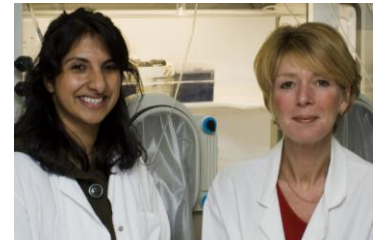


Project Overview

Project name: Bevacizumab response in breast cancer - are neuropilins the key?

Project award: PhD studentship grant

Subject: Treatment



Grant holder and researcher: Professor Nicola Brown (above right) and Sapna Lunj (left)

Institution: University of Sheffield

Status: Approved for funding

Summary

Treating breast cancer simultaneously with drugs that both prevent the cancer cells from growing and spreading to other parts of the body in addition to preventing the blood vessels from growing which provide the oxygen and nutrients required for the cancer cells to grow has the potential to vastly improve people's chances of beating breast cancer. This project will investigate one such combination of treatments that if successful, could lead to a new and innovative way of treating breast cancer.

Need for project

Despite the availability of many existing treatments around 12,000 women a year in the UK will die from breast cancer. Therefore, it is important that scientists look at developing the most effective ways of treating the disease.

Aim of the project

An ongoing clinical trial is looking at combining the chemotherapy Paclitaxel, which stops cancer cells dividing, with Avastin, which prevents cancer cells from developing their own blood supply and spreading to other parts of the body (a process called metastasis). To date, this combination appears to slow down breast cancer progression for a short while but does not stop it entirely.

Professor Brown believes this is due to a group of molecules called neuropilins, which are not inhibited by Avastin and are helping the breast cancer cells to continue developing their own blood supply. This project will investigate the effectiveness of adding a neuropilin blocking treatment to Paclitaxel and Avastin to prevent breast cancer growth and spread.

Testing of project

Professor Brown will test the efficiency of the three treatments in combination in both primary and secondary breast cancer in the laboratory.

Patient benefit

Despite clinical advances many breast cancer patients still die from the disease. In particular the treatment of metastatic breast cancer remains elusive. The development of new treatment strategies holds real hope for improving breast cancer survival rates.

About Breast Cancer Campaign

Breast Cancer Campaign's mission is to beat breast cancer by funding innovative world-class research to understand how breast cancer develops, leading to improved diagnosis, treatment, prevention and cure.

Campaign was established in 1988 with the aim of *researching the cure* for breast cancer. The charity aims to be the leading specialist in breast cancer research across the UK and Ireland, making a significant impact on breast cancer for the benefit of patients.

What differentiates Campaign from other charities? Breast Cancer Campaign only funds research into breast cancer and will support research at any centre of excellence in the UK and the Republic of Ireland. The charity has a particular interest in supporting innovative research and will fund the best breast cancer research in the UK and Ireland, providing that it is of the highest quality.

What are we doing? We currently support 117 research projects, worth over £17 million in 40 centres of excellence across the UK and Ireland.

What have we done? Over the past 13 years, the charity has awarded 302 grants with a total value of over £31 million to universities, medical schools and research institutes across the UK and now also in Ireland.

Why do we use the jigsaw logo? Our logo is the jigsaw piece because it symbolises the missing pieces of the puzzle that is the cure for breast cancer. In the same way that breast cancer is not one disease, there will not be one cure. Each research project is another piece of the puzzle that we hope will ultimately offer all women with breast cancer effective diagnosis and treatment and eventually help us prevent the disease.