THE GUSTAVE ROUSSY DEVELOPMENT PROJECT
2015-2020
GUSTAVE ROUSSY IS THE LEADING COMPREHENSIVE CANCER CENTER IN EUROPE IN TERMS OF VOLUME OF CLINICAL ACTIVITY. AS A COMPREHENSIVE CANCER CENTER IT HAS THREE KEY MISSIONS: CARE, RESEARCH AND EDUCATION/TRAINING.

Delivering top-notch care requires ongoing investment in first-class high-tech infrastructures in diagnostics, imaging, robotic surgery, radiation therapy, hemato-oncology and digital information systems.

The Development Project is very ambitious in this regard. Gustave Roussy has a key mission in terms of bringing innovation to cancer patients by offering a first-rank programme in developing new cancer treatments. Developing a first-rank immunotherapy programme will be a key focus and will refine the currently advanced precision medicine programme.

This key mission requires integrated structures securing a continuum from basic research to translational research to clinical research and back again to basic. Major investments will be made to secure these links. The construction of the preclinical cancer research building (PRECAN) is of pre-eminent strategic importance.

Moreover a cancer research center structure will be created and special programmes for clinician-researchers. These investments also prepare and secure the basic infrastructure for the development of a Cancer Campus, the ideal environment to attract biotech and high-tech companies and to create a biopark dedicated primarily to oncology.

Regarding the third core task as a CCC: education and training programmes are closely integrated thanks to close liaisons with leading establishments such as University Paris-Sud, the French Alternative Energies and Atomic Energy Commission (CEA) and the ENS (French Ivy League school). Gustave Roussy will be delivering the best curriculum in oncology and cancer sciences in France with specialty programmes in French and English designed with an international audience in mind.

Gustave Roussy has a regional, national and international role to play. It is founding member of the Cancer Core Europe consortium federating six leading CCCs in Europe creating an e-institute structure that will require much investment, both financially and intellectually, over the next 5 years.

To resume therefore, our ambition is to position Gustave Roussy as a leader in cancer care, research, and training in Europe and to bring innovation to cancer patients by embracing the principles of collaborative integrated research programmes at national and international level.

The future is now. The future is us!

Professor Alexander Eggermont
General Director Gustave Roussy
INTRODUCTION

The Gustave Roussy Medical and Nursing Care Project is focused on innovation. Over the next 5 years, the ambition is to renew the oncological surgery model, upgrade interventional radiology, increase the number of radiotherapy units and develop molecular medicine in routine treatments and immunotherapy in order to make personalised medicine available to all patients, and double the number of bone marrow transplants by creating a haematology department.

Going forward, the challenge will be to professionally administer these sophisticated precision treatments whilst pursuing remote treatments scenarios for patients with very different requirements. The recent merger with the Chevilly-Larue hospital gives Gustave Roussy new hospitalisation opportunities to innovate the care pathways of patients.

Research and Teaching will move forward by intensifying the cooperation with the future Paris-Saclay University. The deployment of molecular medicine requires a very high level of integration of care, clinical and basic research in the context of a research centre within an international academic network setting. Gustave Roussy is also investing in a preclinical research centre platform, closely linked to clinical and transactional research, which will bring in partners in biotech and bio-informatics. As a leader in the Cancer Core Europe consortium, Gustave Roussy will also be launching a programme to share and analyse patient data, by creating the Big Health Data programme.

An Innovative Quality Policy in line with the most precise international standards will support therapeutic innovations. The Institute will also develop a services programme to span the healthcare spectrum from “providing care” to “taking care” in order to enhance patient reception, information and experience. Quality must also embrace a global approach, centered on the person. This is why, from the clinical pathways to the care pathways, Gustave Roussy will accompany and guide patients throughout all treatment stages. Understanding key pathway criteria will enlarge the scope of the quality and will introduce the concept of relevancy of treatment.

The Digital Revolution constitutes a new and important metric in assessing Gustave Roussy’s level of performance, and will make it possible to transform processes, facilitate access to information, and enrich internal and external relationships.

For Gustave Roussy, performance also involves optimising management and getting all concerned involved parties in ensuring the Institute’s success. In this regard, managerial innovation will consist in a policy of dynamic human resources, firmly oriented towards the skills development. Thanks to internal contracts signed with Gustave Roussy departments, management responsibilities and duties can be delegated, thus leading to more independence and reactivity.

To ensure its future development, financial independence and economic equilibrium are also required; this is why medico-economic assessments will be systematically carried out to pilot the activity, and additional funding opportunities will be identified, in particular by means of outreach programmes to donors.

Gustave Roussy’s strategy also entails embracing a partnership policy, both national and international in scope. Located at the heart of the Bièvre Science Valley, at the point of entry in the new Grand Paris development project, Gustave Roussy will play a major role in the development of a biopark optimising its research infrastructures and promoting fruitful interactions between industrialists, researchers, and clinicians. On an international level, Gustave Roussy will develop academic partnerships based on research, valorisation of its expertise, and the accommodation of patients from outside of France.
CONTENTS

1. THE MEDICAL PROJECT ................................................................. 8
   High-Technology infrastructures ................................................... 9
   Surgery ....................................................................................... 9
   Increase infrastructure in interventional and diagnostic radiology .... 9
   Strengthen radiotherapy .............................................................. 10
   Become a haematology reference center ...................................... 11
   Create a Department of Haematology .......................................... 11
   Architectural restructuring of the service and creation of new industries 11
   Immunotherapy programmes and personalised medicine ........... 12
   Immunotherapy: develop the reference programme in France .......... 12
   Access to therapeutic innovation for all patients ......................... 13
   Clinical Research ....................................................................... 14
   Gustave Roussy as a Cancer Care Centre ..................................... 15
   Treating rare cancers ................................................................. 15
   Paediatrics ................................................................................. 17
   Create a personalised prevention unit ....................................... 18
   Comprehensive Care Centered on the Person ............................. 19
   Expanding the Gustave Roussy range of treatments through synergies with Villejuif and Chevilly-Larue 19
   Organise clinical pathways for personalised care, and to create intermediary professions 19
   Structure the treatment of older patients .................................... 21
   Improve care for patients with terminal illness .......................... 21
   Setting up an Acute Palliative Care Unit .................................... 22

2. RESEARCH AND TEACHING .......................................................... 23
   Reinforce our position as a University Hospital .......................... 24
   Reinforce links with the Paris-Sud University ............................... 24
   Promote and develop academic research ..................................... 24
   Towards a Cancer Research Center .......................................... 25
   Build the infrastructure required for future research ................. 26
   Create an oncology Preclinical Structure .................................. 26
   Improve Technical Platforms and Other Research infrastructures ... 27
   Foster our European partnerships .......................................... 27
   Conduct research across Europe .............................................. 27
Increase our resources coming from the European Union.................................28

**Develop a training programme with the Paris-Sud University Faculty of Medicine** ..........................28
Participate in the creation of the Interdisciplinary University Centre for Healthcare ("PUIS").................................................................28
Develop excellence in cancer training........................................................................28

3. **QUALITY** .................................................................................................................30

*Create new models to develop the quality of the treatment provided*.....................................31
Stimulate and support quality initiatives .............................................................................31
Invest in quality ..................................................................................................................31
Meet patient expectations above and beyond treating cancer ...........................................31
Modernising the Medication circuit ....................................................................................32
Create new models for quality ...........................................................................................33
Improve the risk-management policy ..................................................................................34

**Quality care: from treating to caring** ...............................................................................35
Kindness and attention: a hallmark of the spirit of service at Gustave Roussy...........35
Inform ..................................................................................................................................35
Welcome ...............................................................................................................................36
Render services ....................................................................................................................37
Assess ....................................................................................................................................37

4. **CLINICAL PATHWAY** .................................................................................................38

Longer treatments require a specific organisation .........................................................39
Identify, boost and steer the coordination of clinical pathways ........................................40
Enhance Gustave Roussy’s commitment in the 'clinical pathway' logic .........................40
Look upstream and downstream ......................................................................................40

**Define an implementation strategy** ...............................................................................41
Define the content of the new coordinating occupations ..................................................41
Use information technologies ............................................................................................41

**Make use of a robust methodology** ...............................................................................42
Define the patient profiles and the typology of clinical pathways ....................................42
Define and monitor clinical pathway indicators ...............................................................43
Assess the medico-economic impact of coordinated clinical pathways .........................43
5. DIGITAL REVOLUTION ................................................................. 44
   The Digital Revolution, a lever of performance ......................... 45
   Deploy the patient portal ............................................................ 46
   Implement the professional portal .................................................. 47
   Integrate new technologies into the genomic and anatomic-pathology data-processing ............................................. 48
   Structure patient data ................................................................. 48
   Set up research data mining tools .................................................. 49

6. MANAGERIAL INNOVATION ....................................................... 50
   Attract and develop talent .............................................................. 51
   Improve management ................................................................. 51
   Delegation of human resources and micro-management .................. 51
   Skills development ................................................................. 52
   A human resources policy for promoting excellence .................... 52
   Corporate social responsibility in all domains ............................. 54
   Display its social responsibility as an employer ............................. 54
   Manage environmental impacts .................................................. 56
   Optimise organisations and manage in-house contractual agreements .......................................................... 57
   Integrate the Chevilly-Larue site .................................................. 57
   Reinforce in-house contractual agreements by continuing to implement participative management for increased efficiency .......................................................... 57
   Provide committees with more visibility ....................................... 59
   Guarantee Gustave Roussy’s financial independence .................... 59
   Financial balance as an objective .................................................. 59
   Optimise Gustave Roussy’s medical-economic management ........ 60
   Pursue an ambitious donation and legacy policy ......................... 60

7. THE PARTNERSHIP POLICY ......................................................... 62
   Organizing an integrated healthcare territorial network for Gustave Roussy .................................................. 63
   National Positioning .................................................................... 65
   Interaction with the environment: the vision of the economic development as part of the Cancer Campus project and the Campus Grand Parc biopark .......................................................... 65
   Structured as a “group” ............................................................... 66
   International ambition ............................................................... 67
   The policy of academic development ............................................ 67
   International activities boosting the development of Gustave Roussy .......................................................... 69

ANNEXES ..................................................................................... 72
Tomorrow’s healthcare will be determined by scientific progress currently underway and, in many cases, will depend to a significant extent on the high-tech equipments capable of making this progress a reality.

Many challenges and major changes lie in store between now and the year 2020.

The development of routine early testing and molecular biology, the creation of top-class imaging and radiotherapy, interventional radiology and precision surgery will depend on calling on the skills of highly specialised medical and nursing teams using the latest equipment.

In parallel, the daily implementation of a patient clinical pathway based on an approach both global and individual is at the heart of the debate regarding the possible future changes in patient care.

In order to meet these challenges, Gustave Roussy has committed itself to a policy to modernise its equipment and to engage a process to continually improve smoothly functioning clinical pathways.

These 2 complementary areas will be based on structuring investments, as well as on a new generation of information systems and on optimised organisations. The Institute will further strengthen the integration of care with research, and will support the emergence of new care skills in order to tailor patient care to patient requirements during the acute and chronic phases of their illness.

THE MEDICAL PROJECT
HIGH-TECHNOLOGY INFRASTRUCTURES

SURGERY

PRECISION SURGERY

Towards the end of 2014, Gustave Roussy acquired a robot dedicated to innovation and training in oncological surgery.

The Institute launched an innovation programme focused on operating techniques in oncological surgery, especially in the areas of visceral surgery, gynaecologic surgery, cervico-facial surgery, breast surgery and plastic surgery.

The Institute is also preparing a programme to develop new indications as well as a training programme.

THE OUTPATIENT SURGERY CENTER

The development of outpatient surgery between now and 2020 is a priority for the Institute.

This project, architectural as well as organisational in nature, will be implemented during the years 2015 and 2016. The goal is to offer patients planned and integrated care at all stages of their clinical pathway.

The project builds on the opportunities offered by advances made in anaesthetics and surgery and will make it possible to redesign and rethink organisational models based on patient needs.

Four additional operating theatres will be created to increase the intervention capacity. And patients will benefit from a dedicated unit with a specific organisation. The outpatient treatment rate will increase from 24% to 31%.

“PÔLE DE CHIRURGIE”, AN UMBRELLA STRUCTURE UNITING ALL DISCIPLINES AROUND SURGICAL AND MINIMALLY INVASIVE PROCEDURES

In order to optimise the functioning and enhance efficacy, a “Pole de Chirurgie” an umbrella structure uniting all disciplines around surgical and minimally invasive procedures, will be created. It will consist of the operating theatre itself as well as anesthesia, general surgery, head and neck surgery, and plastic surgery.

The aim of creating this integrated structure is to optimise the organisation of all surgical procedures and expand the overall capacity in this domain.

Governance will also be reviewed with this purpose in mind; here, the idea is to respond to the increase in activity while simultaneously reducing the time elapsed between detection of the illness and treatment, anticipate surgical evolutions and prepare future cooperations in the region.

INCREASE INFRASTRUCTURE IN INTERVENTIONAL AND DIAGNOSTIC RADIOLOGY

The current infrastructure in diagnostic and interventional radiology does not match the identified needs.

Given the expected growth of these needs over the years to come, Gustave Roussy needs to strengthen its technical platform by acquiring a second MRI (magnetic resonance imaging), as well as a second PET (positron emission tomography) Scan and a labelling platform to develop new peptide tracers for the PET. This deployment will also lead to the...
creation of day hospital surgical beds, and to an additional MRI room reserved for interventional radiology.

In collaboration with the French Atomic Energy Board (CEA), the potential interest of a new technology, namely PET-MRI in oncology, will be assessed. The implementation of these projects will be done in close collaboration with the radioprotection unit as well as the medical physics imaging unit.

Lastly, the development of these activities will be accompanied by the continuation of the medical resources and the development of the attractiveness of Gustave Roussy for imaging specialists.

**STRENGTHEN RADIOTHERAPY**

**MODERNISE THE HIGH-PERFORMANCE AND HIGH-PRECISION RADIOTHERAPY PLATFORM**

In order to offer patients the most advanced treatments possible, and drawing on its tradition of innovation, the radiotherapy department intends to fully embrace the technological, clinical and organisational changes expected to take place between now and 2020, namely: development and expansion of patient care rendered using IGRT (image-guided radiotherapy) and IMRT (intensity-modulated radiotherapy), hypofractionated radiotherapy and brachytherapy, pre-operative treatments, adaptive radiotherapy guided by functional imaging, MRI associated with IGRT, personalisation of radiotherapy care by taking into account biological factors to adopt the prognosis and therapy accordingly.

With this in mind, Gustave Roussy will be modernising its facilities by acquiring no fewer than 5 new machines over the next three years, and renewing its brachytherapy equipment, thus developing its brachytherapy and external radiotherapy capacities. As part of the haematology development project, the Institution will be requiring a specific machine to be used for total body irradiation.

**START A HYPOFRACTIONATED RADIOTHERAPY PROGRAMME**

The principle of hypofractionated radiation therapy is to deliver a higher dose per session and reduce the duration of the treatment whilst increasing the quality of care. In other words: better tumour control for less radiotoxicity.

Hypofractionated radiation therapy can help improve access to care (less treatment time per patient, more patients treated per machine) and is of particular interest when treating breast and prostate cancers.

The development of hypofractionated radiation therapy is increasingly a strategic issue both in terms of the positioning of the Institute as well as its ability to respond to the impact of the care package.

**DEVELOPMENT OF PROTON THERAPY**

Proton therapy is a major technological evolution used in particular to treat tumours in children and adolescents. Moreover, it is probable that patients suffering from tumours of the nervous system and those in the head and neck area can also draw major benefits from this therapy. Given its importance as regards head and neck cancers, the Institute is keen to explore the possibility of new proton therapy indications for adult patients.

Gustave Roussy intends to get involved in the development of proton therapy, and will submit an application to become part of the national programme. We believe that, given the size of the population in the Paris region, several proton therapy sites will be justified.
The amount of the investment will entail working out further details of the economic model. As a result, this aspect of the Institute’s development will be finalized with the aim of considering the acquisition of a proton therapy device by 2020.

