

## **General Biochemistry Winter Internships**

Participate in General Biochemistry winter internships to explore the biochemical processes in cold environments, focusing on cold-induced enzyme kinetics, metabolic adaptations to cold stress, and the molecular basis of cold-tolerant organisms.

## Focussed Areas under General Biochemistry Winter Internship

- 1. Cold-induced enzyme kinetics and function
- 2. Metabolic adaptations to cold stress
- 3. Protein folding and stability under cold conditions
- 4. Molecular basis of cold tolerance in organisms
- 5. Cold-environment nucleic acid replication and repair
- 6. Signal transduction in cold-stressed cells
- 7. Carbohydrate and lipid metabolism under cold stress
- 8. Protein-ligand interactions at low temperatures
- 9. Cold-induced oxidative stress and antioxidant mechanisms
- 10. Cold-tolerant metabolic pathways in photosynthesis
- 11. Cell membrane adaptations to cold environments
- 12. Cold-environment bioenergetics and respiration
- 13. Hormonal regulation of metabolism in cold-stressed organisms
- 14. Biochemistry of cold-resistant vitamins and cofactors
- 15. Molecular biology techniques for cold-environment research
- 16. Cold-environment biochemical pathways in plants and animals
- 17. Biochemical basis of cold-induced genetic adaptations
- 18. Enzyme inhibition in cold-tolerant organisms
- 19. Biomolecular interactions at low temperatures
- 20. Biochemical techniques for studying cold-stress in cells

## Protocols Covered across various focussed areas under General Biochemistry Winter Internship

- 1. Cold-environment enzyme kinetics assays
- 2. Protein purification under cold-stress conditions
- 3. Metabolic pathway analysis in cold-tolerant organisms
- 4. Cold-environment nucleic acid extraction methods
- 5. Protein-ligand interaction studies in low temperatures
- 6. Oxidative stress analysis in cold-stressed cells

- 7. Cellular respiration experiments under cold stress
- 8. Cold-environment signal transduction pathway analysis
- 9. Hormonal regulation of metabolism in cold conditions
- 10. Biomolecule stability studies in cold environments

## Duration: 5, 10, 15, 20, and 30 Days

Note: Please cross confirm whether internship slots for this field are available before joining.

Click Here for General Biochemistry Winter Internship Fees

Application Process and Other info