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Our **pathology** museums: a selection

INTERACTIVE CENTRE FOR HUMAN DISEASES, UNIVERSITY OF SYDNEY

One of the most intriguing items in an Australian pathology museum is an unopened flask of beef broth. The last of 12 such flasks sent to Australia by Louis Pasteur, the broth was intended to culture a chicken cholera virus for the extermination of rabbits.

HARRY BROOKES ALLEN MUSEUM OF ANATOMY AND PATHOLOGY, UNIVERSITY OF MELBOURNE

One of the largest repositories of historical specimens in Australia, notable exhibits include injuries suffered in World War I and the death masks of bushrangers Ned Kelly and ‘Mad Dog’ Morgan.

RA RODDA PATHOLOGY MUSEUM, UNIVERSITY OF TASMANIA

Many collections reflect the interests of their founders, and this is no exception. Influenced by Roland Arnold Rodda's fascination with brain disease, the museum has a notable selection of specimens such as tumours, stroke and Huntington's disease.

MUSEUM OF HUMAN DISEASE, UNIVERSITY OF NSW

As Australia's oldest surviving collection of medical specimens, some of the most intriguing exhibits are those all but eradicated by modern medicine. A perfect example is the museum's brain and bone samples of tuberculosis – specimens now impossible to acquire.

HADLEY PATHOLOGY MUSEUM, UNIVERSITY OF WESTERN AUSTRALIA

Another collection distinguished by the interests of a major donor, in this case that of Rolf EJ ten Seldam. His donations stem from his work in countries such as Indonesia and Papua New Guinea; the specimens include many advanced malignancies and examples of rare tropical disease.

PATHOLOGY MUSEUM, UNIVERSITY OF ADELAIDE

The museum contains approximately 1300 specimens (some nearly 100 years old) that demonstrate a wide range of common and important diseases. Updated catalogues include clinical information, a description and diagnosis of each specimen.

JAMES VINCENT DUHIG MUSEUM OF PATHOLOGY AND THE MARKS-HIRSCHFELD MUSEUM OF MEDICAL HISTORY, UNIVERSITY OF QUEENSLAND

The museum contains about 3500 specimens, covering the full spectrum of common disease. Both museums are currently in the process of relocation, refurbishment and modernisation within the Royal Brisbane Hospital site.

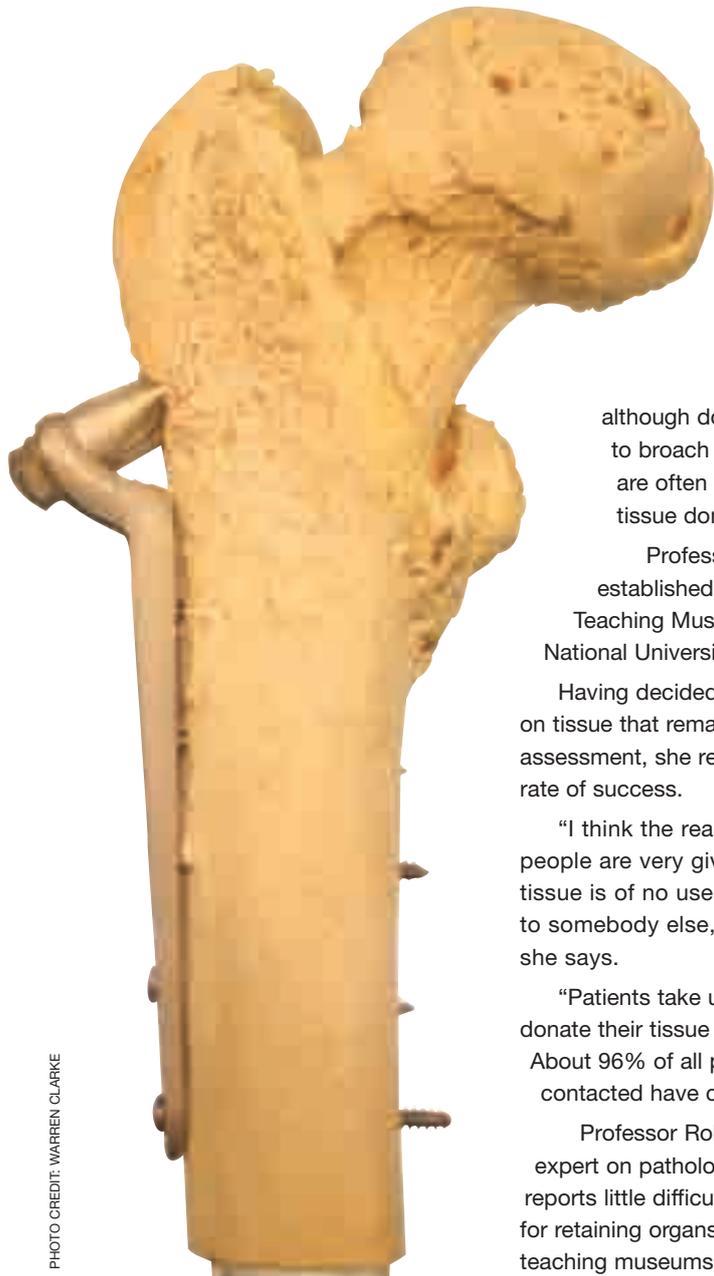


PHOTO CREDIT: WARREN CLARKE

Head of femur showing signs of osteoporosis and pin to reinforce fracture

“It’s very important to treat that with the utmost respect.”

Consequently, in considering the ethics of displaying human tissue, pathology museums err on the side of caution.

