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THANTHAI PERIYAR GOVERNMENT ARTS AND SCIENCE COLLEGE(A)
(Nationally Re-Accredited with 'A' Grade by NAAC at 3rd Cycle)
(Affiliated to Bharathidasan University, Tiruchirappalli - 24)

**No.36/2, RACE COURSE ROAD, KHAJAMALAI, TIRUCHIRAPPALLI - 620 023
TAMILNADU, INDIA.**

Tel.No. : 0431 - 2420079 Website: www.thanthaiperiyargasc.ac.in E-mail : periyarevrcollege@yahoo.com

Criterion III - Research, Innovations and Extension

3.4 Research Publications and Awards

3.4.1. The Institution Ensures Implementation of its Stated Code of Ethics for Research

3.4.1.1. The institution has a stated Code of Ethics for research and the implementation of which is ensured through the following:

PRESENCE OF INSTITUTIONAL ETHICS COMMITTEE

Research ethics is considered as responsible part of the higher educational institutions which facilitates moral and respectable research and developmental activities by the teachers and research scholars. Thanthai Periyar Government Arts and Science College maintain its own code of research ethics that is reflected in research programmes such as M.Phil. and Ph.D. and sponsored research projects.

With this view, the college formulated the following code of research ethics:

- Maintain and follow research ethics of higher authorities such as Tamil Nadu state council of Higher Education, Directorate of collegiate education, affiliating university and funding agencies.
- Formulate rules and regulation to streamline research activities with respect to global and competitive in nature.
- Constitution of College Research Committee at college level to approve and monitor research and development activities and Department Research Committee at department level to admit and regulate research scholars.



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- College strictly follows the research ethics which ensure and protect humans, animals and environment with respectable manner.
- As per the direction of UGC, all the doctoral research scholars must undergo Research and Publication Ethics as a compulsory course work paper to completion of their research work.
- Before submission of research thesis to university, research work should be checked similarity with the help of URKUND/Turnitin/Ouriginal software and the thesis similarity should be less than 10 % will be allowed to submit to the university.

Doctoral research committee will be constituted with two research advisors from internal or external institutions which is approved by university to monitor and regulate the research activities of research scholars.

RESEARCH ETHICS COMMITTEE

Chairperson	-	Principal
Coordinator	-	Dr. K.S.Dhanam, Head, Department of English
Members	-	Dr. R. Rajendran, Associate Professor of Economics Dr. B. R. Venkatraman, Associate Professor of Chemistry



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PROCEEDINGS RELATED TO ETHICS



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Recommendations of Research Ethics Committee

The following code of Research Ethics must be strictly adhered to by the Research Scholars and Supervisors.

- Maintain and follow research ethics of higher authorities such as Tamil Nadu state council of Higher Education, Directorate of collegiate education, affiliating university and funding agencies.
- Protection of humans, animals and environment must be ensured with respectable manner.
- As per the direction of UGC, all the doctoral research scholars must undergo Research and Publication Ethics as a compulsory course work paper to completion of their research work.
- Usage of live animals for UG and PG zoology practical classes must be avoided. Students must be trained by virtual laboratory mode.
- Before submission of research thesis to university, research work should be checked similarity with the help of URKUND/Turnitin/Ouriginal software and the thesis similarity should be less than 10% will be allowed to submit to the university.



Member-1
(R. RAGENDRAN)



Member-2
(B. R. VENKATRAMAN)



Coordinator
(K.S. DHANAM)



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Department of Zoology

As per the UGC guidelines, animals are avoided for UG and PG Zoology practical classes. Students are trained by virtual laboratory mode. Hence we are not required for ethical committee clearance.

Head of the Department

Dr. S. UMAMAHESWARI, M.Sc., M.Phil., Ph.D.,
Associate Professor and Head,
Department of Zoology
Thanthai Periyar Government
Arts & Science College (Autonomous)
TIRUCHIRAPPALLI-620 023.



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Virtual Lab :

Semester III & IV
Core Practical II*

Hours: 4
Credits: 4

Core Practical II

BIOLOGY OF CHORDATES, CELL BIOLOGY AND MOLECULAR BIOLOGY
*Running Paper from semester III to semester IV

CHORDATA

Dissections / Virtual:

Virtual dissection of Frog/ Fish

Frog- Arterial system, Venous system, Dorsal and Ventral view of brain.

Fish- Digestive system, Circulatory systems.

Mounting of fish scales (Ctenoid, Placoid and Cycloid).

Fish measurement – any 3 fishes.

CELL BIOLOGY

Onion root tip – Chironomus larva – Grasshopper Testis squash – Buccal smear – Blood smear in man/ frog.

