

Dr. (Mrs.) C. Joyce Priyakumari



- 1. Designation** : Assistant Professor
- 2. Educational qualification** : M.Sc., M.Phil., B.Ed., B.C.S., Ph.D.
- 3. Awards and Distinctions:**

Prof. P. Kameswara Rao Award for Best Oral Paper Presentation
in the V AZRA CONFERENCE, Dec. 27-29. 2000

Proficiency Prize for Securing the Highest Over All Percentage of
Marks in the DCA. 2000

Gold Medal for Securing Highest Mark in Tamil
(Karpagambal Gold Medal), B. Sc. 1986

First Prize for general proficiency in Zoology, B. Sc. 1986

First Prize for General Proficiency in Ancillary Subjects, B. Sc. 1986

4. Administrative Experience :

Coordinator	Bioinformatics Infrastructure Facility of Madras Christian College (DBT funded project)	June 2018 till date
Warden	Margaret Hall	June 2014- till date
Convener	Central Mess Committee	June 2017- May'19
Treasurer	Campus Ministries	2013- 2015
Co-coordinator	Bioinformatics Infrastructure Facility of Madras Christian College (DBT funded project)	2010 – May 2018
Chairman (Interim)	Board of Examinations, Department of Zoology,	April- May 2013
Associate Coordinator	<u>Bioinformatics Infrastructure Facility</u> of Madras Christian College (DBT funded project)	2006 – 2010

Secretary	Staff Wives and Women Staff Association, MCC	2006 – 2007
Vice-President	Zoological Society, Department of Zoology, MCC	2004 – 2007
Member	Housing Committee, MCC	2014- 2016
Member	Estate Committee, MCC	2017-2019
Member	Centre for Women's Studies, MCC	2013- Till date

Other Administrative Responsibilities:

- Academic- Coordinator for the students of Davidson College(USA) program– 2010
- Administrative Assistant in Star College Program- 2010-2011
- Non-resident women students- staff in charge – for Department of Zoology (2011-2012)
- Non-resident women students- staff in charge – for Department of Botany (2001-2002)
- UG admissions- Department of Zoology (2012-2013).

5. Research Projects

- Assessment on the Post-Harvest Losses in Fisheries faced by the Fishermen of Pulicat and Developing Strategies to Reduce Loss through Awareness Program on Improved Post Harvest Techniques.*
Funding Agency : United Board for Christian Higher Education in Asia, New York, U.S.A.
Fund Sanctioned: Rs. 5,50,000/
Duration: 1 year (June 2013- May 2014)
- Surrogacy In Tamil Nadu: A Critical Analysis on Ethical, Legal and Medical Issues and their Implications.*
Funding Agency : United Board for Christian Higher Education in Asia, New York, U.S.A.
Fund Sanctioned: Rs. 6,00,000/
Duration: 1 year (2014- 2015)

6. Papers presented in National and International Conferences/ Seminars:

- Stanley Raja V., Balakrishnan M., Samraj Arul D and Joyce Priyakumari C (2011) 18S r RNA Gene Isolation and Sequence Analysis of Endemic Medicinal Plant *Hornstedtia fenzlii*. International Symposium on “Genomics of Crops, Medicinal Plants and Microbes” May 29-31, 2011 -University of Kerala, Kariavattom
- Swathiga Bommy P., Arul Samraj D and Joyce Priyakumari C Assay of Clarithromycin tablet USP by applying microbiological Method (A new and

alternative method for conventional assay procedure HPLC. International Symposium on “Genomics of Crops, Medicinal Plants and Microbes” May 29-31, 2011 -University of Kerala, Kariavattom

