

CURRICULUM VITAE

Dr. B. Anandaraj
Assistant Professor Senior Grade
Department of Biotechnology
UCE – BIT Campus, Tiruchirappalli 620 024
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➤ Research Area:

- Medical Biotechnology
- Bioremediation & Poultry Waste Management
- Plant Extract Mediated Nanomedicine in Cancer Therapy

➤ Educational Qualifications:

Qualification	College/University	Year of completion
Ph.D. (Biotechnology)	ACT-Anna University	2009
PG (Biotechnology)	ACT-Anna University	2003
UG (Pharmacy)	Tamil Nadu Dr. M.G.R. Medical University, Chennai	1997
Diploma (Pharmacy)	Directorate of Medical Education, Chennai	1993

Experience:

Name of Company / Institutions	Designation of Post	From	To	Experience in Year
University College of Engineering, BIT- Campus, Anna University, Tiruchirappalli.	Assistant Professor	Aug 2009	Till date	14
Madras College of Pharmacy, Chennai	Lecturer	Feb 1998	Dec 2000	2.10

➤ **Awards / Honours Received:**

1. DST Young Scientist Award 2012

➤ **Additional / Academic Responsibilities at University:**

1. Chief Superintendent-Anna University, Chennai Theory Examinations April/May, 2023 (26.05.2023 to 16.06.2023).
2. Chief Superintendent-Anna University, Chennai Theory Examinations Nov./Dec., 2022 (30.12.2022 to 05.01.2023)
3. MODROB Project Coordinator – (2022 -2023)
4. UG Programme Coordinator – (2022-Till date)
5. Institutional Animal Ethics Committee Member (Aug 2020-Nov 2021)
6. Anti – Ragging Practorial Committee Member (2012-2013)
7. Department TEQIP II Coordinator (2014-2017)
8. Department Purchase Coordinator (2018-2020)

➤ **Membership of Scientific and Professional Societies:**

1. Life Member, Biotech Research Society of India (BRSI – LM1613)
2. Life Member, Association of Pharmacy Professionals (APP/TN/LM-043/15)
3. Life Member, Indian Society for technical education (ISTE – LM-112765)

➤ **Completed PG/UG Projects:**

- a. Number of PG Projects Completed: 16
- b. Number of UG Project Completed: 43

➤ **Research Guidance (M.S/Ph.D.) (Completed):**

Sl. No	Name of the scholar	Title of the thesis	Year of registration	Date of viva voce
1.	P. Suresh Babu	Chromium (IV) adsorption from aqueous solution by <i>Codium tomentosum</i> biomass.	2010	09.07.2015
2.	TP. Rajesh	Media optimization and scaling up for the production of keratinase enzyme from the feather degrading <i>Bacillus cereus</i>	2010	26.07.2019
3.	J. Yogeswaran	Combinatorial approach for screening and assessment of multiple therapeutic enzymes from marine isolate <i>Pseudomonas aeruginosa</i> AR01.	2011	11.11.2020

➤ **Research Guidance (M.S/Ph.D.) (Ongoing):**

Sl. No	Name of the scholar	Tentative Title of the thesis	Year of registration	Status
1.	Mrs. M. Shanmugapriya	Assessment of cytotoxic potential of <i>Annona muricata</i> mediated metallic nanoparticles on cancer cells	2018	Ongoing

➤ **Publications:**

a. Books / book chapters:

1. Dr. P. Suresh Kumar, Dr. **B. Anandaraj** and Dr. S. Rajasekaran, “Hand Book on Molecular and Analytical Techniques in Biotechnology”, SELP Publication - 2016, ISBN: 978-93-80509-82-2.
2. J. Yogeswaran and Dr. **B. Anandaraj**, “Restriction Fragment Length Polymorphism” Hand Book on Molecular and Analytical Techniques in Biotechnology: 98-106, (2016), ISBN: 978-93-80509-82-2.
3. **Dr. B. Anandaraj** and Dr. P.S. Sudhakar Gandhi, ‘Abstract book published in International Conference on Modern Progress in Biotechnology (2014), VK Publication (Publisher of Science and Engineering Books – ISBN 819085675-8.

b. International Journals:

