Subramanian Natesan, Ph. D

Associate Professor, Department of Pharmaceutical Technology,
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Educational Qualification

- **Ph. D. in Pharmacy -** February 2005 - Jadavpur University, Kolkata, India.
- **M. Pharmacy in Industrial Pharmacy -** January 1998 - Annamalai University, Chidambaram, India.
- **B. Pharmacy -** October 1994 - Tamil Nadu Dr. M. G. R Medical University, Chennai.
- **Diploma in Chemical Process Instrumentation & Control** - May 1996- Annamalai University, Chidambaram, India.

Teaching Experience: 20 Years

Research Experience: 18 Years

Post-doctoral research

- Visiting Research Scientist (BOYSCAST Fellow) at the Division of Pharmaceutical Sciences, School of Pharmacy, University of Missouri - Kansas City, March 2007 – March 2008.

Positions Held

- Zonal Co-ordinator, Zone 12, Anna University, BIT Campus, Tiruchirappalli, July 2015 – March 2016
- Zonal Officer, Zone XII, Anna University, BIT Campus, Tiruchirappalli , October -2013- June 2014
- Dean i/c, University College of Engineering, Ariyalur, Kathankudikadu, Ariyalur, Sep 2012 - Sep 2013
- Head i/c, Department of Pharmaceutical Technology, Anna University of Technology Tiruchirappalli, Tiruchirappalli -24, May 2010 – August 2010

Honours and Awards

- Best Innovation Award, 2013, Anna University, Chennai
- BOYSCAST Fellowship, Department of Science and Technology, New Delhi, 2006-07.
- Young Scientist Fellowship Award, October - December 2006 - Tamilnadu State Council for Science and Technology, Chennai, India

- Research Fellowship, June 2000 - July-2004 - All India Council for Technical Education, New Delhi
- Associate Fellow of Indian Institution of Chemist, Kolkata, India

Research Grants Received

Ongoing Projects

S. No	Role	Title of the project	Funding agency	Sanctioned Amount (in Lakhs)	Duration
1.	Principle Investigator	Resveratrol and catechins-loaded niosomes and nanoparticles as delivery vehicles for fortification of milk and milk products **(Joint Project with NDRI, Bangalore)**	NASF, New Delhi	28.85	2017-2010
2.	Co-investigator	National Facility on Bioactive Peptides from Milk **(Joint Facility with NDRI, Bangalore)**	DST, New Delhi	167.16	2017-2019
3.	Co-investigator	Chemoprevention of Toxic Effects of Transition Metal Nanomaterials by Targeting Inflammatory miRNAS Using Dietary Polyphenolic Compounds.	DHR-ICMR, New Delhi	43.33	2016-2019
4.	Co-investigator	Designing Minicircle Vector for Tumor Specific Co-Expression Of **shRNA** and Transgene for Improved Cancer Gene Therapy	DST, New Delhi	55.65	2014-2017
5.	Co-investigator	National Facility on Drug Development for Academic Institutions, Pharmaceutical and Allied Industries	DST, New Delhi	600.00	2010-2017
Completed Projects					
1.	Principle Investigator	Targeted delivery of Camptothecin using polymer stabilized nanoemulsions for the improved treatment of breast cancer	DST- SERB, New Delhi	25.58	2013-2017

2.	Principle Investigator	Development of Biodegradable Temperature and pH Responsive Hybrid Polymer-Peptide System for the Efficient Intraocular Delivery of Drugs	DBT, New Delhi	58.50	2012-2016
3.	Co-investigator	Simultaneous silencing of multiple pro-angiogenic factors to suppress tumor-induced angiogenesis	DBT, New Delhi	72.66	2010–2014
4.	Principle Investigator	Development, characterization and biological evaluation of microemulsion and lipid dispersion for drug delivery and detoxification	DST - SERC, New Delhi	20.77	2008-2012
5.	Co-investigator	Nanocomplexes for the targeted drug delivery to the inflamed site of lungs	DST-Nanomission, New Delhi	32.14	2010-2013

