

PROFILE



Name : DR. S. CATHERINE.P.ALEXANDER

Designation : Associate Professor

Department : Zoology

Date of Birth : 20.04.1969

Date of Appointment : 14.07.1992

CONTACT DETAILS

Present Address : 15/8-2C, Jeevanantham Street

Thamaraikulam, Periyakulam

Theni Dt, 625601

Permanent Address : 358, Venkatasamy Street

Ponnappa Nadar Colony Nagercoil,

K.K Dt, 629004

Contact No. :9487582969

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Academic Qualifications:

Sl No.	Institution	Degree Awarded	Year	Field of Study
1	Lady Doak College, Madurai, Madurai Kamaraj University	Ph.D.	2008	Immunology
2	St,Xavier's College (Autonomous), Tirunelveli Manonmaniam Sundaranar University	M.Phil Distinction	1992	Embryology
3	Holy Cross College, Nagercoil Madurai Kamaraj University	M.Sc- University I Rank	1991	Zoology

4	Holy Cross College, Nagercoil Madurai Kamaraj University	B.Sc- University I Rank	1989	Zoology
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Title of Ph.D. Thesis:

Studies on Immunomodulation by *Tinospora cordifolia* (Miers) Leaves in *Oreochromis mossambicus* (Peters)

Degree awarded on 12.11.2008

Availed FIP IN X Plan period, Feb 2005 – Jan 2007

Teaching Experience:

Sl No.	Institution & Place	Position	From (Date)	To (Date)
1	Jayaraj Annapackiam College for Women (Autonomous) Periyakulam	Associate Professor	2009	Till date
2	Jayaraj Annapackiam College for Women (Autonomous) Periyakulam	Reader	2008	2009
3	Jayaraj Annapackiam College for Women (Autonomous) Periyakulam	Lecturer(S.G)	2002	2008
2	-do-	Lecturer(S.S)	1997	2002
3	-do-	Lecturer	1992	1997

Awards Received:

1. **National Merit Scholarship** instituted by Rajiv Gandhi Foundation, New Delhi for scoring highest marks amongst all the students in Tamilnadu who passed out in 1989 in B.Sc Zoology.
2. **Dr.M.Varadarajan Memorial Endowment Prize** for having secured the highest marks in B.Sc Zoology in 1989 at Madurai Kamaraj University.
3. **Sri M.Bhatavatsalam 69th Birthday commemoration prize** for having secured the highest marks in B.Sc Zoology in 1989 at Madurai Kamaraj University.
4. **Sri M.Bhatavatsalam 69th Birthday commemoration prize** for having secured the highest marks in M.Sc Zoology in 1991 at Madurai Kamaraj University.
5. **Research Fellowship** and Study Leave to pursue Doctoral Studies by the University Grants Commission under the Faculty Improvement Programme (2005-2007).

Conference /Seminar/workshop Attended:

Title of Workshop Seminar / Conference	Sponsors	Venue	Period	Category
National seminar on Emerging Trends in Current Environmental Issues	J.A. College for women, Periyakulam	J.A. College for women, Periyakulam	11 th and 12 th December 2019	National
National level training on Evaluation Reforms in Higher Education	UGC, SERO, Hyderabad	University of Hyderabad, Hyderabad	18 th and 19 th July, 2019	National
Workshop on Women in Science and Research	J.A. College for women, Periyakulam	J.A. College for women, Periyakulam	19 th & 20 th February, 2018	National

“Emerging Trends in Life Sciences”	J.A. College for women, Periyakulam	J.A. College for women, Periyakulam	9 th January 2018	National
Workshop on Statistics using EXCEL and SPSS	J.A. College for women, Periyakulam	J.A. College for women, Periyakulam	5 th & 6 th September 2017	International

