About the Institut Curie

The Institut Curie, France's leading centre in the fight against cancer, combines an internationally renowned research centre and a state-of-the-art hospital complex which treats all cancers, including the rarest. Founded in 1909 by Marie Curie, the Institut Curie brings together 3,600 researchers, doctors and caregivers across three sites (Paris, Saint-Cloud and Orsay) around its three missions: care, research and teaching. A private foundation recognised as being of public utility authorised to receive donations and bequests, the Institut Curie can, thanks to the support of its donors, accelerate discoveries and thus improve treatment and the quality of life of patients. For more information: curie.fr

Fighting breast cancer: a public health issue

In France each year nearly 58,000 women are affected by breast cancer and we mourn for the 12,000 women who die from it. Cancers are the second leading cause of death in women, with breast cancer recording the highest incidence. Fighting cancer is therefore a public health issue. The Institut Curie mobilises its researchers, doctors and caregivers on a daily basis to heal more and more women. To achieve this objective, these medical and scientific experts must take up a double challenge, understanding the mechanisms of resistance to treatment and that of metastatic spread (tumour that develops far from the breast, on another organ), which accounts for 90% deaths especially among young women with so-called triple negative breast cancer which is very aggressive. Thanks to a technological revolution, the analysis of tumours cell by cell, researchers at the Institut Curie are carrying out an ambitious research project that would make it possible to meet these challenges and save lives, the lives of all these women who are fighting breast cancer.

Voir l'infiniment petit pour réaliser un grand pas dans la lutte contre le cancer du sein

A tumour is made up of a multitude of cells that vary in molecular profile and response to treatment. Until recently, scientists could only look at the "average" profile of this tumour, the large tumour cell families. And today the proposed treatments are identified based on these molecular profiles. Tomorrow, thanks to this revolutionary technological advance, the single cell analysis called the Single Cell, researchers will be able to study each cell individually, define the role of each cell in the development of the tumour, the one that will generate resistance to treatments, that which is at the origin of the development of metastases or of a recurrence. In this capacity for precise study lies the hope of being able to heal more and more women. The Institut Curie's project is therefore to accelerate this promising research to develop precision cell medicine that would make it possible to offer each patient a treatment based on the cell profile of their tumour, anticipate their risks of developing metastasis and highlight new treatments thanks to the identification of new therapeutic targets.

The Institut Curie needs help and resources to carry out this project. With the support of the sale of the Hospices Civils de Beaune, the Institut Curie could acquire a state-of-the-art tumour cell microscope equipped with a sampling mechanism that will allow researchers to characterise the cells, essential equipment for the project.

Budget for the microscope: 480,000 €