Curriculum Vitae

Name : **Dr. D. GURU KUMAR**
Qualification : M.Sc., Ph.D.
Area of specialization : Cancer Biology & Green Nanotechnology
Designation : Assistant Professor
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Academic Qualifications

- **Ph.D.** in Biochemistry from *Bharathiar University*, Coimbatore, Tamil Nadu, India, 2012
- **M.Sc.** in Biochemistry from *Periyar University*, Salem, Tamil Nadu, India, 2007
- **B.Sc.** in Biochemistry from *Sri Venkateshwara University*, Tirupati, Andhra Pradesh, India, 2005

Major Research Interest

- The major focus of my research is to decipher the molecular mechanism of drug resistance of cancer and find out novel small molecule inhibitors which will inhibit the cancer cell growth, metastasis, self renewal property without affecting the normal cell niche.
- Evaluation of anti cancer potentiality of small bioactive molecule / metal nano particle in pre clinical model in cancer cells.

Research Experience

- **Research Associate:**
  Division of Medicinal Aromatic and Economic Plants, in *CSIR-North East Institute of Science and Technology, Jorhat, Assam, India*
- **Senior Research Fellow** *In the Dept of Biotechnology, GKVK, UAS, Bangalore*
- **Junior Research Fellow** *Division of Chemical Engineering, in CSIR-North East Institute of Science and Technology, Jorhat, Assam, India.*

Teaching Experience

Teaching -**5 Years**, for UG (**1 Year**) and PG (**4 Years**).

Scientific Society Membership

- *Life member of Indian Association for Cancer Research* (**IACR-LM699**).

Total No. of Publications

Scopus author ***h*** index: **03**; **Citation: 46**

- *Research Papers:* **29**
- *Chapter in books:* **01**
- *International Conferences:* **15**
- *National seminars:* **12**
- *Workshops:* **06**

Recognized as Research Guide for Ph.D Programme

- Recognized Guide in Biochemistry for the Ph.D. Programme under *University of Mysore*, Mysuru, Karnataka, India.

Research Supervision

- **M.Sc** Dissertation/Project: 24

Detail Publications:

