide-co-glycolide); 50:50; 75:25; 85:15; IV 0.3-0.5 dL/g; drug delivery (microsphere, SAR 1118); 1, 3, 6 months; SAR 1118 is a lymphocyte function-associated antigen-1 antagonist.

L00244 Lemke CD, Geary SM, Joshi VB, Salem AK. Antigen-coated poly alpha-hydroxy acid based microparticles for heterologous prime-boost adenovirus based vaccinations. *Biomaterials* 2013; 34(10):2524-2529. >>> Poly(DL-lactide-co-glycolide); Poly(L-lactide); 50:50 (PLGA); 65:35 acid (PLGA); drug delivery (microparticles, ovalbumin); microspheres produced using oil-in-water single emulsion.

L00257 Pridgen EM, Alexis F, Kuo TT, Levy-Nissenbaum E, Karnik R, Blumberg RS et al. Transepithelial Transport of Fc-Targeted Nanoparticles by the Neonatal Fc Receptor for Oral Delivery. *Science translational medicine* 2013; 5(213):213ra167. >>> Poly(L-lactide) acid terminated; Poly(DL-lactide-co-glycolide) acid terminated; IV 0.50 dL/g (PLA); IV 0.20 dL/g (PLGA); drug delivery (nanoparticles, insulin); mice;

L00255 Park AH, Hoyt D, Britt D, Chase S, Tansavatdi K, Hunter L et al. Cross-linked hydrogel and polyester resorbable ventilation tubes in a chinchilla model. *The Laryngoscope* 2013; 123(4):1043-1048. >>> Poly(DL-lactide-co-glycolide); Poly(L-lactide); 50:50 (PLGA); tissue engineering (tubes); chinchilla;

L00134 Cheng Q, Lee BL-P, Komvopoulos K, Yan Z, Li S. Plasma surface chemical treatment of electrospun poly (L-lactide) microfibrous scaffolds for enhanced cell adhesion, growth, and infiltration. *Tissue Engineering Part A* 2013; 19(9-10):1188-1198. >>> Poly(L-lactide); IV 1.09 dL/g; tissue engineering (scaffold); electrospinning.

L00133 Yang H, Qiao X, Hong W, Dong L. Core-Shell Microcapsules With Embedded Microactuators for Regulated Release. *JOURNAL OF MICROELECTROMECHANICAL SYSTEMS* 2013; 22(3):509-518. >>> Poly(DL-lactide); MW 41 kDa; in vitro (degradation research); microcapsules embedded with hydrogel beads.

L00132 Cheng Q, Komvopoulos K, Li S. Plasma-assisted heparin conjugation on electrospun poly (L-lactide) fibrous scaffolds. *Journal of Biomedical Materials Research Part A* 2013;1-7. >>> Poly(L-lactide); IV 1.09 dL/g; tissue engineering (scaffold); electrospinning.

L00147 Elizarova OS, Balaban'yan VY, Shipulo EV, Maksimenko OO, Vanchugova LV, Litvinova SA et al. Efficacy of a new colloidal form of low-sialylated polylactide-based erythropoietin in experimental hemorrhagic stroke in rats. *Pharmaceutical Chemistry Journal* 2013; 46(10):626-629. >>> Poly(L-lactide); IV 0.34 dL/g, IV 0.68 dL/g; drug delivery (nanoparticles);

L00138 Da-Lozzo EJ, Moledo RCA, Faraco CD, Ortolani-Machado CF, Bresolin TMB, Silveira JLM. Curcumin/xanthan-galactomannan hydrogels: Rheological analysis and biocompatibility. *Carbohydrate polymers* 2013; 93(1):279-284. >>> Poly(L-lactide); MW 13.7 kDa; drug delivery (film); sterilization by UV irradiation; PLLA films were used as a positive control in an angiogenesis model.

L00230 Kadam RS, Tyagi P, Edelhauser HF, Kompella UB. Influence of choroidal neovascularization and biodegradable polymeric particle size on transscleral sustained delivery of triamcinolone acetonide. *International Journal of Pharmaceutics* 2012; 434(1):140-147. >>> Poly(L-lactide); IV 0.95-1.20 dL/g; drug delivery (nanoparticles, nanoparticles; triamcinolone acetonide); rat; targeted delivery (eye: subconjunctival space); nanoparticles prepared by o/w emulsion-solvent evaporation.

