

Er. Prasanna Srinivasan Ramalingam M.Tech., (Ph.D.,)

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School of Biosciences and Technology,
VIT, Vellore, Tamil Nadu, India.

Cancer biology | Molecular biology

Drug discovery | Biotechnology

EDUCATION

Ph.D.,	Biotechnology <i>Vellore Institute of Technology, India</i>	Dec 2021-present CGPA - 8.71
M.Tech	Industrial Biotechnology <i>SASTRA Deemed to be University, India</i>	June 2021 CGPA – 7.95
B.Tech	Biotechnology <i>Periyar Maniammai Institute of Science & Technology, India</i>	April 2018

RESEARCH AREA AND INTERESTS

- Cancer biology and therapeutics
- Drug discovery
- Novel therapeutics development
- Molecular docking and modelling

WORKING EXPERIENCE

1) Vellore Institute of Technology, India Dec 2021-present

As a **Teaching cum Research Assistant** my roles and responsibilities are as follows

- Lab supervision for UG and PG courses
- Exam invigilation for various degree programs
- Project supervision for UG and PG students

2) TanBio R and D solution Jun 2018-Jul 2019

As a **Research Associate** my roles and responsibility are as follows

- Product development and validation
- Nutrition value evaluation of food products
- Analytical Characterization of products

HONORS AND AWARDS

Council for Scientific and Industrial Research-CDRI Research Intern	Jun 2020-Jul 2020
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RESEARCH EXPERIENCE

1) M.Tech Dissertation: “Studies on the therapeutic utility of novel SAHA analogs against Glioblastoma”

Shanmugha Arts, Science, Technology & Research Academy, Thanjavur

Oct 2020- Jun 2021

Advisor: Dr. M. Janaki Ramaiah Ph.D.,

- Learned molecular modelling, ADME and drug likeness evaluation of novel compounds
- Learned mammalian cell culturing methods, *In vitro* techniques like cell cytotoxicity, apoptotic, ROS and Caspase3 induction assays, staining and gene expression studies.

2) **Research Intern** at Toxicology and Experimental Medicine division

Central Drug Research Institute, Lucknow

Jul 2020-Aug 2020

Advisor: Dr. Madhav Nilakanth Mugale Ph.D.,

- In Silico screening of potent phytoconstituents for target the KRAS G12D mutants.
- Learned drug screening techniques and lead identification as a drug candidate.

3) **B.Tech Dissertation:** “Effect of sulforaphane on HT115 colon cancer cell line”

Periyar Maniammai Institute of Science & Technology

Oct 2017-Jun 2018

Advisor: Dr. S. Kumaran Ph.D., Ph.D.,

- Learned extraction, purification and characterization of phytoconstituents
- Learned troubleshooting of various assays and techniques

PUBLICATIONS

- 1) **Ramalingam PS** *et al.*, Investigating the antioxidant potential of *Ocimum basilicum* L. leaves. (Under review).
- 2) Mekala JR, Rohil Kumar K, **Ramalingam PS** *et al.*, High Glucose modulates the cancer cell fate by regulation of mTOR-HDAC-microRNA axis, 16 August 2022, PREPRINT (Version 1) available at Research Square [<https://doi.org/10.21203/rs.3.rs-1957231/v1>]
- 3) **Ramalingam PS** *et al.*, Reverse vaccinology and immunoinformatics approaches to design multi-epitope based vaccine against oncogenic KRAS. *Med Oncol.* 2023 Aug 29;40(10):283 (IF: 3.4)
- 4) Mekala JR, Chamrathy S, **Ramalingam PS** *et al.*, Structural insights and functional aspects of phospholipase A2 and phospholipase D in cancer therapy, Chapter 18-Phospholipases in Physiology and Pathology, Editor(s): Sajal Chakraborti, Academic Press, 2023; Pages 413-432.
- 5) Trivedi HD, Patel BY, Hadiyal SD, Italiya G, **Ramalingam PS**. A green one-pot synthetic protocol of hexahydropyrimido[4,5-d]pyrimidin-4(1H)-one derivatives: molecular docking, ADMET, anticancer and antimicrobial studies. *Mol Divers.* 2023 Aug 11 (IF: 3.8)
- 6) **Ramalingam PS** *et al.*, Potential biomarkers uncovered by bioinformatics analysis in sotorasib resistant-pancreatic ductal adenocarcinoma. *Front Med (Lausanne).* 2023 Jun 15; 10:1107128 (IF: 5.05)
- 7) **Ramalingam PS**, et al. Identification of Dietary Bioflavonoids as Potential Inhibitors against KRAS G12D Mutant-Novel Insights from Computer-Aided Drug Discovery. *Curr Issues Mol Biol.* 2023 Mar 6;45(3):2136-2156. (IF: 2.97)
- 8) Ramaiah MJ, Kumar KR, **Srinivas RP**, et al. High Glucose modulates the cancer cell fate by regulation of mTOR-HDAC-microRNA axis. Research Square; 2022.
- 9) Mekala, J.R., **Ramalingam, P** et al., ROS Modulatory Role of HDAC Inhibitors in Cancer Cells. In: Chakraborti, S. (eds) *Handbook of Oxidative Stress in Cancer: Therapeutic Aspects*. Springer, Singapore. 2022. (Book chapter)
- 10) Mekala JR, **Ramalingam PS, et al.**, Synthesis, in vitro and structural aspects of cap substituted Suberoylanilide hydroxamic acid analogs as potential inducers of apoptosis in Glioblastoma cancer cells via HDAC /microRNA regulation. *Chem Biol Interact.* 2022; 357: 109876. (Combined first author) (IF: 5.2).
- 11) Mekala JR, Kurappalli RK, **Ramalingam P** *et al.*, N-acetyl l-aspartate and Triacetin modulate tumor suppressor MicroRNA and class I and II HDAC gene expression induce apoptosis in Glioblastoma cancer cells in vitro. *Life Sci.* 286:120024. 2021. (IF: 5.03).
- 12) B Purushothaman, **R PrasannaSrinivasan** *et al.*, A Comprehensive review on *Ocimum basilicum*. *J. Nat. Rem.* 18 (3): 71-85. 2018. (IF: 0.53)
- 13) Balakrishnan R, Sekar GK, **Ramalingam PS** *et al.*, Distinctive pharmacological activities of *Eclipta alba* and it's coumestan wedelolactone. *Ind. Ame. J. Pharma. Sci.* 5 (4): 2996-3002; 2018.