**BECOME A HAEMATOLOGY REFERENCE CENTRE**

**CREATE A DEPARTMENT OF HAEMATOLOGY**

Further development of a robust activity in haematology at Gustave Roussy is needed because: an increase in clinical and biological research in this domain, an increase in demand for bone marrow transplants both at the national and international lever, and a major increase in early drug development clinical trials in the Drug Development Department (DITEP).

Specifically, the envisaged haematology project consists of a haematology department integrating clinical care, major treatments (day hospital) and outpatient consultations, all this closely connected with the Institute’s research teams by means of a dedicated translational research structure, heavily involved in developing new therapies at the international level. The integration of cell therapy activities in this hospital biology department (cytology, cytogenetics, molecular analysis, pathology) remains to be considered.

**ARCHITECTURAL RESTRUCTURING OF THE SERVICE AND CREATION OF NEW INDUSTRIES**

Most of the department (62 beds and 15 day hospital positions) will be consolidated on one floor, or at most two floors, with a designated secretary, federating 5 sectors of the Villejuif site and 1 sector of the Chevilly-Larue site. A haematological biology sector will be set aside in the bio-pathology department, and early clinical trials will be consolidated in the DITEP, to assure the infrastructure supporting early drug development. In addition, a pharmacological activity dedicated to phase 2 clinical trials will be created with 4 beds. This new haematology organisation at Gustave Roussy will need an expansion of the medical
staff. Lastly, on the Chevilly-Larue site, Gustave Roussy will request authorization to pursue follow-up and rehabilitation care activities specialised in haematology-oncology, in order to bolster and compete the care chain.

**IMMUNOTHERAPY PROGRAMMES AND PERSONALISED MEDICINE**

Gustave Roussy strengthens its leading position in the development and evolution of personalised medicine.

**IMMUNOTHERAPY: DEVELOP THE REFERENCE PROGRAMME IN FRANCE**

Immunotherapy, as a therapeutic strategy, has always been an active topic at Gustave Roussy. Gustave Roussy was heavily involved in the first clinical trials of anti-CTLA-4 and anti-PD-1/PD-L1 and is a recognised leader in this field at the European level, in particular regarding melanoma and lung cancer. Moreover, several of the Institute’s research teams are involved in thematic studies of immunotherapy strategies and tumour immunology.

Here, our challenge is to provide immunotherapy to as many patients as possible with various types of cancer. This will be achieved partially by opening the clinical trials providing access to immunotherapy for several types of cancers.

In addition, immunotherapy trials specifically dedicated to rare tumours (sarcomas, brain tumours, etc.) or more complex clinical situations (brain metastases, etc.) will also be initiated.

The abundance of forthcoming molecules, as well as the success of molecules already in the advanced stage of development (anti-PD-1, anti-CTLA4) will lead to several combinatorial early trials, and will renew interest for immunotherapy strategies such as vaccines and chimeric antigen receptors (CARs).

These numerous future trials can be run in tandem - and not replace - with the development of other anti-cancer therapies [TKIs, etc.], and it will be up to DITEP to anticipate and react to this increase in early therapeutic options, all of which is in the interest of patients as well as industrial and academic partners.

Given the individual skills and clinical expertise already in place in the Gustave Roussy immunotherapy department, the institutional objectives are twofold: foster the development of this therapeutic strategy in the various departments, and promote our expertise in immunotherapy on a national and international level, both to industrialists and academics alike.

At institutional level, the scope of the immunotherapy programme must be both broad (since it concerns all departments) and deep (from basic to clinical research). Reaching these goals will consolidate the reputation and role of Gustave Roussy in the field of immunotherapy, both in France and Europe.
PERSONALISED MEDICINE: STRENGTHEN AND ORGANISE THE DEPLOYMENT

FACILITATE ACCESS TO EARLY TRIALS

The Drug Development Department (DITEP) was established on 1 September 2013 to bring innovation to a maximum of patients in France by making Gustave Roussy Europe’s leading center for early cancer trials.

The evolution of the Therapeutic Innovation Service reflects 2 main goals: firstly, give as many patients as possible access to innovative therapeutic trials (part of the Cancer 3 Plan) by laying on significant capacities (in 2 years, the DITEP with increase from 12 to 17 Day Hospital Beds, and from 10 to 17 Standard Hospital Beds); and secondly, contribute to improving the quality of clinical research.

Within the context of its development project, one of DITEP’s objectives as regards clinical research is to give more and more patients access to therapeutic innovation. Specifically, as of 2013, 50% of patients participating in an early trial had been referred to the Institute by an oncologist exterior to Gustave Roussy. DITEP aims to increase the number of patients participating in early trials, whilst maintaining a healthy balance between outpatients and patients referred internally by the committees.

DEVELOP ROUTINE USE OF MOLECULAR MEDICINE

The influx of new tests and high-volume technologies dramatically enhances the prospects of molecular medicine.

However, the development of molecular biology platforms is held back by the singularity of the funding model, which is poorly adapted to the diversity of tests and not entirely compliant with international recommendations.

In order to accompany the development of personalised medicine, the Medical Pathology and Biological Department, as well as the committees, intend to structure their...
Each year, more than a quarter of the patients treated at Gustave Roussy for a malignant disease participate in a biomedical research programme. Specifically, between 2008 and 2013, almost 15,000 patients participated in a clinical trial sponsored by Gustave Roussy (43%) or by industry (29%) or an academic sponsor (28%).

The integration of research and care is a core value at Gustave Roussy, and the entire Institute is constantly mobilized to bring innovation to patients. The organ based tumour boards play a major role in managing and developing clinical research. Over the next 5 years, innovative clinical research, integrating new designs and new methodologies, will be deployed in the area of early drug development and precision medicine.

By drawing on expertise gained in personalised medicine since 2011 and by working on the platforms and processes established, the goal is to improve the medical utility of precision medicine with a focus on combining oncogenic de-addiction and immunomodulative approaches with a.o. checkpoint inhibitors. The integrated deployment of immunotherapy will be one of the major areas of development.

The field of rare cancers in adults and children, including rare forms of common cancers defined by the presence of biomarkers, will be explored in greater detail.

The development and approval of new technologies [surgical robot, interventional radiology, radiotherapy] will be part of the research dynamics, also involving systemic treatments whenever necessary.

The psycho-social and medico-economic impact of innovation will be systematically including long-term monitoring and prevention programmes. As part of the upscaling of nursing studies to the university level, innovative clinical research focused on nursing staff will be deployed. On a similar note, the role of the patient in research will be strengthened.

---

**CLINICAL RESEARCH**

---

...
On-site, the integration of research will be consolidated. Proof-of-principle trials from research carried out by the SIRIC (Integrated Cancer Research Site) will be sponsored by Gustave Roussy. The policy of special partnerships with the medical drugs industry will continue by opening the Institute to biotechnology industries, as part of the creation of the Cancer Campus.

As part of a process to continually improve quality, clinical research will be ISO 9001 accredited, and all changes brought about through new European regulations on clinical trials will be anticipated. Gustave Roussy will be a leading player and partner of the INCa (French National Cancer Institute) for the implementation of Cancer Plan 3 in clinical research. In particular, the Institute will be a major partner as regards the structuring of clinical research in the Paris area (GIRCI) and in France.

Clinical research will be one of the major focus points of Cancer Core Europe, a European consortium established in July 2014, and the number of European projects will be significantly increased.

GUSTAVE ROUSSY AS A CANCER CARE CENTRE

Gustave Roussy treats a wide range of malignant tumours. The Institute wishes to continue offering medical care to all cancer patients. This includes primary, secondary and tertiary care.

TREATING RARE CANCERS

Between 2009 and 2013, Gustave Roussy received a certain number of accreditations, as follows:

- INCa (The French National Cancer Institute) for the treatment of rare kidney tumours, Head
Neck tumours, thymomas, paediatric tumours, refractory thyroid cancers;

- **Centre expert national** [French Advanced Cancer Care Centre] for the treatment of soft-tissue sarcomas in adults, pregnant women with cancer, rare ovary tumours and adrenal tumours;

- **Centre expert régional** [Regional Advanced Cancer Care Center] for the treatment of neuroendocrine tumours and tumours of the peritoneum.

As a primary healthcare center, active nationally and internationally, Gustave Roussy intends to pursue its commitment to treating rare cancers, and aims to fully develop its role as a primary healthcare center.

**GENERATE DETAILED MONTHLY AND ANNUAL INDICATORS CONCERNING TREATING RARE CANCERS AT GUSTAVE ROUSSE**

The Institute will develop a tool to accurately describe the treatment of rare cancers (new patients treated, number of overnight stays, number of appointments, cost, income generated, etc), Currently estimated at 30% of total recruitment, which is probably an underestimation. At Gustave Roussy, all committees treat rare cancers and Gustave Roussy treats a very wide range of malignant tumours.

**CONSOLIDATE A LEADING ROLE IN RESEARCH AND IN ACCESS TO INNOVATIVE THERAPIES FOR RARE CANCERS IN ADULTS AND CHILDREN**

The development of new anti-cancer drugs, supported by DITEP, constitutes a major component of the Gustave Roussy Development Project 2015/2020. Including patients with rare cancers is not only a way to give these patients (very often cut off from therapeutic solutions) access to the benefits of the most recent cancer-treatment developments, it is also a way to stimulate the validation and discovery of new therapies. The target is also to increase the percentage of studies promoted by Gustave Roussy as regards rare cancers, currently estimated at around 30%.

**REINFORCE THE NATIONAL AND EUROPEAN DIMENSION**

Gustave Roussy firmly intends to continue its commitments as regards accreditations testifying to its status as a specialised cancer Institute for other rare cancers, in response to tender calls issued by the INCa and by European Reference Networks.

**MAKE THE MOST OF THE INSTITUTE’S EXPERTISE AND RESEARCH IN RARE CANCERS BY INCREASED INTERACTION WITH CANCER PATIENTS**

The Gustave Roussy Internet page with details of ongoing trials for which patients are being searched will be reviewed in 2015. One major objective is to compile, in a form easily accessible to medical professionals and patients alike, rich logistical and technical information relative to rare cancers treated in the Institute and to the clinical trials available for these diseases.

"Increase the proportion of clinical studies for rare cancers."
PAEDIATRICS

DEVELOPING THE GUSTAVE ROUSSY AS A REFERENCE CENTER FOR PAEDIATRIC ONCOLOGY

Here, the goal is to affirm Gustave Roussy as a paediatric referral center and to anticipate future care and treatment in this field.

The Gustave Roussy Paediatrics Oncology department already enjoys the advantages to be gleaned from housing a broad array of medical skills in a single extensive area (largest department of its kind in Europe).

The current areas of development envisaged for the development of the Paediatrics department are as follows: rare and complex tumours, development of cancer care programmes for adolescents and young adults.

The readability of national and international expertise, as well as precision medicine (immunology and immunotherapy for neuroblastoma and lymphoma, predisposition and identification of “drivers” in genetics) are also priorities for the Institute.

LONG-TERM FOLLOW-UP CLINICAL PROJECT FOR THE CHILDREN’S AND ADOLESCENTS CANCER CARE DEPARTMENT

Advances in Pediatric Haematology and oncology have achieved 5-year survival rates in excess of 80%. However, this success is tempered by the high level of late morbidity, in particular as regards cardiovascular, endocrine effects and secondary malignancies, with a mortality rate of between 8 to 11 times higher than for the general population. As a result, it is natural that the long-term care of such adults treated during their infancy for a cancer has become a public health issue, as highlighted by of the Cancer Plan 3.

The Gustave Roussy Long-Term Follow-Up Clinic for Children and Adolescents opened its doors in January 2012, making it a precursor center in France for the management of after-effects and complications caused by paediatric solid tumours. This activity is in the process of being structured in France, notably thanks to the efforts of the Long-Term Follow-up Committee of the SFCE [The French Child Cancer Society - Société Française de Cancérologie de l’Enfant] on which the Gustave Roussy paediatrics department and Inserm [National Institute of Health and Medical Research], U1018, are represented.

The Gustave Roussy Long-Term Follow-Up Clinic corresponds primarily to a specialist consultation to ensure comprehensive and medico-psychosocial care, tailored to the needs of former patients. The goals of this clinic are: provide an
The development of Personalised Medicine has now developed to a point where it can be extended to the field of cancer prevention. In line with the recommendations of Cancer Plan 3, Gustave Roussy wishes to create a transversal unit capable of implementing routine and research clinical programmes in this field.

The overall societal context supports this approach, and Gustave Roussy has, over the past several years, acquired an experience in this field thanks to "genetic high risk" programmes and translational and clinical research programmes in course elsewhere (genetics, breast, lung, head and neck, epidemiology, second cancer).

The guidelines given to this Personalised Prevention Unit ("UPP") are as follows: receive people who do not have cancer but who have been specially selected; enable a personalised assessment of cancer risks; deliver or structure appropriate and tailored treatment (coming from inside or taken from outside Gustave Roussy) and coordinate this treatment with other risks (cardiac, endocrine, etc.) by calling on mandatory supervision coming from outside Gustave Roussy.

The second function of this long-term follow-up clinic is therefore to develop this network in order to be able to detect and address various potential complications.

The Long-Term Follow-Up Clinic also carries out research. For example, it has studied the potential complications of some treatments which are still unknown (high-dose chemotherapy treatment followed by an autologous graft of peripheral stem cells or targeted therapies).

CREATE A PERSONALISED PREVENTION UNIT

The development of Personalised Medicine has now developed to a point where it can be extended to the field of cancer prevention. In line with the recommendations of Cancer Plan 3, Gustave Roussy wishes to create a transversal unit capable of implementing routine and research clinical programmes in this field.

The overall societal context supports this approach, and Gustave Roussy has, over the past several years, acquired an experience in this field thanks to "genetic high risk" programmes and translational and clinical research programmes in course elsewhere (genetics, breast, lung, head and neck, epidemiology, second cancer).

The guidelines given to this Personalised Prevention Unit ("UPP") are as follows: receive people who do not have cancer but who have been specially selected; enable a personalised assessment of cancer risks; deliver or structure appropriate and tailored treatment (coming from inside or taken from outside Gustave Roussy) and coordinate this treatment with other risks (cardiac, endocrine, etc.) by calling on mandatory supervision coming from outside Gustave Roussy.

The Clinic does not seek to replace the various organised cancer screenings, nor does it concern itself with the post-therapy monitoring of patients already treated for cancer. Lastly, the structure would not be directly open to the public.

The main objective would be to demonstrate the capacity of a transversal Personalised Prevention Unit to improve the level of knowledge of the participants as regards their personal health, their perception of the cancer risk, and their implication in setting up appropriate prevention.

From a scientific perspective, the project will include several assessment programmes in terms of ethics, public health and medical-economic considerations.

This project will be implemented as a pilot programme in May 2015, with operational targets to be reached after a period of one year. The extension (or not) of the pilot programme will depend on the assessment made of the targets, as well as on the financial feasibility of the programme.
COMPREHENSIVE CARE CENTERED ON THE PERSON

EXPANDING THE GUSTAVE ROUSSY RANGE OF TREATMENTS THROUGH SYNERGIES WITH VILLEJUIF AND CHEVILLY-LARUE

The merger, on 1 January 2015 with the Chevilly-Larue Hospital (suburb near Paris) offers Gustave Roussy the opportunity to provide patients with treatments more in line with their expectations and requirements. With approximately 50 medical beds, the Chevilly-Larue addition means that the increasing requirements of new patients are now easier to meet.

The follow-up care service with 50 bed means that Gustave Roussy can diversify the types of care provided and those patients requiring post-treatment rehabilitation can stay longer inside Gustave Roussy and are thus better prepared before going home. As a result, the overall quality of the clinical pathways is increased.

The merger with the Chevilly-Larue Hospital also ushers in opportunities to innovate the treatment provided to patients by developing new solutions (day hospitals, respite stays, withdrawal stays, therapeutic education, etc.) and new medical assessments (oncogenetic consultations, and in particular targeted prevention). In keeping with the spirit of Cancer Plan 3, the Chevilly-Larue facility (which already hosts the Onco 94 network) can develop relationships with doctors working outside the hospital, and create structures to monitor patients during acute phases, doing so in partnership with the outpatient sector and local medical professionals.

