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INDIAN BIOLOGICAL SCIENCES AND RESEARCH INSTITUTE भारतीय जैविक विज्ञान एवं अनुसंधान संस्थान

An ISO 9001:2008 Certified Institute

Knowledge Leads Innovation

In-Silico Drug Designing: Principles and Applications



Overview:

This course provides a comprehensive introduction to **in-silico drug designing**, equipping students with the necessary theoretical knowledge and practical skills to discover and develop new drug candidates using computational tools. The course emphasizes the integration of **bioinformatics** and **computational chemistry** in drug discovery pipelines, accelerating the development of new therapeutics in an efficient, cost-effective manner.

Learning Objectives:

- Understand the principles of in-silico drug discovery and development.
- Master the use of cutting-edge computational tools to identify and optimize drug candidates.
- Learn about the pharmacokinetic and pharmacodynamic properties of drugs.
- Gain hands-on experience in drug-receptor interaction studies and virtual screening workflows.

Course Offerings:

1. Conceptual Foundations:

- Introduction to drug discovery and the role of computational methods.
- Pharmacokinetics and pharmacodynamics in silico approaches.
- o Ligand-based and structure-based drug design principles.

2. Hands-on Experience with Tools and Technologies:

- Molecular Docking: Training on tools like MVD (Molecular Virtual Doc) and SPDV, Swiss-PDB to study ligand-receptor interactions.
- o Structural Alignment and Visualization using Swissport.
- Bioinformatics Databases: Access and utilize resources like PubChem, ZINC, and PDB for compound and protein data.

Registration Link: https://ibri.org.in/ProjectTrainingRegistrationForm.pdf

For Payment, Scan this QR Code



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