



Dr. K. BALAMURUGAN

Senior Professor & Head

Contact

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Academic Qualifications

Degree	Institution	Year	Branch	Class
D. Sc.	Alagappa University	2022	Biotechnology	Awarded
Ph. D.	Banaras Hindu University	1996	Zoology	Awarded
PG	Annamalai University	1992	Biochemistry	I class

Teaching Experience: 22 Years

Position	Institution	Duration
Senior Professor and Head	Department of Biotechnology, Alagappa University	Nov 15, 2022- Till Date
Professor and Head	Department of Biotechnology, Alagappa University	June 01, 2022- Nov 15, 2022
Professor	Department of Biotechnology, Alagappa University	Nov 15, 2012- May 31, 2022
Associate Professor	Department of Biotechnology, Alagappa University	Nov 15, 2009- Nov 14, 2012
Reader	Department of Biotechnology, Alagappa University	Nov 15, 2006- Nov 14, 2009

Research Experience: 30 Years

Position	Institution / University	Duration
PDF	Centre For Cellular and Molecular Biology, Hyderabad	Dec 09, 1996 To Aug 20, 1998
PDF	Department of Chemistry National Changhua University, Taiwan	August 26, 1998 To March 22, 2001
PDF	Department Of Medicine University of California at Irvine, USA	April 15, 2001 – June 30, 2006
Senior Research Fellow	Indian Council of Agricultural Research (ICAR), India	Feb 09, 1993 To Dec 03, 1996

Academic and Additional Responsibilities

S. No	Position	University Bodies	Period	
			From	To
1.	RUSA Directorate/Co-ordinator	Alagappa University, Alagappa Nagar Karaikudi	24.11.2022	Till date
2.	Member of Institutional Animal Ethical Committee (IAEC), Alagappa University	Alagappa University, Alagappa Nagar Karaikudi	01.03.2017	Till date
3.	Director of IPR cell, Alagappa University	Alagappa University, Alagappa Nagar Karaikudi	09.08.2022	Till date
4.	RUSA 2.0 Biological Theme Coordinator	Alagappa University, Alagappa Nagar Karaikudi	Sep 2019	Mar 2023
5.	Member Secretary of Institutional Ethical Committee (IEC)	Alagappa University, Alagappa Nagar Karaikudi	20.03.2023	Till date
6.	Program Coordinator of DBT-Sponsored PG	Alagappa University, Alagappa Nagar Karaikudi	01.06.2022	Till date

	Biotechnology			
7.	Chief superintendent for examinations	Alagappa University, Karaikudi	November 2018	
8.	Chief superintendent for examinations	Alagappa University, Karaikudi	April 2019	
9.	Expert at Global Investors Meet 2019	Alagappa University, Karaikudi	23.01.2019	24.01.219
10.	Co-ordinator of Incubation and Technology Transfer Centre	Alagappa University, Karaikudi	2015	2016
11.	Co-ordinator of Incubation and Technology Transfer Centre	Alagappa University, Karaikudi	2016	2017
12.	Deputy Co-ordinator of BIF	Department of Biotechnology, Alagappa University, Karaikudi	2008	2020
13.	Special officer for Recruitment cell	Alagappa University, Karaikudi	12.10.2018	11.02.2020

Areas of Research

- Host pathogen-interactions using *C. elegans* as model organism
- Understanding innate immune regulations through functional genomics, proteomics and metabolomics
- Studying the multigenerational adaptation during bacterial infections through multi-OMICS study

Patents Filed

Granted Patents

S. No	Name	Inventors	Country	Publication date	Filing Date	Grant Date	Patent No
1.	Personal Care Compositions for Anti-Aging	Prasanth MI, Balamurugan K , Pandian SK, Gayathri S, James PB	India	20/10/17	18 June 2015	03 June 2020	676/KOL/2015 337898
2.	An anti-acne synergistic composition and process thereof	Sivasankar C, Pandian SK and Balamurugan K	India	29/09/2017	22 March 2016	20164 10100 57	381269

Filed Patents

S. No	Name	Inventors	Country	Publication date	Filing Date	Patent No
3.	Personal Care Compositions for Anti-Aging	Prasanth MI, Balamurugan K , Pandian SK, Gayathri S, James PB	India	20/10/2017	18 June 2015	679/KOL/2015
4.	Composition Comprising Green Tea and Naringenin for Anti-Aging	Prasanth MI, Balamurugan K , Pandian SK, Gayathri S, James PB	India	20/10/2017	18 June 2015	677/KOL/2015
5.	Personal Care Compositions for Anti-Aging	Prasanth MI, Balamurugan K , Pandian SK, Gayathri S, James PB	India	20/10/2017	18 June 2015	680/KOL/2015
6.	Personal Care Compositions for Anti-Aging	Prasanth MI, Pandian SK, Gayathri S, James PB, Balamurugan K	India	13/10/2017	15 July 2015	766/KOL/2015
7.	Personal Care Compositions for Anti-Aging	Prasanth MI, Pandian SK, Gayathri S, James PB, Balamurugan K	India	13/10/2017	17 July 2015	779/KOL/2015
8.	An antibacterial composition and implementations thereof	Swetha TK, Pandian SK, Sivasankar C, Balamurugan K , Veera Ravi A, Bhaskar JP, Venkateswaran K, Deepa M, Das SS	India	13/09/2019	07 March 2018	201831008480
9.	A composition comprising phytochemicals and applications thereof	Swetha TK, Pandian SK, Sivasankar C, Balamurugan K , Veera Ravi A, Bhaskar JP, Venkateswaran K, Deepa M, Das SS	India	13/09/2019	07 March 2018	201831008481
10.	A composition	Swetha TK,	India	13/09/2019	07 March	201831008482

