Virtual reality-Treadmill combined Intervention for enhancing Mobility and reducing falls in the Elderly

Fact Sheet

Project Information

<table>
<thead>
<tr>
<th>V-TIME</th>
<th>Funded under FP7-HEALTH</th>
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<tbody>
<tr>
<td>Grant agreement ID: 278169</td>
<td>Overall budget € 7 477 391,20</td>
</tr>
<tr>
<td>Project website [link]</td>
<td>EU contribution € 5 781 956,80</td>
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<td>Status</td>
<td>Coordinated by</td>
</tr>
<tr>
<td>Closed project</td>
<td>THE FOUNDATION FOR MEDICAL RESEARCH INFRASTRUCTURAL DEVELOPMENT AND HEALTH SERVICES NEXT TO THE MEDICAL CENTER TEL AVIV ☝️ Israel</td>
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<tr>
<td>Start date 1 January 2012</td>
<td>End date 31 December 2015</td>
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Objective

Falls are a major public health concern that directly affects millions of elderly Europeans, the healthcare system, and the adult children and caregivers of older people. The V-TIME approach combines cutting edge technology with emerging concepts from gerontology, neuroscience and rehabilitation to reduce fall risk in a unique way. The V-TIME multi-modal intervention consists of treadmill training (TT) that promotes walking abilities and physical fitness. A key novel addition is the simultaneous use of a virtual reality (VR) environment that challenges, implicitly teaches and enhances cognitive skills that facilitate the safe execution of many activities of daily living: visual scanning, planning, dual-tasking abilities, and obstacle...
activities of daily living: visual scanning, planning, dual tasking abilities, and obstacle negotiation.

Exciting pilot studies support the idea that TT augmented with VR (TT+VR) addresses the limitations of existing fall prevention interventions. Via TT+VR, V-TIME offers task-specific training in a motivating and safe environment that can readily be reproduced and standardized. The major goal of the current proposal is to establish the beneficial effects of V-TIME training in a large (n=300) and diverse group of elderly via a multi-centre, prospective randomized controlled trial. Outcomes include post-training 6 month fall incidence rates (the primary outcome), gait, physical activity (e.g., steps walked in 7 days), cognitive function, quality of life, and neuroimaging measures (fNIRS, fMRI). The effects of dosing and an extension phase will be examined (n=60). The consortium brings together world leaders in ageing, neuroscience, rehabilitation and VR technology to test a new therapy that may dramatically reduce the negative costs of falls, financial and other. The RCT is designed to show that V-TIME offers a significant and clinically relevant greater benefit compared to current clinical management; to probe brain plasticity; and to establish efficacy on fall risk, mobility, cognitive function, and functional independence.

Field of science

/medical and health sciences/health sciences/public and environmental health
/medical and health sciences/clinical medicine/physiotherapy
/natural sciences/biological sciences/neurobiology
/medical and health sciences/clinical medicine/gerontology
/natural sciences/biological sciences/neurobiology/neuroscience

Programme(s)

Topic(s)

Call for proposal

FP7-HEALTH-2011-two-stage

Funding Scheme

CP-FP - Small or medium-scale focused research project

Coordinator
THE FOUNDATION FOR MEDICAL RESEARCH INFRASTRUCTURAL DEVELOPMENT AND HEALTH SERVICES NEXT TO THE MEDICAL CENTER TEL AVIV

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Weizmann Street 6
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Activity type
Research Organisations

EU contribution
€ 1 043 090

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Participants (8)

KATHOLIEKE UNIVERSITEIT LEUVEN
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Administrative Contact

<table>
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<tr>
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<th>Country</th>
<th>EU Contribution</th>
<th>Address</th>
<th>Activity Type</th>
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<tr>
<td>BEACON TECH LTD</td>
<td>Israel</td>
<td>€ 402 500</td>
<td>Golda Meir St 3 74036 Ness Ziona</td>
<td>Private for-profit entities (excluding Higher or Secondary Education Establishments)</td>
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<tr>
<td>ADVANCED DRUG DEVELOPMENT SERVICES - ADDS SRO</td>
<td>Czechia</td>
<td>€ 600 408,20</td>
<td>Jana Uhra 168/10 602 00 Brno</td>
<td>Private for-profit entities (excluding Higher or Secondary Education Establishments)</td>
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**Last update:** 10 September 2017  
**Record number:** 101785

**Permalink:** https://cordis.europa.eu/project/id/278169/