1. Yogeswaran Jagadeesan, Shanmugapriya Meenakshisundaram, Keerthi Raja and **Anandaraj Balaiah (2023)**. Sustainable and efficient-recycling approach of chicken feather waste into liquid protein hydrolysate with biostimulant efficacy on plant, soil fertility and soil microbial consortium: A perspective to promote the circular economy. Process Safety and Environmental Protection, Volume 170: 573-583. doi.org/10.1016/j.psep.2022.12.029. **(IF- 7.926)**
2. Yogeswaran Jagadeesan, Shanmugapriya Meenakshisundaram, Vishnuprasad Saravanan and **Anandaraj Balaiah (2022)**. Greener and Sustainable Biovalorization of Poultry Waste into Peptone via Bacto-Enzymatic Digestion: A Breakthrough Chemical-Free Bioeconomy Waste Management Approach. Waste and Biomass Valorization, Volume 13: 3197-3219. doi.org/10.1007/s12649-022-01713-0 **(IF- 3.703)**
3. Yogeswaran Jagadeesan, Shanmugapriya Meenakshisundaram, Vishnuprasad Saravanan and **Anandaraj Balaiah (2020)**. Sustainable production, biochemical and molecular characterization of thermo-and-solvent stable alkaline serine keratinase from novel *Bacillus pumilus* AR57 for promising poultry solid waste management. International Journal of Biological Macromolecules, Volume 163 (15): 135-146. doi.org/10.1016/j.ijbiomac.2020.06.219 **(IF-8.2)**

4. Shanmugapriya Meenakshisundaram, Varunkumar Krishnamoorthy, Yogeswaran Jagadeesan, Ravikumar Vilwanathan, **Anandaraj Balaiah (2020)**. Annona muricata assisted biogenic synthesis of silver nanoparticles regulates cell cycle arrest (in NSCLC cell lines. Bio-Organic Chemistry, Volume 95, Article 103451. doi.org/10.1016/j.bioorg.2019.103451 **(IF- 5.307)**
5. Yogeswaran Jagadeesan & Selvamanikandan Athinarayanan & Sabeena Begum Mohamed Ayub & **Anandaraj Balaiah (2020)**. Assessment of Synthesis Machinery of Two Antimicrobial Peptides from Paenibacillus alvei NP75. Probiotics and Antimicrobial Proteins, 12(1):39-47. doi.org/10.1007/s12602-019-09541-w. **(IF- 5.265)**
6. Yogeswaran Jagadeesan, Shanmugapriya Meenakshisundaram, Lokha Ranjani Alagar Boopathy, Vijay Pradhap Singh Mookandi and **Anandaraj Balaiah (2019)**. Combinatorial approach for screening and assessment of multiple therapeutic enzymes from marine isolate Pseudomonas aeruginosa AR01. RSC Adv. 9(30), 16989-17001. doi.org/10.1039/C9RA02555C **(IF- 4.036)**
7. **B. Anandaraj**, S. Eswaramoorthi, T. P. Rajesh, J. Aravind and P. Suresh Babu (2018). Chromium (VI) adsorption by Codium tomentosum: evidence for adsorption by porous media from sigmoidal dose–response curve. Int. J. Environ. Sci. Technol.15 (12):2595-2606. doi.org/10.1007/s13762-017-1488-7 **(IF- 3.519)**
8. **Balaiah Anandaraj**, Adaikkalam Vellaichamy, Maureen Kachman, Athinarayanan Selvamanikandan, Shyamanta Pegu and Vadivel Murugan **(2009)**. Co-production of two new peptide antibiotics by a bacterial isolate Paenibacillus alvei NP75. Biochemical and Biophysical Research Communications, 379 (2): 179-185. **(IF- 3.575)**
9. Chinnathambi Thangadurai, P. Suthakaran, Pankaj Barfal, **Balaiah Anandaraj**, Sathya Narayan Pradhan, Harith Kamil Boneya, Subramaniam Ramalingam, and Vadivel Murugan **(2008)**. Rare codon priority and its position specificity at the 5' of the gene modulates heterologous protein expression in Escherichia coli. Biochemical and Biophysical Research Communications 376 (4): 647-652. **(IF- 3.575)**
10. **Balaiah Anandaraj**, Athinarayanan Selvamanikandan, Prabakar Mittal, Natarajan Elavarasi, Chinnathambi Thangadurai and Vadivel Murugan **(2008)**. Strategies to evade false positives in the in-situ analysis of peptide antibiotics in SDS–PAGE gels. Analytical Biochemistry 373(2): 401–403. **(IF- 3.365)**

c. National Journals:

1. T. P. Rajesh, R. Karthick Hari Mathan, S. Rajasekar and **B. Anandaraj (2016)**. Computational approach for the optimization of keratinase enzyme production from Bacillus cereus. Journal of Environmental Biology, 37(6): 1473-78. **(IF- 0.703)**

