

FACULTY BIODATA



Name: **Dr. S. NANDHAKUMAR**
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Affiliation: Faculty of Pharmacy, Dr.M.G.R. Educational and Research Institute, Deemed to be University, Maduravoyal, Chennai – 600095, Tamil Nadu

EDUCATION

Sl.No.	Course	Department	Affiliation	Year of Completion	Percentage/ Grade
1	Ph.D	Pharmaceutical Sciences	Jawaharlal Nehru Technical University, Hyderabad.	2019	-
2	M.Pharm	Pharmaceutics	Vel's College of Pharmacy, The Tamilnadu Dr. MGR Medical University,	Mar 2007	85%
3	B.Pharm	-	Vel's College of Pharmacy, The Tamilnadu Dr. MGR Medical University,	Oct 2003	78%

OTHER DETAILS

Courses:

- Professional Diploma in Clinical Research (PDCR)
- Professional certificate in Pharmacovigilance (PCPV)
- Diploma in Computer Applications (DCA)

Research Interest:

- Surface engineering of Nanoparticle drug delivery systems
- Development of Novel Drug Delivery systems
- Formulation of Colloidal drug delivery systems for Cancer chemotherapy

Publications

Published Papers

Chintamaneni, P.K., Krishnamurthy, P.T., Pindiprolu, S.S.S. and Sathyamoorthy, N. (2022), Quantum Dot loaded BQCA-Octadecylamine conjugate nanosystems for theranostic applications in Alzheimer's Disease.. *Alzheimer's Dement.*, 18: e067578. (Conference Proceeding) (IMF:16.66)

Sathyamoorthy N, Sundar VD, Rajendran V, Sirikonda N, Harikrishnan N. Utility of Different Lipids and Effect of Soya Lecithin on Sustained Delivery of Zidovudine Via Biodegradable Solid Lipid Microparticles: Formulation and in-vitro Characterization. *Indian J of Pharmaceutical Education and Research.* 2022;56(3):1-8

S. NandhaKumar, Ch. Pavan Kumar, P.V. Ravikanth, N. Harikrishnan. Self-Emulsifying Drug Delivery System – A Promising Approach for Enhancing Bioavailability of Drugs. *High Technology Letters* Volume 28, Issue 6, 2022, pp 634-647

S. Nandhakumar, G. Sugreevudu, N. Harikrishnan. Formulation design and Evaluation of Extended-Release Tablets of Oxybutynin for Effective Management of Overactive Bladder Syndrome. *Research J. Pharm. and Tech.* 14(12): December 2021

C.V.Senthilnathan, G.Vaishnavi, G.Keerthana, S.NandhaKumar, Kotteeswaran , Plantar Hyperhidrosis: The Efficacy of Iontophoresis with Tap water, Glycopyrronium Bromide and Indomethacin.(2021).*Int. J. Life Sci. Pharma Res.*11(5), 11-19.

NandhaKumar S, Pavan Kumar C, Santhivardhan C. Plausible role of combination of Chlorpromazine hydrochloride and Teicoplanin against COVID-19. *Medical Hypothesis.* 2020, 144; 110011.

Gomathi GD, Gopalakrishnan G, Uma, Shifa F, **Nandhakumar S**, Dhanalakshmi S. Novel Peroxide Peroxide Gel for Management of Stage II Periodontitis. *Journal of Pharmaceutical Sciences and Research.* 2020, 12 (3); 452-456.

Gomathi GD, Gopalakrishnan G, Uma S, **Nandhakumar S**, Harikrishnan N, Nimisha. Effect of a Novel PolyHerbal Mouthwash on Dental Biofilm Induced Gingivitis. *Journal of Pharmaceutical Sciences and Research.* 2020, 12(1); 43-48

Vivekanandan. K, Dr. Harikrishnan. N, Bhavya. E, Babu P, **Nandhakumar.S**. Formulation and Evaluation of Floating Drug Delivery of an Anti-Hypertensive Drug. *Research J. Pharm. and Tech.*, 2018, 11(11); 4785-4796

Nandhakumar Sathyamoorthy, Dhanaraju Magharla, Pavankumar Chintamaneni, Sundar Vankayalu. Optimization of paclitaxel loaded poly (ϵ -caprolactone) nanoparticles using Box Behnken design. *Beni-Suef University Journal of Basic and Applied Sciences*, 2017, 6, 362-373.

Nandhakumar Sathyamoorthy, Dhanaraju Dasaratha Magharla, Sundar Devendaran Vankayalu. Effect of Surface Modification on the In vitro Protein Adsorption and Cell

Cytotoxicity of Vinorelbine Nanoparticles. *Journal of Pharmacy and Bioallied Sciences*, 2017, 9, 135-143.

Nandhakumar Sathyamoorthy, Pavankumar Chintamaneni, Sundar D. Vankayalu & Dhanaraju D. Magharla. Biodegradable Polymeric Carrier for Antineoplastic Drugs. Characterization and Sequence Based Cytotoxicity. *Lat. Am. J. Pharm.* 2017; **36** (7): 1473-82.

