Vignesh Muthuvijayan Journal publications

1. Ramesh K, Balavigneswaran CK, Siboro SAP, **Muthuvijayan V**, Lim KT. Synthesis of cyclodextrin-derived star poly(N-vinylpyrrolidone)/poly(lactic-co-glycolide) supramolecular micelles via host-guest interaction for delivery of doxorubicin. Polymer, 2020. Accepted
2. Kanniyappan H, Venkatesan M, Panji J, Ramasamy M, **Muthuvijayan V***. Evaluating the inherent osteogenic and angiogenic potential of mesoporous silica nanoparticles to augment vascularized bone tissue formation. Micropor Mesopor Mat, 2021. 311:110687. DOI: 10.1016/j.micromeso.2020.110687
3. Balavigneswaran CK, Kumar G, Kumar CV, Sellamuthu S, Kasiviswanathan U, Ray B, **Muthuvijayan V**, Mahto SK, Misra N. Gelatin grafted poly(D,L-Lactide) as an inhibitor of protein aggregation: An *in vitro* case study. Biopolymers, 2020. 111(8):e23383. DOI: 10.1002/bip.23383
4. Thampi S, Thekkuveettil A, **Muthuvijayan V**, Parameswaran R. Accelerated outgrowth of neurites on graphene oxide-based hybrid electrospun fibro-porous polymeric substrates. ACS Appl Bio Mater, 2020. 3(4):2160-9. DOI: 10.1021/acsabm.0c00026
5. Kanniyappan H, Thangavel P, Chakraborty S, Arige V, **Muthuvijayan V***. Design and evaluation of Konjac glucomannan-based bioactive interpenetrating network (IPN) scaffolds for engineering vascularized bone tissues. Int J Biol Macromol, 2020. 143:30-40. DOI: 10.1016/j.ijbiomac.2019.12.012
6. Ramachandran B, **Muthuvijayan V***. Cysteine immobilisation on the polyethylene terephthalate surfaces and its effect on the haemocompatibility. Sci Rep, 2019. 9:16694. DOI: 10.1038/s41598-019-53108-2
7. Kannan R, Prabakaran P, Basu R, Pindi C, Senapati S, **Muthuvijayan V***, Prasad E*. Mechanistic study on the antibacterial activity of self-assembled poly(aryl ether)-based amphiphilic dendrimers. ACS Appl Bio Mater, 2019. 2(8):3212-24. DOI: 10.1021/acsabm.9b00140.
8. Santhosh Kumar S, Hiremath S, Ramachandran B, **Muthuvijayan V**. Effect of surface finish on wettability and bacterial adhesion of micromachined biomaterials. Biotribology, 2019. 18:100095. DOI: 10.1016/j.biotri.2019.100095
9. Vidya Lakshmi N[†], Kannan R[†], **Muthuvijayan V***, Prasad E*. Role of hydrophobicity in tuning the intracellular uptake of dendron-based fluorophores for *in vitro* metal ion sensing. Colloids Surf B Biointerfaces, 2019. 179:180-9. DOI: 10.1016/j.colsurfb.2019.03.062
10. Ramachandran B, **Muthuvijayan V***. Kinetic study of NTPDase immobilization and its effect of haemocompatibility on polyethylene terephthalate. J Biomater Sci Polym Ed, 2019. 30(6):437-49. DOI: 10.1080/09205063.2019.1575943
11. Ramachandran B, Chakraborty S, Kannan R, Dixit M, **Muthuvijayan V***. Immobilization of hyaluronic acid from Lactococcus lactis on polyethylene terephthalate for improved biocompatibility and drug release. Carbohydr Polym, 2019. 206:132-40. DOI: 10.1016/j.carbpol.2018.10.099

12. Ravishankar R, Kanniyappan H, Shelly KM, **Muthuvijayan V**, Dhamodharan R. Facile, shear-induced, rapid formation of stable gels of chitosan through in situ generation of colloidal metal salts. Chem Comm, 2018. 54(82):11582-5. DOI: 10.1039/c8cc06422a