- Stanley Raja V., Arul Samraj D. and Joyce Priyakumari C* Molecular modeling and interaction study of Allicin with Bcl-2 protein inhibiting apoptosis in Cancer therapy. Silver jubilee symposium on Bioinformatics- BTISnet in India. Organised by Bioinformatics Department, Pondicherry University, Pondicherry. February 03-04, 2011.
- Swathiga Bommy P., Arul Samraj D and Joyce Priyakumari C* *In silico* analysis of molecular interaction of resveratrol with β -arrestin 1 and 2, the functional GPCR-activated regulator of oncoprotein Mdm2. Silver jubilee symposium on Bioinformatics- BTISnet in India. Organised by Bioinformatics Department, Pondicherry University, Pondicherry. February 03-04, 2011.
- Balasubramani G.L., Arul Samraj D and Joyce Priyakumari C* Differential gene expression analysis of rheumatoid arthritis and its response to anti inflammatory drug infliximab. Silver jubilee symposium on Bioinformatics- BTISnet in India. Organised by Bioinformatics Department, Pondicherry University, Pondicherry. February 03-04, 2011.
- Karthik M., Arul Samraj D and Joyce Priyakumari C* Database development for proteins of Metamorphosis in Homopterans. Silver jubilee symposium on Bioinformatics- BTISnet in India. Organised by Bioinformatics Department, Pondicherry University, Pondicherry. February 03-04, 2011.
- Karthik.K., Arul Samraj D and Joyce Priyakumari C* Comparative analysis of nif (Nitrogen Fixing) proteins of different rhizobial bacteria using *insilico* methods. Silver jubilee symposium on Bioinformatics- BTISnet in India. Organised by Bioinformatics Department, Pondicherry University, Pondicherry. February 03-04, 2011.
- Weslen Vedakumari S., Arul Samraj D and Priyakumari Joyce C. Poster presentation on "Tertiary Structure Prediction of Fungal Enolase from *Alternaria alternata* and *Magnaportha grisea*" National level symposium on "Molecular Perspectives of Microbes in Health and Environment", organized by Department of Microbiology, Madras Christian College, Chennai on February 16, 2010.

- Vijayakumar R., Priyakumari Joyce C and Arul Samraj D. Poster presentation on Molecular detection of Candida species from clinical isolates by PCR. National level symposium on "Molecular Perspectives of Microbes in Health and Environment", organized by Department of Microbiology, Madras Christian College, Chennai on February 16, 2010.
- Weslen Vedakumari S, Arul Samraj D. and Priyakumari Joyce. Oral presentation on "Collagen Microparticles in Controlled Drug Delivery". International Conference on "Gene to Vial-concept for Biotechnology based health care molecules", organized by Centre for Bio-Separation Technology (CBST), VIT University, Vellore held during February 7 -10, 2010.
- Stanley Raja V., Weslen Vedakumari S., Arul Samraj D., Joyce Priyakumari C. Annotation and sequence analysis of OCA2 (Oculocutaneous albinism II). Conference on "Biotechnology - Fusion of Advanced Research and Teaching", Jan 02-04, 2010; Madurai Kamaraj University, Madurai, Tamil Nadu.
- Weslen Vedakumari S., Arul Samraj D., Joyce Priyakumari. Collagen microparticles in controlled drug delivery. Conference on "Biotechnology. Conference on "Biotechnology - Fusion of Advanced Research and Teaching", Jan 02-04, 2010; Madurai Kamaraj University, Madurai, Tamil Nadu.
- Raghu R., Vijaya. P., Arul Samraj D., Priyakumari Joyce C. Evolution of genotoxicity of 1-amino-2-naphthol-4-sulfonic acid using comet assay. Conference on "Biotechnology - Fusion of Advanced Research and Teaching", Jan 02-04, 2010; Madurai Kamaraj University, Madurai, Tamil Nadu.
- Aravinth A., Stanley Raja V., Weslen, Arul Samraj D., Priyakumari Joyce C. Clostridal neurotoxins as potential bio-weapon. State Level Intercollegiate Students Seminar on Merging and Re-emerging infectious diseases-global trend and challenge, Thiagarajar College, Madurai, Tamil Nadu. Sep. 23, 2009.
- Lorraine Giffta S., Christy Jancy Joy P., Arul Samraj, D., **Priyakumari Joyce C.** 2009A genomic approach to study the insect mitochondrial evolution by non coding LSU and SSU rRNA, National workshop on functional and structural genomics: an *in silico* approach. Organised by Sub distributed information centre, Central Agricultural research institute Port Blair, Andaman & Nicobar islands February 26-28.

