## **Last Five Years Paper Published in Journals**

- 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
- 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.33603
- 25. Thampi S, Muthuvijayan V, Parameswaran R. Mechanical characterization of high-performance graphene oxide incorporated aligned fibroporous poly(carbonate urethane) membrane for potential biomedical applications. J Appl Polym Sci, 2015. 132(16):41809. DOI: 10.1002/app.41809