

Name: Dr.S.Muthukumar

Degree: MDS

Designation: Professor

Area of Research Expertise:

Basic Research:

1. Periodontal Microbiology.
2. Molecular markers in periodontal disease.
3. Inflammatory mediators in periodontal disease.
4. Periodontal Medicine.
5. Stress and Periodontal Disease.

Clinical Research:

1. Periodontal Plastic and Esthetic Surgery.
2. Dental Implants and Related research.
3. Periodontal Regenerative Therapy.
4. Laser Applications in Periodontal Therapy.
5. Periodontal Micro-Surgery.

Projects Conducted Internal

- a. A Randomized controlled clinical trial comparing De-Proteinized Bovine Bone Mineral and L-PRF in the management of post-extraction socket preservation.
- b. A Randomized controlled clinical trial comparing the efficacy of Connective Tissue Graft and PRF in the management of papillary reconstruction.
- c. A Randomized Controlled Clinical Trial comparing Dimensional changes in alveolar bone following implant placement with and without socket shield - A CBCT ANALYSIS.
- d. A Randomized Controlled Clinical Trial Comparing the efficacy of Ridge Split and Guided Bone Regeneration in defective bony situations with simultaneous Implant Placement.
- e. A Randomized Controlled Clinical Trial Comparing De-Proteinized Bovine Bone Mineral and A-PRF and A-PRF with De-Proteinized Bovine Bone Mineral in the management of post-extraction socket preservation.
- f. A Randomized Controlled Clinical Trial comparing Connective Tissue Graft and A-PRF in the management of multiple adjacent gingival recession.
- g. Clinical and Radiographic Evaluation Of Soft and Hard Tissue Changes Following Placement Of Implants At Socket Preserved Sites and Immediate Implant Placement With and Without Socket Shield – A Randomized Controlled Clinical Trial.

Awards & Recognition

Awarded Winner of the National Level Pieze-Awe Challenge conducted for by Acteon India June,2019.

Conferences and Workshops Attended:

1. Underwent training in Dental Lasers- conducted by World Association of Laser Dentistry, Asia pacific Division,Singapore April2015.
2. Implantology- MIS February 2008 Dr. Hader Better.
3. Myriad Implants- Dr.Hertel June 2012.
4. Basal Implantology- Dr.Stephen Idhe Pune, March 2012.
5. Minimally Invasive Implant Therapy- Artem Dubnov,Chennai, August 2016.
6. Zygomatic Implant Placement – ICOI,Ragas 2016.
7. Information and communication Technology Workshop conducted by IQAC,SRU March 2015.
8. Teachers Training workshop conducted by Indian Society of Periodontology,Chennai,June 2016.
9. Research Workshop conducted by Department of Community Medicine and Bio-Informatics, SRIHER MAY 2019.
10. Workshop on Socket Shield and Osseo-Densification conducted by American Academy of Implant Dentistry, New Delhi February 2019.
11. Master Class in Hard and Soft Tissue Augmentation conducted by Geistlich Biomaterials Chennai July 2019.
12. Certification course in Health Research Fundamentals conducted by ICMR and National Institute of epidemiology Feb-April 2019.
13. Certification course in CBCT conducted by MCODES,Mangalore Sept 2019.

MEMBERSHIP IN COMMITTEES:

INTERNAL:

1. Co-ordinator for conduct of internal assessment, SRIHER.
2. Member, Mentorship Programme, SRIHER.
3. Member Research Cell of Faculty of Dental Sciences, SRU from February 2015 to April 2017.
4. Member Accreditation Committee of Faculty of Dental Sciences,SRU from March 2015.

EXTERNAL:

- **Indian Society of Periodontology**

Publications:

1. Muthukumar S, Anand MV, Madhankumar Muthukumar S, Suresh R. Community periodontal index of treatment needs index: An indicator of anaerobic periodontal infection. *Indian J Dent Res* 2009;20:423-5.
2. S. Relationship between gingival bleeding and anaerobic periodontal infection assessed by BANA (N-Benzoyl-DL-Arginine- β -Naphthylamide) assay. *J Pharm Bioall Sci* 2014;6:S70-3.
3. Santhanakrishnan M, Rangarao S. Mandibular Tori: A source of autogenous bone graft. *J Indian Soc Periodontol* 2014;18:767-71.
4. Muthukumar S, Rangarao S. Surgical augmentation of interdental papilla - A case series. *Contemp Clin Dent* 2015;6:S294- 8.
5. Muthukumar S, Ajit P, Sundararajan S, Rao SR. Reconstruction of interdental papilla using autogenous bone and connective tissue grafts. *J Indian Soc Periodontol* 2016;20:464- 7.
6. Muthukumar S, Natarajan S, Madhankumar S, Sampathkumar J. Lip repositioning surgery for correction of excessive gingival display. *J Pharm Bioall Sci* 2015;7:S794-6.
7. Muthukumar S, Diviya M. Relationship between periodontal inflamed surface area (PISA) and anaerobic periodontal infection assessed by BANA assay. *International Journal of Scientific and Research Publications*, Volume 3, Issue 8, August 2013 .
8. Muthukumar S, Diviya M. Periodontal Maintenance- A Review, *International journal of innovative research and development*, Nov 2013.
9. Muthukumar S, Diviya M. Association between depression and Chronic Periodontitis - A Review. *Global Journal Of Biology, Agriculture and Health Sciences*, Dec 2013.
10. Gayathri G, Muthukumar S, Joseph LD, Suresh R. Immunolocalization of heme oxygenase-1 in periodontal diseases. *Indian J Dent Res* 2014;25:567-71.
11. Sundararajan S, Muthukumar S, Rao SR. Relationship between depression and chronic periodontitis. *J Indian Soc Periodontol* 2015;19:294-6.
12. Mudrika S, Muthukumar S, Suresh R. Relationship between salivary levels of cortisol and dehydroepiandrosterone levels in saliva and chronic periodontitis. *J Int Clin Dent Res Organ* 2014;6:92-7.

13. Govindarajan K, Muthukumar S, Rangarao S. Relationship between interleukin 1 α levels in the gingival crevicular fluid in health and in inflammatory periodontal disease and periodontal inflamed surface area: A correlative study. J Indian Soc Periodontol 2015;19:618-23.
14. Thilagar S, Santhanakrishnan M, Rao S. Expression of protease-activated receptors 1 and 2 in individuals with healthy gingiva and chronic periodontitis. J Indian Soc Periodontol 2018;22:12-7
15. S.Muthukumar , A. Supraja , R. Suresh Laser assisted periodontal plastic surgery in the management of a bilateral complete cleft - A Case Report Sri Ramachandra Journal of Medicine, July-Dec 2015, Vol.8, Issue 2
16. Sundararajan S, Muthukumar S, Rangarao S. A case-control study assessing depression in patients with periodontitis. Indian J Soc Psychiatry 2017;33:44-6.