

## **Developing bioinformatics capacity in Moldova**

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The field of bioinformatics and computational biology is one of the hottest scientific fields that has emerged and grown recently from traditional disciplines such as biostatistics, medical informatics, mathematics, informatics, molecular biology, and genetics. Since the universities of Moldova have a historical strength and show enormous potential in these classic fields, until 2021, there were no research and higher education institutions in Moldova that incorporated the field of bioinformatics in their academic programs or hosted research groups or services in bioinformatics. Among the reasons for this we list the relative lack of research projects requiring computational biomedical data analysis, lack of local expertise, lack of necessary infrastructure, lack of adequate national financial support, and the resistance of many academic institutions to incorporating new areas of teaching and research. To



maintain and increase the quality and pace of existing research in the life sciences, biotechnology, molecular engineering and medicine, a rapid and significant investment in bioinformatics was needed. In 2021, the first bioinformatics laboratory was created at Technical University of Moldova, then in 2022 at State University of Medicine and Pharmacy of the Republic of Moldova, both laboratories being supported by the host universities and partner laboratories outside the country. Within a year, the integration of local laboratories into international projects and consortia in various current topics in bioinformatics was achieved, and young researchers were involved in research teams in various projects in the USA and Europe. At the same time, bioinformatics training and schools have played an important role in creating skills and early placement of researchers and students in research problems and projects. As a result, the Republic of Moldova has unlocked its bioinformatics capabilities thanks to the efforts of national universities and partners from abroad, managing to break out of academic isolation in the field of bioinformatics.