ORGANISE CLINICAL PATHWAYS FOR PERSONALISED CARE, AND TO CREATE INTERMEDIARY PROFESSIONS

Clinical pathways can be used as a way to optimise the scheduling, organisation and description of all healthcare steps in order to guarantee consensual and professional treatment in line with the recommendations of best practices.

The anticipation of patient requirements as part of a more integrated approach will be further pursued and better mastered thanks to the contribution of professionals identified in the clinical pathways.

The patient’s treatment plan will be updated throughout the patient’s
clinical pathway and shared with the patient, friends and family, the designated person of trust, and health professionals. The systematic development of tools to identify situations of vulnerability will be required to optimise patient care. Care processes and traceability tools used to objectively determine a patient’s healthcare requirements will need to be better formalized and, if necessary, improved, particularly as regards supportive care.

Coordination with health care professionals outside of the hospital will be strengthened, and steps will be taken to get patients more involved in healthcare networks (newsletter, secure email messaging). Inter-professional cooperation will also become more important in order to conserve medical skills and resources, and improve organisational aspects.

Thanks to the remote monitoring of patients, the CAPRI* Project will be used to experiment new tools as to continue coordination measures set up with clinical pathways even when the patient has left the hospital.

The development of accompanying actions in therapeutic education and of targeted programmes for patients and for close-proximity caregivers will reinforce their independence and ability to self-monitor. The positioning of these new skills in the patient’s clinical pathway will strengthen the health care team and the inter-professional collaboration focused on anticipating the requirements and future orientations of the patient, and will make it easier to identify the educational actions to be developed vis-à-vis the patient himself and his entourage.

This initiative will be a strategic element of differentiation to enhance the attractiveness and reputation of the Gustave Roussy Institute. The duties carried out by the clinical and practitioner nurse specialist will be clearly defined and will focus on healthcare, education and research.

A team of Clinical and practitioner nurse specialists will also serve to promote the dissemination of good practices using evidence-based medicine based on the identification of paramedical research themes. Gustave Roussy has already initiated the process by committing to a pilot project involving this profession by responding to a call for tenders issued by the ARS (Regional Health Agency) for the Paris region. Moreover, for almost two years now, the Gustave Roussy School of Cancer Sciences has been designing a model for Paris-Sud University to teach a Masters-level course in clinical sciences (option: oncology) aimed at paramedical professionals.

The new profession of clinical and practitioner nurse specialist will also serve as a model for other paramedical and medical-social professions based around the patient.

Clinical reasoning skills will be developed as will the integration of inter-professional cooperation actions currently in the process of development: sonographer, evolution of the profession towards e.g. dosimetry, lymphocele aspiration, changing gastrostomy catheters. Several cooperative actions are being considered to help improve patient clinical pathways.

**CHANGING THE MEDICAL ASSISTANT PROFESSION**

The profession of the Medical Assistant has been undergoing change for several years now. In order to meet changing needs in terms of the patient base [enhanced need for information, involvement in decision-making, aging population, chronicity of the disease, etc.], new roles and responsibilities have been developed. The creation of the role of clinical and practitioner nurse specialist represents a real opportunity to nursing profession more attractive.

* Internet portal accessible to patients and health professionals launched as an experimental project in January 2015, with an aim to hosting 500 patients.
etc.) and the paramedical, medical and surgical sectors, Gustave Roussy medical assistants set up a think-tank to explore the possible mutations to their professions between now and the year 2020. This reflection, as well as changing technologies, will enable them to achieve greater work organisation and perform tasks with a higher added value.

STRUCTURE THE TREATMENT OF OLDER PATIENTS

The Institute already has a care structure for onco-geriatric patients, which draws significantly on the geriatric skills of the Paul-Brousse hospital.

The proportion of patients aged 75 and over is growing each year. In 2013, Gustave Roussy cared for 1,553 patients aged 75 and over, which corresponds to an increase of 5% compared with 2012.

These patients account for 11.6% of hospitalised patients (compared with 11.4% in 2012). Because of the epidemiological trends of cancer in elderly persons in the Paris region and indeed all over France, there is a clear need to reinforce and diversify the treatment modalities for this patient group: generalization of the geriatric assessment of new patients with simple indicators (G8 - geriatric assessment grade for elderly patients, validated by the INCa); improving the traceability of elderly persons in the nursing and medical computerized records; raising the awareness of health professionals; cartography and enhancement of medical and surgical practices; preparing medico-economic models for these developments; exploring new organisations to enhance the functioning of the onco-geriatric unit; developing support care; developing clinical trials.

The Institute also aims to enhance the care structure to meet the requirements of the new certification of the French National Authority for Health ("Haute Autorité de Santé“ - HAS).

IMPROVE CARE FOR PATIENTS WITH TERMINAL ILLNESS

The hospitalisation of patients in Gustave Roussy in the palliative phase is not always done in a sufficiently anticipated and coordinated manner. At the moment, anticipating the arrival of such patients is done using procedures set up with the mobile team (in addition to hospitalisation in beds specifically reserved for palliative care and which are used for advanced palliative situations). Patients requiring palliative care can be oriented, in a timely manner, for Day Hospital early palliative care, with a joint monitoring by the mobile team and the oncologist.

In addition, the mobile team can be invited to become part of some medical staff and/or caregiver transmissions of hospitalisation services. Lastly, including palliative care reports in the patient’s medical file also makes it easier to anticipate the need for palliative care.

The early anticipation of palliative phases is now a real challenge in terms of the quality of patient care, and it covers several aspects: medical, ethical, organisational and financial. This requires a significant degree of collaboration between the teams in charge of palliative care and the oncology teams [in particular referral oncologists in charge of the treatment plan]. This anticipation could be improved by enhanced collaboration between the mobile team and the referral oncologist well in advance of the decision to discontinue curative treatments, notably during key moments of the patient’s clinical pathway: entering into the late metastatic stage; general decline in the overall condition or level of autonomy of the patient [marked at the current time by several calls to the emergency services and stays in the follow-up care unit]. And so, in order to improve the level of palliative care,
Gustave Roussy intends to develop the palliative care capacity of the Day Hospital, which will make it possible to better monitor the patient during his hospitalisation. As part of this process, the Institute will also set up an Acute Palliative Care Unit.

SETTING UP AN ACUTE PALLIATIVE CARE UNIT

Setting up an Acute Palliative Care Unit inside Gustave Roussy will act as a complement to the existing health care available, and will allow the Institute to provide poly-symptomatic patients with a wide range of advanced palliative care treatments.

This unit will provide the patient with a full range of inter-disciplinary oncological treatments in order to assess his care requirements. Thanks to the Gustave Roussy technical platform, treatments will be provided in order to obtain a stabilization of the patient’s psychological and clinical state and so optimise the transfer of the patient to a palliative support structure.

Lastly, this unit will make it easier to take decisions concerning patients in the palliative situation, doing so in liaison with the referral oncologist.

TYPOLOGY OF PATIENTS IN PALLIATIVE CARE

This structure would receive mainly palliative patients sent from Emergency Units and requiring stabilization of their clinical situation as well as further thought on how to organise their future care pathway.

The structure would also, albeit to a lesser extent, be used to receive, for a limited period of time, patients hospitalised in the Institute’s services, as well as outpatients requiring a re-balancing of symptoms, and lastly, some patients hospitalised in other structures (such as SSR) requiring advanced medical expertise in supportive care.

INNOVATION IN PALLIATIVE CARE

This Acute Palliative Care Unit would, in addition to the current care offer, be organised in order to meet patients’ requirements. This is an essential consideration given that one of the most recurring anxieties of patients in a terminal situation is that they will be deprived the palliative care they need. The unit would support oncologists as regards difficult decisions to be taken during the palliative phase, and could also provide support within the context of Multidisciplinary Concentration Meetings (“RCP”), as recommended by Cancer Plan 3. It would also be expected that an Acute Palliative Care Unit streamlines the management of patients. For referral to the Chevilly-Larue Hospital, it will be essential to provide an institutional mechanism to ensure the preparation of transfers and clarification of the treatment plan. Here, the challenge is to offer the patient the best expertise available to analyse the cancer disease from which he suffers.

“A treatment strategy using the most innovative solutions available while providing comprehensive and tailored care.”

* Réunion de Concertation Pluridisciplinaire
Each year, Gustave Roussy consolidates its standing as the leading cancer center with ongoing progress arising from clinical, translational and fundamental research, enabling Gustave Roussy to create and renew cancer care models.

Acting in its capacity as a University Hospital, Gustave Roussy works closely with the Paris-Sud University and will be working closely with the future Paris-Saclay University. Moreover, an Oncology Department has been created inside the Faculty of Medicine. As part of the 2015/2020 Gustave Roussy Development Project, the Institute intends to give top-level importance to this partnership, which plays such an important role for French research, oncology training as well as the Institute’s international visibility, as cancer research is international by nature. The Institute wishes to secure the resources to meet these challenges.

In order to be a part of the Paris-Saclay University project and the member of the Cancer Core Europe consortium, Gustave Roussy is focusing on 4 major projects, as follows: structuring a research center; creating a preclinical building; developing the role played by the School of Cancer Sciences; reinforcing the research team by creating new positions for medical researchers with sufficient, reserved time to pursue their research work. It is hoped that the combined fruits of these 4 projects will enable the Institute to attract the best researchers and thus contribute significantly to the Institute’s reputation as regards cancer research.
REINFORCE OUR POSITION AS A UNIVERSITY HOSPITAL

REINFORCE LINKS WITH THE PARIS-SUD UNIVERSITY

Created by Gustave Roussy, the school of Cancer Sciences (“École des Sciences du Cancer”) teaches oncology at the Faculty of Medicine of the Paris-Sud University. In this way, Gustave Roussy is a fully fledged partner of the Faculty of Medicine of the Paris-Sud University, and of other Paris Public Hospitals (namely, Bicêtre hospital at Kremlin, Antoine-Béclère Hospital at Clamart, and Paul-Brousse hospital at Villejuif).

Gustave Roussy participates in the structuring of the future Paris-Saclay University by establishing important links with the 4 training and research units (i.e. - medicine, pharmacy, sciences, economics/management) and with the 4 leading Engineering Schools (Polytechnique, Centrale, Supélec, École Normale Supérieure de Cachan). By doing so, Gustave Roussy will become the referral site for cancer research and training within the Paris-Saclay University, and will play an important role in establishing the reputation of this new University regarding oncology.

The role played by Gustave Roussy in university research and teaching will also lead to its medical researchers enjoying an excellent reputation in academia. And, in order to consolidate its teams and reinforce the level of integration between research and care, the Institute will create, each year, a new position for a medical researcher, by financing the research time of medical doctors (details in Chapter 6 - “Training”).

PROMOTE AND DEVELOP ACADEMIC RESEARCH

The promotion of academic clinical trials, taking place independently of the pharmaceutical industry, in partnership with Unicancer and dedicated associations [multi-core groups] remains a major goal for Gustave Roussy. In this regard, particular emphasis will be placed on promoting loco-regional therapies (surgery, radiotherapy, interventional radiology) and to the independent assessment of the quality of therapeutic innovations (benefits/risks).

It is important to maintain and develop, by means of self-financing, the trials-management team inside Gustave Roussy, and to support, by means of an annual grant, the setting up of “phase 1 loco-regional” trials in response to calls to tender.
TOWARDS A CANCER RESEARCH CENTER

As a part of the integration of different types of healthcare research, Gustave Roussy has committed to setting up a Cancer Research Center, doing so under the sponsorship of the Institute itself, as well as Paris-Saclay University, INSERM and the CNRS, with the deadline of 2020 in mind.

The research unit of Paris-Sud University in Gustave Roussy is structured into research units accredited by the CNRS and INSERM. Each unit, often divided into teams, is run by a Unit Manager, and submits its own scientific strategy to its sponsors (see preceding paragraph). Gustave Roussy hosts research units, and the sponsors make an annual donation to cover operating costs and also fund some research and technical positions. However, this structure (i.e., into separate research units) now lacks transparency, and is holding back the implementation of an integrated scientific strategy. In addition, this structure does not facilitate exchanges and transdisciplinarity nor does it lead to an optimal use of human and financial resources.

This is why, over the next 3 years, the Research Department will set up a think-tank to assess the optimal organisation for a Gustave Roussy Cancer Research Center federating all research groups on site. The proposals for an integrated center will then be submitted to the sponsors, with a view to becoming operational on 1 January 2020.

In practice, a work group, managed by a Head of Research, and consisting in researchers, medical researchers, technicians and administrators, will analyse equivalent structures in France and elsewhere, and will propose operating rules for this new Cancer Research Center.

This workgroup will specify the eligibility criteria for research teams in the research center (acceptance criteria, criteria applied when renewing teams during the five-year assessments by our sponsors), as well as the role to be played by clinical research, early clinical trials, imaging, and other technologies in this center. The working group will carry out research into how it might favour the integration of the various types of research, from fundamental research to clinical research, as well as epidemiology, human and social sciences.

Study of a tumour invasion by imaging of microtubules growing in a cancer cell (Research team: "Endocytosis, Cytoskeleton and Cell migration")
sciences, biostatistics, bioinformatics, systems biology, biophysics and technology.

It will also be necessary to define the scientific areas where efforts are to be concentrated, as well as the tools required for their development, and those which will not be developed on-site but which will require structured interactions with our environment.

The administration mode of the research center and its governance will be defined in line with its objectives.

**BUILD THE INFRASTRUCTURE REQUIRED FOR FUTURE RESEARCH**

**CREATE A PRECLINICAL CANCER RESEARCH STRUCTURE**

There are four reasons for developing this platform, as follows: developing functional genomics as a follow-up to descriptive genomics work will require developing several models, animal and otherwise; secondly, introducing new molecules to human beings requires going back and forth between models (pre-technical studies) and patients (clinical trials); thirdly, existing structures are too small and will soon fail to respect the standards imposed by the European Union; lastly, the “Grand Paris” (i.e., major urban development project for the greater Paris region) is expected to attract biotechnology companies which will be needing such a platform.

Gustave Roussy, in partnership with the Curie Institute, Xentech [a company], sponsors, and in particular,
The CNRS, have devised a project entitled “Platform for Cancer Research and Preclinical Development” (Plateforme de recherche et développement Préclinique en cancérologie).

This platform will have the following 3 functions: generate and test models; provide training (in liaison with the Paris-Sud University); foster technological development (mainly in imaging and radiotherapy). The platform will be open to industrialists and academic researchers.

The total surface area of the building (located in Villejuif) will be 5,000 m². It will house 25,000 cages for xenografted and transgenic mice, the development of new mice models, the in-vivo assessment of new therapies, identification and validation of biomarkers, and the phenotyping of animals, notably by imaging.

A structure dedicated to alternatives to animal models (stem cells, organoid bodies, induced pluripotent stem cells - iPSCs) is part of the project.

The building work has been estimated at €25 million, and the cost of equipping the platform has been estimated at €15 million.

The financing plan is in the process of preparation: it includes self-financing generated by 25% of the service provided to pharmaceutical and biotechnology companies.

Imaging and pharmacology programmes will be part of this preclinical platform.

**IMPROVE TECHNICAL PLATFORMS AND OTHER RESEARCH INFRASTRUCTURES**

Efforts started in recent years to improve technical platforms will be continued in order to achieve excellence. A Scientific Manager will be associated with the operational management of each technical platform. It will be expected of the manager to achieve national recognition, obtain renowned quality labels and ensure financial independence (notably as regards staffing costs).

It is also envisaged to develop a cellular biology platform.

Given the rapid increase in data arising from approaches in genomics, proteomics and metabolomics involving metadata, Gustave Roussy wishes to carry out the investment in personnel, software and IT required for the professional management, supervision and internal movement of such data.

