

Institute for Advanced Studies in Basic Sciences Gava Zang, Zanjan, Iran

The Department of Biological Sciences

Departmental Overview

The Department of Biological Sciences started its activities in 2008 by admitting 6 Master's students, 3 in *Biochemistry* and 3 in *Biophysics*. We are now in the process of introducing another group to provide education and research in the field of *Cell and Molecular Biology* and would accept Master's students. We have also applied to the Ministry of Science Research and Technology (MSRT) to give us the license to accept PhD students in the abovementioned fields. Another development that we are currently working on is to establish an interdisciplinary group named *Computational Biology*. Hopefully, we will have PhD students in biochemistry and biophysics starting September 2022.

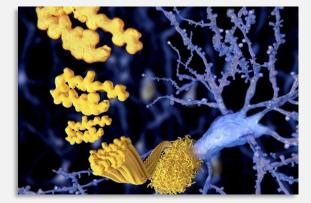
MSc programmes are both course and research oriented and research projects are defined with experimental and/or **computational** orientations. Current research areas include **Ligand-Binding**, **Folding**, **and Stability of Proteins and Nucleic acids; Protein Aggregation and Amyloid Formation;** and **Biology of Cancer**. For more details, please see the next page.

Areas of Study

- ✓ Protein Aggregation and Amyloid Formation
- ✓ Targeting Cancer Cells
- Ligand-Binding, Folding, and Stability
 Studies of Proteins and Nucleic Acids
- Computational Biology



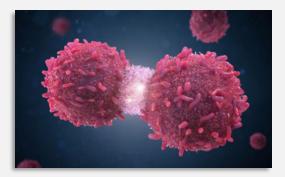
Computational Biology



Amyloid Beta Peptides



Protein and Nucleic Acid Research



Cancer

Graduate Studies

- ✓ The Department of Biological Sciences offers the following course- and research-oriented graduate degree programmes:
 - MSc in Biochemistry and Biophysics

Graduate Studies

✓ The MSc degree is a two- to three-year programme with 12 courses and a research thesis. Individuals with a **Bachelor's degree** in all fields of science (including basic and medical sciences) are eligible to apply.



3rd International and 5th National IASBS Symposium on Biological Sciences: Computational Biology, January 15-17 2020, the Department of Biological Sciences, IASBS, Zanjan, Iran

Research Facilities

- ✓ The department has several instrumental and computational facilities at the service of its research programmes. Our main laboratories include:
 - Biochemistry
 - Biophysics
 - Bacterial Cell Culture
 - Eukaryotic Cell Culture
 - Bio-informatics
 - Protein Aggregation
 - Fluorescence Microscopy
 - Gel Electrophoresis
 - Polymerase Chain Reaction (PCR)
 - Spectrophotometer



Research Facilities

- ✓ Further facilities housed in other departments of the Institute including the departments of **Physics** and **Chemistry** are also available to our faculty and students.
- ✓ We also have a range of general facilities to support student activities, including personal office space, computer lab, and meeting rooms.



Faculty members

Biochemistry



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Atiyeh Mahdavi

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Ali Akbar Meratan

Assistant Prof of Biochemistry (Amyloid Fibril Formation and Inhibition using Natural Polyphenol-Based Nanoparticles, Cellular and Animal Models of Parkinson's Disease, Mitochondria-Targeted Polyphenols) a.meratan@iasbs.ac.ir (+98) 24 3315-3309



Faculty members

Biophysics



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Cell and Molecular Biology



Mohammad Masoudi

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Visit us at

https://iasbs.ac.ir/departments/bio/

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