

## Staff Profile- Dr K. Venkateshwaran

<b>Name</b>	<b>Dr K. Venkateshwaran</b>
<b>Designation</b>	<b>Chief Scientific Coordinator</b>
<b>Department</b>	<b>Central Research Laboratory</b>
<b>Area of Expertise</b>	<b>Nano Drug Delivery</b>
<b>Educational Qualifications (College/University Name, Year of Completion/Grade/Percentage) B Pharm M Pharm PhD</b>	<b>PhD - December 2015- Anna University, BIT Campus, Tiruchirappalli, Tamilnadu, India- A Grade. M. Pharm (Pharmaceutical Biotechnology) - February 2008 - Dr. M. G. R Medical University Chennai, Tamil Nadu, India- 81.3 % B. Pharm- April 2006- Dr. M. G. R Medical University Chennai, Tamil Nadu, India- 73.3%.</b>
<b>Experience (Teaching/ Research/Industry)</b>	<b>14 Years 10 months</b>
<b>E mail</b>	<b>venkpharm1@gmail.com</b>
<b>Mobile</b>	<b>9943564836</b>
<b>Date of joining</b>	<b>01.09.2022</b>

### **Fellowships received**

**Young Scientist Fellowship, Anna University BIT campus, Tiruchirappalli**

### **Honours and Awards received**

- Young Scientist Award- Department of Health Research, New Delhi- 2019-2022
- Best Researcher Award- 2021, VD GOOD Technology Factory, Trivandrum
- Young Scientist award- 2019- Crescent Institute of Technology, Chennai- TNSCST, Chennai sponsored.
- Best Oral Presentation award- Second Prize- Anna University, BIT campus, Trichy
- Academic Excellence Award for securing (1<sup>st</sup> Rank) in the M Pharm examinations held by Dr. M. G. R University- 2007.
- Author Credit Award- For Research Publication in Pharmaceutica Analytica Acta.

## Conference Presentations

1. **Venkateshwaran. K.**, Subramanian. N., Saravanakumar. A., Vanitha. J., De Clercq E. Antiviral and cytotoxic activities of methanolic extract of *Sesbania grandiflora* (Fabaceae) flowers. Indian Pharmaceutical Association Convention- 2010, 13- 14 Mar 2010, Chennai.
2. Saravanakumar. A., **Venkateshwaran. K.**, A. Mazumder, Kamalakannan. K., Saravanan. V. S., Vanitha. J., Sivakumar. T. Analgesic and anti-inflammatory activities of the methanolic flower extract of *Cassia auriculata*. TIPS- 2007, 30- 31 Oct 2007, Annamalai University, Tamilnadu.
3. Saravanakumar. A., **Venkateshwaran. K.**, Mazumder. A., Saravanan. V. S., Vanitha. J., Sivakumar. T., Antibacterial activities of methanolic extract of *Thespesia populnea* (Malvaceae) flowers. 59<sup>th</sup> Indian Pharmaceutical Congress, 20- 23 Dec 2007, Varanasi.
4. **Venkateshwaran. K.**, Saravanakumar. A., Saravanan. V. S., Sengottuvelu. S., Sivakumar. T., Vanitha. J., Antihyperlipidemic activity of *Sesbania grandiflora* in atherogenic diet induced hyperlipidemic rats. Indian Pharmacy Graduates Association, 4- 5 Nov 2006, Chennai.
5. Venkateshwaran Krishnaswami, Subramanian Natesan, Shanmugarathinam Alagarsamy and Ruckmani Kandasamy. Proteomics of antimicrobial peptides isolated from Aloe Vera. RNA Meet 2019, RGCB Trivandrum.