Communicating the fruits of research entails improving structures as well as information media, by, for example, installing digital screens to promote the movement of information (best articles published, scientific seminars, awards). Setting up an area for researchers to meets in Research Blocks 1 and 2 will facilitate discussions, exchanges and collaborations. In the longer term, the site could be developed to include several Research Blocks, which would significantly increase the surface area reserved for such constructions. This operation would naturally facilitate structuring the platform as an integrated research center.
The partnership between Paris-Sud University and Gustave Roussy has led to oncology teaching being catered entirely by the Institute, which explains the origins of the specific profile of the École des Sciences du Cancer as the only Oncology University Training Department managed by a Cancer Centre. As part of the Gustave Roussy Development Project 2015/2020, Gustave Roussy wishes to put the teaching of oncology at the service of its development strategy.

**FOSTER OUR EUROPEAN PARTNERSHIPS**

**CONDUCT RESEARCH ACROSS EUROPE**

Gustave Roussy and the National Center for Tumour Diseases (NCT-DKFZ Heidelberg) were the driving forces behind the Cancer Core Europe consortium federating 6 comprehensive cancer centres to prepare a coordinated response to the calls of the Horizon 2020 programme. These are: Gustave Roussy, Cambridge Cancer Center (Cambridge, UK); Karolinska Institutet (Stockholm, Sweden); Netherlands Cancer Institute (NKI-Amsterdam, Netherlands); Vall d’Hebron Institute of Oncology (VHIO-Barcelona, Spain); DKFZ-NCT (Heidelberg, Germany).

The evolution of medical care towards customized treatment entails developing closer working relations with pharmaceutical laboratories and boosting the number of research projects involving large numbers of patients. Moreover, future research will be based on the ability to control more and more data, and managing the storage and flow of this data will play an increasingly important role. At Gustave Roussy, our goal is to make our research data accessible by sharing it with our European partners as part of the Cancer Core Europe consortium. To this end, Gustave Roussy will be investing in a system to manage and process research data at international level, in order to create a “Big Health Data” repository.

**INCREASE OUR RESOURCES COMING FROM THE EUROPEAN UNION**

The proportion of European funding in research work conducted at and by Gustave Roussy is insufficient.

To correct this, the Institute’s Europe unit will be reinforced to provide help to researchers and clinicians when preparing grant applications, with a specific focus on providing help to secure European Research Grants for Scientific Projects which are part of the Horizon 2020 programme. The cost of bringing in this additional help will be funded partially by the surplus generated by these projects. Specifically, the Europe unit will build bridges between researchers and support structures set up by our sponsors.

**DEVELOP A TRAINING PROGRAMME WITH THE PARIS-SUD UNIVERSITY FACULTY OF MEDICINE**

The partnership between Paris-Sud University and Gustave Roussy has led to oncology teaching being catered to entirely by the Institute, which explains the origins of the specific profile of the École des Sciences du Cancer as the only Oncology University Training Department managed by a Cancer Centre. As part of the Gustave Roussy Development Project 2015/2020, Gustave Roussy wishes to put the teaching of oncology at the service of its development strategy.
PARTICIPATE IN THE CREATION OF THE INTERDISCIPLINARY UNIVERSITY CENTRE FOR HEALTHCARE ("PUIS")

CREATE THE CANCER DEPARTMENT OF THE FACULTY OF MEDICINE

The École des Sciences du Cancer aims to provide top-level, transversal courses in all cancers; it will become the Cancer Department of the Paris-Sud University.

INTERDISCIPLINARY UNIVERSITY CENTRE FOR HEALTH ("PUIS")

This Center will be built in 2018 on the campus and will be home to undergraduates enrolled in the 1st year of medical studies ("PACES") with 1,000 students, as well as Postgraduate programmes ("DESS" pharmacy), paramedical studies (with potentially 2,500 students), the Institute for Advanced Education in Biomedical Sciences ("IFSBM") (with the renowned Paris-Saclay University school) as well as the School of Cancer Sciences (2,800 students). The Center will also feature simulation rooms, lecture theatres, designated rooms for practicals, and laboratories.

DEVELOP EXCELLENCE IN CANCER TRAINING

At the Paris-Sud University, the cancer studies department counts 26 lecturers and 214 practitioner teachers. Each year, 40,000 hours are dedicated to training, of which 5,000 focus on academic studies. This corresponds to 2,800 students, doctors, nurses, and engineers trained each year by means of a specific “cancer” modules for medical studies (Post-Graduate Diploma known as a "DES", and Advanced Post-Graduate Diploma known as a "DESC") as well as 26 University diplomas in cancer studies, 40 seminars and master classes, Masters Programmes (M1 and M2) and the PhD School of Cancer Studies, the only doctorate-level school in France specialised solely in Cancer Studies (85 reception units and 55 PhD students each year).

The School of Cancer Sciences intends to set up a Graduate School of Cancer Studies. These training courses will also afford welcome opportunities to meet with scientists from several fields and create bridges between the clinical world and the research world. Indeed, this is the spirit underlining the creation of the Institute for Advanced Education in Biomedical Sciences ("IFSBM") to act as the link between the leading engineering schools in France and the Healthcare Sciences.

The School of Cancer Sciences will continue to develop training courses, broad and deep, to create new health sector professionals as part of the LMD (License - Masters - Doctoral Student) reform of the paramedical professions (Master in clinical healthcare) which can bring together, within a given course, clinicians, pharmacists, researchers and engineers. It will also develop innovative teaching approaches (e-learning, simulation) using digital tools and media.

The School of Cancer Sciences will also provide training of a distinctly international flavour: customized programmes with complete immersion courses in Gustave Roussy, e-training and classes in English.

The purpose of the e-training is to maintain links created via classroom training, and to expand the number of people trained, in particular on an international level. In this way, training will become a lever to reinforce the network of Gustave Roussy professionals, and will lead to a top-level talent recruitment pool.
Delivering high quality care is an essential duty at Gustave Roussy. The ongoing quality improvement plan concerns all aspects of our caregiving, and involves all professionals and all departments of the Institute.

This focus on quality goes hand-in-hand with a determination to provide the best treatment possible, meeting the most recent evidence-based standards. It consists in paying close attention at all times, from routine treatments to therapeutic tests to precision medicine.

Gustave Roussy implements the Quality initiatives and measures required for therapeutic innovations, and the medical and nursing teams go beyond the call of regulations alone. By 2020, Gustave Roussy will have developed new quality models to make sure that patients receive the best care possible to address their condition throughout the care process.

As set out in this 2015/2020 Development Plan, the priorities are: top-quality patient information; the medication circuit; risk management.

The assessment of professional practices, training and shared decision-making are all important component to secure Quality. Therefore, they will be developed both internally and externally, to extend the pre-care process to the Institute and to get the patients involved in quality-related processes.

The tools to delivery and objectively measure quality are already in place. Now, the focus is on enabling professionals to use them on a daily basis to leverage improvements in quality care. Gustave Roussy will pursue its accreditation procedures by aligning itself with the highest international standards. The Institute will acquire the information systems and traceability tools required to monitor the quality of the healthcare provided throughout the entire acute phase and the chronic phase, for the purpose of ensuring a top-quality clinical pathway.
CREATE NEW MODELS TO DEVELOP THE QUALITY OF THE TREATMENT PROVIDED

STIMULATE AND SUPPORT QUALITY INITIATIVES

The Institute wishes to increase personnel motivation and involvement in the development of new Quality Actions, whilst also reaching out to patients on this subject.

To this end, Gustave Roussy will specify all the stages of patient care as soon as they check in to Gustave Roussy, will get patients more involved in quality-related initiatives, and will develop indicators and tools to be used by healthcare teams.

At the current time, patient care involves multiple levels of coordination between professionals, in the course of hospitalisation and outpatient treatment alike.

And, the ability to provide a quality service is closely connected with the ability to anticipate each stage in order to ensure better coordination.

Moreover, the role played by patients and their entourage is key in order to guarantee an ongoing and critical assessment of Quality. Satisfaction surveys already carried out play a very important role in the ongoing campaign to optimise quality-improvement actions.

The energy deployed in developing indicators, notably within the context of contracts involving objectives and departments, will be increased. One of the major objectives of these indicators will be to measure the quality of healthcare coordination, referred to above, and to meet the requirements of the healthcare teams, (for example, by focusing on indicators relative to post-operative pain).

INVEST IN QUALITY

Gustave Roussy was involved in the experimenting of the Financial Incitation to Quality programme (“IFAQ”). The entirety of this funding will be dedicated to setting up Quality-related projects and will be designed to boost internal investment in Quality. Specifically, a third of the budget will be allocated to the Quality Department so that it can correctly consolidate and deploy its actions. The remaining two-thirds will be earmarked for the Gustave Roussy teams and will be apportioned according to proposals which they submit on the basis of internal calls for projects. In this way, Gustave Roussy wishes to promote innovation and create a virtuous circle to improve quality.

MEET PATIENT EXPECTATIONS ABOVE AND BEYOND TREATING CANCER

Committees set up for the purpose of dialog and participation, as well as additional healthcare initiatives (such as the “Taking Cancer in Your Stride” programme, or “Mieux Vivre le Cancer”) play an important role in improving the quality of life and general level of wellness of patients.

Gustave Roussy wishes to go further with such initiatives by reinforcing patient participation and dialog. The Patients Committee which represents patients, meets six times a year and participates in several work groups and projects inside Gustave Roussy.

The Patients Committee will be called upon to implement the projects of the Institute launched between 2015 and 2020, and in particular projects concerning clinical pathways.
The Commission for Patient Relations and Quality of Healthcare ("CRUQPC"), a mediation body created by Gustave Roussy, will be implicated in projects having to do with quality. Above and beyond the assessment, patient participation must express itself concretely in hospital life. To this end, two actions will be envisaged. Firstly, the evolution of the Patients Committee can be guided in such a way as to boost patient participation; secondly, this participation will consist in concrete decision-making initiatives, such as the presence of patients in Multidisciplinary Consultation Meetings and in change-management actions. Patient participation will also involve architectural and organisational innovations, as this is already being done during the validation of the patient portal proposed for the remote monitoring of patients (i.e., the Capri project) or the preparation of the new Gustave Roussy Internet site.

MODERNISING THE MEDICATION CIRCUIT

The regulatory context regarding the contractual commitment to correctly use medical drugs involves gradually increasing the level of pharmaceutical validation of prescriptions to reach 80% of beds and Medicine/Surgery/Obstetrics vacancies covered in 2018, and of registered dispensation to reach 50% in 2018. The modernization of the healthcare products circuit is primarily intended to enhance the quality of service provided to patients.

The cornerstone of this project is based on the deployment of automatic systems to prepare chemotherapies (by 2016) and distributors to automatically dispense medical drugs to a named individual (by 2018). Both of these developments will free up human resources thanks to which new organisations can be set up.

Starting 2013, Gustave Roussy launched a programme to automate management of the patient healthcare file, one aspect of which is to manage medical prescriptions in electronic form (as opposed to paper form). The deployment of this software concerns over 80% of beds (as of the end of 2014) and the system will be extended to Chevilly-Larue in 2015 in order to generalize the validation of prescriptions by reinforcing the pharmaceutical presence in clinical services. This will open the Institute to the urban area by way of active collaboration with the Outpatient Preparation Clinic ("CSE"), of which the pilot phase involving hospital discharge with pharmacies will begin in 2015.
Quality at the service of Innovation and Innovation supporting Quality.

Part of the project also concerns the preparation of hospital and extemporaneous preparations. This activity is growing fast, especially in regards to the treatment of paediatric cancers. Since the second half of 2014, the Pharmacy Department has been working on a programme to enhance the quality of preparations, notably by developing oral forms prepared in advance.

CREATE NEW MODELS FOR QUALITY

GUSTAVE ROUSSY PARTICIPATES IN PILOT SCHEMES FOR REGULATORY INITIATIVES.

The certification of health care establishments by the French National Authority for Health ("HAS") aims to assess the quality and security of healthcare provided, as well as all the services delivered by the Institute. Accredited in 2012, Gustave Roussy is already preparing the next accreditation inspection which will take place in 2017.

In 2015, Gustave Roussy will apply for accreditation for its medical biology laboratory.

This process, led by the French Accreditation Committee (COFRAC) is based on existing regulations and on harmonized European standards. The accreditation of the entire laboratory will be completed in 2016/2017.

The accreditation programme of the JACIE (Joint Accreditation Committee EBMT-Euro-ISHAGE) was established in 1999 between the European Blood and Bone Marrow Transplantation (EBMT) and ISHAGE-Europe (International Society of Hematotherapy and Graft Engineering). The main purpose of JACIE is to promote the quality of medical and laboratory practices as regards haematopoietic stem cell transplants.

The initial JACIE accreditation was obtained in 2012 for processes (production and clinic) concerning paediatrics, and the JACIE accreditation for the circuit involving adults is scheduled for 2015.

GUSTAVE ROUSSY ANTICIPATES NEW ACCREDITATION MODELS

The Institute engages in voluntary accreditation and certification processes, national and international, in order to improve quality. As regards medical and paramedical activity as this applies to treating pain, Gustave Roussy was accredited in 2008 as a Reference Center for the Treatment of Pain by the French Secretary of State. On a related note, ISO and COFRAC (anatomical pathology) are underway.

The accreditation for the Organisation of European Cancer Institutes (OECI) was completed in at 2012, and Gustave Roussy also holds the European Society for Medical Oncology (ESMO) accreditation for palliative care. Lastly, various other inspections, such as those of concern to the French Nuclear Safety Authority ("ASN") in radiotherapy and imaging and to the Regional Healthcare Agency ("ARS") (pharmacy) are in a related field, and are also the subject of regular visits. The Clinical Trials Pharmacovigilance unit was the first pharmacovigilance unit to receive the ISO 9001 certificate.
in France (in 2007). It will be renewed (for the third time) in 2016.

The Clinical Research Department (biostatistics and epidemiology unit; clinical trials unit; DITEP clinical research operations) is launching a process to apply for the ISO accreditation, initiated by Unicancer.

The other accreditations confirm the exceptional status enjoyed by Gustave Roussy as regards therapeutic innovation; specifically, these accreditations are: INCa for Early Phase Clinical Trial Units in 2012 (CLIP²); “Biomedical Research Center” authorization issued by the Regional Healthcare Agency for DITEP; accreditation as an Advanced Care Center for Rare Cancers (“Centre expert pour les cancers rares”). These accreditations will be renewed between 2015 and 2020.

The Gustave Roussy Research Department participates in a process run by the High Council for the Assessment of Research and Higher Education (“HCERES”) in order to assess the work done by research teams. This process was carried out in 2014 in order to create new research units and teams combining people from the Paris-Sud University/Inserm and the Paris-Sud University/CNRS. At this time, a new team will be set up using the methodological compartment of the Epidemiology and Biostatistics Unit. This process will be renewed in 2017/2018.

As regards clinical research, Gustave Roussy will also participate in the HCERES assessment of hospital teams whose experimentation phase is currently underway in three French healthcare establishments. This assessment will be carried out continually over the next three years to assess if it should be made part of the research center, and if so, under what conditions. The project will be submitted to the HCERES assessment in 2018 in order to set up a Center by 1 January 2020.

This accreditation project is part of the Research Center project for 2020.

Gustave Roussy wishes to leverage the potential interest of these regular assessment processes in order to make them a driver for progress inside the Institute.

**IMPROVE THE RISK-MANAGEMENT POLICY**

Preventing undesirable events is an ongoing concern which, over the last few years, has given rise to innovative steps such as the recording of significant occurrences observed during a surgical operation, the creation of a vigilance cell and risk assessment in the context of medical prescriptions (‘Iatrigger’ project).

Besides, the radiological protection of patients and professionals alike is a major concern. In all these respects, Gustave Roussy is proposing new quality-oriented steps aimed at improving its risk-management policy, and is conducting research in this particular area.

This approach is also based on the optimum use of the [Blue Medi] tool for the declaration of undesirable events. The idea here is to promote a culture of declaring events and freely circulate the feedback so as to improve risk management by a team.

