

## G. DICKY JOHN DAVIS

Associate Professor, Department of Bioinformatics

Faculty of Engineering & Technology

Sri Ramachandra Institute of Higher Education & Research (DU)

Porur, Chennai – 600 116, Tamil Nadu, INDIA.

☎ 8939278665

✉ dicky@sriramachandra.edu.in

✉ dickyjohn@sret.edu.in

🌐 www.swmd.co.in

### EDUCATION

Ph.D. Bioinformatics	Jan 2014	Sri Ramachandra University
M.Phil. Biotechnology	Jun 2005	Bharathidasan University
P.G. Diploma in Bioinformatics	Mar 2003	Small Industries Service Institute
M.Sc. Molecular Biology	May 1998	University of Madras
P.G. Diploma in Advanced Medical Laboratory Technology	Jul 1996	Tamil Nad Hospitals
B.Sc. Microbiology	Mar 1994	University of Madras

### PROFESSIONAL EXPERIENCE

**INDUSTRY:** 3 Years & 5 Months [September 1998 to February 2002]

Sep 1998 – Oct 2001 Territory Manager - Olympus Microscopes, DSS Imagetech Pvt. Ltd., Chennai

Nov 2001 – Feb 2002 Manager – R & D, Nichi-in Drugs & Devices Pvt. Ltd., Chennai

**TEACHING & RESEARCH:** 21 Years [August 2002 to till date]

Aug 2002 – Jun 2004 Lecturer, Kumararani Meena Muthiah College of Arts & Science, Chennai

Jul 2004 – Sep 2014 Lecturer, Department of Bioinformatics, Sri Ramachandra University, Chennai

Oct 2014 – Aug 2023 Assistant Professor, Sri Ramachandra Institute of Higher Education & Research

Sep 2023 – till date Associate Professor, Sri Ramachandra Institute of Higher Education & Research

**COURSES HANDLED:** Molecular Biology, Biological Databases & Sequence Analysis, Bioinformatics Algorithms & Tools, Molecular Modelling, Structural Bioinformatics & Drug Designing, Chemoinformatics

### THRUST AREAS OF RESEARCH:

- Metagenomic analysis
- Transcriptomic analysis
- QSAR and Molecular docking & dynamics studies
- Designing of bioinformatics tools
- Database development and maintenance
- Data mining of natural compounds

ORCID ID: [0000-0003-2325-7952](https://orcid.org/0000-0003-2325-7952)

Google Scholar Id: [KRNcRHoAAAAJ](https://scholar.google.com/citations?user=KRNcRHoAAAAJ)

Scopus Author ID: [55317296100](https://orcid.org/55317296100)

ResearcherID: [P-6899-2016](https://orcid.org/P-6899-2016)

Vidwan: [59517](https://orcid.org/59517)

**Ph.D. Research:** Cataloged the chemical compounds in marine algae by text- and data-mining published literature and hosted it in a public domain ([www.swmd.co.in](http://www.swmd.co.in)). Cytotoxic compounds were subjected to QSAR analysis and potential inhibitor for Protein kinase B was predicted by docking studies. [2007 – 2014]

**Title of the Thesis:** “Anticancer potential of Marine Algae - a Chemoinformatics approach”

<http://shodhganga.inflibnet.ac.in/handle/10603/32018>

### AWARDS & HONORS - 3

- ❖ Qualified Joint CSIR UGC National Eligibility Test (NET) for Lectureship, June 2011
- ❖ Awarded for Meritorious research publication of Sri Ramachandra University, 2012
- ❖ Awarded for Meritorious research publication of Sri Ramachandra University, 2015

### RESEARCH PROJECTS - 3

- 1) *In silico* studies with different Unani formulations, Regional Research Institute of Unani Medicine (RRIUM), Chennai – 600113, July 2020 (1 year), ₹ 1.5 Lakhs.
- 2) Nuclear factor- $\kappa$ B inhibition in human urothelial carcinoma by a bioactive peptide using *in-vitro* and *in-silico* studies, Young faculty Grant, Sri Ramachandra University, November 2014 (1 year), ₹ 1 Lakh.
- 3) Chemoinformatics database of marine algae, Department of Bioinformatics, Sri Ramachandra University, June 2009 (5 years), ₹ 1.5 Lakhs.

