2nd Annual Unither
Nanomedical & Telemedical Technology Conference
The Next Decade's Approach to Medicine

February 24 - 27, 2009
Hotel Manoir des Sables
Orford, Quebec
Znd Annual Unither Nanomedical & Telemedical Technology Conference
The Next Decade's Approach to Medicine

www.unither Technologyconference.com

Conference Co-Chairs:

Martine Rothblatt, Ph.D.
Présidente directrice générale, Unither Biotech, Inc.

Baruch S. Blumberg, M.D., Ph.D.
Distinguished Scientist, NASA Lunar Science Institute
NASA Astrobiology Institute & NASA Ames Research Center

Tuesday, February 24, 2009 – Friday, February 27, 2009

Tuesday, February 24, 2009

4:00 PM Hotel Check-in / Conference Check-in
6:30 - 9:30 PM Buffet Reception

Wednesday, February 25, 2009 - Nanomedical Technology

6:15 – 6:45 AM Buffet Breakfast
6:50 – 7:10 AM 09S1OR Opening Remarks – Martine Rothblatt, Ph.D., Conference Co-Chair

7:10 – 9:10 AM Session 1 – Telemangement of Very Small In Vivo Devices

7:10 – 7:30 AM 09S1P1 Ven Manda – Vice President of New Therapies & Diagnostics: Medtronic, Inc., "Remotely Managing Chronic Diseases-Role of Implantable Devices"

7:40 – 8:00 AM 09S1P2 Robert Sclabassi, M.D., Ph.D. – CEO: Computational Diagnostics, Inc., "Brain-Implantable Computing Platform"

8:10 – 8:30 AM 09S1P3 Julien Penders, M.Sc. – Program Manager: Holst Centre/IMEC, "Potential and Challenges of Body Area Networks for Personalized Health"

8:40 – 9:00 AM 09S1P4 Jay Yadav, M.D., FACC – CEO: CardioMEMS, Inc., "Wireless Sensing for the Body"

9:10 – 9:30 AM Coffee Break

9:30 – 12:20 PM Session 2 – Technology Development Pathways for Medical Nanobots

9:30 – 9:50 AM 09S2P1 Alex Travis, V.M.D., Ph.D. – Associate Professor: Cornell University, "Sequential Metabolic Reactions on a Chip: A Step Toward Energy Production to Power Implantable Medical Nanodevices"

10:00 – 10:20 AM 09S2P2 Sonia Antoranz Contera, M.D. – RCUK Fellow in Biological Physics: University of Oxford, "Nanotubes as a Drug Delivery System"

10:30 – 10:50 AM 09S2P3 Rob Burgess, Ph.D. – Founder & President: Medical Nanotechnologies, Inc., "Carbon Nanotube-Based Therapeutics"

11:00 – 11:20 AM Coffee Break

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1110 Spring Street; Silver Spring, MD 20910
11:20 – 11:40 AM **09S2P4** Srinivas Sridhar, Ph.D. – Director: NCI/NSF Igert Nanomedicine Program - Northeastern University, “Nanoplatforms for Nanomedicine”

11:50 – 12:10 PM **09S2P5** Tihamer Toth-Fejel – Nanotechnology Researcher: General Dynamics Advanced Intelligence Systems, “Respirocytes from Patterned Atomic Layer Epitaxy: The Most Conservative Pathway to the Simplest Medical Nanorobot”

12:20 – 1:00 PM Buffet Lunch

1:00 – 2:00 PM **Keynote Speaker**

**09S2SK** Ray Kurzweil – Founder, Chairman & CEO: Kurzweil Technologies, Inc., “The Radical Expansion of Human Longevity and Intelligence”

2:00 – 2:30 PM **09S2SKQA** Ray Kurzweil – Q & A Discussion

2:30 – 2:50 PM Coffee Break

**2:50 – 6:10 PM** Session 3 – Nanomedical Structures and Devices in Development Today

2:50 – 3:10 PM **09S3P1** Jamboor K. Vishwanatha, Ph.D. – Dean and Professor: University of North Texas Health Science Center at Fort Worth, “Biodegradable Nanoparticles for Cancer Therapy”

3:20 – 3:40 PM **09S3P2** John T. W. Yeow, Ph.D. – Assistant Professor: University of Waterloo, “Flexible and Transparent Dosimeters for Radiation Oncology Applications”


4:20 – 4:40 PM Coffee Break

4:40 – 5:00 PM **09S3P4** Morten Foss, Ph.D. – Senior Scientist: Aarhus University iNANO (Interdisciplinary Nanoscience Center), “Micro- and Nanotopography for Controlled Cellular Response”

