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Press release

RESEARCH AGREEMENT BETWEEN GUSTAVE ROUSSY AND AMGEN TO PREDICT THE EFFECTIVENESS OF ANTIBODIES DRUG CONJUGATES

Bringing together the effectiveness of chemotherapies and the specificity of antibodies is the challenge taken up in recent years with conjugated antibodies (antibody-drug conjugates/ADCs) which are beginning to be part of patient care, by transforming major impact on their life expectancy and quality of life. However, some patients will not respond to these treatments. In order to understand why and be able to predict the effectiveness and risk of development of resistance in a patient, Amgen has just signed a one million euros research agreement with Gustave Roussy in order to precisely study the interactions of ADC with the tumor cell. Objectives: identify biomarkers to better target patients on whom these treatments will be effective, and refine the optimal doses of use.

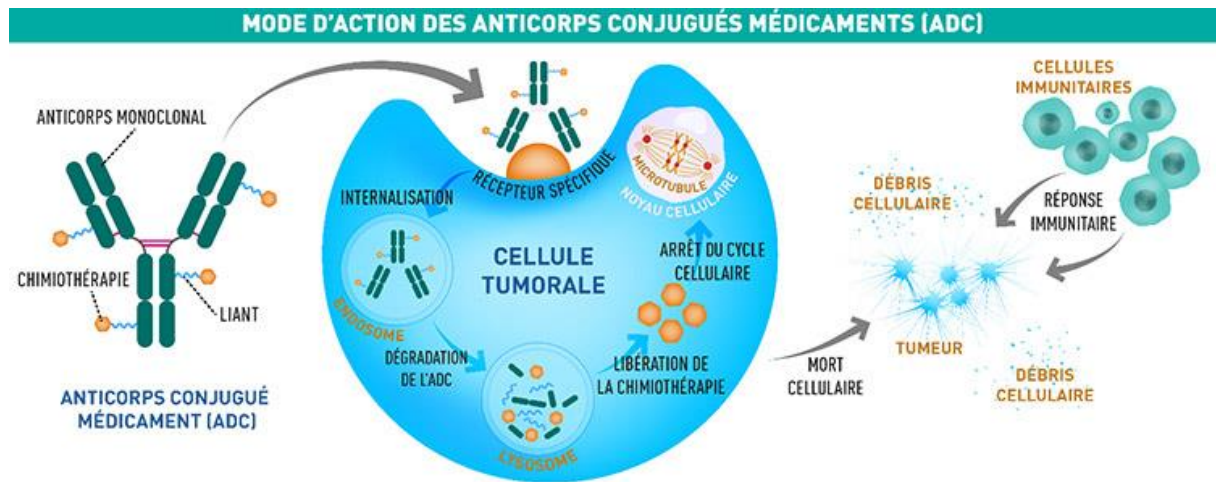
In recent years, antibody conjugates (antibody-drug conjugates/ADCs), which couple chemotherapy molecules to an antibody, have opened a new era in anticancer treatments with impressive results for certain cancers. Unfortunately, not all patients are sensitive to these treatments. What are the elements that intervene in the effectiveness of the destruction of the tumor cell once the antibody is fixed on the surface of the cell? A research question that allows us to understand why these therapies, which are so effective on some patients, are not so effective on others. Strongly committed to this new area of research and development that ADCs represent, Amgen has decided to answer this question by joining forces with Gustave Roussy researchers.

“ Amgen was a pioneer in the research and development of monoclonal antibodies and is now investing in the development of ADCs. In order to better understand the elements that come into play in the effectiveness of these therapies, we are happy to begin this ambitious research project in France with Gustave Roussy” declares **Nathalie Varoqueaux, Medical Director of Amgen France** .

With a budget of one million euros over two years, the research will explore on the one hand the 3 stages which follow the attachment of the ADC to the tumor cell: endocytosis (entry into the cell within of a vesicle), the endosomes involved in the



transport of ADCs to the lysosome, and finally the elements of the lysosome involved in the cleavage of ADCs, separating the antibody from the chemotherapy. On the other hand, non-tumor specific factors – endocytosis by stromal cells or healthy tissues – will also be studied because they can channel the antibody, thus attenuating its action on cancer cells.