Nandhakumar S, Dhanaraju MD, Sundar VD, Heera B. Influence of surface charge on the in vitro protein adsorption and cell cytotoxicity of paclitaxel loaded poly (ϵ -caprolactone) nanoparticles. *Bulletin of Faculty of Pharmacy, Cairo University*. 2017; 55(2): 249-58.

Siddhartha VT, Saikiran SSP, Pavankumar C, Shashank T, **Nandhakumar S**. Rage Receptor targeted bioconjugate lipid nanoparticles of diallyl disulfide for improved apoptotic activity in triple negative breast cancer: In vitro Studies. *Artificial cells, Nanoparticles and Biotechnology*, 2017. <http://dx.doi.org/10.1080/21691401.2017.1313267>

Nandhakumar S, Dhanaraju DM. Clinical Implications of Molecular PEGylation on Therapeutic Proteins. *J Basic Clin Pharma* 2017; 8:87-90.

Nandhakumar Sathyamoorthy, Magharla Dasartha Dhanaraju. Shielding Therapeutic Drug Carriers from Mononuclear Phagocyte System – A Review on Evasion of Phagocytosis. *Critical Reviews™ in Therapeutic Drug Carrier Systems*. 2016, 33(6): 489-567.

Vankayalu Devendiran Sundar, Magharla Dasaratha Dhanaraju and **Nandhakumar Sathyamoorthy**. Preparation and characterization of anastrozole loaded magnetic poly (epsilon-caprolactone) microspheres for anticancer activity *Der Pharmacia Lettre*, 2016, 8 (10):118-128

S.Princely, N. Saleem Basha, **S. Nandhakumar** and M. D. Dhanaraju. Design and evaluation of controlled release gentamycin incorporated gelatin alginate matrices for wound management. *Der Pharmacia Lettre*, 2015, 7 (1):145-153

VD Sundar, MD Dhanaraju, **Nandhakumar S**. Fabrication and characterization of etoposide loaded magnetic polymeric microparticles. *International Journal of Drug Delivery*. 2014; 6: 24-35.

Nandhakumar S, Vijayalakshmi R, Naveena VSH, MD Dhanaraju. An approach for validated RP-HPLC method for the analysis of paclitaxel in rat plasma. *Journal of Applied Pharmaceutical Science*. 2014; 4(9): 73-76.

VD Sundar, **Nandhakumar S**, M Madhuri, MD Dhanaraju. Preparation and Evaluation Of Ethyl Cellulose Microspheres of Pioglitazone Hcl For Sustained Drug Delivery. *Int J Pharm Tech Res*. 2014; 4(1): 189-193.

M. Madhavi Latha, V. D. Sundar, **S. NandhaKumar**, MD DhanaRaju. Design and Evaluation of Sustained Release Tablets containing Solid dispersion of Ziprasidone hydrochloride. *International Journal of PharmTech Research*. 2014; 6(3): 959-968. (IF:0.66)

Ankalu Das, **Nandhakumar Sathyamoorthy**, Devalarao Garikapati. Development of Enteric Coated Pantoprazole Tablets with an Aqueous Based Polymer. International Journal of ChemTech Research. 2013, 5(5), 2394-2404. (IF: 0.52)

Ankalu Das, **Nandhakumar Sathyamoorthy**, Devalarao Garikapati. Delayed Release Formulation of Pantoprazole Using Sureteric Aqueous Dispersion System. Der Pharmacia Lettre, 2013, 5 (5):175-186.

Somasundaram Ramachandran, **Sathyamoorthy Nandhakumar**, Magharla Dasaratha Dhanaraju. Formulation and Characterization of Glutaraldehyde Cross-Linked Chitosan Biodegradable Microspheres Loaded with Famotidine. Tropical Journal of Pharmaceutical Research. 2011; 10 (3): 309-316. (IF: 0.62)

Formulation and evaluation of extended release matrix tablets of metformin hydrochloride. M.D.Dhanaraju, **S.Nandhakumar**, R. Kamalakrishnan. Pharm Tech, 2011,2, 1-5.

Somasundaram Ramachandran, **Sathyamoorthy Nandhakumar**, Magharla Dasaratha DhanaRaju. Development and in vitro Evaluation of Biodegradable Chitosan Microspheres Loaded with Ranitidine and Cross Linked with Glutaraldehyde. Int. J. PharmTech Res.2011, 3(1): 488-496.

Magharla Dasaratha Dhanaraju, **Nandhakumar Sathyamoorthy**, Vankayalu Devendiran Sundar, C. Suresh. Preparation of poly (epsilon-caprolactone) microspheres containing etoposide by solvent evaporation method. Asian Journal of Pharmaceutical Sciences 2010, 5 (3): 114-122.

Dhanaraju MD, **Nandhakumar S**, Omar. M. Formulation, Characterization and Biopharmaceutical Evaluation of Indomethacin Microspheres. International Journal of Biopharmaceutics. 1(2); 2010: 6-12.

Kumar raja. J, V.D.Sundar, AR.Magesh, **S.NandhaKumar**, M.D.Dhanaraju. International Journal of Pharmacy & Technology. 2010; 2(3):490-495.

