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QUALIFICATIONS:

January 2011, **Ph.D., Bio - Medical Genetics - Pharmacology and Environmental Toxicology (Interdisciplinary)** : University of Madras.

April 2003-**M.Sc., (Bio-Medical Genetics)**, University of Madras.

April 2000-**B.Sc., Microbiology**- University of Madras.

RESEARCH INTERESTS:

Pharmacogenomics, Toxicogenomics, SNP detection, Cancer Genetics, Angiogenesis.

POST-DOC / WORK EXPERIENCE:

- 1) 2003– 2004: Research Assistant, YRG Centre for AIDS Research and Education (YRG CARE), VHS Hospitals, Taramani, Chennai 600 113,INDIA.
- 2) 2010– 2019: Asst. Professor-Genetics, Faculty of Allied Health Sciences, Chettinad Hospital and Research Institute (CHRI), Kelambakkam, Chennai 603 103, India.
- 3) January 2019-till date: Associate Professor, Faculty of Allied Health Sciences, Chettinad Hospital and Research Institute (CHRI), Kelambakkam, Chennai 603 103, India.

SUMMARY OF RESEARCH:

Papers	43	Citation	284	h- index	8	i10 Index	8
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Extra mural Research grant received:

S.No	Title of the Grant	Amount Sanctioned and the funding agency (March 2019-March 2022)
1.	Synergistic effect of nano-formulated Kaempferol and Combretastatin on anti-angiogenesis: in-vitro and in ova approach	Sanctioned Amount:46.26 L Department of Science and Technology (DST) Science and Engineering Research Board (SERB)

Patent filed:

S.No	Title of the invention	Application Number	Date of filing	Status
1.	A system and device for dispensing sterile microbial culture Media.	201841000242	03/01/2018	Application referred for examination.
2.	System and fabrication of a microbial streaking apparatus and application thereof	202041051678	27/11/2020	Published in IP Journal. Publication Date: 04/12/2020. Application referred for Firstexamination Report (FER).
3.	System and fabrication of replica plating apparatus and applications Thereof	202141056736	17/12/2021	Patent Published in IP Journal Issue No. 51/2021

Invited Lecture delivered in Conference/seminar/Workshop:

SNo	Date	Topic/Venue
1	10/05/2016	ICMR sponsored National level Seminar on“Recent Advances in Orthopaedic implants using nanotechnology” Organized by VRS College of Engineering and Technology, Arasur, Villupuram-607 107.

2	04/07/2019 and 05/07/2019	UGC Autonomy Grant sponsored National Seminar “The new vistas in chemical Sciences”. Organized by Department of Chemistry, Govt. College for Women (Autonomous), Kumbakonam
3	13/03/2021	National Virtual Seminar on New era in insilico biology and DNA polymorphism in health and disease” Organized by St. Josephs College of Arts and Science (Autom, Thiruchirapalli-620002.
4	03/04/2021	State level symposium on implications for health and design Organized by Kandaswami Kandars College, Velur, Namakkal-638 182.

Faculty Development Program attended:

SNo	Date	Topic	Organizing Institute
1.	22/11/2021 to 26/11/2021	Gene and Genome Technology for Biologists	Bihar Animal Sciences University. (AICTE Training And Learning (ATAL) Academy Online FDP :ATAL/2021/1623299248)
2.	4/10/2021 to 08/10/2021	Drug Engineering	Sardar Patel College of Engineering, Mumbai. (AICTE Training And Learning (ATAL) Academy Online FDP ATAL/2021/1623298870
3.	14/09/2021 to 18/09/2021	Applications of Biotechnological and Analytical Tools in Pharmaceutical Research	Meerut Institute of Engineering & Technology. (AICTE Training And Learning (ATAL) Academy Online FDP ATAL/2021/1630644832
4.	21/08/2021	Development and Delivery of e-Content	Department of English, FAHS in collaboration with IT department, Chettinad Academy of Research and Education (Deemed to be University),
5.	24/06/2020 to 30/06/2020	Teach the teachers	The Headway Academy, Chennai