### JOURNAL PUBLICATIONS - 24

- 1) Noman Anwar, **G. Dicky John Davis**, Syed Ibrahim, Meena R P, Zeba Afnaan and N. Zaheer Ahmed. “*In silico* preliminary evaluation of bioactive compounds from five Unani drugs as potential SARS-CoV-2 inhibitors” *Indian Journal of Traditional Knowledge*, Vol. 23(3), March 2024, pp. 247-261.
- 2) Divyambika Catakapatri Venugopal, Paramesh Viswanathan, Soundharya Ravindran, Alan Mathew Punnoose, Madhavan Yasasve, **Davis G. Dicky John**, Lavanya Prabhakar, Gnanasambandan Ramanathan, Sathasivasubramanian Sankarapandian, Vijayalakshmi Ramshankar. “Antifibrotic effect of silymarin on arecoline-induced fibrosis in primary human buccal fibroblasts: an *in silico* and *in vitro* analysis” *Molecular Biology Reports*, Vol. 51, 2024, Article 303. PMID:38356030
- 3) Lavanya Prabhakar, **Davis G. Dicky John\***, Satya Ranjan Singh, and Ayaluru Murali. “Computational analysis of marine algal compounds for obesity management against pancreatic lipase” *Journal of Biomolecular Structure and Dynamics*, Vol. 41(11), July 2023, pp. 4863-4872. PMID: 35575483
- 4) Lavanya Prabhakar, **Dicky John Davis G\***. “Chemo-structural diversity of anti-obesity compound database” *Journal of Molecular Graphics and Modelling*, Vol. 120, May 2023, Article 108414. PMID: 36702059
- 5) Lavanya Prabhakar, **Dicky John Davis G\***. “Meta-analysis of lean and obese RNA-seq datasets to identify genes targeting obesity” *Bioinformatics*, Vol. 19(3), March 2023, pp. 331-335. PMID: 37808366
- 6) Lavanya Prabhakar, **Dicky John Davis G\***. “Computational study of potential inhibitors for fat mass and obesity-associated protein from seaweed and plant compounds” *PeerJ*, October 2022, 10:e14256. PMID: 36299509
- 7) Noveenaa Pious and **G. Dicky John Davis\***. “Comparative Study of three Clustering Algorithms for Microarray Data” *Global Journal of Science Frontier Research: G*, Vol. 22(1), 2022, pp. 11-17.

