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**Qualifications:**

M.Sc., : Dr. ALM PGIBMS, University of Madras, Chennai

Ph.D.: SRM University, Chennai.

**Research Interests:**

Tissue Engineering, Stem cells and Regenerative Medicine, Nano Biotechnology, Stem cells and Radiation Biology, Toxicology.

**Post-Doc / Work Experience:**

S. No	Position held	From	To	Name of the Institution
01.	Assistant Professor	July 2014	Till the date	Chettinad Academy of Research & Education, Chennai, India

**Research Guidance**

Degree	Awarded	Ongoing
Ph.D	-	2
M.Sc	9	-
B.Sc	10	-

## Summary of Research:

<b>Total Publications</b>	21	<b>Citations</b>	1580	<b>H-Index</b>	15
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## Patents:

S. No.	Title	Patent No.	Inventors
1.	A method and development of a nano scaffold for delivery of agents for stem cell differentiation	201741001087	Shoba Narayan, P. Surajit, Rachel Karena, <b>Moorthi A</b> , Sinivasan N, Murugesan R
2.	Polymeric matrix containing metal doped ceramic for tissue engineering	201741001091	<b>Moorthi A</b> , Shoba Narayan, Azeena S, Subhapradha N, Srinivasan N, Murugesan R
3.	Method of nanoformulation of hesperetin for enhancement of properties and uses	201841000244	<b>Moorthi A</b> , Sai Nievethitha S, Subhapradha N, Srinivasan N, Murugesan R.

## Publications:

1. Polymer coated mesoporous ceramic for drug delivery in bone tissue engineering Subhapradha N, Mohamed Abudhahir K, Aathira A, Srinivasan N, Moorthi A. International Journal of Biological Macromolecules, , 2017. In Press, (Impact factor: 3.671).
2. Preparation and characterization of three-dimensional scaffolds based on hydroxypropyl chitosangraft-graphene oxide, PR Sivashankari, A Moorthi, KM Abudhahir, M Prabakaran, International Journal of Biological Macromolecules, 2017. In Press (Impact factor: 3.671).
3. Surface-modified polymers for cardiac tissue engineering, Moorthi A, Tyan YC, Chung TW, Biomater Sci. 2017, 5(10):1976-1987. (Impact factor: 4.210).
4. Formulation and biological actions of nano-bioglass ceramic particles doped with

Calcarea phosphorica for bone tissue engineering, S Dinesh Kumar, K Mohamed Abudhahir, N Selvamurugan, S Vimalraj, R Murugesan, N Srinivasan, A Moorthi. *Mater Sci Eng C Mater Biol Appl* (2017), (Impact factor: 4.164).

5. Antibacterial activity of agricultural waste derived wollastonite doped with copper for bone tissue engineering, Azeena S, Subhpradha N, Selvamurugan N, Shoba N, Srinivasan N, Murugesan R, Chung TW, Moorthi A. *Mater Sci Eng C Mater Biol Appl* (2017), 71:1156-1165. (Impact factor: 4.164).

6. Applications of Nanoceramics on Osteoblast Proliferation and Differentiation in Bone Tissue Engineering, Sai Nievethitha S, Selvamurugan N, Srinivasan N, Murugesan R, Moorthi A. *International Journal of Biological Macromolecules* (2017), 98:67-74 (Impact factor: 3.671).

7. Effects of silica and calcium levels in nanobioglass ceramic particles on osteoblast proliferation, Moorthi A, Parihar PR, Saravanan S, Vairamani M, Selvamurugan N. *Mater Sci Eng C Mater Biol Appl* (2014), 1;43:458-64. (Impact factor: 4.164).

8. Expression of microRNA-30c and its target genes in human osteoblastic cells by nanobioglass ceramic-treatment, Moorthi A, Vimalraj S, Avani C, Zhiming H, Partridge NC, Selvamurugan N. *International Journal of Biological Macromolecules* (2013), 56:181-185, (Impact factor: 3.671).

9. Synthesis and Characterization of Diopside particles and their Suitability along with Chitosan Matrix for Bone Tissue Engineering In vitro and In vivo, Pradeep Kumar J, Lakshmi L, Jyothsna V, Prashanth Balaji DR, Saravanan S, Moorthi A, Selvamurugan N. *Journal of Biomedical Nanotechnology* (2013), 10(6):970-81. (Impact factor: 4.521).

