KJE8704 BIOSTRUCT – Structure guided drug discovery and design
NorStruct, Forskningsparken, University of Tromsø

Time of course: October 6th - 10th 2014
Place: NorStruct, Forskningsparken 3, University of Tromsø
ECTS: 5 stp (PhD level course)
Teaching: Lectures and practical computer sessions
Exam: Written project and oral exam by skype within 3 mnd (pass/fail)
Deadline for registration: 5th September 2014

Both internal and external students are welcome! External students will need to additionally apply for a guest status at UiT when they sign up for the course.

Register for the course to: Jennifer A. L. Nunn, biostruct@uit.no
Course responsible: Richard Engh, UiT, Richard.Engh@uit.no

This course aims to provide students an overview of the structural aspects of modern drug discovery. International and internal speakers will review: retrospective studies on the structural mechanisms of classical drugs, structures of drug target classes, evaluation of “druggability”, de-novo and substrate based hit generation, structure guided screen design, scaffold swapping, in vitro and in silico binding site characterization (fragment/solvent screens, cheminformatic fragmentation), lead optimization, structure guided synthesis strategies (hit explosion, diversity oriented synthesis), and late stage processes, including prediction of and reaction to drug resistance.

Presentation of these topics aims to remain fundamentally grounded in the basic chemistry of protein-ligand interactions, chemical reactivity in biological environments, chemical synthetic methods, enzyme kinetics, thermodynamics and cheminformatics. Lectures will be accompanied by computer and literature exercises, and students will propose and CARRY OUT a project, optionally integrated with their thesis research.

Please note!
BioStruct covers the costs for travel and accommodation for BioStruct students participating in national courses located at Norwegian universities other than the students’ home institutions. For information contact Jennifer A. L. Nunn, biostruct@uit.no / 776 25184 / http://site.uit.no/biostruct.

If the number of applicants exceeds the capacity of the course, 75% of the course admissions will be reserved for students of the PhD school BioStruct.