### (as Coauthor)

6. R. Ambika, A. Jhansi, R. Karpagam, M. Sowmiya Devi, R. Vanitha<sup>1</sup>, **K. Venkateshwaran** and T. Tirunalasundari. Environmental hazards- a cause for lung cancer and its current treatment approaches - a review. International conference on environment and health in changing climate, Sep 14- 16 2016, Bharathidasan University, Trichy.
7. Abdul Haq Ottakath, Aditya. R, Harini. K, Mahesh Prabu. E, **K. Venkateshwaran** and T. Thirunalasundari. Urine based microbial fuel cells, its scope and its drawbacks a review. International conference on environment and health in changing climate, Sep 14- 16 2016, Bharathidasan University, Trichy.
8. T. K. Subha Veena Sree, **K. Venkateshwaran** and T. Tirunalasundari. Colchicine the active component from *Colchium autumnale* and its modified formulations for Hepatocellular carcinoma treatment- a review. International conference on environment and health in changing climate, Sep 14- 16 2016, Bharathidasan University, Trichy.
9. Dhilin Pathayappurakkal Mohanan, **Venkateshwaran Krishnaswami**, Saranya Thekkilaveedu, Subramanian Natesan, Ruckmani Kandasamy. RP-HPLC method to estimate lactoferricin b: application to evaluate the skin permeation. IICPT, Tanjavur.

10. Saranya Thekkilaveedu, **Venkateshwaran Krishnaswami**, Dhilin Pathayappurakkal Mohanan, Subramanian Natesan, Ruckmani Kandasamy. Lactic acid mediated isolation of alpha, beta and kappa casein fractions from defatted cow milk. IICPT, Tanjavur.
11. Saranya Thekkilaveedu, **Venkateshwaran, Krishnaswami**, Dhilin, Pathayappurakkal Mohanan, Subramanian Natesan, Ruckmani Kandasamy. Isolation of novel bioactive peptides from whole casein using pepsin. International seminar on Innovative Technologies in Pharmaceutical Sciences (PHARMALIMS 2018)- ELIMS college of pharmacy, Villadam, Thrissur, 05 October 2018.
12. Dhilin Pathayappurakkal, Mohanan, **Venkateshwaran, Krishnaswami**, Saranya, Thekkilaveedu, Subramanian Natesan, Ruckmani Kandasamy. Development of novel lactoferricin b loaded w/o nanoemulsion for the effective treatment of melanoma. International seminar on Innovative Technologies in Pharmaceutical Sciences (PHARMALIMS 2018)- ELIMS college of pharmacy, Villadam, Thrissur, 05 October 2018.

#### **Conferences/Workshops attended**

- International/National Conferences/Seminar/Symposium - 24 Nos
- Faculty Development Programme and workshops organized - 2 Nos

#### **Research Publications (53 Publications + 2 Magazines+ 17 Book Chapters)**

##### **h index- 17**

1. Abdul Azeez Nazeer\*, bKrishnaswami Venkateshwaran, Kandasamy Ruckmani, Muthupandian Saravanan and Vijaykumar Sudarshana Deepa. Importance of Nano-carriers, Surfactant System, and their Loading Mechanism to Improve the Absorption and Bio-availability of Drugs: A Review. Advances in Natural Sciences: Nanoscience and Nanotechnology, 2024,
2. Jeseeta Suresh, Nirmal Aravindaraj, **Venkateshwaran Krishnaswami**, Ruckmani Kandasamy. Oral film technology: a perspective on translational research and clinical studies. Macromolecular Research, 2023, 1- 16 Impact Factor- 2.4).
3. Brito Raj S, Akilandeswari S, Lakshmi K, Venkateshwaran K, Uma Devi, Shaheedha, 2023. Investigating the influence of lipids on nanostructured lipid carrier formulation. Journal of medical pharmaceutical and allied sciences, V 12 - I 6, Pages - 6147 - 6154.

