

DR.S.GOWTHAM KUMAR,  
Associate Professor  
Faculty of Allied Health Sciences,  
Chettinad Hospital and Research Institute,  
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## EXPERIENCE

- **January 2019 – till date**  
Associate Professor,  
Faculty of Allied Health Sciences, CHRI,  
Chettinad Academy of Research and Education (Deemed University),  
Kelambakkam-603 103, Tamil Nadu, India.
- **March 2010 – December 2018**  
Assistant Professor,  
Faculty of Allied Health Sciences,  
Chettinad Academy of Research and Education (Deemed University),  
Kelambakkam-603 103, Tamil Nadu, India.
- **Feb 2007-March 2010**  
Junior Research Fellow (UGC),  
Department of Pharmacology & ET,  
University of Madras,  
Dr. ALM PG IBMS, Taramani Campus, Chennai-600 113.
- **Nov 2003- June 2005**  
Research Assistant,  
YRG Centre for AIDS Research and Education, VHS Hospital campus,  
Chennai - 600 113

## EDUCATION

- **Ph.D.: Bio-Medical Genetics- Pharmacology and Environmental Toxicology**  
(Interdisciplinary) (Regular Full time) - 2007-2011  
Institute: Dr. ALM Institute of Basic Medical Sciences,  
University of Madras.
- **Master of Science: Bio-Medical Genetics (First Class)**  
(Regular-Full time) 2001-2003,  
Institute: Dr. ALM Institute of Basic Medical Sciences,  
University of Madras.
- **Bachelor Science: Microbiology (First Class)** (Regular-Full time) 1996-2000  
Institute: Muthayammal College of Arts and Science, University of Madras

**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

**Extra Mural Research Grant received:**

**Status:** Completed (03/03/ 2019 to 03/03 2022)

S No	Principal Investigator	Total Grant and Funding agency
1	Dr.S.Gowtham Kumar Grant Number: EEQ/2018/000882(03/03/ 2019 to 03/03 2022) Title: "Synergistic effect of nano- formulated kaempferol and combretastatin on anti-angiogenesis: <i>invitro</i> and <i>in ova</i> approach."	<b>Rs.46,00,000/</b>  Science and Engineering Research Board (SERB),  Department of Science and Technology (DST),  Government of India

**Book Chapters:**

<b>S.No</b>	<b>Chapter title</b>	<b>Book Title</b>	<b>ISBN Number and Publisher</b>
1.	Clubfoot, Congenital, With or Without Deficiency of Long Bones And/Or Mirror-Image Polydactyly (CCF)"	Genetic Syndromes: A Comprehensive Reference Guide	ISBN: 9783-319-66816-1 Springer Nature <b>(In Press)</b>
2.	Nephrotic syndrome	Genetic Syndromes: A Comprehensive Reference Guide	ISBN: 9783-319-66816-1 Springer Nature <b>(In Press)</b>
3.	Spinocerebellar Ataxia Autosomal Recessive (SCAR) 20, 21, 23, 24	Genetic Syndromes: A Comprehensive Reference Guide	ISBN: 9783-319-66816-1 Springer Nature <b>(In Press)</b>
4.	Imaging modalities for congenital heart disease and genetic polymorphism associated with coronary artery and cardiovascular diseases	Cardiovascular and Coronary Artery Imaging Volume 2	ISBN: 978-0-12-821983-6 Elsevier Academic Press
5.	A Promising Therapeutic for Cancer Model and Alzheimer's Disease	Handbook of Animal Models and its Uses in Cancer Research, Perspectives of Stem Cell Therapy	ISBN: 9789811938238,2022, Springer Nature.
6.	Triple-Negative Breast Cancer (TNBC): Clinical Features and Therapeutic	Handbook of Animal Models and its Uses in Cancer Research, Perspectives of Stem Cell Therapy	ISBN: 9789811938238,2022, Springer Nature.
7.	Gene polymorphism and the risk of coronary artery disease	Cardiovascular and Coronary Artery Imaging-1st Edition	ISBN: 978-0-12-822706-0 Elsevier Academic Press
8.	Genomic association of polycystic ovarian syndrome: Single nucleotide Polymorphism and their	Computations in Bioinformatics and its multidisciplinary applications	ISBN:9781119654803 Scrivener Wiley Publishing

