CURRICULUM VITAE

Dr. Bhima Bhukya, Ph. D.

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Employment

2022-Till date	**Principal** Nizam College, Osmania University, Hyderabad.
2019-Till date	**Professor** Department of Microbiology, University College of Science Osmania University, Hyderabad
2016-2019	**Associate Professor** Department of Microbiology, University College of Science Osmania University, Hyderabad
2004-2016	**Assistant Professor** Department of Microbiology, University College of Science Osmania University, Hyderabad
2002-2004	**Research Associate** Department of Veterinary Biochemistry College of Veterinary Science Acharya N.G. Ranga Agriculture University, Rajendranagar, Hyd.
2001-2002	**Project Assistant** Department of Veterinary Biochemistry College of Veterinary Science Acharya N.G. Ranga Agriculture University, Rajendranagar, Hyd.
2000-2001	**Microbiologist** VINEDALE Breweries & Distilleries Ltd. Gaganpahad, Hyderabad.

Education

2009	**Ph.D. Microbiology** Department of Microbiology, University College of Science Osmania University, Hyderabad
2000	**M. Sc. Microbiology** Department of Microbiology, University College of Science Osmania University, Hyderabad

1998	**B. Ed. Bioscience** Navabharath College of Education and Management, Bollaram Osmania University, Hyderabad
1997	**B. Sc. (B Z C)** S. S. R. J. Degree College, Khammam, Kakatiya University, Telangana State

Details of Ph.D work

Title	Studies for development of thermotolerant probiotic yeast
Institution/University	Department of Microbiology, University College of Science Osmania University, Hyderabad
Supervisor	Prof. L. Venkateswar Rao (Rtd.)

Awards and Honors

2024	**Fellow** Telangana State Academy of Sciences
2022	**Vice chancellor award-2022** by Osmania university for the excellence in research with a citation and cash prize
2018	**Young Investigator Award-2018** By Probiotic Association of India during 4th Biennial conference on 'Probiotic therapy: Translating to health and Clinical practice' at AIIMS, New Delhi from 16-17 February, 2018
2015	**Telangana State Meritorious Teacher Award-2015** By the Govt. of Telangana on 5th September
2013	**Fellow** Society for Applied Biotechnology-FSAB
2013	**Raman Post-Doctoral Fellowship Award** By University Grants Commission, Govt. of India tenable in USA during 2013-14
2013	**Young Researcher Award** at 3rd World Congress on Cell Science by OMICS group, USA, 2013
2013	**Best poster award** During International Congress on Bacteriology & Infectious Diseases held on November 20-22, 2013 in Baltimore, MD, USA
2012	**Young Scientist Award-2012** By the Society for Applied Biotechnology, India
2007	**Young scientist award-2007** By Human Proteome Organization (HUPO) during 6th Annual world congress, Seoul, South Korea

2007	**International Travel Award-2007** By DBT, Govt. of India to attend HUPO 6th Annual world congress at Seoul, South Korea

Ongoing research activities

2022-2026	**Project title:** Development of probiotic based polyohenol-rich food supplement as nutraceutical. Funded by: ICMR, Govt. of India under ad-hoc project program Grant: Rs. 30 Lakh
2019-2022	Centre for Microbial and Fermentation Technology (CMFT) for Development and Transfer of Microbial Technologies. Funded by: MHRD, Govt. of India under RUSA 2.0 program Grant: Rs. 380.00 Lakh
2019-2022	**Project title:** Development of microbial consortia for human probiotic applications. Funded by: DST-PURSE Grant: Rs. 3.0 Lakh

Research group

Dr. B Srinivas	**SRF-UGC-BSR:** Development of yeast for probiotic and therapeutic applications
Dr. Nunavath Hanumalal	**SRF-UGC-BSR**: Development of thermotolerant yeast for treatment of industrial effluents
Dr. K Balakrishna	**SRF-UGC-BSR**: Study on enzyme production, biological detoxification and probiotic enrichment of Jatropha deoiled seed cake
Dr. Nagamani Pammi	**PDF-UGC**: Development of Oxalotrophic probiotic lactic acid bacteria for Urolithiasis.
Dr. B. Chandrasekhar	**PDF-RUSA**: Development of probiotic consortia and optimization of production parameters.
Dr. Mohammed Alsaiqali	**FOREIGN SCHOLAR:** Study on antimicrobial and anticancer potential of plant peptides
Dr. K Praveen Kumar	**PDF-RUSA**: Bioconversion of cotton stalk into ethanol by Saccharomyces cerevisiae and Scheffersomyces stipitis