SPOTTERS:

With special reference to the following aspects:

- Classify giving reasons :** *Scoliodon, Narcine, Pristis, Channa, Anabas, Clarius, Rand hexadactyla, Bufo, Hyla, Calotes, Varanus, Naja naja, Echis carinata, Columba livia, Parrot, Rabbit, Rattus.*
- Relate the structure and function :** *Echenis, Exocoetus, Hippocampus, Rhacophorus, Draco, Chelone, Russell's viper, Feet modifications in birds, Beaks of birds, Bird feathers, Loris.*
- Biological significance :** *Amphioxus, Ascidian, Arius, Protopterus, Anguilla, Ambystoma, Axolotl larva, Chameleon, Hydrophis, Manis, Bat.*
- Cell types :** Epithelial : Simple, Squamous and Ciliated – Muscular : Striated, Non – striated and Cardiac – Connective tissue – Bone and adipose tissue.
- Cell and Molecular Biology:** Models for DNA, RNA, tRNA Structure and DNA replication.
- Draw and Label the parts (Osteology):** Head (Skull), Pectoral and Pelvic girdle, Forelimb and Hindlimb, Skeleton of frog, Pigeon – Synsacrum, Skull/ Dentition – Rabbit, Dog and man.

Reference books:

- Verma, P.S. 2013. A Manual of Practical Zoology of Vertebrates, S. Chand and Company Ltd, Ram Nagar, New Delhi.
- Amsath, A. 2013. Practical Manual in Zoology, MMA Publications, Adirampattinam.
- Lal, S.S. 1996. Textbook of Practical Zoology - Vertebrates. Rastogi Publications, Meerut.



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भारत सरकार
पर्यावरण वन एवं जलवायु परिवर्तन मंत्रालय
पशु कल्याण प्रभाग
पशुओं पर परीक्षण के नियंत्रण एवं पर्यवेक्षण के प्रयोजनार्थ समिति (सीपीसीएसईए)
Government of India
Ministry of Environment, Forest and Climate Change
Animal Welfare Division
Committee for the Purpose of Control and Supervision of Experiments on Animals (CPCSEA)



F. No. 25/8/2017-CPCSEA
Dated: 9th June, 2017

To
Dr. P. Krishnamoorthy
Assistant Professor, Dept. of Zoology,
Periyar EVR College,
Trichy - 620023, Tamil Nadu
Mob. 9488603566
E-mail: pkmoorthy68@gmail.com
Subject: - Selection as Nominee of CPCSEA - regarding

Sir,

With reference to your application for Nominee of CPCSEA and successful completion of training at Indira Paryavaran Bhawan, New Delhi from 23rd to 24th May, 2017, you are hereby informed that you have been selected as a Nominee of CPCSEA, till further orders. The term of the nominee is contingent upon satisfactory performance as a Nominee of the CPCSEA.

2. You will be nominated in the IAECs of various establishments, in due course, as and when, IAEC of establishments is formed. The Main Nominee of the concerned establishment is required to ensure conduct of the IAEC meetings as stipulated in the SOP of CPCSEA and to furnish the Annual Inspection Report of the Animal House Facility regularly to the O/o CPCSEA. In addition, the Nominees will also be nominated to conduct the inspections of the Animal House Facilities. The inspection reports will be submitted by the Nominees to CPCSEA. The Nominee of the establishment is required to submit the Inspection Reports / Annual Inspection Reports of both the facilities (Small and Large) where there is more than one Animal House Facility i.e. Small and Large.

3. CPCSEA is glad to inform you that the website of CPCSEA (<http://cpcsea.nic.in>) has since been launched and the online processes of New Registration, Renewal of registration, Reconstitution of IAECs, Revision of IAECs, submission of minutes of IAEC meeting, submission of Research Protocols on Large Animals and submission of Annual Inspection Reports by the concerned nominee(s) of the establishment has been made effective on the website of the CPCSEA.

4. Nominees are requested to visit their online panel on the website of CPCSEA to fill up the Inspection Reports / Annual Inspection Report of the Animal House Facility (s) of all the establishments allotted at the earliest. Annual statement of large animals use will also be uploaded by the Nominee. Your login ID and Password are as: login ID: pkmoorthy68@gmail.com and password: 68-11-13. You can change the password to make it secure.

5. You are requested to adhere to the guidelines of CPCSEA and ensure constructive role of a CPCSEA nominee in the IAECs where you will be nominated by CPCSEA.