4. S Muruganantham, **Venkateshwaran Krishnaswami**, R Kandasamy, S Alagarsamy. Potentiating the solubility of BCS class II drug zaltoprofen using nanodispersion technology. *Journal of Dispersion Science and Technology*, 2023, 1-10.
5. **Venkateshwaran Krishnaswami**, Balakrishnan Natarajan, Vaidevi Sethuraman, Subramanian Natesan and Brito RajSelvaraj. Nano based Photodynamic Therapy to Target Tumor Microenvironment. *Nano Trends*, 2023 (Accepted).
6. **Venkateshwaran Krishnaswami**, Balakrishnan Natarajan, Saravanakumar Arthnari, Jeseeta Suresh and Nirmal Aranvindaraj. Insights on Bioactive Peptide-loaded Nanoformulations. *Current Biotechnology*, 2023 (Accepted).
7. FathimaBanuRaza,SivakumarVijayaraghavalu,RuckmaniKandasamy,**Venkateshwaran Krishnaswami**, AnandKumar V. Microbiome and the inflammatory pathway in peri-implant health and disease with an updated review on treatment strategies. *Journal of Oral Biology and Craniofacial Research*. Volume 13, Issue 2, March–April 2023, Pages 84-91.
8. Selvakumar Muruganantham, **Venkateshwaran Krishnaswami**, Shanmugarathinam Alagarsamy and Ruckmani Kandasamy. Overview of High-Performance Thin Layer Chromatography and its Applications in Pesticide Analysis. *Current Analytical Chemistry*, 2023 (Accepted).
9. C. Senthil Kumar, R. Prema, P. Chandrasekar, P. Premkumar, R. Bino Kingsley, **K. Venkateshwaran**. Solid Lipid Nanoparticles - An Emerging for Ocular Drug Delivery System. *IJIRT*, 2022, 9, 4, 516- 526.
10. **Venkateshwaran Krishnaswami** and Ruckmani Kandasamy. Current Drug Targeting using siRNAbased Nano Therapeutics for Pulmonary Diseases. *Current Pharmaceutical Design*, 2022, (IF- 2.208).
11. **Venkateshwaran Krishnaswami**, Abimanyu Sugumaran, Venkatesan Perumal, Murugan Manavalan, Durga Prasad Kondeti, Shaik Kamil Basha, Mohammed Akmal Ahmed, Munish Kumar, Sivakumar Vijayaraghavalu. Nanoformulations - Insights Towards Characterization Techniques. *Current Drug Targets*, 2022, (IF- 2.937).
12. S. Sreeranjani, **Venkateshwaran Krishnaswami**, P. Lakshmanaprabhu and Ruckmani Kandasamy *Geophila repens* Phytosome loaded intranasal gel with improved nasal permeation for the effective treatment of Alzheimer's disease. *Journal of Drug Delivery Science and Technology*, 2022.
13. Kumar Janakiraman, **Venkateshwaran Krishnaswami**, Vaidevi Sethuraman, Vijaya Rajendran, and Ruckmani Kandasamy. Liquid Chromatographic Analysis of Methotrexate and Minocycline-relevance to the Determination in Plasma/Nanoparticulate Formulations. *Current Chromatography*, 2022, 1-12.
14. Chandrasekar Ponnusamy, Abimanyu Sugumaran, **Venkateshwaran, Krishnaswami**, Rajaguru Palanichamy, Ravichandiran Velayutham, Subramanian Natesan. Development and evaluation of PVP K90 and poloxamer 407 self-assembled

nanomicelles: Enhanced topical ocular delivery of artemisinin. *Polymers*, 2021 (IF- 3.426).