L00217 Saito E, Liu Y, Migneco F, Hollister SJ. Strut size and surface area effects on long-term in vivo degradation in computer designed poly(L-lactic acid) three-dimensional porous scaffolds. *Acta Biomaterialia*

2012; 2012(8):2568-2577. >>> Poly(L-lactide); tissue engineering (scaffold); strong correlations between surface area and percentage mass loss were found at 12 (R2 = 0.681) and 21 (R2 = 0.671) weeks.

L00228 Cai T, Hu PD, Sun M, Zhou J, Tsai YT, Baker D et al. Novel thermogelling dispersions of polymer nanoparticles for controlled protein release. *Nanomedicine: Nanotechnology, Biology, and Medicine* 2012; 8:1301-1308. >>> Poly(L-lactide); MW 137 kDa; drug delivery (microparticles); mice (BALB/c, 8-12 wks old, male, 20-25 g); 2 week drug administration; PLLA microparticles used as control vs IPN nanoparticles.

L00239 Lee BL-P, Jeon H, Wang A, Yan Z, Yu J, Grigoropoulos C et al. Femtosecond laser ablation enhances cell infiltration into three-dimensional electrospun scaffolds. *Acta Biomaterialia* 2012; 8(7):2648-2658. >>> Poly(L-lactide); IV 1.09 dL/g; tissue engineering (scaffold); rat; electrospinning; membranes disinfected in 70% ethanol under UV light for 30 min followed by five washes in sterile deionized water.

L00187 Rosevear HM, Krishnamachari Y, Ariza CA, Mallapragada SK, Salem AK, Griffith TS et al. Effect of Combined Locally Delivered Growth Factors and Systemic Sildenafil Citrate on Microrevascularization in Biodegradable Conduit for Vas Deferens Reconstruction. *Urology* 2012; 79(4):967-9e1. >>> Poly(DL-lactide); tissue engineering (biodegradable conduit); rat (male Sprague-Dawley); PDLA in chloroform; biodegradable conduit for vas deferens reconstruction.

L00139 D'Angelo F, Armentano I, Cacciotti I, Tiribuzi R, Quattrocchi M, Del Gaudio C et al. Tuning Multi/Pluri-Potent Stem Cell Fate by Electrospun Poly (L-lactic acid)-Calcium-Deficient Hydroxyapatite Nanocomposite Mats. *Biomacromolecules* 2012; 13(5):1350-1360. >>> Poly(L-lactide); IV 0.90-1.2 dL/g; tissue engineering (fibrous mat); electrospinning.

L00226 Bianco A, Bozzo BM, Del Gaudio C, Cacciotti I, Armentano I, Dottori M et al. Poly (L-lactic acid)/calcium-deficient nanohydroxyapatite electrospun mats for bone marrow stem cell cultures. *Journal of Bioactive and Compatible Polymers* 2011; 26(3):225-241. >>> Poly(L-lactide); IV 0.90-1.2 dL/g in chloroform; tissue engineering (scaffold, hydroxyapatite); electrospinning; "electrospun PLLA and PLLA/d-HAp mats can be regarded as potential scaffolds for bone marrow mesenchymal stem cells culture." pg 225.

L00227 Bottino MC, Thomas V, Janowski GM. A novel spatially designed and functionally graded electrospun membrane for periodontal regeneration. *Acta Biomaterialia* 2011; 7(1):216-224. >>> Poly(L-lactide); poly( $\epsilon$ -caprolactone); 80:20; IV 0.55-0.75 dL/g; IV 0.80 dL/g in chloroform and HFIP; tissue engineering (scaffold); electrospinning.