	comprising phytochemicals and applications thereof	Pandian SK, Sivasankar C, Balamurugan K , Veera Ravi A, Bhaskar JP, Venkateswaran K, Deepa M, Das SS			2018	
11.	Antibacterial composition and uses thereof	Swetha TK, Pandian SK, Sivasankar C, Balamurugan K , Veera Ravi A, Bhaskar JP, Venkateswaran K, Deepa M, Das SS	India	13/09/2019	07 March 2018	201831008483
12.	Combination comprising <i>Mukia maderaspatana</i> and Spermidine for anti-aging activity	Muthubharthi B. C., Mounish B.S.C., Subalakshmi K. P and Balamurugan K .	India	24/03/2023		202341021225
13.	Combination comprising <i>Mukia maderaspatana</i> and Nicotinic acid for anti-aging activity	Muthubharthi B. C., Mounish B.S.C. and Balamurugan K .	India	24/03/2023		20234102122
14.	Combination comprising <i>Mukia maderaspatana</i> and Curcumin acid for anti-aging activity	Muthubharthi B. C. and Balamurugan K .	India	24/03/2023		202341021222
15.	Combination comprising <i>Mukia maderaspatana</i> and β -Carotene for anti-aging activity	Muthubharthi B. C. and Balamurugan K .	India	24/03/2023		202341021223
16.	Combination comprising <i>Mukia maderaspatana</i> and Quercetin for anti-aging activity	Muthubharthi B. C. and Balamurugan K .	India	24/03/2023		202341021221

Research Supervision/Guidance

Program of Study		Completed	Ongoing
Research	PDF	01	
	Ph.D	15	05
	M.Phil	-	-
Project	PG	70	04
	UG/ Others	12	-

Publications

International		National		Others
Journals	Conferences	Journals	Conferences	Books/Chapters/Monographs/Manuals
120	173	04	159	19

Cumulative Impact Factor (as per JCR) : 362.532(Avg.I.F.3.12)
h-index : 33
i10 index : 76
Total Citations : 2893

Thesis Evaluated : 68
Viva voce Examiner : 47

Funded Research Projects

Ongoing Projects:

S. No	Agency	Period		Project Title	Budget (Rs. In lakhs)
		From	To		

1.	DOM	26 Dec 2023	25 Dec 2025	Screening of deep ocean microbial metabolites for their anti-infective properties using an <i>in vivo</i> model system, <i>Caenorhabditis elegans</i>	48.74
2.	ITC-AU Collaborative Project	Jan 2024	June 2024	Identification and Bio-Activity Evaluation of Neem Leaf Markers for Innovative FMCG Product Development	4.77
3.	DST-SERB	20Dec 2021	19 Dec 2024	Impact of specific metabolites during bacterial infection and their role in multigenerational adaptation	39.46

Completed Projects:

S. No	Agency	Period		Project Title	Budget (Rs.In lakhs)
		From	To		
1.	RUSA 2.0 EIR	August 2023	Oct 2023	Development / Fabrication of bio-detector for biological sample analysis in microfluidic platform	04.50
2.	ITC-AU Collaborative Project	05Oct-2022	04 Oct-2023	Identification and use of antiviral natural actives using <i>in silico</i> , <i>in vitro</i> and <i>in vivo</i> models	39.60
3.	DBT	June 2017	June 2020	Impact of <i>Cronobacter sakazakii</i> infection on the neuroimmunity	70.24
4.	ITC-AU Collaborative Project	Jul 2016	Dec-2019	<i>C. elegans</i> : An <i>in vivo</i> model for dermal inflammation studies	41.17
5.	UGC Major Research Project	01 April 2013	31 March 2017	Physiological and molecular changes in <i>Caenorhabditis elegans</i> during subsequent bacterial infections	10.85
6.	ITC-AU Collaborative project	July-2011	Dec-2014	Anti-aging: Role of target genes	19.14
7.	DST	Feb-2012	Jan-2015	<i>Caenorhabditis elegans</i> response against <i>Vibrio spp.</i> infection	20.03

8.	DST	July-2011	July-2014	Characterization of innate immune regulators during <i>Shigella spp.</i>	23.30
9.	CSIR	Apr-2011	Mar-2014	<i>Caenorhabditis elegans</i> response to human pathogens	21.92
10.	DBT	Mar-2011	Mar-2014	Studies on Immune regulatory proteins	26.546
11.	ICMR	Mar-2011	Mar-2014	Analysis of antimicrobial gene expression pattern	25.23
12.	UGC	Apr-2008	Mar-2011	Screening of marine bioresources for Antibacterial compounds	11.76
13.	DBT	Dec-2007	Dec-2010	RNA-interference mediated silencing of antimicrobial genes of <i>Caenorhabditis elegans</i> .	24.73

Distinctive Achievements / Awards

- Malaviya Memorial Award for Senior Faculty Award 2022 from The Biotech Research Society, India
- Vallal Alagappar Research Recognition Award-2020- contribution towards the enhancement of Research outcome of the University in the form of “h” index
- Tamil Nadu Scientist Award (TANSA-2020) under the category of Biological Sciences
- Outstanding Researcher Award- 2022 in recognition of the contribution made towards Excellence in Research at Alagappa University
- 2008-DBT-RGYI Young Scientist award project for Young Investigator under 40 Years.
- 2011-DST Young Scientist Award project.
- 2011-DST International Travel award for attending FEMS 2011 Conference held at Geneva, Switzerland during June 26-30, 2011.
- Best Poster Award “AMI-Panjab University” for the poster presentation entitled “Modification of pathogen lipopolysaccharide during the interaction with *Caenorhabditis elegans*” presented by Vignesh Kumar B and Balamurugan, K, at 52nd Annual Conference of Association of Microbiologists of India (AMI), “International Conference on Microbial Biotechnology for Sustainable Development” during Nov 3-6, 2011 held at Panjab University, Chandigarh, India.
- Invited ORAL presentation at the 10th Asia Pacific Bioinformatics Conference conducted by LA Trobe University, Melbourne, Australia, 17-19Jan2012.
- Second Best Oral Presentation Award at the 5th International Conference on Natural Products for Health and Beauty (NATPRO5) in Phuket, Thailand, 05-07 May 2014.
- Best Faculty Award- Biotechnology 2013- Senior by Shri PK Das Memorial, Nehru Group of Institutions, Coimbatore.
- Dr. R. R. Mani Maran Memorial Lecture Award on 26 November 2014 by Indian Society for Comparative Endocrinology for the scientific contribution in the field of Host-Pathogen interactions related to Reproduction.

