Topic 4 – Blood test for breast cancer detection

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Background:

Breast cancer is the most common cancer among women and is also the second leading cause of cancer deaths in women. The key to surviving breast cancer is early detection and treatment. Mammography is the standard screening tool currently available but has a number of limitations, including being restricted to older women (over 40). In order to be more cost effective and to decrease the level of mortality for all women, a safer and more reliable method for screening and diagnosing breast cancer is required.

Our proposed solution:

Early detection of any disease state can be identified through biomarkers. The search for biomarkers for breast cancer is broad and the key candidates range from proteins through to DNA. One candidate group which has been underestimated are the lipids. There is association between breast cancer (in tissue, cell culture and blood) and lipids, which is well-documented in the literature. Utilising these lipids as markers for the disease could provide an alternative to imaging and overcome the limitations of mammography and ultrasound. We would like to explore the possibility of **developing a blood test to detect lipid biomarkers associated with breast cancer.**

Things to consider for your assessment task:

1. *What IP already exists in this space?*
   Are there any lipids already identified as biomarkers in breast cancer, or any other cancer? Consider searching for patents based on the researcher name and company affiliation.
2. *How can we develop this idea to commercialisation?*
   How developed is the research looking at blood tests for cancer detection? How do lipids fit into this commercial landscape?
3. *Who could we partner with to commercialise this product?*
   What industries would be interested in funding this research? What industries are already involved in this space (based on patents and products you have already identified)?