

Jawaharlal Nehru University takes only the top 30 of an estimated 3,000 students who take its Combined Biotechnology Entrance Exam. This year's PhD batch at JNU has ten students — the highest ever at the university.

RIDING HIGH ON BIOTECH BOOM

Opting for a PhD in Biotechnology can help you get on to important research positions

By Shreya Mukherjee

A Master's of Science in Biotechnology no longer gets students the high-end jobs it used to — but a PhD does. Biotechnology, the science that applies the study of living organisms to engineering, technology and medicine, has become increasingly specialised over the last few years — and with it, so have the jobs.

From developing the right kind of needle and thread surgeons need to suture wounds to an artificial heart, biotechnologists have become miracle makers. What comes with such a focussed field, however, is years of intensive high-quality learning — and a recent trend shows that students want to go the extra mile.

Jawaharlal Nehru University (JNU) was one of the first six universities funded by the government to start a postgraduate and research programme in Biotechnology in 1985, to meet the country's need for trained professionals in this field.

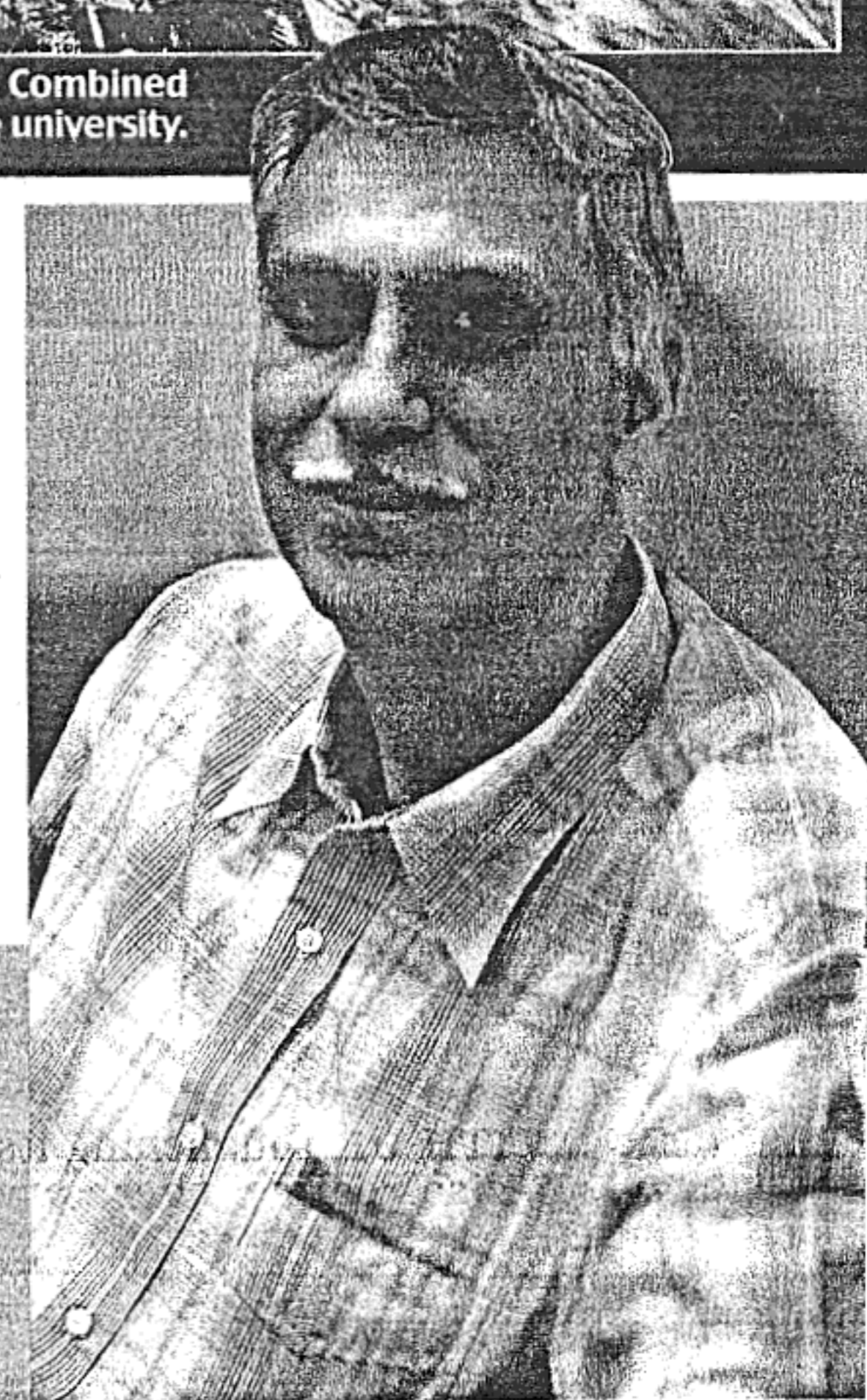
"The net was a lot wider when there was an initial demand for manpower. Now, there is a consistent need for highly qualified professionals in the research, development and practice of Biotechnology," says Dr Rajiv Bhat, dean of Biotechnology at JNU. This is not to say that postgrads don't get jobs — they do, but, as Bhat points out, "most start with tech assistant positions and have to work their way up."

Considering doctors would be at a total loss without the highly sophisticated drugs, medical equipment, aids, artificial limbs and organs biotechnologists design and produce, it's no surprise that biotechnologists today are not happy with being backroom boys.

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Students are much more ambitious now. Nine out of 10 want to pursue a Ph.D. in a specialisation of their choice in India or abroad.

DR RAJIV BHAT, Dean of the School of Biotechnology, JNU



WHY BIOTECH IS A SOUND CAREER TRACK

In view of its demand for skilled manpower, cost-effectiveness and advanced state of infrastructure, it is a great time to become a part of India's biotechnology industry

- ▶ The Indian biotechnology industry is set to be worth \$11.6 billion by 2017.
- ▶ Its share in the global biotech industry adds up to 2 per cent.
- ▶ India ranks among the top 12 biotechnology powerhouses of the world.
- ▶ Our biotech industry is the third largest in Asia, after Japan and South Korea.
- ▶ The bio-agriculture sector looks all set to emerge as a fast-growing driver of multi-million-dollar revenues.

After they get their PhDs, JNU students land top managerial jobs in the pharmaceutical and biotechnology industries

ambitious now, and 9 out of 10 go on to do a PhD in a specialisation they choose, in India or abroad," says the dean, adding that students are "beginning to think ahead and spend four or five years really delving into what interests them". With science and marketing becoming a "lethal combination", some students are choosing to do an MBA after an MSc.

Once they come back into the workforce, "most nail top positions as presidents and managers in pharmaceutical or technological industries at Ranbaxy, the Pan-Asian Biotech Federation and so on", says Bhat, adding that doctors have also realised the worth of clinical knowledge and are working with biotechnologists on gathering and analysing clinical data.

A recent market report by Global Industry Analysts, Inc. has revealed that biotechnology is one of the leading industries in the country — one that has managed to grow in spite of the global economic downturn. However, as Bhat points out, "the quality of teaching in the 30 odd private institutions that offer biotechnology as a specialised course doesn't match the sector's immense growth. We need more institutions, and better teachers."

Out of an estimated 3,000 students who take the All India Examination in Biotechnology, JNU gets the top 30 every year. This year's PhD batch at JNU has 10 students, the most by far since the inception of the programme in 1993. If this trend continues, these students could well decide to stick to academics and become the trained, talented science faculty that India needs.