Microbial tool and Bioremediation	J.A. College for women, Periyakulam	J. A. College for Women, Periyakulam	9th & 10th Feb 2017	National
Quality Assurance and Quality Sustenance in Higher Educational Institutions: Challenges and Solutions	NAAC	J. A. College for Women, Periyakulam	29th to 30th September, 2016	National
“ Frontier Lectures in Biology”	Science Academies	J. A. College for Women, Periyakulam.	21st & 22nd March, 2016	National
NSS Orientation training	NSS	Avinashilingam University, Coimbatore.	1 st March to 7 th March 2016.	National
Ranking the research publication- citation analysis, citation database and antiplagiarism	UGC	J. A. College for Women, Periyakulam	27 th to 28 th January 2016	National
4th International conference and Exhibition on Immunology	-	Crowne Plaza Houston River Oaks, Houston, TX, USA.	28th to 30th September, 2015	International
Leadership Training Programme	-	Christ University, Bengaluru	29th -30th June 2015	-
“Polymerase Chain Reaction Techniques” Zoology	Eppendorf India Ltd., Chennai	J. A. College for Women, Periyakulam	2nd September, 2015	Regional
Workshop on Statistical Packages for Social Sciences	TNSCST	J. A. College for Women, Periyakulam.	24th to 28th August 2015	Regional
Sustainable Development and the role of women in Nation building on Women and Health	UGC	J. A. College for Women, Periyakulam.	11th & 12th February 2015	National
Interdisciplinary Application of Biology	UGC	J.A. College for Women (Autonomous), Periyakulam	28th & 29th January, 2015	National

Workshop on Reforms in Curriculum Development and Examination System	Mother Teresa Women's University, Kodaikanal	Jayaraj Annapackiam College for Women, Periyakulam	13th Nov, 2013	State level
Seminar on Modern Trends in Applied Microbiology	-	Jayaraj Annapackiam College for Women, Periyakulam	19th August, 2013	International
Workshop on Statistical Packages for Social Sciences.	TNSCT	Jayaraj Annapackiam College for Women, Periyakulam	11th- 15th Feb, 2013	State level
Seminar on New Frontiers in Biology.	UGC	Jayaraj Annapackiam College for Women, Periyakulam	18th - 19th Dec, 2012	National
Seminar on Intellectual Property and Innovation Management in Knowledge Era	National Research Development Corporation, New Delhi & Gandhigram Rural Institute.	Gandhigram Rural Institute. Gandhigram	17th Oct, 2012	National
Core Committee meeting on National Consultation on Promoting Environment Education	UBCHEA, Philippines	Lady Doak College, Madurai. 04.08.2012.	4th Aug, 2012	National
“New Start- Life style for Health“	-	J.A. College, Periyakulam	2nd March 2012	National
Workshop on Hands on Training in Avian Studies	TNSTC, Chennai	Jayaraj Annapackiam College for Women, Periyakulam	14th-15th , Feb, 2012	State level
“Popular Lecture Series on Vermi Technology“	INSA	J.A. College, Periyakulam	8th Feb.2012	

“Biodiversity”		J.A. College, Periyakulam	1 st August 2012	
8th Symposium on diseases in Asian Aquaculture	Fish Health Section of Asian Fisheries Society	College of fisheries, Mangalore.	21st- 25th Nov, 2011	International
Workshop on recent Trends in Science for Talented Rural school students of Periyakulam Educational District	TNSTC, Chennai	Jayaraj Annapackiam College for Women, Periyakulam	12th-13th Oct, 2011	Regional
Seminar on Moulding the Christian Youth in the Light of Christ	-	Jayaraj Annapackiam College for Women, Periyakulam	15th Sep, 2011	State level
Seminar on Biodiversity – Measures for Conservation and Management	-	Jayaraj Annapackiam College for Women, Periyakulam	16th Dec, 2010	State level
Seminar on Human Rights	UGC	Jayaraj Annapackiam College for Women, Periyakulam	9th - 10th Dec, 2010	National
Seminar on Inculcation of Values for holistic life amidst Technical Scenario	UGC	Jayaraj Annapackiam College for Women, Periyakulam	6th - 7th Dec, 2010	National
Workshop on Higher Education in a changing environment	-	Jayaraj Annapackiam College for Women, Periyakulam	26th - 27th Nov, 2010	Regional
Seminar on Recent Trends in Biotechnology	UGC	Holy Cross College, Nagerco il	13 th March, 2010	International
Seminar on Conserve the mother Earth need of the hour”.	UGC	Jayaraj Annapackiam College for Women,	9th - 10th March 2009	National