15. Vaidevi Sethuraman, Kumar Janakiraman, **Venkateshwaran Krishnaswami**, Subramanian Natesan, Ruckmani Kandasamy. In vivo synergistic anti-tumor effect of lumefantrine combined with pH responsive behavior of nano calcium phosphate based lipid nanoparticles on lung cancer. *European Journal of Pharmaceutical Sciences*, 2021, 158 (IF- 3.773).
16. V Sethuraman, K Janakiraman, **Venkateshwaran Krishnaswami**, R Kandasamy. Recent Progress in Stimuli Responsive Intelligent Nano Scale Drug Delivery Systems: A special focus towards pH sensitive systems. *Current Drug Targets*. 2021 (IF- 3.522).
17. Karthikeyan Rajalingam, **Venkateshwaran Krishnaswami**, Shanmugarathinam Alagarsamy, Ruckmani Kandasamy. Solubility Enhancement of Methotrexate by Solid Nanodispersion Approach for the Improved Treatment of Small cell Lung Carcinoma. *Current topics in medicinal chemistry*, 2020, 20,1- 11. (IF- 3.218)
18. Vaidevi Sethuraman, Kumar Janakiraman, **Venkateshwaran Krishnaswami**, Subramanian Natesan, Ruckmani Kandasamy. Combinatorial analysis of quercetin and resveratrol by HPTLC in *Sesbania grandiflora*/phyto-based nanoformulations. *Natural product research*, 2020, 1- 6. (IF- 2.158)
19. S Muruganatham, **Venkateshwaran Krishnaswami**, S Alagarsamy, R Kandasamy. Anti-platelet drug loaded targeted technologies for the effective treatment of Atherothrombosis. *Current Drug Targets*, 2020, 22(4):399-419 (IF- 3.522).
20. **Venkateshwaran Krishnaswami**, Nikhishaa Sree Raju, Shanmugarathinam Alagarsamy, Ruckmani Kandasamy. Novel nanocarriers for the treatment of wound healing. *Current Pharmaceutical Design*, 2020, 26, 1- 10. (IF- 2.208)
21. Subramanian Natesan, Sai HS. Boddu, **Venkateshwaran Krishnaswami**, Moyad Shahwan. The Role of Nano- Ophthalmology in Treating Dry Eye Disease. *Pharmaceutical Nanotechnology*, 2020, 8, 1.
22. Azeera MohamedSaliq, **Venkateshwaran Krishnaswami**, Kumar Janakiraman, and Ruckmani Kandasamy.  $\alpha$  - Lipoic acid nanocapsules fortified cow milk application as a dietary supplement product for Anemia. *Applied Nanoscience*, 2020, (IF. 3.198).
23. Kumar, J, **Venkateshwaran, K**, Vaidevi, S, Vijaya, R, Natesan, S & Ruckmani, K. Development of methotrexate and minocycline loaded nanoparticles for the effective treatment of Rheumatoid arthritis“, *AAPS PharmSci*, 2020, 21, 34. (Impact Factor: 2.608).
24. Saranya T V, **Venkateshwaran K**, Dhilin P M, Shanmugarathinam A, Subramanian N, Ruckmani K. Lactic acid-mediated isolation of alpha, beta and kappa casein fractions by isoelectric precipitation coupled with cold extraction from defatted cow milk. *International Journal of Dairy Technology*, 2020, 73, 1, 31- 39. (IF- 1.522).
25. Chandrasekar Ponnusamy, Abimanyu Sugumaran, **Venkateshwaran Krishnaswami**, Ruckmani, Kandasamy, Subramanian Natesan. Design and development of

artemisinin and dexamethasone loaded topical nanodispersion for the effective treatment of age-related macular degeneration, 2019, IET Nanobiotechnology, 13, 8, 868- 874 (IF- 1.925).