10. Chitosan Scaffolds containing Chicken Feather Keratin Nanoparticles for Bone Tissue Engineering. Saravanan S, Sameera DK, Moorthi A, Selvamurugan N, *International*

Journal of Biological Macromolecules (2013), 10:970-981. (Impact factor: 3.671).

11. Synthesis, Characterization and Biological Action of Nano-Bioglass Ceramic Particles for Bone Formation, Moorthi A, Saravanan S, Srinivasan N, Partridge NC, Zhu J, Qin L,N. Selvamurugan. Journal of Biomaterials and Tissue Engineering (2012), 54:24-29. (Impact factor: 1.383).

12. Biocomposite scaffolds containing chitosan/alginate/nano-silica for bone tissue engineering. Sowjanya JA, Singh J, Mohita T, Saravanan S, Moorthi A, Srinivasan N, Selvamurugan N. Colloids and surface B: Biointerface (2013), 109:294-300. (Impact factor: 3.887).

13. A novel injectable temperature-sensitive zinc doped chitosan/-glycerophosphate hydrogel for bone tissue engineering, Niranjana R, Koushik C, Saravanan S, Moorthi A, Vairamani M, Selvamurugan N. International Journal of Biological Macromolecules (2013), 2:1-8. (Impact factor: 3.671).

14. Bio-composite scaffolds containing chitosan/nano-hydroxyapatite/nano-copper-zinc for bone tissue engineering, Tripathi A, Saravanan S, Pattnaik S, Moorthi A, Partridge NC, Selvamurugan N. International Journal of Biological Macromolecules (2012), 1:294-9. (Impact factor: 3.671).

15. Synthesis, Characterization, and Antimicrobial Activity of nano-Hydroxyapatite-Zinc for Bone Tissue Engineering Applications, Swetha M, Sahithi K, Moorthi A, Saranya N, Saravanan S, Ramasamy K, Srinivasan N, Selvamurugan N. Journal of Nanoscience and Nanotechnology (2012), 12:167-172. (Impact factor: 1.563).

16. Chitosan scaffolds containing silicon dioxide and zirconia nano particles for bone tissue engineering. Pattnaik S, Nethala S, Tripathi A, Saravanan S, Moorthi A,

Selvamurugan N. International Journal of Biological Macromolecules (2011), 5:1167-72. (Impact factor: 3.671).

17. Enhanced osteoblast adhesion on polymeric nano-scaffolds for bone tissue engineering. Saranya N, Saravanan S, Moorthi A, Ramyakrishna B, Selvamurugan N. Journal of Biomedical Nanotechnology 2011, 7:238-44 (Impact factor: 4.521).

18. Preparation, characterization and antimicrobial activity of a bio-composite scaffold containing chitosan/nano-hydroxyapatite/nano-silver for bone tissue engineering Saravanan S, Nethala S, Pattnaik S, Tripathi A, Moorthi A, Selvamurugan N. International Journal of Biological Macromolecules (2011), 2:188-93. (Impact factor: 3.671).

19. Chitosan and its derivatives for gene delivery, Saranya N, Moorthi A, Saravanan S, Devi MP, Selvamurugan N. International Journal of Biological Macromolecules (2011), 48:234-8. (Impact factor: 3.671)

20. Synthesis and characterization of nanoscale-hydroxyapatite-copper for antimicrobial activity towards bone tissue engineering applications, Sahithi K, Swetha M, Prabakaran M, Moorthi A, Saranya N, Ramasamy K, Srinivasan N, Partridge NC, Selvamurugan N. Journal of Biomedical Nanotechnology (2010), 4:333-9. (Impact factor: 4.521).

21. Biocomposites containing natural polymers and hydroxyapatite for bone tissue engineering. Swetha M, Sahithi K, Moorthi A, Srinivasan N, Ramasamy K, Selvamurugan N. International Journal of Biological Macromolecules (2010), 1:1-4. (Impact factor: 3.671).

**Google Scholar:** <https://scholar.google.co.in/citations?user=43fWi8AAAAJ&hl=en>

**Book Chapter**

1. Biocomposites Containing Chitosan for Bone Tissue Engineering.

Saravanan S, Mohita T, Moorthi A, Selvamurugan N.

Marine Biomaterials (2012), 27:529-538. (CRC Press, Taylor and Francis group publications).

**Conference Presentations:** 8 International and 10 National

**Awards and Recognition:**

Senior Research Fellow in ICMR funded project entitled "Activating Transcription Factor-3: A Potential Target Gene for Breast Cancer Progression and Invasion In vivo".

From Nov 2011 to till March 2014