Therapixel Win the Digital Mammography Challenge

Artificial Intelligence Against the Cancer

Paris, June 5, 2017

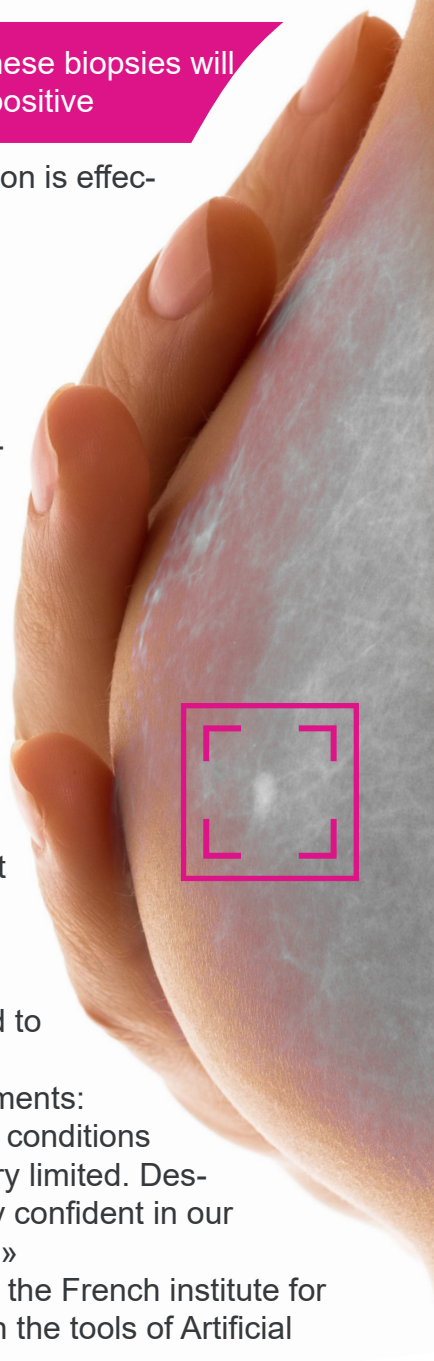
Current screening leads to the recall of **10%** of patients for a biopsy

Only **5%** of these biopsies will be positive

Breast cancer affects one in eight women during their lifetime. Early detection is effective in controlling the disease, with a 5-year survival rate greater than 99%.

However, systematic screening leads to the recall of 10% of patients for a complementary biopsy examination. Only 5% of the recalled patients are actually affected by the disease.

The Digital Mammography Challenge aims, in the form of a global competition, to improve the performance of screening by exploiting artificial intelligence algorithms. The resources deployed are up to the challenge: more than 1,200 participants, 640,000 anonymous exams, $1.2 million in prices!



Participants	Exams	Price
1209	640.000	1.2M$

Four rounds and nine months after the start of the competition, Therapixel takes first place. «It is a real pride for us to win this challenge at the highest level, representing an absolutely major public health issue» comments Olivier Clatz, CEO.

The winning algorithm improves the rate of false positives by 5% compared to the state of the art.
Yaroslav Nikulin, researcher in the Deep Learning team at Therapixel comments: «We are very surprised at the level of performance we have achieved. The conditions of this competition were very challeging, resources and calculation time very limited. Despite this, our result is very close to that of the best radiologists. We are very confident in our ability to improve our algorithm in a less restrictive computing environment.»
Therapixel is a young startup specializing in medical imaging. Spin of Inria, the French institute for research in computer science, it aims to transform diagnostic radiology with the tools of Artificial Intelligence.

The Therapixel algorithm, winner of this competition, improves by **5%** the rate of false positives compared to the state of the art[1]

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https://www.ibm.com/blogs/research/2017/06/dream-challenge-results/
https://www.synapse.org/#!Synapse:syn4224222

[1] «Deep Learning in Mammography: Diagnostic Accuracy of a Multipurpose Image Analysis Software in the Detection of Breast Cancer.» Investigative Radiology, 2017.