The quality control is embodied in the care and the entire patient management process. It is also enhanced in all of the services provided to the patient.
QUALITY CARE: FROM TREATING TO CARING

The patients have expectations: they seek greater autonomy as well as a more humane and more personalised relationship. This is the crux of the programme that will be implemented between 2015 and 2020.

KINDNESS AND ATTENTION: A HALLMARK OF THE SPIRIT OF SERVICE AT GUSTAVE ROUSSY

To define a repository of services for patients coming to the institution, one first has to grasp their human and societal needs accurately. The spirit of service at Gustave Roussy must be based on a few simple concepts: the service provided to the patients is above all a quality relationship; it is also the permanent concern for a non-stressful experience – to avoid compounding the vulnerability created by the illness; it is finally a range of innovative ‘customer service’ offers, both in it its ability to meet the needs of a person at a particular point in his clinical pathway (relevance of the offer) and in the formulation of the response (relevance of the tools).

The spirit of service is the business of all professionals of the Institution. It consists of commitments defined by a long-term programme, which are based on clear-cut objectives and undertaken by the institution.

INFORM

This involves improving access to the information available to the patients and their families.

A personalised service to the patient in terms of information consists of providing the necessary information at the right time using the most appropriate communication tools. The patient must be reassured, supported and made as autonomous as possible under all circumstances. To this effect, a repository will be developed to ensure that all patients are informed systematically, usefully and in detail, regardless of the contact point. New or additional communication tools will be developed to meet this goal.

The technological innovations will support this information approach aimed increasingly at the usage and the user. The patients will have access to a new website highlighting patient information in all forms (footage on clinical pathways, integration of social media into the digital ecosystem, implementation of a document library), and Gustave Roussy will create smartphone apps with a high service content (mongustaveroussy.fr). A localized dynamic display will complete the mechanism throughout the patient’s in situ clinical pathway. Tablets will be available in certain zones of the institution, to enable patients to find the information required at any point in time.

WELCOME

IMPROVE THE PERCEPTION OF THE PLACE AND ENVIRONMENT

From now on and throughout the development of the Campus Grand Parc zone, which will lead to the advent of a metro in 2020 at the hospital entrance. This programme, dedicated to the improvement of the patients daily life, will incorporate
an improvement to the outward appearance and the environment (gardens, urban furniture, means of access, facelifts, etc.

The choice of a more effective telephone platform will be studied. The study will focus on ways to improve the manner in which appointments are made by adapting the tools to the peak periods and reviewing some of the current organisation methods.

OPTIMISE THE PATIENT’S WAITING TIME: SIMPLICITY, FLUIDITY, REASSURANCE

Waiting times are an integral part of the time spent at the hospital. Some of them must be reduced: they depend on how the patient management process is organised. As for waiting times that cannot be reduced, the layout of waiting areas will have to be reviewed on the basis of a more comfortable architectural concept with regard to the patient and his near ones. They will give pride of place to reception, availability of information and user-friendliness while providing a series of added services (practical information on Gustave Roussy, reading material, music, footage, specific animations in the waiting areas, etc.)

IMPROVE THE RECEPTION FACILITY

Gustave Roussy is located at a site grouping several buildings within which patients, people accompanying them, staff and service providers move around. The ‘Campus’ configuration will grow in the coming years with the arrival of numerous visitors. The patients and their near ones will need to find their way around the hospital. The aim is to provide anyone moving at the site with landmarks, accessibility, an operational update (outdoor and indoor signage) and an interactive declination (guidance terminals, geolocation).

Besides the physical reception facility, a hotline is often the first form of contact between the patient and the institution.

The choice of a more effective telephone platform will be studied. The study will focus on ways to improve the manner in which appointments are made by adapting the tools to the peak periods and reviewing some of the current organisation methods.

RENDER SERVICES

QUALITY CATERING AND ACCOMMODATION

The quality of the catering and accommodation at Gustave Roussy must be up to the patients’ expectations. A task force will be set up to meet this goal.

Besides, by capitalizing on the successful experiences from the programme “Mieux Vivre le Cancer”1 (“How to improve your live while having cancer”), this new services programme intends to reinforce this platform in order to widen the scope of activities proposed around three main themes: sport, culture and wellness, so that

1 ‘Mieux Vivre le Cancer’ (How to improve your live while having cancer) was initiated in 2012 with a view to proposing a coordinated set of activities in support of the patients, over and above the medical treatment.
an increasing number of patients can make the most of them.

In the long run, thought will have to be given to a place close to the hospital, fully dedicated to the patients and their near ones, which proposes activities aimed at relaxation and wellness (Wellness Center), in addition to the enhancements made within the hospital. Such activities will be completed with various programmes enabling the patient to remain in touch with real life and feel less isolated.

**ASSESS**

In close association with Quality Management, a patients’ Observatory, based on the current Patients’ Committee (see page 31), will be set up. The efficiency of services rendered implies keeping an active watch on the changes in our daily life, which could be applied to Gustave Roussy. The use of a barometer measuring the patient’s satisfaction with the quality of services, in addition to all the mandatory national surveys, is a second priority. Targeted satisfaction surveys may be used to conceive and implement dedicated programmes.

“In 2020, Gustave Roussy wants to become a European reference in terms of services rendered to the patients and their families. Thanks to a collaborative and interactive approach with the patients and staff, it will have implemented the full range of innovative and personalised services at each major step of the patient’s clinical pathway.”
Thanks to therapeutic advances, cancer has become, in numerous cases, a chronic disease. This trend will be further emphasized in the years to come with the development of targeted therapies and outpatient care, with a part of this care being given nearby or at the patient’s home, and an increase of the actors involved. The quality of care will be closely linked to coordination, even more so than today.

Besides, in the years to come, the institution will be faced with a sharp rise in demand for a second opinions, follow-up consultations and a demand for care and interventions.

For care facilities, the management of these very large active channels will become a major test of efficiency. Considering its position as a referral facility, Gustave Roussy will have to coordinate its activities with numerous partners and structures. All of these channels will have to be formalized and made visible.

Gustave Roussy is gearing up to play a lead role in 2020, in the organisational innovations of clinical pathways. It will have to prove the triple significance of such innovations, i.e. in terms of patient management, the quality of professional organisations and, finally, the relevance and efficiency of care.
The extension in time of care and follow-up will increase patient flows and the demands may well exceed reception capacities. From the viewpoint of access to care, relevance of care and medico-economic balance, it will be vital to ensure that the patients received are actually in need of the care available at Gustave Roussy and that they could not have been taken elsewhere. Partnerships will thus have to be set up.

Without this approach, Gustave Roussy will be saturated with demands that can be handled elsewhere instead of being defined by medical criteria that require the patient to be treated at Gustave Roussy.

The organisation of coherent clinical pathways, with graded responses, will be a way of addressing these issues and of taking stock of their repercussions from the ethical, medical, organisational and economic standpoints. The objectives will be threefold:

- Enhance quality care for patients throughout their clinical pathways (identification of the referring healthcare professional, better compliance, reduction of adverse effects, greater satisfaction);
- Enhance the relevance of referrals and curtail undue costs both for the institution and the healthcare system (e.g. reduction of unnecessary referrals);
- Ensure that medical and paramedical time is better spent (by reducing the time wasted due to a lack of coordination, in particular when dealing with non-scheduled requests for opinions, consultations or hospitalisations).

Information technologies (computerized patient file, portal, tablets, apps, patient data management) along with the clinical and coordinating nurses (specialised nurses) will be the cornerstones of the success of clinical pathways.

This policy implies drawing up a programme comprising various coordinated actions that can be taken to accompany the patient throughout his clinical pathway, develop a strategy to implement the required resources and, not least, make use of a robust methodology.

“Ensure that the patients received are actually in need of the care available at Gustave Roussy and set up partnerships.”
IDENTIFY, BOOST AND STEER THE COORDINATION OF CLINICAL PATHWAYS

Numerous actions aimed at coordinating clinical pathways have been implemented at Gustave Roussy for several years. A forerunner in this approach, the institution has totally mastered some of these actions such as guidance, organisation of complex patient discharges, regarding clinical and social aspects, management of non-scheduled returns or, more recently, follow-up after discharge.

ENHANCE GUSTAVE ROUSSY’S COMMITMENT IN THE ‘CLINICAL PATHWAY’ LOGIC

Intra-hospital coordination takes account of the clinical pathway dimension while anticipating the patient follow-up process outside the hospital. The discharges are prepared by the coordinating nurses and the Outpatient Preparation Clinic (“CSE”) for complex patients. The coordination with Santé Service (Health Service) is exemplary. On the other hand, the links with private practitioners and drugstores remain tenuous, while returns to Gustave Roussy are seldom anticipated.

Generally speaking, the clinical-pathway organisation programme at Gustave Roussy is based on the two following principles:

IMPROVE THE PATIENT’S ORIENTATION WITH RESPECT TO HIS CLINICAL PATHWAY

Orientation choices may have to be made ahead of a hospitalisation, when the patient is discharged from Gustave Roussy, and in the remote monitoring of initial care. These choices should enhance the relevance of arrivals at Gustave Roussy: by avoiding unjustified hospitalisations; on discharge, by avoiding premature readmissions; in the remote monitoring process, by avoiding the patient’s return in cases that can be handled via primary care.

ENSURE CONSISTENCY BETWEEN ALL INSTANCES OF COORDINATED CARE

The idea is to accommodate all coordinated actions in an overall policy to ensure overall consistency. This policy should enable you to identify a reference pathway for every patient in a chronic situation. A model of clinical pathways will be defined according to explicit criteria, in compliance with the national recommendations, namely the ones made by the French National Authority for Health (“HAS”).

LOOK UPSTREAM AND DOWNSTREAM

From 2015 onwards, the experimental project CAPRI will reinforce the remote monitoring of patients for a group of 1,000 patients via an Internet platform.

“Improved remote monitoring aimed at enhancing the relevance of arrivals at the hospital.”
managed by two coordinating nurses. The latter will serve as the interface between patients at home and private practices (general practitioners and nurses practicing privately or at health-centres).

CAPRI concerns patients with complexity criteria justifying a recourse to specific coordination (by and large, patients in psychologically and socially precarious situations, for whom the treatment required is multidisciplinary). The assumption is that improved remote monitoring reduces visits to the emergency wards by getting consultants to treat patients identified as risky and by anticipating certain scenarios. The monitoring done by the coordinating nurses helps provide or plan early responses, whether medical or social, and act appropriately prior to a worsening of the patient’s state.

Henceforth, other projects are being studied, such as the improvement of relations with private pharmacists, and the development of tele-consultations for anaesthesia. These examples all assert a policy whereby improved remote monitoring enhances the relevance of arrivals at Gustave Roussy.

**DEFINE AN IMPLEMENTATION STRATEGY**

Resources need to be harnessed in order to implement a development programme for clinical pathways.

The two basic resources are new coordinating occupations and information technologies.

**DEFINE THE CONTENT OF THE NEW COORDINATING OCCUPATIONS**

As mentioned in the medico-caregiver project (pages 8 to 22), the occupation of clinical nurse is a golden opportunity for implementing organisations that are more focused on the patient. These nurses can help anticipate the patient’s needs, improve his orientation by active management, establish links between professionals and increase awareness of the patient and his circle, thereby facilitating the coordination of his clinical pathway.

The aim will be to specify the role of these new occupations by stating the specificity of coordination in the job of specialised nurse. One of the conditions for the ramp-up of these new occupations will be to obtain financing aimed at recruitment thereof, beyond the response to project tenders, in order to perpetuate the model.

**USE INFORMATION TECHNOLOGIES**

The digital revolution is a key element of the development policy for clinical pathways. It must produce real-time information, shared between Gustave Roussy and the patients, and external healthcare professionals. CAPRI will be used to develop two Internet portals, one of which will be dedicated to the patients and the other to the professionals concerned by them (general practitioner, pharmacist, private nurse). At the first consultation with the coordinating nurse, the particulars of the professionals will
be systematically incorporated into the patient file, so that an electronic directory of professionals involved with the patients is created in the long term.

The portal of professionals and that of patients, representing one of the key measures of the digital revolution programme, will help consolidate this approach.

Gustave Roussy’s participation in the Digital Health Territory (“TSN”) approach has fully emphasized the clinical pathways policy. It could result in two levels of coordination in the regional unit of Val-de-Marne: a first level of coordination supported by the TSN regional platform and a second level of expertise internal to Gustave Roussy’s clinical pathways policy, enabling the patients concerned to be monitored at shorter intervals.

At the first level of coordination, TSN will help build partnerships with the referring physicians and enable information-sharing with the concerned professionals and drugstore pharmacists.

At the second level, TSN will favour medical-information exchanges between the patient and his referring physician, based on the provision of tools such as tablets or apps, thus making the patient an actor in the follow-up of his treatment. This will help adapt the care to his requirements, for instance by planning a check-up at the day hospital to avoid a return via the emergency ward.

The mechanism thus created must favour the active participation of the patients.

Finally, the organisation of clinical pathways should enhance the relevance of care by guiding the patients to the professionals best equipped to provide appropriate responses, and by further planning the necessary returns to Gustave Roussy.

Patient data management at a large scale will become a decisive tool for the quality of clinical pathways and the performance of health facilities.

**MAKE USE OF A ROBUST METHODOLOGY**

This policy implies the use of a robust method both in terms of defining the concerned patients and of assessing the follow-up of clinical pathways. It gives added value to the policy.

**DEFINE THE PATIENT PROFILES AND THE MODEL OF CLINICAL PATHWAYS**

The patients in this project are those in a chronic state of illness. The chronicity concept will be explained (life expectancy, other criteria), as will the complexity concept, for the medical problems of certain patients are compounded by social ones. So, all of the patient’s specific requirements will be addressed, regardless of whether they relate to clinical criteria or social vulnerabilities. References to national recommendations, namely by HAS, will be favoured.

Work done on clinical pathways shows that the typologies are fairly confined and that three levels of organisation may be considered: the most common patients, for whom
an organised discharge, clarity of information and a minor coordination are adequate; complex patients, who require appropriate programming and additional interventions, along with support in terms of home care and reactive follow-up tools; and, finally, highly complex patients, who often combine co-morbidity with social vulnerability, and for whom a monitoring at shorter intervals is to be implemented. They belong to the ‘case-management’ category.

**DEFINE AND MONITOR CLINICAL PATHWAY INDICATORS**

The follow-up indicators concern the quality of life and care, the economic level and satisfaction with the professionals.

The quality indicators may concern the quality of life (in the broad sense or the one specific to oncology), the satisfaction with the services provided, the monitoring of the therapeutic dose and observance, the compliance with the recommendations on clinical practices and the social assessment of patients.

The economic indicators will be, for instance, the rate of readmission and arrival at the emergency ward, the average stay of the concerned patients and the time elapsed between the stages. The rate of readmission is a key figure that will be further refined by distinguishing unjustified readmissions.

Indicators pertaining to the quality of life at work will be defined using specific satisfaction questionnaires.

The institution will seek to define routine data collection methods, namely from medico-administrative databases (PMSI, Sniiram).

**ASSESS THE MEDICO-ECONOMIC IMPACT OF COORDINATED CLINICAL PATHWAYS**

The assessment will concern the three specified goals: quality, economic dimension and quality of professional practice. All the evalutive approaches may be subject to project-tenders (PREPS, PHRIP, INCa). An overall assessment of the Institution will be made to assess the role of organised clinical pathways in the continuing treatment of the patients, the avoidance of disruptions, the relevance of returns and, broadly, the ability to make professional commitment meaningful.
The considerable increase in data processing and storage capacities has transformed working methods in all areas, regardless of whether it is research with the possibility of sharing mega databases internationally, care using the computerized patient file and the possibilities afforded by telemedicine, patient information via smartphone apps or the hospital’s logistical and administrative operations.

The introduction and development of digital applications in all the hospital’s activities will usher in a new dimension of performance based on continually updated data.

The digital Revolution will improve relationships with the patients, reinforce their autonomy and maintain links after their discharge in order to better manage the chronic phase of the illness.
THE DIGITAL REVOLUTION, A LEVER OF PERFORMANCE

Gustave Roussy boasts a rich and interoperable data environment. The precedence of the patient file represents a data capital that must serve the purpose of quality care, coordinated care and the patient’s clinical pathway.