Source: gustaveroussy.fr/fr/programme-innocare

“ To carry out these investigations and identify the determinants and compounds that can counter the effectiveness of these innovative treatments, our researchers will work on organoids created from 3D culture of patient cells, which will allow us to be faster and more precise. This is an exciting project for our teams ” says **Professor Fabrice André, director of research at Gustave Roussy**

The characterization of the elements involved in the internalization of ADCs within the tumor cell should make it possible to identify biomarkers, which can be used to predict the effectiveness of the treatment in patients and if not, to be able to offer another treatment without loss of luck. The results of this research should also make it possible to refine the optimal doses and the sequences to be implemented for maximum effectiveness.

Gustave Roussy, member of the Amgen Partners of Choice network

In October 2023, Amgen, through the creation of Amgen Partners of Choice (APoC), joined forces in France with Gustave Roussy, alongside experts in oncology research and development and clinical leaders from seven other world cancer research centers. This network aims to create multiple channels of collaboration on a global scale with the aim of accelerating the transition of disruptive innovation programs to leaders in the clinic. Current APoC projects focus on certain disease areas and tumor types, including thoracic, gastrointestinal and genitourinary cancers. “Our participation in international medical-scientific networks of the highest level, and in particular that of APoC with Gustave Roussy as the only site in France, allows us to develop large-scale research collaborations for the benefit of patients living with cancer. This partnership is an excellent illustration of this” declares Professor Fabrice Barlesi, Managing Director of Gustave Roussy.

About Gustave Roussy

Ranked first in France, first in Europe and fourth worldwide, Gustave Roussy constitutes a center of global expertise entirely dedicated to patients living with cancer. The Institute is a founding pillar of the Paris-Saclay Cancer Cluster in oncology biocluster . A source of therapeutic innovations and diagnostic advances, the Institute welcomes nearly 50,000 patients each year, including 3,500 children and adolescents, and develops an integrated approach between research, care and teaching. An expert in rare cancers and complex tumors, Gustave Roussy treats all cancers, at all ages of life. It offers its patients personalized care that combines innovation and humanity, where care but also the physical, psychological and social quality of life are taken into account. With 4,100 employees spread across two sites, Villejuif and Chevilly-Larue, Gustave Roussy brings together the expertise essential for high-level research in cancerology; 40% of treated patients are included in clinical studies.

To find out more about Gustave Roussy and follow the Institute's news: www.gustaveroussy.fr, [Twitter](#), [Facebook](#), [LinkedIn](#), [Instagram](#)

About Amgen

Amgen is committed to unlocking the potential of biology for patients suffering from serious diseases by discovering, developing, manufacturing and delivering innovative treatments. This approach begins by using tools such as advanced human genetics to unravel the complexities of disease and understand the fundamentals of human biology.

Amgen focuses on areas of high unmet medical need and leverages its expertise to pursue solutions that improve health outcomes and people's lives in important ways. A pioneer in biotechnology since 1980, Amgen has become one of the world's leading independent biotechnology companies, has enabled the care of millions of patients around the world and is developing a portfolio of high-potential medicines.

Amgen is one of 30 companies that make up the Dow Jones Industrial Index Average and is also part of the Nasdaq-100 index. In 2023, Amgen was named one of "America's Best Workplaces" by Newsweek, one of America's "Climate Leaders" by USA Today , and one of the "World's Best Companies" by TIME.

For more information, visit www.amgen.com

About Amgen France

On French territory since 1990, the company today has nearly 380 employees spread across France. With around 20 drugs and numerous partnership initiatives, Amgen France is working to advance the treatment of cancer, cardiovascular, inflammatory, renal and rare diseases. With 54 active studies involving 964 patients in 294 centers (2022 numbers). France is also one of the countries where Amgen has the most significant clinical research activity.

What will the health of tomorrow be made of? Follow our news on www.amgen.fr and on social media @AmgenFrance #WeAreBiotech.

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