L00229 Zou L, Nair A, Weng H, Tsai YT, Hu Z, Tang L. Intraocular Pressure Changes: An Important Determinant of the Biocompatibility of Intravitreal Implants. *PloS one* 2011; 6(12):1-9. >>> Poly(L-lactide); MW 137 kDa; drug delivery (nanoparticles); rabbit (Dutch, 4-5 lbs);

L00253 Nair A, Shen J, Lotfi P, Ko CY, Zhang CC, Tang L. Biomaterial implants mediate autologous stem cell recruitment in mice. *Acta Biomaterialia* 2011; 7(11):3887-3895. >>> Poly(L-lactide); MW 137 kDa; biomaterials (coated tubes); mice;

L00091 Armentano I, Marinucci L, Dottori M, Balloni S, Fortunati E, Pennacchi M et al. Novel Poly (L-lactide) PLLA/SWNTs Nanocomposites for Biomedical Applications: Material Characterization and Biocompatibility Evaluation. *Journal of Biomaterials Science, Polymer Edition*, 22 2011; 4(6):541-556. >>> Poly(L-lactide); IV 0.9-1.20 dL/g; tissue engineering (nanocomposite); biocompatibility; "SWNTs in combination with biodegradable polymers could open new perspectives in tissue engineering." p. 542; "In light of these data PLLA/SWNTs-COOH shows good biocompatibility and may be a promising biomaterial candidate in promoting bone regeneration." p. 554.

L00221 Saadai P, Nout YS, Encinas J, Wang A, Downing TL, Beattie MS et al. Prenatal repair of myelomeningocele with aligned nanofibrous scaffolds: a pilot study in sheep. *Journal of Pediatric Surgery* 2011; 46(12):2279-2283. >>> Poly(L-lactide); IV 1.09 dL/g; tissue engineering (nanofiber scaffold); schematic representation of nanofibrous inner (A) and outer scaffolds (B), Fig 1.

L00106 Berry SM, Warren SP, Hilgart DVA, Schworer AT, Pabba S, Gobin AS et al. Endothelial cell scaffolds generated by 3D direct writing of biodegradable polymer microfibers. *Biomaterials* 2010; 32(7):1872-1879. >>> Poly(L-lactide); poly(DL-lactide); poly(DL-lactide-co-glycolide); poly( $\epsilon$ -caprolactone); 50:50; 75:25; IV 0.90 - 1.20 dL/g in chloroform (PLA); IV 0.55 - 0.75 dL/g in 1,2 DCE (DL-PLA); IV 0.76 - 0.94 dL/g in 1,2 DCE (50:50 PLGA); IV 0.55 - 0.75 dL/g in chlorobenzene (75:25 PLGA); IV 1.00 - 1.30 dL/g (PCL); tissue engineering (scaffold); >6 weeks; polymer details table, p. 1873, table 1; biodegradation table p. 1875, fig 4.

L00094 Hashi CK, Derugin N, Janairo RRR, Lee R, Schultz D, Lotz J et al. Antithrombogenic Modification of Small-Diameter Microfibrous Vascular Grafts. *Arteriosclerosis, thrombosis, and vascular biology* 2010; 30(8):1621-1627. >>> Poly(L-lactide); IV 1.09 dL/g; tissue engineering (vascular graft); rat (female, SD, 200-240 grams); grafts were made by electrospinning polymer fibers onto a rotating mandrel; actual images of grafts in vivo, p. 1624; "The microfibrous grafts were integrated well into native vasculature, supported by the evidence of angiogenesis and SMC recruitment in the outer layer of the graft." p. 1626; "The slow degradation rate of biopolymers, such as PLLA, maintains the mechanical strength of the grafts long enough and allows gradual replacement of synthetic scaffolds by native matrix with time." p. 1627.

L00092 Zaman N, Talukder MMU, Haque T, Alam MK, Fatema K. Development of L-PLA based Intraclear Implant for Sustained Intraocular Delivery of Dexamethasone Sodium Phosphate. *Stamford Journal of Pharmaceutical Sciences* 2010; 2(1):56-60. >>> Poly(L-lactide); MW 61.2 kDa; drug delivery (intrascleral implant, dexamethasone sodium phosphate); in vitro; >30 days; release profile, p. 58; "it is clear that biodegradable intrascleral implants can be easily prepared by using L-PLA (MW 61,200) which may provide a long term delivery of dexamethasone sodium phosphate inside the eye."

L00061 Yang H, Dong L. Selective Nanofiber Deposition Using a Microfluidic Confinement Approach. *Langmuir* 2009; 26(3):1539-1543. >>> Poly(DL-lactide); IV 0.69 dL/g; tissue engineering (nanofiber); in vitro; lectrospinning; a novel method to create microsized, structurally accurate, arbitrarily shaped patterns of both random and aligned nanofibers.