- Adjunct Faculty, National Institute of Pharmaceutical Education and Research (NIPER) Kolkata, since 06 Dec 2016
- Visiting Professor, Department of Biochemistry and Molecular Biology, Faculty of Agriculture and Life Science, Hirosaki University, Japan, March 12, 2018-March 28, 2018.
- Pooranachithra M., Balamurugan K. “Wound Research: Insights from a Mighty Miniature Model, *Caenorhabditis elegans*”. Augmenting Writing Skills for Articulating Research (AWSAR) Award 2018 on Feb, 28 2019 by Department of Science and Technology (DST), Government of India.
- Subhadra M. and Balamurugan K. “A Tug of War between Diabetes and Obesity – Just a Glimpse” Augmenting Writing Skills for Articulating Research (AWSAR) Award 2020 Won the CONSOLATION PRIZE (Ph.D) in the Popular Science by DST, GOI.
- Best Poster Award at the “Workshop for Agriculture and Life science study in Hirosaki University 2021 – models for Life science studies” organized by Hirosaki University, Japan held during January 23rd-24th, 2021. (Poster no: 05-VirtualConference); presented by Muthubharathi BC and Balamurugan K. on “Understanding the importance of Neuronal system during *Cronobacter sakazakii* Infection in the model host, *Caenorhabditis elegans*.”
- Certificate of Appreciation-2021 as Theme Coordinator in Translational Health Research for Human Animal and Plant System in recognition of the contribution made to THEME BASED RESEARCH PROJECT OF RUSA 2.0 towards the quality enhancement in teaching and research by Alagappa University, Karaikudi, Tamil Nadu, India

Events organized in leading roles

Number of Seminars /Conferences /Workshops/ Events organized: 11

Position	Programme	Duration	Institution
Co-Convener & Secretary	National level conference on Biotechnology and omics sciences-2022	2022	Department of Biotechnology, Alagappa University, Karaikudi
Co-organizer	Proteomics day on advances in proteome analysis	2022	Department of Biotechnology, Alagappa University, Karaikudi
Co-organizer	Hirosaki agriculture and life science workshop 2022,	21-22 February 2022	Faculty of Agriculture and life science, Hirosaki University, Aomori, Japan
Co-organizer	One day virtual seminar on LC-HRMS in drug design and development	31 st December 2021	National institute of pharmaceutical education and research -Hajipur
Co-organizer	Proteomics day on advance in microbial and clinical proteomics	18 th march 2021	Department of Biotechnology, Alagappa University, Karaikudi
Co-organizer	Promoting globalization of the graduate school of	23-24 th January 2021	Faculty of Agriculture and life science, Hirosaki

	agriculture and life science		University, Aomori, Japan
Organizing secretary	International conference cum workshop on Caenorhabditis elegans based OMICS for future challenges	September 09-13, 2019	Department of Biotechnology, Alagappa University, Karaikudi
Co-organizer	International conference on recent trends in biosciences	2016	Alagappa University, Karaikudi
Co-organizer	UGC, DBT and DST sponsored national seminar cum workshop on microbial diversity and infectomics	27 th February to 01 march, 2013	Department of Biotechnology, Alagappa University, Karaikudi
Co-organizer	National workshop on microbial diversity and phylogenetics	19-21 st January, 2011	Department of Biotechnology, Alagappa University, Karaikudi
Co-organizer	National workshop on bioinformatics	10-12 th march, 2010	Department of Biotechnology, Alagappa University, Karaikudi
Co-organizer	National workshop on genome informatics	05-07 January, 2009	Department of Biotechnology, Alagappa University, Karaikudi

Events Participated

Number of Conferences/Seminars/Workshops: 202

Overseas Exposure/Visits

S. No	Country	Purpose
1.	Singapore	International Life Science Institute, South East Asia Region On 04 & 05 November 2022 to Meet Dr. Geoffry Smith, President, ILSI, SEA, Singapore
2.	Singapore	21st World Congress of Food Science and Technology-Future of Food: Innovation, Sustainability & Health on 31 October-03 November 2022 to Presented 2 posters
3.	Japan	Invited ORAL presentation at Department of Biochemistry and Molecular Biology, Faculty of Agriculture and Life Science, Hirosaki University, Japan during 05-08 August 2018
4.	Malaysia	Invited Lecture at Department of Medical Microbiology and Parasitology, Faculty of Medicine and Health Sciences, University Putra, Malaysia during 02-04 August 2018
5.	Japan	Visiting Professor at Department of Biochemistry and Molecular Biology, Faculty of Agriculture and Life Science, Hirosaki University, Japan during 12-24 March 2018

6.	Israel	Invited Speed ORAL presentation at 42nd Congress of The Federation of the European Biochemical Societies (FEBS) held at Jerusalem, Israel during 10-14 September 2017
7.	Lisbon, Portugal	Invited ORAL presentation at 4th International conference on Analytical Proteomics 2015 (ICAP 2015) held in Capuchos, Caparica, Lisbon, Portugal during 07 -09 September 2015
8.	Phuket, Thailand	ORAL presentation at 5th International Conference on Natural Products for Health and Beauty (NATPRO 5) in Phuket, Thailand during 6 – 8 th May, 2014.
9.	Berlin, Germany	Presented 2 Posters at 23rd European Congress of Clinical Microbiology and Infectious Diseases (ECCMID 2012), Berlin, Germany during March 2012
10.	Kiel, Germany	Invited ORAL presentation at Department of Evolutionary Ecology and Genetics, Zoological Institute, Christian-Albrechts-Universität zu Kiel, Am Botanischen Garten 1-9, 24118 Kiel Germany on 03 May 2013
11.	United Kingdom	Presented a Poster at 22nd European Congress of Clinical Microbiology and Infectious Diseases (ECCMID 2012), London, United Kingdom during March 31 to April 3, 2012
12.	Melbourne, Australia	Invited ORAL presentation at 10th Asia Pacific Bioinformatics Conference conducted by LA Trobe University, Melbourne, Australia during 17-19 January 2012
13.	Geneva, Switzerland	Presented a Poster at FEMS 2011 Conference, Geneva during 26-30 June 2011
14.	Long Beach & Irvine, USA	Post Doctoral Research on Human Water-Soluble Vitamins at Department of Medicine, University of California at Irvine during April 15, 2001- November 08,2006
15.	Changhua, Taiwan	Post Doctoral Research on Anticancer Drug Studies at Department of Chemistry, National Changhua University during Aug 26,1998 – Mar 22, 2001

