




Bharath Institute of Higher Education and Research

Faculty Profile

Personal Details	
Dr. USHA SUBBIAH	
Professor and Head	
Human Genetics Research Centre	
Sree Balaji Dental College and Hospital	
91- 8248707203	
ushas@sbdch.bharathuniv.ac.in , ushat75@yahoo.com,	

Area of Interest	Human Genetics, Molecular biology
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Subjects Taught	
UG	PG
Biochemistry	Genetics
Genetic Engineering	Molecular Biology
Physiology	

Academic Background				
Degree	Specialization	University	Class	Month & Year of Passing
Ph.D.	Genetics	Department of Genetics, Dr. ALM PG Institute of Basic Medical Sciences (IBMS), University of Madras, Chennai, India	First Class	2006
M.Sc.	Zoology	University of Madras, Guindy Campus, Chennai, India	First Class	2000
B.Sc.	Zoology	Holy Cross College, Bharathidasan University, Tiruchirapalli, India	First Class	1997

Work Experience							
Name of the Institution/Company			Position		From	To	
Sree Balaji Dental College and Hospital			Professor and Head		March 2021	Till date	
			Associate Professor and Head		May 2019	Feb 2021	
			Assistant Professor		Feb 2016	April 2019	
Department of Biotechnology, Prathyusha Institute of Technology and management, Aranvoyaluppam, Chennai.			Assistant Professor		June 2013	April 2014	
Department of Medical Microbiology, Faculty of Medicine, University Of Malaya, Kuala Lumpur, Malaysia.			Post Doctoral Research Associate		Nov 2011	April 2012	
Department of Biotechnology, Orchid Chemical & Pharmaceuticals Ltd, Chennai.			Post Doctoral Fellow		July 2009	Oct 2011	
Department of Biological Sciences, University of Delaware, Newark, Delaware, USA.			Post Doctoral Fellow		June 2008	June 2009	
Department of Biotechnology, Orchid Chemical & Pharmaceuticals Ltd, Chennai.			Post Doctoral Associate		Mar 2007	April 2008	
Centre for Biotechnology, Anna University, Chennai.			Guest Faculty		Sep 2006	Feb 2007	
Total experience	15 years 9 months	Teaching	2 years	Research	13 years 9 months	Administration	-

Research Publications				
International Journal	National Journal	International Conference	National Conference	Total Number of Publications
Recent Publications(Journals)- Chronological order				
Sl. No	Details			
1	Usha Subbiah , Athira Ajith, Harini Venkata Subbiah, Molecular Docking and Dynamics Simulation of Orthosiphon stamineus against SGLT1 and SGLT2, Journal of Biomolecular structure and Dynamics, 2023, (Scopus and Pubmed Indexed)			