S.No	Chapter title	Book Title	Publisher and ISBN Number
1.	Clubfoot, Congenital, Withor Without Deficiency of Long Bones And/Or Mirror-Image Polydactyly (CCF)"	Genetic Syndromes: A Comprehensive Reference Guide	ISBN: 9783-319-66816-1 Springer Nature (In Press)
2.	Nephrotic syndrome	Genetic Syndromes: A Comprehensive Reference Guide	ISBN: 9783-319-66816-1 Springer Nature (In Press)
3.	Gene polymorphism and the risk of coronary artery disease	Cardiovascular and Coronary Artery Imaging- 1st Edition	ISBN: 978-0-12-822706-0 Academic Press Elsevier
4.	Genomic association of polycystic ovarian syndrome: Single nucleotide Polymorphismand their role in disease Progression.	Computations in Bioinformatics and its multidisciplinary applications	ISBN:9781119654803 Scrivener Wiley Publishing
5.	Genome Wide DetectionOf Candidate Gene Polymorphism For Early Diagnosis Of Diabetic Nephropathy	Advances In Therapeutics And Diagnostics Of Human Diseases	ISBN: 978-1536153828 Nova Biomedical Publisher, USA
6.	Phytotherapeutic Approaches of Ficus religiosa (Linn) for Benzo(a)Pyrene Induced Testicular Toxicity	Advances In Therapeutics And Diagnostics Of Human Diseases	ISBN: 978-1536153828 Nova Biomedical Publisher, USA
7.	Molecular Targets For Nutraceuticals On Cancer Progression	Cancer Versus Nutraceuticals	ISBN: 9781536125290
8.	Role Of Nano-Nutraceuticals In Treatment Of Cancer.	Cancer Versus Nutraceuticals	ISBN: 9781536125290
9.	Microbial Interaction On Gastro Intestinal System: Unique Molecular Signature In Establishment Of Infections	Disorders Of Gastrointestinal Systems And Clinical Manifestation	ISBN: 9781634853668
10.	Hepato-Protective EffectOf Phloroglucinol FromSouth Indian Marine Macro Algae Against Liver Disorders.	Hepatotoxicity: Symptoms, Management and Health Implications	ISBN: 9781634826952 Nova Biomedical Publisher, USA

RESEARCH PUBLICATIONS

1. N. Saraswathi, K. Girigoswami, KC. Divya, **S. Gowtham Kumar**, Agnishwar Girigoswami, Degree of Gelatination on Ag-Nanoparticles to Inactivate Multi- drug Resistant Bacterial Biofilm Isolated from Sewage Treatment Plant, *Current Drug Delivery*, 2022 (in press).
2. Sindhu Varghese and **Subbaraj Gowtham Kumar**. Role of eNOS and TGF β 1 gene polymorphisms in the development of diabetic nephropathy in type 2 diabetic patients in South Indian population. *Egyptian Journal of Medical Human Genetics* (2022) 23:2. <https://doi.org/10.1186/s43042-022-00216-w>.
3. Santhosh Kumar Y, Kulanthaivel L, Hikku GS, Saravanan R, Lakshmi T, Kirubhanand C, Karthikeyan M, Vijayalakshmi P, **Gowtham Kumar Subbaraj**. Improved Antibacterial Activity of Water-Soluble Nanoformulated Kaempferol and Combretastatin Polyphenolic Compounds. *International Journal of Polymer Science*. 2021; Oct 27; 2021.
4. **Gowtham Kumar Subbaraj**, Kumar YS, Kulanthaivel L. Antiangiogenic role of natural flavonoids and their molecular mechanism: an update. *The Egyptian Journal of Internal Medicine*. 2021; 33(1):1-0.
5. Kumar YS, Varghese S, Kulanthaivel L, **Gowtham Kumar Subbaraj**. Association of VEGF polymorphisms and breast cancer susceptibility: Systemic review and meta-analysis. *Meta Gene*. 2021 Jul 7:100946
6. Varghese S, **Gowtham Kumar Subbaraj**. Association between PTX3 and PVT1 genetic polymorphisms and the risk of diabetic kidney disease in type 2 diabetic patients. *The Egyptian Journal of Internal Medicine*. 2021; 33(1):1-12
7. Arthiya M, Bhavani S, Jenisha J, Sharmila D, Varghese S, Kulanthaivel L, **Gowtham Kumar Subbaraj**. LDLR, MTHFR and KLOTHO gene polymorphisms as an early predictor in the risk of coronary artery disease: A Meta-analysis. *Gene Reports*. 2021 Apr 1:101120.
8. Divya M, Gayathri N, Shakthisree N, Benita SS, Varghese S, **Gowtham Kumar Subbaraj**. Association of interleukin1 β , interleukin1 receptor antagonist, interleukin 6 and angiotensin II receptor type I gene polymorphisms with end stage renal disease: A meta-analysis. *Gene Reports*. 2020 Aug 26:100856.
9. Goussalyaa, M.S.Jancya. Anolin Jemi, R.Soundarya, SindhuVarghese, Amrita Priscilla Nalini. **S Gowtham Kumar**. Association of Interleukin 6 and insulin resistance gene polymorphism with polycystic ovarian syndrome: A meta- analysis. *Meta Gene*,24, June 2020, 100675.