Dr. B. Kiran Kumar	**Fellow-RGNF**: Development of probiotic lactic acid bacteria with non-transferable antibiotic resistant genes.
Dr. B. Anuradha	**SRF-UGC**: Development of probiotic lactic acid bacteria *Pediococcus acidilactici* for efficient antibacterial activity.
Dr. Bindu Sunkar	**SRF-UGC-BSR**: Development of Xylose utilizing yeast for bioethanol production from corn cobs.
G. Swarupa Rani	**SRF-UGC-BSR**: Development of Phytase producing yeast for poultry probiotic applications.
L. Ravi Kumar	**SRF-UGC**: Development of lactic acid probiotic bacteria for anti-mycosis effect.
A. Archana	**TSWS-Lecturer (Pat-time PhD Scholar):** Development of probiotic yeast Saccharomyces cerevisiae expressing Cyt.P450 for degradation of pesticide residues.
Md. Saddam Hussain	**DF-RUSA**: Development of strategies for efficient utilization ofboth lignin and cellulose content of biomass for value added bioproducts.
Boda Priyadarshini	**CSIR-JRF:** Screening and isolation of antimicrobial peptides (AMPs) from probiotic isolates.

Research activities - completed

2019-2022	**Project title:** Centre for Microbial and Fermentation Technology (CMFT) for Development and Transfer of Microbial Technologies. Funded by: MHRD, Govt. of India under RUSA 2.0 program Grant: Rs. 380.00 Lakh
2016-2019	**Project title:** Development of probiotic yeast expressing CytP450 for degradation of drug residues. Funded by: DST-SERB under Young Scientist Scheme Grant: Rs. 23.80 Lakh
2013-2018	**Project title:** Development of Xylose utilizing yeast for Bioethanol production from lingo-cellulosic substrates. Funded by: UGC-UPE Grant: 15.0 Lakh
2013-2017	**Project title:** Development of phytase producing recombinant probiotic yeast for poultry applications. Funded by: DST-SERB under EMEQ Scheme Grant: 35.25 Lakh
2012-2015	**Project title:** Studies for development of probiotic lactic acid bacteria with non-transferable antibiotic resistant genes. Funded by: UGC-Major Research Project (MRP) Grant: 12.5 Lakh

2011-2014 **Project title:** Studies for development of economically viable medium for the large scale production of probiotic yeast.
Funded by: DST-PURSE Grant: 7.0 Lakh

2007-2010 **Project title:** Studies for development of thermotolerant yeast for animal probiotic applications.
Funded by: DBT (Co-PI) Grant: 21.0 Lakh

Ph.Ds'awarded - 14

1. B. Srinivas – Studies on the development of probiotic yeast expressing cytP450

2. N. Hanumalal – Development of thermotolerant yeast for degradation of phenols and dyes in textile effluents

3. K. Srinivas Naik – Development of recombinant microorganisms for bioremediation of heavy metals

4. K. Balakrishna – Bio-processing of Jatropha seed cake for detoxification and enzyme production

5. B. Chandrasekhar – Development of thermotolerant surface displaying yeast for bio-ethanol production

6. K. Praveen Kumar – Cotton stalks as lignocellulosic biomass for bioethanol production by *S. stipites*

7. Dr. Mohammed Alsaiqali - Study on antimicrobial and anticancer potential of plant peptides

8. Dr. Bindu Sunkar - Development of Xylose utilizing yeast for bioethanol production from corn cobs.

9. Dr. B. Kiran Kumar - Development of probiotic lactic acid bacteria with non-transferable antibiotic resistant genes.

10. Dr. B. Anuradha - Development of probiotic lactic acid bacteria *Pediococcus acidilactici* for efficient antibacterial activity.

11. Dr. J. Sridevi - Study on fungal cellulase production using rice straw for 2G bioethanol.

12. Dr. Ravi Kumar Lunavath – Study on bacterial probiotic isolates and their metabolite 3-phenyllactic acid for antimycotic potential.