Patents Obtained

- Mitra A.K., Velagaleti P. and Natesan S., Ophthalmic compositions comprising calcineurin or m-TOR inhibitors. US Patent No. 8,535,694 B2, September 17, 2013

Patent Filed

- Mitra A.K., Velagaleti P. and Natesan S., Ophthalmic compositions comprising calcineurin or m-TOR inhibitors.
    - US Patent publication No. 20090092665, Date: 09.04.2009
    - PCT Publication No. WO/2009/048929 , Date: 16.04.2009
    - Indian patent Publication No. 1220/KOLNP/2010 Date : 30.06.2010
- Subramanian. N, Abimanyu. S, Chandrasekar. P., Method and composition for solublization of hydrophobic compounds. Indian provisional application No. 1423/CHE/2011 Date: 25.04.2011

Books :

Nanobio Pharmaceutical Technology – Applications and Perspectives'. Published by ELSEVIER (A division of Reed Elsevier India Pvt. Ltd. Year of Publishing: 2014. ISBN : 978-17 935-107-293-5

Number of Research Publications / Review articles : 53 / 5

Book Chapter Published: 15

Papers Published in Peer Reviewed Conference Proceedings: Two

Number of P.G. Projects guided – 24

Number of Ph. D students: Guided - 6 and on progress – 4

Papers Presented at Conferences/ Symposium: International: 7 National: 12

Number of Invited Lectures Delivered: 52

Reviewer: Journal of Microencapsulation, AAPS Pharm. Sci. Tech
Drug Delivery, Artificial cells, Nanomedicine and Biotechnology
Journal of Drug Targeting, Analytical Chemistry Letters
Journal of Molecular Structure, Bioavailability and Bioequivalence
Analytical Letters, Pacific Science Review A: Natural Science and Engineering

Seminar/ Course Organized: Eight

Conference Attended

- International Conference / Symposium – 8
- National Conference / Seminar / Convention - 30

Membership in Professional Organizations

- Association of Pharmaceutical Teachers of India (Life Number)
- Indian Pharmaceutical Association (Life Member)
- The Indian Pharmacist Association (Life Member)
- Indian Association of Pharmaceutical Scientists and Technologist (Life Member)
- Indian Association of Hospital Pharmacist (Life Member)

Publications

Citation indices	All	Since 2012
Citations	663	484
h-index	13	12
i10-index	17	14

1. Venkateshwaran K, Chandrasekar P, Senthilkumar S, Muthuselvam M, Madiyalakan M, Ruckmani K, Rajaguru P, Subramanian N. Development of copolymeric nanoparticles of hypocrellin B: Enhanced phototoxic effect and ocular distribution. European Journal of Pharmaceutical Sciences, 2017 (In press).
2. Abimanyu S, Chandrasekar P, Palanivel K, Venkateshwaran K, Rajaguru P, Ruckmani K, Manikandan L, Subramanian N. Development and evaluation of camptothecin loaded polymer stabilized nanoemulsion: Targeting potential in 4T1-breast tumour xenograft model, European Journal of Pharmaceutical Sciences, 2017 (In press)
3. Antoniraj MG, Mahesh A, Kumari HLJ, Goutham NR, Subramanian N, Sathish SD, Ruckmani K. Chitosan-graft-mPEG based 5-Fluorouracil loaded polymeric nanoparticles for tumor targeted drug delivery, Drug Development and Industrial Pharmacy, 2017, (In press, IF- 2.295)
4. Subramanian N, Saravanakmar P, Chandrasekar P, Rajaguru P, Sivakumar M and Ruckmani K. Co-encapsulated resveratrol and quercetin in chitosan and peg modified chitosan nanoparticles: for efficient intra ocular pressure reduction. International Journal of Biological Macromolecules, 2017, 104,1837-1845. (IF- 3.138)
5. Subramanian N, Abimanyu S, Chandrasekar P, Rajaguru P, and Ruckmani K. Chitosan stabilized camptothecin nanoemulsions: Development, evaluation and biodistribution in preclinical breast cancer animal model. International Journal of Biological Macromolecules, 2017,104, 1846-1852. (IF- 3.138)
6. Subramanian N, Chandrasekar P, Abimanyu S, Senthilkumar C, Sharavanan S P, and Rajaguru P. Artemisinin loaded chitosan magnetic nanoparticles for the efficient targeting to the breast cancer. International Journal of Biological Macromolecules 2017, 140, 1853-1859. (IF- 3.138)
7. Dhamotharan P, Ayyanar S, Venkateshwaran K, Lakshmanan L, Rajaguru P, Subramanian N, Karthikeyan M, Rajasekaran S. Tannic acid Attenuates TGF-β1-induced Epithelial-to-mesenchymal Transition by Effectively Intervening TGF-β Signaling in Lung Epithelial Cells, Journal of Cellular Physiology, 2017, (In press, IF- 4.08)
8. Senthil Kumar C, Chandra Sekar P, Sharavanan SP, Narendhar C & Subramanian N. Development of Rutin Suspension and Evaluation of Corneal Permeation across the Goat Cornea, Journal of Chemical and Pharmaceutical Sciences, 2017, 10, 1082-1085.
9. Subramanian N, Venkateshwaran K, Chandrasekar P, Madi M, Thomas Woo, Rajaguru P. Hypocrellin B and nano silver loaded polymeric nanoparticles:

