

## DR. SHOBA NARAYAN

Assistant Professor (Selection Grade)  
Faculty of Allied Health Sciences  
Chettinad Hospital & Research Institute  
Chettinad Academy of Research & Education



Email: shobulu@gmail.com  
Contact No.: 9840825263

### Qualifications:

Ph.D., University of Madras  
M.Phil., University of Madras  
M.Sc., Annamalai University

### Research Interests:

Nanomedicine, Biochemistry, Targeted Drug Delivery, Natural Product Therapeutics, Multifunctional Nanostructures

### Work Experience:

2014 – 2015 : Assistant Professor (Sr. Scale), FAHS, CHRI, CARE (Emp Id: 4052)  
2015 – : Assistant Professor (Selection Grade), FAHS, CHRI, CARE (Emp Id: 4052)

### Post-Doc:

2011 – 2014 : FASTTRACK DST Young Scientist, Indian Institute of Technology, Madras (Emp id: 327922)  
2008 – 2009 : Postdoctoral Trainee in Bionanotechnology, University of Oklahoma, USA (Id: 113875386)

### Visits Abroad:

Department of Chemistry and Biochemistry, University of Oklahoma, USA  
The third International Conference on Multifunctional, Hybrid and Nanomaterials (Hybrid Materials 2013) was held on March 3-7, 2013 in Sorrento, Italy.

### Extramural projects ongoing/completed:

Sr. No.	Funding Agency	Sanctioned Amount in Rs.
1.	Dept. of Science and Technology, Govt. of India (PI)	2600000.00
2.	Dept. of Atomic energy, BRNS, India (Co-PI)	2431000.00
3.	ICMR-SRF	Fellowship and Contingency

## Research Guidance:

Degree	Awarded	Ongoing
Ph. D.	-	3 (1 ICMR SRF and 1 LTMT JRF Awardee)
M. Phil.	-	-
M. Sc.	9	-

## Summary of Research:

Papers	Citations	h-index	i10-index
19	254	10	10

## Patents

S.no	Title	Application Number	Inventors
1	A method and development of a nanoscaffold for delivery of agents for stem cell differentiation	201741001087 Published	<b>Narayan S</b> , Surajit P, Karena R, Moorthi A, Sinivasan N, Murugesan R
2	A method and process for the efficacy enhancement of activities of Bioflavonoids.	201741001089 Published	Satish R, <b>Narayan S</b> , Surajit P, Lizha Mary L
3	Polymeric matrix containing metal doped ceramic for tissue engineering	201741001091 Published	Moorthi A, <b>Narayan S</b> , Azeena S, Srinivasan N, Murugesan R
4	Design Development and Use of pH - Sensitive multifunctional gold nanorods	201841000245 Filed	<b>Narayan S</b> , Rathi Usha K, Geeva
5	Novel Injectable Biocompatible Carriers for Cardiac Tissue Repair and Regeneration	201941026200 Filed	<b>Narayan S</b> , Nikitha Shalom Richard, Sangamithra Nehru, Soniya Pushparaj, Subitha Palaniraj, Geeva, Chokkalingam Meyyappan, Ramachandran Murugesan