- 8) Midhuna Immaculate Joseph Maran, **Dicky John Davis G\***. "Benefits of merging paired-end reads before pre-processing environmental metagenomics data" *Marine Genomics*, Vol. 61, February 2022, pp. 100914. PMID: 34864203
- 9) N Zaheer Ahmed, **Dicky John Davis G**, Asim Ali Khan, Lavanya Prabhakar, Meena Ram Paratap, Zeba Afnaan, Meera Devi Sri, Noman Anwar. "Arq Ajīb – a wonder Unani formulation for inhibiting SARS-CoV-2 spike glycoprotein and main protease – an insilico approach" *Journal of Complementary and Integrative Medicine*, October 2021. PMID: 34679263
- 10) Asim Ali Khan, Rampratap Meena, Meera Devi Sri P, **G. Dicky John Davis**, Zaheer Ahmed N, Mageswari S, Jaculin Raiza A, Sadaf Subhani and Selvarani R. "Antimicrobial, HPTLC and *in-silico* studies of Habb-e-Bukhar widely used in Unani system of Medicine" *International Journal of Recent Scientific Research*, Vol. 12(8), August 2021, pp. 42788-42793.
- 11) N. Zaheer Ahmed, **G. Dicky John Davis**, Noman Anwar, Asim Ali Khan, Ram Pratap Meena, Zeba Afnaan, Meera Devi Sri. "*In-Silico* Evaluation of *Tiryag-E-Wabai*, an Unani Formulation for its Potency against SARS-CoV-2 Spike Glycoprotein and Main Protease" *Journal of Drug Delivery & Therapeutics*, Vol. 11(4), August 2021, pp. 86-100.
- 12) Charles Emmanuel Jebaraj Walter, Sankari Durairajan, Kalaiselvi Periyandavan, George Priya Doss C, **Dicky John Davis G**, Hannah Rachel Vasanthi A, Thanka Johnson & Hatem Zayed. "Bladder neoplasms and NF-κB: an unfathomed association" *Expert Review of Molecular Diagnostics*, Vol. 20(5), May 2020, pp. 497-508. PMID: 32228251
- 13) Sankari Durairajan, Charles Emmanuel Jebaraj Walter, Kalaiselvi Periyandavan, George Priya Doss C, **Dicky John Davis G**, Hannah Rachel Vasanthi A, Gayathri Thiruvengadam and Thanka Johnson. "Selective Susceptibility of Human Bladder Transitional Cell Carcinoma T24 Cells towards NBD Peptide" *American Journal of Biochemistry and Biotechnology*, Vol. 16(2), Apr 2020, pp. 184-198.
- 14) B. Arundhati Mahesh, E. Kannan, **G. Dicky John Davis**, PK Ragnath. "GenPop - An Online Tool to Analyze Human Population Genetic Data" *Bioinformatics*, Vol 16(2), Feb 2020, pp. 149-152. PMID: 32405166
- 15) Andrea Mary Francis, R. Ramya, Nalini Ganesan, Solomon F. D. Paul, AK. Munirajan, P. Kumarasamy, **G. Dicky John Davis**. "Breast Cancer Susceptibility Gene in Base Excision Repair Pathway in a Southern Indian Population" *Journal of Clinical & Diagnostic Research*, Vol. 12(9), Sep 2018, pp. 1-6.
- 16) Sankari Durairajan, Charles Emmanuel Jebaraj Walter, Mary Divya Samuel, Dinesh Palani, **G. Dicky John Davis**, C. George Priya Doss, Sneha Pasupati, Thanka Johnson. "Differential expression of NF-κB heterodimer RelA/p50 in human urothelial carcinoma" *PeerJ*, Sep 2018, 6:e5563. PMID: 30225173
- 17) Arundhati Mahesh, **G. Dicky John Davis**, PK. Ragnath and E. Kannan. "Motif Finding Tool Using Perl CGI" *International Journal of Advanced Research in Engineering and Technology*, Vol. 9(4), Jul 2018, pp. 1–5.