PDF/ Visiting Professor: Abroad

Position	Institution	Duration
Assistant Project Scientist	Department of Medicine University of California at Irvine, USA	July 01, 2005- Nov 08,2006
Visiting Professor	Department of Biochemistry and Molecular Biology, Faculty of Agriculture and Life Science, Hirosaki University	12-24 March 2018
Adjunct Professor	National Institute of Pharmaceutical Education and Research (NIPER) Kolkata	06 Dec 2016- Till Date

Adjunct Faculty

Position	Institution	Duration
Adjunct Professor	National Institute of Pharmaceutical Education and Research (NIPER) Kolkata	06 Dec 2016- Till Date

Membership

Professional Bodies

1. LIFE MEMBER: Association of Microbiologists of India
2. LIFE MEMBER: Society of Biological Chemists, India (SBC)
3. LIFE MEMBER: The Biotech Research Society, India (BRSI)
4. LIFE MEMBER: Indian Society for Comparative Endocrinology (ISCE)
5. LIFE MEMBER: Proteomics Society, India (PSI)
6. The Indian Science Congress Association
7. American Gastroenterological Association
8. European Congress of Clinical Microbiology and Infectious Diseases
9. American Society for Microbiology

Advisory Board

Year/Period	Name of the BoS/Administrative Committee / Academic Committee	Role
24.02.2023	Alagappa university, Karaikudi	Review committee
30.03.2023	Alagappa university, Karaikudi	Review committee
03.04.2023	Alagappa university, Karaikudi	Research Advisory committee
13.02.2023	Alagappa University, Karaikudi	Steering committee in IQAC
15.02.2023-02.03.2023	Alagappa University, Karaikudi	Member Examination inspection squad
07.10.2022	Alagappa University, Karaikudi	Member in Inspection committee
2022	Alagappa University, Karaikudi	CAS screening committee

2017-2018-2019-2020	Alagappa University, Alagappa Nagar Karaikudi	Member - Board of Studies
2017-2018 2019-2020	Alagappa University, Alagappa Nagar Karaikudi	Member - Board of Studies
2017-2020	Alagappa University, Alagappa Nagar Karaikudi	Member - Board of Studies
2017-2020	Alagappa University, Alagappa Nagar Karaikudi	Member - Board of Studies
16.08.2019	Alagappa University, Karaikudi	University placement cells
16.08.2019	Alagappa University, Karaikudi	University Recruitment cell
12.12.2019	Alagappa University, Karaikudi	CAS screening cum evaluation committee
30.10.2019- 31.10.2019	Alagappa University, Karaikudi	Co-ordinator of student's induction programme
2018	Alagappa University, Karaikudi	Member in Patent cell
27.20.2017	Alagappa University, Karaikudi	Member in Institutional Animal Ethics Committee
04.05.2016- 03.05.2016	Alagappa University, Alagappa Nagar Karaikudi	Member - Board of Studies
02.03.2015- 02.03.2017	Alagappa University, Alagappa Nagar Karaikudi	Member - Board of Studies
2015-2016	Alagappa University, Karaikudi	University IQAC Academic auditors

Academic Bodies in Other Institutes/Universities

Year/Period	Name of the BoS/Administrative Committee / Academic Committee	Role
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06.09.2019-01.04.2022	NIPER, Kolkata	Senate Member
06.08.2021-05.08.2024	Manonmaniam Sundaranar University, Abishekapatti, Tirunelveli	Member - Board of Studies
18.05.2022-30.06.2024	Madurai Kamaraj University, Madurai	Member - Board of Studies
June 2022-June2025	Nehru Arts and Science College	Member - Board of Studies
01.10.2021-30.09.2024	Bharathidasan University, Tiruchirappalli	Member - Board of Studies
2023	Thiruvalluvar University	Selection committee
21.09.2023	Department of Biotechnology, Madurai Kamaraj University, Madurai	External expert of IBSC
2021-2022	Sri Sarada Niketan College for Womer, Amaravathipudur	Member in Inspection committee
2021-2022	Dr. Umayal Ramanathan College for Women, Karaikudi	Member in Inspection committee
2022	Thiruvalluvar University	Selection committee
16.12.2022	NCERT, New Delhi	Selection committee
2018-2020	Karpagam academy of higher education, Coimbatore	Member in Academic council
2019-2020	Dr. N. G. P. Arts and Science College, Kalapatti Road, Coimbatore	Member - Board of Studies
28.20.2019	Madurai Kamaraj University, Madurai	External expert member in Institutional Bio-safety committee
2019	Madurai Kamaraj University, Madurai	CAS screening committee
23.03.2019	Department of Studies in Bioscience, Mangalore University, Karnataka	Member in University Advisory Committee

