Project guidelines

The PhD program "The Hadron Academy: risk and complexity in high tech medical innovation" aims at forming the future generation of professionals involved in hadrontherapy at different levels:

- Medical doctors, biologists, health physicists for the study, application, planning of patient treatments based on hadrotherapy
- Radiobiologists, biotechnologists, bioengineers for the development of methodologies and systems for characterizing hadrontherapy effects in *in vitro* and *in vivo* studies, including computational studies and artificial intelligence methods.
- Physicists and engineers for the development and managing of high tech instrumentation employed in hadrontherapy including biomedical instrumentation and syncrotrone facilities.
- Law and humanities experts for addressing the legal and ethical issues related to the introduction of technological innovations in the field of Health and Patient care.

Multidisciplinarity is the key. Our ambition is creating a common language that could drive experts with different backgrounds to look at complex problems from different perspectives and to creatively solve them by considering all their aspects.

We ask our candidates to write a proposal for a 3 yrs project, inspired by one of the general themes that we have defined. The themes listed in the call and mentioned on the website are meant to illustrate the topics that are interesting for our program but are not intended as limiting the wealth of ideas and possible projects that our candidates will be involved in. The research project must reveal candidates' scientific interests and their connection with the scientific lines (possibly also more than one) promoted by the PhD program as well as their awareness of the scientific trends in the field; in any case, the project will not be a determining factor in the subsequent choice of the thesis' topic.

Notes: the project should be written in English or Italian and organized according to the following structure:

Title
Field of reference (chosen among those listed in the call, one or more)
List of keywords (max 5)
Main text: free-format, max 3 pages including references (4000 char/page)

For the research fields promoted by the PhD program for which positions are called, see the IUSS website.