L00011 Forte G, Franzese O, Pagliari S, Pagliari F, Di Francesco A, Cossa P et al. Interfacing Sca-1 positive Mesenchymal Stem Cells with Biocompatible Scaffolds with Different Chemical Composition and Geometry. *Journal of biomedicine & biotechnology* 2009; 2009:1-10. >>> Poly(L-lactide); tissue engineering (scaffold film); polymer was diluted in methylene chloride and then spincoated onto glass coverslips (2mm diameter) by applying 0.5mL of 20% solution and spinning at 400 rpm.

L00125 Gay S, Arostegui S, Lemaitre J. Preparation and characterization of dense nanohydroxyapatite/PLLA composites. *Materials Science and Engineering C* 2009; 29(1):172-177. >>> Poly(L-lactide); IV 1.04 dL/g in chloroform; tissue engineering (composite, hydroxyapatite, orthopedic);

L00035 Horning JL, Sahoo SK, Vijayaraghavalu S, Dimitrijevic S, Vasir JK, Jain TK et al. 3-D tumor model for in vitro evaluation of anticancer drugs. *Molecular Pharmaceutics* 2008; 5(5):849-862. >>> Poly(DL-lactide); IV 0.17 dL/g; 0.44 dL/g; 0.66 dL/g; tissue engineering (scaffold); in vitro; cancer; large and porous biodegradable polymeric microspheres were used as a scaffold for 3-D growth of cancer cells; " (PLGA) are extensively used because of their biocompatibility and high mechanical strength" p. 850; "We used PLA polymer as it demonstrated better cell growth than PLGA polymer in our previous study." p. 851.

L00057 Forte G, Carotenuto F, Pagliari F, Pagliari S, Cossa P, Fiaccavento R et al. Criticality of the biological and physical stimuli array inducing resident cardiac stem cell determination. *Stem Cells* 2008; 26(8):2093-2103. >>> Poly(L-lactide); poly(DL-lactide-co-glycolide); 75:25; tissue engineering (scaffold); in vitro;

L00103 Patel AR, Kulkarni S, Nandekar TD, Vavia PR. Evaluation of alkyl polyglucoside as an alternative surfactant in the preparation of peptide-loaded nanoparticles. *Journal of Microencapsulation* 2008; 25(8):531-540. >>> Poly(DL-lactide); poly(DL-lactide-co-glycolide); 50:50; MW 2 kDa, MW 28.022 kDa; drug delivery (nanoparticles, peptide); rabbit; "PLGA is considered to be relatively less hydrophobic as compared to PLA. Thus, NP preparation using PLA as the polymer requires a higher amount of surfactant as compared to PLGA." p. 536.

L00082 Roh JD, Nelson GN, Brennan MP, Mirensky TL, Yi T, Hazlett TF et al. Small-diameter biodegradable scaffolds for functional vascular tissue engineering in the mouse model. *Biomaterials* 2008; 29:1454-1463. >>> Poly( $\epsilon$ -caprolactone); poly(DL-lactide); 50:50; MW 263.8 kDa; tissue engineering (scaffold); mice; "The scaffolds implanted as either inferior vena cava or aortic interposition grafts in SCID/bg mice demonstrated excellent patency without evidence of thromboembolic complications or aneurysm formation" p 1454; P(CL/LA) was used as a sealant for the tubular constructs.

L00084 Rao KS, Reddy MK, Horning JL, Labhasetwar V. TAT-conjugated nanoparticles for the CNS delivery of anti-HIV drugs. *Biomaterials* 2008; 29(33):4429-4438. >>> Poly(L-lactide); IV 0.4 dL/g - MW 40 kDa; drug delivery (nanoparticles); mice; targeted delivery (CNS).

L00089 Patel S, Kurpinski K, Quigley R, Gao H, Hsiao BS, Poo MM et al. Bioactive nanofibers: synergistic effects of nanotopography and chemical signaling on cell guidance. *Nano Lett* 2007; 7(7):2122-2128. >>> Poly(L-lactide); IV 1.09 dL/g; tissue engineering (scaffold, nanofiber); in vitro; "Electrospinning technology can be used to fabricate nonwoven nanofibrous scaffolds from biological and/or synthetic polymers and has tremendous potential for tissue engineering applications." p. 2122.

