Help fund cutting-edge research how breast cancer cells begin to grow and spread

We need to find ways to prevent breast cancer cells from invading and spreading to other parts of the body. Dr Jayaraman is studying how a protein called PRH is involved in the early stages of this process. Her research could help to prevent the growth and spread of breast cancer.

The challenge

- When cancer spreads from the breast to other parts of the body it can sometimes be treated and controlled for a period of time, but not cured
- However, we still do not know enough about how breast cancer cells begin to spread to other locations

A generation ago...

- Only **half** of people with breast cancer survived for five years after diagnosis

How far we've come...

- Today **8 out of 10** people with the disease are still alive five years later
- This is thanks to advances in research, new treatments, earlier diagnosis, breast screening and awareness
- But unfortunately there are no effective treatments to stop breast cancer once it has begun to spread

Building a better future

- We've made great advances, but we can't stop now if we want to beat breast cancer
- Breast cancer is the UK's most common cancer with 50,000 new cases diagnosed each year
- Therefore it is vital scientists understand how breast cancer begins to invade and spread
- Ultimately this could lead to new treatments and improve the chances of survival for thousands of patients

Breast Cancer Campaign's groundbreaking research

Aim:	Understanding how breast cancer cells start to invade and migrate
Researcher:	Dr Padma-Sheela Jayaraman
Where:	University of Birmingham
Cost:	£20,000 (laboratory supplies, equipment, and access to specialist equipment)
Duration:	12 months – started 12th February 2014

The science behind the project

- Before a breast cancer cell can invade the surrounding tissue and spread to other parts of the body, it must transform into a type of cell which is more able to migrate
- With previous funding from Campaign, Dr Jayaraman has found that a protein called 'PRH' stops normal breast cells from migrating
- She has also shown that increasing the amount of PRH in breast cancer cells stops them invading
- This means that PRH could potentially prevent breast cancer cells from invading and spreading to other parts of the body
- In this project, Dr Jayaraman will confirm whether altering the levels of PRH in breast cancer cells and non-cancerous cells affects their ability to migrate

What difference will this project make?

- Dr Jayaraman hopes to understand how breast cancer cells become able to migrate and spread, which could lead to new ways to prevent breast cancer spread before it starts, and so improve the chances of survival for people with the disease

How you can help

- Please help us raise the vital funds to support our researchers
- To make a donation to Breast Cancer Campaign, call 0207 749 4114, email supportercare@breastcancercampaign.org , or visit breastcancercampaign.org/donate

✉ Spread the word

- To get involved and help us beat breast cancer, visit our website at breastcancercampaign.org
- Join us at facebook.com/breastcancercampaign and twitter.com/bccampaign to spread the word

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