Necker-Enfants Malades hospital
NECKER AND THE UNIVERSITY
Université Paris Descartes

Psychologie
Sciences humaines
IUT
Droit
Pharmacie
Odontologie
Saints-Pères
Médecine
School of Medicine of Paris-Descartes

Founded in June 2004 (fusion of Necker, Cochin, Broussais Faculties)

- 3 sites: Necker, Cochin, Cordeliers
- 5 main Hospitals: Necker, Cochin, HEGP, Hotel-Dieu, Ste Anne
- 3000 beds > 100 clinical units
- Medical students: 8000, including ~4000 (1st & 2nd cycle)
- P2: ~350 students (annual promotion)
  University and Research staff

- Professors: 300
- Associate Professors and Assistants: 500
- Technicians 140 and Administratives: 130 = 270
- University Hospital: CH &U Paris / AP-HP
- ~50 Research Units: 4 main sites (Necker, Cochin, Cordeliers, Ste Anne, Georges Pompidou)
- > 300 scientists INSERM et CNRS
- > 300 technicians EPST
- Patrimony: 52 200 m2

Dean Patrick Berche
NECKER TODAY

Some facts and figures

- **Pediatrics**: 2/3 of its activity  
  **Beds**: 600

- **Staff**
  - 700 Medical personnel / 3200 Paramedical personnel

- **Care (numbers per year)**
  - 62 000 Hospitalizations
  - 74 000 Emergencies
  - 2 400 Deliveries
  - 310 000 Consultations
  - 240 Organ transplants (adults and children)
  - 100 000 Imaging analyses
  - 140 000 000 Laboratory analyses
NECKER TODAY

- Specialized medical activities closely linked with research
  - 32 Centers for treatment of rare diseases
  - 22 Research Units (= 5% of the national medical research units)
  - 600 Researchers
  - 2 Clinical Investigation Centers, 1 Biobank
  - 1100 Publications/year
NECKER TODAY

9 Departments

- Specialized Pediatrics
- Pediatric Surgery
- Obstetrics and Pediatric Cardiology
- Intensive care, Emergencies, Anesthesiology
- Hematology, Immunology, Infectiology
- Adult Uro-Nephrology, Ophtalmology
- Imaging
- Laboratory Medicine and Pharmacy
- Clinical Research, Informatics and Public Health
NECKER TODAY
STRATEGIC PLAN 2010–2014
Milestones

- August 2010 : Saint-Vincent-de-Paul Hospital merged on site with Necker

- December 2011 : Childcare Institute of Paris merged with Necker Hospital but it’s still off site

- December 2012 : ENT and Maxillary-facial activities of Trousseau Hospital will merge with Necker Hospital and move into Laennec

- December 2012 : Opening of Laennec building

- Reorganization of pediatric activities on the Necker site after opening of Laennec building

- September 2013 : Opening of the Imagine research Institute

- Project of Laboratory Medicine
The new Laennec building
dedicated to mother
and child care

Architect : Philippe Gazeau
Laennec project

- Objectives of the Laennec project
  - To improve patient safety and quality of care:
    - Develop Perinatality
    - Concentrate pediatric activities in 3 buildings instead of 7
    - To make hospitalization more humane
  - To improve the efficiency of clinical care and medico-technical platforms
    - Reach a critical mass of medical activities
    - Common hospitalization platforms
    - Optimize « Bed management » and Regulate technical platforms (surgery units, consultations)
  - To optimize turnaround time in Pediatrics and Perinatality:
    - Reduce hospitalization time
    - Develop ambulatory care
    - Optimize capacities (occupancy target of: 80 - 85%)
NECKER IN MOTION

Boosting Organ Transplant

• Necker assets
  - Research strengths in Immunology
  - Extensive experience
  - Medical and Surgical Expertise
  - Strong technological support
    Imaging, Biology, Intensive care

• At APHP Necker is alone to carry out kidney, heart, liver, gut and liver-gut transplantations
The medical project of Laennec
Activities in Laennec building:
406 beds and 6 dialysis beds

**Pediatric cardiology - Perinatality**

- Obs. delivery platform
- Neonatology

**Medico-surgical cardiology**

- Obstetrics

**Medico-surgical plateform and transplantation:**

- Gastroenterology, Nephrology and Dialysis
- Visceral surgery, oph and pluridisciplinary Pediatrics

**Neurosurgery, Orthopedics, Maxillo-facial surgery, ENT, Ambulatory surgery unit**

**Intensive care units**

**Integrated emergency plateform**

+ (medical imagery, surgical units, post-anesthes. rooms)

**Consultations** (5 modules)

**Logistical plateform and medico-technical activities**

Operating surface: 55 000 m²
except technical 6th floor

R+5
R+4
R+3
R+2
R+1
RDH
RDB
-1
Some views of Laennec
Ground floor - 2013
Carrefour Duroc - 2013
The Necker garden
A VERY STRONG AND DIRECT LINK BETWEEN
PATIENT CARE- LABORATORY MEDICINE - IMAGING-RESEARCH
Innovative and personalized Biology

- Making patient-based research the foundation
  Programs L2R, Heredity, Immunity, Infection, Cancer, Pharmacy, Biobank...

- Capturing the benefits of technology
  Plateforms CGH-arrays, High throughput sequencing, Mass spectrometry, Imaging...

- Tracking efficiency
  Optimizing prescriptions of laboratory analyses and drugs

- Establishing Quality Assurance and Control (Accreditation)

- All labs in ONE BUILDING INSTEAD OF FOUR!
Research in pediatrics at Necker

• Both experimental and clinical research are part of a university hospital involved in pediatric care.

• A long-standing tradition (from R. Debré, to P. Royer, ...)

• 6 research units (INSERM) working on genetic diseases (brain, kidneys, bones, development, gut, heart, eye, immune system...) grouped in the « Institut des Maladies Génétiques » IMAGINE

  Staff : 300 + 2 research groups in Endocrinology, cystic fibrosis

• Large cohorts of patients with rare pediatric diseases

Clinical research facilities/gene and cell therapy

→ Critical mass of both experimental and clinical research
Research Achievements

- > 120 disease genes discovered
- First prenatal and preimplantatory diagnosis in France
- First bone marrow transplantation in France
- First pediatric organ transplantations (kidney, gut)
- First successful gene therapy
- And more…
**NECKER IN MOTION**

**IMAGINE:** *A new building → in sept 2013*

11,000 m² fully equipped laboratories for 48 groups of 6 to 8

Up to date plateforms (genomics, bioinformatics, animal house, imaging…)

3,000 m² for clinical research (clinical investigation center, biobank, rare disease reference center) + out patient clinics

**A possibility to recruit 8-10 groups between 2012-2015 working on neuroscience, development and stem cells**

Overall research environment of the campus (university building to be renovated – immunology/cell biology)

Pediatric/adult medicine network in the care of chronic diseases (Institut Hospitalo Universitaire/Medical Research Institute)
**NECKER IN MOTION**

Necker Annual operating budget = 380 M€

Finances: right on target!

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<td>Financial result ( M€)</td>
<td>-15.9</td>
<td>-5.6</td>
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Despite refurbishing the site at an additional cost of 264 M€ *(due to investment)*, we still anticipate a positive result in 2014.
Conclusion
To sum up:

- AP-HP envisioned a new organization for specialized Pediatrics within Paris intramuros.

- St Vincent de Paul hospital, Paris Childcare Institute and Necker hospital merged successfully and Trousseau will join them in December 2012.

- Laennec building will therefore represent a critical mass of pediatric care underpinned by research.

- We believe that this new organization will strengthen pediatrics in Paris and offer children the best quality care possible.