		Periyakulam		
Seminar on Quality and Relevance in higher education – “New Challenges”	NAAC	Jayaraj Annapackiam College for Women, Periyakulam	2nd - 3rd March, 2009	National
Workshop on “Application of statistical packages in Biology”	-	Jayaraj Annapackiam College for Women, Periyakulam	23rd February 2009	State level
Seminar on Modern Biological Sciences	INSA, New Delhi	Jayaraj Annapackiam College for Women, Periyakulam	27th January 2009	State level
Seminar on Christian Values for wholesome life	Xavier Board of Higher Education in India	Jayaraj Annapackiam College for Women, Periyakulam	29th August 2008	State level
Seminar on Cutting Edge Molecular Techniques.	Eppendorf India	Lady Doak College, Madurai	March 1st, 2008	Regional
Seminar on Participative and Responsive Organizational Dynamics for Quality Improvement in Autonomous Colleges	-	Jayaraj Annapackiam College for Women, Periyakulam	19th -20th Dec, 2007	National
Workshop on Role of Women’s Studies in India	-	Alagappa University, Karaikudi	21st -22nd Sep, 2007	Regional
Symposium on Biotechnology and Biocontrol	DBT, DST, CSIR etc.,	Lady Doak College, Madurai	27th-29th Nov, 2006	International
Workshop on Biological Data Handling	TNSCST and NCSTC	Lady Doak College, Madurai	9th -12th Aug, 2006	State Level
Seminar on Biomedicine in Aquaculture	Aquaculture Foundation of India	Kanyakumari	17th-18th March, 2006	National

Seminar on Frontier Areas in Plant Biotechnology	DBT	Lady Doak College, Madurai	20th -21st Jan,2006	National
The 7th Indian Fisheries Forum	Asian Fisheries Society	Animal and Fisheries Sciences University, Bangalore	8th-12th Nov, 2005	International
6th Symposium on Diseases in Asian Aquaculture	Fish Health Section of the AFS	Colombo, Srilanka	25th-28th Oct, 2005	International
Workshop and Training Programme on Bioethics Education	Eubios Ethics Institute	Jayaraj Annapackiam College for Women, Periyakulam	20th Jan,2005	International
SWIFT Jyoti Programme	-	NIIT, Periyakulam	Dec, 2002	-
Bakery and confectionary (Basic and Advanced)	-	Jayaraj Annapackiam College for Women, Periyakulam	20th June-4th July, 2002	Regional
Workshop on Environmental Protection- People and Law	C.P.R. Environmental Education Centre	Jayaraj Annapackiam College for Women, Periyakulam	30th Nov, 2000	Regional
Workshop on Immunological Techniques	UGC and TNSCST	The American College, Madurai	1st -13th, May, 2000	State Level
Workshop on Techniques in Fish Immunology	The American College	The American College, Madurai	9th-11th, Feb, 1999	Regional
Seminar on Applied Biotechnology	-	Jayaraj Annapackiam College for Women, Periyakulam	28th Jan, 1999	Regional
Workshop on Computer Applications-	AIACHAE	Jayaraj Annapackiam College for	8th -9th Nov, 1995	Regional

WORDSTAR, LOTUS 1-2-3		Women, Periyakulam		
Career workshop for women college leavers	-	Alagappa University, Karaikudi	13th -14th Sep, 1995	Regional
A course in counseling and effective communication	Xavier Board of Higher Education in India	Bangalore	27th -31st May, 1994	National
Workshop on Environmental Studies	AIACHAE	Bishop Heber College, Trichy	16th -23rd May, 1994	National
Conference on Pollution Prevention-The Technology for the Future	UGC	Bishop Heber College, Trichy	19th May, 1994	National

Research contributions:

- Books: 1
 - Laboratory Manual in Zoology (Co-author), ACCA Publications, Periyakulam
- M. Phil Research projects Supervised – 9
 - M. Phil Research projects Supervised in the field of Fish Immunology (6)
 - Immunomodulation by *Withania somnifera* root in *O.mossambicus*
 - Immunomodulatory effect of *Mentha arvensis* in *O.mossambicus*
 - Immunotoxicological effect of Coffee Industrial Effluent on *Cyprinus carpio*
 - Study on phytochemical, pharmacological and immunomodulating properties of *Cissus quadrangularis*
- Has Prepared Course materials for Aquaculture (for Skill based Elective Course)
- Has obtained **Ph.D. Guideship** from Mother Teresa Women's University, Kodaikanal. and guiding **one Ph.D. scholar**
- **Completed Major Research Project**

UGC funded Major Research Project entitled “Influence of herbal immunostimulant *Andrographis paniculata*, on the immune responses and survival on *Oreochromis mossambicus* against *Aeromonas hydrophila* infection.” with a grant of Rs.10.75 lakhs for the period 2011-2014.