S. Parimalakrishnan, V.D. Sundar, I. Ulaganathan, **S. Nandhakumar**, Akalanka Dey. Preliminary Toxicity Evaluation of Bidens pilosa Extracts Using Experimental Mice. Research J. Pharmacognosy and Phytochemistry 2010; 2(5): 397-402.

Dhanaraju MD, Sundar VD, **Nandhakumar S**, Bhaskar K. Development and evaluation of sustained release delivery of diclofenac sodium from Hydrophilicpolymeric beads. J Young Pharm. 2009; 1(4): 301-304.

S. Ramachandran, **S. Nandha Kumar**, M.D. Dhanaraju. Effect of *Aristolochia indica* on diuretics induced gout. Pharmacology online, 2009, 1, 304-308.

S. Ramachandran, **S. Nandha Kumar**, M.D. Dhanaraju. Wound healing effect of herbal extract ointments using *Croton bonplandianum* and *Vitex negundo* leaf extracts. Int. J. Pharmacol. Biol. Sci., 2009, 3, 117-120.

BOOK CHAPTERS:

Pavan Kumar Chintamaneni, Sai Kiran S.S. Pindiprolu, Nandhakumar Sathyamoorthy, Motamarri Venkata Naga Lalitha Chaitanya, Rashmi Saxena Pal and Malakapogu Ravindra Babu, Modern Nanotherapeutic Approaches in The Delivery of Phyto Pharmaceuticals in Anti Cancer Research In:, " Alternative Remedies and Natural Products for Cancer Therapy: An Integrative Approach " edited by Motamarri Venkata Naga Lalitha Chaitanya, Galvina Pereira, Heyam Saad Ali, Bentham Science Publishers 2023, pp 284 – 303. <https://doi.org/10.2174/97898151246991230101> (eISBN: 978-981-5124-69-9, 2023; ISBN: 978-981-5124-70-5)

Nanocarriers for theranostic applications, in: Nanocarriers for the delivery of Combination drugs edited by Sanjula Baboota and Javed Ali. Elsevier, 2021 pp 425-471 (ISBN: 978-0-12-820779-6)

ACADEMIC EXPERIENCE – 17 years

S.No.	Name of the Institution/Industry	From	To	Years of Experience
1	Faculty of Pharmacy, Dr. MGR Educational and Research Institute, Chennai	18-05-2017	Till date	6 years 6 months
2	GIET School of Pharmacy, Rajahmundry	27-12-2006	13-05-2017	10 years 5 months

FUNDED PROJECTS:

- Received a Seed fund of Rs 200000/-for the Project entitled '**Investigation Of Microneedle Based Transdermal Drug Delivery In The Management Of Adhesive Capsulitis**', from MGR-ACS Advanced Medical Research Institute.
- Received a Seed fund of Rs 120000/-for the Project entitled '**Exploration of Ghee Butter Based Colloidal Lipid Carriers for Improving the Bioavailability of Drugs**' from Centre for Sponsored Research and Consultancy (CSRC), DrMGRERI.
- Mentoring a project entitled "**Aphonic Talkie**" under NewGen IDEC funding from DST for Rs. 250000/-
- Mentored a project titled "**Med- Cartridge**" under NewGen IDEC funding from DST Rs. 250000/-
- Co-Investigator of AICTE funded project under Research Promotion Schemes (RPS) entitled "**Surface Engineered Nanoparticles for Cancer delivery**". Responsible for the design of protocol, conduction of experiments, recording of results, analysis and interpretation of results.

OTHER PROFESSIONAL EXPERIENCES

Underwent in-plant training at **TTK Pharma Pvt Ltd, Chennai**, at various departments such as tablet manufacture, tablet coating, liquid oral and parenteral production units for a period of 45 days.

PROFESSIONAL MEMBERSHIP

- A Registered pharmacist from the Tamil Nadu Pharmacy Council, Chennai
- Life Member of Association of Pharmaceutical Teachers of India (APTI)
- Life Member of Indian Association of Colleges of Pharmacy (IACP)

ACHIVEMENTS AND AWARDS

- Awarded as the **‘Best Performer of the Department’** for the academic year 2017-18 during the Founder’s Day Celebrations of Dr. MGR Educational and Research Institute.
- Co-Principal Investigator of AICTE funded project under Research Promotion Scheme (RPS) entitled **‘Surface Engineered Nanoparticles for Cancer Delivery’**
- Conferred with **‘The Best Teacher award’** of the Chaitanya group of institutions in the year 2012.
- Awarded as **‘The Best outgoing Student’** of Vel’s College of Pharmacy for the year 2006-2007 by the Vael’s Educational trust.
- Received the **‘The Best Research Project award’** of Vel’s College of Pharmacy for the year 2006-2007 by the Vael’s Educational trust.
- Qualified in the GATE Examination conducted by Indian Institute of Technology, Delhi with 90 percentile.
- Recipient of scholarship under AICTE scheme for M.Pharm during the academic year 2005 to 2007.