2	Priyanka Venugopal, Kannika Logu, Karthikeyan Balakrishnan, Usha Subbiah , Damal Kandadai sriram, Melvin George, Differential expression of caveolin-3 suppression of tumorigenicity 2 and growth differentiation factor-15 genes and 4 its association with acute myocardial infarction- A cross sectional study in a multi-speciality hospital in Tamil Nadu,2023, (Scopus and Pubmed Indexed)
3	Harini Venkata Subbiah; Polani Ramesh Babu; Usha Subbiah , Determination of deleterious single nucleotide polymorphisms of human LYZ C gene: An in silico study, Journal of Genetic Engineering and Biotechnology,2022 (Accepted for Publication), (Scopus and Pubmed Indexed).
4	Harini Venkata Subbiah, Polani Ramesh Babu, Usha Subbiah . Determination of deleterious single nucleotide polymorphisms of human lactoferrin gene. Research Journal of Biotechnology,2022, (Scopus and Pubmed Indexed).
5	Harini Venkata Subbiah, Polani Ramesh Babu, Usha Subbiah , Insilico targeting of red complex bacteria virulence factors of periodontitis with b-defensin 1, J of Genetic Engineering and Biotechnology,2022, 20:59 (Scopus and Pubmed Indexed).
6	Harini Venkata Subbiah, Usha Subbiah, Athira Ajith. Association of β -defensin 1 gene polymorphism and dental caries susceptibility in tamil ethnicity. Research Journal of Pharmacy and Technology. Year: 2021, Vol: 14, Issue: 9.
7	Usha Subbiah , Harini Venkata Subbiah, Sumathi K, Shenbaga Lalitha S, Saliva As A Biomarker Tool, Journal of Angiotherapy, 2021,5:2(Scopus Indexed).
8	Harini Venkata Subbiah, Polani Ramesh Babu, Usha Subbiah , Daniel Rajendran T, Vinod Kumar P, 2021, Immune Dysfunction Linking Periodontitis And Diabetes, Journal of Angiotherapy, 5;2 (Scopus indexed)
9	Athira Ajith, Usha Subbiah , Deepika. P, Minthami Sharon P. Signaling Pathway Genetic Variations In Apical Periodontitis, Journal of Angiotherapy,2021
10	Subbiah Usha , Roy Debarshi, Elango Sonaa,. An Insight Of DNARepair Gene Polymorphism In Oral Premalignant Disorders Associated With Habitual Risk Factors. EuropeanJournalofMolecular&ClinicalMedicine.2020Dec14;7(5):1340-54. (Scopus indexed)

11	Usha S, Gokulalakshmi E, Sonaa E, Arvind R, Bagavad G, Karthikeyan S, Effect of Chitosan, Chitosan Nanoparticle, Anacyclus pyrethrum and Cyperus rotundus in combating Plasmid Mediated Resistance in Periodontitis. <i>Anti- Infective Agents</i> , 2020, 18 (1) (Scopus Indexed).
12	Harini Venkata Subbiah, Polani Ramesh Babu, and Usha Subbiah. Single Nucleotide Polymorphisms of Salivary Antimicrobial Peptides in Periodontitis <i>European Journal of Molecular & Clinical Medicine</i> , 2020, Volume 7, Issue 5, Pages 1354-1363.
13	Harini Venkata Subbiah, Polani Ramesh Babu, and Usha Subbiah. "In silico analysis of non-synonymous single nucleotide polymorphisms of human DEFB1 gene." <i>Egyptian Journal of Medical Human Genetics</i> 21.1 (2020): 1-9.
14	Harini Venkata Subbiah, Usha Subbiah, Athira Ajith, and Ramesh Babu Polani. "Role of Neutrophils in Periodontitis: A Review." <i>Indian Journal of Public Health Research & Development</i> 10, no. 12 (2019): 956-961.
15	Harini Venkata Subbiah, Usha Subbiah , Athira Ajith, Ramesh Babu Polani. Single Nucleotide Polymorphism of Salivary Antimicrobial Peptides in Periodontitis. <i>Indian Journal of Public Health Research and Development</i> , Nov 2019 (Scopus Indexed).
16	Subbiah, Usha, Harini Venkata Subbiah, Athira Ajith, and Sonaa Elango. "Salivary Secretory Proteins-Unveiling Genetic Polymorphism and Diseases." <i>Indian Journal of Public Health Research & Development</i> 10, no. 11 (2019).
17	Ajith, Athira, Usha Subbiah, and Harini Venkata Subbiah. "Role of Genetics in Dentistry: A Review." <i>Indian Journal of Public Health Research & Development</i> 10, no. 12 (2019): 965-969
18	Athira Ajith, Usha Subbiah , Harini Venkata Subbiah. Genetic Analysis In Pain Associated Deep Caries. <i>Indian Journal of Public Health Research and Development</i> , Accepted for publication, Nov 2019 (Scopus Indexed).
19	S. Karthika Nagarajan, Usha Subbiah , Human Papilloma Virus Infection Status and Oral Cancer incidence in South India – lack of evidence and its current impacts. <i>Indian Journal of Public Health Research and Development</i> , Accepted for publication, 2019 (Scopus Indexed).

