

■ Market segment dynamics

The world market for cancer drugs is estimated at 40 billion USD with an annual growth rate of 10%, in a total pharmaceutical market worth 600 billion USD with a growth rate of 7%. In addition, the world market for diagnostics in the field of cancer is 9.7 billion USD with a growth rate of 3.7%. The arrival of biomarkers will further increase this growth. The estimated world market for cancer vaccines in 2010 is 6 billion USD, which represents a third of the global market for vaccines.

Some 22 million people are afflicted with cancer in the world, with 10 million new cases appearing every year, and 6 million deaths per year. In France, 800,000 people have cancer and there are 280,000 new cases every year.

The importance of the market and the unsatisfied therapeutic needs are the two driving forces of companies involved in this field.

Major international pharmaceutical laboratories are involved in the fight against cancer. Speciality niches are established based on the cancer type and/or selected strategy.

Biotechnology companies are working on new scientific approaches (monoclonal antibodies and apoptosis) and offer innovative therapeutic solutions to pharmaceutical industrialists that have the means to ensure development of these products worldwide. These are based on the latest scientific developments and a better comprehension of cellular mechanisms. New paths are also being developed in the field of prognosis according to the genotype of each individual.

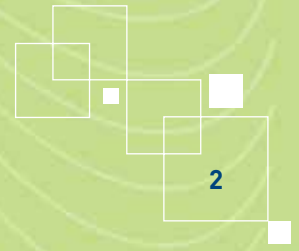
French players include: Sanofi-Aventis, Pierre Fabre, Servier and Ipsen to mention a few of the largest pharmaceutical laboratories involved in R&D and the marketing of cancer therapies. BioAlliance Pharma, Diatos, Innate Pharma, Ipsogen, Vaxon Biotech and many other French biotechnology companies are also important players in innovative approaches to therapeutic solutions. Major foreign laboratories such as Pfizer, GSK, Astra-Zeneca, Amgen, BMS, Lilly, MSD, Roche, Takeda and Wyeth are some examples of international laboratories present in France in the field of oncology.

■ France's attractiveness

France is Europe's 2nd largest pharmaceutical market alongside Germany, and the 4th largest in the world. It has been Europe's leading manufacturer of pharmaceutical drugs since 1995, and its capacity for innovation is recognized around the world. With the network of Assistance Publique - Hôpitaux de Paris (Public hospitals of Paris) and the Hospices civils de Lyon (Public hospitals of Lyon), to name just two of the largest cities in the country, France has the largest hospital network in Europe and is a prime location for clinical trials for innovative treatments. In 2005, over 1,000 trials were performed in France, 24 trials in gene and cellular therapy, of the 1,074 products in question 23% concerned oncology, 18% concerned diseases of the nervous system, 8% concerned cardiology, and 10% concerned infectious diseases. Moreover, contrary to popular misconceptions, France offers the lowest average cost per patient among the main countries targeted by laboratories, according to a study commissioned by the LEEM.

France's health system is acknowledged as being the best in the world and allows all patients to access the available treatments. Patient associations are very active alongside industries to improve patient care.

The major strength is the declaration by the President of the Republic in 2003 – to make the fight against cancer a national priority. The Institut national de lutte contre le cancer – INCa (National Institute for the fight against cancer) was created from this initiative. It is responsible for the coordination of all the



players involved in the research and treatment of cancer in France. It therefore coordinates the research, prevention, information and social action for patients, and training for the different players. It encourages partnerships between the academic world and the bio-pharmacy industries. Existing networks like those of cancer hospitals (some of which have international reputations, such as the Curie Institute and the Gustave Roussy Institute) and the cancer clusters, acquire better visibility for these players.

The various measures concerning research & development obviously have a useful impact on this sector. Firstly, the Research Tax Credit, whose ceiling was recently raised to 16 M euros, but also project tenders emanating from the French National Research Agency (ANR), Clinical investigations centers, or dedicated clusters.

The temporary authorization for use (ATU) procedure and also the temporary treatment protocol (PTT) are French initiatives that are especially favourable to cancer therapies and allow faster access to innovative treatment solutions for the patients.

In addition, the expertise of French scientists and practitioners in this segment is particularly acknowledged at an international level.

■ International players in France

- Pierre Fabre and Navelbine

Navelbine is an anticancer agent derived from a plant, the rosy periwinkle. This discovery is the result of collaboration between the CNRS and the manufacturer.

The periwinkle produces two main active ingredients: vinblastine and vincristine, isolated between 1958 and 1965, when the anti-tumour action was demonstrated. The entire plant is utilised and produces 1 g of vinblastine per ton of periwinkle, and 10 g of vincristine. In 1978, Professor Potier and his team (CNRS) used vinblastine to produce an even more effective molecule: navelbine. The product is used alone or in association with other antineoplastics to treat certain types of lung and breast cancer. Pierre Fabre took charge of the production by hemi synthesis at the industrial level, and the pharmaceutical and clinical development. It was first marketed in France in 1989.

The ISTMT (Institut des Sciences du Médicament de Toulouse) was created to accommodate the mixed research teams of CNRS and Pierre Fabre. This institute is part of the framework of the "Cancer-Bio-Health" cluster in Toulouse.

- GSK and Cervarix®

At the end of September 2006, the British laboratory GSK announced an industrial investment of 500 million euros at the site of its Sterilyo subsidiary at Saint-Amand-les-Eaux in the Nord-Pas-de-Calais. This investment will ensure the group's future production of vaccines, and specifically the Cervarix® vaccine against cervical cancer. The site currently employs 120 people and will employ more than 750 highly qualified personnel by 2011.

The GSK investment will enable a strategic increase in the production capacity of the company in the rapidly expanding field of vaccines. The worldwide demand for bio production capacity is such that competition is strong. For this project, France was in competition with Hungary, Ireland and Singapore. France's position in the international pharmaceutical field, the advantages of the Saint-Amand-les-Eaux site, but also the possibility of recruiting and training highly qualified personnel, and the support which the laboratory received from local and national authorities (incl. the IFA) contributed to the final decision.