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Career & Expériences

Assistant Professor (2020 – présent)
Département de Biotechnology
Cochin University of Science and Technology
Kochi 680222, Kerala, India

DHR Women scientist (2019-20)
Child Development Centre,
Medical College, Trivandrum
Kerala, India

SERB Independent Investigator (2015- 2018)
Department of Biotechnology & Microbiology,
Inter-University Centre for Bioscience,
Kannur University, Kerala, India

Post-Doctoral Fellow (2014-2015)
Department of Biotechnology & Microbiology,
Inter-University Center for Bioscience,
Kannur University, Kerala, India

Post-Doctoral Fellow(2010-2013)
University of Arkansas for Medical Science,
Little Rock, USA.

Education

PhD in Biotechnology (2004-2010)	Rajiv Gandhi Centre for Biotechnology, Kerala University, India
Masters in Biotechnology (2001-2003)	University of Calicut, Kerala, India
Bachelors in Microbiology (1998-2001)	Kannur University, Kerala, India

Research Grants

1. Search for potential biofluid markers for the early diagnosis and effective prognosis of pulmonary fibrosis (*Seed Money Grant, CUSAT 2021-2022 - principal Investigator*).
2. Design and development of GBA1-L444P corrected cells as a potential therapy for Gaucher disease (*DHR Women Scientist Programme 2019-2022 - principal Investigator*).
3. Investigations for Noxa like BH3 mimetics for apoptosis based herbal therapeutic leads and their derivatives (*DST-young scientist start-up grant, SERB, 2015 - principal investigator*).
4. Identification of inhibitors for the kinase domain of HER2/HER2 receptor as potential anticancer agents against HER2 positive tumours (*UGC funded-post-doctoral fellowship 2014-15*).

Awards and Honours

1. DST-SERB Young scientist award for a start-up grant, 2015.
2. M R Das Career Award. Rajiv Gandhi Centre for Biotechnology, Kerala, India 2012.
3. Marie Curie Scholarship. Marie Curie Foundation and European Cell Death Organization for participating in 15th ECDO Euro-conference on Apoptosis held at Slovenia, Europe, 2007.
4. National Research Fellowship funded by CSIR-UGC, Govt. of India 2004-2009.
5. Postgraduate merit scholarship by Department of Biotechnology (DBT), Govt. of India 2001-2003

Publications/Book Chapter

1. Hesperetin and Naringenin sensitize HER2 positive cancer cells to death by serving as HER2 Tyrosine Kinase Inhibitors. *Bhavya Balan Chandrika, Mathew Steephan, T.R. Santhosh Kumar, A. Sabu, M. Haridas. Life Sci.* 2016 Sep 1;160:47-56. doi: 10.1016/j.lfs.2016.07.007. Epub 2016 Jul 20. (as co-corresponding author). **IP Factor 3.2**
2. Endoplasmic reticulum stress-induced autophagy provides cytoprotection from chemical hypoxia and oxidant injury and ameliorates renal ischemia-reperfusion injury. *Chandrika Bhavya B, Yang C, Ou Y, Feng X, Muhoza D, Holmes AF, Theus S, Deshmukh S, Haun RS, Kaushal GP. PLoS One.* 2015 Oct 7; 10(10). **IP Factor 3**
3. Endoplasmic reticulum targeted Bcl-2 inhibitable mitochondrial fragmentation initiates ER stress-induced cell death. *Bhavya B. C, Deepa Indira, Mahendra Seervi, Jeena Joseph, Praveen K Sobhan, Krupa Ann.Mathew, Saneesh Varghese, Santhoshkumar T.R. Adv Exp Med Biol.* 2012;749:83-95. **IP Factor 4**
4. Endoplasmic reticulum targeted Bcl2 confers long term cell survival through phosphorylation of heat shock protein 27. *Chandrika, Bhavya B., S. K. Maney, Lakshmi, S. U., Retnabhai, S. T. Int J Biochem Cell Biol* 42(12): 1984-1992(2010). **IP Factor 4**

5. Bax deficiency mediated drug resistance can be reversed by endoplasmic reticulum stress-induced death signalling. *Chandrika, Bhavya B., Maney, S. K., Lakshmi, S. U., Joseph, J., Seervi, M., K, S. Praveen., T.R.Santhoshkumar. Biochem Pharmacol 79(11): 1589-1599(2010). IP Factor 4.4*
6. Caspase-2 triggers Bax-Bak-dependent and -independent cell death in colon cancer cells treated with resveratrol. *Mohan, J., A. A. Gandhi, Bhavya, B. C. Rashmi, R. Karunakaran, D. Indu, R. Santhoshkumar, T. R. J Biol Chem 281(26): 17599-17611(2006) IP Factor 5*
7. Identification of Heat Shock Protein 90 Inhibitors to Sensitize Drug-Resistant Side Population Tumor Cells Using a Cell-Based Assay Platform. *K Sobhan P, Seervi M, Joseph J, Chandrika Bhavya B, Varghese S, Santhoshkumar TR, Radhakrishna Pillai M. Cancer Lett. 2012 Apr 1; 317(1):78-88. IP Factor 5*
8. Essential requirement of cytochrome c release for caspase activation by procaspase-activating compound defined by cellular models. *Seervi, M., J. Joseph, Sobhan, P. K., Bhavya, B. C., Santhoshkumar, T. R. Cell Death and Disease 2: e207(2011). IP Factor 5*
9. Diosmin, in combination with 5-Fluorouracil, sensitizes Mcl-1 induced, chemo resistant breast cancer cells towards synergistic apoptosis. *Bhavya BC, Madathilkovilakath Haridas. (Under Revision, life Science ,2021).*
10. Caspase 3 dependent Calpain activation triggers mitochondrial fragmentation under ER stress response . *Bhavya B C, TR Santhosh Kumar (Communicated)*
11. Book Chapter- Anti-inflammatory Molecules: Immune System Mediators, *B.C. Bhavya and Madathilkovilakath Haridas. 235, Bioresources and Bioprocess in Biotechnology Volume 2: Exploring Potential Biomolecules, Springer 2016*