13. Dr. Archana Anthappagudem - Study on the probiotic potential *of Saccharomyces cerevisiae* isolated from Toddy palm nectar

14. Dr. Swaroopa Rani - Study on the development of probiotic yeast for poultry industry

Contribution to Academic and Administrative Activities

2022-Till date	**Principal,** Nizam College, Osmania University, Hyderabad
2020-2022	**Head and Chairperson, Board of Studies**, Department of Microbiology, UCS, Osmania University
2018-2020	**Head and Chairperson, Board of Studies**, Department of Microbiology, UCS, Osmania University
2016-2018	**Chairperson, Board of Studies**, Department of Microbiology, UCS, Osmania University
2014-2016	**Head**, Department of Microbiology, UCS, Osmania University
2010-2012	**Warden**, New P.G. Hostel, Osmania University

Recognitions

2018-Till date	**Secretary**, Association of Microbiologists of India (AMI), Hyderabad Unit.
2015-2016	**Central Council Member**, Microbiologist Society, India.
2012-2015	Elected as **General Secretary**, Faculty Club, Osmania University

Memberships in professional bodies/associations

2024	♦ Life Member, Telangana Academy of Sciences
2023	♦ Life Member, National Environmental Science academy
2016	♦ Life Member, Probiotic Association of India
2015	♦ Life Member, Microbiologist Society, India
2012	♦ Life member, Society for Applied Biotechnology
2008	♦ Life member of Biotech Research Society of India
2005	♦ Life member of Association of Microbiologists of India.
	♦ Life member of Indian Science Congress Association.

Conferences organized

2020	A 3-day International e-conference on 'Advances in Microbial Biotechnology and Bio-therapeutics' from 10-12 September, 2020 **(Convener)**.
2015	A 2-day national seminar on Advances in Microbial Technology from 29-30 May, 2015 **(Convener)**.
2015	A 3-day national conference on 'Recent Trends in Microbial Biotechnology' from 26-28 February, 2015 on the occasion of completion of 40 years by the department **(Convener)**.

Workshops and awareness programs organized

2019	Association of Microbiologist of India (AMI) Sponsored State Level Workshop On Extraction and Detection of Mycotoxins from various Food Samples on 11th November, 2019. Organized in Association with the Department of Microbiology, St. Pious X Degree & PG College, Hyderabad **(Convener)**
2019	UGC-UPE, Osmania University sponsored a 1-day awareness program on 'Mosquito borne infection - 'Dengue' on 30 September, 2019 **(Convener)**.

Conferences attended abroad

2015	International conference on Biotechnology for Better Tomorrow organized by Florida Ag research from 28 to 30 September, 2015, Tampa, FL, USA.
2013	International Congress on Bacteriology & Infectious Diseases held during November 20-22, 2013, Baltimore, MD, USA.
2012	PSRC International Conference on Biological and Biomedical Sciences, Pattaya, **Thailand** from 28th -29th June, 2012.
2007	The HUPO 6th Annual world congress, Seoul, **South Korea** from 5th -9th September, 2007.

Conferences/Workshops attended

Presented over 50 oral and poster presentations and **chaired the scientific sessions** during prestigious national and international conferences of reputed scientific societies of India and abroad

Editorial board member/reviewer

- Frontiers in Microbiology
- Process Biochemistry
- PLOS One
- Research Journal of Microbiology

- Indian Journal of Microbiology
- Microbioz Journal
- 3 Biotech

Patents - 01

PROBIOTIC COMPOSITIONS EXPRESSING MUTANT CYTOCHROME P450 WITH ENHANCED XENOBIOTIC METABOLIZING ACTIVITY AND METHODS THEREOF. Patent. No.201741031371 A. Date: 15/09/2017.

Microorganisms deposited in culture collections - 02

2019	Available at IMTech, Microbial Type Culture Collection, Chandigarh as *'Pediococcus acidilactici* MTCC13014'.
2017	Available at IMTech, Microbial Type Culture Collection, Chandigarh as '*Saccharomyces cerevisiae* MTCC 25158' with expression of CYP3A4.

