

# THIRUKUMARAN K

## Research scholar

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Tamilnadu, India

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## EXPERIENCE

### Research scholar

Indian Institute of Technology, Guwahati

September 2020 – Ongoing Assam, India

- Cancer metabolism and epithelial to mesenchymal transition signaling in breast cancer

### Project Student

Maulana Abul Kalam Azad University of Technology, WB

September 2019 – June 2020 West Bengal, India

- Designing of RNA aptamer against DNA binding domain of the glucocorticoid receptor: A Response element-based in-silico approach

### Intern

Indian Institute of Science Education and Research - Kolkata

June 2019 – July 2019 West Bengal, India

- Molecular interaction studies of BRD9 Bromodomain with different histone marks using Molecular Docking and Molecular Dynamic Simulation

## MINI PROJECTS

### Project 1

Government College of Technology, Coimbatore

June 2020 – August 2020 Tamilnadu, India

Rational design of Shewanella sp. l-arabinose isomerase for d-galactose isomerase activity under mesophilic conditions

### Project 2

Kamaraj College of Engineering and Technology, Madurai

January 2018 – April 2018 Tamilnadu, India

Geno-Proteome effect of Aegle marmelos on human brain tumor growth

### Project 3

Kamaraj College of Engineering and Technology, Madurai

January 2017–April 2017 Tamilnadu, India

Identification of target candidate in Poly cystic ovarian syndrome and in-vitro evaluation of therapeutic activity of designed RNA aptamer

### Project 4

Kamaraj College of Engineering and Technology, Madurai

July 2016–November 2016 Tamilnadu, India

Extraction and Characterization of chlorophyll like green pigment from marine brown algae

## MY LIFE PHILOSOPHY

*"Actions speak louder than words"*

## MOST PROUD OF



### DBT Fellow

Master studies are funded by Department of Biotechnology (DBT), India



### GATE-BT-2020

Cleared GATE-2020 with rank of 734

## STRENGTHS

Analytic skills

Good observer

Self motivated

In silico drug designing and screening

Molecular biology techniques

Animal cell line handling

Downstream purification techniques

## LANGUAGES

Tamil



English



Hindi and Bengali



## EDUCATION

### M.Tech in Biotechnology

Maulana Abul Kalam Azad University of Technology, West Bengal, India

August 2018 – July 2020

Scored - 88.6 percentage

### B.Tech in Biotechnology

Kamaraj College of Engineering and Technology, Anna University, Tamilnadu, India

August 2014 – May 2018

Scored - 78 percentage

## INTERNATIONAL PUBLICATIONS

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- Sen, Plaboni, Thirukumaran Kandasamy, and Siddhartha Sankar Ghosh. "In-silico evidence of ADAM metalloproteinase pathology in cancer signaling networks." *Journal of Biomolecular Structure and Dynamics* (2021): 1-16.
- Soumen Barman, Anirban Roy, Ishita Bardhan, Thirukumaran Kandasamy, Shivani Shivani, and Babu Sudhamalla "Insights into the Molecular Mechanisms of Histone Code Recognition by the BRPF3 Bromodomain." *Chemistry–An Asian Journal* (2021).
- Sain, Arindam, Thirukumaran Kandasamy, and Debdut Naskar. "In silico approach to target PI3K/Akt/mTOR axis by selected Olea europaea phenols in PIK3CA mutant colorectal cancer." *Journal of Biomolecular Structure and Dynamics* (2021): 1-16.
- Jayaraman, Arun Baskaran, Thirukumaran Kandasamy, Dilip Venkataraman, and S. Meenakshisundaram. "Rational design of Shewanella sp. l-arabinose isomerase for d-galactose isomerase activity under mesophilic conditions." *Enzyme and Microbial Technology* 147 (2021): 109796.
- Kandasamy, Thirukumaran, Babu Sudhamalla, and Debdut Naskar. "Designing of RNA aptamer against DNA binding domain of the glucocorticoid receptor: A response element-based in-silico approach." *Journal of Biomolecular Structure and Dynamics* (2020): 1-8.
- Manibalan, Subramaniyan, Kandasamy Thirukumaran, Mathimaran Varshni, Ayyasamy Shobana, and Anant Achary. "Report on biopharmaceutical profile of recent biotherapeutics and insilco docking studies on target bindings of known aptamer biotherapeutics." *Biotechnology and Genetic Engineering Reviews* 36, no. 2 (2020): 57-80.
- Manibalan, Subramaniyan, Ayyachamy Shobana, Manickam Kiruthika, Anant Achary, Madasamy Swathi, Renganathan Venkatalakshmi, Kandasamy Thirukumaran, K. Suhasini, and Sharon Roopathy. "Protein Network Studies on PCOS Biomarkers With S100A8, Druggability Assessment, and RNA Aptamer Designing to Control Its Cyst Migration Effect." *Frontiers in bioengineering and biotechnology* 8 (2020): 328.

## INTERNATIONAL CONFERENCES

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- Presented a poster entitled "Response elements based in-silico approach to design RNA aptamer against DNA binding domain of Glucocorticoid receptor" in International Conference on Drug Discovery, 2020 organised by BITS Pilani Hyderabad, India and Schrödinger.
- Presented a paper entitled "Cytotoxic evaluation of proteomic and genomic content of Aegle marmelos on glioblastoma cell line" in International Conference on Biotechnology, Biomedical sciences and Environment, 2018 organised by Karpaga Vinayaga College of Engineering and Technology, Tamilnadu, India.
- Presented a poster entitled "Extraction and characterisation of chlorophyll like pigment from marine brown algae (Sarcosium tennarium)" in the International Conference on Current trends in Biotechnology (ICCB – 2016) organised by VIT university, Vellore in association with The Biotech Research Society, India (BRSI).

## REFEREES

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**Prof. Siddhartha Sankar Ghosh**

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✉ Department of Biosciences and Bioengineering

Indian Institute of Technology, Guwahati, Assam, India.

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