

Cyberdyne Inc. from Japan – Robotdalen's 2nd international business establishment in Sweden

The robot suit HAL (Hybrid Assistive Limb) is a so-called exoskeleton, a robot suit for support when in rehabilitation. The Japanese company Cyberdyne Inc has set up business in Sweden and prior to the product launch clinical testing will be conducted at Danderyd University Hospital. Cyberdyne is Robotdalen's second international business establishment in Sweden and part of establishing Technology for Independent Life as a new line of business. An agreement on clinical trial between Danderyd University Hospital and Cyberdyne Inc will be signed at a press conference in Stockholm on September 6, where the robot suit will also be demonstrated.

When a person moves around, nerve signals are sent from the brain to the muscles. But when a person suffers from e.g. a stroke, the communication between the brain and the muscles can deteriorate, resulting in diminished mobility. However, even weak signals can be picked up via the skin. Using electrodes placed on the skin over specific muscles, these signals can be registered, amplified by the robot suit and translated into activation of the exoskeleton, thus enabling movement. This is how the robot suit HAL (Hybrid Assistive Limb) works.

Robotdalen's second international business establishment

The company Cyberdyne Sweden AB is already up-and-running. Prior to the product launch clinical tests will be conducted at Karolinska Institutet at Danderyd University Hospital in Sweden, in order to get the proper quality CE marking for the European market. The clinical tests will focus on early rehabilitation after a stroke. Future areas of use are on patients with other disabilities after injuries or diseases in the nervous system. The robot suit HAL is not yet available on the Swedish market and we are at the forefront in Europe in terms of testing and product launching. Cyberdyne is Robotdalen's second international business establishment. Previously, Giraff Technologies has moved their company from Silicon Valley in the U.S. to Sweden.



The signing of the agreement on clinical trial by representatives from Japan and Sweden will take place at a press conference at Danderyd University Hospital in Stockholm, Sweden, on September 6 (programme page 2).

For further information please contact:

- Adam Hagman, Technology for Independent Life, Robotdalen, phone +46 (0)21-12 55 90, e-mail adam.hagman@robotdalen.se
- Jörgen Borg, Karolinska institutet, phone +46 (0)70-497 10 13, e-mail jorgen.borg@ki.se
- Jessica Karlsson, Communications Manager, Robotdalen, phone + 46 (0)73-670 76 30, e-mail jessica.karlsson@robotdalen.se

Robotdalen is a Swedish robotics initiative with the mission to enable commercial success of new ideas and research within robotics & automation

Robotdalen is part of and mainly financed by VINNOVAS programme VINNVÄXT. Robotdalen is partially financed by

2012-08-24

Programme for the press conference *Innovative Technology in Neurorehabilitation: Hybrid Assisted Limb*

Thursday September 6, at 10-12 am, in the Great Lecture Hall/Aulan at Danderyd University Hospital, Stockholm, Sweden

- | | |
|---------------|--|
| 09.30 - 10.00 | Coffee/tea and sandwiches will be served outside the Great Lecture Hall |
| 10.00 – 10.05 | Welcome address
Stefan Jacobson, MD, professor and CEO Danderyd University Hospital |
| 10.05 - 10.35 | Perspective on collaboration in the field of assistive technology
Yoshiyuki Sankai, Professor at the University of Tsukuba and CEO for Cyberdyne Inc., Japan |
| 10.35 - 10.40 | Signing ceremony – Agreement on Clinical Trial
Professors Yoshiyuki Sankai, Stefan Jacobson and Jörgen Borg |
| 10.40 – 11.10 | VINNOVA – Swedish Innovation System
Charlotte Brogren, Director General |
| 11.10 -11.20 | Robotdalen – a Swedish robotics initiative enabling commercial success of new ideas and research within robotics and automation
Erik Lundqvist, General Manager |
| 11.20 - 11.25 | University Department of Rehabilitation Medicine at Danderyd Hospital
Christian Andersen, MD, PhD, Head of Clinical Department |
| 11.25 - 11.30 | SLL Innovation - the main innovation system within Stockholm County Council
Olle Hillborg, Head of Development |
| 11.30 – 11.50 | Hybrid Assisted Limb/HAL – application in rehabilitation after stroke. Practical demonstration
Vera Häglund, senior consultant, Anneli Nilsson reg. Physiotherapist, Sofie Nybom engineer and Jörgen Borg, MD, professor |
| 11.50 - 12.00 | Discussion - comments and questions to speakers
Chairman Jörgen Borg, MD, professor |

Robotdalen is a Swedish robotics initiative with the mission to enable commercial success of new ideas and research within robotics & automation

Robotdalen is part of and mainly financed by VINNOVAS programme VINNVÄXT. Robotdalen is partially financed by