NCBI-GENBANK submissions - 07

1. Balakrishna,K., Swaruparani,G., Chandrasekhar,B. and Bhima, B. Stress tolerant *Candida parapsilosis* for enzyme production. KP979606 (16-MAR-2015).
2. Chandrasekhar,B., Hanumalal,N., Bindu,S. and Bhima, B. Stress tolerant *Saccharomyces cerevisiae* OBC15. KR136204 (8-Sept-2015).
3. Chandrasekhar,B., Hanumalal,N., Bindu,S. and Bhima, B. Stress tolerant yeast (OBC9) for bioethanol production. KR028986 (8-Sept-2015).
4. Srinivas,B., Chandrasekhar,B. and Bhima, B. Stress tolerance *Saccharomyces cerevisiae* OBS2 for probiotic applications. KP998094 (16-MAR-2015).
5. Srinivas B. Chandrasekhar B., Hanumalal N. and Bhima, B. Stress tolerance *Pichia kudriavzevii* OBS1 for probiotic application. KP998095 (16-MAR-2015).
6. Sekhar B. C., Srinivas, B., Bhima, B. and Hanumalal, N. Isolation and screening of hermotolerant yeast (OBC14). KM873330 (24-DEC-2014).
7. Bhima Bhukya. Isolation of *Saccharomyces cerevisiae* OBV9 animal probiotic applications. GU229793 (13 June, 2010)

Publication metrics and scientific outputs

PhDs Mentored/Awarded	14
Original Research Articles	42
Review Articles	02

Books Edited	02
Book Chapters	08
Conference proceedings	02
Cumulative Impact Factor	63.65
Average Impact Factor	4.54
Total Citations	614
h-index	19

Publications in SCI journals - 22

1. Ganapathiwar, S., Pappula, R., Banothu, A.K. *et al.* Causatum of Probiotic Yeast *Saccharomyces cerevisiae* SBO1 Supplementation on Growth and Aflatoxin Amelioration in Broilers. *Indian J Microbiol* (2023).

2. Lunavath R, Mohammad SH, Bhukya KK, Bhukya B., et al. (2023). Antimycotic effect of 3-phenyllactic acid produced by probiotic bacterial isolates against Covid-19 associated mucormycosis causing fungi. PLOS ONE 18(3): e0279118.

3. A Anthappagudem, S Enaganti, B Bhukya. Integration of mutational and molecular docking studies: An in silico approach to assess the stability and binding potential of CYP3A4. Journal of Applied Biology and Biotechnology 11 (1), 161-170.

4. SH Mohammad, B Bhukya. Biotransformation of toxic lignin and aromatic compounds of lignocellulosic feedstock into eco-friendly biopolymers by Pseudomonas putida KT2440. Bioresource Technology 363, 12800.

5. KK Bhukya, B Bhukya. Exploration of Antidiabetic, Cholesterol-Lowering, and Anticancer Upshot of Probiotic Bacterium Pediococcus pentosaceus OBK05 Strain of Buttermilk. Probiotics and Antimicrobial Proteins, 1-17

6. Kumar RN, Surekha MV, Ramalingam B, Kumar PU, Polasa K, Hemalatha R, Bhima B, et al (2022). Oral Toxicity Study for Salmonella Killing Lytic Bacteriophage NINP13076 in BALB/c Mice and Its Effect on Probiotic Microbiota. Curr Microbiol. Feb 7;79(3):89

7. Ashok, D., Thara, G., Dharavath, R. *et al.* Microwave Assisted Synthesis of Flavonoid Based 1,2,3-Triazole and Isoxazole Derivatives, Their Antibacterial, Antioxidant, and Anticancer Activities. *Russ J Gen Chem* **92**, 718–724 (2022)

8. B Bhukya, PK Keshav. An Evaluation of Steam Explosion Pretreatment to Enhance the

Digestibility of Lignocellulosic Biomass. Lignocellulose Bioconversion Through White Biotechnology, 83-98

9. Sunkar B and Bhukya B (2022) An Approach to Correlate Chemical Pretreatment to Digestibility Through Biomass Characterization by SEM, FTIR and XRD. Front. Energy Res. 10:802522. doi: 10.3389/fenrg.2022.802522

10. Bhukya KK, Bhukya B (2021) Unravelingthe probiotic efficiency of bacterium Pediococcuspentosaceus OBK05 isolated from buttermilk: An invitro study for cholesterol assimilation potentialand antibiotic resistance status. PLoS ONE 16(11):e0259702

11. Nagamani Pammi, Kiran Kumar Bhukya, Ravi Kumar Lunavath and **Bhima Bhukya**. 2021. Bioprospecting of Palmyra Palm (*Borassus flabellifer*) Nectar: Unveiling the Probiotic and Therapeutic Potential of the Traditional Rural Drink. *Frontiers in Microbiology*. doi: 10.3389/fmicb.2021.683996.