Enhanced generation of singlet oxygen for improved photodynamic therapy. Materials Science and Engineering: C, 2017, 77, 935–946 (IF- 4.18)

10. MG Antoniraj, CS Kumar, HLJ Kumari, S Natesan, R Kandasamy Atrial natriuretic peptide-conjugated chitosan-hydrazone-mPEG copolymer nanoparticles as pH-responsive carriers for intracellular delivery of prednisone. Carbohydrate Polymers, 2017, 157, 1677-1686 (IF- 4.811)
11. S Pandian, V Jeevanesan, C Ponnusamy, S Natesan. RES-loaded pegylated CS NPs: for efficient ocular delivery. IET Nanobiotechnology, 2016, 11 (1), 32-39. (IF-1.541)
12. D Ramyadevi, KS Rajan, BN Vedhahari, K Ruckmani, N Subramanian. Heterogeneous polymer composite nanoparticles loaded in situ gel for controlled release intra-vaginal therapy of genital herpes. Colloids and Surfaces B: Biointerfaces, 2016, 146, 260-270. (IF- 3.902)
13. Subramanian N, Sharavanan SP, Chandrasekar P, Balakumar A, Moulik SP. Lacidipine self-nanoemulsifying drug delivery system for the enhancement of oral bioavailability. Arch Pharm Res. 2016, 39(4):481-91. (IF- 2.49, Citation - 1).
14. P.Renuga Devi, C.Senthil Kumar, P.Selvamani, N.Subramanian and K.Ruckmani. Synthesis and characterization of Arabic gum capped gold nanoparticles for tumor-targeted drug delivery. Material Letters, 2015, Vol. 139, 241-244 (IF- 2.26, Citations-8)
15. R. Sankar, S. Karthika, N. Subramanian, K. Venkateshwaran, J. Sonnemannc, V. Ravikumar. Nanostructured delivery system for Suberoylanilide hydroxamic acid against lung cancer cells. Materials Science and Engineering: C, 2015, Vol. 51, 362-368 (IF- 3.42, Citations – 3)
16. Senthil Kumar P, Arivuchelvan A, Jagadeeswaran A, Subramanian N, Senthil Kumar C, Mekala P. Formulation, Optimization and Evaluation of Enrofloxacin Solid Lipid Nanoparticles for Sustained Oral Delivery. Asian J Pharm Clin Res, Vol 8, Issue 1, 2015, 231-236
17. K. Venkateshwaran, P.Chandrasekar, S. Senthilkumar, P. Muthuselvam, P. Rajaguru and N. Subramanian. Quantification of Hypocrellin B in Rabbit Ocular Tissues / Plasma by Spectrofluorimeter: Application to Biodistribution Study. *Current Bioactive Compounds* 2014, *10,* 245-253
18. Gobinath M, Subramanian N, Nivedhitha S, Alagarsamy V. Synthesis of 1-substituted-4-(pyridine-4-yl) [1,2,4] triazolo [4,3-α] quinazolin-5(4H)-ones as a new class of H_1-antihistaminic agents. Trop J Pharm Res., 2014. 14, 271-277 (IF-0.5, Citations-6)
19. Subramanian N, Abimanyu S, Chandrasekar P,Vinoth J,Gangarani G, Rajaguru P. Development and Evaluation of Magnetic Microemulsion: Tool for Targeted Delivery of Camptothecin to BALB/c mice bearing Breast Cancer. J Drug Target. 2014, 22,913-926 (IF-2.768, Citations - 2)
20. Gobinath M, Subramanian N, Alagarsamy V. Design, Synthesis and H1-Antihistaminic Activity of Novel 1-substituted-4-(3-chlorophenyl)-[1,2,4] triazolo

