

CURRICULUM VITAE

DR. HARITHA RONANKI
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Andhra Pradesh, India.

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ACADEMIC DETAILS

2012 Doctorate	-	Ph.D in Biotechnology Andhra University (Title: Production, isolation and characterization of a novel serine protease from marine <i>Streptomyces carpaticus</i>).
2005 -07 Post Graduation	-	M.Sc (Bio-Technology) Andhra University, Visakhapatnam Aggregate Percentage: 84%
2001-04 Graduation	-	B.Sc (Bio-Technology, Bio- Chemistry, Chemistry) Andhra University Aggregate Percentage: 80.1 %
1999-01	-	Intermediate (Bi.P.C) Aggregate Percentage: 86%.
1998	-	S.S.C. Aggregate Percentage: 80 %.

WORK EXPERIENCE

Recruited by Andhra Pradesh Public Service Commission (APPSC) as a Government Lecturer in Biotechnology in 2011. 12 yrs of experience as an Assistant Professor in Biotechnology. Currently stationed at Government Degree College for Men, Srikakulam, Andhra Pradesh.

RESEARCH EXPERIENCE

Ten years research experience in the field of Microbial technology and nanotechnology

Doctorate Thesis Title: Production, isolation and characterization of a novel serine protease from marine *Streptomyces carpaticus*

Abstract: In the present study, an organic solvent, detergent and reducing agent tolerant, low molecular weight protease produced by *Streptomyces carpaticus* was purified and characterized. This is the first report of a low molecular weight (9.1 KDa) serine protease from *Streptomyces* species. The purified protease exhibited important properties, such as higher stability in the presence of a wide range of organic solvents, detergents, at alkaline pH and elevated temperature. Based on these properties, this enzyme may find its application in the detergent industry and in catalytic reactions in non-aqueous media. Moreover, the three dimensional structure of the protease reported in the present study provides ample scope for further improvement of the enzyme properties using protein engineering strategies and subsequent application of the enzyme.

M.Sc. Project Title: Semen motility parameters before and after Swim-Up using Computer Assisted Analyzer and comparative morphology using two different stains.

Abstract: In the present study, the capability of Swim-Up technique for selecting and concentrating live sperms with progressive motility and fewer genetic abnormalities was determined. This indicated that the Swim-Up technique is a simple, inexpensive, objective and an effective method for semen processing for ART (Assisted Reproductive Techniques). It is evident from the results that the acrosomal study could be done more effectively by Giemsa stain, and the Eosin-Nigrosin stain can be used to access the vitality of the sperms. According to the present study, CASA is an indispensable tool in semen analysis as it identifies sperm motility variables that would provide a more accurate diagnostic tool for predicting fertility than the visual motility analysis.

University Grants Commission (UGC), New Delhi sponsored
MINOR RESEARCH PROJECT 2018-2020

Title: “Development of silver nanoparticle loaded green activated carbon as an efficient composite material for removal of pathogenic bacteria in drinking water samples of Mudasarlova Reservoir in Visakhapatnam.”

Abstract: In the present study, the water samples were collected from the Mudasarlova Reservoir, a drinking water supply system for Visakhapatnam city in Andhra Pradesh and the isolation of the water borne *E. coli* was done. The activated carbon (AC) were produced from agricultural waste i.e., Rice husk. The silver nanoparticles (Ag-NPs) were synthesized and deposited on the activated carbon. The Characterization of silver nanoparticles coated activated carbon (Ag-AC) was done. The Antibacterial effect of Ag-AC on the water borne *E. coli* was determined by qualitative and quantitative tests.

PERSONAL DETAILS

Name : R. Haritha
Date of Birth : 5-11-1983.
Father's name : R. Radha Krishna
Sex & Marital Status : Female & Married
Languages Known : English, Hindi and Telugu
Nationality : Indian
Computer knowledge : MS-office, Internet skills
Permanent Address : Main Road, Gudem Road;
Ragolu Junction;
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AWARDS ACHIEVED/ ACHIEVEMENTS

1. Developed e content and videos on the Biotechnology curriculum on the Andhra Pradesh State Government Learning Management System (LMS) Platform.
2. Podcast presenter on the Biotechnology curriculum on the Andhra Pradesh State Government Podcast platform.
3. Regular presenter in the Andhra Pradesh MANA TV Live Programmes and has contributed significantly towards the development of pedagogy for the B.Sc. Biotechnology subject in Andhra Pradesh State Government, India.
4. Biotechnology Content Developer for Indira Gandhi National Open University (IGNOU)- a Central University, New Delhi, India.
5. Recognized as Research Guide in Biotechnology by College of Science and Technology, Andhra University 2021.
6. **Young Achievers Award**-2015 by Junior Chamber International, Visakhapatnam
7. Sripathi madal (**GOLD MEDAL**) Received from Andhra University for obtaining University First Rank in I Msc. Biotechnology.