12. Praveen Kumar Keshav, Chandrashekhar Banoth, Srinivas Naik Kethavath, **Bhima Bhukya**. 2021. Lignocellulosic ethanol production from cotton stalk: an overview on pretreatment, saccharification and fermentation methods for improved bioconversion process. *Biomass Conversion and Biorefinery*. https://doi.org/10.1007/s13399-021- 01468-z.

13. Anuradha Barigela and **Bhima Bhukya**. 2021. Probiotic Pediococcus acidilactici strain from tomato pickle displays anti-cancer activity and alleviates gut inflammation in-vitro. *3 Biotech*. 11:23.

14. Srinivas Banoth, Anjana Devi Tangutur, Archana Anthappagudem, Janaki Ramaiah, **Bhima Bhukya**. 2020. Cloning and in vivo metabolizing activity study of CYP3A4 on amiodarone drug residues: A possible probiotic and therapeutic option. *Biomedicine & Pharmacotherapy*. *127 (2020) 110128.*

15. Bindu Sunkar, Balakrishna Kannoju and **Bhima Bhukya**. 2020. Optimized Production of Xylanase by Penicillium purpurogenum and Ultrasound Impact on Enzyme Kinetics for the Production of Monomeric Sugars from Pretreated Corn Cobs. Frontiers in Microbiology. 11:772.

16. Kumar Ramachandrappa Naveen, **Bhima Bhukya**, Kumar Putchaa Uday, Ghosh Sudip. 2020. Bio-control of Salmonella spp. in carrot salad and raw chicken skin using lytic bacteriophages. *LWT-Food Science and Technology*. 122: 109039.

17. Praveen Kumar Keshav, Chandrasekhar Banoth, Archana Anthappagudem, Venkateswar Rao Linga, **Bhima Bhukya**. 2018. Sequential acid and enzymatic saccharification of steam exploded cotton stalk and subsequent ethanol production using *Scheffersomyces stipitis* NCIM. *Industrial Crops & Products*. 125: 462-467

18. Mohammed Al Saiqali, Anjana Devi Tangutur, Chandrasekhar Banoth, **Bhima Bhukya**. 2018. Antimicrobial and anticancer potential of low molecular weight polypeptides extracted and characterized from leaves of *Azadirachta indica. International Journal of Biological Macromolecules*. 114: 906–921.

19. Chandrasekhar Banoth, Bindu Sunkar, Pruthvi Raj Tondamanati, **Bhima Bhukya**. 2017. Improved physicochemical pretreatment and enzymatic hydrolysis of rice straw for bioethanol production by yeast fermentation. *3 Biotech*. 7:334.

20. Banoth Srinivas, Ganapathiwar Swarupa Rani, Bhukya Kiran Kumar, Banoth Chandrasekhar, Kommalapati Vamsi Krishna, Tangutur Anjana Devi and **Bhukya Bhima**. 2016. Evaluating the probiotic and therapeutic potentials of Saccharomyces cerevisiae strain (OBS2) isolated from fermented nectar of toddy palm. *AMB Express*. 7(2): 1-14.

21. Kannoju Balakrishna, Ganapathiwar Swaruparani, Nunavath Hanumalal, Sunkar Bindu, **Bhukya Bhima**. 2017. Plausible exploitation of *Jatropha* de-oiled seed cake for lipase and phytase production and simultaneous detoxification by *Candida parapsilosis* isolated from poultry garbage. *Bioresource Technology*. 225: 215-224.

22. Dipti W. Pitta, Zhengxia Dou, Sanjay Kumar, Nagaraju Indugu, John Daniel Toth, Bonnie Vecchiarelli, and **Bhima Bhukya.** 2016. Metagenomic evidence of the prevalence and distribution patterns of antimicrobial resistance genes in dairy agroecosystems. *Foodborne Pathogens and Disease*. 13 (6): 1-7.