2. T. P. Rajesh, R. Karthick Hari Mathan, S. Rajasekar and **B. Anandaraj (2016)**. Isolation and identification of feather degrading bacteria from feather-dumped soil. *Int. J. Environment and Sustainable Development*, Vol. 15(3): 293-299. (IF- 1.1)
3. Yogeswara Jagadeesan, Vijay Prathap Singh and **Anandaraj Balaiah (2015)**. In-vitro assessment of larvicidal activity of marine macro algae collected from south indian coastal area. *Asian Jr. of Microbiol. Biotech. Env. Sc.* 17:171-176.
4. Yogeswara Jagadeesan and **Anandaraj Balaiah (2015)**. Blue Bugs for Red Biotechnology. *Asian Jr. of Microbiol. Biotech. Env. Sc.* 17:165-170.
5. Yogeswara Jagadeesan, Rahamathunnisha Basheer and **Anandaraj Balaiah (2015)**. Bioremediation of cyanobacterial hepatotoxin by Genetic engineering approach. *Asian Jr. of Microbiol. Biotech. Env. Sc.* 17:139-144.
6. Suresh babu Palanisamy and **Anandaraj Balaiah (2015)** Biosorption of chromium (VI) onto NaOH activated *Codium tomentosum* (Green Macroalgae) biomass. *Journal of Environmental Biology* 36 (6): 1381-1388. (IF- 0.703)
7. K. Santhana Lakshmi, D. Sangeetha, S. Sivamani, M. Tamilarasan, T.P. Rajesh, **Balaiah Anandaraj (2014)** In vitro antibacterial, antioxidant, haemolytic, thrombolytic activities and phytochemical analysis of *simarouba glauca* leaves extracts. *International Journal of Pharmaceutical Sciences and Research* 5(2): 432-437.
8. TP Rajesh, **B Anandaraj**, S Rajasekar (2014) Isolation and identification of feather degrading bacteria from feather dumped soil. *Journal of Chemical and Pharmaceutical Sciences*, 4:186-187.
9. Suresh Babu P and **Balaiah Anandaraj (2014)** Kinetics of Chromium Biosorption onto *Codium tomentosum*. *Research Journal of Chemistry and Environment* 18 (8): 18-22. (IF- 0.636)
10. Suresh Babu P, Dinesh Kumar B and **Balaiah Anandaraj (2013)** Biosorption of chromium from synthetic aqueous solution using *Codium tomentosum*. *Research Journal of Chemistry and Environment* 17 (11): 82-87. (IF- 0.636)

➤ **Patents:**

1. Vadivel Murugan, **Balaiah Anandaraj** and Athinarayanan Selvamanikandan, A new bacterial isolate *Paenibacillus alvei* NP75 that produces two new peptide antibiotics. Application Number - 685/CHE/26/2009A & Publication date – 26/06/2009.

➤ **Sponsored Research Projects:**

Sl.No	Name of the project	Funding agency	Project value (Rs.)	Duration	Status
01	Marine Nanofactories – Sense and Sensing	DST-SERB	25,00,000)	2012-2015	Completed

➤ **List of Seminar / Short Term Course /FDP/ Workshop organized:**

1. Acted as Coordinator in organizing One-week Hands on training program on “Molecular and Analytical Techniques in Biotechnology”, held on 27th to 31st August **2018**, Department of Biotechnology, Bharathidasan Institute of Technology, Anna University, Tiruchirappalli.
2. Acted as Coordinator in organizing TEQIP-II sponsored One-week Hands on training program on Molecular and Analytical Techniques in Biotechnology”, held on 7th to 11th September **2015**, Department of Biotechnology, Bharathidasan Institute of Technology, Anna University, Tiruchirappalli.

➤ **List of Seminar / Short Term Course /FDP/ Workshop attended:**

1. Industrial Training Program on Plastic Processing and Testing organized by Central Institute of Petrochemicals Engineering and Technology (CIPET), Madurai. 10.06.2021 to 22.06.2021.
2. Faculty development programme in Cell Biology: Cellular Organization, Division and Processes organized by NPTEL-AICTE, February to April 2021.
3. Faculty development programme in Human Molecular Genetics organized by NPTEL-AICTE, January to February 2021.
4. Faculty development programme in Cell culture technologies organized by NPTEL-AICTE, February to April 2020.
5. Faculty development programme in Genetic Engineering: Theory and Application organized by NPTEL-AICTE, July to October 2019.
6. Short-term course on “Genome Editing by CRISPR Cas9 System” organized by Centre for Continuing Education (CCE), Indian Institute of Science (IISc), Bangaluru, 18.11.2019 to 22.11.2019.
7. TEQIP II sponsored Faculty development program on “Implications of Chemical and Biological Sciences in Biotechnology (ICBSB-2016)” organized by Anna University – BIT Campus, Tiruchirappalli, 22.06.2016 to 05.07.2016.

