

# Remya Parameswar Iyer

*PGT Biotechnology, Kendriya Vidyalaya, IIT Guwahati*

Remya P Iyer teaches biotechnology and science to higher secondary students. She is a resource person for teacher training programmes of Kendriya Vidyalaya Sangathan (KVS) and a coordinator for the Programme for International Student Assessment (PISA) of the Organisation for Economic Cooperation and Development.



I was born and brought up in Thrissur, Kerala, in a Tamil family where education was given paramount importance. I was given freedom to make my own choices. I was deeply inspired by my grade IX science teacher, Ms Pearl, of Sacred Heart Convent Girls High School to take up science. During my bachelor's degree programme, I chose biotechnology as an elective, and opted for the same subject for my master's degree as well.

After that, I worked under the mentorship of Karuppanan Veluthambi, PhD, at the department of biotechnology in Madurai Kamaraj University in plant molecular biology as a CSIR Junior Research Fellow for about a year. During that period, I developed an inclination towards research. Later, I worked at the National Centre of Biological Sciences under K Vijayaraghavan, PhD, who changed my mindset and motivated me to apply for higher education in the United States. I got into the MS programme in biochemical research at the Case Western Reserve University School of Medicine with a fellowship and worked on understanding neurotransmitter metabolism during sleep apnea. I participated in the US government's Fulbright Programme in 2014.

My toughest barrier was trying to balance home and work front. I had to leave my PhD programme in the United States to accompany my husband to India who joined as assistant professor in IIT Guwahati. This was the first turning point

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in my career. From scientific research, I was challenged to choose a professional path available at that point that aligned with my heart and soul and could give me immense satisfaction.

My professional life as a teacher is full of many accomplishments that I did not foresee coming when I started. As the head of biotechnology department in Kendriya Vidyalaya Khanapara, I played a pivotal role in building a well-equipped biotechnology lab and infrastructure as the BLISS and Foldscope (both DBT grants) coordinator. In addition, I won the IREX International Fulbright Alumni Grant in 2015 and the USIEF Alumni Grant in 2021.

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My personality transformed as an educator when I mentored students in various scientific projects that they undertook as part of Innovation in Science Pursuit for Inspired Research (INSPIRE), National Children Science Congress, Jawaharlal Nehru National Science, Mathematics and Environment Exhibition (JNNSMEE) and INTEL Science Fair. I am working on developing scientific communication and temperament in young minds, motivating them to take up science as a career, and conducting workshops and building awareness on mindfulness practice to bring in more resilience and intuitive thinking in students.

I feel one should choose a STEM career if she is willing to give time, energy and resources towards work and research. It demands rigorous effort, intensity and passion, and demands curiosity and genuine interest. One cannot lead

others without loving, respecting and being her best version every day.

To allow women to flourish in STEM careers, steps must be undertaken by policymakers to assure more flexibility at every level so that more women can complete their doctorate degrees. The spectrum of funding schemes for women researchers must be broadened so that more women may enter and continue in STEM fields. The industry may think of generating novel opportunities to open up new avenues, and encouragement of entrepreneurship and partnerships at individual and community levels. Many science subjects are taught theoretically, and not via learning by doing.

However, collaborations between institutions, colleges and schools can bring about a change. An Edu Talk series with STEM resources, Nature Club, Eco Club and Science Club activities must be encouraged and students should be motivated to take up small research projects right from young age. Visits to labs and industries and interaction with scientists and entrepreneurs can spark a genuine interest in STEM. ■

## Academic Profile

- MS Biochemical Research, Case Western Reserve University, Ohio, US
- MSc Biotechnology, Cochin University of Science and Technology, Kochi
- BSc, Sri Sathya Sai Institute of Higher Learning, Anantpur, Andhra Pradesh
- BEd, Guwahati University, Assam

## Awards

- National Award to Teachers, 2019
- KVS National Incentive Award, 2018
- Fulbright Distinguished Academic Teaching Award, 2014
- Dr CV Raman Science Teacher Award by DST, 2013