- 18) S. Mariya Thangam, **G. Dicky John Davis**, B. Bagya Sreedharaman and Arundhati Mahesh. "Mobile App for Cardiac risks" *International Journal of Computer Engineering & Technology*, Vol. 9(3), Jul 2018, pp. 218–221.
- 19) **G. Dicky John Davis\*** and A. Hannah Rachel Vasanthi. "QSAR based docking studies of marine algal anticancer compounds as inhibitors of protein kinase B (PKB $\beta$ )" *European Journal of Pharmaceutical Sciences*, Vol. 76, Aug 2015, pp. 110–118. PMID: 25936945
- 20) V. Arul, J. Gunasingh Masilamoni, E. Philip Jesudason, P. J. Jaji, M. Inayathullah, **G. Dicky John Davis**, S. Vignesh and R. Jayakumar. "Glucose oxidase incorporated collagen matrices for dermal wound repair in diabetic rat models: a biochemical study" *Journal of Biomaterials Applications*, Vol. 26(8), May 2012, pp. 917-938. PMID: 21363874
- 21) **G. Dicky John Davis\*** and A. Hannah Rachel Vasanthi. "Seaweed metabolite database (SWMD): A database of natural compounds from marine algae" *Bioinformation*, Vol. 5(8), Jan 2011, pp. 361-364. PMID: 21423723
- 22) **G. Dicky John Davis\***, J. Gunasingh Masilamoni, V. Arul, M. Siva Muthu Kumar, U. Baraneedharan, Solomon F. D. Paul, I. Vignesh Sakthivelu, E. Philip Jesudason and R. Jayakumar. "Radioprotective effect of DL- $\alpha$ -lipoic acid on mice skin fibroblasts" *Cell Biology and Toxicology*, Vol. 25(4), Aug 2009, pp. 331-340. PMID: 18553143
- 23) J. Gunasingh Masilamoni, E. Philip Jesudason, Ben S. Ashok, R. Kirubakaran, W. Charles E. Jebaraj, **G. Dicky John Davis**, S. Vignesh, S. Dhandayuthapani, R. Jayakumar. "Melatonin prevents amyloid protofibrillar induced oxidative imbalance and biogenic amine catabolism" *Life Sciences*, Vol. 83(3-4), Jul 2008, pp. 96-102. PMID: 18590917
- 24) E. Philip Jesudason, J. Gunasingh Masilamoni, R. Kirubakaran, **G. Dicky John Davis** and R. Jayakumar. "The protective role of dl- $\alpha$ -lipoic acid in biogenic amines catabolism triggered by A $\beta$  amyloid vaccination in mice" *Brain Research Bulletin*, Vol. 65(4), Apr 2005, pp. 361-367. PMID: 15811602

## BOOK CHAPTER PUBLICATIONS - 2

- 1) **G. Dicky John Davis\***, R. Archana Preetha and M. Gowri Neelima. "Chapter 1. Online Drug Data Banks and Molecular Libraries" *Recent Advances in Computer Aided Drug Designing* edited by Ashutosh Mani and Akhil Varshney, Nova publishers, July 2021, Pages 1-9.
- 2) **G. Dicky John Davis**, Veeresh K. Sali and Hannah R. Vasanthi. "Clues for cancer from ocean-derived molecules and role of in silico techniques in anticancer drug discovery" *Marine Pharmacognosy: Trends and Applications* edited by Se-Kwon Kim, CRC Press, Dec 2012, pp. 393-408.

## CONFERENCE PRESENTATIONS - 9

- 1) Inhibiting the isoniazid resistance in Mycobacterium tuberculosis using seaweed metabolites: A screening and dynamics approach. Madhana Priya N, **Dicky John Davis G**, George Priya Doss C and

- Magesh R. 28th -29th September, 2020, International Webinar on Phytochemistry-2020, Kerala Academy of Sciences, IUCGGT, University of Kerala, Karyavattom, Thiruvananthapuram, Kerala.
- 2) A Review on Transitional Metal Complexes as Therapeutic Drugs for Neurological Disorders. Archana Preetha R, **G. Dicky John Davis**, 18 October 2019, Samagatha – 2019, Maharani Lakshimi Ammanni College for Women, Malleshwaram, Bengaluru – 560012.
  - 3) Anti-obesity compounds from marine sources, Lavanya P, **Dicky John Davis G**. National Symposium on Bio-prospecting from marine resources for biotechnological applications: Opportunities and Challenges, 24 July, 2019, Sathyabama Institute of Science and Technology, Jeppiaar Nagar, Chennai – 600119.
  - 4) Comparative study on clustering algorithms for Microarray data analysis, National Conference on Computational Biology & Medical Biotechnology in Health Care, 11 October 2018, Department of Bioinformatics, Sathyabama Institute of Science & Technology, Chennai – 600119.
  - 5) Anti-tumor effects of NApep peptide on Urothelial Carcinoma, International Conference on Innovations and Challenges in Biomedical Sciences Research, 12 December 2017, Holy Cross College, Tiruchirappalli – 620002.
  - 6) Inhibition of Bladder Cancer cells by NApep Peptide, International Conference on ICARB, 23 December, 2017, B.S. Abdul Rahman Crescent Institute of Science and Technology, Chennai – 600048.
  - 7) PyMol: an integrated application for docking, National Symposium on Science & Technology for National Development, Feb 2017, Pondicherry University, Kalapet, Puducherry – 605014.
  - 8) Screening of anti-allergic compounds from marine algae for histamine H4 receptors, National Symposium on Recent advances in Molecular Biology, March 2014, Tamil Nadu Agricultural University, Coimbatore – 641003.
  - 9) Structure based Virtual screening: Identification of Akt2 Inhibitors from Marine algae, 6th International Symposium on Recent trends in Macromolecular Structure and Function, January 24, 2014, University of Madras, Chennai – 600025.