1. **D. Guru Kumar**[*] "Antioxidant, Antibacterial, Antidiabetic Potential and Genotoxicity of Silver Nanoparticles using leaf extract of *Curcuma longa*: A Novel Green Approach" *Int. Res. J. Pharm*. (***Accepted*** **January, 2019**).
2. **D. Guru Kumar** and Syeda Hajira Banu **"**Evaluation of antibacterial and anti-inflammatory activities of selected fungal extracts**"** *International Journal of Pharmacy and Biological Sciences*, 7 (4) 2017, 133-138.
3. **D. Guru Kumar**[*]**,** Sharanya Raj NL, Rakshith Kumar, Nagendra KS "Novel biogenic synthesis of AgNPs from seed extract of *Eugenia uniflora* L.: *In vitro* assessment of their antioxidant, antimicrobial and cytotoxic potential" *Int. Res. J. Pharm*. 2017, 8 (11).
4. D. Guru Kumar and Chaitra KE "green synthesis of silver nanoparticles by using *simarouba amara* aubl. Fruit extract and their antioxidant and antibacterial activities" *International Journal of Drug Delivery Technology* 2017; 7(3); 137-145.
5. **D. Guru Kumar** and Patel Sunil Kumar.T.L "A Green approach to Phytomediated synthesis of Silver Nanoparticles using *Eugenia uniflora* L. Fruit extract and their Antioxidant and Antibacterial activities" *International Journal of Pharmacognosy and Phytochemical Research* 2017; 9(3); 343-350
6. **D. Guru Kumar**, P.Chella Perumal, Kiran Kumar, Sridhar M, V.K. Gopalakrishnan "Dietary Evaluation, Antioxidant and Cytotoxic Activity of Crude Extract from Chia Seeds (*Salvia hispanica* L.) against Human Prostate Cancer Cell Line (PC-3)" *International Journal of Pharmacognosy and Phytochemical Research* 2016; 8(8); 1358-1362.
7. **D. Guru Kumar,** P. Deepa M.A. Rathi, P. Meenakshi and V. K. Gopalakrishnan. "Potential Effect of *Crataeva nurvala* bark against MNU and Testosterone Induced oxidative stress in liver of male albino rats" *Biomedicine & Aging Pathology*, **2** (2012) 94-98.
8. **D. Guru Kumar**, P. Deepa M.A. Rathi, P. Meenakshi and V.K. Gopalakrishnan. "Modulatory effects of *Crataeva nurvala* bark against Testosterone and MNU induced oxidative damage in prostate of male albino rats" *Pharmacognosy Magzine*, **8**(32): (2012).
9. **D. Guru Kumar**, V. Parvathi, P. Meenakshi, M.A. Rathi and V.K. Gopalakrishnan. "Anticancer Activity of Ethanolic Extract of *Crataeva nurvala* Bark against Testosterone and MNU-Induced Prostate cancer in rats" *Chinese Journal of Natural Medicines* 2012, **10**(5): 0334-0338.
10. **D. Guru Kumar,** V.Sonumol Mathew, M.A.Rathi, L Thirumoorthi, P. Meenakshi and V.K. Gopalakrishnan. Hepatoprotective activity of *Cayratia trifolia* (L.) Domin against Nitrobenzene induced Hepatotoxicity. *Latin American Journal of Pharmacy* **30** (3): 546-9 (2011).
11. **D. Guru Kumar**, M.A.Rathi, P. Meenakshi, L Thirumoorthi, M. Sunitha and V.K. Gopalakrishnan. "Anticancer activity of *Cassia senna* (L) against Prostate Carcinogenesis".*Journal of Pharmacy Research* 2010, **3**(12), 3028-3031.
12. P.K. Goswami, A. Goswami, P.K. Chowdhury, A. K. Sarmah, **D. Guru Kumar**, D.Vijaylakshmi, C.K. Suresh, Jyoti T.S, and Maheshwari.K. "Microbial and chemical analysis of rice bran and its components for development of new food products"*International Journal of Agricultural and Food Science Technology*, **3**(2) 2012.
13. D Gomathi, C Muthulakshmi, **D Guru Kumar**, G Ravikumar, M Kalaiselvi and C Uma. "Submerged fermentation of wheat bran by *Aspergillus flavus* for production and characterization of carboxy methyl cellulose" *Asian Pacific Journal of Tropical Biomedicine* (2012)S67-S73.
14. M. Sunitha, P.D. Kavitha, M.A. Rathi, **D. Guru Kumar** and V.K. Gopalakrishnan. "Cytotoxic activity of *Pergularia daemia* against ovarian cancer cell lines OAW-42 and PA-. *Journal of Natural Pharmaceuticals* 2012, **2**(4).
15. D. Gomathi, C. Muthulakshmi, **D. Guru Kumar**, G. Ravikumar, M. Kalaiselvi and C. Uma. Production of bio-ethanol from pretreated agricultural byproduct using enzymatic hydrolysis and simultaneous saccharification. *Microbiology,* 2012, **81**(2), 201–207.
16. Rathi M.A., Meenakshi P., **D. Guru Kumar**, Raj C. Arul, Sunitha M., Gopalakrishnan V.K. *. Leaves of *Spermacoce hispida* as a Novel Cancer Therapeutic-An *In Vitro* Study. Research Journal Pharmacy and Technology, 4(8) (2011); 1288-1291.

