





A consortium of leading research institutes dedicated to human health

www.globalcare-initiative.com



GLOBAL CARE Initiative is a consortium of 5 French research centers joined to develop their collaborative and partnership research worldwide in human health.

GLOBAL CARE Initiative aims to investigate new imaging technologies, diagnostic tools and therapeutic advances.

It puts together up to 6,000 researchers and a wide technical assets and expertises and drive a budget of US\$ 42 millions (€ 31 millions) for business development & research.

Based in France (Paris & Lyon), GLOBAL CARE Initiative is an efficient and high quality springboard toward Europe for RTO, pharma and Biotech.



### KEY EXPERTISES

### CANCER

Multidisciplinary and transdisciplinary research at the Institut Curie brings together biologists, chemists, physicists, bioinformaticians, and clinicians with a view to improving prevention, diagnosis, and treatment of cancer. Based on the internal expertise of its teams and on highly advanced technical platforms Institut Curie is offering tailor-made collaborative research projects.

institut**Curie** 

### **LYMPHOMA**

CALYM consortium brings together 13 leading French research entities with unique preclinical and clinical research expertise in the field of lymphoma. The consortium, with no international equivalent, aims to accelerate innovation and transfer in the field of lymphoma, in the fast growing market of the therapeutic, diagnostic and imaging segments.



### **INFECTIOUS DISEASES**

Institut Pasteur Research strength is to be able, in a same place, to address any questioning on any (emergent or not) infectious pathogens by combining a trans- and multi-disciplinary approaches (genomic, molecular biology, proteomic, fine imagery, immunolgogy,...) Institut Pasteur ranks second internationally in terms of publication volume on infectious diseases.

Institut Pasteur

## CENTRAL NERVOUS SYSTEM DISEASES

The Institut du Cerveau et de la Moelle épinière - ICM (Brain & Spine Institute) - is an international brain and spinal cord research center whose innovative concept and structure make it the only institute of its kind in the world.

The ICM brings patients, doctors and researchers together with the aim of rapidly develop treatments disorders of the nervous system to the patients benefits.

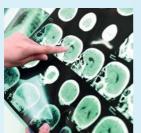


### VISION AND AUDITION DISEASES AND REHABILITATION

Institut de la Vision, one of the most important research centers in Europe on eye diseases, brings together in a single building researchers, clinicians and industrial partners. This proximity enables the sharing of ideas, skills and platforms the emergence of new questions and facilitates the delicate process of translating fundamental discoveries into new treatments



# PARTNERING EXAMPLES



### ICM and Pfizer: Translational Neuroscience Research Collaboration

Brain and Spine Institute (ICM) and Pzizer collaboration will determine new ways to identify Alzheimer's disease patients at an early stage when future treatments which are targeted at preventing or slowing the disease might have a greater impact.

### Curie Cancer and Biolog-id will develop a pilot system of RFID tags suitable for use in tracking cancer chemotherapy preparations

Curie Cancer and Biolog-id have started in June 2013 a partnership to develop a RFID (Radio&Frequency& Identification) solution for use in tracking chemotherapy



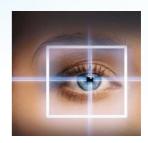
bags. The collaboration aims to make it possible to comprehensively track chemotherapy preparations through the whole process, from centralized pharmacy preparation through to administration to patients in health care settings.

#### Institut de la Vision and Essilor

First protective optical lens against harmful blue light and UV, for risk factor prevention of retinal cell degeneration (e.g. AMD), and of cataract.

### Innovative catheters against nosocomial infections

The Curie-Cancer and Vygon had signed a partnership in April 2013 that aims to develop innovative catheters and implantable ports with increased resistance to nosocomial infections, for launch on the international market.





### Institut Pasteur and Genticel: an antigen delivery vector for therapeutic vaccine ProCervix



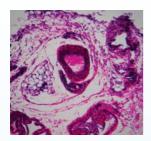
The CyaA vector was originally engineered at the Institut Pasteur that has modified the adenylate cyclase from Bordetella pertussis by inactivating the enzymatic activity

and rendering it permissive to harbor a variety of polypeptide sequences. This was achieved without altering its high affinity to target Antigen Presenting Cells (APC) and its capability to translocate into the cytosol of the APC for strong immunogenicity at the T-cell level. Vaccines that are built with the CyaA vector are chimeric recombinant proteins consisting of the CyaA protein and the antigen of choice. The CyaA vector was used in Genticel's lead investigational vaccine, ProCervix.