	role in disease Progression.		
9.	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
10.	Phytotherapeutic Approaches of <i>Ficus religiosa</i> (Linn) for Benzo(a)Pyrene Induced Testicular Toxicity	Advances In Therapeutics And Diagnostics Of Human Diseases	ISBN: 978-1536153828 Nova Biomedical Publisher, USA
11.	Molecular Targets For Nutraceuticals On CancerProgression	Cancer Versus Nutraceuticals	ISBN: 9781536125290 Nova Biomedical Publisher, USA
12.	Role Of Nano-Nutraceuticals In Treatment Of Cancer.	Cancer Versus Nutraceuticals	ISBN: 9781536125290 Nova Biomedical Publisher, USA
13.	Microbial Interaction On Gastro Intestinal System:Unique Molecular Signature In Establishment Of Infections	Disorders Of Gastrointestinal Systems And Clinical Manifestation	ISBN: 9781634853668 Nova Biomedical Publisher, USA
14.	Hepato-Protective EffectOf Phloroglucinol From South Indian Marine Macro Algae Against Liver Disorders Liver Disorders.	Hepatotoxicity: Symptoms, Managementand Health Implications	ISBN: 9781634826952 Nova Biomedical Publisher, USA

**Monographs Published:**

S.No	Chapter title	Publisher and ISBN Number
1.	Allylthiocyanate 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.	Role of <i>Ipomoea batatas</i> (L) against male infertility	Lambert Academic Publishing GmbH & Co. KG, Germany ISBN No: 978-3-659-41875-4,
5.	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

**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

**Invited Lecture delivered in Conference/seminar/Workshop:**

SNo	Date	Topic/Venue
1	10/05/2016	ICMR sponsored National level Seminar on “Recent Advances in Orthopedics implants using nanotechnology” Organized by VRS College of Engineering and Technology, Arasur, Villupuram-607 107.
2	04/07/2019	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. Joseph College of Arts and Science (Autonomous), Thiruchirapalli- 620002.
4	03/04/2021	State level symposium on implications for health and design Organized by Kandaswami Kandars College, Velur, Namakkal-638 182.
5	29/03/2022	Invited lecture on Advancements in Molecular Therapeutics Organized by Department of Microbiology, Sri Ganesh College of Arts and Science, Ammapet, Salem-636 014.
6	17/05/2022	Invited lecture on “Molecules as Medicine and Diagnostic approach on Inherited Disorders” Organized by Department of Biochemistry, Vivekanandha College of Arts and Science for Women, Elayampalayam, Tiruchengode, Namakkal (Dt)

## Publications:

1. Saraswathi N, Girigoswami K, Divya KC, **Gowtham Kumar S**, Girigoswami A. Degree of Gelatination on Ag-Nanoparticles to Inactivate Multi-drug Resistant Bacterial Biofilm Isolated from Sewage Treatment Plant. *Current Drug Delivery*, **2022** May 9 (IF=3.7).
2. Shaslinah N, Sangavi P, Sangeetha R, **Gowtham Kumar S**, Sindhu V, Langeswaran K. Screening and identification of potential inhibitor for visceral leishmaniasis (VL) through computational analysis. *Journal of Genetic Engineering and Biotechnology*. 2022; 20(1):1-2 (IF=0.729).
3. Varghese S, **Gowtham Kumar S**. Role of eNOS and TGF $\beta$ 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 Dec; 23(1):1-0 (IF=0.595).
4. Pandi S, Kulanthaivel L, **Gowthamkumar S**, Rajaram S, Subramanian S. Screening of Potential Breast Cancer Inhibitors through Molecular Docking and Molecular Dynamics Simulation. *BioMed Research International*. 2022 Jun 28; 2022 (IF=2.583).
5. Varshini GS, Harshini S, Siham MA, Tejaswini GK, Kumar YS, Kulanthaivel L, **Gowtham Kumar S**. Investigation of FOXP3 (rs3761548) polymorphism with the risk of preeclampsia and recurrent spontaneous abortion: A systemic review and meta-analysis. *Asian Pacific Journal of Reproduction*. **2022** May 1; 11(3):117 (IF=1.479).
6. Nirusimhan V, Gideon DA, Parashar A, Jeyachandran S, Jeyaraman J, **Gowtham Kumar S**, Kulanthaivel L. Structural Modeling of Drosophila melanogaster Gut Cytochrome P450s and Docking Comparison of Fruit Fly Gut and Human Cytochrome P450s. *Current Drug Metabolism*,**2022** (IF=3.4).
7. Santhosh Kumar Y, Kulanthaivel L, Hikku GS, Saravanan R, Lakshmi T, Kirubhanand C, Karthikeyan M, Vijayalakshmi P, **Gowtham Kumar S**. Improved Antibacterial Activity of Water-Soluble Nanoformulated Kaempferol and Combretastatin Polyphenolic Compounds. *International Journal of Polymer Science*. **2021**; Oct 27; 2021 (IF=2.642).
8. **Gowtham Kumar S**, 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.