17. C. Muthulakshmi, D. Gomathi, **D. Guru Kumar**, G. Ravikumar, M. Kalaiselvi and C. Uma. Production, Purification and Characterization of Protease by *Aspergillus flavus* under Solid State Fermentation" *Jordan Journal of Biological Sciences*, **4**: 137-148, 2011.
18. S. Suganya, D. Sophia, C. Arul Raj, M. A. Rathi, L. Thirumoorthi, P. Meenakshi, **D. Guru Kumar** and V.K. Gopalakrishnan. "Amelioration of nitrobenzene-induced nephrotoxicity by the ethanol extract of the herb *Euphorbia hirta*" *Pharmacognosy Res*. **3**(3): 201–207, 2011.
19. M. Sunitha, P. Ramya, M.A. Rathi, **D. Guru Kumar**, P. Meenakshi, and V.K. Gopalakrishnan. **"**Potential Effect of *Zingiber officinale* on Nitrobenzene Induced Liver Damage in Mice" *Nutraceuticals*, **1**: 2011.
20. V.K.Gopalakrishnan, S.Suganya, P.Ragavendran, B.Rajalakshmy Menon, M.A.Rathi, L.Thirumoorthi, P.Meenakshi, **D. Guru Kumar** "Effect of *Euphorbia hirta* on nitrobenzene induced nephrotoxicity with reference to renal ATPases" BCAIJ, **5**(2), 2011 [80-82].
21. M.A.Rathi, L.Thirumoorthi, M.Sunitha, P.Meenakshi, **D.Guru Kumar** and V.K Gopalakrishnan. Hepatoprotective activity of *Spermacoce hispida* Linn. Extract against Nitrobenzene induced Hepatotoxicity in Rats. *Journal of Herbal Medicine and Toxicology.* **4**(2) 201-205 (2010).
22. M.Kalayani, M.A.Rathi, L.Thirumoorthi, P.Meenakshi, **D.Guru Kumar,** M.Sunitha and V.K.Gopalakrishan. *Astracantha longifolia* inhibits Perchloroethylene-induced Hepatic damage in Rat. *Journal of pharmacy research* **3**(7)1535-1537 (2010).
23. M.A. Rathi, P. Meenakshi, **D.Guru Kumar,** C. Arul Raj, L.Thirumoorthi and V.K. Gopalakrishnan. Potential Antioxidant and Antiproliferative Activities of *Alysicarpus Vaginalis (L.) DC. Journal of Pharmacy Research* 2010.
24. C. Arul raj, S. Umasankari, B. Rajalakshmy menon, M.A. Rathi, P. Meenakshi, **D.Guru Kumar**, D.Sophia, P.Ragavendran and V.K. Gopalakrishnan. Ceiba pentandra (L) leaves inhibits perchloroethylene-induced hepatic damage in rats. *International Journal of Biomedical Research and Analysis*, 1: 72-75(2012).
25. S.Suganya, P.Ragavendran, B.Rajalakshmy Menon, M.A.Rathi, L.Thirumoorthi, P.Meenakshi, **D.Guru Kumar** and V.K.Gopalakrishnan. Potential Effect of *Euphorbia Hirta* (Linn) Against Nitrobenzene Induced Nephrotoxicity. *Pharmacologyonline* **2**: 963-970 (2010).
26. M. Kalaiselvi, R. Narmatha, P. Ragavendran, G. Ravikumar, D. Sophia, D. Gomathi, C. Arulraj, **D. Guru Kumar**, C. Uma and K. Kalaivani. *In vitro* free radical scavenging activity of *Jasminum sambac* (L.) Aitoleaceae flower. *Asian J Pharm Biol Res* 1: e ISSN: 2231-2218 (2011).
27. P.Meenakshi, R.Bhuvaneshwari, M.A.Rathi, L.Thirumoorthi, **D.Guru Kumar,** M.J.Jiji and V.K Gopalakrishnan. Antidiabetic Activity of Ethanolic Extract of *Zaleya decendra* in Alloxan – Induced Diabetic Rats. *Applied Biochemistry and Biotechnology* **162**:1153–1159 (2010).
28. M.A.Rathi, L.Thirumoorthi, M.Sunitha, P. Meenakshi, **D.Guru Kumar,** M.J.Jiji and V.K Gopalakrishnan. (2009). Hepatoprotective and antioxidant effects of *Sphaeranthus indicus* Linn against Perchloroethylene-induced hepatotoxicity in rats. *Biochemistry* **3**(3) 69-73.
29. M.J. Jiji, S. Visalakshi, P. Meenakshi, M.A. Rathi, L Thirumoorthi, **D.Guru Kumar** and V.K. Gopalakrishnan. Antilipidemic Activity of *Cissus Quadrangularis* and *Tribulus Terrestris* on Obesity in High Fat Fed Rats. *Pharmacologyonline,* **2**: 1250-1258 (2009).

Conference Abstracts:

1. **D. Guru Kumar** *"Genotoxicity of Green Synthesized Silver Nanoparticles (AgNPs): In-vitro assessment of their antioxidant, antibacterial and in-vitro antidiabetic activity" presented in the* 5th International Conference on Nanoscience and Nanotechnology organized by Department of Physics and Nanotechnology, SRM IST, SRM University, SRM Nagar, Chennai-603 203, Tamil Nadu, India, January 28-3th 2019.
2. **D. Guru Kumar** "*Green Synthesis of Silver Nanoparticles and their Antioxidant and Antibacterial activity"* presented in the International Conference on Advances in Cellular, Genomic and Epigenetic Insights on Environmental Mutagenesis and Health and 41st Annual Meeting of Environmental Mutagen Society of India (EMSI) School of Life Sciences, Manipal University, January 27-29, 2017.