Resource Sharing

- Has contributed as **Resource person** in Training Workshop on Immunological Techniques organized by Centre for Fish Immunology, Lady Doak College, Madurai on April 30 - May 12, 2007.
- Has contributed as **Resource person** in 4th Training Workshop on Immunological Techniques from Jan 27-Feb 5, 2009 organized by Centre for Fish Immunology, Lady Doak College, Madurai.
- Has contributed as **Resource person** in 5th Training Workshop on Immunological Techniques from May 3 - 15, 2010 organized by Centre for Fish Immunology, Lady Doak College, Madurai.
- Has contributed as **Resource person** in the creation of scientific awareness programme to the talented rural school children of Theni District organized by Jayaraj Annapackiam College for Women, Periyakulam on Feb 4-5 2010
- Has contributed as **Resource person** At Lone Star College, Cyfair Cypress, Texas, USA and delivered a special lecture on “Vaccination” on 7th October 2015

Papers presented in Conferences: 13 (International 5)

1. Research paper entitled “Immunostimulatory effect of water-soluble fraction of *Tinospora cordifolia* leaves on the immune response of *Oreochromis mossambicus*” presented at Sixth Symposium on Diseases in Asian Aquaculture: Aquatic Animal Health - Facing New Challenges organized by Fish health section of Asian Fisheries Society (AFS), Colombo, Srilanka ON 25-28 Oct 2005 (International)
2. Research paper entitled “Immunostimulatory effect of hexane fraction of *Tinospora cordifolia* leaves on *Oreochromis mossambicus*” presented at The Seventh Indian Fisheries

Forum, Bangalore, India organized by Asian Fisheries Society – Indian Branch on 8-12 November, 2005. (International)

3. Research paper entitled “Immunomodulatory activity of *Nyctanthes arbortristis* seed kernel extracts in *Oreochromis mossambicus*” presented at organized by Centre for Marine Science and Technology, Manonmaniam Sundaranar University, Rajakkamangalam, Tamilnadu on March 17 - 19, 2006.
4. Research papers 1) “*Tinospora cordifolia* - a potential oral immunostimulant for *Oreochromis mossambicus*” 2) “Effect of detergents on oxygen consumption and tissue chemistry in *Lepidocephalichthys thermalis*” presented at Fourth Symposium on Biocontrol and Biotechnology organized by Lady Doak College, Madurai, Tamilnadu, India on 27-29 Nov 2006. (International)
5. Research paper entitled “Immunostimulatory effect of chloroform extract of *Nyctanthes arbortristis* seeds in *Oreochromis mossambicus*” presented at organized by Fish health section of Asian Fisheries Society (AFS), Taipei, Taiwan on 22-26 July 2008. (International)
6. Research paper entitled “A study on the relation between the balanced diet supplemented with cultivated fodder crops on quantity and quality of milk in exotic cow Holstein Friesian presented at Seminar on Conserve the mother Earth need of the hour organized by J.A .college, Periyakulam on 9th - 10th March 2009
7. Research paper entitled “Hexane soluble fraction of *Tinospora cordifolia* leaves as a feed supplement enhanced the non-specific immune mechanisms and disease resistance in *Oreochromis mossambicus*” presented in the 8th Symposium on diseases in Asian Aquaculture at College of fisheries, Mangalore organized by Fish Health Section of Asian Fisheries Society on 21st - 25th November 2011 (International)
8. Research papers entitled 1) “Immunomodulatory effect of *Withania somnifera* root in *Oreochromis mossambicus*.” and 2) Immunotoxicological effect of Tannery Effluent on *Oreochromis mossambicus* presented in the National conference on Potentials & prospects of Aquatic Resources at Kunthavai Naachiyar Govt. Arts College for Women, Thanjavur. on 6th - 7th February 2012

9. Research paper entitled “Immunomodulatory effect of *Mentha arvensis* in *Oreochromis Mossambicus*.” presented in the National Seminar on Science and Technology for Clean and Green Environment at Annamalai University, Chidambaram on 27th - 28th July 2012
10. Research papers entitled 1) “Immuostimulants of plant Origin and Aquaculture and 2) Immunotoxicological effect of Coffee Industrial Effluent on *Cyprinus carpio* presented in the National seminar on New frontiers in Biology at J. A. College, Periyakulam. on 18th - 19th December 2012
11. Research papers entitled “*Andrographis paniculata*:Phytochemistry and Pharmacology-A Review in UGC sponsored National Seminar on Interdisciplinary Application of Biology at J. A. College, Periyakulam. on 28th & 29th January, 2015
12. Research papers entitled “Immunotoxicity of industrial effluents in fin fish: an alternative animal model for immunotoxicological studies” in 4th international conference and exhibition on immunology” Houston, Texas, United States of America, from 28th to 30th September, 2015
13. Research papers entitled “Research Quality in Indian Higher Education System - Current Scenario” in NAAC sponsored National Seminar on Quality Assurance and Quality Sustenance in Higher Educational Institutions: Challenges and Solutions at J. A. College for Women, Periyakulam from 29 th to 30th September, 2016.

