Club *of* Amsterdam

the future of **BioMed**

May 2009

Presentations by

Arjen Brinkman, Director, Personal Space Technologies
Using Virtual Reality (VR) to improve human health
click here

Jeanine van de Wiel, Global Regulatory Affairs Manager, DSM Food Specialties
Personalized Nutrition, an emerging business area
click here

Biomedicine is booming. Recent advances in Genomics, Systems Biology, Nanomedicine, Tissue Engineering,

Biophotonics and other disciplines have not only raised hopes for new drugs and diagnostics, but have also made it more likely than ever that real innovative products for improving Human Health will be available within 3-8 years.

The announcement on March 6 of this year that US president Obama ends Bush's ban on embryo stem cell research will allow US researchers to catch up with their EU and Far-East colleagues, who were restricted in finding good stem cell sources for purposes of Tissue Engineering.

Microarray technology makes it possible and feasible to quickly monitor thousands of potentially active compounds in their ability to bind to receptors or affect cell metabolism, leading to new drugs.

Through genomics the expression of countless genes can be measured and the results can be used to develop personalized medicine, probiotics or functional foods.Biophotonics has become an extremely sensitive tool to support medical imaging on a molecular scale, leading to earlier diagnostics in cancer research, allowing for earlier intervention.

The presentations will focus on the above developments and their role in maintaining and improving human health.

Event concept: ***Gerhard Mulder****, Senior Consultant, Syntens*

Arjen Brinkman, Director, Personal Space Technologies
Using Virtual Reality (VR) to improve human health

The amount of 3D and 4D data generated by CT, Ultrasound and MRI scanning equipment is exploding. However, the tools to analyze these complex volumetric datasets in a fast, easy and effective manner are virtually non existent.
By using the Personal Space Station (or PSS), a physician can now analyze the generated data without the use of a VR specialist, by simply holding the data, e.g. a scanned human hart, in his hands, resulting in a better and faster diagnosis.

Michael Münker, STEP 2 B.V.
Inventions to Innovation: Lessons from Medical Devices

The convergence of biology and engineering is supposed to turn health care into an information industry that promises significant advances. Yet in spite of a rapidly rising share of economic activity dedicated to health care, life expectancy in rich countries was fairly stable in recent decades. Innovation remains a tedious process that involves humans and regulations as much as inventions involve science. Michael Münker reflects on experiences with bringing novel medical devices to market and possible lessons they hold for future innovations.

Jeanine van de Wiel, Global Regulatory Affairs Manager, DSM Food Specialties
Personalized Nutrition, an emerging business area

The personalized Nutrition Emerging Business Area builds on DSM's strengths in nutrition, food and biotechnology. Based on scientific evidence Personalized Nutrition addresses certain health risks by offering tailor-made and specially developed nutritional products that fit individual consumers' genetic profiles and other factors, such as age and life style. This way health and wellness can be promoted, whereas the risk of certain health problems may be reduced. DSM also participates in a US start-up which develops and commercializes genetic tests for personalized health and wellness advice.

19:00 - 20:00
Introduction by our Moderator
Gerhard Mulder, Senior Consultant, Syntens

Part I:

Arjen Brinkman, Director, Personal Space Technologies
Using Virtual Reality (VR) to improve human health

Michael Münker, STEP 2 B.V.
Inventions to Innovation: Lessons from Medical Devices

Jeanine van de Wiel, Global Regulatory Affairs Manager, DSM Food Specialties
Personalized Nutrition, an emerging business area

20:00 - 20:30
Coffee break with drinks and snacks.

20:30 - 21:15
Part II: Open discussion

Arjen Brinkman
Director, Personal Space Technologies

Arjen (1965) is an economist (UvA, 1989) and Dutch CPA (UvA, 1993).
From 1991 till 1997 he worked as a CPA and management consultant. In 1997 his career took an entrepreneurial turn, when he immigrated to California. Besides activities in software development he was co-founder and general manager of EasyFlower.com a fresh product platform and internet spin-off of KLM, Royal Dutch Airlines. Upon his return to the Netherlands in 2004 he founded GalliumEurope with his business partner Marc Lausberg. Gallium assists scientists in the commercialization of their ideas/scientific findings.

Personal Space Technologies founded in 2005, based on CWI research (Centrum Wiskunde en Informatica) is one of the ongoing projects of Gallium.
Personal Space Technologies brings complete turnkey 3D interaction and 3D imaging solutions to the hospital, lab, office and museum.
www.ps-tech.com

Michael Münker
STEP 2 B.V.

Michael studied in Munich (TU) and Zurich (ETH) and holds a MSc diploma in physics. He worked for ABB in Europe and India, and as a volunteer for Artsen zonder Grenzen in Africa. From 1999 to 2004 he was responsible for medical products and business development at a Munich laser company. In 2004 he moved to The Netherlands to become a partner at Elana bv, where he brought to market the devices required for a novel way to create bypasses developed by neurosurgeon Dr. Tulleken at UMC Utrecht. In 2008, after these products had successfully been sold and used in Europe and the US, Michael founded STEP2innovation. He focuses on turning inventions for new medical devices into innovations by starting companies together with the inventors.
www.step2innovation.com

Jeanine van de Wiel
Global Regulatory Affairs Manager
DSM Food Specialties

Jeanine van de Wiel (1960) contributed to such different parts of society as media, science, government and industry. She started her career during her MSc Biology as a free lance journalist in scientific popular magazines like Technovisie. During her PhD research project in Toxicology she designed and executed a new course for Health Sciences students at Radboud University Nijmegen. Her first governmental advisory role focused on science based exposure limits of persistent environmental contaminants. Her second job at the Health Council of the Netherlands had an additional international diplomatic dimension through participation in EU and OECD task forces on the safety of novel foods like the genetically modified soy and corn that was imported to Europe at that time. Also the first novel functional foods emerged like restructured fats and carbohydrates. This raised her interest for the promising contribution of functional food products to public health and she joined the DSM Nutrition Cluster in 2004. Now she is responsible for the global compliance regarding safety and efficacy of functional food ingredients like probiotics, protein hydrolysates for blood pressure and blood sugar management and a satiating palm and oat oil emulsion.
www.dsm.com

Gerhard Mulder
Senior Consultant, Syntens

The career of Gerhard Mulder (1945) is an example of a scientist gone into business. Educated as a classical biochemist he earned a PhD in Medicine with a thesis on stress-adaptation. Following a 3-year stint as Visiting Research Associate Professor at Mount Sinai Hospital in New York he was asked to set up an R&D program at the Dept. of Ob/Gyn of the VUmc in Amsterdam to study the endocrine role of the placenta during human pregnancy. The switch to business came in 1990 when Mulder became consultant at Organon Teknika, followed by various appointments at TNO, Unilever, Crucell and Syntens. In all these roles his focus is on turning science into successful business.
www.syntens.nl