20	Angeline Julius, Usha Subbiah , Sonaa Elango .Designing Universal Primer For The Identification Of Erythromycin And Tetracycline Resistance Genes In Oral Streptococci. Indian Journal of Public Health Research and Development, Accepted for publication, Nov 2019 (Scopus Indexed).
21	Usha S , Gokulalakshmi E, Sonaa E, Arvind R, Bagavad G, Karthikeyan S, Effect of Chitosan, Chitosan Nanoparticle, Anacyclus pyrethrum and Cyperus rotundus in combating Plasmid Mediated Resistance in Periodontitis. Anti-Infective Agents, 2019, 17(Scopus Indexed).
22	Elango S, Balcos MC, Subbiah U , Jeong J,Wanwyk R, Enhanced Oxidistability Of Lipoproteins In Radiation Treated Oral Cancer Cases, Interfered By Antioxidant Selenium. Journal of Interdisciplinary Biosciences. (2018) 2(2): 1-11. (International Scientific Indexing)
23	Sonaa Elango, Shila Samuel, Zenith Khashim, Usha Subbiah , Selenium influences trace elements homeostasis, cancer biomarkers in squamous cell carcinoma patients administered with cancerocidal radiotherapy. Asia Pacific Journal of Cancer Prevention(2018) 19: 253-260.(Pubmed, Scopus Indexing)
24	Usha Subbiah , Gokulalakshmi Elayaperumal and Sonaa Elango, Plasmid mediated antibiotic resistance in <i>E. coli</i> isolated from chronic periodontitis. European Journal of Biomedical and Pharmaceutical sciences (2017) 4(6) (Index Copernicus)
25	Usha Subbiah , Gokulalakshmi Elayaperumal, Arvind Ramanathan & Sonaa Elango, Horizontal gene transfer in plasmid: Are we close to eliminating periodontal pathogens?. International Journal of Bio-Technology and Research (2017) 7(3): 17-28. (Scopus Indexed).
26	Sonaa Elango, Usha Subbiah , Radiosensitization effect of Selenium on the "Warburg effect", Metabolism of hypoxic Oral Squamous cell Carcinoma. American Journal of Pharma Tech Research; 2016; 6(5): 2249-3387(Google Scholar, Cite factor).
27	Sonaa Elango, Zenith Kasim, Shila Samuel, Usha Subbiah , Marie Carmel Balcos,Modulation of macro molecular damages and membrane structural integrity by Selenium in Radiation treated human stage (III) oral cancer cases;, International Journal of Current Research in Medical Sciences (2016). 2(9): 8-21.(Google Scholar, Cite factor)