## Publications

1. P Subitha, Murugesan R., **Narayan S.**, 2019. Chlorogenic Acid- Loaded Calcium Phosphate Chitosan Nanogel as Biofilm Degradative Materials. *The International Journal of Biochemistry & Cell Biology*, 105566. (in press) **IF 3.144**
2. Geeva, **S. Narayan**, Lithium entrapped chitosan nanoparticles to reduce toxicity and increase cellular uptake of lithium, *Environmental Toxicology and Pharmacology*, 61 (2018) 79-86. **IF 3.061**
3. L. Mary Lazer, B. Sadhasivam, K. Palaniyandi, T. Muthuswamy, I. Ramachandran, A. Balakrishnan, S. Pathak, **S. Narayan**, S. Ramalingam, Chitosan-based nano-formulation enhances the anticancer efficacy of hesperetin, *International Journal Of Biological Macromolecules*, 107 (2018) 1988-1998.. **IF 4.784**
4. M. Vedhanayagam, M. Nidhin, N. Duraipandy, N. D. Naresh, G. Jaganathan, M. Ranganathan, M. S. Kiran, **S. Narayan**, B. U. Nair, K. J. Sreeram. Role of nanoparticle size in self-assemble processes of collagen for tissue engineering application. *International Journal of Biological Macromolecules*. 99:655-64. (2017). **IF 3.90**
5. S. Azeena, N. Subhapradha, N. Selvamurugan, **S. Narayan**, N. Srinivasan, R. Murugesan, T. W. Chung, A. Moorthi. Antibacterial activity of agricultural waste derived wollastonite doped with copper for bone tissue engineering. *Materials Science & Engineering C-Materials for Biological Applications*.71:1156-65 (2017). **IF 4.16**
6. S. Venkataraman, **S. Narayan**, A. Chadha. Direct observation of redox reactions in *Candida parapsilosis* ATCC 7330 by Confocal microscopic studies. *Scientific Reports*.6: 34344 (2016). **IF 4.25**
7. S. Krishnan, **S. Narayan**, A. Chadha. Whole resting cells vs. cell free extracts of *Candida parapsilosis* ATCC 7330 for the synthesis of gold nanoparticles. *AMB Express*. 6(1):92 (2016). **IF 1.82**
8. **S. Narayan**, A. Rajagopalan, J. S. Reddy, A. Chadha. BSA binding to silica capped gold nanostructures: effect of surface cap and conjugation design on nanostructure-BSA interface. *RSC Advances*. 4(3):1412-20 doi: 10.1039/C3RA45887C (2014). **IF 3.10**
9. K. J. Sreeram, **S. Narayan**, G. Abbineni, A. Hayhurst, C. Mao. Architectonics of Phage-Liposome Nanowebs as Optimized Photosensitizer Vehicles for Photodynamic Cancer Therapy. *Molecular Cancer Therapeutics*. 9(9):2524-35 doi: 10.1158/1535-7163 (2010). **IF 5.76**
10. S. Prabhu, **S. Narayan**, C. S. S. Devi. Mechanism of Protective Action of Mangiferin on Suppression of Inflammatory Response and Lysosomal Instability in Rat Model of Myocardial Infarction. *Phytotherapy Research*. 23(6):756-60 doi: 10.1002/ptr.2549 (2009). **IF 3.09**
11. P. Srinivasan, S. Suchalatha, P. V. A. Babu, R. S. Devi, **S. Narayan**, K. E. Sabitha, C. S. S. Devi. Chemopreventive and therapeutic modulation of green tea polyphenols on drug metabolizing enzymes in 4-Nitroquinoline 1-oxide induced oral cancer. *Chemico-Biological Interactions*. 172(3):224-34 doi: 10.1016/j.cbi.2008.01.010 (2008). **IF 3.14**
12. **S. Narayan**, M. Veeraraghavan, C. S. S. Devi. *Pterocarpus santalinus*: An in vitro study on its anti-*Helicobacter pylori* effect. *Phytotherapy Research*. 21(2):190-3 doi: 10.1002/ptr.2047 (2007). **IF 3.092**
13. **S. Narayan**, R. S. Devi, V. Ganapathi, C. S. S. Devi. Effect of *Pterocarpus santalinus* extract on the gastric pathology elicited by a hypertensive drug in Wistar rats. *Pharmaceutical Biology*. 45(6):468-74 doi: 10.1080/13880200701389342 (2007). **IF 1.91**
14. **S. Narayan**, R. S. Devi, C. S. S. Devi. Role of *Pterocarpus santalinus* against mitochondrial dysfunction and membrane lipid changes induced by ulcerogens in rat gastric mucosa. *Chemico-Biological Interactions*. 170(2):67-75 doi: 10.1016/j.cbi.2007.07.005 (2007). **IF 3.14**
15. R. S. Devi, **S. Narayan**, G. Vani, P. Srinivasan, K. V. Mohan, K. E. Sabitha, C. S. S. Devi. Ulcer protective effect of *Terminalia arjuna* on gastric mucosal defensive mechanism in experimental rats. *Phytotherapy Research*. 21(8):762-7 doi: 10.1002/ptr.2160 (2007). **IF 3.09**
16. R. S. Devi, **S. Narayan**, G. Vani, C. S. S. Devi. Gastroprotective effect of *Terminalia arjuna* bark on diclofenac sodium induced gastric ulcer. *Chemico-Biological Interactions*. 167(1):71-83 doi: 10.1016/j.cbi.2007.01.011 (2007). **IF 3.14**

17. **S. Narayan**, R. S. Devi, P. Srinivasan, C. S. S. Devi. Pterocarpus santalinus: A traditional herbal drug as a protectant against ibuprofen induced gastric ulcers. *Phytotherapy Research*. 19(11):958-62 doi: 10.1002/ptr.1764 (2005). **IF 3.09**
18. **S. Narayan**, R. S. Devi, M. Jainu, K. E. Sabitha, C. S. S. Devi. Protective effect of a polyherbal drug, ambrex in ethanol-induced gastric mucosal lesions in experimental rats. *Indian Journal of Pharmacology*. 36(1):34 (2004). **IF 0.63**
19. R. S. Devi, **S. Narayan**, K. Vijai Mohan, K. E. Sabitha, C. S. S. Devi. Effect of a polyherbal formulation, Ambrex, on butylated hydroxy toluene (BHT) induced toxicity in rats. *Indian Journal of Experimental Biology*. 2003;41(11) (2003). **IF 0.59**

#### **General Articles:**

NIL

#### **Conference Presentations:**

21 International and 25 National

#### **Conferences/ Workshops Organised:**

3 National and 1 Regional

#### **Awards and Recognition:**

1. ICMR SRF fellowship (No. 45/14/2004/BMS/TRM)
2. DST Travel Grant (SR/ITS/4822/2012-13)
3. ICMR Travel Grant (No.3/2/TG-37/HRD-2013 dated 19-2-2013)
4. CSIR travel Grant (PFA/1443/12-HRD dated February 28 2013)
5. DST FAST TRACK Young Scientist Award Fellowship and project (No/SR/FT/CS-100/2010(G))
6. Cover page article in *Molecular Cancer Therapeutics*  
(<http://mct.aacrjournals.org/content/9/9/2524.long>)