[4,3-a] quinazolin-5(4H)-ones. Journal of Saudi Chemical Society. 2015, 19 (3), 282-286 (I.F- 1.288, Citations-8).

21. Subramanian N, Jothimanivannan C, Senthilkumar R, Kameshwaran S. Sedative and Hypnotic Activity of Ethanolic Extract of *Justicia Gendarussa Burm*. International Journal of Phytopharmacology. 2014; 5(5):354-357.
22. Chandrasekar P, Venkateshwaran K, Abimanyu S, Subramanian N. Simultaneous Estimation of Artemisinin and Dexamethasone in Nanodispersions and Assessment of *Ex-vivo* Corneal Transport Study by RP- HPLC. Current Pharmaceutical Analysis. 2014; *10,* 44-50 (IF- 1.333, Citation - 1).
23. Subramanian N, Jothimanivannan C, Senthil Kumar R, Kameshwaran S. Evaluation of Anti-anxiety Activity of Justicia gendarussa Burm. Pharmacologia. 2013;4(5):404-407.
24. Ramalingam N, Natesan G, Dhandayuthapani B, Perumal P, Balasundaram J, Natesan S. Design and characterization of ofloxacin niosomes. Pak J Pharm Sci., 2013, 26(6):1089-96. (IF- 1.333, Citation - 3).
25. Subramanian N, Abimanyu S, Chandra Sekar P, Sivakumar M, Varun Y, Vinoth J. Efficient Delivery of Dexibuprofen Using Nanocrystals. Advanced Materials Research. 2013; 678: 281-285.
26. Subramanian N, Chandra Sekar P, Abimanyu S, Sharavanan SP, Gayathri R, Meenakshi A, Nithyakalyani M. Improved Oral Delivery of Rosuvastatin by Using Self Nanoemulsifying Drug Delivery System. Advanced Materials Research. 2013; 678: 286-290.
27. Kiruba Daniel SCG, Vinothini G, Subramanian N, Nehru K, Sivakumar M. Biosynthesis Of Cu, Zvi, and Ag Nanoparticles using *Dodonaea Viscos*a Extract for Antibacterial Activity Against Human Pathogens. Journal of Nanoparticle Research. 2013;15(1):1319 (IF- 2.175, Citations-23)
28. P Rajeevkumar, N Subramanian, R Rajeevkumar Development of Difference Spectroscopic Method for the Estimation of Lincomycin Hydrochloride in Bulk and Pharmaceutical Solid Dosage forms. 2013, Journal of Pharmaceutical Research 12 (1), 1-4.
29. Nepolean.R, Narayanan.N Subramaniyan.N, Venkateswaran.K and Vinoth.J. Preparation and characterization of nisoldipine nanoparticles by nanoprecipitation method. Journal of Pharmaceutical Sciences and Research. 2012, 4 (11), 1989-1994.
30. Nepolean R, Narayanan N, Subramanian N, Venkateswaran K, Vinoth J. Colon Targeted Methacrylic Acid Copolymeric Nanoparticles for Improved Oral Bioavailability of Nisoldipine. International Journal of Biological and Pharmaceutical Research. 2012;3(8):962-967 (Citations – 5)
31. Gobinath M, Subramanian N, Alagarsamy V. Anticancer and Antitubercular Study of Some 1,4-disubstituted [1,2,4]-triazolo [4,3-a] quinazolin-5(4H)-ones. International Journal of Research in Pharmaceutical Sciences. 2012;3(1):146-149. (Citations – 6)