### Institut Pasteur and Bio-Rad have developed a dengue diagnostic assay

The Platelia Dengue NS1 Ag assay, developed by Bio-Rad in partnership with the Institut Pasteur, is an ELISA test and enables the detection of NS1 dengue virus antigen as soon as the first clinical signs appear. The ability to detect the presence of the NS1 antigen offers earlier detection of the infection compared to the conventional serological methods that are currently used.



### Preclinical and early clinical development by CALYM for two SMEs in the lymphoma field

To contribute to the development of a new form of Lasparaginase that reduces allergic and immune reactions in patients, a first CALYM research team created cell lines sensitive/non-sensitive to the molecule as well as an animal model, then obtained preclinical proof of concept with the drug candidate in those models. The product (Asparec®) was then out-licensed by its owner, the French SME Alizé Pharma, to the British biotech company Eusa Pharma and subsequently tested in a phase I clinical trial by another CALYM team.

### CORE FACILITIES

All platforms are designed to accompany researchers at all steps in their project, from the design of models to their comprehensive analysis.

These platforms are accessible to external academic and industrials, and play key role in collaboration between GLOBAL CARE Initiative and its partners. The platforms are continuously implemented to follow the evolution of the research projects.



### Study and production of protein (including antibodies)

Protein production (such as monoclonal recombinant antibodies), protein identification and analysis using mass spectrometry and analytical chemistry, biophysical characterization at the molecular or atomic level and interaction studies.



### **Imagery**

Photonic (high-speed confocal, multiphoton,...), electronic microscopy (SEM, TEM) to analyze living or fixed cells and tissues, as well as small animal imaging (bioluminescence) and MRI, etc. Ability to quantify the impact on cells of altered expression of specific genes by image analysis algorithms. Digital scanner for central pathology review. Web-based solution for CT/PET central imaging review.



### Specialized research platforms

Cutting-edge research equipment in our expertize domains: neurology (electrophysiology, non-invasive cerebral stimulation), microbiology facilities and staff for safe manipulation of pathogens, phenotyping platform for sensory systems. HTS/HCS platform with original cellular models for studying potential therapeutic compounds against eye diseases.



### Analysers and cell sorters

These facilities are used for studying cell populations but also the overexpression or gene silencing, cell cycles and proliferation, immune function or drug resistance.





### Genomic, functional genomic and metagenomic facilities

Equipment for genomics and cytogenetic analysis, such as CGHarrays, SNP-arrays, high-density biochips, is used to investigate specific profiles, and to develop specific bioinformatics tools.



#### Collections

A chemolibrary that contains over 8,000 compounds, a Fungi and a Cyanobacteria Culture Collection, a biobank of up to 10,000 bacteria, specific libraries of biological ressources (e.g. a unique T lymphoma collection) and the information linked to them (e.g. clinical information from 30,000 lymphoma patients).



#### **Animal facilities**

Production of transgenic knocked in/out mice, immunodeficient and humanized mice, gnobiotic animals, anopheles infected or not infected mosquitos, non-human primates.



#### Clinical research

Accelerating development, registration and market access of drug candidates through phase I to III clinical trials, optimisation of clinical research-related tools, processes and platforms; network of early phase clinical trials, clinical databases.



#### Cellular models

We are constantly developing new cellular models for accelerating preclinal studies. Our models are available through our collection (such as the CeVi cell collection for studying lymphoma, specific iPS cells for studying development disorders,...)



### Bioinformatics/biostatistics

This platform is involved in developing and disseminating handling and analysis tools for a variety of data from genomic or proteomic or in clinical studies to epidemiology.

### Qualified research platforms

GLOBAL CARE Initiative research units have started to implement a quality management system. By implementing quality in its policy and strategy, we would like to achieve its goals and objectives of excellence in science. Quality management systems will full fill two important requirements in this context:

- The customers' requirements confidence in the ability
  of the organization to deliver the desired product and
  service by consistently meeting customer's needs and
  expectations.
- The organization's requirements both internally and externally, and at an optimum cost with efficient use of available resources (equipment, personnel, technology and information, etc).

Many of our research facilities are already labelled IBISA, ISO 9001 or RIO.

Our research institutes comply with the Carnot Label requirements www.instituts-carnot.eu



GLOBAL CARE Initiative Institut Pasteur 28 rue du Docteur Roux 75724 Paris Cedex 15 – France www.globalcare-initiative.com Jean-Philippe Arié Tel.: +33 1 45 68 89 18 contact@globalcare-initiative.com

GLOBAL CARE Initiative is funded by the French National Agency for Research (ANR-11-CNRT-00-04).