

THIS WEEK

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Ills of the system

Reform is long overdue for Germany's archaic medical-education system, which puts undue pressure on students and contaminates the scientific literature.

Of all the problems on the desk of the German defence minister Ursula von der Leyen, accusations of plagiarism in her quarter-century-old medical thesis may not seem to rank very highly. Yet similar allegations claimed the scalp of her predecessor.

Although plagiarism is a universal plague in academia, Germany has its own distinct circumstances. Almost uniquely among nations, most German medical students must squeeze out a doctoral thesis during their years of full-time training. Many of these theses, not surprisingly, are not very good. Corners are cut and quality suffers.

The high-profile case of von der Leyen's 1990 dissertation, first publicized in September by the web platform VroniPlag Wiki, which searches theses for plagiarism, should bring change — but not in the government. It is Germany's antiquated medical-education system that must be reformed.

Von der Leyen — who denies misconduct charges and has asked Hanover Medical School, where she studied, to investigate — is hardly alone. Evidence that the system of medical doctorates is failing has been accumulating for years.

Thousands of these dissertations are produced every year in Germany and plagiarism is far from the only problem. The DFG, Germany's research agency, and the Wissenschaftsrat, its high-level science council, have over the years drawn attention to more fundamental problems, such as study design and analysis. Some experts privately say that most medical theses are scientifically valueless.

Germany justifiably takes pride in its long tradition, and high standards, in science. So what is going so badly wrong in its medical faculties? In most countries, medical students receive their medical degree — and 'Dr' title — after successfully completing both preclinical undergraduate studies and clinical training, and then passing a state examination. Not so in Germany, where the degree gives them only the right to practise medicine — not to title themselves Dr. To acquire that honour, an extra step is required: a research project leading to a thesis, done, written up and published in the student's spare time. Most students choose to do this: after all, what ill person wants to visit a doctor who does not bear that title? But in the busy, frequently self-important, world of the clinical sciences, supervision is often inadequate.

In 2004, the Wissenschaftsrat called for an end to this system and the laxness that it actively encourages. It recommended that medical students get their medical degree and doctor title automatically, without having to do a research thesis. Students with genuine interest in medical science, it said, should have the option of taking time out to do a PhD to the same standards as other sciences.

Because the Wissenschaftsrat includes representatives of federal and state governments as well as top scientists, its recommendations are usually implemented. But the call for the automatic degree and title — which would require a change of federal law — fell on deaf ears. Medical faculties ignored it, although many have established graduate

schools to make available an alternative route to a high-quality PhD.

The value of those recommendations has not changed in the past decade, however. Good graduate colleges for the medical sciences are fundamental to the drive to speed basic-research discoveries into the clinic, an ambition that requires research-savvy physicians. But it makes no sense to maintain the requirement for a quick-and-dirty thesis, which adds stress to medical students who are already under immense pressure, while teaching them little beyond the dangerous lesson that it is acceptable for medical science to be sloppy.

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In 2010, the DFG published a strongly worded report calling for scientific standards in medical dissertations to be raised, and earlier this year the German Rector's Conference (HRK) established a task force to look into the problem. However, like the DFG and the Wissenschaftsrat, the HRK will be able to do no more than make recommendations. Medical faculties and the profession in general now have to decisively shed their reluctance to abandon their aberrant doctoral system. They should do so, before the public shame becomes unbearable. How many medical theses need be exposed on VroniPlag Wiki — which already hosts dozens of examples, some quite brazen — before the bankruptcy of the system is accepted?

Plagiarism can never be defended. But the pressures on medical students — many of whom do not resort to plagiarism in response — make the temptation to indulge understandable. Von der Leyen may simply have been a student of her times — times that now have to change. ■

Care for the carers

Researchers should add their voices to the effort to stop attacks on health workers in war zones.

As the world this week commemorates the armistice that ended the First World War in 1918, it is reprehensible that humanitarian rules forged in the suffering and bloodshed of battle are often being violated in contemporary conflicts. In the past month alone, two hospitals run by Médecins Sans Frontières (MSF; also known as Doctors Without Borders) were hit by air strikes. US warplanes destroyed one in Kunduz in Afghanistan — killing 13 MSF staff and 17 others — and another in Yemen was targeted, allegedly by Saudi-led coalition forces.

These are not isolated incidents, but part of a string of violations of a fundamental part of international humanitarian law — that warring