Legally, only the donor can veto how their body is exhibited, but if their family has a strong objection the museum staff will do their best to respect their wishes. In the same vein, as technology plays a greater part in how people experience the exhibits (for instance, placing photographs of specimens online), those responsible for the museum need to consider whether this wider distribution is ethically appropriate.

“Patients take up the opportunity to donate their tissue with great gusto.

About 96% of all patients we have contacted have consented.”

The good news is that although doctors may be reluctant to broach the subject, patients are often very keen to become tissue donors.

Professor Jane Dahlstrom has established a Surgical Specimens Teaching Museum at the Australian National University Medical School.

Having decided to concentrate solely on tissue that remains after pathological assessment, she reports an astonishing rate of success.

“I think the reason is that generally people are very giving and see that if the tissue is of no use to them but is of use to somebody else, then that’s great,” she says.

“Patients take up the opportunity to donate their tissue with great gusto. About 96% of all patients we have contacted have consented.”

Professor Robin Cooke, a published expert on pathology museums, also reports little difficulty in obtaining consent for retaining organs for demonstration in teaching museums.

He says recent unfavourable press given to the retention of human tissue and a shift in the attitudes of medical educators have played a part in the decline of pathology museums as a teaching tool.

Seeing is believing

“In the second half of the twentieth century the philosophy of the medical teachers has changed,” he contends, “placing less and less emphasis on the use of three-dimensional pathology specimens in teaching medical students about diseases.”

He notes that this is not a uniquely Australian problem, with most overseas museums grappling with similar difficulties.

However, Professor Cooke believes that it is the advanced Western

communities that suffer most from this trend, perhaps because they have more money available for ancillary testing.

“You cannot do without ancillary testing,” he stresses, “and it’s been a wonderful advance in the diagnosis of disease. But I think – and I guess I’m not alone in this, at least among pathologists – that the pendulum has swung too far in favour of relying totally on ancillary investigations during life for making a final diagnosis.”

The chief casualty of this trend is medical students’ ability to think about disease in three dimensions. Textbooks and photos are all very well, but they can’t replace the immediacy of real specimens.

“There’s nothing better than to be able to actually see disease to appreciate how it works,” Professor Wakefield says. “For example, if it’s a malignancy, how it spreads, how it causes problems in adjacent organs and tissues, and then to relate this to the physical findings that you find in an individual who happens to suffer from that disease.”

Professor Dahlstrom also points out that this interest in specimens is not confined to those in the medical profession.

After writing to patients to ask if they’d be willing to become tissue donors, a certain number will ring her to ask questions. Some simply want to know what she plans to do with the tissue, but others have a deeper motivation.

“Often when they ring, I know it’s because they really would like to see the specimen themselves,” she says.

“Often when something’s inside of you, you can’t really visualise what it’s like. Maybe if it’s a broken leg you can see that, but if it’s, say, a problem with your gall bladder, all you can do is imagine what it must look like. So patients actually come along and see their own specimens. And when they do, it often gives them a bit of closure.”

This rare opportunity to get a glimpse of what lies under our skin may ultimately prove to be pathology museums' salvation.

Professor Wakefield is quick to highlight the public's keen fascination in medicine and pathology, and believes that tapping into this interest can be of enormous mutual benefit.

"There are a number of strategies that people could put into place," he explains.

"One of them is to make museums open to the public. Also, turn them into a profitably run business unit, and this can be done basically by putting on exhibitions, putting on education programs. Not just for the medical profession, but for the general public. That's what we've done and that's been quite successful."

The result of Professor Wakefield's strategy is a true repositioning of the Museum of Human Disease, moving it beyond the realms of elite academia and into the community at large.

The museum staff talk enthusiastically of queues stretching for hundreds of yards at each open day, not to mention the thousands of students that visit every year as part of their HSC biology studies.

Most rewarding of all is that there often seems to be a student that is changed by what they see.

They begin to ask more searching questions, begin to make connections, and as they do a career in medicine suddenly becomes tangible, interesting, something to aspire to. In this way, as they walk out the door with heads full of ambitions, these high-school students become the most important thing a museum can produce.

Of course the bones of the past are important, as is the study of disease in the present.

But it's the doctors of the future that are the most precious things of all. 🧑🏻‍⚕️



Volunteer Dr Victoria Velens at the UNSW Museum of Human Disease with manager Robert Lansdown.

PHOTO CREDIT: WARREN CLARKE

VOLUNTEERING: vitaly rewarding

It was an advertisement in the paper that attracted Victor Wong Doo's attention: the Museum of Human Disease was looking for volunteers to help run its new community outreach program.

"I'm a retired medico, so I thought I could be of some use to the museum," says Dr Wong Doo. "I thought it'd be something interesting to do."

Launched in 1996, the outreach program was intended to raise the museum's profile in the wider community, focusing particularly on HSC biology students.

As the visitors explore the exhibits, the volunteers stand ready to help out.

"We explain all the ins and outs of the disease process and answer any questions they might have," Dr Wong Doo says.

Most of the volunteers are retired, but they come from a variety of backgrounds. Dr Wong Doo was a radiologist before he retired, and fellow volunteer Dr Victoria Velens was a GP.

Some enjoy the social aspect of being part of the team, while others find it a good opportunity to enthuse young people about medicine.

"I like students," Dr Velens says. "I like their enquiring minds, and they want to know things in depth which is rather nice."

She also feels that the museum can give the students a unique perspective on disease. "They have all looked at books, they have all looked at the computer. They're quite surprised when they see it in three dimensions. It doesn't look the same."

Museum manager Robert Lansdown is delighted with the success of the outreach program.

"It's incredibly satisfying," he says. "And without the volunteers it just wouldn't be possible."