

# Prevent Breast Cancer's Anti-Prolactin Project



## About Breast Cancer

Breast cancer is the most common cancer in the UK; it accounts for 15% of all cancer diagnoses. Across the UK, 150 individuals are diagnosed with breast cancer every day; tragically 31 of them will lose their fight against the disease. If trends continue, we can expect a 12% increase in diagnoses in just 10 years' time.

Breast cancer is a devastating disease that affects too many people – the patients, their families, friends and colleagues. It is a disease that can often be cured if caught early and suitable treatments are prescribed. But what if there was no need for the cure? There was no diagnosis, no before or after breast cancer. What if people could live their lives safe in the knowledge that it would never happen to them.

## About Prevent Breast Cancer

**Predict. Prevent. Protect.** You could call it our mantra. As the only UK charity entirely dedicated to the prediction and prevention of breast cancer, we're committed to freeing the world from the disease altogether. Unlike many cancer charities, we're focused on preventing, rather than curing. Promoting early diagnosis, screening and lifestyle changes, we believe we can stop the problem before it starts. And being situated at the only breast cancer prevention centre in the UK, we're right at the front line in the fight against the disease.

We **predict**, we **prevent**, we **protect**.

**We predict** – by identifying who is at risk of breast cancer

**We prevent** – by offering preventative interventions, to **stop** breast cancer before it starts

**We protect** – our goal is to **shield future generations** from breast cancer

Prevent Breast Cancer seeks to create a breast cancer free future for the next generation. We conduct ground-breaking research into the prediction and prevention of breast cancer and with **only 3% of all cancer research being spent on prevention, the work we do is vital.**

We are a charity registered with the Charity Commission in England and can be found on their website by searching by our Registered Charity Number 1109839.

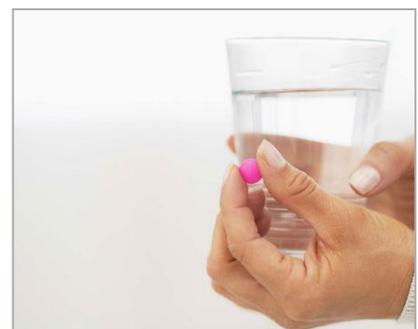
## What is Breast Cancer Risk?

At Prevent Breast Cancer, we believe that in order to truly prevent breast cancer in future generations we first need to work out what a woman's risk of developing the disease is. Risk is determined by many different factors from weight and exercise to when a woman had her first child, if any. It is calculated using an algorithm developed by Prevent Breast Cancer researchers and based on this score, women are advised of the different steps they can take to reduce their risk, if they need to.

## How are Preventative Drugs useful?

Preventative drugs are a key area of research for Prevent Breast Cancer. We recognise that there may be drugs currently used in the treatment of breast cancer that could be of benefit to those at increased risk.

Thanks to researchers at Prevent Breast Cancer, there have been some recent changes to NICE guidelines (July 2013), which mean that tamoxifen and raloxifene (drugs also used for treating breast cancer) are now recommended for women at increased risk of breast cancer in order to reduce their risk.



There is an urgent need for effective, well-tolerated and safe breast cancer preventative drugs which is why it is a key area of research for the charity.

## About this Preventative Drugs Project

The hormones, progesterone and prolactin control the growth of the normal breast ready for milk production at the end of pregnancy. Both are also known to increase the risk of breast cancer but little is known about how these hormones work together in the normal breast.

In the lab, the team will create samples of cells using a culture method – a technique where cell samples are replicated in a controlled environment without the need to gather more samples from an individual.

The samples will then be stimulated with one or both hormones. We will explore in more detail how progesterone and prolactin signal together within the normal breast. Specifically, we will look at the different types of cells in the breast, including the stem like cells that breast cancer is thought to develop in.

What happens in each cell will then be compared against one another as well as against those cells that have not been stimulated by the hormone(s). This will mean that the team will be able to see how the breast cells behave depending on what hormones they have received.

Using this model in combination with tissue samples from a pilot prevention trial in which women at increased risk of breast cancer received an anti-progestin we hope to discover whether targeting prolactin may improve breast cancer prevention in some women. This could provide a more tailored approach and develop novel, well tolerated approaches to breast cancer prevention.

## Our Fundraising Strategy

Prevent Breast Cancer is seeking funds for the Preventative Drugs Project from three key sources:

- **Trusts and Foundations**

We will make a number of targeted applications for funding to relevant trusts and foundations in the UK.

Currently our success rate with Trust Fundraising in the last 9 months has been 20% so we are confident that if we apply to 50 trusts in the next 6 months, we should receive support from at least 10.

- **Corporate Supporters**

We will be approaching many of our Corporate Supporters to see if they would be interested in financially supporting this project. Many have supported our previous Preventative Drugs projects so we are optimistic they will also take interest in this project.

- **Individual Supporters**

Many of our individual supporters prefer to restrict their donations to specific projects, so this project is listed under our Preventative Drugs pillar and any donations through our website, over the phone or in person can be restricted to this pillar. This gives our supporters that much more control over their donation to ensure it goes to the area of most interest to them.

## Contact Prevent Breast Cancer

Please find Prevent Breast Cancer's Annual Review and Audited Accounts enclosed with this application. For further information or any queries, please contact Vicki Wilkinson, Trusts, Relationships and Research Manager. Phone: 0161 291 4402 Email:

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