26. Vaidevi Sethuraman, Kumar Janakiraman, **Venkateshwaran Krishnaswami**, Subramanian Natesan, and Ruckmani Kandasamy. pH responsive delivery of Lumefantrine with calcium phosphate nanoparticles loaded lipidic cubosomes for the site specific treatment of lung cancer. Chemistry and Physics of Lipids, 2019, 224. (IF- 2.766).
27. Kumar Janakiraman, **Venkateshwaran Krishnaswami**, Vaidevi Sethuraman, Vijaya Rajendran, and Ruckmani Kandasamy. Development of methotrexate-loaded cubosomes with improved skin permeation for the topical treatment of rheumatoid arthritis. Applied Nanoscience, 2019, 1-16 (IF. 3.198).
28. Kumar Janakiraman, **Venkateshwaran Krishnaswami**, Vijaya Rajendran, Subramanian Natesan and Ruckmani Kandasamy. Novel Nano therapeutic materials for the effective treatment of Rheumatoid Arthritis- recent insights. Materials Today Communications, 2019, 17, 200- 213 (IF- 1.859).
29. Chandrasekar Ponnusamy, **Venkateshwaran Krishnaswami**, Saravanakumar Pandian, Subramanian Natesan. In-vitro drug release and ex-vivo corneal permeation of dexamethasone and curcumin nanodispersions using facilitated simultaneous RP-HPLC technique. Analytical Chemistry Letters, 2019, 8, 3, 311-320.
30. **Venkateshwaran Krishnaswami**, Ruckmani Kandasamy, Shanmugarathinam Alagarsamy, Rajaguru Palanisamy, and Subramanian Natesan. Biological macromolecules for ophthalmic drug delivery to treat ocular diseases. 2018, 110, 7-16 (IF. 4.784).
31. **Venkateshwaran Krishnaswami**, Chandrasekar Ponnusamy, Senthilkumar Sankareswaran, Muthuselvam Paulsamy, Madi Madiyalakan, Rajaguru Palanisamy, Ruckmani Kandasamy, Subramanian Natesan. Development of copolymeric nanoparticles of hypocrellin B: Enhanced phototoxic effect and ocular distribution. European Journal of Pharmaceutical Sciences, 2018, 116, 26-36 (IF. 3.773).
32. Abimanyu Sugumaran, Chandrasekar Ponnusamy, Palanivel Kandhasamy, **Venkateshwaran Krishnaswami**, Rajaguru Palanichamy, Ruckmani Kandasamy, Manikandan Lakshmanan, Subramanian Natesan. Development and evaluation of camptothecin loaded polymer stabilized nanoemulsion: Targeting potential in 4T1-breast tumour xenograft model. European Journal of Pharmaceutical Sciences, 2018, 116, 15-25 (IF. 3.773).
33. Dhamotharan Pattarayan, Ayyanar Sivanantham, **Venkateshwaran Krishnaswami**, Lakshmanan Loganathan, Rajaguru Palanichamy, Subramanian Natesan, Karthikeyan Muthusamy, Subbiah Rajasekaran. Tannic acid Attenuates TGF- $\beta$ 1-induced Epithelial-to-mesenchymal Transition by Effectively Intervening TGF- $\beta$

Signaling in Lung Epithelial Cells. *Journal of Cellular Physiology*, 2018 233(3):2513-2525 (IF. 4.552).

34. Subramanian Natesan, **Venkateshwaran Krishnaswami**, Chandrasekar Ponnusamy, Madi Madiyalakan, Thomas Woo, and Rajaguru Palanisamy. Hypocrellin B and nano silver loaded polymeric nanoparticles: enhanced generation of singlet oxygen for improved photodynamic therapy. *Material Science and Engineering: C*. 77, 935- 946. (IF- 5.080)
35. R. Shankar, N. Subramanian, **K. Venkateshwaran** and V. Ravishankar. Nanostructured Delivery System for Suberoylanilide Hydroxamic Acid- Preparation, Characterization and Cytotoxicity against Lung Cancer Cells. *Material Science and Engineering: C*, C 51 (2015) 362-368 (IF- 5.08)
36. Manikandan Palanivelu, Vyshak P Nair, **Venkateshwaran Krishnaswami**, Ramalingam Nethaji, Subramaniam Surendiran, Babu Ganesan. Treatment of Prostate Cancer Using Nanotechnological Approaches- A Review. *International Journal of Pharmacy and Pharmaceutical Research*, 6, 305- 313 (Review paper).
37. P. Chandrasekar, **K. Venkateshwaran**, S. Abimanyu, N. Subramanian. Simultaneous estimation of artemisinin and dexamethasone in nanodispersions and assessment of ex- vivo corneal transport study by RP- HPLC. *Curr Pharm Anal*, 2014, 10, 44- 50 (IF- 0.811)
38. **Venkateshwaran Krishnaswami**, Chandrasekar Ponnusamy, Senthilkumar Sankareswaran, Muthuselvam Paulsamy, Rajaguru Palanisamy and Subramanian Natesan. Quantification of Hypocrellin B in rabbit ocular tissues/plasma by spectrofluorimeter : Application to biodistribution study. *Current Bioactive Compounds*, vol. 10, no. 4, pp. 245- 253.
39. A. Saravanakumar, J. Vanitha, **K. Venkateshwaran**, P. Renugadevi, D. Karthikeyan, E. De Clercq. In vitro antiviral and cytotoxic screening of methanolic extract of *Cassia auriculata* flowers in HeLa, vero, CRFK and HEL cell lines. *Drug Invention Today*, 2013, 5, 28- 31 (IF- 1.5).
40. Nepolean R, Narayanan N, Subramanian N, **Venkateswaran K**, Vinoth J. Colon targeted methacrylic acid copolymeric nanoparticles for improved oral bioavailability of nisoldipine. *Int J Bio Pharm Res*. 2012, 3(8), 962-7.
41. Nepolean R, Narayanan N, Subramanian N, **Venkateswaran K**, Vinoth J. Preparation and characterization of nisoldipine nanoparticles by nanoprecipitation method. *J Pharm Sci Res*. 2012, 4(11), 1989-94.
42. A. Saravanakumar, J. Vanitha, M. Ganesh, **K. Venkateshwaran**, D. Clercq. Evaluation of antiviral and cytotoxic activities of methanolic extract of *Sesbania grandiflora* (Fabaceae) flowers. *Asian Pacific Journal of Tropical Biomedicine*, 2012, S855- S858.
43. A. P. Sharvanakumaar, J. Vanitha, **K. Venkateshwaran**, K. Srikanth Reddy, J. T. Simon, D. Karthikaeyan. Antibacterial and antifungal activity of *Opuntia dillenii* (Cactaceae) fruit extract. *J Environ Nanotechnol*, 2012, 1, 53- 55.