3. **D. Guru Kumar** and GR. Shivamurthy (2015) "Antioxidant and anticancer activity of Chia seeds (*Salvia hispanica* L.) against prostate cancer Cell lines and evaluation of their nutritional bioactive compounds" presented in the *International conference on Global Cancer Summit* at *Indian Institute of Science*, Bangalore, 18th-20th November-2015.
4. **D.Guru Kumar**, Shruthi. G, Harshitha, Chinthna. J, Manaswini. K and C.K.Suresh (2013). "Antioxidant and cytotoxic activity of *Simarouba amara* against human breast cancer cell line MCF-7 cells" presented in the 32nd Annual convention of Indian Association for Cancer Research and International symposium on Infection & Cancer held at Dr. B.R. Ambedkar Center for Biomedical Research (ACBR), University of Delhi, Delhi, India, during February 13th-16th, 2013.
5. **D.Guru Kumar**, Chinthna. J, Harshitha, Shruthi. G, Manaswini. K and C.K.Suresh (2013). "Cytotoxic activity of *Punica granatum* L. peel used in traditional medicine against human breast cancer cell line MCF-7 cells" presented in the 32nd Annual convention of Indian Association for Cancer Research and International symposium on Infection & Cancer held at Dr. B.R. Ambedkar Center for Biomedical Research (ACBR), University of Delhi, Delhi, India, during February 13th-16th, 2013.
6. P.K. Goswami, A. Goswami [1], P.K. Chowdhury, A. K. Sarmah, **D. Guru Kumar**, and D.Vijaylakshmi, C.K. Suresh, Jyoti T.S, Maheshwari.K (2012). "Microbial and chemical analysis of rice bran and its components for development of new food products" presented in the International conference on Agricultural, Foods Sciences & Environmental Technology for Sustainable Global Development (AFSET-2012) on 28-29th Oct,2012 at Jawaharlal Nehru University, New Delhi-67, India.
7. **D. Guru Kumar**, P. Deepa, M.A. Rathi and V.K.Gopalakrishnan (2012). "Potential effect of *Crataeva nurvala* bark against MNU and testosterone induced oxidative stress in liver of male albino rats" presented in the Indo-Sri Lankan International Conference on Agrobiotecnology for Sustainable development held at ABSD 2012 held on 12th to 13th March 2012 in Colombo, Sri Lanka.
8. **D. Guru Kumar**, P. Deepa, P.Meenakshi, M.A. Rathi and V.K.Gopalakrishnan (2011) Modulatory effects of *Crataeva nurvala* bark against Testosterone and MNU induced oxidative damage in prostate of male wistar rats presented in the "International Conference on Stem Cells and Cancer (ICSCC-2011)" held at Yashada Auditorium, Rajbhavan complex, Pune, India, during October 15th-18th, 2011.
9. **D. Guru Kumar** and V.K. Gopalakrishnan (2011) "Chemical and Hormonal induction of prostate cancer in rat model and Chemoprevention by using *Cassia senna* L." presented in the 30th Annual convention of Indian Association for Cancer Research and International symposium on "signaling network cancer" held at Indian Institute of Chemical Biology (CSIR-IICB), Kolkata, India, during February 6th-9th, 2011.
10. **D. Guru Kumar**, V. Parvathi, M.A. Rathi L. Thirumoorthi, P. Meenakshi and V.K. Gopalakrishnan (2010) Inhibition of tumour growth in prostate gland by *Crataeva nurvala*, presented in the "International Conference on Stem Cells and Cancer (ICSCC-2010)" organized by International Institute of Information Technology, I^2IT, Pune held on 11th-14th December 2010.
11. **D. Guru Kumar** and V.K. Gopalakrishnan (2010) Cytotoxic and Antioxidant activity of *Cassia senna* against Prostate Cancer Cell Lines, presented in the National seminar on " Role of Immunomodulators in Cancer Therapy" Organized by the Department of Biotechnology, School of Biotechnology & Health Sciences. Karunya University, Coimbatore on 11th & 12th October, 2010.
12. **D. Guru Kumar** and V.K.Gopalakrishnan (2010) Antioxidant and anticancer activity of *Cassia senna* against Prostate Cancer Cell Lines, in the 3rd *Indo-Korean* Joint Seminar on "Medicinal Plant Research" at Avinashilingam University for Women, Coimbatore on 23rd February, 2010.

13. **D. Guru Kumar**, L. Thirumoorthi, M.A. Rathi and V.K. Gopalakrishnan (2010) Cytotoxic and Antioxidant activity of *Cassia senna* against Prostate Cancer Cell Lines, Carcinogenesis foundation USA in association with Reliance Life Sciences International Symposium on Frontiers in Carcinogenesis and Cancer Prevention: Scientific Endeavors and Public Health Initiatives" FEBRUARY 5th -7th, 2010. Venue: Dhirubhai Ambani Life Sciences Centre, Thane-Belapur Road, Rabale, Navi Mumbai, India.
14. **D. Guru Kumar**, C.Uma and V.K.Gopalakrishnan (2008) "Evaluation of Troponin-T and Cardiac Enzymes in Acute Myocardial Infarction with Reference to Nutrition and Life Style' presented in International Conference on Natural Products in Health & 21st Annual Conference of the Indian Society for Atherosclerosis Organized By Department of Biochemistry & Biotechnology, Annamalai University, Chidambaram. Dec 8th -10th, 2008.
15. **D. Guru Kumar**, M.A.Rathi and V.K.Gopalakrishnan (2008) "Role of Stem cells in cancer therapy and cancer stem cells" presented in a National level Seminar conducted by Department of Biochemistry, Karpagam University, Coimbatore, T.N. August 28th, 2008.