32. N Subramanian, C Jothimanivannan, K Moorthy. Antimicrobial activity and preliminary phytochemical screening of Justicia gendarussa (Burm. F.) against human pathogens. Asian Journal of Pharmaceutical and Clinical Research, 2012, 5 (3), 229-233.

33. Nethaji R, Gopal N, Surya Prakash TNK, Jayakar B, Subramanian N. Formulation and Evaluation of Gatifloxacin Niosomes using Sorbitan Monoesters. Acta Pharmaceutica Sciencia. 2011;53: 619-34

34. Subramanian N, Devipriyadharshini T, Venkateshwaran K, Chandrasekar P. Improved RP-HPLC Method for the Simultaneous Estimation of Tranexamic Acid and Mefenamic Acid in Tablet Dosage Form. Pharmaceutica Analytica Acta. 2011; 2:115. (Citations-18)

35. Subramanian N, Devipriyadharshini T, Venkateshwaran K, Chandrasekar P. Spectrophotometric Determination of Tranexamic Acid and Mefenamic Acid in Tablet Dosage Form Using Derivatization Technique. International Journal of Pharmaceutical and Biomedical Research. 2011; 2(1):26-29. (Citations-5)

36. Subramanian N, Rameshkumar L, Venkateshwaran K, Abimanyu S. Simultaneous Estimation of Cefixime and Ofloxacin in Tablet Dosage form by RP- HPLC. International Journal of research in Pharmaceutical Sciences. 2011; 2(2):219-224.(Citations-6)

37. P.Rajeevkumar, N.Subramanian, Spectrophotometric Method for the determination of lincomycin hydrochloride in pure form and pharmaceutical formulations, 2010, International Journal of Chem.Tech. Research, Vol.2, 2052-2055.

38. K. G. Janoria, Sai. H. S. Boddu, N. Subramanian, A.K. Mitra. Vitreal Pharmacokinetics of Peptide-Transporter-Targeted Prodrugs of Ganciclovir in Conscious Animals, 2010, Journal of Ocular Pharmacology and Therapeutics, Vol. 26, 265-271 (IF- 1.293).

39. S. Gupta, N. Subramanian, A. Acharya, S. Datta, S. P. Moulik. Development and *in - vitro* Characterization of Cholesterol Nanodispersed Vehicle for the Delivery of Lipophilic Drugs. 2010, Journal Pharmacy Research, Vol. 3, 2808 – 2810 (IF- 2.667, Citations- 2).

40. C. Senthil Kumar, B.N. Vedha Hari., S.P. Sharavanan, N. Subramanian, S. Punitha, V. Senthil Kumar. Novel Metronidazole Nanosuspension as a Controlled Drug Delivery System for Anthelmintic Activity. 2010, Journal Pharmacy Research, Vol.3, 2404-2407 (IF- 2.667).

41. C. Jothimanivannan, R.S. Kumar and N. Subramanian**.** Anti-Inflammatory and Analgesic Activities of Ethanol Extract of Aerial Parts of Justicia gendarussa Burm. 2010, International Journal of Pharmacology, Vol.6., 278-283 (IF- 1.20, Citation - 44).

