

# By suppressing its MD-PhD fellowship programme, the Swiss National Science Foundation reduces the attractiveness of the physician-scientist career path

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## Introduction

MD-PhD programmes are integrated research and clinical curricula aiming to develop physician-scientist careers. Over a century ago, the need to incorporate research training into clinical education was formally stated. The landmark Flexner report on medical education from 1910 articulated that this integration was essential for schools to stay up-to-date and to not fall into “a careless and unenlightened dogmatism” [1]. Five decades would pass before the first officially integrated MD-PhD programme was initiated in 1956 at Case Western Reserve University, Cleveland, USA [2]. In 1992, Switzerland started its Swiss inter-University MD-PhD Program (now called National MD-PhD Grants Program) under the aegis of the Swiss National Science Foundation (SNSF) and the Swiss Academy of Medical Sciences (SAMS). The regional committees select and mentor young physicians willing to pursue a clinician-scientist career. A national commission of experts awards grants to 8 to 12 candidates annually, fully funding their 3-year MD-PhD research period.

Internationally, several attempts have been made to assess the relevance and the outcomes of MD-PhD programmes. The largest survey to date, published by the American Association of Medical Colleges in 2018, was conducted on 10,591 graduates of 80 American MD-PhD programmes over 50 years. Their study showed that 65% of respondents were currently working full-time in academia [3, 4]. In Switzerland, the SAMS conducted two similar studies in 2009 and 2023 on a total of 277 MD-PhD students and graduates over a 29-year period between 1992 and 2021 [5, 6]. They showed that 81% of the respondents were still involved in research, with 54% in leadership roles and 25% as professors. Overall, 90% of the participants considered that the MD-PhD training had been helpful for their ca-

reer. Altogether, these studies show that integrated clinical and research programmes are instrumental in promoting not only individual academic careers, but also highly clinically relevant fundamental and translational research. These dual aspects are pivotal in upholding a high standard of healthcare in Switzerland.

Despite the demonstrated value of MD-PhD training, the SNSF recently announced that it will discontinue its financial support for the National MD-PhD Grants Program as of 2025 in the context of its 2025–2028 multiyear programme [7]. This will consequently remove a significant funding source for MD-PhD trainees (7 out of 8 to 12 grants), the replacement of which is in jeopardy. As such we are writing this Op-Ed to express our concern regarding the SNSF’s decision to discontinue its support of the National MD-PhD fellowships. We also wish to highlight the reasons why we think that this decision may be harmful for the future of Swiss MD-PhD programmes and, on a broader scale, Swiss biomedical research.

## Bridging the gap: the vital role of physician-scientists in advancing biomedical research and patient care

The age-old, worldwide discussion in academic medicine as to how best to train physicians to conduct research and bridge the eternal chasm between clinical medicine and basic science has yet to find a definitive answer. However, it is quite clear that clinical, translational and even basic disease-related research require physician-scientists, trained to appreciate clinical realities and necessities, as well as the biology of disease whose elucidation has led to the ever-increasing complexity of biomedical research. This crucial role, situated at the interface of science and medicine is essential for the development of novel diagnostic and therapeutic approaches that will inevitably lead to enhanced quality of care. Hence, it is primordial to have optimally

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trained personnel capable of understanding both the clinical requirements and challenges of fundamental and translational research, bridging both worlds to respond to the real-world needs of patients.

Switzerland has achieved unparalleled excellence and global recognition in the domains of fundamental, translational and clinical research, placing it at the forefront of innovation, which fosters its natural inclusion in numerous international collaborative partnerships. Despite its eminence in science, however, Switzerland, on the whole, has been witnessing a decline in physician-led research over the years, primarily because of a persistent shortage of physicians willing to devote themselves to scientific endeavours.

### The impending threat to Swiss biomedical research: the consequences of insufficient MD-PhD programme funding

In the event that the SAMS is not able to raise sufficient funding, the MD-PhD programme may increasingly have to rely on local financing from universities. One likely consequence may be the acceptance of projects that correspond to local institutional designs and needs but that fall short of the standards required to ensure optimal training. Loss of national benchmarking, associated with the multiple aforementioned factors, may thus contribute to diminishing the quality and competitiveness of doctoral projects funded in the future, which, in turn, could reduce the appeal of Swiss partners for international collaborations. Hence, investment by the SNSF in tomorrow's physician-scientists is crucial for Switzerland to maintain its position as a global leader in biomedical research.

The disappearance of multitier financing of doctoral research may threaten the existence of the MD-PhD programme or, at the very least, lead to the reduction of funded students, harming the recognition of Swiss MD-PhD degrees abroad, limiting postdoctoral mobility and, consequently, the repatriated knowledge and experience. Loss of financing may also entice private industries to compensate for these losses, potentially reducing academia's independence and further impacting the recognition of MD-PhD qualifications. Should the National MD-PhD programme be discontinued because of lack of sufficient funding, the high quality of Swiss biomedical research, whose recognition has been rightfully earned over the last decades, may be at stake.

Through concerted academic institutional and Federal efforts built over decades, Switzerland has reached the forefront of physician-scientist training in the world, as witnessed by the success of its trainees not only at home but

in some of the top academic institutions worldwide. How, then, can we justify abandoning a programme that has been and continues to be so successful? Moreover, interruption of the National MD-PhD programme reflects a disinterest in the training of future generations of clinician-scientists and with it the promotion of translational research within which lies the continued improvement of patient care. It also tells young physicians that there is little, if any, encouragement towards their pursuit of a career in research. Is this the message that we wish and can afford to deliver?

### Conclusion

To sum up, we wish to express our concern regarding the SNSF's decision to discontinue its support of the National MD-PhD fellowships. We respectfully urge the SNSF to reconsider its position or collaborate with the leading Swiss faculties offering MD-PhD programmes to explore alternatives that are less damaging and prejudicial to academic success and, more broadly, the quality of future biomedical research in Switzerland. The best standard of patient care is inherently connected to the education and training of highly qualified physician-scientists.

### Potential competing interests

All authors have completed and submitted the International Committee of Medical Journal Editors form for disclosure of potential conflicts of interest. No potential conflict of interest related to the content of this manuscript was disclosed.

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