

**Symposium Smart Aging & Rehabilitation Technologies  
(Netherlands and Canada)**

Wednesday, June 19, 2019  
1:00-4:30 pm Room E7-2317



**CENTRE FOR BIOENGINEERING AND BIOTECHNOLOGY**

**SYMPOSIUM: SMART AGING AND  
REHABILITATION TECHNOLOGIES**

Wednesday, June 19th, 2019  
1:00 - 4:30 PM  
E7-2317



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**Host:** Centre for Bioengineering and Biotechnology (CBB)

**Visitors:** University of Twente, the Netherlands, University of Applied Sciences Amsterdam

**Areas of focus:**

Smart Aging & Personalized EHealth Technologies; Rehab & Human Enhancement Technologies; Digital Society and High Tech Innovations; Value based Healthcare.

**Purpose**

- Establishing collaboration between partners (Universities, Rehab Institutes) by introducing research priorities in each side
- Apply for international funding opportunities
- Student/Staff Exchange, internship, workshops in both countries
- Understand the logistics and process of international partnerships

**Agenda**

Time		
1:00-1:15	Welcome and opening	Catherine Burns (CBB, UW) Lisette van Gemert-Pijnen (UT- BMS) Theo Toonen, Dean faculty Behavioural , Management and Social science (UT-BMS)
1:15-2:45	Part I-Presentations NL-CND couples around themes	80 min; 8 min max pres. 10 min discussion
2.45-2.50	Break	
2:50-4: 20	Part II-Presentations NL-CND couples around themes	80 min; 8 min max pres. 10 min discussion
4.20-4.30	Focused discussion, Closing Remarks and Depart	Future directions & Collaborations.

## Symposium Smart Aging & Rehabilitation Technologies (Netherlands and Canada)

### The Netherlands Representatives:

**Prof Dr Theo Toonen**, Dean of Faculty Behavioural, Management and Social science

**Prof Dr Lisette van Gemert-Pijnen**, Full Professor Persuasive Health Technology University of Twente, Adj Prof University of Waterloo, Coordinator Center eHealth & Wellbeing Research

**Prof Dr Hans Rietman**, Professor in Rehabilitation Medicine and Technology; Faculty of Engineering Technology / Tech Med Centre, University of Twente, Adjunct Professor at Physical Therapy and Human Movement Sciences, Northwestern University (Chicago, USA); President of the Netherlands Society of Rehabilitation Medicine

**Dr Annemarie Braakman-Jansen**, Assistant Professor University of Twente, Centre for eHealth & Wellbeing Research at the University of Twente

**Margriet Dekkers**, Country Coordinator Canada, UNIVERSITY OF TWENTE | Enschede, The Netherlands, (regret)

### UW representatives and contacts:

**Prof Dr Catherine Burns**, Executive Director, Centre for Bioengineering and Biotechnology (CBB), University of Waterloo

**Dr Jen Boger**: Assistant Professor, SYDE & Schlegel Research Chair in Technology for Independent Living, University of Waterloo

**Dr Parisa Hamilton**, Project Coordinator, Centre for Bioengineering and Biotechnology (CBB)

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### Timetable:

Welcome and Opening Remarks by **Professor Theo Toonen**, Dean of faculty Behavioural, Management and Social science

### Part I:

#### Smart Aging, Personalized EHealth Technologies:

**Geke Ludden**, Associate professor Faculty of Engineering Technology (ET), University of Twente  
*“Engaging interactions in self-management of health; Interaction Design”*.

**Plinio Morita**, Assistant Professor - School of Public Health and Health Systems, University of Waterloo,  
*“Population-Level Surveillance using eHealth, IoT, and AAL”*.

**Thomas van Rompay**, Associate Professor, University Of Twente, Fac Behavioural, Management and Society, *“Healing Environments and Emerging Technologies: Mental States and Psychological Wellbeing”*.

**Ehsan Kamrani**, Research Associate, ECE, CIARS Lab, University of Waterloo, *“Smart Wearable Technologies for Aging and Rehabilitation”*.

#### Games for Health

**Jen Boger**, Assistant Professor, SYDE, Schlegel Research Chair in Technology for Independent Living, University of Waterloo, *“Intelligent Technology for Wellness and Independent Living”*.

**Somaya Ben Allouch**, Associate Professor, Amsterdam University of Applied Sciences, *“Social Robotics for Smart Ageing”*.

**Kerstin Dautenhahn**, Professor, Departments of Electrical and Computer Engineering/Systems Design Engineering, Canada 150 Research Chair in Intelligent Robotics, University of Waterloo, *“Robot-assisted therapy with social robots”*.

#### Rehab & Human Enhancement Tech

**Anne Kuiper**, Department of Cognitive Neuroscience, Faculty of Psychology and Neuroscience at Maastricht University, scientific researcher at InteraktContour, *“Non-invasive brain stimulation as an innovative treatment for people with brain injury”*.

**Arash Arami**, Assistant Professor, Mechanical and Mechatronics Engineering, University of Waterloo, *“Neuromechanics based assistive robotics”*.

**Hans Rietman**, Professor in Rehabilitation Medicine and Technology; Faculty of Engineering Technology / MIRA institute for Biomedical Technology and Technical Medicine, University of Twente, *“Rehabilitation Technology; care for the future”*.

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### Part II:

#### **Nanotech and Personalized Medicine**

**Ruud Verdaasdonk**, Professor of Health Technology Implementation at University of Twente, *"The use of smart devices for monitoring and diagnostics in health care"*.

**Shirley Tang**, ADR Science, Professor of Chemistry & WIN, University of Waterloo, *"Intelligent Materials and Devices for Critical Medical Needs"*.

**Albert van den Berg**, Professor Miniaturized Systems for (Bio)Chemical Analysis in the faculty of Electrical Engineering and part of the MESA+ Institute for Nanotechnology; University of Twente, *"Organs on Chip; for drug development and personalized medicine"*.

**Tejal Patel**, Assistant Clinical Professor, Faculty of Science/ School of Pharmacy, University of Waterloo, *"Older adults and medication adherence technology: usability, workload and impact"*.

**Jesse St. Jean**, PhD Candidate, School of Pharmacy, University of Waterloo, *"Using Transcriptomics to Guide Gene Therapy in Alzheimer's Disease"*.

#### **Value Based Healthcare, Health Tech Implementation**

**Bart Nieuwenhuis**, Professor QoS of Telematics Services, Department Industrial Engineering and Business Information Systems (IEBIS), *"eHealth Business Development"*.

**Helen Chen**, Professor of Practice, Associate Director, Professional Practice Centre for Health Systems, University of Waterloo *"Canadian Personalized Health Innovation Network: An example of integrated data network"*.

**Ruud Verdaasdonk**, Professor of Health Technology Implementation at University of Twente *"Health Technology Implementation on the UTwente in the European context"*.