

# Technology Snapshot

## PromarkerD Technology

The PromarkerD Laboratory Developed Test and the In Vitro Diagnostic Test are two versions of Proteomics International's world-leading PromarkerD test for diabetic kidney disease. These two tests utilise mass spectrometry and immunoassay technology to diagnose and prognose kidney function by measuring the concentration of the novel panel of protein biomarkers associated with kidney decline identified by Proteomics International.

## Key Terms:

### Mass Spectrometry

Mass spectrometry is an analytical technique that is concerned with the separation of matter according to atomic and molecular mass.

### Immunoassay

Immunoassay is a quantitative technique that involves the binding reaction between a specific antibody targeted to a protein of interest.

## The Tests:

Laboratory Developed Test (LDT)	In Vitro Diagnostic Test (IVD)
<b>Type of technology</b> Either Immunoassay or Mass Spectrometry	<b>Type of technology</b> Immunoassay
<b>How it works</b> The PromarkerD LDT analyses the protein fingerprint of a patient's blood to help diagnose and prognose kidney function. Utilising either mass spectrometry or immunoassay technology for analysis, Proteomics International's partners can run the LDT within their own specialist laboratories. Blood results from these analyses are then sent to the PromarkerD Hub to determine the patient's risk of developing diabetic kidney disease in the next 4 years.	<b>How it works</b> The PromarkerD IVD uses immunoassay technology to diagnose and prognose kidney function. It can be manufactured as either an immunoassay kit or can be configured to run on an automated machine platform, allowing the analysis of hundreds of blood samples at a time.
<b>Pros</b> <ul style="list-style-type: none"> <li>- Permits fast adoption of a new test in advanced markets</li> <li>- Does not require regulatory preapproval</li> <li>- Can be used to build market demand prior to wider release of a kit format</li> </ul>	<b>Pros</b> <ul style="list-style-type: none"> <li>- Can be used in pathology laboratories around the world, subject to regulatory approval</li> <li>- Easier for laboratories to implement</li> <li>- Can be supplied through existing distribution channels of diagnostic companies</li> <li>- Has the potential to open up new markets, including those in China, India and Japan.</li> </ul>
<b>Cons</b> <ul style="list-style-type: none"> <li>- Test must be performed in a certified laboratory</li> <li>- Every laboratory must set up their own version of the test</li> </ul>	<b>Cons</b> <ul style="list-style-type: none"> <li>- Takes longer to reach the market because of manufacture and regulatory approval processes</li> </ul>