INTERNATIONAL WINTER SCHOOL

RESEARCH PROMOTION, TECHNOLOGY TRANSFER AND BUSINESS CREATION

A leading actor in
French Public Research Promotion :
the « Centre Hospitalier Universitaire »
(University Hospital - UH)

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Anita COHEN
Délégation à la Recherche Clinique et à l'Innovation
80 rue Brochier 13354 Marseille cedex 05
Tel : 04 91 38 27 17 / Fax : 04 91 38 14 79
anita.cohen@ap-hm.fr
RESEARCH PROMOTION AND TECHNOLOGY TRANSFER IN UH

**WHAT IS IT?**

**HOSPITAL RESEARCH**

+/- industrial partnership of R&D

**INNOVATION**

**PROMOTION**

**TECHNOLOGY TRANSFER**

**INDUSTRIAL EXPLOITATION**

**INTELLECTUAL PROPERTY (IP)**

(Patent, know-how…)

Sources of funding

Since 2008

« MERRI VALORISATION »
« MERRI »

In the context of the « Hôpital 2007 plan », budget-related operations have been modified by activity-based pricing (« T2A »).

In order to offset the research effort conducted by the UH, several criteria have been added so as to distribute a fixed budget allowance which rewards for teaching, research, reference and innovation activities (« MERRI ») at each site.

« MERRI VALORISATION »

Since 2008, the French Ministry of Health has incorporated criteria for the optimization of research and innovation directly related to the major markers for industrial competitiveness, into a new « MERRI » allowance system.

Patents, licenses, industrial partnerships are now annually quantified to serve as markers within the « MERRI VALORISATION ».
**What are the potential innovations in UH to improve healthcare quality for patients?**

<table>
<thead>
<tr>
<th>PHYSICIANS, PHARMACISTS</th>
<th>HEALTHCARE STAFF, TECHNIC STAFF</th>
</tr>
</thead>
<tbody>
<tr>
<td>- New uses of existing health products</td>
<td>- Optimization of medical equipment</td>
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<tr>
<td>- Innovative galenic formulations</td>
<td>- Innovative rehabilitation tools</td>
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<tr>
<td>- Innovative customized preparations</td>
<td>- Innovative logistical tools</td>
</tr>
<tr>
<td>- Innovative dosages</td>
<td>- Innovative techniques</td>
</tr>
<tr>
<td>- Innovative medical devices</td>
<td>- Improving patients well-being</td>
</tr>
</tbody>
</table>

- Cohorts
- Collections
- Databases
- Diagnostic methods
- Diagnostic tools
- Biologic markers
- Therapeutic targets

**To improve healthcare quality for patients:**

**Confidence, proximity, coordinate works between hospital departments**
## UH : CLINICAL RESEARCH CRADLE

**Medical and pharmaceutical research : Fundamental mission of UH since their creation**

<table>
<thead>
<tr>
<th>UH SPONSOR</th>
<th>UH PROVIDER</th>
</tr>
</thead>
<tbody>
<tr>
<td>➢ UH is the instigator of the clinical trial, insures its management and verifies that its financing is planned</td>
<td>➢ Clinical trials sponsored by industrial firm in view to obtain market authorization as an example</td>
</tr>
<tr>
<td>➢ Ownership of results to UH even if industrial funding exists</td>
<td>➢ UH executes a clinical trial protocol defined by the industrial firm sponsor</td>
</tr>
<tr>
<td>➢ License agreement from UH to industrial firm for free exploitation of results</td>
<td>➢ Ownership of results to the industrial firm sponsor which can freely run</td>
</tr>
</tbody>
</table>

UH : INTERESTING PARTNER FOR COLLABORATIVE RESEARCH

UH : essential role and central position between the academic basic research and the industrial development

- Fostering partnerships between academic teams or between academic and private actors (clinical trials, European research projects, ...)

- Different partnerships needing a negotiation of contracts to determine:
  - Practical, legal and financial conditions of the partnership
  - Ownership of results and exploitation
  - Confidentiality duty and publications conditions of knowledge resulting from the research
UH: EXCLUSIVE SOURCE OF BIOLOGICAL MATERIALS

Huge potential for biological material collections and patients biological records

- Large interest of industrial firms concerning these biological materials:
  - New therapeutic targets
  - Therapeutic use of cells, tissues or organs
  - Predictive markers of response to treatment
  - New biological or genetic markers used for diagnosis
  - Samples used to validate a method or a model
  - Collections used for research

- Material transfer agreements
FRENCH DECREE OF JUNE 9TH 2009

Goal :
Simplify the management rules of IP to condition ownership between public teams

The one who shelters the research is mentioned as the unique authorized representative

Limit :
The unique authorized representative cannot agree any soul and exclusive license

What about the abandonment of IP titles?

