Immuno Informatics Research Training

NTHRYS provides Immuno Informatics Research Training for interested candidates at its Hyderabad facility, Telangana. Please refer below for more details including Fee strctures, Eligibility, Protocols and Modules etc.,. Please do call / message / whatsapp for more details on 9014935156 [India - +91]

Eligibility: BSc / BTech / MSc / MTech / MPhil / PhD in any Life Sciences studying or completed students

Protocols / Techniques Covered

Topic	Contents	Tools
Bioinformatics		
1. Bioinformatics - An Overview	Definition and History Information Networks Internet in Bioinformatics. Classification of amino Acids, Classification and three Dimensional structures of proteins. Overview of protein structure, Ramachandran Plot, Protein purification, Post translation modification, Protein trafficking.	
2. Databases	**Protein Information Resources:** Biological Databases, Primary Sequence, Composite Protein Sequence Databases, Secondary Databases Prosite, Prints Blocks Profiles and Identity. **Genome Information Resources:** DNA sequence Databases - EMBL DDBJ Genbank GSDB (Genome Sequence Database). Protein Data bank (PDB), Nucleic Acid Data Bank (NDB), Molecular modeling Data Bank (MMDB), Uniprot, Prosite, SCOP, CATH, BLAST, FASTA, Clusatl, Prodom.	
3. Gene Prediction & Functional Aaalysis	Primer designing, ESTs and Gene discovery, Restriction site detection	
4. Matrix, Fold Recognition & Sequence Analysis	Pairewise sequence comparison-sequence queries against biological databases	BLAST and FASTA multifunctional tools for analysis
	Pair wise sequence alignment, gaps, gap- penalties, scoring matrices, PAM250, BLOSUM62, local and global sequence alignment, multiple sequence alignment.	ClustalW, BLASTp
5. Secondary Structure Prediction	Propensity value.	
6. Protein Structure Prediction	Homology modeling and Threading. Prediction of protein structure from sequences, functional sites	Modeller, PROSEARCH, Protoparm

7. Binding Site Analysis	Model evaluation, and Model validation	CASTp
8. Phylogenetic Analysis	Evolution, elements of phylogeny, methods of phylogenetic analysis, Phylogenetic tree of life, comparison of genetic sequence of organisms	Phylip, ClustalW
9. Genetic Algorithm	Algorithms in bioinformatics	
10. Docking of Small Molecules		Autodock, Vina, igemdock
11. Drug Discovery & Computer Aided Drug Designing	Introduction, drug discovery area, pharmacogenetics and pharmacogenomics applications, SNPs, parameters in drug discovery identification of drug target molecules, drug design and its approaches, computer-aided drug designing methods; computer aided molecular design (CAMD), structure- based drug design, De novo design.	
12. Recent advances in Drug design methodologies	Structure activity relationship	
13. Virtual Screening	Structure based pharmacophore. Screening of various chemical databases	Zinc database
Immunoinformatics		
14. Introduction to Immunoinformatics & Immunological Databases	dbMHC-MHC database at NCBI, T-cell epitope databases, B-cell epitope databases. SYFPEITHI MHC-presented epitopes	
15. Homology modelling of antibody		Phyre 2, Modeller
16. Prediction of Cytotoxic T Cell (MHC Class I) Epitopes	Antigen Processing in the MHC ClassI Pathway	NetCTL, SYFPEITHI, CTL Pred, NetMHC server
17. MHC-II Prediction - Prediction of Helper T Cell (MHC Class II) Epitopes	Processing of MHC Class II Epitopes	HLApred, MHC2Pref, Propred
18. B Cell Epitope Prediction & Web Sources	Recognition of Antigen by B Cells-vaccine design- Web-Based Tools for Vaccine Design	PEPVAC, SVRMHC, NetCTL, BIMAS etc

Durations & Topics:

5 Days Duration: Headings 1, 2, 14, 15 & 16 + A Minor Online Project (Optional)

10 Days Duration: Topics 1, 2, 3, 4, 5, 6, 14, 15, & 16 + A Minor Online Project (Optional)

20 Days Duration: Topics 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 14, 15 &16 + A Major Online Project (Optional)

1 Month Duration: Topics 1 to 16 + A Major Online Project (Optional)

45 Days Duration: All the topics mentioned above + An Online Publication Project (Optional)

Fee Structures for Immuno Informatics Research Training

Fee details in Rs per student				
Fee	3 Months	4 Months	5 Months	6 Months
Individual	119600	235000	328600	389000
Group 2 - 4	113700	158400	309200	400000
Group 5 - 7	112500	156800	306000	395800
Group 8 - 10	111400	155100	302800	391600

NTHRYS REGISTRATION PROCESS

1. Candidates have to pay **Rs 5000/-** in the below mentioned account to complete Registration Process for selected services.
2. **Registration fee is NOT ADDITIONAL AMOUNT** we will reduce this from the main fee at the time of joining.
3. After completing the fee payment, please scan the payment receipt as well as your college identity card [Any identity card for student proof] and email it to support@nthrys.com of whatsapp the same to the below given number
4. After receiving this email NTHRYS staff will send you a Registration No, Fee receipt & a Final Confirmation document to confirm the registration. For any additional queries regarding registration process please call / sms / whatsapp on +91 - 9014935156.

NTHRYS Account Information

Account Name: NTHRYS BIOTECH LABS
Account No: 400800301000092
Bank Name: Vijaya Bank
West Marredpalli Branch - Secunderabad, Andhra Pradesh, India
Branch Under RTGS: Yes
Branch Under NEFT: Yes
RTGS - IFSC Code: VIJB0004008

IMP NOTE:

1. Registration Fee is included in the total service fee and it is a Non Refundable Fee as its charged to confirm the selected service slot as well as for issuing Service Confirmation Document.
2. Total Service Fee = Registration Fee + Service Fee
3. Once the Service Confirmation document is issued, Students / Scholars / Clients are requested to be in touch with assigned branches.
4. Balance fee must be paid at assigned branches to start the selected services.

NTHRYS Refund Policy of Selected Service Fees

1. Registration Fee is Non Refundable as its charged to confirm the selected service slot as well as for issuing Legitimate Service Confirmation Document which are used by Students / Scholars / Clients to submit in respective departments.
2. If the Assigned branch fail to conduct all the practicals / services / modules in stipulated time period as per mentioned in the Selected Service Module, Students / Scholars / Clients can request for refund only after getting a signed copy of Fee

Refund confirmation document from the Branch Head stating the same.

3. Fee refund will be calculated by excluding the Registration fee from the Total Paid Fees (Registration fee + Service fee paid at the time of joining) and the balance practicals / protocols / modules from the Selected Service Module will only be taken into account.
4. Students / Scholars / Clients who seek refund should email the above mentioned Branch Head signed copy of Fee Refund confirmation document to legal [a t] nthrys [d o t] com inorder to initiate the refund process. NTHRYS Legal Team will synchronize with the Branch and initiate the refund with in 7 working days. Emails sent to any other email id are not considered by our team for refund requests.