

Offerta Formativa prevista ed erogata per il Dottorato di Biologia Cellulare e Molecolare

Besides experimental work, the PhD course includes a thorough theoretical preparation. The PhD student works within a specific research group, carrying out an autonomous project under the supervision and training of an established scientist. This is a full-time job, in which the student is expected to be entirely responsible for the planning and performing the necessary experiments, collaborating actively when required with the other members of the research group and PhD course colleagues. The state of advancement of the work is regularly discussed and evaluated with the tutor. During the academic year, students participate in biweekly meetings presenting in turn the progress of their research to an audience including the assembled board of professors and any other interested scientist. During these presentations a committee of selected students will be in charge of evaluating the experimental proposals, initiating with the speakers interactive discussions on objectives and methods of the research with the final aim to increase exchanges and collaborations. During these meetings the coordinator modulates the discussion and together with the school teachers ameliorate the criticisms that can be envisaged. Specifically, students present in turn and each on at least 4 different occasions the progress of their research. Usually the academic year starts with the presentations of the third year PhD students and then with the second year students and so on. The last students are the first year that on the first they present the research program.

In the academic year the presence of the PhD students is requested at various scientific seminars organized by the Department of Biology and often specifically intended for them. In addition, ad hoc seminars will be also held to train PhD students in research management, research and funding systems, exploitation of research results and intellectual property. Some dedicated seminars of the last year are indicated below. The coordinator is also in charge to signal seminars organized in other Institutions in Rome, Italy or abroad that can be useful for the students.

Students are encouraged to carry out research periods in National and International laboratories to increase knowledge and research methodologies. In this aspect the supervisors and the coordinator exploit personal collaborations with various research institutes.

Moreover, in collaboration with the PhD in Evolutionary Biology and Ecology a statistic course is offered by Prof. Michele Scardi and Prof. Matteo Russo.

At the end of the academic year a Workshop is organized at Villa Mondragone during which innovative research in the biomolecular and cellular field is presented by international and national experts and occupational and strategic dynamics in the context of biomedicine and bioinformatics are discussed. The workshop is organized by the students of the last year of the doctoral school with the supervision of some teachers. Therefore, students are involved in the choice of speakers to invite, in writing the invitation letters, detailing the reason and purpose of the workshop. They are also involved in the administrative organization following the allocation of a budget decided together with the coordinator.

Finally, the students are encouraged to participate in National and International Conferences in the context of their research. These activities are as a rule financed by the PhD course. The conferences are chosen by the students and viewed by the supervisors and the coordinator. The students are required to present the most innovative aspects presented at the Congress to the doctoral school.

Some Dedicated PhD seminars of last year

Dr. Elena Papaleo - University of Copenhagen and Danish Cancer Society Research Center (Copenhagen, DK). CAncer bioMarker Prediction Pipeline (CAMPP)-A Standardized Framework for the Analysis of Quantitative Biological Data

Dr. Francesca Dominici - International Research and Relations Office - Tor Vergata. Le opportunità di finanziamento per la formazione e la mobilità dei ricercatori: le azioni Marie Skłodowska-Curie

Roberta Villa, Giornalista - Comunicare la scienza: Chi, come e perché

Prof. Claudio Sette - Università Cattolica del Sacro Cuore, Rome. A dynamic splicing program insures proper synaptic connections in the developing cerebellum

Prof. Francesco Ricci - Dipartimento di Scienze e Tecnologie Chimiche, University of Rome Tor Vergata. DNA-based nanomachines for diagnostic and drug-delivery applications

Prof. Valerio Orlando - Biological and Environmental Science and Engineering Division, King Abdullah University of Science and Technology, Saudi Arabia. The role of the Epigenome in cell identity and reprogramming

Dr. Andrea Leibfried - Executive Editor, Life Science Alliance, European Molecular Biology Organization (EMBO), Heidelberg. Open Science & Publishing Models - how to share reproducible data