Research on cancer blood test is overhyped in the media

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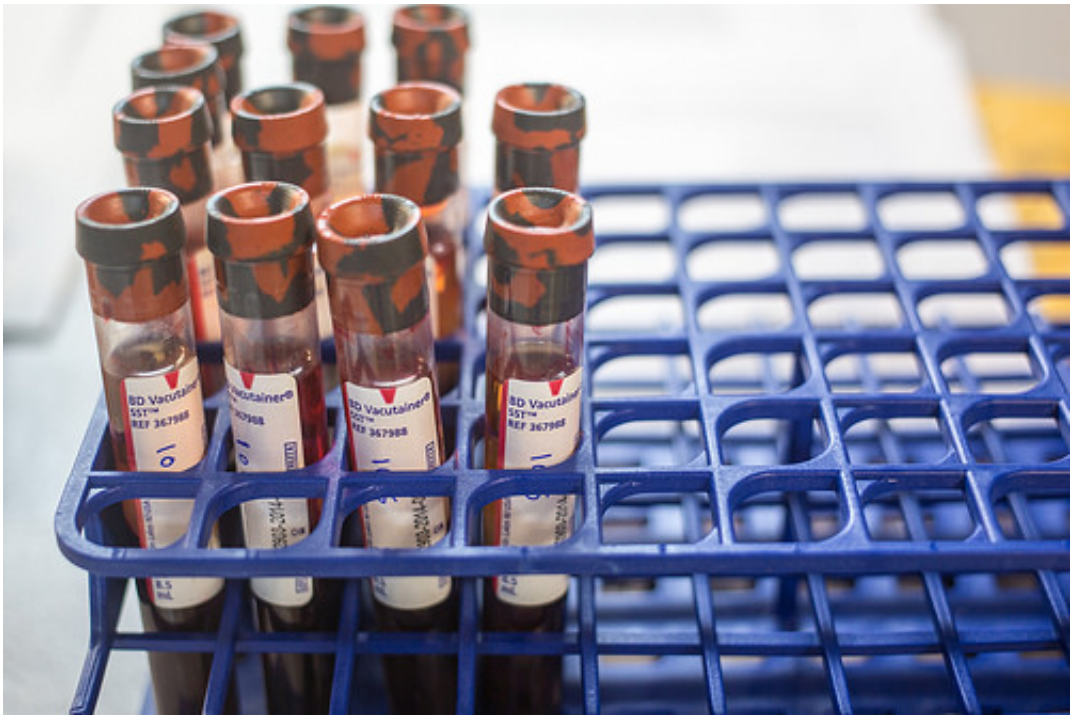

Blood samples. Credit: Flickr, under CC BY-NC-ND 2.0

Headlines today are heralding a new "simple blood test", claiming it can accurately predict if a woman will develop breast cancer in the future. This sounds amazing.

But you'd be correct in thinking it's also too good to be true.

In the study, which you can read here in the journal *Metabolomics*, the researchers suggest that a blood test looking at the chemicals and molecules present in a woman's blood – her so called 'metabolic profile' – could tell doctors if she will develop breast cancer within the next seven years.

While the approach is interesting, this research is in its earliest stages, and only looked back at data from around 800 Danish women. Further studies in much larger, and more diverse, groups of women need to be carried out before anyone can say whether the blood test is precise and sensitive enough to reliably identify women at higher risk of breast cancer.

And just as crucially, this work will need to prove that it wouldn't falsely identify women who aren't at high risk.

So it's far too soon to say it can be used by doctors now to predict which women will develop breast cancer.

And contrary to statements being reported in the press, there's certainly not enough evidence yet that it could "replace mammograms", nor even that the test results could help tailor screening or be used to complement mammography.

It's important to also note that in the paper, the researchers themselves say they need to do more work to fully understand what the blood test results mean, and that further studies should be carried out in other women from other countries "with other diets, lifestyles, medications and habits".

That's not to say this won't yield results in the future. Changes in the way cancer cells use nutrients to provide enough energy to grow is a fascinating and growing field of research. Scientists are looking into

whether these changes can be used to spot the disease early, monitor response to treatment, and develop new treatments. But it's early days yet.

For now, this is interesting research which may lead to new tests being developed in the future. It may, one day, help doctors identify women at risk of developing breast cancer.

But it's too soon to say so just yet.

More information: Bro, R., et al. (2015). Forecasting individual breast cancer risk using plasma metabolomics and biocontours *Metabolomics* DOI: 10.1007/s11306-015-0793-8

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