



Ron Ofri is often called on to assess eye infections at the Tisch Family Zoological Gardens in Jerusalem.

RON OFRI

epidemiology, and hoped that the master's would position him for jobs investigating disease outbreaks. At first, the university wasn't eager to let him enrol in the MPH, which at the time was meant only for medical students. But by promising that it would enhance his PhD, not distract from it, he found faculty support.

Skaar set rules with himself and his PhD adviser — that he'd be a research student until evening, when he attended his public-health classes. He aligned his two courses with a PhD dissertation on how the bacterium that causes gonorrhoea evades the immune system, and a public-health thesis on the epidemiology of the sexually transmitted infection. He never did become an outbreak investigator, but is now director of the division of molecular pathogenesis at Vanderbilt University School of Medicine in Nashville, Tennessee. Thanks to the MPH, he can approach his work on hospital infections with an epidemiological background.

Students who want to create an ad hoc joint degree should be prepared to hack through plenty of bureaucratic red tape, warns Anderson. Particularly if the degrees are administered by different schools within an institution, basic issues such as tuition and class registration can be tricky. In fact, he's not sure what form Driskill's MPH option will take in the future, because he's working out how to manage the tuition.

### BALANCING ACT

The multiple-degree path is mentally tricky, too. Ofri notes that people in his clinic don't understand why he spends so much time in

the lab, and his students wonder why he's always in the clinic. It's near-impossible to maintain a perfect 50–50 split, says Jaime Modiano, a graduate of the Penn vet–PhD course and now director of the Animal Cancer Care and Research Program at the University of Minnesota in Minneapolis and in St Paul. He decided to forego taking the veterinary board exam, opting for a research postdoc instead.

Butaye made a similar decision: he researches antibiotic resistance in microbes. But he appreciates the veterinary degree for giving him the flexibility to work in multiple species.

The balancing act is especially challenging for students during dual-degree programmes. “You have to be able to manage these two very different things you're doing at the same time,” says Modiano.

In veterinary classes, he had to memorize and integrate masses of information, then apply it immediately to treat animals. In research, he had to find the information himself and integrate it to spur future discoveries. “People who are successful are highly adaptable,” he says. ■

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### CORRECTION

The Careers Feature ‘Science on camera’ (*Nature* **545**, 123–125; 2017) accidentally claimed that sea ice is sinking. It is, of course, shrinking.

## DOCTORATES

### PhD gender gap

The proportion of women getting PhDs in science, technology, engineering and maths (STEM) in the United States has remained stagnant in the past decade, despite a 50% increase in the number of STEM doctorates awarded in the same period. The figures, released last month by the National Student Clearinghouse Research Center in Herndon, Virginia, in its report *Snapshot 27: Science and Engineering Degree Completion by Gender*, showed that although the number of STEM PhDs rose from about 18,000 in 2006 to more than 27,000 in 2016, the proportion of doctorates awarded to women remained at around 40%.

“So much attention has been paid to making hard-science disciplines more inviting to women, and a lot of institutions can claim progress,” says Douglas Shapiro, the centre's executive research director. “But when you look at the big picture, you don't see it.”

The report offers the first national-level snapshot of science and engineering degrees awarded in 2015–16, which the centre compared with those earned in 2006. It breaks STEM degrees into seven fields: engineering; computer science; Earth/atmospheric/ocean sciences; physical sciences; maths; biological and agricultural sciences; and social sciences and psychology.

The proportion of PhD degrees earned by women increased by no more than a few percentage points over the decade — except in maths, where it fell slightly from 29.2% to 28.4%, and in social sciences and psychology, where it fell from 56% to 55%.

The share of bachelor's degrees earned by women also fell during the decade in four disciplines: in maths (from 44.6% to 42.3%), in computer science (from 20.2% to 18.6%), in Earth sciences (from 40.3% to 38.2%) and in physical sciences (from 41.8% to 38.8%). Fewer bachelors degrees translates into fewer advanced degrees later on. “It's disheartening,” says Shapiro.

Since 2009, the only field in which women studying STEM subjects have earned a higher proportion of doctoral degrees is biological and agricultural sciences, according to the report. In 2006 they received 47.9% of PhD degrees in the discipline but that shifted to 51.6% by 2009. The trend continued through to 2016 when women earned 51.8% of PhDs in biological and agricultural sciences.

Shapiro says that the imbalance reflects the need for closer tracking of degree-earners.