FRENCH DECREE OF JUNE 9TH 2009

Missions of the unique authorized representative:

- Patent filing
- Patent management
- Identifying industrial partners
- Negotiation of license agreements
- Negotiation of license’s financial products in the interest of all the co-owners
- Collection and distribution of these financial products between the different co-owners
- Payment of inventors for hospital and/or university researchers
- Annual report to the other co-owners
- Principle beforehand expenses and binding of fees granted rate to the unique representative (20%)
RESEARCH PROMOTION AND TECHNOLOGY TRANSFER IN UH

RESULTS OF AP-HM

**Graph:**
- **Demandes de brevet**
- **Licences**
- **Partenariats industriels**

**Years:**
- 2001
- 2002
- 2003
- 2004
- 2005
- 2006
- 2007
- 2008
- 2009
- En cours en 2010

**Values:**
- 0
- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
28 Centers of medical activities
- Clinical trials
- Innovations

DRCI – PROMOTION DEPARTMENT
- Sensitization of staffs
- Negotiation of industrial partnership agreements
- Detection of innovations
- IP analysis
- Market analysis
- Promotion
- +/- Technological validation

in collaboration with
<table>
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<tr>
<th>TO RESEARCHERS</th>
<th>TO INDUSTRIAL PARTNER</th>
</tr>
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<tbody>
<tr>
<td>To protect innovations</td>
<td>To have access to biological materials and/or innovative technologies from UH</td>
</tr>
<tr>
<td>To optimize innovations (access to IP counsel, technological validation...)</td>
<td>To organize epidemiological and clinical data transfer resulting from research sponsored by the UH</td>
</tr>
<tr>
<td>To protect knowledge resulting from clinical research sponsored by the UH</td>
<td>To negotiate and to establish contracts in the framework of partnerships (R&amp;D collaborations, license agreements, ...)</td>
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<tr>
<td>To help researchers to submit projects (within national or local calls for proposals, the European Commission's 7th Framework program, ...)</td>
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<tr>
<td>To negotiate and to establish industrial partnerships</td>
<td></td>
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<tr>
<td>To foster the creation of innovative start-up companies</td>
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Université de la Méditerranée's private technology transfer subsidiary

Technology transfer booster for the 6 Provence Alpes Côte d'Azur Universities to optimize the technology transfer from public research to industrial firms by:

- Making technical and functional analysis of the technologies,
- Financing proof of concept or prototyping,
- Identifying and teasing industrial partners worldwide,
- Validation of markets,
- Elaborating a negotiation strategy with industrial partners.
RESEARCH PROMOTION AND TECHNOLOGY TRANSFER IN UH FRENCH UH AND REGIONAL HOSPITALS (RH)

29 UH
Amiens  Angers  Besançon  Bordeaux  Brest  Caen  Clermont-Ferrand  Dijon  Fort de France  Grenoble  Lille  Limoges  Lyon  Marseille  Montpellier

3 RH
La Réunion  Metz-Thionville  Orléans
4. Results from « MERRI Valorisation » investigation 2009.
Launched in 1991, C.U.R.I.E. is the national French association aiming at bringing together different actors working in public technology transfer and giving value to public research.

- **Active members**: Universities, engineering schools with research activities, research institutes, UH

- **Associate members**: Consulting firms, industrial firms, venture capitals and structures involved in technology transfer

**Education, advocacy, networking, communication**
« RESEAU C.U.R.I.E. »
(C.U.R.I.E. NETWORK)

Core activities:

- Events organization (annual congress, workshops, staff exchange, …)
- Services (source of information, job opportunities, working groups, …)
- Additional services (training sessions, legal advice, exclusive delivery of the laboratory notebooks, …)
- International co-operations
Launched in 2008, HTT is the national network of French UH technology transfer departments aiming at allowing the less experienced hospital organizations to benefit from the experience of the most well-equipped ones.

Pooling resources, expertise and procedures in accordance with local practices
« RESEAU HOPITAL TECH TRANSFERT »
(HTT NETWORK)

Core activities:

- Sharing resources and abilities between all French UH technology transfer departments with the aim of activities locally better and nationally harmonized
- Writing a charter concerning the industrial partnerships
- Building a library of documents with HTT network’s label (declaration of invention, guide of the project initiator, …)
Access to patients and clinical research take place in UH context which have been recently recognized for their innovative potential.

By promoting innovative projects, developing industrial partnerships and supporting technology transfer, UH have become central and strategic actors involved in innovation and research.

This model has led to a professionalization of clinical research promotion by strengthening of skills, progress of practices and development of networks.

UH have now all the necessary tools in order to increase the basis of their competitiveness.

What will be UH next position within the future companies to accelerate technology transfer (« SATT ») ?