23. Dipti W. Pitta, Nagaraju Indugu, Sanjay Kumar, Bonnie Vecchiarelli, Rohini Sinha, Linda D. Baker, Bhima Bhukya, James D. Ferguson. 2016. Metagenomic assessment of the functional potential of the rumen microbiome in Holstein dairy cows. *Anaerobe*, 38: 50-60.

24. Dinesh Addla, **Bhima**, Balasubramanian Sridhar, Anjana Devi, Srinivas Kantevari. 2012. Design, synthesis and antimicrobial evaluation of novel 1-benzyl 2-butyl-4- chloroimidazole embodied 4-azafluorenones via molecular hybridization approach. *Bioorganic & Medicinal Chemistry Letters* 22: 7475–7480.

Publications in other peer-reviewed Scopus journals - 17

1. Swaruparani Ganapathiwar & **Bhima Bhukya** (2023). In vitro assessment for the probiotic potential of Pichia kudriavzevii. Bioinformation

2. Lunavath, Madhavi; Swamy, Mahadeva; Bhukya, Bhima. Isolation of plant probiotics (bacillus subtilis) and its effect on germination of tomato seeds at drought stress. Biochemical & Cellular Archives . Apr2023, Vol. 23 Issue 1, p149-156. 8p.

3. Chandrasekhar Banoth, Srinivas Naik Kethavath, Praveen Kumar Keshav and **Bhima Bhukya**. 2020. Selection of stress tolerant Saccharomyces cerevisiae strains isolated from sloughing off soil for bioethanol production using Prosopis juliflora. *Research Journal of Biotechnology.* 15: 1.

4. Hanumalal Nunavath, Chandrasekhar Banoth, Venkateswar Rao Talluri, **Bhima Bhukya**. 2016. An analysis of horseradish peroxidase enzyme for effluent treatment. *Bioinformation* 12(6): 318-323.

5. Vasu Namani, B. Goud, Y. Bharathi Kumari, Ramesh Kumbham, Kannoju Balakrishna, **Bhukya Bhima**. 2015. Design, Synthesis and Biological Evaluation of Benzimidazolyl and Benzothiazolyl Picolinamide Derivatives as Antimicrobial Agents. *Asian Journal of Chemistry*. 27(12): 4575-4578.

6. **B. Bhima**, Y. Ramana Reddy, M. Pawani, Sudhakara Reddy, L. Venkateswar Rao and D.W. Pitta. 2015. Influence of Stress-Resistant Yeast Culture (OBV9) Supplementation on the Productive Performance of Water Buffalo. *Asian Journal of Animal and Veterinary Advances.* 10(6): 260-270.

7. Chandrasekhar B and **Bhima B.** 2015. Cellulose as Sole Substrate for Bio Ethanol Production: Development of Structural Molecular Model of Endoglucanase III from Trichoderma Reesei Using Bioinformatic Tools. *Int J Pharm Sci Res.* 6(3): 1132-36.

8. **B. Bhima**, Y. Ramana Reddy, M. Sudhakara Reddy, M. Pawani, L. Venkateswar Rao. 2014. Effect of thermo-tolerant yeast on intake and nutrient digestibility in Murrah buffalo steers (Bubalus bubalis) fed straw based complete diet. *Veterinary World.* 7(7): 501-504.

9. Jaheer. Md, Ranjith Reddy. P, **Bhima. B**, Narsimha. N, Sujitha. P, Srinivas. B & Ch. Sarala Devi. 2014. Synthesis, spectro-analytical, computational and biological studies of novel 6-methyl-3-(1-(4-oxo-2-phenylquinazolin-3(4H)-ylimino) ethyl)- 2H-pyran-2, 4(3H)-dione and its Co (II), Cu (II) and Hg (II) metal complexes. IOSR *Journal of Applied Chemistry.* 7(6): 1-12.

10. M. Sudhakara Reddy, Y. Ramana Reddy, **B. Bhima**, Y. Thirupathaiah, A. Rajasekhar Reddy, L. Venkateswar Rao. 2013. Effect of different levels of thermotolerant probiotic yeast supplementation on biochemical and immune parameters in broilers. *World Journal of Pharmacy and Pharmaceutical Sciences*. 2(6): 4911-4916

11. B. Kiran Kumar and **B. Bhima**. 2012. Detoxification of anti-nutrients (tannins) present in fruit extracts for probiotic yeast production. *International J. Appl. Biol. and Pharmaceutical Tech*., 3(3):275-279.