8. Smt. Vegesina Neelamma and Sri Pedda Subba Raju medal (**GOLD MEDAL**) Received from Andhra University for obtaining University First Rank in II Msc. Biotechnology.
9. Smt. Vaddiparthi Seetharamamma garu prize, received from Andhra University for obtaining First class with distinction in M.Sc.
10. Qualified prestigious Government of India **CSIR-UGC** (Council of Scientific and Industrial Research- University Grants Commission) **National Eligibility Test – Junior Research Fellowship**, 2007.
11. Awarded the certificate of merit for securing the first rank in M.Sc. Biotechnology in the first year (2005-2006, Andhra University, India).
12. Awarded the certificate of merit for securing second prize in the event of debate competition (2005-2006, Andhra University, India).
13. Awarded the proficiency certificate for securing the highest marks in Chemistry in Intermediate I yr (1999-2000).

TECHNIQUES WORKED WITH

Biochemical techniques: TLC, Gel chromatography, SDS PAGE, Agarose electrophoresis, ultracentrifugation, U.V. Spectroscopy.

Molecular Biology techniques: Isolation of Nucleic acids, Southern Blotting, Northern Blotting, Gene Transformation, PCR, RFLP, RAPD.

Immunological techniques: Radial Immunodiffusion, Ouchterlony double Immuno diffusion, Immuno Electrophoresis, Western Blotting, ELISA.

Tissue culture Techniques: Callus induction from Carrot, Suspension culture from Carrot Callus, Micropropagation of *Vanilla planifolia*, Haploid Establishment from Anthers of *Datura*, Protoplast isolation by enzymatic method.

PROFESSIONAL ACTIVITIES

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| ➤ No. of National/International Seminars attended | : 47 |
| ➤ No. of Seminars/Workshop conducted | : 20 |
| ➤ No. of publications in National/International Journals | : 13 |
| ➤ No. of Book Chapters published | : 08 |

INTERNATIONAL PUBLICATIONS:

1. **Haritha, R.**, K. Siva Kumar, Y.S.Y.V. Jagan Mohan and T. Ramana, 2010. Amylolytic and Proteolytic Actinobacteria Isolated from Marine Sediments of Bay of Bengal. *International Journal of Microbiological Research*. Vol 1 (2): 37-44.
2. K. Siva Kumar, **Haritha, R.**, Y.S.Y.V. Jagan Mohan and T. Ramana, 2010. Antagonistic studies of Marine Actinomycetes from Bay of Bengal near pudimadaka coast of Andhra pradesh. *Drug Invention Today*. vol.2 (9): 405-407.
3. K. Siva Kumar, **Haritha, R.**, Y.S.Y.V. Jagan Mohan and T. Ramana, 2011. Screening of marine actinobacteria for antimicrobial compounds. *Research journal of microbiology*. 6(4): 385-393.
4. **R. Haritha**, K. Sivakumar, A. Swathi, Y. S. Y. V. Jagan Mohan and T. Ramana (2012) Characterization of marine *Streptomyces carpaticus* and optimization of conditions for production of extracellular protease. *Journal of Microbiology*. 2(1):25-35.
5. T. Ramana, **R. Haritha**, K. Sivakumar (2012). Marine Actinobacteria - A rich source of bioactive compounds, *Microbial diversity Exploration & Bioprospecting* 1: 366-392.
6. K. Siva kumar, **R. Haritha**, A. Swathi, B. Sirisha and T. Ramana (2012). Taxonomy and antimicrobial activity of *Streptomyces coeruleorubidus* sp. Isolated from marine sediment, *Research journal of microbiology* 7(3):171-181.
7. B. Sirisha¹, **R. Haritha**, YSYV. Jagan Mohan, K. Siva Kumar and T. Ramana (2013). Bioactive Compounds From Marine Actinomycetes Isolated From The Sediments Of Bay Of Bengal. *International Journal Of Pharmaceutical, Chemical And Biological Sciences* 3(2), 257-264.
8. Y.S.Y.V. Jagan Mohan¹, B. Sirisha, **R. Haritha**, T. Ramana (2013). Selective Screening, Isolation And Characterization Of Antimicrobial Agents From Marine Actinomycetes. *International Journal of Pharmacy and Pharmaceutical Sciences* Vol 5, Suppl 4, 443-449.
9. B. Sirisha and **R. Haritha** (2017). Efficacy of the Antiproliferative Effect of L-Asparaginase from *Streptomyces enissocaesilis* on Different Tumor Cell Lines. *International Journal of Current Research and Academic Review* 5(7): 95-102.
10. **Haritha Ronanki** and Ch. Shanthi Devi (2019). "Development Of Silver Nanoparticle Loaded Green Activated Carbon As An Efficient Composite Material For Removal Of Pathogenic Bacteria In Drinking Water Samples Of Mudasarlova Reservoir In Visakhapatnam." *International Journal of Research and Analytical Reviews (IJRAR)* 6(2): 663-670.
11. Anuradha Ch.S, Dr. B. Kishore Babu, **Dr. R. Haritha** and Dr. Ch. Shanthi Devi (2021). In -Vitro Cytotoxicity Of Biogenic Bimetallic Nanomaterials Against Human Breast Cancer

Cells. International Journal Of Multidisciplinary Educational Research. Volume:10, 1(1), 73-78.