5:10 – 5:30 PM **09S3P5** Shuyi Li, M.D., Ph.D. – Research Scientist: Medical College of Georgia, “Modifying the Function of DNA Repair Nanomachines for Therapeutic Benefit”

5:40 – 6:00 PM **09S3P6** Simon Benita, Ph.D. – Professor: The Hebrew University of Jerusalem, “Antibody-Nanocarrier Conjugates for Drug Targeting and Improved Cancer Therapy”

6:30 – 9:30 PM Dinner at Manoir des Sables

**Thursday, February 26, 2009 – Telemedical Technology**

6:30 – 7:00 AM Buffet Breakfast

7:15 – 7:30 AM **09S4OR** Opening Remarks – Baruch S. Blumberg, M.D., Ph.D., Conference Co-Chair

**7:30 – 10:00 AM** Session 4 – Nano-Bio Interfaces & Hybrids

7:30 – 7:50 AM **09S4P1** Mark Kester, Ph.D. – Professor: Pennsylvania State University, “Calcium Phosphate Nanoparticles as Nano ‘Solutions’ for Drug Delivery and Bioimaging”

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1110 Spring Street; Silver Spring, MD 20910
8:00 – 8:20 AM  09S4P2  David Yu Zhang, Ph.D. – Professor: California Institute of Technology, “Bioengineering with (only) DNA: Detecting and Amplifying Disease Markets”

8:30 – 8:50 AM  09S4P3  Ennio Tasciotti, Ph.D. – Assistant Professor: Division for Nanomedicine at the Institute for Molecular Medicine, UTHSC-Houston, “Nanoporous Silicon as a Platform for Targeted Drug Delivery & Discovery of Proteomic Signatures for Cancer Diagnostics”

9:00 – 9:20 AM  09S4P4  Gary Craig, M.S., E.I.T. – University of Maine, “PEGylated Gold Nanoparticles Conjugated to Monoclonal F19 Antibodies as Targeted Labeling Agents for Human Pancreatic Carcinoma Tissue”

9:30 – 9:50 AM  09S4P5  Jean-Pierre Læburton, Ph.D. – Professor of Electrical and Computer Engineering: University of Illinois at Urbana-Champaign, “Merging Biology and Nano Electronic for Bio-molecule Detection and Manipulation”

10:00 – 10:20 AM  Coffee Break


11:20 – 11:50 AM  Keynote Speaker  09S5SK  Professor Kevin Warwick, Ph.D. – Professor of Cybernetics: University of Reading, “Practical Experimentation with Implant Technology”

11:50 – 12:20 PM  09S5SKQA  Professor Kevin Warwick, Ph.D. – Q & A Discussion

12:30 – 1:30 PM  Buffet Lunch

1:40 – 4:10 PM  09S6P1  Brian Brockway – President, CEO & Chairman: Transoma Medical, Inc., “Implantable Systems for Monitoring and Diagnosis of Patients with Chronic Cardiovascular Disease”

2:10 – 2:30 PM  09S6P2  Diana Hodgins, D.Sc. – Managing Director: European Technology for Business, Ltd, “Development of Intelligent Implants”

2:40 – 3:00 PM  09S6P3  Elias Greenbaum, Ph.D. – Corporate Fellow: Oak Ridge National Laboratory, “Nanoscale Photovoltaics & Artificial Sight”

3:10 – 3:30 PM  09S6P4  Justin C. Sanchez, Ph.D. – Assistant Professor: University of Florida, “Direct Brain-Machine Interfaces”

3:40 – 4:00 PM  09S6P5  Robert C. Bourge, M.D. – Director: Division of Cardiovascular Disease at the University of Alabama at Birmingham, “The Clinical and Investigational Potential of Implanted Remotely Monitored Hemodynamic Monitoring Device”

4:10 – 4:30 PM  Coffee Break
4:30 – 6:40 PM  Session 7 – Telemedical Control of Medical Nanobots

4:30 – 4:50 PM  09S7P1 Jun Li, Ph.D. – Associate Professor: Chemistry Department at Kansas State University, “Vertically Aligned Carbon Nanofiber Array as a Neural Electric Interface for Neural Stimulation”

5:00 – 5:20 PM  09S7P2 Jamil Khan, Ph.D. – Head of Electrical Engineering Discipline: University of Newcastle-Callaghan, “Wireless Technologies for Wearable & Implantable Wireless Body Area Networks”


6:00 – 6:20 PM  09S7CR Closing Remarks – Dismissal from Panel Discussions

7:30 – 10:00 PM  Closing Banquet at Cavallini Restaurant; 101 Rue Du Moulin, Magog, QC J1X 4A1

Friday, February 27, 2009

12:00 PM  Hotel Check Out