The University unveils plan for Trento School of Medicine

Rector Paolo Collini and President Daniele Finocchiaro illustrated today the plan to create an innovative School of Medicine that will integrate programmes of study, specialist training, and cutting-edge research.

Trento, 18th December 2019 – The problem of the shortage of physicians is a complex one and a major medical issue, both in Italy and in Trentino. Many positions are vacant and many medical doctors are approaching retirement age. At present, the Italian system of medical specialization schools is unable to train a sufficient number of young physicians to replace those who are retiring, and retirements will increase over the next 5-7 years, so the situation can worsen. Training a specialized doctor takes at least 11 years, therefore solving this problem is easier said than done.

But there are other aspects that must be considered in the case of our region: Trentino has rather small health care facilities, some of them in rural areas with small communities, which do not attract physicians, and there are no medical schools.

The key to tackle this problem is innovation, and the plan devised by the University – which hinges on three axes: quality education, specialization training, and top-notch research – will deliver innovation through collaboration between its departments, partners, research centres and local organizations and entities. The purpose of the medical school is to encourage doctors to train and remain in Trentino by making our region more attractive with better career opportunities, a networking strategy, cross-border cooperation, and a system that fosters advanced clinical research.

School of medicine

The School of medicine is a long-term solution, but it will provide the basis for the specialization courses, which are a more appropriate and effective solution to the problem of the shortage of doctors. The degree programmes offered by Uni Trento will deliver innovative medical education, to train both physicians as well as medical professionals with a more industry-oriented and technological profile (see the programme for medical engineering).

Teaching methodologies will favour flexibility and international mobility with partner universities in other countries and in partner universities and research institutions. Training will encourage a hands-on approach, so that young doctors can work in hospitals from the first years of study and not only during the more specialist phase of their education.

The University also believes that access to medical schools should be widened and has therefore planned an undergraduate programme in Biology in which students can choose between Biology and Medicine after the first year of study.
The proposal tabled by the University aims to strengthen the presence of medical staff in health care facilities, by ensuring a connection with training programmes to make the regional system self-sufficient. Undergraduate courses could start next year, as the University’s academic staff can provide 20% of teaching.

**Specialized training**

In about seven years the School of medicine will gradually make room to specialization schools based on a “hub and spoke” model, to reflect the structure of the regional health care system. All facilities will be connected in a network, thus extending collaboration with academic and health partners.

The problem of the shortage of physicians can be addressed, in part, with more and better trained nurses, and the plan envisioned by the University includes a proposal for a Master’s degree in advanced nursing practice. These highly qualified nurses could be trained and ready for work when the staff shortage will be critical.

**Research**

Putting people at the centre will make a difference: the University plans to create departments in hospitals led by academic staff, to encourage connections between medical professionals and medical students, postdocs and researchers. This can be done by capitalizing on the expertise and skills of staff that are already working in Trentino hospitals and leading research institutes. In research, too, the hub and spoke model will keep all facilities connected.

**The six pillars of the plan**

**Strengthen health care facilities.** They will be part of a network and be included in research and training programmes as research and teaching hospitals. In these facilities, staff will be trained (clinical doctorates, nursing programmes) and research projects will be carried out.

**Make the most of the expertise** of the many departments, centres and laboratories of UniTrento, that will participate in the new School of Medicine:

- **CIBIO:** the Cellular, Computational and Integrative Biology Department, for its work in preclinical medicine and on infectious diseases, neurodegenerative diseases, oncology, neurodevelopmental disorders, metabolic and rare diseases;
- **CIMeC:** the Center for Mind/Brain Sciences, for disorders affecting the mind and brain;
- **CeRiN:** the Center for Neurocognitive Rehabilitation for its work on cognitive, linguistic, sensory, motor and emotional impairment and neurological disorders;
- the Department of Psychology and Cognitive Science;
− ODFLab: the Observation Diagnosis and Training Lab, for its work on Autism Spectrum Disorders (ASD), learning disabilities, and language rehabilitation;
− the Physics Department and its work on medical physics;
− the Agriculture Food Environment Center;
− the Faculty of Law with its BioLaw project;
− the Department of Information Engineering and Computer Science;
− the Department of Industrial Engineering with its Biotech Center on biomedical sciences and technologies;
− the Department of Mathematics with its programme in Modelling and Simulation for Biomedical Applications;
− the Ausilia project: Assisted Unit for Simulating Independent Living Activities

Take advantage of what the region has to offer in terms of research through:
− Fondazione Bruno Kessler for artificial intelligence, data science, microsystems and sensors, ICT for medicine;
− Fondazione Edmund Mach, with its Nutrition and nutrigenomics research unit;
− Microsoft Research - Università of Trento Center for Computational and Systems Biology (COSBI) for nutrigenomics, biomarker identification, the study of non-linear relations between biological parameters;
− the Trento Institute for Fundamental Physics and Applications (TIFPA) for its research work on protons in the health care sector

Rely on the long-term partners of UniTrento, in particular: the Universities of Verona and Ferrara, Humanitas University, Eurac, and the Sant’Anna School of Advanced Studies in Pisa.

Provide training on new technologies: UniTrento and its partners can provide training in precision medicine and genomics, robotics, medical microrobotics, artificial intelligence and modelling, biomaterials and cellular therapy, and other subjects.

Collaborate with Alto Adige/South Tyrol, as we share the same problems and can work together in education, training and research.