



# A Day in the Life Of...

## A Forensic Pathologist

A typical day for a forensic pathologist varies depending on the role they have been rostered for that day.

### **Duty Pathologist**

Every day a pathologist is allocated the role of duty pathologist. In this role they undertake the preliminary examination process and will review all new cases reported to the coroner over the preceding 24 hours. This review encompasses:

- an external examination of the deceased person,
- a review of information provided by police
- a review of their available medical history
- A full body CT scan report.

A day spent undertaking routine casework begins with a review of the daily autopsy cases and the relevant case materials. These materials assist the pathologist to provide advice to the coroner about autopsy examination, and to determine the important questions that need to be addressed in the medico-legal investigation.

Depending on the case complexity, mortuary work can take anywhere from several hours, or up to half a day. Following the mortuary examinations, a pathologist spends the rest of their day completing case reports. This involves reviewing and reporting the histological samples taken at autopsy, as well as collating the results of other testing undertaken such as microbiological and biochemical testing.

### **On call Pathologist**

Each day we have a forensic pathologist who is on-call and is responsible for dealing with any suspicious deaths that are reported. They will take calls from the police, they may attend the scene of a death anywhere in Victoria, or may review scene photographs taken by police. They then work with police as to the best approach for the case. In these cases, autopsies can take place at any time of day or night, depending on the police investigative requirements, and are usually a very lengthy process.

In addition to their work in the mortuary and producing medical examination reports, our forensic pathologists provide expert testimony in courts related to their cases, and are involved also in post-graduate teaching and research activities.

## A Molecular Biologist

A day in the Molecular Biology Laboratory (MBL) begins with a check of the case status board to determine what stage of the DNA analysis pipeline samples, this can include:

- Preparation of samples
- DNA extraction
- DNA quantification
- DNA profiling
- DNA data analysis or reporting.

Each day we work to progress the analysis of samples to completion. Routinely, this takes one to two days to complete depending on when the analysis is commenced. All scientists undertake the required tasks for DNA analysis, often picking up where others have left off in a particular work sequence.

Complex cases, those requiring mtDNA analysis for example, do take longer and require careful planning of the steps in the analysis workflow. Once the DNA data is generated, two scientists will evaluate the data independently of one another, with a third scientist completing a technical review of the two assessments. For reporting purposes, scientists will use statistics to evaluate the strength of a match.

Our molecular biologists may also work with other states to assist with DNA analysis, and also work closely with the Missing Persons Unit of Victoria Police to help identify missing persons.

A day in the laboratory also entails meetings and other laboratory tasks such as sample collection, reagent quality control, equipment monitoring, as well as research and validation activities.

## A Histologist

A day in the Histology department involves working in a highly skilled and functional team. A similar set of tasks occurs each day to provide pathologists with a slide set of stained tissue sections from the autopsy. On any given day, some of the key processes commence with the histological processing of tissue samples.

Histologically processed samples need to be embedded to form paraffin tissue blocks which are sectioned to allow stained tissue sections to be reviewed microscopically by pathologists. With approximately 65,000 samples processed each year there, our laboratory is always busy.

One of the highlights of being a forensic histologist is our professional interaction with the Institute's pathologists and other discipline experts. They provide an insight into particular cases, especially those where there may be interesting histological findings. There are many diverse and interesting forensic specialists in our Institute and we are provided with unique opportunities to learn from one another.