Netherlands calls for a bio-based economy

www.biospectrumasia.com

BioSpectrum
the business of life sciences

Vol 6 | Issue 14 | July 2011

ASIA EDITION

INTERVIEW page 37

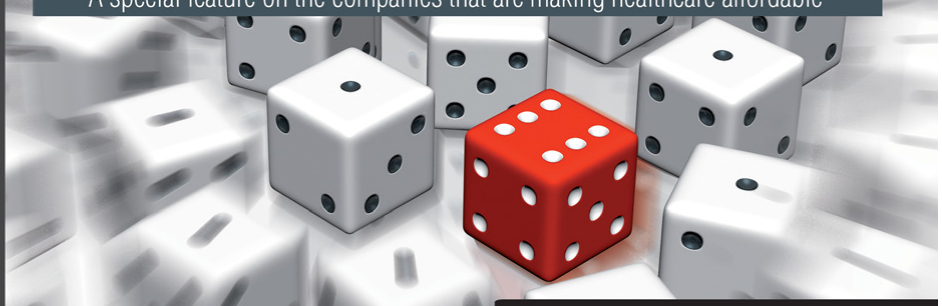
Mr Shaoming Li, Chairman & CEO, China Botanic Pharmaceuticals

HIGHLIGHTS

GAME CHANGERS

Redefining Healthcare

A special feature on the companies that are making healthcare affordable



India Biotech Surges to $4 bn

Grows 21.5%

Korea strives to be a global trial hub

BioSpecial

Trailblazers

PharmAbcine, Korea
Kainos Medicine, Korea
Davos Life Science, Singapore

page 39

Interview page 50

Mr Ping Chen
Chairman & CEO, Dehaier Medical Systems, China

Interview page 56

Mr Malcolm Burgess
Executive vice president Asia Pacific, ICON

Asia vaccines industry gets a shot in the arm

A Special Report page 27

BioSpectrum is a CYBER MEDIA publication; MICA(P)049/08/2010

Fighting against diseases with tocotrienols

Singapore-based Davos Life Science was started to research, produce and prove the effectiveness of tocotrienols in areas of cancer, skin care and cardiovascular health. Tocotrienols is a member of the vitamin E family and derived naturally from palm oil. The focus of the company is not only on enhancing the manufacturing processes to produce high purity tocotrienols efficiently but also to promote the public knowledge and understanding of its health benefits.

The company was started by Mr Ralf Lange and Dr Ong Chit Chung in 2004 to research and produce tocotrienols. They were shareholders and managers of Inventa Life Science. They came up with the proprietary processes to purify tocotrienols from palm oil.

Sharing his thoughts on the key challenges the company faces, Mr Arthur Ling, CEO, Davos Life Science says that the main challenges are the lack of general consumer knowledge of tocotrienols, managing funds and support of clinical trials using tocotrienols.

Davos Life Science has mastered the production of full spectrum and isomer grades of tocotrienols of up to 97 percent purity, using high purification processes and keeping the tocotrienols always in its original form. The company uses proprietary high vacuum molecular distillation to purify tocotrienol from palm oil to a medium level of purity and for higher purity grades, it uses additional extraction processes.

Commenting on the market differentiator for the company, Mr Ling says, "Our process is different from most of our competitors, who use a biodiesel process as the first step to get tocotrienols. They use crude palm oil as the feedstock to which they add methanol in the presence of a catalyst to convert the CPO to biodiesel, and from the unconverted fraction, they purify it to get the tocotrienols. As they use CPO, they are affected by the high price of CPO relative to the biodiesel price. We are able to supply the highest purity full spectrum and isomer grades. There are no other companies supplying isomer grades in commercial quantities."

Davos life science

Singapore

Davos Life Science has mastered the production of full spectrum and isomer grades of tocotrienols of up to 97 percent purity

Davos Life Science has been involved in various research projects with Asian counterparts and has been working to bring out more results with tocotrienols. Last year, Davos Life Science, along with scientists from Australian Prostate Cancer Research Centre Queensland and Hong Kong University, found that gamma-tocotrienol is potent in killing prostate cancer stem cells. In another research, Davos Life Science scientists along with researchers from Malaysia and Japan found that tocotrienols are effective in lowering the levels of triglyceride, a form of fat in the blood. Expanding its market in other regions, the company has launched its Natural e3 delta-tocotrienol in Japan and Korea.

> We have conducted animal and human studies aiming to understand clinical benefits and toxicity of tocotrienol,
>
> **– Mr Arthur Ling**
> CEO, Davos Life Science, Singapore

Since 2006, the R&D team at Davos Life Science has deciphered multiple molecular pathways responsible for tocotrienol anti-cancer properties. "We have conducted animal and human studies aiming to understand clinical benefits and toxicity of tocotrienol and all the achievements of the company place Davos among one of the most productive and innovative tocotrienol research laboratories in the world," says Mr Ling.

"We plan to expand our capacities to make high grade tocotrienols and its isomers more efficiently, which we hope can reduce manufacturing costs significantly over time," adds Mr Ling, commenting on the future plans of the company. BS

AMRITA TEJASVI IN SINGAPORE

Tocotrienol shows increased apoptosis

Davos Life Science, a Singapore-based biotechnology company, announced preliminary results of phase I clinical trial of its Natural e3 delta-tocotrienol (Natural e3) in patients with resectable pancreatic cancer. Tocotrienols are highly potent members of the Vitamin E family that have been found by researchers to inhibit the growth and survival of various types of cancer cells. This clinical trial revealed that Natural e3 was able to increase apoptosis (cell death) in pancreatic cancer tumours, with no toxicity.

The study was carried out by researchers at The H Lee Moffitt Cancer Center & Research Institute, Florida, the US, and supported by DavosLife and the US National Institute of Health.