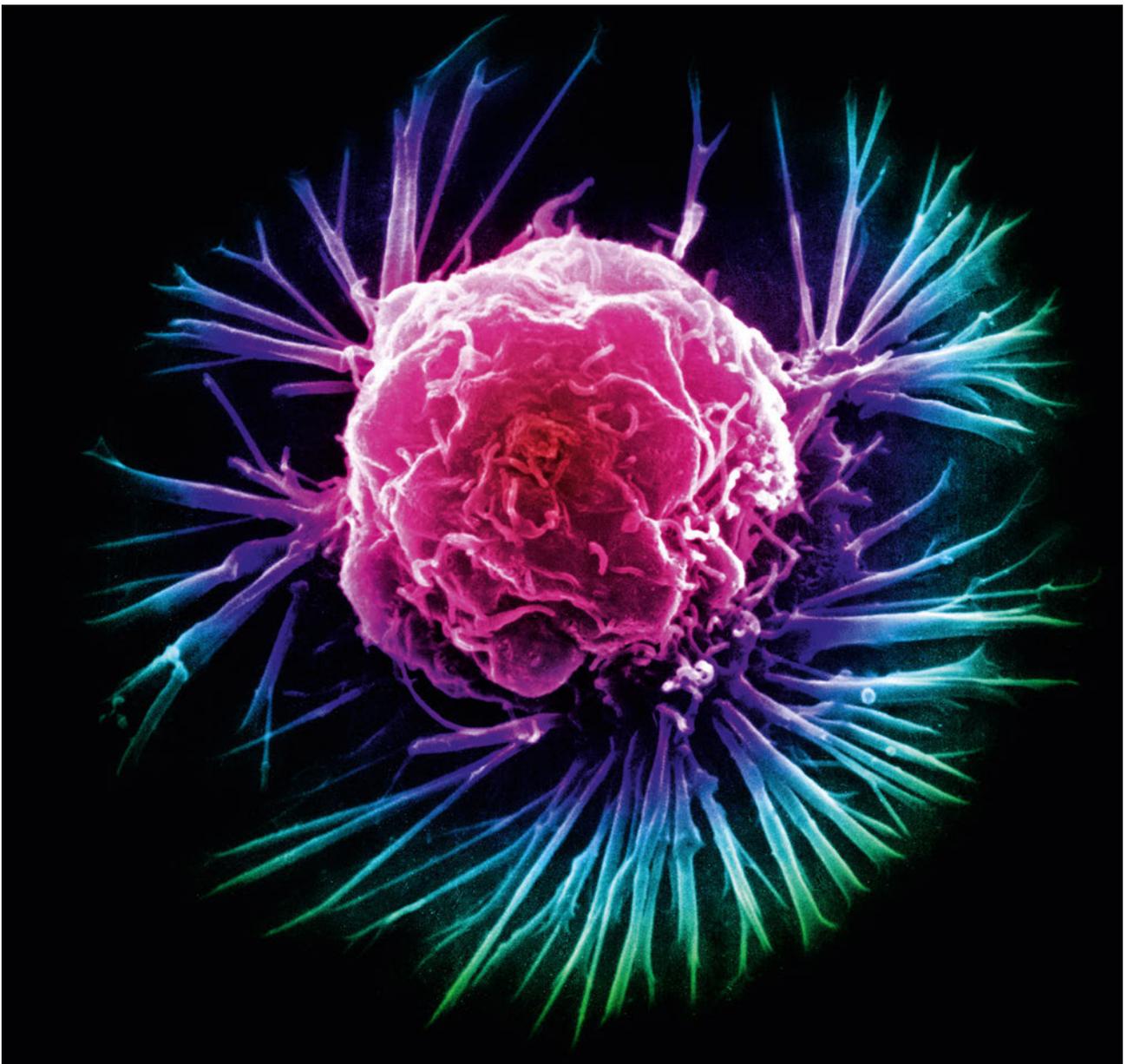

Joint support for cancer research

Drugs to treat cancer are expected to have a more targeted effect in future. To this end, researchers at Bayer HealthCare are analyzing the specific disease courses of individual patients in order to develop tailor-made therapies. They also receive support in the form of tumor tissue samples from patients suffering from cancer.



Focus on breast cancer: to improve the prospects of recovery, the scientists first have to gain a precise understanding of the processes taking place in the malignant cells.

“Find suitable treatments”

research talked to Ulla Ohlms, Chairwoman of the breast cancer survivors-run biobank PATH, about the foundation's successes.



Ulla Ohlms



What was the idea behind the PATH foundation?

Breast cancer is now curable in most cases, and enormous therapeutic progress has been achieved. However, many patients still die from breast cancer or suffer relapses. We want to help suitable treatments to be found for these women as well.

How comprehensive is the PATH collection?

At present, we have clinical data and blood and tissue samples from approximately 7,800 breast cancer patients, and this figure is growing daily.

Have you had any initial successes?

Yes, a study by the German Cancer Research Center that we helped to launch. It has come up with one potential explanation of why some tumors develop resistances, and as such has delivered new approaches for drug development. The interaction with Bayer is likewise very close and fruitful. We have already presented the initial findings at one of the world's largest conferences on cancer research and the response was extremely positive. That is something we are very proud of.

Every tumor is different. What's more, the disease can take very different courses, from complete recovery to rapid death. A detailed understanding of these differences is vital to develop more effective treatments that are tailor-made to the individual tumor and patient. That's why Bayer is working together closely with the PATH (Patients' Tumor Bank of Hope) foundation in the case of breast cancer, a disease which affects more than 1.6 million women worldwide and is still on the rise.

New therapies thanks to biopsies and clinical data

“A few years ago, we heard about the PATH foundation. It was set up by breast cancer patients with the aim of increasing the chances of recovery,” explains Dr. Joachim Reischl, Head of Biomarker Strategy & Development at Bayer HealthCare. Working together with the PATH foundation gives the scientists access to numerous deep-frozen tissue samples along with the corresponding anonymized clinical data. This has advantages for all the parties involved. “We get biological materials and information that help us to better understand the disease and will make it possible for

us to develop new drug products. At the same time, we also get a better insight into the patients' perspective, and the PATH employees gain a better understanding of pharmaceutical research,” says Reischl. The researchers compare the clinical data with the findings of the tissue analyses to track down changes in gene sequences or proteins that are

associated with specific disease courses, and chart the frequency of these changes. This forms an important basis for the development of personalized therapies that are matched to the molecular changes in the tumor. There have already been initial, promising successes: by analyzing biopsy samples donated by PATH, Dr. Marion Rudolph, Senior Biomarker Expert at Bayer HealthCare, has collated data on the frequency of a specific mutation that may play a crucial role in the development of breast cancer.

It is also planned to use the research findings to tailor treatments with drug products that have already been approved even more precisely to the patients in future.



“Advance testing of the individual efficacy will lead to better chances of recovery.”

Dr. Joachim Reischl, Head of Biomarker Strategy & Development at Bayer HealthCare



www.research.bayer.com/path

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