42. V. Ravichandran, G. Arunachalam, N. Subramanian and B. Suresh. Pharmacognostical and phytochemical investigations of *Moringa concanensis* (Moringaceae) an ethno medicine of Nilgiris, 2009, Journal of Pharmacognosy and Phytotherapy, Vol.6, 76-81.

43. G. Arunachalam, N. Subramanian, G.P. Pazhani, M. Karunanithi and V. Ravichandiran. Phytochemical and anti-ulcer investigations of the fresh leaf extract of ***Ixora coccinea*** Linn (Rubiaceae) in albino rat model, 2009, International Journal of Pharmaceutical Sciences, Vol.1, 26-31. (Citations-9)

44. G. Arunachalam, N. Subramanian, G.P. Pazhani, and V. Ravichandiran. Anti-inflammatory Activity of Methanolic Extract of *Eclipta prostrata* L (Astearaceae), 2009, African Journal of Pharmacy and Pharmacology, Vol. 3, 097-100. (Citations-36)

45. AK Mitra, S Natesan, S Hariharan, M Minocha, BC Gilger, CP Moore, SL Weiss, P Velagaleti. Development and characterization of a clear, mixed micellar formulation of LX211, a next-generation calcineurin inhibitor, for treatment of dry eye syndrome. Investigative Ophthalmology & Visual Science, 2008, 49(13), 114 (IF- 3.427, Citations-2)

46. G. Arunachalam, N. Subramanian, G.P. Pazhani, S. Hemalatha and V. Ravichandiran. Anxiolytic, antidepressant and anti-inflammatory activity of methanol extract of leaves of Momordica charantia Linn (Cucurbitaceae). Iranian Journal of Pharmacology & Therapeutics, Vol. 7, 2008, 43-47. (Citations-16)

47. Subramanian N, Ghosal SK, Moulik SP. Enhanced In Vitro Percutaneous Absorption And in Vivo Topical Anti-Inflammatory Effect of a Selective Cyclooxygenase Inhibitor Using Microemulsions, Drug Development and Industrial Pharmacy. 2005; 31:405-416. (IF-1.539, Citations-60)

48. Subramanian N, Ghosal SK, Acharya A, Moulik SP. Formulation and Physicochemical Characterization of Microemulsion System Using Isopropyl Myristate, Medium- Chain Glyceride, Polysorbate 80 and Water. Chemical and Pharmaceutical Bulletin. 2005; 53(12):1530-1535. (IF-1.564, Citations-24)

49. Subramanian N**,** Ray S, Ghosal SK, Bhadra R, Moulik SP. Formulation Design of Self-Microemulsifying Drug Delivery Systems for Improved Oral Bioavailability of Celecoxib. Biological and Pharmaceutical Bulletin. 2004; 27(12):1993-1999. (IF-1.849, Citations-154)

50. Subramanian N, Ghosal SK, Moulik SP. Topical Delivery of Celecoxib Using Microemulsion. Acta Poloniae Pharmaceutica - Drug Research. 2004; 61(5): 335-341. (IF-0.67, Citations-17)

51. Pazhani GP, Subramanian N, Arunachalam G, Hemalatha S, Ravichandiran V. Anti-Diarrhoeal Activity of *Elephantopus scaber Linn* Leaf Extract. Indian Drugs. 2001;38(3): 129-131. (IF-, Citations-21)

52. Hemalatha S, Subramanian N, Ravichandiran V, Chinnaswamy K. Wound Healing Activity of *Indigofera enneaphylla* Linn. Indian Journal of Pharmaceutical Sciences. 2001; 63(4) 331-333. (IF-0.338, Citations-31)

53. G.P. Mohanta and N. Subramanian. Formulation and evaluation of film forming Chlorhexidine Gluconate gels, Indian Drugs, 2000, Vol. 37, 561-565. (Citations-3)

