

Shortage leaves pathology with ills of its own

SCIENTIFIC BREAKTHROUGHS MAY BE CREATING MUCH EXCITEMENT IN THE PROFESSION, BUT PATHOLOGY IS STRUGGLING TO ATTRACT ENOUGH DESPERATELY NEEDED NEW RECRUITS, WRITES JENNI HARMAN.

It is the best of times and the worst of times for pathology. Rapid advances in the field offer a compelling vision of the future, yet never have pathology services in Australia been so seriously strained.

"It's a very exciting time for pathology, but we're facing a huge challenge with too few pathologists to do the work that needs to be done," says Dr Debra Graves, CEO of the Royal College of Pathologists of Australasia. "The potential for molecular genetics to predict a person's individual risk profile for diseases is phenomenal. "Meanwhile, genomics is enabling us to understand the precise nature of a disease like cancer and then target a specific gene for therapy. Australian research has been very strong in this area. Unfortunately, when there is a shortage of pathologists, research is the first to go."

The Australian Health Ministers Advisory Council has recommended an additional 100 trainee places each year from this year. A major reason for the shortage is that the field itself keeps growing. Although the rapid uptake of new techniques by pathology laboratories has significantly improved doctors' ability to make an accurate diagnosis, the work often involves manual processes that require the skilled pathologist's individual attention, explains Dr Graves.

"Ten years ago, a pathologist typically diagnosed breast cancer by looking at two microscope slides _ today it might be up to 50. Pathologists can now make an individualised diagnosis and then work closely with clinicians to advise on the best treatment for that person."

Yet while the demand has increased, medical schools over the past 20 years have substantially reduced the amount of time students spend learning pathology. An unforeseen result of contemporary courses emphasising practical, problem-based learning and communication skills is that pathology has lost out, says Dr Graves.

"When I studied medicine, it's probably fair to say we learned too much pathology and not enough communication skills. But now I think the pendulum has swung too much the other way, and graduates have fewer skills in pathology than they need. As one senior pathologist has cheekily put it, they're great at grief counselling, but they don't know what the patient died of."



Dr Debra Graves, CEO RCPA

While the college is working with universities to ensure a thorough grounding in pathology is restored, Dr Graves points out that there will be a generation of doctors with less exposure to pathology, and to pathologists as mentors, than ever before. "This means they are less likely to understand what pathology offers as a career, and less likely to enter it unless our college changes this perception."

That challenge involves an intensive round of talks with state governments to secure funding for pathology training positions in each state, and an awareness campaign to give medical students an accurate picture of career possibilities in pathology.

INVISIBLE TO THE NAKED EYE

In a spoof of TV medical soaps on the ABC's *The Micallef Program*, a white-coated Dr Miracle makes a breakthrough in a patient's case by squinting briefly down a microscope and pronouncing to the admiring staff: "Mmmm. Just as I thought: . . . things." Many of today's pathologists might be grateful for the tiny bit of recognition, considering most Australians are not even aware that diagnostic tests are performed by medical doctors. Because pathology services are invisible to patients, few Australians realise that they underpin our health system, says Dr Graves.

"People don't realise, for example, that a pathologist personally makes the diagnosis in every case of cancer in Australia, or that pathology is also fundamental in the diagnosis and monitoring of diabetes and hyperlipidemia (high fat levels in the blood), or infectious diseases like SARS and HIV. Pathology is integral to medicine. Pathologists are part of the team; without them, or if there are too few, you can't have a high-quality health service," she says.

It seems medical students, like TV watchers everywhere, see the pathologist solely as the gloved detective in the hospital basement weighing some unfortunate's liver while sacrificing a personal life to the company of cadavers. Dr Graves finds that medical students are put off pathology by the idea of autopsies, when many anatomical pathologists in fact deal only with surgical specimens. Students are also unaware of careers available in haematology, microbiology, immunopathology, chemical pathology or genetics.

Pathologists can sometimes be invisible even to state government departments, she notes. "It's not like emergency department waiting times, where they can plainly see that there is a crisis _ yet if you don't have pathologists to make diagnoses, the whole medical process will be slowed, leading to bed shortages.

"Pathologists are just coping with their workload now. The question is: if things get worse will quality suffer? The turnaround time for medical testing will certainly increase _ but more worryingly, will stressed people make mistakes? We certainly don't want to allow that, given that Australian pathologists lead the world in quality assurance."

MORE ATTRACTIVE WHEN SEEN CLOSE-UP

Real-life pathologists have hardly promoted themselves as the glamorous face of medicine. When not mistaken for detectives, they have been typecast as boffins. Yet Dr Graves describes those she's met in her five years as CEO in terms you might hear more often applied to artists. "Pathologists will often tell you 'we're boring', but you find they're very visual people, analytical, and questioning, with a sophisticated understanding of biological truths as rarely black and white," she says. "They're actually quite 'out there' and have lots of different interests."

Their passionate side should not come as a surprise to linguists: the word pathology derives from the Greek word for science or study, and pathos, variously translated as suffering or experience _ and even as "lustful passion".

"Pathology is hard-core science, but it's also much more than that," Dr Graves says. "When you talk to pathologists, you see that's what makes it exciting; it's science applied to



medicine. Those entering pathology now will certainly see major advances during their career."

Sleuths aside, a more fitting fictional character to represent the pathologist might be Dr Lydgate, the aspiring young proponent of "the philosophy of medical evidence" in George Eliot's *Middlemarch*: "I should not care for my profession, if I did not believe that better methods were to be found and enforced there . . ."

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