12. Pradeep Madhamanchi, Sujatha Peela, Kishore Madamanchi, Sita Jayalakshmi, Manas Panigrahi, **Haritha Ronanki**, Panchareddy Madhava Rao, SPD Ponamgi and Prakash Babu Panithi (2023). Imprints of Seizure Rate and Epilepsy Duration on Temporal Lobe Epilepsy Outcome. Indian Journal of Neurology. Volume 4, Issue 1. Pg 1-5.
13. Pradeep Madhamanchi, **Haritha Ronanki**, Hemanth Paidi, Kishore Madhamanchi, M. Abdul Kareem, Shanthi Devi Chikile, Sujatha Peela, Madhavarao Panchareddi and SPD Ponamgi (2023). Impact of Commercial Detergents on Organogenesis in Allium Cepa L. And Utility of Foldscope Tool. Volume 10, Issue 2. Pg 1-5.
14. Chikile Shanthi Devi, **Haritha Ronanki** and Mani Varma M.V.(2023). "Exploring The Revolutionary Applications of Nanotechnology in Agriculture: A Comprehensive Review". International Journal of Recent Scientific Research.Vol. 14, Issue, 07 (A), pp. 3581-3587.

BOOK CHAPTERS PUBLISHED

1. Editor of Book PATH TO NOBEL by Notion Press Publishers. <https://notionpress.com/read/path-to-nobel>. ISBN 979-8-88909- 994-9
2. Chapter in Edited Book. BBCCT-123 Gene Expression & Regulators - Unit-9 Translation-I. Indira Gandhi National Open University (IGNOU). ISBN 978-93-5568- 778-4.
3. Chapter in Edited Book. BBCCT-125 Genetic Engineering & Biotechnology - Block-1 Tools of Genetic Engineering. Indira Gandhi National Open University (IGNOU). ISBN 978-93-5568- 778-4.
4. Chapter in Edited Book. BBCCT-123 Gene Expression & Regulators - Unit-10 Translation-II. Indira Gandhi National Open University (IGNOU). ISBN 978-93-5568- 778-4.
5. Chapter in Edited Book. BBCCT-123 Gene Expression & Regulators – Block-3- Genetic Code and Translation. Indira Gandhi National Open University (IGNOU). ISBN 978-93-5568- 778-4.
6. Chapter in Edited Book. BBCCT-125 Genetic Engineering & Biotechnology - Block-3 In Vitro DNA Amplification and Sequencing. Indira Gandhi National Open University (IGNOU). ISBN 978-93-5568- 778-4.
7. Chapter in Edited Book. BBCCT-125 Genetic Engineering & Biotechnology - UNIT-4 Cloning Vectors for Prokaryotes. Indira Gandhi National Open University (IGNOU). ISBN 978-93-5568-778-4.
8. Chapter in Edited Book. BBCCT-125 Genetic Engineering & Biotechnology-UNIT-10 Expression of Cloned Genes. Indira Gandhi National Open University (IGNOU). ISBN 978-93-5568- 778-4.

ADMINISTRATIVE EXPERIENCE

- Coordinator of Internal Quality Assurance Cell (IQAC)
- Member in Governing Body
- Member in Academic Council
- Member in College University Grants Commission Committee
- Member in College Rashtriya Uchcharat Shiksha Abhiyan (RUSA) Committee
- Member in Planning & Evaluation Committee
- Member in College Council
- Member in Admission Committee
- Coordinator of Placement Cell
- Member in Jahawar Knowledge Cell (JKC)
- Core Committee director for preparing for NAAC Visit for Cycle III

MEMBERSHIP

- Life member of Indian Science Congress Association
- Member of Indian Microbiology Society
- Life member of Society of Biotechnologists, India

BOARD OF STUDIES MEMBER

- Acted as Chairperson for Board of Studies in Department of Biotechnology, College of Science and Technology, Andhra University, Viskhapatnam. (2020-2023).
- Acted as Chairperson for Board of Studies in Department of Biotechnology, College of Science and Technology, Dr. B.R. Ambedkar University, Srikakulam. (2020-2023).
- Acted as External Expert for Board of Studies in Department of Biotechnology, Dr. V.S. Krishna Government Degree College Autonomous, Visakhapatnam (2015-2023).
- Acted as External Expert for Board of Studies in Department of Biotechnology, Gayatri Vidhya Parishad Degree & PG College, Viskhapatnam. (2019-2021).