TEACHING PROFILE

Profile of the Master Program in Biomedical Sciences

The Master in Biomedical Sciences trains highly qualified professional specialists in the field of biomedical research. In the course of this training, the emphasis is placed on the achievements of scientific practice through internships in basic research laboratories or in a professional environment.

Master's graduates will be able to lead and interpret scientific projects, combine their rigorous knowledge of scientific approaches with a technical mastery guided by ethical and deontological rules.

Graduates will have interdisciplinary and applied scientific skills in human physiology and pathology. These skills can be used for basic or applied research in the clinical, industrial or other fields.

Acquired knowledge in the Master's Degree in Biomedical Sciences

Scientific Competence

- At the end of this program, the graduate will have to:
    - Mastered in-depth scientific knowledge in order to understand a scientific problem and the related questions, identified the most relevant experiences and the most appropriate techniques to respond to them.
    - Mastered a new field of research, being creative and critical and written a research project.
    - Mastered the basic scientific techniques of biomedical research that will allow them to develop and implement an experimental approach, to compare their experimental results of hypothesis, and to evaluate the limits of validity of their model.
    - Planed, organized and validated the successive steps of an experimental protocol.
    - Developed autonomy, organization and time management, planed and prioritized their work.
    - Learned and applied biosecurity measures appropriate to a given situation.
    - Used study tools (including bioinformatics tools) and the main measuring instruments and identified sources of errors.
    - If they choose the professional focus in Transational Medicine: they will have planed and applied research project aimed at developing a new diagnostic or therapeutic approach for a pathology, also taking into account the economic, ethical and regulatory aspects.

Communication skills

- At the end of this program, the graduate will have:
    - Worked in a team, respected the work of others, common material and demonstrated scientific ethics and experimental rigor.
    - Read scientific literature in English fluently and searched for relevant information.
    - Argued, drawn up a synthesis of their results in French and English and considered the perspectives, including in French and English, citing their sources and avoiding plagiarism
    - Presented correct and consistent scientific information.
    - Interacted with peers, shared and argued their research, in English and in French.
    - Read, interpreted, criticized scientific articles
    - By means of complementary pedagogical training, had the opportunity to teach biology, chemistry and/or biomedical sciences in secondary education or in Haute Ecole.
    - Acquired sufficient autonomy in English to ensure international mobility.
    - Constructed and presented a project adapted to the topic, the circumstances and the public.
    - Questioned themselves in order to be critical, to debate and / or to defend their’s ideas. –

Professional integration skills

- At the end of this program, the graduate will have:
    - Networked and used digital tools for communication and collaborative work
    - Worked in teams in different contexts -including people from different discipline-, integrated, positioned, collaborated, communicated and reported on results.
    - Worked in a hierarchical and professional environment, identified their skills and respected procedures.
    - Demonstrated the ability to search for information, to analyse and synthesize
    - Considered ethical issues and applied ethical behaviour.
    - Adapted to the process of production, dissemination and valorisation of knowledge
    - If they choose the professional focus in Transational Medicine: used the skills acquired in an industrial environment, a pharmaceutical or biotechnology laboratory, understood the stakes of a company, provided a dialogue with industrial / hospital partners.

Graduates in Biomedical Sciences will work in universities (PhD students FNRS, FRIA or others), hospitals (in data management, transfusion, bioinformatics, etc.), pharmaceutical, cosmetics, agro-industries, in R&D or marketing department in industry, or in education.