

Located in the heart of Paris, the «Voir et Entendre» Carnot Institute represents one of the most important international centers in neurosensory research. This institute is designed as a place of exchange gathering on the same site patients, clinicians, researchers and industrials in order to accelerate innovation in terms of health products and high technology, while bringing solutions to unmet needs of people impaired by pathologies and handicaps affecting visual and hearing systems.



From knowledge transfer ... to tomorrow's therapeutic approaches

Target markets

- Healthcare
- Biotechnologies
- Imaging
- Optics
- Home automation
- Urban planning
- Services

The «Voir et Entendre» Carnot Institute activities:

- ➔ Development of therapies (research, developing and running of clinical trials)
- ➔ Sensory restoration (artificial retina, cochlear implants)
- ➔ Innovation in investigation tools (retinal imaging)
- ➔ Overall approaches on issues linked to sensory impairment (urban planning, home automation, services)

An ecosystem supporting innovation and startups

- ➔ 1 incubator with several startups on site
- ➔ Access to 12 technological core facilities for our incubator and partners
- ➔ Creation of 7 spin-offs by the «Voir et Entendre» Carnot Institute

Our core strategy: partnerships

➔ Small and medium sized pharma and biotech companies: Sanofi, Pfizer, Novartis, Alcon, Allergan, GenSight Biologics, Santen-Novagali etc...

Small and medium sized companies in nanomaterials, optics, robotics, electronics:

Essilor, Thales, Siemens, Imagine Eyes, Pixium Vision, LLTech etc...

Research laboratories in life sciences:

FMI (Basel), MEEI (Boston), UCL (London), Max Planck Institut (Frankfurt) etc...

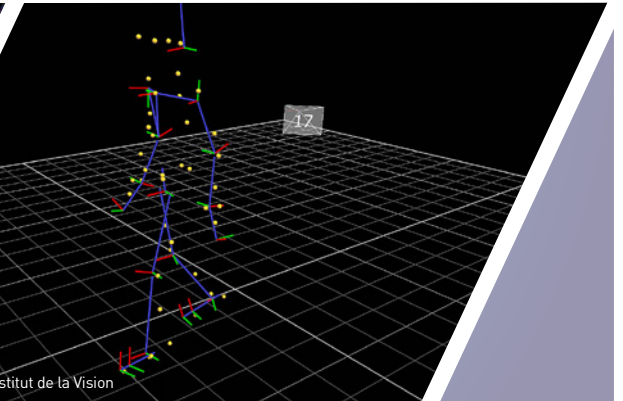
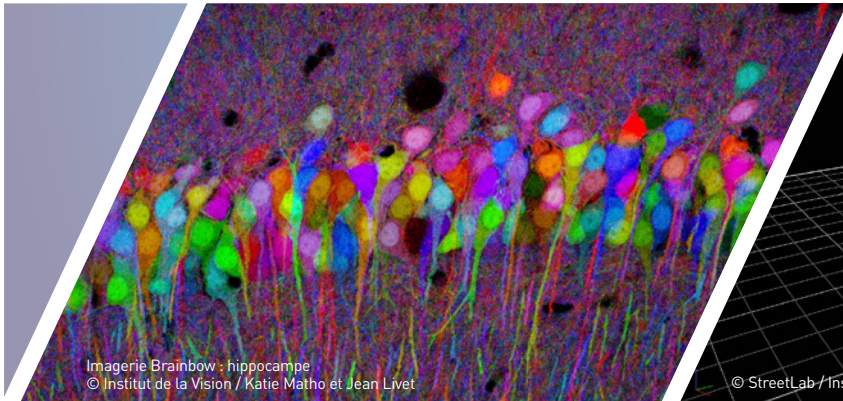
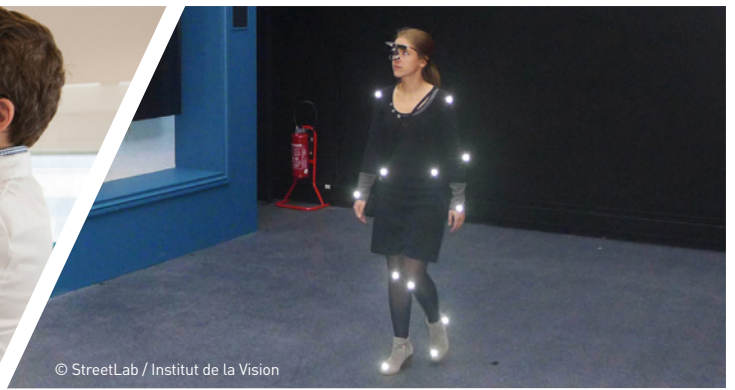
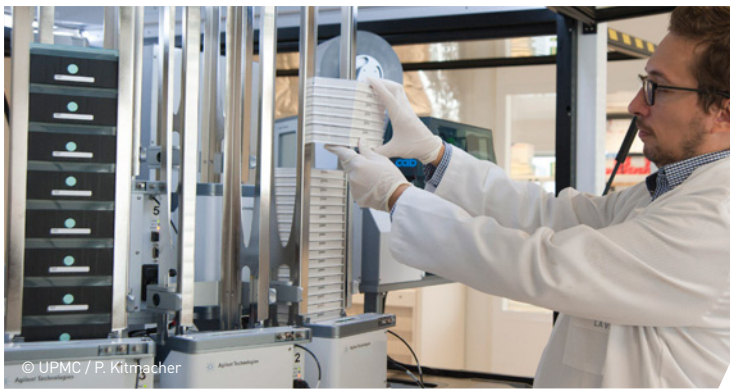
Research laboratories in optics, acoustics, robotics, mathematics, signal transmission:

CEA Léti, CEA List, ESPCI, ESIEE etc...

Clinical research center:

member of EVICRNet, a European network of clinical research in ophthalmology (86 members, 16 countries)





Know-how and skills

- Biology of sensory systems development
- iPS cells (Progenitors of retina cells)
- Cell therapy
- Optogenetic
- Gene therapy
- Study of inflammation in pathological processes
- Processes of physiological and pathological vascularisations
- Pharmacology, drug discovery, pharmaco-toxicity
- Cohorts analysis : genotyping, phenotyping
- Low vision
- Mathematical modeling of vision

Technological core facilities

- Imaging by brainbow-technique, two-photon and confocal microscopy, slide scanner, etc... Retinal Imaging: SLO, OCT, adaptive optics
- Phenotyping of small animals and non-human primates
- Patch-clamp, Multi Electrode Array
- Genotyping, sequencing
- Vectorology, histology, biochemistry
- Cell culture (cell models of pathologies)
- High Throughput Screening (HTS/HCS)
- Core facilities dedicated to handicap: HomeLab (experimental apartment), Streetlab (artificial street), low vision simulator

Research staff
(full-time equivalent): **270**
including PhD students: **40**

Partnership incomes
with industry: **4,9 M€**
Global budget: **23,6 M€**

CONTACTS

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Components of the «Voir et Entendre» Carnot Institute

- ¹ Fondation Voir et Entendre (Foundation of scientific cooperation seeing and hearing)
- ² Research Center Institut de la Vision (Joint Research Unit UMRS 968, INSERM/UPMC/CNRS)
- ³ Research Unit on Genetics and Physiology of Hearing (UMRS 1120, INSERM/PASTEUR)
- ⁴ Clinical Investigation Center (CIC 1423) of CHNO XV-XX (INSERM/CHNO) Reference center for retinal rare diseases



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