EI-COV20-005 - Schnelle Umwandlung von Laborinfrastruktur zum Aufbau von COVID-19 Test-kapazität in der Pandemie

Abstract

The COVID-19 pandemic poses an immediate enormous threat for healthcare systems and economies in Austria, Europe and the world. Many coping strategies are focused on “track-and-trace” identification of both infected and asymptomatic carriers of SARS-CoV-2. The Vienna COVID-19 Diagnostics Initiative was established with the aim of repurposing of standard laboratory infrastructure for enhanced testing capacity across institutional boundaries in Vienna. This entails the fully automated extraction of virus RNA, its detection by high-throughput qPCR, the production of in-house affordable reagents and the establishment of logistic/diagnostic interfaces with existing health care providers. We propose to generate an adaptable operating procedure that will aid other universities and research institutions to quickly contribute to the national testing capacity for COVID-19 or other emerging epidemics. We will generate and evaluate data on how such a pipeline is technically generated, how the pipeline is optimized, how protocols can be quickly disseminated and implemented and how the enhanced testing capacity will contribute to national efforts of virus suppression. This study is only possible in the context of the current crisis and the knowledge will be of immediate importance and broad relevance. The requested budget is for partly covering the implementation of the pipeline with a particular emphasis on evaluating pooling to further enhance throughput and does not cover the running costs for routine testing that we will offer as soon as the pipeline is fully functional.

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Covid19 Datenerhebung

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Further links to the persons involved and to the project can be found under
https://wwtf.at/funding/programmes/ei/EI-COV20-005/