12. 24. **B. Bhima**, T. Anjana Devi M. Sudhakara Reddy, Y. Ramana Reddy and L. Venkateswar Rao. 2011. Optimized protein extraction from S*accharomyces cerevisiae* for 2-D gel electrophoresis. *J. Theor. Exp. Biol*., 8(1&2): 77-84.

13. **Bhukya Bhima**, Marrivada Sudhakara Reddy, Tanguturu Anjana Devi, Yerradoddi Ramana Reddy and Linga Venkateswar Rao. 2010. Screening and characterization of stress tolerant *Saccharomyces cerevisiae* isolated from brewery effluents for animal probiotic applications. *IIOABJ*., 1(4): 32-39.

14. Smita C. Pawar, Jithender kumar Naik, **B. Bhima**, Anusha Pawar, Gopinath, G. Deepika. 2010. Uniform expression of hepcidin mRNA in tumors differing in number, degree of differentiation and vessel invasion of hepatocellular carcinoma. *International J. Appl. Biol. Pharmaceutical Tech.*, 1(1): 168-174.

15. **B. Bhima**, Y. Ramana Reddy, M. Pavani, M. Sudhakara Reddy and L. Venkateswar Rao. 2010. In vitro evaluation of straw based complete diets supplemented with probiotic yeast. *Indian Vet. J*., 87: 779-781.

16. **B. Bhima**, T. Anjana Devi, M. Sudhakara Reddy, Y. Ramana Reddy and L.Venkateswar Rao. 2010. Insights into the protein profiles of stress tolerant and mesophilic yeast by proteomics approach: a comparative study. *International J. Appl. Biol. and Pharmaceutical Tech*., 1(2):349-359.

17. **B. Bhima**, Y. Ramana Reddy, M. Pavani, M. Sudhakara Reddy and L. Venkateswar Rao. 2009. Rumen fermentation pattern in Murrah buffalo steers fed on straw based complete diet supplemented with thermotolerant probiotic yeast (*Saccharomyces cerevisiae*) at graded levels. *Indian J. Anim. Nutr*., 26(3): 239-242.

18. G.V.N. Reddy and **B. Bhima**. 2003. Effect of yeast culture based diet on growth and nutrient

utilization in deoni bull calves. *Indian J. Anim. Nutri*., 20(1):101-104.

Books edited - 02

1. Editor of the Book 'Microbial Biotechnology-Technological Challenges and Developmental Trends'. 2017. Reference book published by CRC/Apple academic press

2. Co-Editor of the Book 'Mycology: Current and future developments' Volume II. 2021. Reference book in press by Bentham Science.

Book chapters - 08

1. **Bhima Bhukya,** Chandrasekhar Banoth, Praveen K. Keshav, MD. Saddam Hussain and Shanthipriya Ajmera Biotechnological Production of Various Fungal Metabolites and their Applications in White Biotechnology. Pp**:** 255-286 (32)

2. **Bhima Bhukya**, Srinivas Banoth and Archana Anthappagudem. 2019.Saccharomyces cerevisiae as potential probiotic: Stategies for iolation and selection. Applied Microbiology and Bioengineering (edited by Pratyoosh Shukla). Elsevier Inc.

3. S. Anju, Y. Aparna, **Bhukya Bhima**, and J. Sarada. 2018. Novel Insights on the Bacillus Quorum Sensing Mechanism: It's Role in Competence, Virulence, Sporulation and Biofilm Formation. Implication of Quorum Sensing System in Biofilm Formation and Virulence (Edited by Pallaval Veera Bramhachari). Springer Nature. https://doi.org/10.1007/978-981-13-2429-1_21.

4. **B. Bhima** and Mohammed Al Saiqali. 2017. Antimicrobial Peptides from Plants and Their Applications. In Microbial Biotechnology: Technological Challenges and Developmental Trends. Apple academic press.

