INBIOMEDvision TRAINING CHALLENGE

www.inbiomedvision.eu

Goal of INBIOMEDvision

INBIOMEDvision is an initiative funded by the European Commission that aims to identify and disseminate common ground and possible synergies between Bioinformatics and Medical Informatics, and thus develop Biomedical Informatics (BMI) as a scientific field that serves to progress in health care and biomedical research. BMI deals with the integrative management and synergistic exploitation of the wide ranging and inter-related scope of information that is generated and needed in healthcare settings, biomedical research institutions and health-related industry.

Interdisciplinary Challenges

Within INBIOMEDvision, the following challenges for Biomedical Informatics have been identified:

- Effective and synergic integration between computational methods and technologies supporting life sciences research (Bioinformatics) and the informatics supporting healthcare and medical research (Health or Medical Informatics).
- Effective translational knowledge management approaches facilitating the exploitation of knowledge arising from biomedical research into clinical practice.
- Integration and joint exploitation of heterogeneous information stored in widespread repositories and diverse formats.
- Development of innovative methods for the modelling and simulation of complex biological phenomena and their computational applications.
- Intersection between neuroscience and informatics (neuroinformatics).

Training Challenge description

The INBIOMEDvision approach of integrating medical informatics, chemoinformatics, and bioinformatics is to foster collaboration on complex case studies within a small group of researchers who have a widely varying but complementary backgrounds, ensuring a way of crossing borders between disciplines.

The format of the INBIOMEDvision Training Challenge will be based on two groups of five advanced students with expertise on different biomedical (informatics) fields, who will collaboratively work on a single case study.

1. Each student is required to submit a motivated case study upon application. Among the case studies proposed, the organizing committee will select one case study per group, according to the potential it offers for cross-discipline approaches. Before the course week, participants will be required to revise the case study from their own area of expertise.

Examples of case studies are:

- A complex disease or syndrome that has not yet been extensively studied or for which the underlying mechanisms are not unravelled
- An adverse drug reaction that is not well understood
- Biological or clinical experimental outcomes that are in need of an explanation

2. During the INBIOMEDvision Training Challenge each group will intensively collaborate during the 5 course days conducting research aimed at proposing a valid approach to the problem that integrates the variety of points of view represented by the different disciplines involved. INBIOMEDvision staff members from different areas of expertise will closely supervise and collaborate with the different groups during the whole course.

3. On the last day of the course, each team will present their results at the closing session and make a presentation of the integrative approach proposed for its respective project. A jury will select the winning team which will be rewarded with a prize.

4. After the course week, students are expected to work on the finalization of the project approach and deliver a project report.

Prerequisites

Graduate students with major in: Medical Informatics, Bioinformatics, Biomedical Informatics, Medicine, Biology, Chemistry, Chemoinformatics, Epidemiology, Pharmacy, Physics, Mathematics or Biomedical Engineering.

Goals

- To participate in a multidisciplinary research-based training environment
- To learn crossing “language borders” in the context of a specific research problem
- To become aware of contents of other disciplines and their particular approaches to the same problem
- To use their own expertise to advance science in a specific area/case study

Application

The Application Form online must include:

- CV, including description of expertise and computational skills
- Description of a potential case study for which the applicant has advanced or expert knowledge (300 words)
- Description of computational tools needed during the course. Participants are encouraged to bring their own laptops

Practical Information

- Course capacity: 2 groups of 5 students
- Funding: Travel, accommodation and meals will be covered. No registration fees will be charged.
- Application deadline: 31st Dec 2011
- Notification of acceptance: 20th Jan 2012
- Study material sent to participants: 15th February 2012
- Course period: from 23rd to 27th of April 2012
- Location: Catalonia, Spain
- Self study: one week before course, and one week afterwards
- Course coordination: Erik van Mulligen (e.vanmulligen@erasmusmc.nl)
  Nour Shublaq (n.shublaq@ucl.ac.uk)

Apply Now at www.inbiomedvision.eu

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