28	Sonaa E, Ja In J, Usha S . The differential behaviour of Selenium analogs on anticancer drug induced apoptotic lymphocytes of human peripheral blood. Asia Pacific Journal of Cancer Prevention; 2016;17 (5), 2527-2533. (Pubmed, Scopus Indexing)
29	Sonaa E, Usha S . Influence of selenium on radiogenic collagen destruction and the degree of collagen tissue maturation in stage III oral squamous cell carcinoma patients undergoing therapeutic irradiation. Journal of Cancer Research and Therapeutics; 2015; Jan-Mar; 11(1):181-190. (Scopus Indexed).
30	Sonaa E, Usha S , Ja In J. Interaction of Mineral with plant: An ex vivo study of Selenium, Genistein on the morphological and nuclear changes in anticancer drug induced apoptotic human peripheral blood lymphocytes. Biofactors;2013;May-June;39(3):279-93. (Pubmed, Scopus Indexing)
31	Johnson Irudayam Maria; Kesavan Chandrasekhar; Usha Subbiah ; Malathi Raghunathan. Analysis of group I intron splicing in the presence of naturally occurring methylxanthines . Clinica Chimica Acta; International journal of clinical chemistry 2009;400(1-2):74-76. (Pubmed, Scopus Indexing)
32	Usha Subbiah , and Malathi Raghunathan. Chemoprotective action of Resveratrol and Genistein from cisplatin and mitomycin C induced apoptosis in human peripheral blood lymphocytes. Journal of Biomolecular Structure and Dynamics2008; 25(4): 425-434. (Pubmed, Scopus Indexing)
33	S.Usha , I.Maria Johnson, R.Malathi, Protective action of theophylline on cisplatin and mitomycin C induced apoptosis in human peripheral blood lymphocytes, Journal of Biomolecular Structure and Dynamics2007; 24(6): 683.
34	Usha Subbiah , Maria Johnson Irudayam, Malathi Raghunathan. Possible Inhibition of Group I Intron RNA by Resveratrol and Genistein. Journal of Biomolecular Structure and Dynamics2006; 24:1-8.(Pubmed, Scopus Indexing)
35	Subbiah Usha , Irudayam Maria Johnson, Raghunathan Malathi. Modulation of DNA intercalation by Resveratrol and Genistein. Molecular and Cellular biology
36	Usha S , Maria Johnson I, Malathi R. Interaction of resveratrol and genistein with nucleic acids. Journal of Biochemistry and Molecular Biology 2005; 38: 198-205. (Pubmed, Scopus Indexing).
International Book Chapters Publication:	

1	Elango, S., Veerappan, K., Subbiah, U , Biofluid Markers Unveiling Cancer Diagnosis And Prognosis – With Special Reference To Oxidative Stress, Handbook of Oxidative Stress in Cancer: Therapeutic Aspects ,Springer Publication, 2022
2	Usha Subbiah , Sonaa Elango, Raghavendra Jayesh, Herbals and green synthesized nanoparticles in dentistry, chapter 25, Elsevier Publication, Nanobiomaterials in Clinical Dentistry, 2019.
3	Karthikeyan Subramani, Abdelbary Elhissi, Usha Subbiah , Waqar Ahmed, chapter 1: Introduction to Nanotechnology Elsevier Publication, Nanobiomaterials in Clinical Dentistry, 2019.
4	Karthikeyan Subramani, Usha Subbiah and Sarandeep Huja, Nanotechnology in orthodontics—1: The past, present, and a perspective of the future, chapter 11,Elsevier 2019.

Programmes (Workshop/ Training/ conference) Conducted/ Attended	
Sl. No	Details in Chronological order
1.	Judge for poster presentation for CSIR & TNSCST sponsored 1 st National conference on Biomaterilas in Health care 2023, 18 th -19 th Aug, 2023, Sree Balaji Medical College and Hospital
2.	Poster presentation – “Green synthesis of gold nanoparticles using Benincasa hispida and evaluation of its anticancer activity against oral cancer cell line” presented on 18 th -19 th Aug 2023 at CSIR & TNSCST sponsored 1 st National conference on Biomaterilas in Health care 2023, Sree Balaji Medical College and Hospital; Usha Subbiah, Athira Ajith
3.	Conducted Hands on workshop on SNP detection and analysis, at Human Genetics Research Centre, SBDCH on 21st Sep, 2022.
4.	Conducted Hands on workshop on Genetic Variant analysis, at Human Genetics Research Centre, SBDCH on 24th Aug, 2022.
5.	Attended 3 Days Workshop on DGE Data Analysis from, Biodeavour Research Lab,Chennai,21 to 23, June,2022
6.	Attended 3 Days Workshop on NGS Variant Calling Data Analysis, Biodeavour Research Lab, Chennai, 12th to 14th, May 2022.
7.	Conducted Workshop on Gene Expression using Real Time PCR, Dec 10th