## **INVITED LECTURES - 23**

- 1) Protein Structure Visualization and Molecular Docking  
Workshop on Techniques in Computational Biology and its Applications, 10th January, 2024.  
Organized by Department of Biotechnology, Hindustan Institute of Technology & Science, Chennai - 603103.
- 2) Computational Methods for Protein Structure Prediction  
Workshop on In-Silico Drug Design and Development, 8th December, 2021.  
Organized by Department of Chemical Engineering and Biotechnology, Hindustan Institute of Technology & Science, Chennai - 603103.
- 3) Molecular Modelling in Drug Discovery  
Second National Workshop on Medical Bioinformatics, 19th March, 2020.

- Organized by Department of Bioinformatics, Sri Ramachandra Institute of Higher Education and Research, Chennai - 600116.
- 4) Protein Structure analysis and Molecular Modeling  
Workshop on Genomic and Proteomic analysis for improvement of Productivity in Farm Animal, 27 September 2019.  
Organized by Bioinformatics Centre & ARIS Cell, Madras Veterinary College, Chennai - 600007.
  - 5) In-silico Drug Discovery  
Application of Bioinformatics for Post Graduate Research, 10 August 2019.  
Organized by Veterinary College and Research Institute, Namakkal - 637002.
  - 6) Molecular Docking using Autodock Vina  
Workshop on Vetinformatics, 6 March 2019.  
Organized by Bioinformatics Centre & ARIS Cell, Madras Veterinary College, Chennai - 600007.
  - 7) Biotechnology in Medicine  
Workshop on MOL BIO GIZMO, 31 January, 2019.  
Organized by Department of Biotechnology, Kumararani Meena Muthiah College of Arts and Science, Adyar, Chennai - 600020.
  - 8) Chemoinformatics and Marine Algal Drug Discovery  
National Conference on Applications of Computational Biology in Omics, (ACBO-18), 11 October 2018.  
Organized by Department of Biotechnology, Sri Sankara Arts and Science College, Enathur, Kanchipuram – 631561.
  - 9) Protein Structure Analysis & Prediction  
Workshop on Genomic and Proteomic Analysis for Improvement of Productivity in farm Animals, 9 August 2018.  
Organized by Bioinformatics Centre & ARIS Cell, Madras Veterinary College, Chennai - 600007.
  - 10) Molecular Structure Analysis in Drug Designing  
Workshop on In Silico Molecular Modeling and Drug Designing, 10 January 2018.  
Organized by Bioinformatics Centre & ARIS Cell, Madras Veterinary College, Chennai - 600007.
  - 11) Protein sequence analysis, Molecular Modelling and docking studies  
Workshop on Genomic and Proteomic analysis for improvement of productivity in farm animals, 13 July 2017.  
Organized by Bioinformatics Centre & ARIS Cell, Madras Veterinary College, Chennai - 600007.
  - 12) Introduction to Proteomics and Protein sequence databanks, Molecular Modelling and Novel drug discovery  
Workshop on Application of Bioinformatics in Animal Sciences, 29 May 2017.  
Organized by Bioinformatics Centre & ARIS Cell, Madras Veterinary College, Chennai - 600007.
  - 13) New Horizons of Bioinformatics in the Precision Medicine Era  
Ascozyme - National Level Students Technical Symposium, 25 March 2017.  
Organized by Department of Biotechnology, Shri Andal Alagar College of Engineering, Mamandur - 603111.

