Science in Ukraine is "bleeding"

The title of this Editorial is a statement by Igor Komarov, a 58-year-old organic chemist and the director of the Institute of High Technologies at the Taras Shevchenko National University of Kyiv, as Nature has recently reported.¹

As scientists and clinicians supporting a journal devoted to bleeding, we cannot remain silent.

This first year since the Russian invasion of Ukraine has been desperate for Ukrainian scientists. Many researchers left their laboratories to join the front line and many of them died. About one-tenth of all researchers (60,000) have left the Country, 80% of these women. The majority are now in different European Countries, including Italy.

I am sure to interpret the feelings and the wishes of our Colleagues who spend their life to reduce and cure bleeding, joining Nature's Editor to urge the international research community in support not only of individual researchers and of their teams, but also of Ukraine's science system as a whole.² With the war far from over, Ukraine's diaspora of researchers must continue to be supported, but so must also those who are holding the fort at home.

Although many men are conscripted, scientific research is considered an essential wartime occupation. Thus, many researchers, men and women - Nature reports - remain in post, often working remotely in safer parts of the Country.

Quite recently, the European Commission announced that it would start negotiation to associate Ukraine to the EU, while the association to the research and innovation scheme, Horizon Europe, was already signed in 2022.

Other schemes are being prepared to support a range of activities, including remote research collaborations and the use of lab space for scientists who need to come to Europe temporarily to complete parts of their work, which cannot be finished in Ukraine.

But a more coordinated approach is needed supporting not only the activity of science but also its organization and management.

Nature's Editor agrees on a place for emergency help for Ukrainian scientists who have had to leave the Country, but also for deeper efforts to go towards displays of solidarity with researchers who remain in the Country. The international science community should start planning how best to prepare the Country's research infrastructure for the end of the war, establishing long-term partnerships. These collaborations should sustain research now and be much more effective as soon as the conflict ends.

We are not politicians and do not enter into the debate on weapons supply to Ukraine, but sincerely hope that our Governments will consider science collaboration as a priority task for our Countries to support a peaceful renaissance of that nation.

As scientists we'll support *Science for Peace*, a project born years ago on the initiative of Umberto Veronesi to engage the world of science in a great peace project based on the contribution of science.

The ultimate goal of science is peace.

REFERENCES

- 1. Irwin A. The fight to keep Ukrainian science alive through a year of war. Nature 2023;614:608-12.
- 2. Editorial. Rebuilding Ukrainian science can't wait here's how to start. Nature 2023;614:593-4.

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