In the near future, new technologies will be essential tools at the patient’s service, whether for his treatment, his clinical pathway, his access to new therapies, his comfort and his direct involvement in the treatment. These new technologies will contribute to the development of clinical research and its integration into the care process.

At stake is the integration into the patient file of the data hitherto produced and used exclusively for research.

Thus, genomic data, biomarkers and virtual slides will be an integral part of the patient file and will fully contribute to routine care. This orientation aims essentially to establish a continuum between care and research. To this effect, the new technologies will use the latest evolutions in terms of management of the life cycle of the data (storage, archival, neutral archives, etc.) and utilization (Big Data, Data Mining, etc.) The goal is to assure efficient data processing to cope with the increasingly chronic nature of the disease, as well as clinical research.

The functionalities of the information systems thus concern all the professionals at Gustave Roussy, not just the medical staff or nurses.

Smartphone technology creates new expectations of mobility among the patients, the professionals and all our partners. The information systems must adapt and meet these expectations.

The information systems are undergoing a paradigm shift by enabling the patients and healthcare professionals to access all the data in real time and be actively involved in their management.

The development of digital portals will meet these goals. The portals will help reduce the waiting times at all levels while enhancing the reactivity and relevance of the responses provided to the patients and to in-house and external professionals.

The information systems can also be used to apply new follow-up methods over time.

They finally contribute to efficiency within Gustave Roussy by providing the necessary tools for the agility of organisation and decision-making in terms of both care and management.

The Digital Revolution will therefore necessarily be based on the use of platforms and technologies linked to the mobility and ease-of-use of the information-system components.

So, the interoperability, accessibility, communication, mobility and safety will be reinforced and consolidated to guarantee project efficiency.

Actions will be implemented via six programmes split into 28 operational projects scheduled over
three periods: short, medium and long term. The schedule adopted takes account of the institutional priorities, the prerequisites and the interdependencies between various projects.

**DEPLOY THE PATIENT PORTAL**

The patient portal is the name given to a set of contents and applications put on line on the Gustave Roussy site, specially designed for patients and accessible via computer or Smartphone.

The term “portal” designates both a means of access, a form of personalization and interactivity. For example, patients can interact in terms of their healthcare agenda; they can enter external elements such as the results of examinations or consultation reports into their file or even fill in forms concerning ongoing care management, including care elements that do not take place on site. This enables the clinical pathway approach to be strengthened in full connectivity with the patient.

As a result, patients will be able to consult their medical information on the portal and have access to their healthcare agenda as from 2015. Functions will be deployed progressively until 2017 when the portal will be fully completed.

Therefore, in the long run, patients will be able to interact directly with Gustave Roussy personnel, obtain and incorporate their documents and modify their agenda. A space will also be created for new patients who would like to receive treatment from Gustave Roussy.

By creating interactions between the institute and patients, the portal offers patients the possibility of actually participating in their clinical pathway and enables Gustave Roussy staff to concentrate on higher added
Create interactions between the institute, health-professionals and patients for improving the continuity and quality of care.

value activities: continuity and quality of care or services provided to patients. Deploying the patient portal will also be an attractiveness factor for the institute, both for patients and for health professionals, due to the availability of means of communication that incorporate all the new technologies that are playing an increasing part of consumers’ daily lives.

This service is corresponds to a cross-cutting objective and should improve both the quality of care and the quality of the work done by Gustave Roussy staff.

IMPLEMENT THE PROFESSIONAL PORTAL

The corollary to the patient portal, the professional portal aims at creating a digital area devoted to professionals. Deployed as from 2015, it will more particularly enable patient-monitoring to be improved throughout their clinical pathway by structuring interactions between the different professionals in charge of their files.

As from 2017, it will provide a real area of exchange between health professionals referenced as the “patient’s entourage”: linked to the ambition as formulated in the Gustave Roussy Development Project to make the clinical pathway one of its priority vectors, the portal will be a determining element in patient-monitoring.

It will also have the vocation of being a tool for structuring and regulating the reply process for second medical opinions, which should lead to optimising committees’ and health professionals’ work-loads.

As far as Gustave Roussy staff is concerned, its primary vocation will be to facilitate management of employees’ administrative tasks in terms of their administrative files.

Lastly, with support from the School of Cancer Sciences, Gustave Roussy wants to create a unique e-learning platform, which will be an extra support for managing its continuous training policy for institutional professionals and for outside students and professionals trained at the Institute.
This programme forms one of three major vectors for the care-research continuum and the development of therapeutic innovation; it will have three specific objectives.

To incorporate research platforms, which will initially enable genomic data to be added to patients’ files (the care-research continuum) and, in this way, enable genome sequencing technologies to be included in routine care. This function will be implemented in 2015 and then be deployed progressively.

To increase clinical research potential, be it for constituting cohorts, genomic studies, scientific publications or even databases for teaching and which will require special resources. To achieve this, an industrial partnership for developing digital microscope technology will need to be initiated by 2016.

Gustave Roussy’s third objective is to develop its capacities for creating international and industrial partnerships.

**STRUCTURE PATIENT DATA**

Structuring patient data will improve the quality of patients’ files as well as the availability and relevance of the information transmitted.

This means identifying critical data as from 2015 and structuring this data at the patient-file level by developing and deploying a document manager.

Initially, this will only be done for patient files computerized on the Simbad software package. The system will be deployed until 2018 depending on how structural requirements for other components in medical information systems are identified and how their interoperability can be improved. The purpose of this deployment operation is to integrate patients’ complete electronic files including imagery, bio-pathology, radiotherapy and pharmaceutical files. This form of mutualisation will not only enable duplicate data entries to be avoided, but it will also provide an exhaustive view of patient files and optimise medical and care times. On a 2018 horizon, patients’ image files will be consolidated and unified for all image sources: imaging, radiotherapy, dermatology and anatomic pathology.

Structuring in this way is essential for possessing a tool that can be used for constituting and enriching Big Data in Healthcare. The mega database created in this way could be shared and enriched together with the five other Comprehensive Cancer Centers of the Cancer Core Europe consortium [See page 68].

**SET UP RESEARCH DATA MINING TOOLS**

By carrying an integrative analysis of Big Data for Healthcare, done in partnership with industrialists who specialize in data mining, a meta-database of clinical, biological, genomic, and quantitative imagery data can be constituted for consolidating all the data on individual patients and their utilization.
This programme should make it possible to implement digital environments for data analysis, the substrate for genomic correlation and quantitative imagery, and it will be used for epidemiologic studies and for constituting important cohorts in therapeutic tests.

Moreover, it will be essential for Gustave Roussy’s international academic research and will increase its capacities for participating in multicenter studies. In this way, Big Data structuring will be an essential tool not only for research and teaching activities but also for routine healthcare.

To achieve this, a platform (Big Data) incorporating data from all the functional components of patients’ electronic files will be set up in 2015. It will integrate medical files, imaging, biology, bio-pathology, genomics, radiotherapy and the biological resource center. Later, it will integrate therapeutic test monitoring data in the Big Data for Healthcare base (CRF). Lastly, it will depend on implementation of automated treatment mechanisms, de-identification of data and indexation of contents for facilitating supplies of information to international platforms.

This deployment is mutually dependent on structuring patient data.

Systematic incorporation of the digital dimension in all Gustave Roussy activities will contribute to modernising work tools and the quality of work life for its entire staff, whilst guaranteeing improvements in quality and services provided to patients.

In this way, by means of its whole digital Revolution programme, Gustave Roussy will be prefiguring the e-hospital of tomorrow.
Managerial innovation is one of the commitments made to patients and to all the medical, nursing and administrative staff. Improving the quality of life at work, recognising and monitoring actions taken by staff and deploying digital systems for improving internal organisation will be crucial factors for maintaining employee loyalty and employer attractiveness.

As the in-house contractual agreements process has been established, Gustave Roussy can now pursue its approach for improving performance and consolidate its medical-economic model for guaranteeing the sustainability of its future development.

By the year 2020, evolutions in our management practices should increase everyone’s freedom of movement and provide self-fulfilment for all at Gustave Roussy, in order to secure its teams’ loyalty and create a “plus” in terms of attractiveness in comparison with our environment.
The reform in hospital governance, the signing of in-house contractual agreements and the delegating of management have enlarged managers’ perimeter of responsibility. They now play a decisive role as far as operational management, their capacity to federate teams around new projects, and developing their staff’s motivation and skills are concerned.

In 2020, the challenge will be to confirm Gustave Roussy’s status as “an exemplary employer” - coveted by all the best employers - and to offer an attractive career path for all its staff, a path that is both competitive and equitable as far as remuneration is concerned and innovative in fields that promote the quality of work life, as we are fully aware that the quality of healthcare depends on these factors.

**IMPROVE MANAGEMENT**

In order to reinforce teams’ dynamics, their self-fulfilment and their skills, Gustave Roussy will continue to innovate its management practices. This will require for managers to be coached, more particularly by creating and transmitting a management reference framework, by setting up a suitable assessment system, by making coaching devices evolve, by developing a “feeling of belonging” and by improving the quality of work life. In this way, Gustave Roussy will be able to position itself as an attractive employer and count on loyal, motivated teams.

Gustave Roussy is also concerned by giving its executives every possibility of exercising their missions to the full. This policy relies on deploying tools, especially computer tools, which will facilitate the way executives are organised and enable them to focus their efforts on managing proximity supervision, on developing their skills and on seeing their quality of work life improve.

**DELEGATION OF HUMAN RESOURCES AND MICRO-MANAGEMENT**

This system implies closely controlled supervision of employment as well as staff management mechanisms for increasing professional skills and improving the quality of life at work. It pursues two major objectives: associating heads of department with hospital management (for making them aware of their responsibilities concerning the non-medical issues
generated by their activities) and confirming administrative departments’ roles as service and expert advice providers. Since 2013, this system has enabled employment and personnel costs to be kept under control by implementing a micro management system that is much more accurate and efficient than centralised management.

By 2020, the delegation process will be increased by associating managers in the process of determining elements of staff’s global remuneration as well as elements of attractiveness and loyalty-fostering amongst their personnel.

**SKILLS DEVELOPMENT**

Gustave Roussy is already above the levels of investment recommended by legislation in terms of training. The professional development actions proposed are designed in close collaboration with the departments concerned and special attention is paid to different work situations (for adapting their content and training conditions to target audiences). In this way, systems are set up that go beyond “on-site” training courses: e-learning, mini-conferences on strategic management, individual coaching, etc.

By 2020, expertise reinforcement conditions will be created by means of individually adapted modules, together with the conditions for developing tutorial programmes designed for transferring exclusive know-how between Gustave Roussy professionals.

**A HUMAN RESOURCES POLICY FOR PROMOTING EXCELLENCE**

**BENEFIT FROM MORE ATTRACTIVE GLOBAL REMUNERATION**

Proposing global remuneration is an issue to which Gustave Roussy will commit itself not only for attracting talent but also for providing incentives for remaining in the team. By rethinking its structure and its development and by improving its versatility, it will guarantee
equitable remuneration for its staff, at market value and in compliance with conventional benchmarks, whilst accompanying them on their career paths in a work environment that takes account of personal constraints. This will require for an exhaustive description to be made of the remuneration system, for support solutions to be strengthened, for working hours to be adjusted and for a talent recognition and management system to be set up.

In this dynamic process, the Institute will specifically support searching for and identifying high potential staff.

**EXPRESS CARE-RESEARCH INTEGRATION IN THE HUMAN RESOURCE POLICY**

The evolution of research on cancer and Gustave Roussy’s will to transfer knowledge to the benefit of patients as quickly as possible require extensive involvement by medical researchers. The clinical workload is such that it is not possible for most of the doctors to coordinate a research team at Gustave Roussy.

As stipulated in Chapter 2 on research, the development project plans for defining new jobs intended for young MD and PhD medical researchers. In order to develop an ambitious scientific project, a given time set aside for research will be proposed to them (nine months of research and three months of clinical work per year) for five years beginning in 2015, together with an assessment system for each medical researcher after three years.

In this way, the Institute commits itself to creating one medical researcher position per year for five years in order to form a team of doctors highly integrated into clinical research.

**SUPPORT RESEARCH TEAMS**

In 2011, Gustave Roussy initiated a recruitment programme for young research teams, which has been materialized by the creation of seven teams, including six junior teams. Every year at the side of prestigious bodies (European research centers NKI, DKFZ, Pasteur, and the European commission) Gustave Roussy will take part in the “MIT – European Career Fair” organised in Boston for identifying new talents. The aim is to have ten teams, which will require searching for sponsorship and extra resources.

The “Parcours d’excellence en cancérologie – Fondation Philanthropia” programme, an oncology training course that finances research training for ten talented young pharmacist doctors and engineers will be continued after assessment. At the end of 2014, a request to tender was issued by the SIRIC SOCRATE for “Institutional Incentive and Collaborative Programmes” [PICIS in French] integrating exploratory, translational and clinical research.
The talent-attracting policy will also be directed towards support for foreign postdoctoral fellows working on priority scientific programmes and on organizing theses co-directed by researchers and clinicians for developing translational projects. Lastly, in order to retain the best research talent, special incentives will be created to optimise work done by the site’s best researchers, in conjunction with scientific bodies. Since 2014, the creation of a scientific prize (the “Fradiss sisters” prize in collaboration with the Foundation of France) highlights the quality of work done by the youngest researchers.

## CORPORATE SOCIAL RESPONSIBILITY IN ALL DOMAINS

An organisation cannot be considered as being “on the cutting edge” without complying with the most demanding social and environmental standards. For this reason, Gustave Roussy wants to increase its capacity for being in phase with the concerns of society and to diffuse its know-how on the subject.

## DISPLAY ITS SOCIAL RESPONSIBILITY AS AN EMPLOYER

This is materialized by qualitative aspects of social dialogue, the quality of work life, equal opportunity and developing human resource management.
The challenges raised in the development project aims at consolidating these efforts by making Gustave Roussy attractive for everyone who decides to join the institute and participate in the excellence of its healthcare, but also by maintaining the loyalty of the hospital’s human capital, which is value-creating due to the stability of the teams working on research, healthcare and teaching.

QUALITY OF WORK LIFE

The previous development project enabled human resource management to be consolidated on the basis of principles aimed at individual improvement and personal self-fulfilment. Today, we need to go even further by extending management’s capacities for handling the staff made available to it. A team’s success most certainly resides in the interest of the work it does, and, for this reason, managers must ensure that a climate exists that is conducive to everyone’s motivation.

Of course, this includes remuneration systems, but principles of quality of work life as well.

In terms of health and safety Gustave Roussy has set up an integrated system that focuses on prevention.

On account of the wide range of occupational health problems it has to face [exposure to ionising radiation, biological and chemical risks, psychosocial risks, etc.] Gustave Roussy has had an independent occupational health department for many years. The introduction of multi-disciplinarity in occupational health services was the occasion for integrating two members of staff specializing in professional risk-prevention in ergonomics and occupational psychology.

EQUAL OPPORTUNITY

These extra efforts will be accompanied by a reinforcement of social guarantees related to Gustave Roussy’s employment zone: Solidarity between generations by incorporating young people in pursuit of professionalisation, developing solutions for suitably-priced homes in the vicinity, the institute’s role in local employment problems, increasing the day-nursery’s reception capacity, etc.

Gustave Roussy will treat disablement by normalizing the integration and career paths of the persons concerned. The conditions for equal treatment between genders are already well in place, but will continue to receive close attention. Lastly, the Institute will raise the challenges of generation management and the cultural integration of new-comers, systematically keeping in mind the need for management and trade-union organisations to be permanent partners in this process.

In the future, by the year 2020, this corporate approach will have been implemented at work unit levels thanks to a line of management that is firm and coherent as far as these challenges - so essential for the social unity of our structure - are concerned, and in such a way that all our transparent management processes can be assessed equitably.

“Increase the institute’s capacity for being in phase with the concerns of society.”
The development project gives further impetus to the social policies that make Gustave Roussy a hospital that is aware of its responsibilities towards its staff and put it on the level of the largest companies in terms of personnel management.