44. A. P. Sharvanakumaar, J. Vanitha, **K. Venkateshwaran**, K. Srikanth Reddy, J. T. Simon, D. Karthikaeyan. Antibacterial activity of methanoloc extract of *Thespesia Populnea* (Malvaceae) flowers. *J Environ Nanotechnol*, 2012, 1, 50- 52.
45. N. Subramanian, T. Devipriyadharshini, **K. Venkateshwaran**, P. Chandrasekar Improved RP- HPLC Method for the simultaneous estimation of tranexamic Acid and mefenamic acid in tablet dosage form, *Pharm Anal Acta*, 2011, 2, 115.
46. N. Subramanian, T. Devipriyadharshini, **K. Venkateshwaran** and P. Chandrasekar. Spectrophotometric determination of tranexamic acid and mefenamic acid in tablet dosage form using derivatization technique, *Int J Pharm Biomed Res*, 2011, 2, 26- 29.
47. N. Subramanian, L. Rameshkumar, **K. Venkateshwaran** and S. Abimanyu Simultaneous estimation of cefixime and ofloxacin in tablet dosage form by RP- HPLC, *Int J Pharm Res Sci*, 2011, 2, 219-224.
48. A. Saravanakumar, P. Renukadevi, J. Vanitha, **K. Venkateshwaran**, M. Ganesh, E. De Clercq. Evaluation of antiviral and cytotoxic activities of methanolic extract of *Thespesia Populnea* (Malvaceae) flowers. *Journal of Herbs Spices and Medicinal Plants*, 2011, 17, 386- 391.
49. A. Saravanakumar, **K. Venkateshwaran**, J. Vanitha, V. S. Saravanan, M. Ganesh, M. Vasudevan, T. Sivakumar. Synergistic activity of methanolic extract of *Thespesia Populnea* (Malvaceae) flowers with oxytetracycline. *Bang J Pharmacol*, 2009, 4, 13- 16 **(IF- 0.811)**.
50. A. Saravanakumar, **K. Venkateshwaran**, J. Vanitha, M. Ganesh, M. Vasudevan, T. Sivakumar. Evaluation of antibacterial activity, phenol and flavonoid contents of *Thespesia Populnea* flower extracts. *Pak J Pharm Sci*, 2009, 22, 282- 286 **(IF- 1.103)**.
51. A. Saravanakumar, **K. Venkateshwaran**, S. Vanitha, M. Ganesh, M. Vasudevan, T. Sivakumar. Synergism between methanolic extract of *Sesbania Grandiflora* (Fabaceae) flowers and oxytetracycline. *Pharmacology Online*, 2008, 3, 6- 11 **(IF-0.16)**.
52. A. Saravanakumar, Avijit Mazumder, J. Vanitha, M. Ganesh, **K. Venkateshwaran**, V. S. Saravanan, T. Sivakumar. Antibacterial activity of methanolic extract of *Sesbania Grandiflora* (Fabaceae). *Research J Pharm and Tech*, 2008, 1, 59- 60.
53. A. Saravanakumar, Avijit Mazumder, J. Vanitha, **K. Venkateshwaran**, K. Kamalakannan and T. Sivakumar. Evaluation of antioxidant phenol and flavonoid contents of some selected Indian medicinal plants. *Phcog Mag*, 2008, 4, 143- 147 **(IF- 1.525)**.