10. Akilpprienka B, Malarkodi M, Vivedharani R, Varghese S, Anitha V, Rajamanickam K, **Gowtham Kumar Subbaraj**. Studies on the Association of DEFB1 Gene Polymorphism (rs11362 and rs1799946) and Dental Caries in South Indian Population. *J Datta Meghe Inst Med Sci Univ* 2019; 14:237-40.
11. Sindhu Varghese, **Gowtham Kumar Subbaraj**. Prevalence of micro albuminuria and diagnostic accuracy of urine dipstick for the screening of diabetic nephropathy in type 2 diabetes patients. *Biocatalysis and Agricultural Biotechnology* 21 (2019) 101316.
12. Sindhu Varghese, **Gowtham Kumar Subbaraj**. Association between genetic variants of NOS3, TGF- β and susceptibility of diabetic nephropathy: A meta- analysis. *Meta Gene* 21:100573, April 2019. DOI: 10.1016/j.mgene.2019.100573.
13. Identification of potential inhibitors for Penicillin binding protein (PBP) from *Staphylococcus aureus*. L Kulanthaivel, J Jeyaraman, A Biswas, **Gowtham Kumar Subbaraj**, S Santhoshkumar, *Bioinformatics* 14 (9), 471-476, 2018.
14. V. Ramakrishnan, R. S. Akram Husain, **S. Gowtham Kumar**. An overview of rare genetic disorders and recent diagnostic approaches, *Saudi Journal for Health Sciences* (2016) 5, 105-117.
15. Perumal S, Babu LH, Langeswaran K, **Gowtham Kumar Subbaraj**, Balasubramanian MP. Pharmacological potential of natural flavonoid diosmin against n-nitrosodiethylamine induced hepatocellular carcinogenesis in wistar albino rats. *Int J Res Biosci.* 2015; 4:25-36.
16. Ramakrishnan V, **Gowtham Kumar Subbaraj**, Pandiyan R. Klinefelter syndrome and its association with male infertility. *Asian Pacific Journal of Reproduction.* 2014 Mar 1; 3(1):77-9.
17. Langeswaran K, **Gowthamkumar S**, Vijayaprakash S, Revathy R, Balasubramanian MP. Influence of limonin on Wnt signalling molecule in HepG2 cell lines. *J Nat Sc Biol Med* (4):126- 33; 2013.
18. Jagadeesan AJ, Langeswaran K, **Gowtham Kumar Subbaraj**, Revathy R, Balasubramanian MP. Chemopreventive potential of diosgenin on modulating glycoproteins, TCA cycle enzymes, carbohydrate metabolising enzymes and biotransformation enzymes against N-methyl-N-nitrosourea induced mammary carcinogenesis. *Int J Pharm Pharm Sci.* 2013; 5(4):575-82.
19. **Gowtham Kumar S**, Langeswaran K, Revathy R, Ramakrishnan V. Ethanolic extract of *Carum carvi* (EECC) prevents N- nitrosodiethylamine induced Phenobarbital promoted hepatocarcinogenesis by modulating antioxidant enzymes. *Int J Pharm Pharm Sc.* 5(1): 195-99; 2011.
20. Kulanthaivel Langeswaran, Rajendran Revathy, **Subbaraj Gowtham Kumar**, Shanmugam Vijayaprakash, Maruthaiveeran Periyasamy Balasubramanian. Kaempferol ameliorates aflatoxin B1 (AFB1) induced hepatocellular carcinoma through modifying metabolizing enzymes, membrane bound ATPases and mitochondrial TCA cycle enzymes. *Asian Pacific Journal of Tropical Biomedicine*, S1653-S1659; 2012. Elsevier.

