Natixis supports cancer research via a partnership with Institut Gustave Roussy

Natixis entered into a partnership with Institut Gustave Roussy to promote a new cancer treatment approach that brings new hope: personalized medicine. Natixis has decided to support 3 new research teams during 3 years.

As the leading cancer research center in Europe, Institut Gustave Roussy has always considered that health care and basic and clinical research are closely related. As a result, the center is known worldwide for its innovative treatment of cancer.

In 2009, Institut Gustave Roussy initiated a personalized medicine research program which develops new treatments tailored to the individual patient guided by biology (by analyzing the cancer genome). Institut Gustave Roussy, one of the world’s ten leading cancer research centers in this field, has set for itself an ambitious challenge, called “Révolution Cancer”. The challenge consists in intensifying the development of personalized medicine.

Because Natixis is aware of the significant amounts of resources needed to fight cancer, it has decided to be part of the “Révolution Cancer” program and will support 3 new research teams at Gustave Roussy.

The first Natixis-labelled team is headed by Doctor Jean-Luc PERFETTINI. His research project on “Cell death and senescence” consists in determining very precisely the biological processes involved in the elimination of cancer cells after radiotherapy. His goal is to improve the performances of radiotherapy and the quality of life of the patients after the treatment.

Natixis’ partnership in this multi-year program with Institut Gustave Roussy will intensify cancer research, and probably help gain several years in the definition of new treatments. The two other teams supported by Natixis will be set up in a few months.
About Natixis:

Natixis is the corporate, investment and financial services arm of Groupe BPCE, the 2nd-largest banking group in France with 21% of total bank deposits and 36 million clients spread over two networks, Banque Populaire and Caisse d'Epargne. With around 22,000 employees, Natixis has a number of areas of expertise which are organized in three main business lines: Corporate and Investment Banking, Investment Solutions (Asset Management, Private Banking, Insurance and Private Equity) and Specialized Financial Services. A global player, Natixis has its own client base of companies, financial institutions and institutional investors as well as the client base of individuals, professionals and small and medium-size businesses of Groupe BPCE's two retail banking networks. Listed on the Paris stock exchange, it has a solid financial base with total Core Tier 1 capital of €13.2 billion, a Core Tier 1 ratio of 10.9% and quality long-term ratings (Standard & Poor's: A / Moody's: A2 / Fitch Ratings: A+).

About Institut Gustave Roussy:

The Institut Gustave Roussy (Villejuif, France), leading European Comprehensive Cancer Centre, is a non profit academic entity belonging to the French public hospital service, that is authorized to receive donations and legacies. it is a wholly patient-oriented centre with global expertise and the mission to fight cancer. Located South of Paris on a single site, IGR employs 2 600 professionals working in care, research and teaching. Some Gustave Roussy's figures: 353 beds and 88 places for day-cases, 220 certified physicians, 900 professional caregivers, 19 4 000 consultations and 46 000 patients cared for per year, 27 basic research teams, and 2800 students, researchers and physicians trained per year. Web site : www.igr.fr

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Dr. Jean-Luc PERFETTINI, 41, French citizen

Docteur Jean-Luc PERFETTINI is chargé de recherche (CR1) [research fellow] at Institut National de la Santé et de la Recherche Médicale (INSERM). After his doctorate in Immunology from Institut Pasteur (2002), this former student of Pr. Alice DAUTRY (Institut Pasteur) and Pr. Philippe KOURILSKY (Collège de France) joined the “Apoptose, Cancer et Immunité” (INSERM U848) team of Pr. Guido KROEMER at Institut Gustave Roussy. A close collaborator of Pr. Guido KROEMER (the French research director the most quoted in scientific and biomedicine publications worldwide) for ten years, Dr. Jean-Luc PERFETTINI has developed an internationally recognized expertise in the cell death processes (such as apoptosis and mitotic catastrophe).

International recognition:

His research has been mentioned in more than 50 scientific journals and several articles in journals such as Nature Medicine, Nature Cell Biology, Nature Immunology, Journal of Experimental Medicine and the translational research magazine Nature/Science-Business eXchange and has been presented at international scientific conventions. Based on his expertise, he acts a jury member to evaluate national and international research projects at the Agence Nationale de Recherche et du Cancéropôle Ile de France and for more than 12 scientific journals. Founding member of the International Society of Biological Danger Signals (ISBDS), Dr. Jean-Luc PERFETTINI is also a member of the European Cell Death Organization (ECDO).

Recent work:

Recently, his work led him to look into a new form of cell death called entosis. Entosis (the greek prefix ento- means “within”) is the internalization of one living cell (target cell) into another living cell, which results in the destruction of the target cell following lysosomal cell death. Although entosis has been observed by histopathologists for several years in tumors, its cellular process has not been researched much yet.

**Dr. Jean-Luc PERFETTINI is currently exploring the molecular mechanisms of this new cell death and determining the influence of radiotherapy on this biological process.**
5-year research project summary:

Radiotherapy with surgery and chemotherapy is one the more efficient anti-cancer strategies. The treatment used with more than half of cancer patients is radiotherapy. Radiotherapy used alone or jointly with surgery and chemotherapy is central in the treatment of breast, lung, prostate and head and neck cancers. The biological processes involved in the elimination of irradiated cancer cells have only been partly defined. The latest scientific and technology progress revealed the existence of several death cell processes, such as apoptosis, autophagic cell death and senescence of irradiated tissues. However, the specific involvement of these lethal processes in the elimination of irradiated cells remains complex and controversial.

The goal of the “Cell deaths and Senescence” team headed by Doctor Jean-Luc PERFETTINI is to determine precisely the molecular and cellular bases of the biological processes involved in the elimination of cancer cells after radiotherapy. By combining cellular and molecular biology, epigenetics and experimental medicine approaches and thanks to the development of fluorescence confocal microscopy innovative approaches, the team’s research project will also help better understand the effects of radiation on tumor cells as well as normal cells.

The team’s objective:

1. **Direct their research to radiotherapy**

What is unique about the “Cell deaths and Senescence” project is the relationship with radiotherapy because it is a frequently used and increasingly efficient treatment and concerns one out of two patients. It is also a very innovative treatment due to the latest generations of equipment.

2. **Bring out innovations for the benefit of the patients**

The other innovative aspect is that the team focuses its research both on normal and on tumor cells so as to better understand how radiations cause cell death or senescence. The research should also help identify the cellular mechanisms that could make tumor cells more sensitive to radiation than normal cells and result in – as an ultimate application - the development of new therapy strategies that increase the efficiency of radiotherapy and the patients’ comfort.