- 14) **Ramalingam PS** *et al.*, Lipid peroxidation and anti-obesity activity of *Nigella sativa* seeds. *Wor. J. Pharma. Res.* 6 (10): 882-892; 2017.
- 15) Saranya, Kalimuthu J, Balakrishnan P, **Ramalingam PS** *et al.*, Isolation and characterisation of cellulolytic activity of bacteria and fungi from the soil of paper recycling unit at Periyar Maniammai University. *Ind. Ame. J. Pharma. Res.* 7 (6): 8253-8264; 2017.

PROFESSIONAL TRAINING

Seminar or Workshop

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| 1) Workshop on “Bioprocessing Strategies for Biofuels: Production, Modelling, Simulation and Optimization”. | 2019 |
| 2) Seminar on: “Infectious diseases” | 2019 |
| 3) Workshop on “Analytical Instruments and its Troubleshooting” | 2018 |
| 4) Seminar on “Western Blot & Immunocytochemistry” | 2018 |

Course or certifications

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| 1) Wildlife Ecology, NPTEL (Completed with Top 1%) | 2021 |
| 2) Oncology Journal Club: COVID-19 in Cancer Patients - the Early Data. How actionable is it? What Can We Learn? Stanford University | 2020 |
| 3) Introduction to Mouse Genetics Certificate Program, The Jackson Laboratory | 2020 |
| 4) Introduction to the biology of cancer, John Hopkins University via Coursera (Completed with Honors grade) | 2017 |

PROFESSIONAL SERVICE

Scientific associations:

- 1) Associate Member of “American Association of Cancer Research” (AACR) (Member ID: 1034546)
- 2) Global outreach member of “American Society of Microbiology” (ASM) (Member ID: 200218623)
- 3) Member of “International Association of Engineers” (IAENG) (Member ID: 271481)
- 4) Member of “The Asia Society of Researchers” (ASR) (Member ID: R219013006)
- 5) Life Time Member of “Scientific and Technical Research Association” (STRA) (Member ID: STRA-M19488)
- 6) Member of “Hong Kong Chemical, Biological & Environmental Engineering Society” (HKCBEEES) (Member ID: 203199)

Editorial contributions:

- 1) Oncology Research (ISSN: 0965-0407)

Reviewer contributions:

- 1) Frontiers in Medicine (ISSN: 2296-858X)
- 2) Biochemical genetics (ISSN: 15734927)
- 3) Oncology Research (ISSN: 0965-0407)
- 4) International Research Journal of Virology (ISSN: 2326-7193)

INVITED LECTURES

Feb 2023- Invited Guest Lecture Seminar on “Innovation, Design thinking & Patent rights” organized by Institution Innovation Council, Paavai Engineering College, Namakkal, TamilNadu, India.

REFERENCES

Dr. A. Sivakumar Ph.D., Professor, School of Biosciences and Technology, Vellore Institute of Technology, Vellore, Tamilnadu, India. Email: siva_kumar.a@vit.ac.in	Dr. M. Janaki ramaiah Ph.D., Professor, Department of Biotechnology KL Deemed University, Guntur, Andhra Pradesh, India. Email: janakiramaiah@scbt.sastra.edu
Dr. B. Purushothaman Ph.D., Founder, CEO & Scientist TanBio R and D solution Periyar Technology Business Incubator Thanjavur, Tamilnadu, India. Email: vinakspurushoth@gmail.com	Dr. S. Kumaran Ph.D., Ph.D., Associate Professor & Dean (Research) Department of Biotechnology Periyar Maniammai Institute of Science and Technology, Thanjavur, Tamilnadu, India. Email: kumarans@pmu.edu