2018-2019	Dr. N. G. P. Arts and Science College, Kalapatti Road, Coimbatore	Member - Board of Studies
2017-2018	Vidhyaa Giri College of Arts and Science, Pudukkottai	Member in Inspection committee
29.01.2018	Vision Research Foundation, Chennai	Member in Inspection committee
2018	Mangalore University, Karnataka	Advisory committee
01.01.2017-31.12.2018	Lady Doak College, Trichy	Member - Board of Studies
2017-2018	Dr. N. G. P. Arts and Science College, Kalapatti Road, Coimbatore	Member - Board of Studies
01.04.2015-31.03.2018	Bharathidasan University, Tiruchirappalli	Member - Board of Studies
18.03.2016	Madurai Kamaraj University, Madurai	External expert member in Institutional Bio-safety committee
07.06.2016	Department of Studies in Bioscience, Mangalore University, Karnataka	Member in University Advisory Committee
02.06.2015	Seethalakshmi Achi College for Women, Pallathur	Selection committee
29.05.2015	University Grants Commission	UGC Expert committee for fresh induction
19.08.2015	Department of Microbial Biotechnology, Bharathiar University, Coimbatore	CAS screening cum evaluation committee
02.07.2015	Thassim Beevi Abdul Kader College for Women, Kilakarai	Member in Inspection committee
2013-2014	Sethupathy Govt. Arts College, Ramanathapuram	Member in Inspection committee
2012-2013	Raja Doraisingam Govt. Arts College, Sivagangai	Member in

		Inspection committee
2012	K. S. Rangasamy college of Arts and Science, Salem	Member of Board of Examination
2010-2012	Dr. G. R Damodaran College of Science, Avanashi road, Coimbatore	Member - Board of Studies
01.06.2008- 01.06.2011	Manonmaniam Sundaranar University, Abishekapatti, Tirunelveli	Member - Board of Studies
2009-2010	Dr. Umayal Ramanathan College for Womer, Karaikudi	Member in Inspection committee
07.07.2009	Thassim Beevi Abdul Kader College for Womer, Kilakarai	Member in Inspection committee
20.04.2009	Dr. Umayal Ramanathan College for Womer, Karaikudi	Member in Inspection committee

Ph.D. Thesis Evaluated/Viva-Voce Conducted

- No. of PhD Thesis evaluated : 24
- No. of PhD Public Viva Voce Examination conducted : 24

S. No	Position	Name of the Candidate	Venue/Details
1	Indian Examiner and Member of Viva Voce Board	Rahuveer K	Department of Animal sciences, University of Hyderabad
2	Indian Examiner and Member of Viva Voce Board	Neema M	Department of Fishery Microbiology, College of Fisheries, Mangalore
3	Indian Examiner and Member of Viva Voce Board	Rajesh D	VIT University, Vellore
4	Indian Examiner	Rajakumar A	Department of Animal Biology, School of Life Sciences, University of Hyderabad (Report sent on 30/042015)
5	Indian Examiner	Mr. Suresh Govatati	Department of Biochemistry, Osmania University Hyderabad <u>Title of the Thesis:</u> Role of Tumor Suppressor Gene Polymorphisms and Mitochondrial

			Genome Alterations in the Pathophysiology of Endometriosis; <u>Mentor:</u> Dr. Bhanoori Manjula (Report sent on 25 July 2013)
6	Indian Examiner and Member of Viva Voce Board	Mr. Ondari Nyakundi Erick	Department of Biotechnology, Karpagam University, Coimbatore. <u>Title of the Thesis:</u> Mechanistic characterization of Tridax Procumbens mediated silver nanoparticles as novel nanocides against <i>Anopheles Stephensi</i>
7	Indian Examiner and Member of Viva Voce Board	Gandhimathi K	Department of Genetic Engineering, School of Biotechnology, Madurai Kamaraj University, Madurai 625 021
8	Indian Examiner and Member of Viva Voce Board	Rajiniraja M	VIT University, Vellore Title of the Thesis: Purification and Characterisation of phytochemicals from <i>Allium sativum</i> that inhibit the growth of <i>Mycobacterium tuberculosis</i> H37Ra
9	Member of Viva Voce Board	Raja V	Bharathidasan University, Trichy. Title: In vivo expressed proteins of virulent <i>Leptospira</i> in conclusive diagnosis and DNA vaccination
10	Indian Examiner	Tumu Venkat Reddy	Department of Biochemistry, Osmania University Hyderabad <u>Title of the Thesis:</u> Understanding the role of Mitochondria in the pathophysiology of Polycystic ovary syndrome <u>Mentor:</u> Dr. Bhanoori Manjula (Report sent on 12 Dec 2017)
11	Indian Examiner and Member of Viva Voce Board	Udhayabanu T	Department of Genetic Engineering, School of Biotechnology, Madurai Kamaraj University, Madurai 625 021
12	Member of Viva voce board	Mahalakshmi N	Department of Biotechnology, Bharathidasan University, Trichy (Mentor: Dr. K. Balakrishnan; Prof & Head, Dept of immunology, Madurai Kamaraj University)
13	Indian Examiner and Member of Viva Voce Board	Tamil Selvi A	PG & Research Department of Zoology, Yadava College, Madurai & Madurai Kamaraj University, Madurai 625 021 Guide: Dr. P. Alagesan Principal (i/c), Yadava College, Madurai
14	Member of Viva Voce Board	M. Ganesh Reg. No: 23294	Sustainable production and Biomedical applications of Poly- (3-Hydroxybutyrate) from Bioengineered microorganisms
15	Indian Examiner and Member of Viva Voce Board	Sreeja R. Nair	Molecular alterations in central nervous system in mouse model of Chikunkunya virus neurovirulence