- Integrating computational methods for prediction of protein structure and function in an endangered butterfly species *Doleschallia bisaltide* Cramer (Nymphalidae: Lepidoptera) Christy Jancy Joy P., Lorraine Gifta S., Arul Samraj D. and **C. Joyce Priyakumari**. Paper presented in the National Seminar on “Endemic Endangered Species of the Nilgiris” organized by the Department of Advanced Zoology and Biotechnology & Wild Life Biology, Govt. Arts College, Udagamandalam-643 002, Tamil Nadu, India, August 21 - 22, 2008.
- Genetic diversity of *Racemusta* Genotypes using RAPD markers in Conservation of Coffee Germplasm. Lorraine Gifta S., Santa Ram A., Christy Jancy Joy P., Arul Samraj, D., **C. Joyce Priyakumari**. Paper presented in the National Seminar on “Endemic Endangered Species of the Nilgiris” organized by the Department of Advanced Zoology and Biotechnology & Wild Life Biology, Govt. Arts College, Udagamandalam-643 002, Tamil Nadu, India, August 21 - 22, 2008.
- Comparative assessment of DNA fingerprinting techniques (RAPD and ISSR markers) for genome analysis of *Racemusta* genotypes. Lorraine Gifta S., Santa Ram A., Christy Jancy Joy P., Arul Samraj D., and **C. Joyce Priyakumari**. Paper presented in the National Conference on Computational Biology 2008 (NCCoB '08), Department of Bioinformatics, Karunya Univesity, Coimbatore, Tamil Nadu, India. August 22 -23, 2008.
- Poster presentation: Comparative study on Hsp70 protein on *Bemisia tabaci* and *Trialeurodes vaporariorum*, Christy Jancy Joy P., Lorraine Gifta S., Arul Samraj D. and **C. Joyce Priyakumari**. Paper presented in the National Conference on Computational Biology 2008 (NCCoB '08), Department of Bioinformatics, Karunya Univesity, Coimbatore, Tamil Nadu, India. August 22 -23, 2008.
- Anto Claver, M., R.W.Alexander Jesudasan, **C. Joyce Priyakumari** and E. Ragupathy. Activity pattern of ants associated with the Whitefly, *Rhachisphora* sp. Paper presented in the VI conference of AZRA, Cuttack, Dec.19-22, 2002, p.42.
- **Priyakumari Joyce, C.**, Annie Cherian, A. Muralidharan, Leela Madhavan and R. W. Alexander Jesudasan. Some observations on the ethology of Whitefly- Ant association. V National Conference of AZRA on Applied Zoological Research Towards Scientific and Economic Developments in India. Abstract No. 92. Dec. 27 – 29, 2000.
- Muralidharan, A., **C. Joyce Priyakumari**, Annie Cherian and R.W. Alexander Jesudasan. Investigations on the Whitefly infesting *Ixora pavetta* with a note on Ants

associated with the whitefly. V National Conference of AZRA on Applied Zoological Research Towards Scientific and Economic Developments in India. . Abstract No. 91. Dec. 27 – 29, 2000.

- **Priyakumari Joyce, C.**, Appavu G. Arulnathan and R. W. Alexander Jesudasan. Impact of feeding by two whiteflies (Aleyrodidae : Homoptera) on some biochemical components of their hosts. Second National Conference of AZRA on Recent Trends in Plant, Animal and Human Pest management: Impact on Environment. Abstract No. 12, p. 12, 1994, Madras.
- **Priyakumari Joyce, C.**, Appavu G. Arulnathan and R.W. Alexander Jesudasan. Host -Associated Variation in a whitefly *Acaudaleyrodes rachipora* Singh (Aleyrodidae: Homoptera). Second National Conference of AZRA on Recent Trends in Plants, Animal and Human Pest Management : Impact on Environment. Abstract No. 21, p. 13, 1994, Madras.
- Jesudasan, R. W. Alexander, D. Arul Samraj and **C. Joyce Priyakumari**. Use of new insecticide of Animal Origin in the control of groundnut leaf webber *Protaetia modicella* Deventer (Gelichiidae: Lepidoptera: Insecta). International Conference Biology and Control of Pests of Medicinal and Agricultural Importance. Abstract No. 195, p. 195, 1989, Madurai.

