TRADE OFFICE OF SWISS INDUSTRIES (TOSI)
瑞 士 商 務 辦 事 處

Rm. 3101/31F, 333 Keelung Road, Sec. 1
Taipei 11012, Taiwan, R.O.C.
Tel. 886-2-2720 1001 Fax 886-2-2757 6984
e-mail address: tosi@swiss.org.tw
website: www.swiss.org.tw

31 January 2010

Science, Technology and Education News from Taiwan
Number 01 — January 2010

The National Science Council will expand the scope of Taiwan's involvement in the EU's 7th Framework Program (FP7). The expansion includes the creation of another 8 National Contact Points that would each be responsible for different fields of research, including the environment and security. . EU trade officials said Taiwan's involvement in the program was indispensable on critical research into global health and climate issues.

Highlights of major news from the scientific world in Taiwan in January 2010:
The National Taiwan University opened Asia's first animal cancer research center – Taiwan produced the first foal with cryoinsemination – A study into the functioning of specific messenger RNA (mRNA) in per sperm cells was published – the National Taiwan University Hospital announced a breakthrough in embryo screening – Researchers made important contributions to new plant varieties and the processing of crops into a variety of products, including cosmetics – Researchers found that green tea intake might reduce the chances of getting lung cancer – ITRI teams up with Universal Cement in flexible electronics – the Ministry of Economic Affairs will invest more in safe lithium battery technology – A research group discovered a new treatment method for influenza A (H1N1).

Contents

Rm. 3101/31F, 333 Keelung Road, Sec. 1
Taipei 11012, Taiwan, R.O.C.
Tel. 886-2-2720 1001 Fax 886-2-2757 6984
e-mail address: tosi@swiss.org.tw
website: www.swiss.org.tw

1. Taiwanese research pig sperm messenger

(Pigprogress Net, 24 12 2009)

Further research into the functioning of specific messenger RNA (mRNA) in pig sperm cells
An abstract related to the study by Taiwanese researchers was recently published in the website "Science Direct." The mRNA are thought to play a role in boar seasonal infertility, as they may have an impact on molecular mechanisms responsible for thermal effects on spermatogenesis. The exact role, however, is just beginning to be elucidated, as bioinformatics analysis suggested that they are involved in a broad spectrum of biochemical processes including gamete generation.

Full article:
http://www.pigprogress.net/news/taiwanese-research-pig-sperm-messenger-id3778.html

2. Underground eco-cooling system to replace rooftop cooling towers

(Liberty Times, 08 01 2010)

Taiwan University of Technology director of research and development Liao Hong-chun and his team have developed a method called "Invisible Cooling Towers" through a five-year project. The idea is to "borrow" low-temperature groundwater and use an "energy-saving circulatory well" to achieve the required drop in temperature. Experimental results show that if cooling power remains the same, this virtually silent method can save up to 98% on space requirements. The problem of hot gas emissions is likewise avoided.

Full article:
http://www.taiwanheadlines.gov.tw/ct.asp?xItem=176312&CtNode=9

3. NSC to expand EU research program, increase exposure

(Taipei Times, 12 01 2010)

The National Science Council (NSC) announced it would expand the scope of the nation's involvement in the EU's Seventh Framework Program (FP7).The expansion includes the creation of another eight National Contact Points (NCPs) that would each be responsible for different fields of research, including the environment and security. NSC officials said the thematic NCPs would help provide more detailed information to researchers and institutions. EU trade officials said Taiwan's involvement in the program was indispensable on critical research into global health and climate issues. The thematic NCPs would help simplify the process researchers must go through to participate in FP7 projects.

Full article:
http://www.taipeitimes.com/News/taiwan/archives/2010/01/12/2003463236

4. Taiwan produces first foal with cryoinsemination

(Liberty Times, 14 01 2010)

After two years of cooperation, the Department of Animal Science and Livestock at National Pingtung University of Science and Technology and the Oldenburg Equestrian Center have unveiled the result: a filly named "Guggi First", the first horse in Taiwan conceived through the use of frozen semen, has reached the one-month milestone in her young life, according to Department chair Liu Ping-tsan.

Full article:
http://www.taiwanheadlines.gov.tw/ct.asp?xItem=176867&CtNode=9

5. Asia's first animal cancer research center in Taiwan

(Agence France-Presse, 15 01 2010)

Taiwan's top university, the National Taiwan University opened Asia's first animal cancer research center, aiming to serve the island's pet owners.

Rm. 3101/31F, 333 Keelung Road, Sec. 1
Taipei 11012, Taiwan, R.O.C.
Tel. 886-2-2720 1001 Fax 886-2-2757 6984
e-mail address: tosi@swiss.org.tw
website: www.swiss.org.tw

Full article:
http://www.etaiwannews.com/etn/news_content.php?id=1155771&lang=eng_news&cate_img=49.jpg&cate_rss=news_Society_TAIWAN

6. Embryo screening breakthrough to give healthy babies to parents

(China Post, 16 01 2010)

Medical experts announced a major breakthrough through which allow parents with genetic disorders to give birth to healthy babies. The Fertility and Reproductive Medicine team with the National Taiwan University Hospital (NTUH) stressed, however, that although such embryo screening could assist in the selection of healthy embryos, the center will not be employing similar methods to grant couples children of their desired sex.