Yours faithfully,

(S. Gowri Shankar)
Dy. Secretary (AW) & Member Secretary (CPCSEA)
Phone: 011-24695231/32
E-mail: cpcsea.moef@ gmail.com

5वां तल, वायु ब्लॉक, इंदिरा पर्यावरण भवन जॉर बाग रोड नई दिल्ली-110003
दूरभाष : 011-24695231 टेलीफैक्स : 011-24695424 ईमेल : cpcsea-mef@gov.in वेबसाईट : <http://cpcsea.nic.in>

5th Floor, Vayu Block, Indira Paryavaran Bhawan, Jor Bagh Road, New Delhi-110003
Phone: 011-24695231, Telefax : 011-24695424, Email : cpcsea-mef@gov.in, Website: <http://cpcsea.nic.in>



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SAMPLES OF APPROVAL OF ANIMAL ETHICS USED FOR RESEARCH



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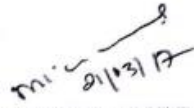
CERTIFICATE

BDU/IAEC/2017/NE/13/Dt. 21.03.2017


This is to certify that the project, "Antitumor efficacy of Biosynthesized Silver Nanoparticles using *Cymodocea serrulata*" submitted by Dr. S. Achiraman, Department of Environmental Biotechnology has been approved by the IAEC.

Animals approved: *Mus musculus*: Male - 48


Prof. G. ARCHUNAN 21/3/17
Name of the Member Secretary IAEC
Signature with date


Dr. M. MICHEL ARULDHAS
Name of the CPCSEA Link Nominee
Signature with date

As the animal house facility was not available in our institution. Animal model experiments were carried out in collaboration with Dr. S. Achiraman, Associate Professor, Department of Environmental Biotechnology, Bharathidasan University, Tiruchirappalli - 620024.

Research Supervisor


Dr. V. MASILAMANI, Ph.D.,
Assistant Professor,
Department of Zoology
Thanthai Periyar Government
Arts & Science College (Autonomous)
TIRUCHIRAPPALLI-620 023, Tamilnadu, India.



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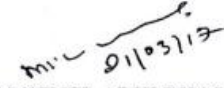
CERTIFICATE

BDU/IAEC/2017/NE/15/Dt. 21.03.2017


This is to certify that the project, "Effect of two putative probions on some physiological and immunological Aspects in induced Colitis in Male wistar rats (*Rattus norvegicus*)" submitted by Dr. S. Achiraman, Department of Environmental Biotechnology has been approved by the IAEC.

Animals approved: *Rattus norvegicus*: Male - 48


Prof. G. ARCHUNAN^{21/3/17}
Name of the Member Secretary IAEC
Signature with date


Dr. M. MICHEL ARULDHAS
Name of the CPCSEA Link Nominee
Signature with date

As the animal house facility was not available in our institution. Animal model experiments were carried out in collaboration with Dr. S. Achiraman, Associate Professor, Department of Environmental Biotechnology, Bharathidasan University, Tiruchirappalli-620024.
Research Supervisor.


Dr. A. BALASUNDARAM, Ph.D.,
Assistant Professor,
Department of Zoology
Thanthai Periyar Government
Arts & Science College (Autonomous)
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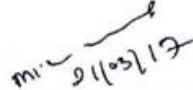
CERTIFICATE

BDU/IAEC/2017/NE/14/DL. 21.03.2017


This is to certify that the project, "Safety Assessment of the probiotic Strains in Male Swiss albino mice (*Mus musculus*) Formulated Feed" submitted by Dr. S. Achiraman, Department of Environmental Biotechnology has been approved by the IAEC.

Animals approved: *Mus musculus*: Male - 35


Prof. G. ARCHUNAN 21/3/17
Name of the Member Secretary IAEC
Signature with date


Dr. M. MICHEL ARULDHAS
Name of the CPCSEA Link Nominee
Signature with date

As the animal house facility was not available in our institution. Animal model experiments were carried out in collaboration with Dr. S. Achiraman, Dept of Environmental Biotechnology, Bharathidasan University Tiruchirappalli - 620024.

Research Supervisor


Dr.A.BALASUNDARAM, Ph.D.,
Assistant Professor,
Department of Zoology
Thanthai Periyar Government
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Studies on the probiotic potential of gut-microbiota of
Penaeus monodon (Crustacea: Decapoda)

Thesis submitted to Bharathidasan University, Tiruchirappalli
for the Award of the Degree of

DOCTOR OF PHILOSOPHY IN ZOOLOGY

By

P. KOLANCHINATHAN, M.Sc.,

(Ref. No: 17047/Ph.D.K7/Zoology/Full Time/July 2013/Dt:01.07.2013)

Under the Guidance of

Dr. A. BALASUNDARAM, M.Sc., M.Phil., Ph.D.



POST GRADUATE AND RESEARCH DEPARTMENT OF ZOOLOGY

PERIYAR E.V.R. COLLEGE (AUTONOMOUS)

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TIRUCHIRAPPALLI-620 023

TAMIL NADU-INDIA

JUNE - 2018