7. Publications and Books Authored

- a. Uma Maheswari .M, Nivetha Sarah Ebenezer, Joyce Priyakumari .C, February 2017 “An *In Silico* Approach: Homology Modelling and Docking Studies of Rabies Virus Glycoprotein with Salviifoside A of *Alangium salviifolium*”, *International Journal of Science and Research*, Volume 6 (2), 531 – 534.
- b. Nivetha Sarah Ebenezer, Joyce Priyakumari C. March 2017. “Analysis of phylogenetic relationship among *Carangoides* species using MEGA6”. *International Research Journal of Engineering and Technology*, Volume 4 (3), 1804 – 1808.
- c. Nivetha Sarah Ebenezer, Uma Maheswari M., Joyce Priyakumari C., February 2017, “Homology Modelling of Cytochrome B from *Carangoides equula*”, *International Journal of Science and Research*, Volume 6 (2), 92 – 95.
- d. Uma Maheswari. M, Sai Shankar.B, Joyce PriyaKumari. C, March 2017 “Docking Analysis of Human serum Albumin with Quercetin in T2DM” ,

- e. Aparna K, Sagaya Jansi R, Arul Samraj D, Joyce Priyakumari C. Interaction of β - amyryn, a bioactive compound from *Euphorbia hirta* with Phospholipase A₂, a toxin from *Rhopilema nomadica*. *Int. J. of Appl. Biol.*, 2013, Special Issue: 1, ISSN No: 2231-3370 (IF:1.0)
- f. Aparna K, Sagaya Jansi R, Arul Samraj D, Joyce Priyakumari C. Homology Modelling and Docking Studies of Phospholipase A₂ enzyme of *Apis mellifera*. *J.Curr.Pharm.Res.* 2013, 11 (1), 33-37
- g. Gladies Kezia, Sewli Ghosh, Aparna K, Joyce Priyakumari C. Docking studies on Acetylcholinesterase with Methylparathion. *IJERT*,2013, 2(11), 2366-2368 (IF:1.76)
- h. Gladies Kezia, Sewli Ghosh, Aparna K, Joyce Priyakumari C. Insilico analysis of Acetylcholinesterase with Malathion. *IJSER*,2014, 5(1), 1964-1966.(IF:1.4)
- i. Aparna K, Sagaya Jansi R, Gladies Kezia, and Joyce Priyakumari. Phytochemical analysis of *Didymocarpus pedicellatus*. *Int. J.Pharm.Sci.Rev.Res.*, 2014, 25(1), Article no.52, 307-309 (IF:2.191, ICV: 5.19)
- j. Gladies Kezia, Mubeen Sultana D, Nausheen Dawood, Dawood Sharief, Joyce Priyakumari C. Acute effects of *Centella asiatica* on Methylparathion induced toxicity on different regions of the brain in rat, *Rattus norvegicus*. *Int.J.Pharm.Sci.Rev.Res.*, 2014, 26(2), 69-74. (IF:2.191, ICV: 5.19)
- k. Gladies Kezia J, Lucky R, Nausheen Dawood, Dawood sharief, Joyce Priyakumari C. Short term effects of *Centella asiatica* on methylparathion induced toxicity on different regions of the brain in rat, *Rattus norvegicus*. *IOSR-JESTFT*, 2014, 8(6), 13-20. (IF: 1.325).
- l. Aparna K, Gladies Kezia J, Joyce Priyakumari C. *In silico* analysis of of BRCA2 protein with pediflavone (*Didymocarpus pedicellatus*) *J.Pharm. Res.*,2014, 8(8), 1071-1073 (IF: 2.667)
- m. Aparna K, Joyce Priyakumari C, Gladies Kezia J. Homology Modelling, secondary structure prediction and phylogenetic comparative analysis of

phospholipase A2 from different organism. *IJPSR*, 2015: Vol.6 (2):636-644 (IF: 2.44, ICV: 5.50)

