



An innovative model for new approaches

Our goal: rely on our multidisciplinary expertise when assessing the influence of cancer and cancer treatments on patient cognitive function.

A daunting challenge: Oncology patient management has improved in the last few years. There have never been so many drugs for personalized treatments. New treatments are often taken by the oral route and concern an increasing number of patients.

The impact of these therapies on patient care is therefore a key issue. Patient complaints (both during and after treatment) and studies confirm the clinical reality represented by cognitive issues and how toxic chemo-therapy is to the brain, even in the absence of brain tumors. Initial results tend to demonstrate that new targeted therapies - angiogenic inhibitors in particular - can also affect cognitive functions.

"Today, we can model any treatment scenario, from animal models to patients, and help identify effective prevention strategies."

*Pr Florence Joly, M.D., Ph.D., Medical Oncologist
Supervisor of the Cancer and Cognition Platform*

A remarkable undertaking

The Cancer and Cognition platform consortium engages the different sites of the Cancéropôle Nord-Ouest as well as a number of partners.

Cancéropôle Nord-Ouest

Inserm Unit U982 "Neuronal and Neuroendocrine differentiation and communication", Rouen
Inserm Unit U1086 "Cancer and Prevention", Caen
Inserm Unit U1077 "Neuropsychology and functional neuro-anatomy of the human memory", Caen
Centre François Baclesse / CHU, Caen
Centre Henri Becquerel /CHU, Rouen
Institut Jules Bordet, Bruxelles
CHU, Amiens

Partnerships (teams, groups, drug companies)

Special partnerships have been established with teams specialized on brain tumors

UMR 6301 CNRS-CEA-UCBN "Therapeutic Strategies and Imaging for Cerebral and Tumour Pathologie (ISTCT)", Caen

Hôpital de la Pitié Salpêtrière, Paris OncoNeurotox, Paris
Ecole Normale Supérieure, Cachan UMR 8257 COGNAC G, Paris
Hôpital du Val de Grace, Paris PSY-NCA, Rouen
GREC-Onco

Partners

Gustave Roussy, Paris
Centre Antoine Lacassagne, Nice
Centre Paul Strauss, Strasbourg
CHU, Strasbourg

Platforms

Cyceron, Caen
Pissaro, Rouen
Primacen, Rouen
SCAC, Rouen

Task Forces

ICCTF
EORTC

Oncology intergroups

Ucancer ANOCEF
Groupe GINECO SNLF
EANO

Physicians, oncology intergroups, researchers and drug companies.

Contact us: www.canceretcognition.fr



Plateforme
Cancer et Cognition
Cancéropôle Nord Ouest

Cancer and Cognition

Cancer and cognition is the first French platform for studying and assessing the impact of cancer and its treatments on cognitive functions.



Coordinated
by the



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www.canceretcognition.fr

Created by the Cancéropôle Nord-Ouest, the Cancer and Cognition platform targets French networks in Cancerology, oncology intergroups, academics researchers and drug companies.

Our consortium, the only one of its kind, includes expert oncologists, neuropsychologists, neuro-imaging specialists and neurobiologists.

Pioneer

Since 2010, our teams have been rising to the challenge of putting the cognitive impairment associated with cancer and cancer treatments in the scientific spotlight. Our model applies an innovative approach that associates clinical studies, neuropsychology, neuro-imaging, animal models and biostatistics.

At your service

For the drug industry

We develop partnerships by ensuring the use of preclinical models. We advise you on the tools to use for ancillary studies and help you to design and analyze studies on cognitive impairment.

For oncology intergroups

We offer dedicated cognition studies in addition to your clinical studies. We also offer tests for preclinical animal studies.

An innovative approach using 4 complementary areas of expertises

Clinical *Pr F. Joly*



Would you like to know the impact of drugs, medicine or treatment strategies on cognitive functions during your trials?

Our services:

- **Evaluation of cognitive impairment** during clinical trials
- **Design of clinical studies** on cognitive impairment
- **Studies among targeted groups** such as elderly patients
- **Brain imaging** (MRI, PETScan)

Preclinical and Biomarkers *Dr H. Castel*



Do you think that animal modelling is an innovative tool for assessing the neurobiological mechanisms of cancer and cancer therapies?

Our services:

- **Detection of biomarkers** in animal models and patients
- **Design of protocols for behavioural studies** in animals to determine the mechanisms of new therapies
- **Evaluation of parameters** that could lead to cognitive impairment, assistance in understanding the physiopathology of neurological changes in patients...
- **Brain imaging in animal models**

Neuropsychology *I. Léger and Dr B. Giffard*



Do you think it is essential to have integrative neuropsychology tools and to understand the functional abnormalities as well as the anatomical effects of cancer and cancer treatments?

Our services:

- **Testing: standardised cognitive** testing that is adapted to a given situation
- **Functional imaging:** examination of functional signs of cognitive impairment using fMRI and PET Scan, identification of pathophysiological processes, study of relationships between different types of brain impairment...

Biostatistics *Dr N. Heutte*



In your studies, do you wish to use a methodology to assess neuropsychological functions?

Take advantage of our dedicated biostatistics expertise

Our services:

- **Support for and/or drafting of statistical methodology** in study protocols according the approved study design
- **Assistance in submitting projects** for call of proposals
- **Support for and/or writing of statistical analysis plans and results interpretation**

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