13. Chakraborty S, Thangavel P, Chandel S, Dixit M, **Muthuvijayan V***. Reduced graphene oxide-loaded nanocomposite scaffolds for enhancing angiogenesis in tissue engineering applications. Royal Soc Open Sci, 2018. 5:172017. DOI: 10.1098/rsos.172017
14. Veerasubramanian PK[†], Thangavel P[†], Kannan R, Chakraborty S, Ramachandran B, Suguna L, **Muthuvijayan V***. An investigation of konjac glucomannan-keratin hydrogel scaffold loaded with *Avena sativa* extracts for diabetic wound healing. [†]*Equal authors*. Colloids Surf B Biointerfaces, 2018. 165:92-102. DOI: 10.1016/j.colsurfb.2018.02.022
15. Thangavel P, Kannan R, Ramachandran B, Moorthy G, Suguna L, **Muthuvijayan V***. Development of reduced graphene oxide (rGO)-isabgol nanocomposite dressings for enhanced vascularization and accelerated wound healing in normal and diabetic rats. J Colloid Interface Sci, 2018. 517:251-64. DOI: 10.1016/j.jcis.2018.01.110
16. Ponrasu T, Veerasubramanian PK, Kannan R, Gopika S, Suguna L, **Muthuvijayan V***. Morin incorporated polysaccharide–protein (psyllium–keratin) hydrogel scaffolds accelerate diabetic wound healing in Wistar rats. RSC Adv, 2018. 8:2305-14. DOI: 10.1039/C7RA10334D
17. Ramachandran B, Chakraborty S, Dixit M, **Muthuvijayan V***. A comparative study of polyethylene terephthalate surface carboxylation techniques: Characterization, *in vitro* haemocompatibility and endothelialization. React Funct Polym, 2018. 122:22-32. DOI: 10.1016/j.reactfunctpolym.2017.11.001
18. Thangavel P, Ramachandran B, Chakraborty S, Kannan R, Suguna L, **Muthuvijayan V***. Accelerated healing of diabetic wounds treated with L-glutamic acid loaded hydrogels through enhanced collagen deposition and angiogenesis: An *In Vivo* Study. Sci Rep, 2017. 7:10701. DOI: 10.1038/s41598-017-10882-1
19. Kannan R, **Muthuvijayan V***, Prasad E*. *In vitro* study of a glucose attached poly(aryl ether) dendron based gel as a drug carrier for a local anaesthetic. New J Chem, 2017. 41(15):7453-62. DOI: 10.1039/C7NJ01420A
20. Thampi S, Nandkumar AM, **Muthuvijayan V**, Parameswaran R. Differential adhesive and bioactive properties of the polymeric surface coated with graphene oxide thin film. ACS Appl Mater Interfaces, 2017. 9(5):4498-508. DOI: 10.1021/acsami.6b14863
21. Thangavel P, Ramachandran B, Kannan R, **Muthuvijayan V***. Biomimetic hydrogel loaded with silk and L-proline for tissue engineering and wound healing applications. J Biomed Mater Res B Appl Biomater, 2017. 105(6):1401-8. DOI: 10.1002/jbm.b.33675
22. Thampi S, **Muthuvijayan V**, Parameswaran R. Silanization induced inherent strain in graphene based filler influencing mechanical properties of polycarbonate urethane nanocomposite membranes. RSC Adv, 2016. 6:104235-45. DOI: 10.1039/C6RA21436C
23. Ponrasu T, Pagidipally V, Kannan R, Suguna L, **Muthuvijayan V***. Isabgol–silk fibroin 3D composite scaffolds as an effective dermal substitute for cutaneous wound healing in rats. RSC Adv, 2016. 6:73617-26. DOI: 10.1039/C6RA13816K.
24. Thangavel P, Ramachandran B, Muthuvijayan V*. Fabrication of chitosan/gallic acid 3D microporous scaffold for tissue engineering applications. J Biomed Mater Res B Appl Biomater, 2016. 104(4):750-60. DOI: 10.1002/jbm.b.336