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Webpage: <https://scholar.google.com/citations?user=KKGfdycAAAAJ&hl=en>

Education Qualification

Course	Organization	Year of award
B.Pharm.	E.G.S. Pillay College of Pharmacy, Nagapattinam, The Tamilnadu Dr. M.G.R Medical University, Chennai-32, INDIA.	2007
M.Pharm.	College of Pharmacy, Madurai Medical College, Madurai-20, The Tamilnadu Dr. M.G.R Medical University, Chennai-32, INDIA.	2010
Ph.D.	Indian Institute of Technology (Banaras Hindu University), Varanasi – 221 005, INDIA.	2016

Professional Experience (In Years)

Teaching Experience: 7 Years and 11 Months

Research Experience: 5 Years

Areas of Research

- ❖ **Cancer targeted nano-medicine**
- ❖ **Multifunctional nanocarriers**
- ❖ **Vesicular drug delivery systems**
- ❖ **Microneedle based drug/vaccine delivery**
- ❖ **Molecular pharmaceuticals**

Research/Consultancy Grants

Title of Projects	Funding Agency	Duration	Total grant in Lakhs	Role (PI/CO-PI)
Formulation development and evaluation of dissolvable and	Science & Engineering	3 Years (From Mar,	40.06	PI

coated microneedle patches containing COVID-19 vaccine loaded chitosan nanoparticles for painless and potential immunization	Research Board (SERB), Department of Science & Technology, Government of India.	2023 to Mar, 2026)		
Transferrin receptor and CD44 biomarker targeted pH sensitive liposomes of resveratrol and temozolomide for the treatment of malignant glioma: a multifunctional approach to target both cancer cells and cancer stem cells	Science & Engineering Research Board (SERB), Department of Science & Technology, Government of India.	2 Years (From Jan, 2022 to Jan, 2024)	30.86	PI

Publications

International Publications		
S.No.	Details of publication	Impact factor
1.	P. Singh, P. Pandey, D.K. Arya, M.M. Anjum, S. Poonguzhali, A. Kumar, R. Gupta, M.R. Vijayakumar , S. Singh, S. Chaurasia, A.K. Dantuluri, S. McMahon, P.S. Rajinikanth, Biomimicking dual drug eluting twisted electrospun nanofiber yarns for post-operative wound healing, Biomedical materials (Bristol, England), 27;18(3). doi: 10.1088/1748-605X/acc4a1.	4.103
2.	S. Yadav, D.K. Arya, P. Pandey, S. Anand, A.K. Gautam, S. Ranjan, S.A. Saraf, M.R. Vijayakumar , S. Singh, K. Chidambaram, T. Alqahtani, P.S. Rajinikanth, ECM Mimicking Biodegradable Nanofibrous Scaffold Enriched with Curcumin/ZnO to Accelerate Diabetic Wound Healing via Multifunctional Bioactivity, International journal of nanomedicine , 17 (2022) 6843-6859.	7.033
3.	A.K. Gautam, P. Kumar, B. Maity, G. Routholla, B. Ghosh, K. Chidambaram, M.Y. Begum, A. Al Fatease, P.S. Rajinikanth, S. Singh, S. Saha, M.R. Vijayakumar , Synthesis and appraisal of dalbergin-loaded PLGA nanoparticles modified with galactose against	5.988