Review Articles

1. P. Manikandan, N. Subramanian. Improving Solubility and Bioavailability of Poorly Water Soluble Drugs by Solid Dispersion Technique – A Review. Int. J. Pharm. Sci. Rev. Res., 2013, 23(1), 220-227
2. Kumaresan C, Subramanian N, Gover Antoniraj M, Ruckmani K. Dry Powder Inhaler - Formulation Aspects. Pharma Times. 2012;44(10):14-18. (Citations – 3)
3. G.Arunachalam, M.Karunanithi, N.Subramanian, V.Ravichandran and S. Selvamuthukumar. Ethno Medicines of Kolli Hills at Namakkal District in Tamilnadu and its significance in Indian Systems of Medicine. Journal of Pharmaceutical Sciences and Research. 2009, Vol.1., 1-15. (Citations – 12)
4. V Ravichandran, G Arunachalam, N Subramanian, B Suresh. Contraception and its significance in Traditional System of Medicines. International journal of pharmaceutical sciences, 2009, 1, 1-21. (Citations – 8)
5. N Subramanian, SK Ghosal. Enhancement of gastrointestinal absorption of poorly water soluble drugs via lipid based systems. Indian J. Exp. Biol., 2004, 42 (11), 1056-65. (Citations – 7)

Book chapters

1. Sharavanan S. P., Chandrasekar P., Senthilkumar C., Abimanyu S., Venkateshwaran K., and Subramanian N. (2015). Design and development of self nanoemulsifying drug delivery systems of raloxifene hydrochloride. In Bio-Nanomaterials for Biomedical Technology, Eds. V. Rajendran, P. Prabu, K. E. Geckeler. Bloomsbury Publishing India Pvt. Ltd., New Delhi. Chapter 18; 57-61.
2. Senthilkumar C., Sharavanan S. P., Chandrasekar P., Saravanakumar P. and Subramanian N. (2015). Formulation development and evaluation of solid lipid nanoparticles: as ocular drug delivery system for anti-gluacoma drugs. In Bio-Nanomaterials for Biomedical Technology, Eds. V. Rajendran, P. Prabu, K. E. Geckeler. Bloomsbury Publishing India Pvt. Ltd., New Delhi. Chapter 19; 61-64.
3. Saravanakumar P., Chandrasekar P. and Subramanian N. (2015). Resveratrol loaded chitosan/PEGylated chitosan nanoparticles: for efficient ocular delivery. In Bio-Nanomaterials for Biomedical Technology, Eds. V. Rajendran, P. Prabu, K. E. Geckeler. Bloomsbury Publishing India Pvt. Ltd., New Delhi, Chapter 20; 68-68.
4. Preethi S., Vaishnavi S., Sivakumar M. and Subramanian N. (2015). Green synthesis of copper oxide nanostructures using *Morinda Citrifolia* L. fruit extract: Optical and electrical studies. In Bio-Nanomaterials for Biomedical Technology, Eds. V. Rajendran, P. Prabu, K. E. Geckeler. Bloomsbury Publishing India Pvt. Ltd., New Delhi. Chapter 21; 69-73.
5. Senthil kumar P., Arivuchelvan A., Jagadeeswaran A., Subramanian N., Senthilkumar C. And Mekala P. (2014). Pharmacokinetics of enrofloxacin loaded solid lipid nanoparticles following oral administration in Emu (*dromaius novaehollandiae*) birds. Nanomaterials section in Nanobio Pharmaceutical Technology, Eds. S. Latha, P.

Selvamani, N. Subramanian. Reed Elsevier India Pvt. Ltd., New Delhi. Chapter 21; 149-156.