9. Kumar YS, Varghese S, Kulanthaivel L, **Gowtham Kumar S**. Association of VEGF polymorphisms and breast cancer susceptibility: Systemic review and meta-analysis. *Meta Gene*, **2021** Jul 7:100946 (IF=0.536).
10. Varghese S, **Gowtham Kumar S**. 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.
11. Arthiya M, Bhavani S, Jenisha J, Sharmila D, Varghese S, Kulanthaivel L, **Gowtham Kumar S**. 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 (IF=1.541).
12. Divya M, Gayathri N, Shakthisree N, Benita SS, Varghese S, **Gowtham Kumar S**. Association of interleukin1 $\beta$ , 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 (IF=1.541).
13. Goussalyaa, M.S.Jancya. Anolin Jemi, R.Soundarya, SindhuVarghese, Amrita Priscilla Nalini, **Gowtham Kumar S**. Association of Interleukin 6 and insulin resistance gene polymorphism with polycystic ovarian syndrome: A meta- analysis. *Meta Gene*,24, June **2020**, 100675 (IF=0.536).
14. Akilpprienka B, Malarkodi M, Vivedharani R, Varghese S, Anitha V, Rajamanickam K, **Gowtham Kumar S**. 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.
15. Sindhu Varghese, **Gowtham Kumar S**. 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 (IF=3.281).
16. Sindhu Varghese, **Gowtham Kumar S**. Association between genetic variants of NOS3, TGF- $\beta$  and susceptibility of diabetic nephropathy: A meta- analysis. *Meta Gene* 21:100573, April **2019**.DOI: 10.1016/j.mgene.2019.10057 (IF=0.536).
17. L Kulanthaivel, J Jeyaraman, A Biswas, **Gowtham Kumar S**, S Santhoshkumar Identification of potential inhibitors for Penicillin binding protein (PBP) from *Staphylococcus aureus.*, *Bioinformation* 14 (9), 471-476,**2018** (IF=0.31).
18. V. Ramakrishnan, R. S. Akram Husain, **Gowtham Kumar S**. An overview of rare genetic disorders and recent diagnostic approaches, *Saudi Journal for Health Sciences* (**2016**) 5, 105-117.



19. Perumal S, Babu LH, Langeswaran K, **Gowtham Kumar S**, 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.
20. Ramakrishnan V, **Gowtham Kumar S**, Pandiyan R. Klinefelter syndrome and its association with male infertility. *Asian Pacific Journal of Reproduction.* **2014** Mar 1; 3(1):77-9 (IF=1.479).
21. Langeswaran K, **Gowtham Kumar 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** (IF=0.672).
22. Jagadeesan AJ, Langeswaran K, **Gowtham Kumar S**, 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.
23. **Gowtham Kumar S**, Kulanthaivel L, Rajendran R, Veerabathiran R. Ethanolic extract of *Carum carvi* (EECC) prevents N-nitrosodiethylamine induced phenobarbital promoted hepatocarcinogenesis by modulating antioxidant enzymes. *Int J Pharm Pharm Sci.* **2013** Jan; 5:195-9.
24. **Gowtham Kumar S**, Langeswaran K, Revathy R, Ramakrishnan V Ethanoloic 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**.
25. 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** (IF=1.545).
26. Peranandam Tamilselvan, Kulanthaivel Langeswaran, Shanmugam Vijayaprakash, **Gowtham Kumar S**, 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**.
27. R.Revathy, K. Langeswaran, **Gowtham Kumar S**, 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 (IF=1.479).

28. Jayaraman Jagadeesan, Kulanthaivel Langeswaran, **Gowtham Kumar S**, 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**.

### **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 PhD Evaluation-Vels Institute of Science and Technology and Advance Studies(Deemed to be University), Pallavaram, Chennai.
4. Member, Asian Council for Science Editors.
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