- 14) Significance of Structure Analysis in Computer Aided Drug Designing  
Workshop on Computer Aided Drug Designing, 14 February 2017.  
Organized by Bioinformatics Centre & ARIS Cell, Madras Veterinary College, Chennai - 600007.
- 15) Protein structure visualization and prediction with bioinformatics tools  
Workshop on Application of Bioinformatics in Proteome analysis, 22 September 2016.  
Organized by Bioinformatics Centre & ARIS Cell, Madras Veterinary College, Chennai - 600007.
- 16) Application of Bioinformatics in Phylogenetic Data Analysis  
Workshop on Application of Bioinformatics in Genome analysis, 9 August 2016.  
Organized by Bioinformatics Centre & ARIS Cell, Madras Veterinary College, Chennai - 600007.
- 17) Significance of Phylogenetic analysis  
Workshop on Recent Advancements in Comparative Genomics & Proteomics, 24 February 2016.  
Organized by Bioinformatics Centre & ARIS Cell, Madras Veterinary College, Chennai - 600007.
- 18) Novel drug discovery using a free software – Autodock  
Workshop on Insilico drug designing & Development, 8 October 2015.  
Organized by Bioinformatics Centre & ARIS Cell, Madras Veterinary College, Chennai - 600007.
- 19) Recent advances & applications of PCR  
State level workshop on PCR – a tool for molecular approach, 23 September 2015.  
Organized by Department of Biotechnology, Kumararani Meena Muthiah College of Arts & Science, Adyar, Chennai - 600020.
- 20) An insight into drug targets and bioactive principles  
Training Programme on Application of Bioinformatics in Veterinary Research, 8 July 2015.  
Organized by Bioinformatics Centre & ARIS Cell, Madras Veterinary College, Chennai - 600007.
- 21) Protein Modelling - Structure Prediction and Analysis  
National workshop on Applications of Bioinformatics in Drug Designing, 25 September 2014.  
Organized by Bioinformatics Centre & ARIS Cell, Madras Veterinary College, Chennai - 600007.
- 22) Protein structure analysis  
National workshop on Bioinformatics - a practical approach to genomics & proteomics, 8 October 2013.  
Organized by Bioinformatics Centre & ARIS Cell, Madras Veterinary College, Chennai - 600007.
- 23) Cheminformatics database of red algae *Laurencia* Spp. for drug discovery  
Second National Conference on Bioprospecting of Marine Resources with Special Reference to Marine Natural Products and Drug Discovery, 25-27 August 2010.  
Organized by School of Marine Sciences, Department of Oceanography and Coastal Area Studies, Alagappa University, Karaikudi - 630003.

## **JOURNAL REVIEWER - 12**

- 1) Natural Product Communications (SAGE)
- 2) PLOS ONE (Public Library of Science)
- 3) Journal of Biomolecular Structure & Dynamics (Taylor & Francis)
- 4) Heliyon (Elsevier)

- 5) Journal of Traditional and Complementary Medicine (Elsevier)
- 6) Remediation (Wiley)
- 7) Saudi Pharmaceutical Journal (Elsevier)
- 8) Database (Oxford University Press)
- 9) Planta (Springer)
- 10) Journal of Applied Psychology (Springer)
- 11) Bioinformation
- 12) African Journal of Biotechnology (Academic Journals)

## RESEARCH GUIDANCE

### Ph.D Students Registered – 3

U02B190575	Lavanya P	01 April 2019	Full Time – Completed in Dec' 2023
U03B190648	Archana Preetha R	01 October 2019	Part Time (External)
U02B160480	Pranaya S	01 April 2016	Full Time

**PG Students – 26** (2006 – 2023)

**UG Students – 37** (2011 – 2023)

## PERSONAL PROFILE

Age/ DoB	51 / 3 <sup>rd</sup> May 1973
Residential Address	#137, Second Main Road, Ashtalakshmi Nagar, Alapakkam, Chennai – 600116, Tamil Nadu, INDIA
	✉ dicky.john@gmail.com    🌐 www.dicky.swmd.co.in