			At RGCB, Tiruvandram
16	Indian Examiner and Member of Viva Voce Board	Sophia J	Nimbolide, a neem limonoid inhibits cell proliferation and cytoprotective autophagy to activate apoptosis via modulation of the PI3K/Akt/GSK-3 β signalling axis in oral cancer models [Guide: Dr. S. Nagini; Annamalai University] Report Sent on: 09 April 2019
17	Indian Examiner and Member of Viva voce Board	Jhansi Rani MK	Molecular signature of Human Limbal Epithelial Stem Cells [Guide: Gowri Priya Chidambaranathan, Scientist- Dept. of Immunology & Stem Cell Biology, Aravind Medical Research Foundation, Anna Nagar, Madurai & Madurai Kamaraj University, Madurai 625 021]
18	Indian Examiner	Cleetus C. C.,	'Gene expression profile of selected inflammatory and oxidant-antioxidant genes in dengue using peripheral blood mononuclear cells and their correlation with disease severity' for the award of Doctor of Philosophy (Ph.D.) in Biochemistry in the Department of Biochemistry, JIPMER
19	Member of Viva voce Board	S. Thanga Leela	'Spatial memory associated responses in goldfish <i>Carassius auratus</i> : in relation to sirtuin 1 and serotonin transporter signaling' Department of Animal Science, Bharathidasan University, Trichy
20	Indian Examiner and Member of Viva voce Board	Saniya M Javadekar	Investigating DNA structural basis for fragility during chromosomal translocations associated with human B-cell lymphomas [S.R. No. 10-09-00-10-31-11-1-08925] for Ph.D. degree in the Faculty of Science, Indian Institute of Science, Bangalore
21	Indian Examiner and Member of Viva voce Board	Ms. Chinnu Salim	Insights into the role of high glucose diet in Monocrotophos induced neurodegeneration and associated effects in <i>Caenorhabditis elegans</i> [10BB13J08006] Biological Sciences, CSIR-Central Food Technological Research Institute, Mysuru
22	Indian Examiner and Member of Viva voce Board	J. Krishnaraj; Roll No: 1318030007	Impact of Stainless Steel Welding Fumes on DNA Damage Response in the Respiratory Tract of Sprague- Dawley Rats Guide: Dr. S. Nagini, Annamalai University
23	Indian Examiner	K. Thirumalai Raj Reg. No. F9390	Characterization of genetic and transcriptional alterations in Retinoblastoma. Madurai Kamaraj University & Aravind

			Medical Research Foundation, Madurai
24	Member of Viva voce Board	Sumitha V	Studies on the optimization of metabolite production from biodiesel waste-derived crude glycerol. Guide: Dr. M. Sivanandham, Dept. of Biotechnology, Sri Venkateswara College of Engineering, Sriperumbudur, Chennai
25	Indian Examiner and Member of Viva voce Board	A. Sujatha; Roll No: 14PHBTP002	‘Characterization, Immobilization and Applications of Extracellular Protease from <i>Bacillus</i> sp. ASASBT isolated from Termite Soil’ Avinashilingam Institute for Home Science and Higher Education for Women
26	Indian Examiner	Mr. Pradeep Singh Cheema	Identification and validation of anti-cancer ability of small molecule inhibitors against FoxM1 Guide: Prof. Alo Nag Dept of Biochemistry University of Delhi-South campus, New Delhi
27	Indian Viva voce Examiner	Mr. A.S. Vijayakumar (Reg. No. 17347/Ph.D.K9/Dir/Biochemistry/2117347)	Pharmacological, Anti Urolithiatic and Wound Healing Efficacy of Ethanolic Extracts and Synthesised Silver Nanoparticles from the <i>Justicia gendarussa</i> (Burm) (f.) leaves in Male Albino Rats At Post Graduate & Research Department of Biochemistry, Govt. Arts College, Kumbakonam Under Bharathidasan University, Trichy Guide: Dr. M. Jeyaraj
28	(International) Indian Examiner and Viva voce examiner	Ms. Pathimah @ Fatimah bt Abdol Latif ID: 2014667564	Bioengineering of <i>Tacca Integrifolia</i> for Production of Secondary Metabolites with Antiproliferative Properties Guide: Asma Awal Faculty of Pharmacy Universiti Teknologi MARA (UiTM), Puncak Alam Campus 42300 Puncak Alam SELANGOR, Malaysia
29	Indian Examiner	Arunabh Sarkar	“Functional Characterization of Protein Quality Control Machinery in Context of Age Associated Neurodegenerative Disease: Employing Transgenic <i>Caenorhabditis elegans</i> ” Division of Neuroscience and Ageing Biology, CSIR-Central Drug Research Institute, Lucknow (Through JNU,

			New Delhi) Guide: Dr Amir Naseer
30	Indian Examiner	DEEPTASHREE NANDI Ph.D. Reg.No.: SF- 1/Ph.D./2015/1071	Deciphering the role of FOXM1 in development and progression of hepatocellular carcinoma Guide: Prof. Alo Nag Dept of Biochemistry University of Delhi-South campus, New Delhi
31	Member of Viva voce Board	C. Akino Mercy (Reg. No. 32642)	'Mitochondrial targeting leptospiral proteins define pathogenic signals and differential miRNA expression' Guide: Dr. Natarajaseenivasan Department of Microbiology, Bharathidasan University, Trichy
32	Member of Viva voce Board	Sakthi R (Reg. No. 20355/Ph.D.K9/ Dir/Biochemistry/ 2120355)	Antidiabetic activity in petroleum ether extracts of porridge flakes prepared from pearl millet. Guide: Dr. Jeyaraj M., Assist. Professor, Post Graduate & Research Department of Biochemistry, Govt. Arts and Science College, Kumbakonam

Ph.D. Thesis Guided

S.No	Name of the Scholar	Title of the Thesis	Year of Completion
1.	Sivamaruthi. B Reg. No. 1696	Physiological and Immunological Regulations in <i>Caenorhabditis elegans</i> Infected with <i>Salmonella</i> <i>Enterica Serovar typhi</i> and <i>Cronobacter</i> <i>sakazakii</i>	2012
2.	Durai. S Reg. No. 1700	Investigation of Host-Pathogen Interaction Using <i>Caenorhabditis elegans</i> and <i>In vivo</i> Screening of Anti Infectives from Natural Resources Against Human Pathogens	2013
3.	Kesika. P Reg. No. 1695	Studies on Pathogenesis and Host Responses During Infection of <i>Caenorhabditis elegans</i> by <i>Shigella spp.</i>	2013
4.	Jeba Mercy. G Reg. No. 0057 – 2008-09	Investigation of Staphylococcal and Proteus Infections in The Model Organism, <i>Caenorhabditis elegans</i>	2013
5.	Vigneshkumar. B Reg. No. 1731	Characterization of Antimicrobial Genes and Innate Immunity Using <i>Caenorhabditis elegans</i> and Mammalian System	2014
6.	KamalaDevi A Reg. No. 0206 / 2010-11	Investigation of Host Pathogen Interaction and Immunomodulation during <i>Klebsiella pneumonia</i>	2017