L00127 Radulescu D, Dhar S, Young CM, Taylor DW, Trost HJ, Hayes DJ et al. Tissue engineering scaffolds for nerve regeneration manufactured by ink-jet technology. *Materials Science and Engineering C* 2007; 27(3):534-539. >>> Poly(DL-lactide); Poly(DL-lactide-co-e-caprolactone); 80:20; 25:75; tissue engineering (scaffold); nerve regeneration; tissue scaffold printing technology.

L00119 Xu J, Bao J, Guo BH, Ma H, Yun TL, Gao L et al. Imaging of nonlinear optical response in biopolyesters via second harmonic generation microscopy and its dependence on the crystalline structures. *Polymer* 2007; 48(1):348-355. >>> Poly(L-lactide); IV 0.70 dL/g in chloroform;

L00096 Sharma R, Muttil P, Yadav AB, Rath SK, Bajpai VK, Mani U et al. Uptake of inhalable microparticles affects defence responses of macrophages infected with *Mycobacterium tuberculosis* H37Ra. *Journal of Antimicrobial Chemotherapy* 2007; 59:499-506. >>> Poly(DL-lactide); drug delivery (microspheres, isoniazid, rifampicin);

L00032 Zaghoul AA, Mustafa F, Siddiqui A, Khan M. Response Surface Methodology to Obtain -Estradiol Biodegradable Microspheres for Long-Term Therapy of Osteoporosis. *Pharmaceutical development and technology* 2006; 11(3):377-387. >>> Poly(DL-lactide); poly(DL-lactide-co-glycolide); 85:15; IV 0.26 dL/g - 12-24 kDa (PLA); IV 0.61 dL/g - MW 80 kDa (PLGA); drug delivery (microspheres, estradiol); in vitro; "Polylactic acid (PLA), poly-glycolic acid (PGA), and their copolymers, poly(lactide-co-glycolide) (PLGA) have generated immense interest because of their excellent biocompatibility and biodegradability." p. 378; drug encapsulation efficiency p. 379.

L00050 Gomez-Lopera SA, Arias JL, Gallardo V, Delgado AV. Colloidal stability of magnetite/poly(lactic acid) core/shell nanoparticles. *Langmuir* 2006; 22:2816-2821. >>> Poly(DL-lactide); drug delivery (nanoparticles, magnetite, composite colloid shell / core); in vitro; "Experimental investigation on the colloidal stability of suspensions of three kinds of particles, including magnetite, poly(lactic acid) (PLA), and composite core/shell colloids formed by a magnetite core surrounded by a PLA shell".

L00031 Zaghoul AAA, Mustafa F, Siddiqui A, Khan M. Biodegradable microparticulates of beta-estradiol: preparation and in vitro characterization. *Drug Development and Industrial Pharmacy* 2005; 31(8):803-811. >>> Poly(DL-lactide); poly(DL-lactide-co-glycolide); 85:15; 75:25; IV 0.26 dL/g - MW 12-24 kDa (DL-PLA); IV 0.61 dL/g - MW 80 kDa (PLGA); drug delivery (microspheres, estradiol); in vitro; "Formulation fabricated from PLGA 85:15 (1:3) showed less burst and consistent long time release" p. 803.

L00024 Zhou H, Zhang Y, Biggs DL, Manning MC, Randolph TW, Christians U et al. Microparticle-based lung delivery of INH decreases INH metabolism and targets alveolar macrophages. *Journal of Controlled Release* 2005; 107(2):288-299. >>> Poly(DL-lactide); IV 1.00 dL/g - MW 137 kDa; drug delivery (microspheres, lung); in vitro; rat (intratracheal); targeted delivery (intratracheal).

L00120 Xu J, Guo BH, Zhou JJ, Li L, Wu J, Kowalczyk M. Observation of banded spherulites in pure poly (L-lactide) and its miscible blends with amorphous polymers. *Polymer* 2005; 46(21):9176-9185. >>> Poly(L-lactide); poly(DL-lactide); IV 0.70 dL/g; IV 0.63 dL/g in chloroform;

L00007 Blanco E, Qian F, Weinberg B, Stowe N, Anderson JM, Gao J. Effect of fibrous capsule formation on doxorubicin distribution in radiofrequency ablated rat livers. *Journal of Biomedical Materials Research* 2004; 69(3):398-406. >>> Poly(DL-lactide); poly(DL-lactide-co-glycolide); IV 0.67dL/g (PLA); IV 0.65 dL/g - MW 50 kDa (PLGA); drug delivery (millirods, doxorubicin); rat; rods implanted in the rat liver and delivered doxorubicin; targeted delivery (liver).

