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# Movement restoration: different perspectives on rehabilitation, compensation and assistive technologies

The Federative Institute for Research on Handicap (IFRH) is a multidisciplinary and multi-institutional structure of research and clinical units, which aims to develop research on disability through 3 axis:

- Axis A - Research in health, human and social sciences;
- Axis B - Rehabilitation sciences in health clinical research;
- Axis C - Technologies applied to large impairments and disability.

IFRH proposes 4 transversal programs: handicap and mobility; paediatric disability; interactive systems for participation and autonomy; trajectories and accompaniment.

Each year, IFRH organizes a scientific conference, which focused in 2017 on the restoration of the movement.

The question of the place of technology in the maintenance of people autonomy was approached from the angle of human and social sciences, sciences of rehabilitation and technology. The multidisciplinary discussions made it possible to question the place of digital tools or robots in the rehabilitation of tomorrow, through presentations by teams from very different horizons. This national conference, based on several examples of innovative and multidisciplinary projects, was intended to demonstrate the dynamism of translational research in the field of disability. The issue of inclusive society was at the heart of the debate.

This event was organized by IFRH on 21<sup>st</sup> September 2017, within the EuroMov laboratory of the University of Montpellier, with the support of the National Solidarity Fund for Autonomy (CNSA). It was organized in partnership with the French Scientific Society of Physical Medicine and Rehabilitation (SOFMER),



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the APPROCHE association and the SANTESIH laboratory of the University of Montpellier.

Professor Isabelle Laffont (Hospital and University of Montpellier) and professor Stéphane Perrey (EuroMov, University of Montpellier) have assumed the scientific responsibility, accompanied by the organizing committee described below:

- DUPEYRON Arnaud, EuroMov, University of Montpellier, CHU of Nîmes;
- BARDY Benoît, EuroMov, University of Montpellier;
- FERREZ Sylvain, SANTESIH, University of Montpellier;
- MOTTET Denis, EuroMov, University of Montpellier;
- BAKOUCHE Wade, IFRH secretary-general;
- KLINGER Évelyne, ESIEA, IFRH, ISVR;
- PUDLO Philippe, IFRH director;
- RAVAUD Jean-François, IFRH emeritus director;
- SAINT-BAUZEL Ludovic, ISIR, Paris;
- RANJAHARIOELINA Holi, IFRH executive assistant.

This conference was opened by the research vice-president of the University of Montpellier, by the president of SOFMER, by the director of the EuroMov laboratory and by the director of the IFRH. It was an opportunity for meetings, exchanges and reflections around three main themes: rehabilitation technologies, compensation technologies and assistive technologies. The speakers were chosen on the basis of the quality of their work and for the diversity of their disciplines. Thus, clinicians, researchers in human and social sciences, researchers in the field of motor control, engineers, roboticists, computer scientists and users were given the opportunity to compare their experiences and discuss these cross-cutting themes.

The conference was marked by the presentation of four posters from young researchers related to the main theme of the day. It ended with a round table moderated by Isabelle Laffont, which was attended by two representatives of the users, an industrial, and some speakers of the sessions.

- IFRH : <http://ifr-handicap.inserm.fr>
- EuroMov : <http://euromov.eu>
- CNSA : [www.cnsa.fr](http://www.cnsa.fr)

*The authors declare  
that they have no competing  
interests.*