Papers Published

- **Enhancement of non-specific immune responses and disease resistance on oral administration of *Nyctanthes arbortristis* seed extract in *Oreochromis mossambicus*.** (Aquaculture Research, DOI: 10.1111/j. 2109.2010.02516.x) (International, Wiley Publications)
- **Water soluble fraction of *Tinospora cordifolia* leaves enhanced the non- specific immune mechanisms and disease resistance in *Oreochromis mossambicus*** Fish & Shellfish Immunology, 29 (2010) 765-772. (International, Elsevier)
- **Immunomodulatory effect of *Withania somnifera* in *Oreochromis mossambicus*.** International Journal of Pharmacology and Biological Sciences, Vol. (7) 2013, 23-33.

- **Immunomodulatory effect of *Mentha arvensis* in *Oreochromis mossambicus*.** Asian Journal of Microbiology, Biotechnology and Environmental Sciences Vol. 16, No. (3):2014:731-738.
- **Green Synthesis of Silver Nano particles form Pomegranate (*Punicranatum*) Leaves and Analysis of Anti-Bactreial Activity.** International Journal of Advanced Technology in Engineering and Science, ISSN: 2348-7550, Vol No. 03, Issue No. 06, June, 2015, pp. 1-8
- **Synthesis of Silver Nano particles Using the Vegetable Extract of *Raphanus Sativus* (Radish) and Assessment of their Antibacterial activity** International Journal of Advanced Technology in Engineering and Science ISSN: 2348-7550, Vol. 03, Issue No. 05, May, 2015, pp. 207-212
- **Evalution of Phytochemical Constituents of *Andrographis Paniculata* Extracts** JAC Journal of Science, Humanities and Management, ISSN: 2347-9868, Volume 2, June, 2015, pp. 121-131
“Research Quality in Indian Higher Education System - Current Scenario” JAC Journal of Science, Humanities and Management, ISSN: 2347-9868, Volume 3:3, Decembner, 2016, pp. 66 - 77
- **Antibacterial activity of *Andrographis paniculata* extracts.** The Pharma Innovation Journal 2017; 6(5): 01-04
- **Pharmacological potential of *Andrographis paniculata* extracts.** International Journal of Research in Pharmacy and Pharmaceutical Sciences. Volume 2; Issue 2; 2017; Page No. 24-28
- **Effects of effluent from electroplating industry on the immune response in the freshwater fish, *Cyprinus carpio*** Fish and Shellfish Immunology Pg: 79 (2018) 86-92
- **A comparative study on the effect of organic fertilizer panchagavya and vermicompst on the yield of *Abelmoschus esculentus* (ladies finger)** International Journal of Advanced Research (IJAR) ISSN: 2320-5407, 6(2), 1331-1336

Published in Proceedings

- Suja S. Chandran and Catherine P. Alexander (2009) **A study on the relation between the balanced diet supplemented with cultivated fodder crops on quantity and quality of the milk in exotic cow Holstein Friesian.** Proceedings of “Conserve the mother Earth - need of the hour” 10th March 2009 in National Seminar at J. A. College for Women, Periyakulam

Refresher course/ Orientation course attended

Institution & Place	RC/OC	Duration
Madurai Kamaraj University, Madurai	Refresher course	15 ^h November to 05 th Dec, 2007.
Gandhigram Rural Institute. Gandhigram	Refresher course	13 ^h November to 03 th Dec, 2002.
Pondicherry University, Pondicherry	Refresher course	13 ^h February-06 th March, 2000
Madurai Kamaraj University, Madurai	Orientation course	14 ^h July to 11 th August, 1995.
Avinashilingam University, Coimbatore.	NSS Orientation training	1 st March to 7 th March 2016.

Has held key positions in the college as

Controller of Examinations
Dean of Research
College student union Vice President
Co-ordinator of Minority Cell
Co-ordinator of Fine arts committee
Programme Officer-NSS

Question Paper setting and evaluation

- Has been the member of Board of studies of Department of Zoology, Holy Cross College, Nagercoil
- Has evaluated M.Phil dissertation and conducted M.Phil Viva-Voce for various colleges.
- Has been the Question Paper setter for U.G, P.G. and M.Phil courses for various Colleges and Universities and evaluated the answer scripts
- Has been the External Examiner for semester Practical examination for Gandhigram Rural University and various colleges.