		infection in <i>Caenorhabditis elegans</i>	
7.	Prasanth M Iyer 455/2010-11	Unraveling the UV-A mediated photoaging process using model nematode, <i>Caenorhabditis elegans</i>	2017
8.	Prithika U 511/2012-13	Investigation of modulation in immune response of <i>Caenorhabditis elegans</i> against <i>Staphylococcus aureus</i> and <i>Proteus mirabilis</i> infections through transcriptomic and proteomic approaches	2018
9.	Marudhu Pandiyan. S 454/2010-11	Understanding the role of specific immune regulators during <i>Shigella flexneri</i> M90T infection.	2018
10.	Vigneshwari L 562/2012-13	Understanding host-pathogen interactions through proteomic approaches in <i>Caenorhabditis elegans</i>	2018
11.	Dilawar Ahmad Mir 732/2013-14	Understanding role of host and pathogens specific genes during their interactions	2019
12.	Sharika. R 0783/2013-14	Characterization of regulatory immune players and pathways during host-pathogen interactions using <i>in vitro</i> and <i>in vivo</i> models	2019
13.	Balasubramaniam B 1113/2014-15	Impact of post-translational modifications in host system during bacterial infection	2020
14.	PooranaChithra M 1576/2016-17	Identification and characterization of targets involved and ability of natural compounds in dermal healing process using model nematode <i>Caenorhabditis elegans</i> .	2021
15.	Muthubharathi B C R20162036	Metabolomics approach for understanding the host-pathogen interaction in <i>Caenorhabditis elegans</i> during bacterial infections	2023

List of Research Articles / Recent Publications

S. No	Authors/Title of the paper/Journal	Impact Factor
1.	Thirumugam, G., Radhakrishnan, Y., Bhaskar, J. P., Ramamurthi, S., & Krishnaswamy, B. (2024). <i>Klebsiella aerogenes</i> ingestion elicits behavioral changes and innate immunity in the host, <i>Caenorhabditis elegans</i> . <i>Developmental & Comparative Immunology</i> .	2.9
2.	Gowripriya, T., Afrin, K. M., Purna, M., Yashwanth, R., Bhaskar, J. P., Suresh, R., & Balamurugan, K. (2024). Regulation of miR-61 and col-19 via TGF- β and Notch signalling in <i>Caenorhabditis elegans</i> against <i>Klebsiella aerogenes</i> infection. <i>Microbial Pathogenesis</i> .	3.8
3.	VenkataKrishna, L. M., Balasubramaniam, B., Sushmitha, T. J., Ravichandiran, V., & Balamurugan, K. (2024). <i>Cronobacter sakazakii</i> infection implicates multifaceted neuro-immune regulatory pathways of <i>Caenorhabditis elegans</i> . <i>Molecular Omics</i> .	4.212
4.	Muthubharathi, B.C., Ravichandiran, V. and Balamurugan, K. (2023). Distinct global metabolomic profile of the model organism <i>Caenorhabditis elegans</i> during the interaction of <i>Staphylococcus aureus</i> and <i>Salmonella enterica</i> Serovar <i>Typhi</i> . <i>Molecular Omics</i>	4.212
5.	Gowripriya T, Yashwanth R, Suresh R, James P B and Balamurugan K. (2023). A systematic review on	5.07

	Impact of SARS-CoV-2 infection. <i>Microbiological Research</i>	
6.	Muthubharathi, B.C., Ravichandiran, V. and Balamurugan, K. (2022). <i>Cronobacter sakazakii</i> cue for the attraction and its impact on the immunity of <i>Caenorhabditis elegans</i> . <i>ASM Infection and Immunity</i> .	3.441
7.	Muthubharathi B C, Balasubramaniam B, Mir D A, Ravichandiran V, and Balamurugan K (2021). Physiological and metabolite alterations associated with neuronal signals of <i>Caenorhabditis elegans</i> during <i>Cronobacter sakazakii</i> infections. <i>ACS Chemical Neuroscience</i> .	4.418
8.	Prithika U and Balamurugan K (2021). Evaluation of changes in <i>C. elegans</i> immune response during bacterial infection: A single nematode approach. <i>Microbes and Infection</i>	2.373
9.	Mir D A, Balasubramaniam B, VenkataKrishna L, Muthubharathi B C, and Balamurugan K (2021). Proteomic analysis of <i>Caenorhabditis elegans</i> against <i>Salmonella Typhi</i> toxic proteins. <i>Genes and Immunity</i>	4.481
10.	Pooranachithra, M., Suruthi, K., Prabhanand, B. J., Deepa, M., Sekhar, D. S., Venkateswaran, K., Rahul, G., Ravichandiran V., Balamurugan, K. (2021) Survival upon <i>Staphylococcus aureus</i> mediated wound infection in <i>Caenorhabditis elegans</i> and the mechanism entailed. <i>Microbial Pathogenesis</i>	2.914
11.	Pooranachithra M, SatheeshKumar C, Bhaskar JP, Venkateswaran K, Ravichandiran V, Balamurugan K (2021) Proteomic analysis of <i>Caenorhabditis elegans</i> wound model reveals novel molecular players involved in repair. <i>Journal of Proteomics</i>	3.509
12.	Muthubharathi B C, Gowripriya T. and Balamurugan K (2021). Metabolomics- The small molecules matter more. <i>Molecular Omics</i>	2.273
13.	Balasubramaniam, B., Gowripriya T., and Balamurugan K (2020). Identification of differentially regulated proteins of <i>Caenorhabditis elegans</i> during <i>Salmonella enterica</i> Serovar Typhi exposure using Mass Spectrometry. <i>Journal of Proteins and Proteomics</i> .	
14.	Dilawar A M and Balamurugan K (2020). Modulation of the host cell mitochondrial proteome by PemK _{Sa} toxin protein exposure. <i>Microbial Pathogenesis</i>	2.581
15.	Prasanth MI, Gayathri S, Bhaskar JP, Krishnan V, Balamurugan K (2020). Understanding the role of p38 and JNK mediated MAPK pathway in response to UV-A induced photoaging in <i>Caenorhabditiselegans</i> . <i>J Photochem Photobiol</i>	4.067
16.	Balasubramaniam, B., VenkataKrishna, L.M., Vinitha, T., JebaMercy, G., and Balamurugan, K (2020). <i>Salmonella enterica</i> Serovar Typhi exposure elicits deliberate physiological alterations and triggers the involvement of ubiquitin mediated proteolysis pathway in <i>Caenorhabditis elegans</i> . <i>International Journal of Biological Macromolecules</i>	4.784
17.	Prasanth MI, Gayathri S, Bhaskar J P, Krishnan V and Balamurugan K (2020). Analyzing the individual and synergistic effects of antioxidants in combating aging and photoaging using model nematode, <i>Caenorhabditis elegans</i> . <i>Photochemistry and Photobiology</i>	2.338
18.	Dilawar AM and Balamurugan K (2019). <i>In vitro</i> and <i>in vivo</i> efficacy of <i>Caenorhabditis elegans</i> recombinant antimicrobial peptide against Gram-negative bacteria. <i>Biofouling</i> .	2.847
19.	Rai P, Sharika R, Ganguli A, Balamurugan K , Sarala B, Sharma R, Gupta R, Neogi S B (2019). Indigenous preparations of <i>Bryonia laciniosa</i> , <i>Quercus infectoria</i> , <i>Putranjiva roxburghii</i> and <i>Mesuaferrea</i> induces developmental toxicity in <i>C. elegans</i> . <i>Proceedings of the National Academy of Sciences, India Section Biological Sciences</i>	0.396
20.	Pooranachithra M, Bhaskar JP, Murali D, Das SS, JebaMercy G, Krishnan V, Balamurugan K . (2019). Unravelling the wound healing ability and mode of action of pyridine carboxamide oxime using <i>Caenorhabditis elegans</i> as potential prescreen wound model. <i>Life Sciences</i>	3.448
21.	Balasubramaniam B, Vinitha T, Deepika S, JebaMercy G, VenkataKrishna LM and Balamurugan K (2019). Analysis of <i>Caenorhabditis elegans</i> phosphoproteome reveals the involvement of a molecular chaperone, HSP-90 protein during <i>Salmonella enterica</i> Serovar Typhi infection. <i>International Journal of Biological Macromolecules</i>	4.784