5. **B. Bhima,** N. Hanumalal and B. Chandrasekhar. 2017. Yeast *Saccharomyces cerevisia* efficientBiological Agent for Decolorization of Reactive Dyes used in Textile Industry. In Microbial Biotechnology: Technological Challenges and Developmental Trends. Apple academic press.

6. **B. Bhima**. 2012. Development of stress tolerant yeast for Probiotic and Pr Applications. *Lifescience India.* 1(3): 63-65.

7. L. Venkateswar Rao, **B. Bhima**, Y. Ramana Reddy, M. Pavani and M. Sudhakara 2010. Effect of different levels of thermotolerant probiotic yeast (*Saccharomyces cere* on intakes, nutrient digestibility and rumen fermentation pattern in straw based co diets fed Murrah buffalo steers. In: Current topics on bioprocesses in food industry. V Asiatech publishers, Inc. Pp. 58-70.

8. **B. Bhima**, Smita C. Pawar, M. Sudhakara Reddy and L. Venkateswar Rao. 2010. Iso Characterization and screening of Bacillus thuringiensis for Mosquito control conference proceedings of Implications of climate change on mosquito borne diseas its impact on public health. Excel India Publishers. Pp. 182-185.

Conference preceedings - 02

1. **B. Bhima**, M. Sudhakara Reddy and L. Venkateswar Rao. 2012. Optimized Biomass Production of Probiotic Yeast *Saccharomyces cerevisiae* by *Taguchi* Methodology. In: conference proceedings of International conference on Biological, Biomedical and Pharmaceutical sciences (ICCEPS'2012). International conference proceedings of PSRC, Pattaya, Thailand Pp. 118-121.
2. Y. Ramana Reddy, N. Nalini Kumari, M. Pavani, T. Monika, **B. Bhima**, M. Sudhakara Reddy, D. Srinivasa Rao and L. V. Rao. 2010. Effect of supplementation of thermo tolerant Saccharomyces cerevisiae yeast on the performance of lactating Murrah buffaloes and Deccani ram lambs. In: conference proceedings of VII Biennial Animal Nutrition Association Conference. Orissa University of Agriculture&Technology, Bhubaneswar, India. Pp. 141.

Conference invited presentations - 05

1. Bhima Bhukya. Development of robust microbial cell factories for bioconversion of lignocellulosic biomass to value added bioproducts. BRSI-International Conference on Biotechnology for Sustainable Agriculture, Environment and Health (BSAEH- 2021). Jointly organized by Malaviya National Institute of Technology, Jaipur and the Biotech Research Society, India during April 4-8, 2021.

2. Bhima Bhukya. Probiotic and nutritional potential of toddy palm nectar (Neera). PAi 4th Biennial Conference 2018 and International Symposium on Probiotic Therapy:Tranlating to Health and Clinical Practice" organized at AIIMS, New Delhi from 16- 17 February, 2018.

3. Bhima Bhukya, 'Use of probiotic yeast to replace the phytase enzyme for improved poultry production' during National seminar on Food safety, quality,and policy at the Department of Microbiology, Government degree college, Gajwel, 28-06-2018

4. Bhima Bhukya. Plausible exploitation of *Saccharomyces cerevisiare* yeast strains for various probiotic, therapeutic, bioremediation and industrial applications. International conference on "Climate Change, Biodiversity and Bioresource Management" jointly organized by Microbiologists Society and Jawaharlal Neharu Rajkeeya Mahavidyalaya, Port Blair, Andaman from 1-3 February, 2017.

5. Bhukya Bhima. *Saccharomyces cerevisiae* for human probiotic applications: Overcoming the existing challenges. International conference on "Biotechnology for Better Tomorrow" (ICBB-2015). Organized by Microbiologists Society, India and Pacific Ag Research, USA, in Tampa, USA during 29-31 October, 2015.

Resource person - 02

1. Bhima Bhukya. Bioconversion of lignocellulosic biomass to bioethanol: Development of robust cell factories for hexose and pentose sugar fermentation. Faculty Development Program on 'Bioconversion Technologies and Start Up Opportunities in Biofuel Production. Organized by Silverjubilee Govt. Degree College, Kurnool under AICTE-ATAL program during June 1-18, 2021.

2. Resource person from the Department of Microbiology to take lectures for the participants of Refresher Course at Human Resource Development Centre, Osmania University for the years 2018, 2019 & 2020.

Place: **Signature**