

<http://www.iup.edu/biotech/default.aspx>

Biotechnology Research Institute

One of the goals of the Biotechnology Research Institute is to help prepare students for careers in applied sciences. With this goal in mind, Dr. N. Bharathan will be offering both a Biotechnology Summer Camp for high school students and a Practicum for Undergraduate Students during Summer 2014.

The goal of the **Biotechnology Summer Camp** program is to motivate students to study biology and to acquaint students with the techniques in modern biology research. The training program will use lectures by university faculty, research scientists, library research, and model systems such as bacteria and fungi to help the students choose and explore topic areas that interest them for laboratory work. Students working in groups will use the information and techniques to develop and test a hypothesis using one of the model systems. The students will present their work to their classmates at the end of the session. Laboratory activities will include DNA and protein purifications, genetic modification, and forensics, among many others.

The **Non-Credit Practicum in Biotechnology** will provide exposure to modern techniques in biology, proteomics, functional genomics, and concepts related to bio-material science, tissue regeneration, and forensics. The lecture part of the course will cover the principles and techniques of recent developments and findings in recombinant DNA technology. The laboratory component will provide the opportunity to learn and apply hands-on recombinant DNA procedures and the technologies related to the use of nucleic acids and proteins on a chip; electrophoretic analysis of mutant genes; and polymerase chain reaction (PCR) analysis.

More detailed information about the Practicum in Biotechnology, as well as information about registration and costs, can be found at the [Practicum in Biotechnology website](#).

[Dr. N. Bharathan](#) is a two-time recipient of the IUP Sponsored Programs Award for Outstanding Achievement in Research. He has been principal investigator or coprincipal investigator on grant projects that have received over \$12 million in funding, including awards from the National Science Foundation, the United States Department of Defense, and the United States National Guard Bureau. Dr. Bharathan has written over 35 articles in peer-reviewed journals and has given more than 50 presentations at national and international conferences, many with student coauthors. He is also associate editor of the *Journal of Plant Pathology*.



The [Biotechnology Research Institute](#) is one of the [Centers and Institutes](#) formed through the IUP [School of Graduate Studies and Research](#) as a venue to combine research and public service.

- Biology Department
- Weyandt Hall, Room 114
975 Oakland Avenue
Indiana, PA 15705-1081
- Phone: 724-357-2352
- Fax: 724-357-5524