22	Dilawar AM and Balamurugan K (2019). A Proteomic analysis of <i>Caenorhabditis elegans</i> mitochondria during bacterial infection. Mitochondrion.	3.449
23	Dilawar AM and Balamurugan K . (2019). Global proteomic response of <i>Caenorhabditis elegans</i> against PemK _{Sa} toxin. <i>Frontiers in Cellular and Infection Microbiology</i> , section Bacteria and Host	3.518
24	Kalaiyarasan G, Veerapandian M, JebaMercy G, Balamurugan K , Joseph J (2019). Amygdalin-Functionalized Carbon Quantum Dots for Probing β Glucosidase Activity for Cancer Diagnosis and Therapeutics. <i>ACS Biomaterials Science & Engineering 2019</i>	4.432
25	Pandey G, Marimuthu M, Kanagavalli P, Ravichandiran V, Balamurugan K , Veerapandian M (2019). Chitosanlyated MoO ₃ -Ruthenium (II) Nanocomposite as Biocompatible Probe for Bioimaging and Herbaceutical Detection. <i>ACS Biomaterials Science & Engineering</i> .	4.432
26	PrasanthMI, Venkatesh D, Murali D, Bhaskar JP, Krishnan V and Balamurugan K (2019). Understanding the role of DAF-16 mediated pathway in <i>Caenorhabditis elegans</i> during UV-A mediated photoaging process. <i>Archives of Gerontology and Geriatrics</i>	2.241
27	Mohana M, PraveenKumar B, Mariya Salomi L, Murugan V and Balamurugan K (2018). Methylene Blue-Fortified Molybdenum Trioxide Nanoparticles: Harnessing Radical Scavenging Property. <i>ACS Applied Materials & Interfaces</i>	8.097
28	Sharika R, Subbiah P and Balamurugan K . (2018). Studies on reproductive stress caused by candidate Gram positive and Gram negative bacteria using model organism, <i>Caenorhabditis elegans</i> . <i>Gene</i>	2.415
29	Kavitha S, Pooranachithra M, Balamurugan K and Goel G (2018) Probiotic mediated colonization resistance against <i>E. coli</i> infection in experimentally challenged <i>C. elegans</i> . <i>Microbial Pathogenesis</i> .	2.332
30	Kamaladevi A, Marudhupandiyan S and Balamurugan K (2017). Model system based proteomics to understand the host response during bacterial infections. <i>Molecular BioSystems</i>	2.781
31	Vigneshwari L and Balamurugan, K . Involvement of O-GlcNAcylation in <i>Caenorhabditis elegans</i> during pathogenic infection. <i>FEBS Journal</i> .	4.237
32	Kamaladevi A and Balamurugan K (2017). Global proteomics revealed <i>Klebsiella pneumoniae</i> induced autophagy and oxidative stress in <i>Caenorhabditis elegans</i> by inhibiting PI3K/AKT/mTOR pathway during infection. <i>Frontiers in Cellular and Infection Microbiology</i> .	4.3
33	Marudhupandiyan S, Prithika U, Balasubramaniam B and Balamurugan K (2017). RACK-1, a multifaceted regulator is required for <i>C. elegans</i> innate immunity against <i>S. flexneri</i> M9OT infection. <i>Developmental and Comparative Immunology</i> .	3.62
34	Dhanashree, Sharika R, Balamurugan K and Rajagopal K (2017). Bifidshape is intrinsic to <i>Bifidobacterium adolescentis</i> . <i>Front.Microbiol</i> .	4.165

Resource persons in various Capacities

National Conferences	:	26
International Conferences	:	6
Invited Lectures	:	102