8. TEQIP II sponsored Two days Workshop on "Advances in Biotechnology" organized by Department of Biotechnology, Anna University – BIT Campus, Tiruchirappalli, 16.03.2016 to 17.03.2016.
9. TEQIP II sponsored Faculty development program on "Comprehensive approach of biotechnological applications" organized by Department of Biotechnology, Anna University – BIT Campus, Tiruchirappalli, 16.04.2015 to 29.04.2015.
10. TEQIP II sponsored Faculty development program on "Teaching Learning Methodologies" organized by Teaching learning centre, IIT Madras, Chennai, 16.10.2013 to 18.10.2013.
11. Staff development program on "Emerging trends in Biotechnology" organized by Department of Biotechnology, Anna University – BIT Campus, Tiruchirappalli, 19.08.2013 to 25.08.2013.
12. Springer Summit on Materials & Protocols Springer, Springer, Rain Tree Hotel Chennai on 15.04.2013.
13. Staff development program on "Nanotechnology" organized by Department of Biotechnology, Vivekanandha College of Engineering for women, Tiruchengode, 01.06.2011 to 14.06.2011.
14. Staff development program on "Application of microbial and molecular techniques in biotechnology" organized by MEPCO SCHLENK Engineering College, Sivakasi, 19.05.2010 to 29.05.2010.

1. National / International Conferences organized / Participated:

1. Served as one of the Coordinator in organizing a two days national conference on DST-SERB sponsored "Integrated Approaches in Drug Discovery and Development-Phytodrugs'23", held on 16th & 17th February, **2023**, Department of Biotechnology, University College of Engineering, Bharathidasan Institute of Technology, Anna University, Tiruchirappalli.
2. Acted as one of the Convener in organizing TEQIP-II sponsored International Conference on "Modern Progress in Biotechnology", held on 9th & 10th October 2014, Department of Biotechnology, Bharathidasan Institute of Technology, Anna University, Tiruchirappalli.
3. 7th National level technical symposium HAPTEN 2012, organized by Arunai Engineering college, Tiruvannamalai. 2012.
4. New horizons in biotechnology and 4th BRSI (Biotech Research Society) Convention, organized in NIIST, Trivandrum, 26.11.2007 to 29.11.2007.
5. Path to health – Biotechnology revolution in India and Second BRSI Convention, organized by CBT, Anna University Chennai, 24.11.2005 to 26.11.2005.
6. 31st Annual Conference on "Indian Immunology Society" organized by CBT, Anna University Chennai, 15.12.2004 to 18.12.2004.

➤ **Professional recognitions:**

1. Institutional Biosafety Committee Member in Appasamy Ocular Devices Private Limited, 2017-2020.
2. Institutional Biosafety Committee Member in KMS Healthcare Private Limited, 2014-2017.
3. Reviewer in Asian Journal of Microbiology, Biotechnology and Environmental Sciences, RSC Advances, 3Biotech, African Journal of Biotechnology, Biocatalysis and Agricultural Biotechnology, Molecular Biology Reports & Biomass Conversion and Biorefinery Journals.
4. Doctoral Committee member for the Ph.D. candidates in Department of Biotechnology, Udaya Engineering College, Department of Biotechnology, Mepco Schlenk Engineering College, Department of Chemistry, University College of Engineering, Nagercoil & Department of Physics, University College of Engineering, Nagercoil.
5. Guest Editor: Special issue in Asian Journal of Microbiology, Biotechnology and Environmental Sciences, Volume 17, October 2015.

➤ **Guest lectures delivered:**

1. Centre for Faculty Development, Anna University sponsored FDP on “IMMUNOLOGY” organized by Department of Biotechnology, Kamaraj College of Engineering and Technology, Virudhunagar. Guest lecture Topics in “Recent Developments in Immunological Techniques” on 05th July, 2022.
2. AICTE sponsored FDP “Advanced training on marine microbiology and its industrial applications” organized by Department of Biotechnology, Vel Tech High Tech Dr. Rangarajan and Dr. Sakunthala Engineering College, Chennai. Guest lecture topics in “Antibiotics-Friend or Foe” on 9th May 2015.
3. DBT Sponsored Short term training course in “Phyto drugs” organized by Department of Biotechnology, BIT campus, Anna University, Trichy. Guest lecture topics in “Free radicals and their impacts on human health” on 9th June 2012.

DECLARATION:

I certify that the information furnished above is correct and true to the best of my knowledge and belief.

Signature of the staff member

Head of the Department

Dean