#### **Book Chapters Published (17 Nos)**

1. Venkateshwaran Krishnaswami, Saravanakumar Arthanari. Bionanomaterials for Ocular Drug Delivery Applications. *Bionanomaterials for Biosensors, Drug Delivery, and Medical Applications*, 2024.



2. **Venkateshwaran Krishnaswami** , Soumya Parashar , Balakrishnan Natarajan , Borish Loushambam and Sivakumar Vijayaraghavalu. Calcium dependent and independent phospholipases and apoptosis. *Phospholipases in Physiology and Pathology, Vol 4: Role of Phospholipases in Inflammation, Gene expression and Apoptosis*, Elsevier Book Chapter.
3. N Aravindaraj, J Suresh, **K. Venkateshwaran**, R Kandasamy. Guar Gum-Based Novel Nanodrug Delivery Systems. *Nanoengineering of Biomaterials: Biomedical Applications*, Sougata Jana, Subrata Jana (Eds). 2, 2022, 63-89.
4. **Venkateshwaran Krishnaswami**, Munish Kumar and Sivakumar Vijayaraghavalu. *Advances in Epigenetics for Crop Improvement and Sustainable Agriculture*. *Plant Genomics for Sustainable Agriculture*, 351–370 In: Singh, R.L., Mondal, S., Parihar, A., Singh, P.K. (eds) *Plant Genomics for Sustainable Agriculture*. Springer, Singapore.
5. D.AnithaManikandan, **Venkateshwaran Krishnaswami** and Ruckmani Kandasamy. *Chitosan and Chitosan Derivatives-based Drug Delivery Systems for the Treatment of Pulmonary Diseases*. *Biopolymer Science and Technology*, 2022, (Wiley) Frank Weinreich editor, (accepted).
6. Rampriya Alagarsamy Rajagopal, **Venkateshwaran Krishnaswami**, Elangovan Balarathinam, Vijayalakshmi Maruthamuthu, Ruckmani Kandasamy. *Functionalized carbon nanomaterials for biomedical imaging for diagnostics*. *Functionalized Carbon Nanomaterials for Theranostic Applications*, Shadpour and Chaudhery( Editors), 2022, (Elseiver) accepted.
7. Selvakumar Muruganatham, **Venkateshwaran Krishnaswami**, Anitha Manikandan D, Nirmal Aravindaraj, Jeseeta Suresh, Mohanraj Murugesan and Ruckmani Kandasamy. *Gums as Pharmaceutical excipients- an overview* Elsevier Publications chapter accepted.(2021).
8. Sreeranjini Sukumaran Rajamma, **Venkateshwaran Krishnaswami**, Akilandeswari Krishnan and Ruckmani Kandasamy. *Functional role of Prebiotics Supplement in Brain signaling*. *Microbiome-gut-brain axis*, Springer, 2021.
9. Subramanian Natesan, Ravichandiran Vellayutham, **Venkateshwaran Krishnaswami**, Chandrasekar Ponnusamy, Saranya Thekkilaveedu, Dhilin P. Mohan, and Ruckmani Kandasamy. *Enhanced Topical Delivery of Drugs to the Eye Using Chitosan Based Systems*. *Adv Polym Sci*, 2021.
10. Manju Saraswathy, **Venkateshwaran Krishnaswami**, Deepu Damodharan Ragini. *Biomaterials for Hard Tissue Engineering: Concepts, Methods, and Applications*. *Biomaterials in Tissue Engineering and Regenerative Medicine: From Basic Concepts to State of the Art Approaches*. Springer Nature, 2021, 347.
11. Nikhishaa Sree Raju, **Venkateshwaran Krishnaswami**, Sivakumar Vijayaraghavalu and Ruckmani Kandasamy. *Transdermal and Bioactive Nanocarriers*. *Nanocosmetics, Fundamentals application and toxicity Micro and Nano Technologies*. 2020, 17- 33, Elsevier.