In this respect, an effort will be made for developing communications on career paths that integrate the new jobs in clinical research, such as monitoring patients by clinical nurse specialists, coordinating clinical pathways, etc. and enable everyone to seize opportunities of interest to them. Managers will be coached throughout this five-year period in order to acquire the automatisms they need over and above their present professional expertise for their self-fulfilment.

This internally shared social responsibility will have an impact outside the institute, both in respect of the Villejuif – Chevilly-Larue employment zone, which Gustave Roussy will contribute to stimulate and in respect of its identification by professionals interested by a rewarding career enriched by Gustave Roussy’s experience.

**MANAGE ENVIRONMENTAL IMPACTS**

Improved energy and waste management, a sustainable development policy in operating theatres, responsible purchasing, etc. Gustave Roussy puts all its energy and its sense of innovation at the service of environment.

Well aware of energy management challenges and investments, the logistics department carries out regular detailed checks on the institute’s consumption and makes overall energy audits.

The social and environmental approach consists of setting waste management objectives and monitoring indicators. For example, recycling objectives were set at 200 tonnes of recycled paper per year by the end of 2020. Gustave Roussy is going to reduce its share of infectious clinical waste by 5 to 6%, which represents a reduction of 12 to 15 tonnes per year, and enter the bio-waste cycle in 2015 by contributing 80 tonnes per year.

The purpose of sustainable development in operating theatres is to reduce environmental impacts (production of waste, water and electricity consumption, pollution, etc.).

The responsible purchasing approach includes the notion of global performance for the product or service offers proposed and this criterion now counts for 5% of candidates’ global marks in requests to tender. So, it may be said that Gustave Roussy’s sustainable development policy concerns all its activities as well as those of the companies with which it works.
The Gustave Roussy Development Project 2015-2020

The Gustave Roussy Development Project 2015-2020

On January 1st, 2015, the merger between Gustave Roussy and the Chevilly-Larue hospital, which specializes in pneumonology, has given Gustave Roussy an additional capacity of 105 beds and places indispensable for developing its healthcare structures, in the form of 50 medical beds and 50 follow-up and rehabilitation beds.

Transforming an independent structure specialised in pneumonology into a hospital integrated into a cancer center not only includes an evolution in its medical and healthcare project, but also an important organisational and managerial dimension and it also requires for the structure and its equipment to be thoroughly upgraded.

The merger has been materialized by taking over all the members of staff (140 employees) on January 1st 2015. Integrating the personnel from the Chevilly-Larue Hospital required considerable preparation and coordination in 2014. It was accompanied by training programmes in all domains, with a priority for training doctors and healthcare staff in oncology. This specific effort will be continued over 2015 and 2016, in addition to the normal training programme.

Since January 2015, integrating Chevilly-Larue services into Gustave Roussy departments – acute care services in the medical oncology department and aftercare services in the multidisciplinary supportive care department (“DISSPO”) – has been a crucial stage in unifying healthcare conditions. During the first quarter of 2015, a special post-surgery SSR unit will be opened with beds devoted to patients from Gustave Roussy surgical and head & neck cancer departments.

From a functional point of view, all the Gustave Roussy processes will be applied on the new site. Harmonizing computer equipment and systems at Chevilly-Larue so as to meet Gustave Roussy quality standards in terms of patient services and global quality-monitoring will mobilize the departments concerned during 2015 and 2016 and be consistent with actions already undertaken in 2014.

An investment plan of 5 M€ lasting several years will be implemented in 2015 for upgrading the site in terms of quality and safety. This plan will be accompanied by a medical-economic performance plan over the same period.

Since January 2015, integrating Chevilly-Larue services into Gustave Roussy departments – acute care services in the medical oncology department and aftercare services in the multidisciplinary supportive care department (“DISSPO”) – has been a crucial stage in unifying healthcare conditions. During the first quarter of

OPTIMISE ORGANISATIONS AND MANAGE IN-HOUSE CONTRACTUAL AGREEMENTS

INTEGRATE THE CHEVILLY-LARUE SITE

REINFORCE IN-HOUSE CONTRACTUAL AGREEMENTS BY CONTINUING TO IMPLEMENT PARTICIPATIVE MANAGEMENT FOR INCREASED EFFICIENCY

Gustave Roussy is satisfied with the way departments operate and with the process used to establish in-house contractual agreements: the different departments have developed their projects; real contracts have been signed with management and autonomy has been achieved in decision-making by delegating management. Heads of departments are involved in the hospital’s governance.
Directed by a medical researcher with support from a hospital manager, Gustave Roussy has set up an organisation focused on the quality of healthcare and managerial performance. Encouraged by the conviction that the quality of organisation is one of the essential conditions for high quality healthcare, general management has adopted a participative management system that enables everyone to commit him or herself to excellence. The challenge over the next few years is to complete healthcare structures and pilot clinical pathways from inside committees. Maintaining control over processes and the articulations between departments and committees forms one of the priority lines of action.

The passing of in-house contractual agreements must be reinforced by attaining four major targets. Firstly, we need to consolidate and structure the delegation system by giving departments more room to manoeuvre, but by maintaining institutional coherence at the same time. Functional departments, which are both experts and service providers, will formalize the reference frame for preparing in-house contracts & delegating management, incorporating services proposed, tools available, etc. An inventory of existing management tools and requirements non-covered at present will make tooling evolve. Setting up accounts with analytical results in each department will be one of the initial foundation stones.

Domains exist where simple delegation is insufficient and a shared form of action is required. Reciprocal commitments will be formalized for this purpose.

Strengthening alignment on institutional priorities will improve the way efforts are channelled and ensure that interdependency between departments, management units and committees is taken into account.

In-house contractual agreements must not lead to creating jams, but, on the contrary, to enhancing everybody’s mobilisation on major strategic orientations. For this reason, objectives shared between various participants will henceforth be integrated into the In-house contractual agreement process.

Lastly, it is important to maintain everybody’s motivation, to make the benefits achieved by attaining objectives more visible and to rely on a permanently updated profit-sharing system to leverage the efforts made. This can only work if a global approach is used (research, healthcare), that leverages efforts made without being restricted merely to considerations of financial revenue. Thanks to Gustave Roussy’s participation in the “Financial Quality improvement Incentive” programme, an additional mechanism of redistribution towards departments can be envisaged for executing quality projects.

PROVIDE COMMITTEES WITH MORE VISIBILITY

The matrix organisation for healthcare at Gustave Roussy combines a vertical organisation for managing its own resources – the different departments – together with a transversal

Leverage the committees’ roles as a referent in our medical-scientific strategy.

"
organisation that corresponds to the different multidisciplinary committees set up for each human organ. This matrix system operates satisfactorily thanks to the good will of all the participants concerned. Progressively reinforcing elements that formalize relationships between departments and general management leads to re-assessing committees’ precise positioning.

For this reason, it has been decided to set up regular “scientific-strategic” meetings between each committee and general management and between committees and departments (e.g. for presenting research projects). This will more particularly enhance committees’ roles as referents in our medical-scientific strategy: Defining optimal therapeutic strategy and clinical research orientations and making evolutions in standards by making academic tests on strategy. The quality of relationships between departments and committees is a determining factor in performance.

In agreement with heads of committees and heads of departments, it has been decided to organise committee-department interfaces by associating heads of committees with recruiting practitioners liable to intervene in committees and by setting up indicators on the times between first detection of the illness and treatment.

GUARANTEE GUSTAVE ROUSSY’S FINANCIAL INDEPENDENCE

The actions undertaken for guaranteeing Gustave Roussy’s financial independence are in line with what has already been implemented over the past five years: optimising and diversifying income, keeping the evolution of expenditure under control and procuring sufficient flexibility for making the investments required for the institute’s future development.

FINANCIAL BALANCE AS AN OBJECTIVE

Long-term budgetary balance is an essential condition for developing Gustave Roussy’s activities.

There are many difficulties and obstacles on the road to financial balance: uncertainties concerning evolutions in tariffs, insufficiently reimbursed primary healthcare missions and innovative actions and missions carried out for coordinating clinical pathways carried out without any economic model.

In this context, a policy based on three basic vectors enables us to tend towards financial balance: First and foremost, optimising the use of the hospital’s capacities is fundamental. Projects for developing outpatient surgery, renewing radiotherapy...
equipment and creating new hospitalisation capacities on the Chevilly-Larue site are all a part of this policy.

Diversifying the institute’s revenues and resources form the second section of this budgetary policy. This more particularly involves continuing development of international activities by receiving foreign patients and forming partnerships.

Lastly, keeping expenditure under control is most certainly a major point in budgetary policy. This process is based on a strict analysis of the different items of expenditure and more especially by keeping employment costs under control.

OPTIMISE GUSTAVE ROUSSY’S MEDICAL-ECONOMIC MANAGEMENT

Today, every activity project is systematically accompanied by a medical-economic analysis (direct and indirect effects of the impact on medical-technical departments, etc.). It is essential that the consequences for different participants are anticipated as far ahead as possible and that developments and evolutions in activities under consideration in the institute’s strategy are taken into account.

Analysis of certain patient pathways or parts of pathways will not only provide medical-economic margins, but also improve the quality of care given and consolidate Gustave Roussy’s economic independence.

PURSUE AN AMBITIOUS DONATION AND LEGACY POLICY

La cancérologie est Oncology is a discipline that is changing fundamentally and where progress is directly related to research and technological innovation.

However, National Health Insurance rates are insufficient for investing in innovation. For this reason, funds collected in the name of the fight against cancer are decisive levers in therapeutic innovation. In ten years, revenue from donations has increased from 300 K€ to 8.2 M€, to which 7.3M€ received from legacies must also be added. Together with the funds collected by the Foundation, Gustave Roussy succeeded in collecting almost 20 million euros in 2013.

DEVELOP GUSTAVE ROUSSY’S REPUTATION BOTH INTERNALLY AND EXTERNALLY

This concerns recognizing Gustave Roussy in all its dimensions, particularly in terms of its commitment, and to making its authority to receive donations more widely known.

Internally, Gustave Roussy benefits from a strong identity and the numerous events organised for fundraising bring staff together several times a year in an enthusiastic and dynamic “Gustave Roussy community”. This feeling of belonging is an asset for the Institute, and it is via these ambassadors in the fight against cancer that we can develop Gustave Roussy’s reputation and its image as a hospital at the forefront of therapeutic progress and innovation in all fields of healthcare. In the context of this development project, Gustave Roussy would like everyone to play a more active role in promoting fundraising. To guarantee development that is consistent with its values, the Institute is going to endow itself with an ethics charter for donations.
STIMULATE NEW FORMS OF FUNDRAISING

Today, Internet is an integral part of everyone’s daily life, and it has significantly changed practices: In 2014 donors are not the same as those 4 or 5 years ago. In the next five years, we shall certainly be led to make the transition to “all internet”, by preparing for the potential ending of posted correspondence and cheques. Gustave Roussy will also be turning towards other publics and endowing itself with new tools, more especially aimed at foreign publics.

ATTRACT LARGE DONATIONS AND IMPORTANT BENEFactors

The potential for large donations really exists and justifies a specific strategy.

For contacting these important donors, Gustave Roussy will rely on a new campaign committee, the highly promising project for integrated research and personalised medicine with high levels of mobilisation on institutional levels.

Based on the fundraising curve observed over previous years and anticipating its new fundraising strategy, Gustave Roussy has set itself the challenge of significantly increasing donations and liberalities by the year 2020.
Gustave Roussy organises and delivers added-value care to all its patients, drawing on its infrastructure in Villejuif and Chevilly-Larue, on its network of certified satellites/partners, as well as by way of agreements signed with other healthcare institutions in and around Paris (for healthcare services Gustave Roussy is not able to provide). In this way, Gustave Roussy reflects the clinical pathway desired by French public authorities.

On a national level, Gustave Roussy is structured as a group in order to further its development.

Internationally, Gustave Roussy receives more and more patients from outside France, and thus promotes its model.
The Gustave Roussy hospitalisation basin extends to the complete region of Paris, with a significant presence in the regions of Val-de-Marne, Essonne, Hauts-de-Seine and, of course, the city of Paris itself. That said, given the sheer numbers involved, and the reputation of Gustave Roussy, it is quite simply not possible to hospitalise all potential patients, all the more so since treatments can increasingly be administered outside of the hospital thanks to the standardization of protocols (breast cancer, colon cancer, prostate cancer treatments) and related adjuvant treatments, and to the general high level of healthcare available in and around Paris.

The most important thing for Gustave Roussy is to ensure that every patient is provided optimally managed care whilst maintaining the active pathways necessary for the maintenance of the patient’s equilibrium. Under these conditions, the formalization of regionally defined care projects is all the more necessary.

Downstream, the policy of accrediting health structures receiving patients for follow-up treatments as well as palliative treatments will be pursued, in order to identify, over the entire region, the establishments most likely to be able to receive patients on leaving Gustave Roussy. Quality and reactivity standards will be prepared, as a binding contract, in order to obtain a rapid reply to placement requests, and guaranteeing the patients that they will enjoy a level of healthcare at least equivalent to that of Gustave Roussy.

Naturally, the contribution made by Chevilly-Larue will be taken into account, and downstream health establishment must be organised in the light of Chevilly-Larue’s special status as part of Gustave Roussy (since 1 January 2015).

Providing support to general hospitals located south of the City of Paris is also part of the missions of a healthcare centre. In this regard, it is fitting to take a closer look at existing agreements to identify possibilities for a more concrete commitment. Gustave Roussy could create advanced consultations in medical oncology, and dispatch professionals to participate in Multidisciplinary Consultation Meetings of peripheral establishments in order to improve the therapeutic decision-making process, and give better advice to patients. Thus organised, Gustave Roussy would have a secure territorial network combining Proximity Care and Primary healthcare, and partner establishments would be sure of enjoying priority access for their patients to Multidisciplinary Consultation Meetings and complex treatments. A suitable remote-medicine system could also be implemented to ensure the quality of monitoring of patients treated in Gustave Roussy.

Reinforcing the health care offer for short stays and in primary healthcare are important challenges to ensure Gustave Roussy’s reputation, regionally and inter-regionally, as a provider of top quality healthcare. To this end, cooperative projects with leading establishments will be
pursued in order to complement Gustave Roussy’s offer. For example, the major contribution made by the Paris Public Hospitals ("Assistance Publique – Hôpitaux de Paris") and in particular the University hospitals of Paris-Sud for non-oncological problems – the secondary effects of cancer treatments, toxicities, effects of population aging, impacts on fertility – is essential to ensure the correct operation of the Institute. Moreover, there is complete cooperation with the Paris Public Hospitals as regards urological surgery, neurosurgery, and orthopaedics. And it is up to Gustave Roussy to consolidate and formalize its relationship with other Paris Public hospitals active in the field of Primary healthcare.

At the same time, other strategic corporations must be continued and indeed strengthened. The Thoracic Oncology Institute, which combines thoracic surgery at the Marie-Lannelongue Hospital with the radiotherapy and systemic therapy competences of Gustave Roussy since 2011, represents a very important and highly visible collaboration with an important critical mass.

Drawing on this success, it is only fitting that Gustave Roussy seek to create a joint structure which could, by 2020, pool interventional resources and some of the operating theatres of the two hospitals, so that the two sites have an innovative infrastructure, notably in terms of surgery and imaging.

Other partnerships merit further development: specificity, work already done with the Saint-Joseph Hospital Foundation in the field of urology – in liaison with the Paris Public Hospitals – and as well as other fields of surgery, should be continued and completed by exploring other areas of cooperation (advanced consultations, radiotherapy).

The Sainte-Anne Hospital Center, known historically for carrying out trials on Gustave Roussy neurology patients, is also a site with which reinforced cooperation (clinical trials, neurosurgery, treatment of benign neurological tumours) ensures the strong position of Gustave Roussy in these domains.