- n. B.Sai Shankar and Dr. C. Joyce Priyakumari Dinosaur Collagen', a Computational Structure Modelling and Docking analysis with $\alpha 1(I)$ Integrin domain. 2015: Vol. 5(1):(IF: 5.611641-645. ICV: 6.14).
- o. Integrating computational methods for prediction of protein structure and function in an endangered butterfly species *Doleschallia bisaltide* Cramer (Nymphalidae: Lepidoptera) Christy Jancy Joy P., Lorraine Gifita S., Arul Samraj D. and **C. Joyce Priyakumari**. Proceedings of the National Seminar on "Endemic Endangered Species of the Nilgiris" p. 50-56 , Department of Advanced Zoology and Biotechnology & Wild Life Biology, Govt. Arts College, Udagamandalam-643 002, Tamil Nadu, India, August 21 - 22, 2008.
- p. Genetic diversity of *Racemusta* Genotypes using RAPD markers in Conservation of Coffee Germplasm. Lorraine Gifita S., Santa Ram A.,Christy Jancy Joy P., Arul Samraj, D., **C. Joyce Priyakumari**. p. 20- 29, Proceedings of the National Seminar on "Endemic Endangered Species of the Nilgiris" Department of Advanced Zoology and Biotechnology & Wild Life Biology, Govt. Arts College, Udagamandalam-643 002, Tamil Nadu, India, August 21 - 22, 2008.,
- q. **C. Joyce Priyakumari. 2007.** Manual for Workshop on Bioinformatics for Higher secondary School – Biology Teachers . Bioinformatics Infrastructure Facility of Madras Christian College.
(DBT funded project).
- r. R. W. Alexander, M. Anto Claver, **C. Joyce Priyakumari** and E. Ragupathi.. Some Ethological Observation in Whitefly and Ant Interaction. *Journal of Applied Zoological Research*. **15(1)**: 17-21 2004
- s. **C. Joyce Priyakumari**, R. W. Alexander Jesudasan and T. Sujatha. Impact of feeding by the whitefly, *Bemisia tabaci* (Gennadius) (Aleyrodidae : Hemiptera) on some phytochemical constituents of *Solanum melongena* L. (Solanaceae).*Hexapoda* **14(2)**: 78 -82, 2007
- t. Jesudasan, R.W.Alexander, D. Arul Samraj and **C. Joyce Priyakumari**. Field evaluation of a new insecticide against the groundnut leaf webber. *Pesticides*, **Vol. XXIII**, No.2, p. 26-27, 1989.

8. Recognition as Research Supervisor:

M.Phil. and Ph.D.

9. Other Distinctions: -

Resource Person in Conferences/ Workshops Etc.

- On “ Protein Structure and prediction”- for College faculty at Workshop on ‘Introduction to Bioinformatics ‘ conducted by Bioinformatics Centre of BTISnet of TANUVAS, Chennai, March 2009.
- Resource Person for the Three day_Workshop on Introduction to Bioinformatics for Hr. Sec. School- Biology Teachers October 29-31, 2008
- Resource Person for the Three day workshop on Bioinformatics conducted for the Biology Teachers of Higher Secondary Schools in and around Tambaram area, in the Department of Zoology, Madras Christian College, Tambaram, Chennai 600 059. June 14-16, 2007.

Courses Taught :

P. G. Course: Bioinformatics, Cell and Molecular Biology, Biotechnology, Genetics, Teaching Zoology, Developmental Biology, Microtechnique, Aquaculture.

U. G. Course: Bioinformatics, Biotechnology, Invertebrata, Chordata, Cell Biology, Biochemistry, Biophysics and Biostatistics, Poultry Science, Animal Behaviour

B. Sc. Vocational: Industrial Fish and Fisheries: Fish Biology, Capture Fisheries, Fish Genetic and Seed Production, Freshwater and Coastal Aquaculture, Fish and Shellfish Diseases

Orientation and Refresher Courses attended:

UGC SPONSORED ORIENTATION COURSE

Orientation Course organized by UGC -Academic Staff College, University of Madras (sponsored by UGC, New Delhi). 03.03.2004 to 30.3.2004.

UGC SPONSORED REFRESHER COURSE

Refresher Course in Bioinformatics organized by UGC -Academic Staff College, University of Madras (sponsored by UGC, New Delhi). 02.03.2006 to 20.03.2006 and obtained Grade “A”

10.Email : joycebenezer@gmail.com