12. Subramanian Natesan, **Venkateshwaran Krishnaswami**, Saranya Thekkila Veedu, Dhilin Pathayappurakkal Mohanan, K Ruckmani, Rajaguru Palanichamy. Chitosan-Based Ocular Drug Delivery Systems. Functional Chitosan, Springer, Singapore, 2019, 107-134.
13. Subramanian N, Venkateshwaran K, Saranya R, Sonali N, Gayen S, Nirmal J. New Drug Targets and Drug Delivery for Various Ocular Disorders, Bio-Targets & Drug Delivery Approaches, Kalyan Kumar Sen & Sabyasachi Maiti (ed.), CRC Press (Taylor & Francis Group), Boca Raton, USA, 2016, ISBN: 978-1498729994.
14. S.P. Sharavanan, P. Chandrasekar, C. Senthil kumar, S. Abimanyu, **K. Venkateshwaran** and N. Subramanian. Design and development of self nanoemulsifying drug delivery system of raloxifene hydrochloride in Bio-Nanomaterials for Biomedical Technology, edited by V. Rajendran, P.Prabu and K.E. Geckeler. 2016, Bloomsbury publishers India Ltd, India.
15. Subramanian Natesan, **Venkateshwaran Krishnaswami**, Chandrasekar Ponnusamy and Rajaguru Palanisamy. Hypocrellin B and silver nanoparticles for the photodynamic treatment of age related macular degeneration. FINSTA 14, Hyderabad, 2014 (Conference proceedings).
16. Subramanian Natesan, Chandra Sekar Ponnusamy, Abimanyu Sugumaran and **Venkateshwaran Krishnaswami**. Design and development of artemisinin and dexamethasone topical nanodispersion for the effective treatment of age related macular degeneration. In: Nano Biomaterials. Bloomsbury Publishing Pvt Ltd, New Delhi, pp. 155-160. ISBN 978-93-82563-37-2
17. Subramanian. N, Balakumar. A, Sharavanan. S.P, Abimanyu. S, **Venkateshwaran. K** and Syamasri Gupta. Formulation development and *in-vitro* characterization of self-nanoemulsifying drug delivery system for anti-hypersensitive drug in Biomedical applications of nanostructured materials, edited by V. Rajendran, B. Hillebrands, P.Prabu and K.E. Geckeler. 2010, Macmillan publishers India Ltd, India.

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**Cumulative Impact factor- 164**

#### **Funded Projects**

S.No	Title of Project	Funding agency	Reference No	Amount of Grant (Rupees)	Role
1	Development of Nanomicellar Pulmonary Delivery	Department of Health		Rs 32.47 Lakhs	Principal Investigator

	System for the effective treatment of Chronic Obstructive Pulmonary Diseases	Research, New Delhi	Ref No- 12014/09/2019-HR: Dt: 02.04.2019		
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**Patents- 1 Patent Filed**

**Technologies developed**

- Oral film loaded antihypertensive drug
- Calcium phosphate nanoparticles based Dental implant for Dental caries
- Methotrexate cubosomes for Rheumatoid arthritis
- Wet wipes Technology
- Fortified cow milk for anemia

**Consultancy Projects received- Nil**

**Professional Memberships- Nil**



**Signature**