Lastly, it has to be said that the solid bonds between Gustave Roussy and the Institut Curie will be consolidated, so as to go beyond the current cooperative project carried out in Orsay (i.e., pediatric teams working on proton therapy). Specifically, the two Institutes plan to share two projects: the PRECAN preclinical center, as well as the creation of a pooled pharmaceutical logistics platform.

“Pursue and reinforce cooperation with top-level establishments, to complete Gustave Roussy’s healthcare offering.”
Play a major role in the animation of a network of French centres.

NATIONAL POSITIONING

As a member of the French Federation of Cancer Treatment Centers, and of the Unicancer group, Gustave Roussy also enjoys a well-established national presence, thanks to its SIRIC accreditation, to its CLIP accreditation by the INCa, and to recognition as a category-B University Hospital Institute (“IHU”) as regards future investments. Given the current discussions and debates in France as to the positioning of Cancer Treatment Centers with respect to University Hospitals, thought could be given, along with Unicancer member centers, as to the role which Gustave Roussy could play in animating a more integrated network with volunteer centers.


The Cancer Campus project, started in 2009, prefigured a major transformation of Gustave Roussy’s urban environment, with the decision to provide additional train transportation services as part of the Grand Paris project, and to extend Paris subway line 14 as far as Orly airport.

These changes, supported by the creation of a "Campus Grand Parc" Biopark (or “mixed development zone” - ZAC) with almost 400,000 m² of construction land, of which more than 100,000 m² are located in the immediate proximity to the Biopark, offer the possibility to have a unique ecosystem based on cancer research and innovative therapies.

It is therefore fitting to do whatever is necessary to ensure the economic development of the territory, without overlooking Gustave Roussy's own capacities as regards its own research infrastructures, and the development of the hospital over the next two decades. As part of this, it is planned to relocate, between now and 2022, the current research clinics to a new unit federating research as well as preclinical activities, to be located in the immediate proximity of the site.

Likewise, 50,000 m² will be reserved on the Villejuif site to meet the expansion requirements of Gustave Roussy hospital-related activities.
As regards the valuation of industrial activities, the idea is to create a structure associated with the programming and creation of a new bio-park located in the immediate vicinity of the site, and federating regional and local authorities, the University, as well as other health and research sector players, all for the purpose of ensuring the consistency and coherence of the location of various biotechnology enterprises, R&D division and open platforms developed by Gustave Roussy. This structure would act as a complement to the configuration design for the mixed development zone, and its scope would be limited to the preparation and operation of the new Biopark.

**STRUCTURED AS A “GROUP”**

The development strategy desired by Gustave Roussy’s General Management for the years 2015/2026 unreservedly assumes a high level of diversity as regards Gustave Roussy’s activities, to contribute to its development and to secure its resources within the context of a somewhat unfavourable national environment. That said, Gustave Roussy’s missions and values require separating healthcare activities from development activities, since the latter, although creating resources, are not risk-free.

For Gustave Roussy, it is essential to be able to ensure, at all times, that its main activity, which is a non-for-profit activity, carried out as part of a public service, financed by the French Social Security, cannot be affected negatively by its international development operations nor by selling of its expertise. Moreover, the non-profitability criterion applied to Gustave Roussy’s activities, must be strictly preserved.

It is up to General Management to prepare the legal tools of a rational development enabling, in particular, the association of private partners and/or investors in order to carry the various projects which can be particularly complex, and to pass on to Gustave Roussy, revenue generated by international activity, consulting or the optimisation of its knowledge.

The creation, in the year 2000, of the Gustave Roussy Transfer subsidiary (previously known as IGR&D) was part of this logic, and it is natural to want to pursue this movement by proposing the consolidation of this entity, of which 98.8% is owned by Gustave Roussy, in order to export Gustave Roussy’s know-how. This evolution,
which respects the spirit and the letter of Gustave Roussy Transfer’s Bylaws, offers more flexibility as regards managing future projects, and enables the identification of legal objectives (subsidiaries with a commercial purpose) for each project if such is required (satellite establishments abroad; investment in public/private partnerships for some research platforms; receiving investments for the development of the Biopark of the Cancer Campus project, etc.).

The Gustave Roussy Institute, its “holding” for economic and international development, and its subsidiaries will then constitute the “Gustave Roussy Group” whose reputation will draw on the excellence of its research and healthcare infrastructure, all for the purpose of delivering first-class care to patients.

INTERNATIONAL AMBITION

THE POLICY OF ACADEMIC DEVELOPMENT

HISTORICAL PARTNERSHIPS

Research is carried out on an international level. This is why partnerships with leading institutes are extremely important in order to ensure the quality and level of performance of research carried out at Gustave Roussy.

To this end, Gustave Roussy has a long-standing partnership with the Comprehensive Cancer Center MD Anderson (Houston, USA) and participates in the Global Academic Programmes (GAP), the annual conferences organised by MD Anderson. Moreover, in liaison with MD Anderson, Gustave Roussy established the WIN Consortium (World Wide Innovation Network for Personalised Cancer Medicine). This consortium carries out clinical trials in the field of personalised cancer medicine, and has its head office in Villejuif. The WINTHER trial, currently underway (research is headed up by the head of the DITEP) is financed by the European programme FP 7, the ARC and by the pharmaceutical industry.

Gustave Roussy has developed a partnership with Deutsche Krebs Forschungs Zentrum – National Centrum für Tumoren (DKFZ-NCT) in Heidelberg (Germany) to carry out joint research projects by setting up work groups in the fields of paediatric oncology, immunotherapy, personalised cancer medicine and cellular death mechanisms. These groups are financed by the two institutes, and piloted by means of annual leadership meetings.

Gustave Roussy has close links with the European Organisation for the Research and Treatment of Cancer (“EORTC”) which are currently

“Excellence partnerships in order to accelerate the performance level of performance of research.”
underlined by the fact that the chairman of the “gastrointestinal tumours”, “lung cancer” and
“melanoma” groups are Gustave Roussy doctors. In addition, Gustave Roussy doctors are heading the research on the EORTC projects (biobanks), SpectaLung and Spectamet.

Gustave Roussy enjoys a close working relationship with SAGE Bionetwork (Seattle, USA) in the field of bioinformatics and data processing, and several Gustave Roussy scholarship holders are based in Seattle.

If one takes into account the quantity of projects and scholarship holders per year, one cannot but note that several promising Gustave Roussy researchers and doctors are working in top-notch laboratories worldwide.

**CANCER CORE EUROPE**

An initiative of key importance, driven by Gustave Roussy and DKFZ, Cancer Core Europe is the creation of the “Cancer Core Europe” consortium, federating six of the most highly reputed comprehensive cancer centres in Europe. The underlying idea is to create a network to improve the research/healthcare continuum. With its six centers (Gustave Roussy, DKFZ-NCT Heidelberg, NKI-Amsterdam, VHIO Barcelone, Karolinska Institutet and Cambridge Cancer Center), Cancer Core Europe represents a critical mass in terms of health care (60,000 newly diagnosed patients each year with 300,000 treatments administered yearly and over 1.2 million consultations) as well as a research infrastructure in all fields able to meet the challenges of developing personalised medicine as well as clinical research by prospectively created, clinically fully annotated databases.

In order to be able to set up shared programmes in translational and clinical research, the prerequisites are extremely demanding. Concretely, to do so involves setting up a virtual “e-hospital” and a powerful translational platform sharing clinical data, as well as data arising from molecular profiling platforms with a calculation capacity able to process voluminous data originating in biology, clinical imaging, functional imaging and standardized molecular imaging.

It is also essential to create a culture for the storage and sharing of data to enable longitudinal studies, leading to the opening of databases, and to the construction of a single database in order to ensure the exhaustively of the data items in the database, which is an essential criterion to carry out efficient research work taking into account our current understanding of cancers as communities of genetically heterogeneous clones whose relative contribution and appearance evolves in
the course of the development of the illness and the treatment.

The advent of disruptive technology in the research domain will make it possible to carry out highly innovative clinical and translational studies.

Given the excellent infrastructures of the six participating centres, Cancer Core Europe will be a very attractive partner for industry to develop innovative and investigator initiated early clinical trials and associated translational research programmes. In this way, Cancer Core Europe will be an unparalleled environment to train the new generation of medico-scientific talents in the field of innovative oncology, both clinical and translational.

**INTERNATIONAL ACTIVITIES**

**BOOSTING THE DEVELOPMENT OF GUSTAVE ROUSSY**

**RECEIVING INTERNATIONAL PATIENTS**

Gustave Roussy has always received patients from outside of France; however, this activity intensified significantly in 2008 when the hospital was opened to patients from the Gulf region, and again in 2010 with the finalization of a specific programme to receive international patients. Given the Institute’s reputation and the lively demand from international partners, it is fitting that this aspect of the Institute’s policy be strengthened taking however into account the specific profile of incoming patients and the additional work which taking on such international patients engenders, be this in terms of the healthcare administered, or on an administrative or logistics level.

In this regard, Gustave Roussy’s ambition is to pursue this policy of receiving patients from outside of France, diversifying the number of countries of origin, and setting aside special areas within the hospital to treat these patients. On a related note, it is important to accept only cases where the Institute can make a vital contribution.

If combined with a review of the billing system to reflect the level of expertise delivered, this source of income could double between now and 2020.

**POLICY TO DEVELOP GUSTAVE ROUSSY’S EXPERTISE INTERNATIONALLY**

In this regard, Gustave Roussy wishes to work on projects to create infrastructures, disseminate know-how, train doctors and nursing staff, and create value based on a shared healthcare model, constituting the logical follow-on to the Institute’s policy to receive patients from outside the French borders.
of France. The first partnership contracts were signed in 2013 with the University Hospital of Sharjah (United Arab Emirates) for the implementation of a breast cancer unit, and then with the Ministry of Health of Kazakhstan to train Kazakh doctors in Villejuif, and to provide assistance with setting up centralised chemotherapy care in Astana (capital of Kazakhstan).

In addition to these two partnerships, the Institute is also looking at new and exciting projects in other countries such as Kuwait and Saudi Arabia, and preliminary cooperative steps have already been taken over the past few months.

Gustave Roussy considers that there is a rich potential to develop fruitful partnerships with Gulf region countries and with Kazakhstan, the political intentions of the countries in question to structure their healthcare offer (still somewhat limited as regards cancer care and primary healthcare in general) as well as the relative absence of competition in the providing of the level of cancer care that Gustave Roussy can provide.

Drawing on these initial partnership projects, the positive short and long term perspectives, it is now possible to envisage an ambitious and well-structured policy to forge international partnerships.

**INTERNATIONAL PARTNERSHIPS OVER THE NEXT 5 YEARS**

The project consists in three components: the level of ambition of the project as expressed by the partnerships; the type of activity carried out; the target level of activity.

The Institute’s ambition as regards international partnerships is threefold: facilitate access to good-quality healthcare for people living in the partner countries concerned; propose attractive healthcare career paths for Gustave Roussy nursing staff and doctors; generate income for Gustave Roussy so as to develop activities in France that will benefit access to innovative therapies for French patients.

This type of activity is structured around 3 main axes:

- The first axis regards occasional partnerships, billed mainly using the concept of work units. This type of activity is not considered as an objective per se, but it can be used to build an initial relationship which could lead to the two other types of access of activity (projects less than 3 to 6 months, requiring a very low level of mobilisation);

- The second axis is that of long-term partnerships, spanning over several years, involving setting up training programmes or operational programmes (technical assistance, technology transfers).
The third and final partnership axes corresponds to off-site management projects, and involves Gustave Roussy opening and fully managing a satellite Institute outside of France. Kuwait is potentially the first project of this type.

It should be noted that, since these projects consume highly qualified internal resources, only a very limited number can be carried out.

Gustave Roussy wishes to ensure some of its financial independence by means of an active international development policy. In this regard, the objective is to carry out about 8 occasional partnerships per year, as well as 3 to 5 projects spanning several years, and to open one or two satellite sites over the 2015/2020 period, depending on the level of commitment expected of Gustave Roussy for partnerships involving satellite sites.

This policy will be further boosted by revamping the operational measures designed to reinforce the Gustave Roussy internal organisation, doing so in direct and close liaison with General Management. Project governance will also be reviewed in order to federate all medical and nursing teams impacted, doing so prior to implementing these projects.

Lastly, an incitation mechanism will be implemented at three levels: at the level of the concerned persons (expatriation bonuses, daily allowance depending on the time spent); at the level of the department concerned to compensate personnel outsourced to the project; at the level of the institution in that such projects will generate funding to ensure Gustave Roussy’s future development.

Specific measures will be set up to facilitate the secondment of personnel to satellite sites.
The Gustave Roussy 2015/2020 Development Project was conceived, developed and finalized by the Gustave Roussy teams, as follows:

▲ Late 2013: initial meetings leading to the creation of project groups

▲ Beginning 2014: initial steps

• 6 project groups:
  - medical and nursing;
  - research and teaching;
  - healthcare pathway and quality;
  - digital revolution;
  - managerial innovation;
  - partnerships.

• 17 subgroups involving almost 400 persons

• Over 200 interviews carried out

• Numerous surveys

• Ongoing internal communication

▲ 16 and 17 June 2014: internal seminar

• Presentation of the projects by all work groups (80 participants)

▲ October-November 2014: decision meetings concerning the projects

▲ 16 December 2014: final decision taken by the Gustave Roussy Board Of Directors and presentation of the Development Project to the Enlarged Board of Directors

▲ 7 January 2015: presentation of the Development Project to Gustave Roussy personnel
#2

ABBREVIATIONS

AP-HP: Paris Public Hospitals
ARS: Regional Healthcare Agency
ASN: French Nuclear Safety Authority
CAPRI: Cancer-Parcours de soins - Région Île-de-France Gustave Roussy
CEA: French Atomic Energy Board
CHU: University Hospital
CNRS: French Scientific Research Council
COFRAC: French Accreditation Committee
CRB: Center for Biological Resources
CRF: Case Report Form (reports arising from therapeutic trials)
CRUQPC: Commission for Patient Relations and Quality of Healthcare
CSE: Outpatient Preparation Clinic (Gustave Roussy in-house organisation, called on to prepare the discharge of patients with complex cases)
DES: Post-Graduate Diploma
DESC: Advanced Post-Graduate Diploma
DESS: Postgraduate Studies
DISSPO: Interdisciplinary Department for Supportive Care for Oncology Patients
DITEP: Drug development department
EBMT: European Blood and Bone Marrow Transplantation
ESMO: European Society for Medical Oncology
G8: New tools to assess the general condition of elderly patients with cancer, validated as part of the Oncodage trial (ASCO 2011)
GAP: Global Academic Programmes
HAS: French National Authority for Health
HCERES: High Council for the Assessment of Research and Higher Education
IFAU: Financial Incitation to Quality [programme]
IFSBM: Institute for Advanced Education in Biomedical Sciences
IGRT: Image-Guided Radio-Therapy
IHU: University Hospital Institute
INCa: French National Cancer Institute
Inserm: National Institute of Health and Medical Research
iPSGs: Induced Pluripotent Stem Cells
MRI: Magnetic Resonance Imaging
HCERES: High Council for the Assessment of Research and Higher Education
**ISHAGE-Europe:** International Society of Hematotherapy and Graft Engineering

**ISO:** International Organisation for Standardisation

**JACIE:** Joint Accreditation Committee EBMT-Euro-ISHAGE (accreditation for bone marrow transplants)

**OECI:** Organisation of European Cancer Institutes

**PACES:** First year of medical studies

**PUIS:** Interdisciplinary University Centre for Healthcare

**RCP:** Multidisciplinary Concentration Meetings

**IS:** Information System

**SIRIC:** Integrated Cancer Research Site

**SNIIRAM:** Medico-administrative database of the French Health Insurance Scheme

**SSR:** Follow-up and Rehabilitation Care

**PET-SCAN:** Positron emission tomography

**TSN:** Digital Health Territory

**UPP:** Personalised Prevention Unit

**WIN:** World Wide Innovation Network for Personalised Cancer Medicine
The digital version of this development project and of its synthesis are available on Gustave Roussy website gustaveroussy.fr
General management
114, rue Édouard-Vaillant
94805 Villejuif Cedex - France