

# Medical Scientist



**Health**  
South Western Sydney  
Local Health District

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## What is a Medical Scientist?

Medical scientists conduct medical laboratory tests to provide information for diagnosing, treating and preventing disease.

## Roles of a Medical Scientist?

- Study blood and its diseases, count blood cells and examine blood slides with a microscope
- Identify blood diseases such as anaemia and leukaemia
- Work out the suitability of blood for transfusion by cross matching the blood with the patient and checking for the presence of diseases such as hepatitis and AIDS
- Test blood for blood group antibodies which may cause disease in newborn babies and check the compatibility of bone marrow, kidney and other organs for transplantation
- Work out the chemical composition of specimens such as blood and urine, important in the diagnosis and treatment of kidney disease, liver disease and diabetes
- Grow disease-causing organisms such as bacteria, viruses and fungi that are taken from a variety of clinical specimens
- Prepare body tissues (taken from the body during surgery or post-mortem examinations) for microscopic examination by the pathologist
- Prepare body fluids for microscopic examination and diagnose abnormalities
- Isolate and examine genetic material (DNA and RNA) for alterations specific to genetic diseases and cancer, which assist in the diagnosis and treatment of these conditions
- Supervise the work of other scientists, technical officers and assistants
- Advise medical practitioners on the interpretation of tests.

## Career Opportunities

Most medical scientists work in the health industry, especially in hospitals. There are also employment opportunities in universities and research organisations. Limited opportunities also exist in the private sector.

## Qualifications Required

To become a medical scientist it is necessary to study medical or biomedical science at university.

## Supervision provided

A comprehensive orientation program is provided for all new staff members with ongoing support.

## Personal skills required of a Medical Scientist

- Able to make clear and precise observations
- Able to work accurately with attention to detail
- Good verbal and written communication skills
- Able to identify and analyse problems and develop practical solutions
- Able to perform under pressure
- Able to organise and prioritise work.