21. Peranandam Tamilselvan, Kulanthaivel Langeswaran, Shanmugam Vijayaprakash, **Subbaraj Gowtham kumar**, Rajendran Revathy, Maruthaiveeran Periyaswamy Balasubramanian. Efficiency of lycopene against reproductive and developmental toxicity of Bisphenol A in male Sprague Dawley rats, *Biomedicine & Preventive Nutrition*, 4, (4), 491-498; 2014, Elsevier.
22. R. Revathy, K. Langeswaran, **S. Gowtham Kumar**, S. Vijayaprakash, P. Tamilselvan, M. P. Balasubramanian. Anti-infertility significance of aqueous extract of *Ipomoea batatas* (L.) Lam. against exposure of bisphenol A (BPA) promoted testicular toxicity in male Sprague Dawley rats, *As Pac J Reprod*, 2(4), 263-271; 2013, Elsevier.
23. Jayaraman Jagadeesan, Kulanthaivel Langeswaran, **Subbaraj Gowtham Kumar**, Maruthaiveeran Periyaswamy Balasubramanian. Diosgenin exhibits beneficial efficiency on human mammary carcinoma cell line MCF-7 and against N-nitroso- N-methylurea (NMU) induced experimental mammary carcinoma. *Biomedicine & Preventive Nutrition*, 3(4), 381-388; 2013, Elsevier.
24. Shanmugam Vijayaprakash, Kulanthaivel Langeswaran, **Subbaraj Gowtham Kumar**, Rajendran Revathy, Maruthaiveeran Periyasamy Balasubramanian. Nephro-protective significance of kaempferol on mercuric chloride induced toxicity in Wistar albino rats. *Biomedicine & Aging Pathology*, 3 ;(3) 119-124; 2013, Elsevier.
25. Kulanthaivel Langeswaran, **Subbaraj Gowtham Kumar**, Srinivasan Perumal, Rajendran Revathy, Maruthaiveeran Periyasamy Balasubramanian. Limonin – A citrus limonoid, establish anticancer potential by stabilizing lipid peroxidation and antioxidant status against N-nitrosodiethylamine induced experimental hepatocellular carcinoma. *Biomedicine & Preventive Nutrition*, 3(2), 165-171; 2013, Elsevier.
26. Langeswaran K, **Gowtham Kumar Subbaraj**, Revathy R, Balasubramanian MP. Attenuation of Aflatoxin B. *Journal of Pharmacy Research*. 2012 Jan; 5(1):177- 82.
27. Ramakrishnan V, **Gowtham Kumar S**, Madhusudhanan N. Genetic basis of coronary artery disease and its risk factors. *J Pharm Res*. 2011 Dec; 4:4504-6.
28. Madhusudhanan N, Lakshmi T, **Gowtham Kumar Subbaraj**, Ramakrishnan KV, Roy A, Geetha R. In vitro antioxidant and free radical scavenging activity of aqueous and ethanolic flower extract of *Nymphaea Alba*. *Int J Drug Dev Res*. 2011 Jul;3(3):252-8.

29. **Gowtham Kumar Subbaraj**, Ramakrishnan V, Madhusudhanan N, Balasubramanian MP. Antioxidant activity of Allyl isothiocyanate (AITC) against N-nitrosodiethylamine induced experimental liver carcinogenesis. J. Pharm. Res. 2011; 4:3690-4.

30. Ramakrishnan V, **Gowtham Kumar Subbaraj**, Govindaraju S. Cytogenetic analysis of micronuclei, sister chromatid exchange and chromosomal aberrations in pan masala chewers. International Journal of Pharma and Bio Sciences. 2011; 2(3):B122-34.

31. Thiyagarajan G, **Gowtham Kumar Subbaraj**, Ramakrishnan V, Madhusudhanan N, Selvam CA. Therapeutic Efficacy of Allyl Isothiocyanate Evaluated on N- Nitrosodiethylamine/Phenobarbitol Induced Hepatocarcinogenesis in Wistar Rats. Journal of Advanced Laboratory Research in Biology. 2010;1(1):5-9.

32. Gurunathan T, **Gowtham Kumar Subbaraj**, Selvam CA, Mandal AB. Dynamics of Phylogenetic Diversity and its influence on the production of Extracellular Protease by moderately Halotolerant Alkaliphilic Bacteria *Acinetobacter baumannii* GTCR407 Nov. Journal of Advanced Laboratory Research in Biology. 2010;1(1):23-30.

MONOGRAPH PUBLISHED:

S.No	Chapter title	Publisher and ISBN Number
1.	Allylisothiocyanate A Promising drug for Liver Cancer	Lambert Academic Publishing GmbH & Co. KG, Germany; 2011 ISBN: 978-3-8454-3057-7
2.	Cadmium Toxicity-Impact on reproductivity	Lambert Academic Publishing GmbH & Co. KG, Germany; 2011 ISBN: 978-3-8473-0609-2
3.	Limonin against Hepatocellular Carcinoma	Lambert Academic Publishing GmbH & Co. KG, Germany. ISBN No: 978-3-8484-9905-2
4.	Diosgenin - Diosgenin against Chemical Induced Mammary Carcinogenesis and in MCF-7 Human Breast Cancer Cell Line	Lambert Academic Publishing GmbH & Co. KG, Germany. ISBN No: 978-3-659-15661-8
5.	Role of <i>Ipomoea batatas</i> (L) against maleinfertility	Lambert Academic Publishing GmbH & Co. KG, Germany. ISBN No: 978-3-659-41875-4

MEMBERSHIP:

1. Life member in Indian Association of Bio- Medical Scientists (IABMS), Chennai.
2. Member, Board of Studies, Chettinad Academy of Research and Education.
3. External member for Evaluation-Vels Institute of Science and Technology and Advance Studies (Deemed to be University), Pallavaram, Chennai.
4. Member, Asian Council for Science Editors