	2021,Sree Balaji Dental College and Hospital
8.	International Conference on Nanomedicine and Nanomaterials organised by Mar Athanasios College for Advanced Studies Tiruvalla, MACFAST , 03/09/2021 to 05/09/2021
9.	International Virtual Conference on "SARS-CoV-2 CONTAGION LESSONS LEARNT" Dec 15, 16, 2021, Sree Balaji Dental College and Hospital
10.	Workshop on SARS-CoV-2 by Real Time PCR Sree Balaji Dental College and Hospital
11.	International Poster presentation: —Cost Effective Salivary viral DNA Isolation - A Pilot Study presented on 4th September 2020 at 5th International World Dental and Oral Health Congress 2020, Europe Series, Karthika Nagarajan, Usha Subbiah.
12.	Hands on workshop on ARMS PCR” in Exon Biosciences on Sep 2019, Chennai
13.	Hands on Workshop on "Targeted Genome Engineering using CRISPR/ CAS9", (5 days, March 2019, Chennai.
14.	Conducted Guest Lecture on Korean herbs in oral care and Cancer management" International Speaker Sonaa Elango, Dept. of Life Science, School of Natural sciences, University of Suwon, South Korea, Feb 2018 at SBDCH.
15.	Micro-communities within us: Microbiome, participated Guest Lecture by Dr Naveen Kumar, Sep 2018.
16.	Indian Association of Medical Microbiology (IAMM) Tamil Nadu Chapter, SBDCH, Chennai, 29th July 2016.
17.	International symposium on Endodontic Microbiology and Academic review, SBDCH, Chennai, 11th July 2016
18.	Attended certification training programme on Molecular biology in Biozone Research Technology Ltd. (Sep 27,2010- Dec 3, 2010)
19.	International symposium on Translational research: Apoptosis and Cancer. Trivandrum, 18th to 21st Dec 2005
20.	National Symposium on —Discussion Meeting on Structural Biology and Symposium on Biophysics , Chennai, INDIA, Jan’ 21 – 23, 2002.
21.	National Symposium on —Recent advances in molecular Genetics , Chennai, INDIA, March 19, 2003.
22.	A Preliminary work (PhD) was accepted under the title entitled —Group I intron as a therapeutic target: Screening of Chemotherapeutic agents lodging amino groups against <i>Candida albicans</i> ” under the heading: Detection of novel agents. International Conference (American Society for Microbiology) on Emerging

	Infectious Diseases in Atlanta, USA, 2002
23.	Workshop on —Biotechnology and Immunological strategies for research Department of Biotechnology, University of Madras. (March 15th and 16th 2001)
24.	Continuing Medical education programme and workshop on "Blood Coagulation profile", Institute of Bio Chemistry, Madras Medical College, Tamil Nadu Dr. MGR Medical University, India. (14th and 15th Dec 2001)

Roles and Responsibilities	
Sl. No	Details
1.	Principal Investigator under Department of Science and Technology DST-FIST programme - From 2018-2023
2.	GUIDE/CO-GU IDE- Bharath University
3.	Coordinates research agendas and work plans, working in conjunction with research
4.	Reviews and edits all research reports : Guidance, editing dissertations, Project handling and manuscript preparations
5.	Provides technical assistance and support
6.	Reviewer for reputed journals

Awards Received	
Sl. No	Details
1	Principal Investigator for the project "Characterization of Plasmid and Integron from Chronic periodontal pathogens" under Department of Science and Technology DST- FIST programme - From 2018-2023.
2	Award of Project Fellow under the title “Study of Novel Antimutagens and Anticarcinogens from Marine and Herbal Sources” under University with potential for Excellence Programme from University Grant Commission, New Delhi, INDIA [June 18 th 2003 – 28 th Feb 2006].
3	Award of Project Fellow under the title “An <i>in vitro</i> splicing assay to study the structure-function relation of group I intron of Tetrahymena rRNA” from University Grants Commission, New Delhi, INDIA [Aug 28 th 2001– March 31 st 2002].