6. Sharavanan S. P., Chandrasekar P., Sanjai K., Padma@Rajam, Suriyakanth R. and Subramanian N. (2014). Development and evaluation of artemisinin magnetic nanosponges for targeting breast cancer. Nano drug delivery systems section in Nanobio Pharmaceutical Technology, Eds. S. Latha, P. Selvamani, N. Subramanian. Reed Elsevier India Pvt. Ltd., New Delhi. Chapter 12; 286-292.
7. Saravanakumar P., Vinoth J., Chandrasekar P. and Subramanian. N (2014). Quercetin loaded chitosan / peg nanoparticles: formulation and in vitro characterization. Nano drug delivery systems section in Nanobio Pharmaceutical Technology, Eds. S. Latha, P. Selvamani, N. Subramanian. Reed Elsevier India Pvt. Ltd., New Delhi. Chapter 13; 293-298.
8. Vinoth J., Sharavanan S. P., Senthil kumar C., Dhinakaran P. and Subramanian N. (2014). Cancer targeting with artesunate magnetic nanoparticles encapsulated with thermo-responsive polymers. Nano drug delivery systems section in Nanobio Pharmaceutical Technology, Eds. S. Latha, P. Selvamani, N. Subramanian. Reed Elsevier India Pvt. Ltd., New Delhi. Chapter 14; 299-306.

9. Senthilkumar P., Arivuchelvan A., Jagadeeswaran A., Subramanian N., Senthil kumar C. and Mekala P. (2014). Development and sustainable release evaluation of enrofloxacin solid lipid nanoparticles. Nano drug delivery systems section in Nanobio Pharmaceutical Technology, Eds. S. Latha, P. Selvamani, N. Subramanian. Reed Elsevier India Pvt. Ltd., New Delhi. Chapter 19; 340-347.
10. Subramanian N., Chandra Sekar P., Abimanyu S., Sharavanan S. P., Nandagopal M., Vijula Rani D. and Jamuna Rani N. (2012). Development and evaluation of propellant free quick break foam forming clobetasol propionate nanoemulsion for efficient treatment of psoriasis. In Nano Biomaterials, Eds. V. Rajendran, P. Prabu, K. E. Geckeler. Bloomsbury Publishing India Pvt. Ltd., New Delhi. Chapter 23; 77-82.
11. Subramanian N., Chandra Sekar P., Abimanyu S. and Venkateshwaran K. (2012). Design and development of artemisinin and dexamethasone topical nanodispersion for the effective treatment of age related macular degeneration. In Nano Biomaterials, Eds. V. Rajendran, P. Prabu, K. E. Geckeler. Bloomsbury Publishing India Pvt. Ltd., New Delhi. Chapter 26; 95-100.

12. Subramanian N., Vinoth J., Vanitha K. and Sivasankari G. (2012). Temperature and pH responsive in situ gel forming nanodispersions for efficient ocular delivery of ibuprofen. In Nano Biomaterials, Eds. V. Rajendran, P. Prabu, K. E. Geckeler. Bloomsbury Publishing India Pvt. Ltd., New Delhi. Chapter 50; 241-248.
13. Subramanian. N, Balakumar. A, Sharavanan. S.P, Abimanyu. S, Venkateshwaran. K and Syamasri Gupta. (2010). Formulation Development and In-Vitro Characterization of Self-Nanoemulsifying Drug Delivery System for Anti-Hypersensitive Drug. In Biomedical applications of nanostructured materials, Eds. V. Rajendran, B. Hillebrands, P. Prabu, K. E. Geckeler, Macmillan Publishers India Ltd., New Delhi. Chapter 71; 369-374.

14. Subramanian N., Augustin Fernando M., Abimanyu S., Chandrasekar P Syamasri Gupta, and Moulik S. P., (2010). Transdermal delivery of indomethacin using clove oil nanoemulsion. In Biomedical applications of nanostructured materials, Eds. V. Rajendran, B. Hillebrands, P. Prabu, K. E. Geckeler, Macmillan Publishers India Ltd., New Delhi. Chapter 72; 375-380.
15. Manikandan., G. P. Senthil Kumar, and **N. Subramanian, (**2006). Beneficial effects of tea in cancer. **I**n **Advances in Medicinal Plants, Vol. II,** Eds. N.D. Prajapati, Tarun Prajapati and Sushma Jajpura. Asian Medicinal Plants and Health Care Trust, Jodhpur, India.