

Project Title	To develop blood tests that can predict the risk of primary liver cancer
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Research description	<p>Chronic hepatitis C infection, chronic hepatitis B infection, alcoholic liver disease and non-alcoholic fatty liver disease are the major types of chronic liver disease in Australia. The risk of developing primary liver cancer in individuals with chronic liver disease increases significantly.</p> <p>Early detection of primary liver cancer is critical for its successful management. It is important that doctors identify patients who have a higher risk of developing primary liver cancer. Patients in this high risk group then commence a screening ultrasound programme to detect early primary liver cancer. In a preliminary study, a simple blood test that can accurately predict this high risk group of chronic hepatitis C patients was developed. In this proposed study, the aim is to validate this blood test in a larger population of chronic hepatitis C patients. A second aim is to develop blood tests to predict liver cancer development in other types of chronic liver disease. The intention is to follow up about 8,000 patients with chronic liver disease for 10 years and identify those patients who develop primary liver cancer. Age, gender, type of chronic liver disease and 19 candidate serum markers for each patient will be recorded at the start of follow up. Then the intention is to perform statistical analysis to validate the new blood test in chronic hepatitis C patients and also to develop tests that have the ability to predict the development of primary liver cancer for other types of chronic liver disease.</p> <p>The blood tests are safe, simple, low cost and use widely available methods to predict the risk of primary liver cancer development. The tests will determine the most appropriate time to start screening for primary liver cancer. Moreover, repeated tests over time will help monitor future risk.</p>
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