Full article:
http://www.chinapost.com.tw/taiwan/national/national-news/2010/01/16/240983/Embryo-screening.htm

7. Researcher turns crops into cosmetics

(Liberty Times, 15 01 2010)

An agricultural researcher with the Chiayi Agricultural Experiment Station under the Taiwan Agricultural Research Institute has made many important contributions to new plant varieties and the processing of crops into a variety of products, including cosmetics. Wu Yung-pei, an associate researcher and work evaluator, previously developed a "golden rice" variety with anti-oxidant properties. At present, he is growing on a trial basis new varieties of paddy rice that have low protein content. He plans on applying for plant variety rights to this "tasty rice" variety. He has researched methods of distilling all types of fruit into liquor and vinegar, including turning excess oranges into oils, beauty soaps, cosmetic toner, hydrating serum and hydrating lotion. He has even used cabbage as a key ingredient in a sunblock, an anti-inflammatory lotion, an anti-inflammatory whitening toner and collagen essence. He has also used rice husks to produce lip balms, beauty soap and a range of other cosmetic products, and he has transferred the related technology to seven factories to produce products for sale at special counters in some of Taiwan's most well known department stores.

Full article:
http://www.taiwantoday.tw:80/ct.asp?xItem=92013&ctNode=413

8. Green tea might protect against lung cancer

(China Post, 21 01 2010)

Green tea intake might reduce the chances of getting lung cancer, especially for smokers, said researchers from Chung Shan Medical University. The researchers found that smokers who drink at least one cup a day were 13 times less likely to develop the cancer compared to smokers with no green tea intake.
The university findings have received international recognitions and presented their report in a conference organized by the International Association for the Study of Lung Cancer and the American Association for Cancer Research last week in the United States.

Full article:
http://www.chinapost.com.tw/taiwan/national/national-news/2010/01/21/241682/Green-tea.htm

9. ITRI, Universal Cement Tie Up in Flexible Electronics

(CENS, 16 01 2010)

The Industrial Technology Research Institute (ITRI) signed a technical-transfer agreement with Universal Cement Corp. to transfer its locally developed flexible pressure-sensor technologies to the cement maker. The agreement allows ITRI to authorize Universal Cement to use developed technology related to the flexible pressure sensor, and the two parties will jointly engage in a two-year R&D project that is expected to help Universal Cement diversify product lines and upgrade global competitiveness. ITRI expects the EOL-Universal Cement partnership to further enhance the development of more ergonomic interactivity technologies, upgrade the self-content rate of flexible electronics materials and production equipment in Taiwan, and realize the establishment of the flexible-electronics

Rm. 3101/31F, 333 Keelung Road, Sec. 1
Taipei 11012, Taiwan, R.O.C.
Tel. 886-2-2720 1001 Fax 886-2-2757 6984
e-mail address: tosi@swiss.org.tw
website: www.swiss.org.tw

industry on the island.

Full article:
http://cens.com/cens/html/en/news/news_inner_31029.html

10. MOEA to invest more in safe lithium-ion battery development

(Central News Agency, 24 01 2010)

The Ministry of Economic Affairs (MOEA) said that it will invest more this year in safe lithium battery technology to make inroads into the global lithium-ion (Li-ion) battery market. Over the years, MOEA has invested a total of NT$ 120 mio. annually in this field. In 2009 it will allocate NT$ 160 mio. and more for next year. It pointed out that the Li-ion battery accounts for one third of an electric car's production costs. ITRI last year developed STOBA (self-terminated technology oligomers with hyper-branched architecture), a material that enhances the safety of lithium batteries.

Full article:
http://english.cna.com.tw/ReadNews/Detail.aspx?pSearchDate=&pNewsID=201001240008&pType1=ED&pType0=xEMST&pTypeSel=0

11. Taiwan plans to issue `innovation vouchers' to boost R&D efforts

(Central News Agency, 25 01 2010)

The government has decided to launch an "innovation voucher" program to encourage small- and medium-sized enterprises (SMEs) to develop new technologies and products in collaboration with research organizations. The program is patterned upon similar incentive projects adopted in the Netherlands, Singapore and the United States in an effort to help SMEs adapt and upgrade to survive in the ever-more competitive global market. The Executive Yuan's Science and Technology Development Fund has earmarked NT$30 mio. to help finance the voucher program. In the first year, the MOEA plans to help up to 90 SMEs develop innovative technology or products, with each company given a maximum NT$300,000 in research subsidies. The government subsidies are expected to cover 50 % of the funds needed to finance each project.
Premier Wu Den-yi also said the government will each year send at least 300 talented people in various professional fields to top-notch foreign universities to pursue advanced studies, offering them scholarships of between NT$1 million and NT$1.5 million.The government will also invite world-renowned scholars, experts and elite leaders to teach or conduct research at local universities or research institutes for one or two years to help inspire or instill R&D fever among young people.

Full article:
http://english.cna.com.tw/ReadNews/Detail.aspx?pSearchDate=&pNewsID=201001250024&pType1=ED&pType0=xEMST&pTypeSel=0

12. New swine flu treatment method discovered

(China Times, 27 01 2010)

The National Health Research Institutes and a research team from National Cheng Kung University Hospital jointly announced Jan. 26 that the group has recently discovered a new treatment method for influenza A(H1NI), also known as swine flu. The researchers discovered that using PPAR (peroxisome proliferators-activated receptor) activators in conjunction with anti-viral drugs was effective in treating swine flu, as well as severe acute respiratory syndrome and avian flu.

Full article:
http://www.taiwantoday.tw/ct.asp?xItem=92871&ctNode=445