	hepatocellular carcinoma: In-vitro, pharmacokinetic, and in-silico studies, Frontiers in pharmacology , 13 (2022) 1021867.	
4.	L. Maurya, S. Singh, M.R. Vijayakumar , G. Narayan, Vitamin E TPGS Emulsified Vinorelbine Bitartrate Loaded Solid Lipid Nanoparticles (SLN): Formulation Development, Optimization and In vitro Characterization, Current drug delivery , 15 (2018) 1135-1145.	3.758
5.	Lakshmi, S. Singh, M.R. Vijayakumar , H.K. Dewangan, Lipid Based Aqueous Core Nanocapsules (ACNs) for Encapsulating Hydrophilic Vinorelbine Bitartrate: Preparation, Optimization, Characterization and In vitro Safety Assessment for Intravenous Administration, Current drug delivery , 15 (2018) 1284-1293.	3.758
6.	C.K. Balavigneswaran, S.K. Mahto, A.K. Mahanta, R. Singh, M.R. Vijayakumar , B. Ray, N. Misra, Cell proliferation influenced by matrix compliance of gelatin grafted poly(D,L-Lactide) three dimensional scaffolds, Colloids and Surfaces B: Biointerfaces , 166 (2018) 170-178.	5.999
7.	K.P. Meena, M.R. Vijayakumar , P.S. Dwibedy, Catechin-loaded Eudragit microparticles for the management of diabetes: formulation, characterization and in vivo evaluation of antidiabetic efficacy, Journal of microencapsulation , 34 (2017) 342-350.	4.034
8.	M.R. Vijayakumar , K.Y. Vajanthri, C.K. Balavigneswaran, S.K. Mahto, N. Mishra, M.S. Muthu, S. Singh, Pharmacokinetics, biodistribution, in vitro cytotoxicity and biocompatibility of Vitamin E TPGS coated trans resveratrol liposomes, Colloids and surfaces. B, Biointerfaces , 145 (2016) 479-491.	5.999
9.	M.R. Vijayakumar , L. Kumari, K.K. Patel, P.R. Vuddanda, K.Y. Vajanthri, S.K. Mahto, S. Singh, Intravenous administration of trans-resveratrol-loaded TPGS-coated solid lipid nanoparticles for prolonged systemic circulation, passive brain targeting and improved in vitro cytotoxicity against C6 glioma cell lines, RSC Advances , 6 (2016) 50336-50348.	4.036
10.	M.R. Vijayakumar , R. Kosuru, P.R. Vuddanda, S.K. Singh, S. Singh, Trans resveratrol loaded DSPE PEG 2000 coated liposomes: An evidence for prolonged systemic circulation	5.062

	and passive brain targeting, Journal of Drug Delivery Science and Technology , 33 (2016) 125-135.	
11.	M.R. Vijayakumar , R. Kosuru, S.K. Singh, C.B. Prasad, G. Narayan, M.S. Muthu, S. Singh, Resveratrol loaded PLGA:d- α -tocopheryl polyethylene glycol 1000 succinate blend nanoparticles for brain cancer therapy, RSC Advances , 6 (2016) 74254-74268.	4.036
12.	Sonali, R.P. Singh, N. Singh, G. Sharma, M.R. Vijayakumar , B. Koch, S. Singh, U. Singh, D. Dash, B.L. Pandey, M.S. Muthu, Transferrin liposomes of docetaxel for brain-targeted cancer applications: formulation and brain theranostics, Drug Deliv , 23 (2016) 1261-1271.	6.819
13.	Sonali, P. Agrawal, R.P. Singh, C.V. Rajesh, S. Singh, M.R. Vijayakumar , B.L. Pandey, M.S. Muthu, Transferrin receptor-targeted vitamin E TPGS micelles for brain cancer therapy: preparation, characterization and brain distribution in rats, Drug Deliv , 23 (2016) 1788-1798.	6.819
14.	P.R. Vuddanda, M.R. Vijayakumar, M. Yaspal, S. Singh, Investigations on agglomeration and haemocompatibility of vitamin E TPGS surface modified berberine chloride nanoparticles, Biomed Res Int , 2014 (2014) 951942.	3.246
15.	B. Singh, P.R. Vuddanda, M.R. Vijayakumar, V. Kumar, P.S. Saxena, S. Singh, Cefuroxime axetil loaded solid lipid nanoparticles for enhanced activity against <i>S. aureus</i> biofilm, Colloids and surfaces. B, Biointerfaces , 121 (2014) 92-98.	5.999
16.	M.R. Vijayakumar , M.S. Muthu, S. Singh, Copolymers of poly(lactic acid) and D- α -tocopheryl polyethylene glycol 1000 succinate-based nanomedicines: versatile multifunctional platforms for cancer diagnosis and therapy, Expert opinion on drug delivery , 10 (2013) 529-543.	8.129

