

## The Jules Bordet Institute acquires state-of-the-art radiotherapy equipment for increasingly precise and effective treatment



Brussels, 29 January 2020 - **The Jules Bordet Institute, the reference centre in the fight against cancer, has signed a public procurement contract worth 22 million euros with the Elekta company for the supply of new high-tech radiotherapy equipment. Acquisitions made possible thanks to the support of the "Friends of the Bordet Institute" and that prepare the way for the Institute's move to a new hospital, the 'New Bordet', on the Anderlecht campus.**

### **The acquisition of an accelerator combined with an MRI (MRI-LINAC), a first in Belgium**

The Jules Bordet Institute's Radiotherapy Department is to acquire the MRI-LINAC Elekta Unity, a state-of-the-art device that combines high precision magnetic resonance imagery (1.5 Tesla MRI) and the treatment of tumours by adaptive irradiation using a linear accelerator (LINAC). The Jules Bordet Institute will be the first centre in Belgium to possess this technology. The MRI-LINAC is a revolutionary technology as it provides very comprehensive biological information and permits a very precise targeting of tumours, even in the case of tissues where the contrasts between a healthy environment and a tumour environment are difficult to distinguish.

Thanks to these guidance parameters defined by integrated imagery, the planned treatment is checked before it is commenced at the moment when the patient is already in position to receive it. If there is any movement or change to the environment, the system recalculates in real time the parameters of the dose to be delivered to the volumes targeted. The term used is "real time adaptive" radiotherapy. This incomparable calculation precision makes it possible to target and irradiate the tumour cells with a very high precision and optimal dose while saving more neighbouring healthy tissue. For the patient, this kind of ultra-personalised treatment using real time calculation reduces the risks of toxicity and the number of treatment sessions. This major acquisition, made possible thanks to the support of the "Friends of the Bordet Institute", opens up new horizons in the field of cancer research. The in-depth study of stereotaxic therapy used in combination with immunotherapy being just one example.

## **Two new linear accelerators and the upgrade of two existing accelerators**

In addition to this revolutionary technology, the Jules Bordet Institute is also acquiring two new linear accelerators of the latest generation. When treating cancer with radiotherapy, the linear accelerator is the device that permits the irradiation of the tumours. The acquisition of this new equipment combined with the upgrade of the two current linear accelerators will make it possible to treat more patients with increased precision thanks to this use of the most effective technologies available. In addition, all these accelerators will be twinned, thereby allowing patients to transfer from one machine to the other when necessary (in case of maintenance).

## **A state-of-the-art Radiotherapy Department for the new Jules Bordet Institute**

The two new linear accelerators, combined with the two upgraded existing accelerators, are now joining the Gamma Knife (Erasmus Hospital) and the intraoperative accelerator already present at the Jules Bordet Institute. The MRI-LINAC will be arriving at the new building during 2021 but very soon patients will be able to benefit already from technological progress thanks to the new high precision parameterization and computation software solutions provided by the new equipment. All this specialized equipment is preparing the way for the imminent move of the Jules Bordet Institute to the Anderlecht campus. The reference centre in the fight against cancer is continuing to pursue its mission of providing patients with equipment at the forefront of technology and the most precise and effective cancer treatment available.

### **Press Contacts**

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### **About the Jules Bordet Institute**

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An integrated multidisciplinary centre, unique in Belgium, the Jules Bordet Institute is an autonomous hospital devoted exclusively to cancer.

For 80 75 years, the Jules Bordet Institute has been providing its patients with diagnostic and therapeutic strategies at the forefront of progress to prevent, detect and actively combat cancer. The Institute pursues three missions: care, research and teaching. Its international reputation attracts the world's leading cancer experts. Its spirit of innovation has enabled it to participate in the development and discovery of major new methods of diagnosis and treatment with the aim of bringing the findings to the patient as rapidly as possible.

In May 2018, the Jules Bordet Institute received official accreditation and designation from the OECI (Organisation of European Cancer Institutes) as a "Comprehensive Cancer Centre", a quality label reserved for multidisciplinary cancer care institutions whose activities include research and teaching. The only Comprehensive Cancer Center accredited by the OECI in Belgium.

The Jules Bordet Institute is a member of the Iris and Université Libre de Bruxelles hospital networks. With its 160 beds dedicated exclusively to cancer patients, every year the Institute treats more than 6,000 in-patients., 15,000 out-patients and provides 84,000 consultations. To effectively meet future demographic and scientific developments, a new Bordet Institute is being built on the ULB Anderlecht campus, next to the Erasmus Hospital. Inauguration is scheduled for the end of 2021.

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Institut Jules Bordet, Association Hospitalière de Bruxelles régie par la loi du 8 juillet 1976  
Jules Bordet Instituut, Ziekenhuisvereniging van Brussel onderworpen aan de wet van 8 juli 1976



## About the Friends of the Bordet Institute

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For more than 50 years, "The Friends of the Bordet Institute" have been financing research against cancer research at the Jules Bordet Institute, the reference centre in the fight against cancer in Belgium and abroad. As the Institute's biggest private donor, it has given close to 13 million euros to the Institute in the past five years.

Considerable progress has been made in the field of oncology in recent years. Our understanding of the biological origin of cancer is growing all the time. Whereas 10 years ago we spoke of the microscopic analysis of tumours, today we speak of genetic profile, of sequencing, etc. Dozens of new molecules and markers have been developed, permitting the advent of personalised treatment. This progress has to a large extent been made possible through the extraordinary technological progress of recent years. But these new techniques that now enable us to probe the infinitesimally small are increasingly expensive.

For more than 50 years, the help of the "Friends" has enabled the Jules Bordet Institute to pursue its research using the most advanced technologies, thereby providing patients with the most innovative screening and treatment techniques. Techniques that generate life and hope.

By helping and supporting "The Friends of the Bordet Institute" you are participating in the many research programmes that they support and that all pursue a single aim: victory for life.

To find out more about the association The Friends of the Jules Bordet Institute, go to the website [www.amis-bordet.be](http://www.amis-bordet.be)  
To find out more about the "101 tables pour la vie", go to the website [www.101tables.com](http://www.101tables.com)