L00301 Ding AG, Schwendeman SP. Determination of Water-Soluble Acid Distribution in Poly(lactide-co-glycolide). *Journal of pharmaceutical sciences* 2004; 93(2):322-331. >>> Poly(DL-lactide-co-glycolide); Poly(DL-lactide); 50:50; 85:15; IV 0.63 (50:50); 0.66 (85:15); 0.60 (DLPLA) dL/g;

L00081 Wang Y, Challa P, Epstein DL, Yuan F. Controlled release of ethacrynic acid from poly (lactide-co-glycolide) films for glaucoma treatment. *Biomaterials* 2004; 25(18):4279-4285. >>> Poly(DL-lactide-co-glycolide); poly(DL-lactide); 50:50; 85:15; IV 0.68 dL/g (PLGA); 0.63 dL/g (PLGA); 0.68 dL/g (PLA); drug delivery (film, ethacrynic acid) ; rabbit; "The release of ECA from the PLGA50:50 film was time dependent and more than 90% of ECA was released within a week." p 4279; release profile p 4281; targeted delivery (eye).

L00099 Carvalho-Queiroz C, Cook R, Wang CC, Correa-Oliveira R, Bailey NA, Egilmez NK et al. Cross-reactivity of *Schistosoma mansoni* cytosolic superoxide dismutase, a protective vaccine candidate, with host superoxide dismutase and identification of parasite-specific B epitopes. *Infection and immunity* 2004; 72(5):2635-2647. >>> Poly(L-lactide); MW 2 kDa; drug delivery (microspheres, SmCT-SOD-GST); mice (female, BALB/c, 5-6 weeks old); drug is an antioxidant.

L00040 Prabha S, Labhasetwar V. Critical determinants in PLGA/PLA nanoparticle-mediated gene expression. *Pharmaceutical Research* 2004; 21(2):354-364. >>> Poly(DL-lactide); poly(DL-lactide-co-glycolide); 50:50; 75:25; MW 12 kDa, 53 kDa and 143 kDa for 50:50; MW 53 kDa for 75:25 and 50:50; drug delivery (nanoparticles, plasmid DNA); "Nanoparticles formulated using PLGA polymer demonstrated greater gene transfection than those formulated using PLA polymer, and this was attributed to the higher DNA release from PLGA nanoparticles. Higher-molecular-weight PLGA resulted in the formation of nanoparticles with higher DNA loading, which demonstrated higher gene expression than those formulated with lower molecular-weight PLGA." p. 354 polymer characteristics tables on p. 357.

L00009 Zong X, Ran S, Kim KS, Fang D, Hsiao BS, Chu B. Structure and morphology changes during in vitro degradation of electrospun poly (glycolide-co-lactide) nanofiber membrane. *Biomacromolecules* 2003; 4(2):416-423. >>> Poly(DL-lactide); poly(DL-lactide-co-glycolide); 75:25; IV 0.55-0.75 dL/g; tissue engineering (nanofiber); in vitro; electrospinning; ..."water may have little effect on the shrinkage of electrospun PLGA membranes." (p. 418); degradation research.

L00124 Egilmez NK, Jong YS, Mathiowitz E, Bankert RB. Tumor vaccination with cytokine-encapsulated microspheres. *Methods in Molecular Medicine* 2003; 75:687-696. >>> Poly(L-lactide); MW 2 kDa; MW 24 kDa; drug delivery (microspheres, IL-2, recomb human; IL-12, recomb murine; GM-CSF, recomb murine); cancer.

L00121 Zong X, Kim K, Fang D, Ran S, Hsiao BS, Chu B. Structure and process relationship of electrospun bioabsorbable nanofiber membranes. *Polymer* 2002; 43(16):4403-4412. >>> Poly(DL-lactide); IV 0.55-0.75 dL/g; tissue engineering (nanofiber); electrospinning.