

**Venue: Engineering Auditorium, Faculty of Engineering,  
Tel Aviv University, Tel Aviv, Israel**

## **Scientific Program**

(last updated: March 25, 2012)

### **Monday April 16**

**08:00-08:45 Registration**

**08:45-09:00 Welcome and greetings**

- Prof. Amit Gefen, Dept. of Biomedical Engineering, Tel Aviv University
- Prof. Ehud Heyman, Dean of the Faculty of Engineering, Tel Aviv University
- Prof Ofer Barnea, Chair of the Dept. of Biomedical Engineering, Tel Aviv University

### **Session I: Pressure Ulcers: From Science to Technology, and then to Practice**

**Session Chairs: Prof. Michael Clark, Dr. George Cherry**

09:00-09:30	<u>Prof. Avi Ohry</u> , Faculty of Medicine, Tel Aviv University and Reuth Medical Center, Israel, <i>When technology meets practice: Clinical, management and economic barriers for introducing technologies to prevent pressure ulcers.</i>
09:30-10:00	<u>Prof. Amihay Freeman</u> , Dept. of Molecular Microbiology and Biotechnology, Faculty of Life Sciences, Tel Aviv University, Israel, <i>Hurdles on the road of new products for wound debridement and cleansing: From bench to bedside.</i>
10:00-10:30	<u>Prof. Jane Nixon</u> , Clinical Trials Research Unit, University of Leeds, UK, <i>Principles of design of clinical trials for testing medical devices in the pressure ulcer arena.</i>

10:30-11:00 Coffee

## Session II: Materials in Pressure Ulcer Prevention and Treatment

Session Chair: Prof. Yohan Payan

11:00-11:30	<u>Dr. Nicole Papen-Botterhuis</u> , TNO, the Netherlands, <i>Innovative materials for preventing or treating pressure ulcers.</i>
11:30-12:00	<u>Prof. Meital Zilberman</u> , Dept. of Biomedical Engineering, Tel Aviv University, Israel, <i>Smart dressing materials.</i>
12:00-12:30	<u>Prof. Miguel Carvalho</u> , Textile Engineering Department, School of Engineering, University of Minho, Portugal, <i>Design of textiles and textile products to prevent pressure ulcers.</i>

12:30-14:00 Lunch

## Session III: Emerging Technologies in the Pressure Ulcer Arena

Session Chair: Prof. Dan Bader

14:00-14:30	<u>Prof. Susan Gibbs</u> , Department of Dermatology, VU University Medical Center, Amsterdam, the Netherlands, <i>Tissue-engineered skin for clinical applications.</i>
14:30-15:00	<u>Dr. Rachel Lubart</u> , Depts. of Physics and Chemistry, Bar-Ilan University, Israel, <i>Using light to treat chronic wounds.</i>
15:00-15:30	<u>Prof. Dan Bader</u> , Faculty of Health Sciences, University of Southampton, UK, <i>The potential of biomarkers for the early detection of pressure ulcers.</i>

15:30-16:00 Coffee

## Session IV: Support Surfaces

Session Chair: Dr. Nicole Papen-Botterhuis

16:00-16:30	<u>Prof. Michael Clark</u> , Welsh Wound Network and the University of Birmingham, <i>Characterizing the microclimate created by support surfaces.</i>
16:30-17:00	<u>Dr. Tzaki Siev-Ner</u> , Dept. of Orthopaedic Rehabilitation, Sheba Medical Center, Israel, <i>Emerging prosthetic technology to protect the residual limb from pressure ulcers.</i>
17:00-17:30	<u>Dr. Sigal Portnoy</u> , Hadassah Medical Center, Israel, <i>Technologies to prevent deep pressure ulcers in amputation patients.</i>

## **Tuesday April 17**

### **Session V: Measuring Surface Loads and Evaluating Subdermal Effects**

**Session Chair: Prof. Jane Nixon**

09:00-09:30	<u>Prof. Yohan Payan</u> , TIMC Lab, Université Joseph-Fourier, Grenoble, France, <i>Integrating pressure sensors in fabrics for pressure ulcer prevention.</i>
09:30-10:00	<u>Prof. Cees Oomens</u> , Dept. of Biomedical Engineering, Eindhoven University of Technology, the Netherlands, <i>Latest views on pressure ulcer etiology: the role of deformation, ischemia and reperfusion.</i>
10:00-10:30	<u>Ms. Noa Slomka</u> , Dept. of Biomedical Engineering, Tel Aviv University, Israel, <i>How bodyweight loads translate to cellular deformations, and how that might affect cellular transport: Evidence from computational modeling and fluorescence microscopy studies.</i>

10:30-11:00 Coffee

### **Session VI: Biotechnology in Pressure Ulcer Care**

**Session Chair: Prof. Cees Oomens**

11:00-11:30	<u>Prof. Dafna Benayahu</u> , Dept. of Cell and Developmental Biology, Sackler School of Medicine, Tel Aviv University, Israel, <i>How aging affects stem cells activity in tissue regeneration.</i>
11:30-12:00	<u>Prof. Amit Gefen</u> , Dept. of Biomedical Engineering, Tel Aviv University, Israel, <i>Testing medications for wound healing in a robust wound assay.</i>
12:00-12:30	<u>Dr. Kosta Mumcuoglu</u> , Dept. of Microbiology and Molecular Genetics, The Hebrew University, Hadassah Medical School, Jerusalem. Israel, <i>Science and technology behind maggot treatment in debridement and disinfection of chronic wounds.</i>

12:30-14:00 Lunch

**Session VII: Transferring Technologies from Lab to Bedside**

**Session Chair: Prof. Amit Gefen**

14:00-14:30	<u>Dr. Nogah Shabshin</u> , Assuta Hospital, Israel, <i>Diagnosis of deep pressure ulcers using imaging modalities: Benefits and technological limitations.</i>
14:30-15:00	<u>Dr. Adi Zuloff-Shani</u> , Macrocare Israel, <i>Treatment of pressure ulcers by application of activated macrophage suspension.</i>
15:00-15:30	<u>Mr. Larry Loev</u> , RAMOT – the Technology Transfer Company of Tel Aviv University, Israel, <i>Transferring biomedical technologies from academia to industry.</i>

15:30-16:00 Wrap-up and closure