National Publications

1. M. Abraham Lingan, A. Abdul Hassan Sathali, **M.R. Vijayakumar**, A. Gokila. (2011) Formulation and evaluation of topical drug delivery system containing clobetasol propionate niosomes. **Scientific Reviews and Chemical Communications**, 1(1), 7-17. (Impact Factor: 0.774)

2. M.R. Vijayakumar , A. Abdul Hassan Sathali, K. Arun. (2010) Formulation and evaluation of diclofenac potassium ethosomes. International Journal of Pharmacy and Pharmaceutical Sciences . 2(4), 7-17. (Impact Factor: 2.029)
Book Chapters
1. R. Kosuru, M.R. Vijayakumar , S. Singh, Chapter 13 - Preclinical evidence of the therapeutic role of pterostilbene: Focus on the mitochondria, in: M.R. de Oliveira (Ed.) Mitochondrial Physiology and Vegetal Molecules , Academic Press, 2021, pp. 301-315.

Patents

Status	Inventors	Title and Award/Application no.
Awarded	Sanjay Singh, Vijayakumar M.R.	Composition of resveratrol loaded hybrid nanoparticles and a method of preparation thereof (Patent no. 401976)

Research Supervision

	Completed	On-going
PG	04	06
Ph.D	-	03

Membership of Professional Bodies

Tamil Nadu Pharmacy Council, Chennai, INDIA.

Countries Visited

- * **United Kingdom**
- * **France**

Invited Lectures/Talks/Chair/Co-Chair in Seminar/Conference/Symposia /Workshops

Year Topic of Lecture/Talk

- 2022 On "Writing Research grants and Research proposal" at Faculty Development Programme on 'Pharmaceutical Research Orientation' organized by Department of Pharmacy, College of Pharmaceutical Sciences and Research, Krishna University, Rudravaram, Machilipatnam-521004 during 6th August - 11th August, 2022.
- 2022 On "Nanomedicine for Cancer Targeting" at 'Summer Webinar Series -

2022' organised by Periyar College of Pharmaceutical Sciences, Tiruchirappalli - 620 021 on 13th August 2022.

Additional Information

Paper Presentations (Oral/Poster)

International

1. ICPSE 2015: International Conference on Pharmaceutical Science and Engineering 23- 24 January, 2015, Hotel Holiday Inn, **Paris, France.**
2. ICMBPS 2015: International Conference on Medical, Biological and Pharmaceutical Sciences, 19-20 January, 2015, Hotel Holiday Inn, **London, United Kingdom.**
3. 4thInternational Conference on Stem Cells and Cancer (ICSCC-2012): Proliferation, Differentiation and Apoptosis, 19-22 October, 2013, Durbar Hall, Haffkine Institute, Parel, **Mumbai - 400012, India.**
4. 13th International symposium of Controlled Release Society, Indian Chapter on “Advances in technology and business potential of new drug delivery systems”, 22-23 January, 2013, J.W.Marriott Hotels Mumbai, Santacruz, **Mumbai, India.**
5. 3rdInternational Conference on Stem Cells and Cancer (ICSCC-2012): Proliferation, Differentiation and Apoptosis. 27-30 October, 2012, Dr Ram ManoharLohia Hospital, **New Delhi, India.**
6. 3rd World Congress on “Bioavailability and Bioequivalence” Pharmaceutical R & D Summit. 26-28 March, 2012, Marriott Hotel, **Hyderabad, India.**
7. International Conference on Drug Delivery – 2010. 29-30 January, 2010, PSG College of Pharmacy, **Coimbatore, India.**

National

1. The National Academy of Sciences, India, 82nd Annual Session and National Symposium on “Nano-science & Technology for Mankind”. 29, November-1 December, 2012, Banaras Hindu University, **Varanasi, India.**
2. 15th Annual National Convention of Association of Pharmaceutical Teachers of India on “Quality in Pharma Education: Role of Teacher, Technology and Management” 2-3 November, 2010, ShilpakalaVedika, **Hyderabad, India.**