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Negev researchers concludes new findings in battle against cancer

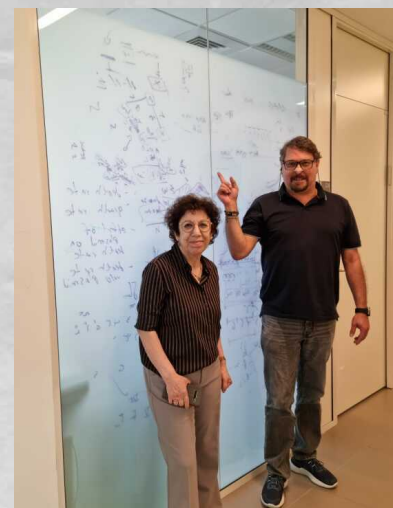
By SHAIR COHEN

NIBN research team of the Ben Gurion University of Israel have made a new discovery in the fight against cancer, in a mixture of plant extracts that has presented extraordinary results in cell culture and murine model tests

A top-level team in oncology research in Israel, part of the National Institute for Biotechnology in the Negev, led by Prof. Varda Shoshan-Barmatz and formed by Along Nadir, Anna Shteinfer-Kuzmine, Swaroop Pandey and Ankit Verma with the collaboration of Juan Manuel Ortas, has completed the first stage of study of a plant extract that has shown extraordinary antitumor properties in cell cultures and in a murine models, which has given way to a second stage that is currently underway. The aforementioned investigation was started at the time by the Uruguayan-Israeli expert Juan Manuel Ortas, who later handed over leadership to the aforementioned Ben Gurion University team. The study was conducted on the components of a product called Immune Biogreencell, which currently is being commercialized with free sale status in the USA. The study was sponsored by the company Sigma Cell and Genetics Inc. under the direction of Mr. Juan Manuel Ortas and Mr. William Denizard, which owns the commercialization rights of Immune Biogreencell and which promotes its scientific research by teams world-renowned in various fields. The team of Prof. Varda Shoshan Barmatz, from Ben Gurion University in Beer Sheva, was the first to

show that VDAC is a key protein in the regulation of metabolism and mitochondria-mediated apoptotic cell death. His original investigations on VDAC have revolutionized the field and provided evidence for the role of VDAC in cellular metabolism, intracellular signaling, and cross-talk between organelles, cell life, and death. The team showed that VDAC1 controls cell metabolism and apoptosis, and exposed a new paradigm, namely a new code to reprogram the metabolism of cancer cells, thus reversing the oncogenic properties of the tumor. What is studied in this case is a mixture of plant extracts whose components form the mother tincture of Immune Biogreencell, which is currently marketed as an immunomodulator in the USA. Preliminary results showed that the Immune Biogreencell mother tincture (mixture of plant extracts A, B, C) induces massive death of cancer cells. The team then characterized the effects of each of these extracts on the induction of cell death with respect to dose and incubation time in various cancerous and non-cancerous cell lines, evaluating their mode of action and whether it involves cell-mediated apoptosis mitochondria, VDAC1 overexpression and oligomerization. Prof. Varda Shoshan Barmatz's team has studied the different components of Immune Biogreencell, evaluating their antitumoral activity first in cell cultures, comparing their results against Phytol (one of the components found in the extracts) as well as against a control, obtaining significant antitumoral activity, especially in one of the components of the aforementioned product, the extract A. The findings of this study show that plant extract A in high dilution and one of its compounds, phytol, present multiple effects on the tumor with its anticancer effects involving: (i) induction of apoptosis, (ii) inhibition of cell proliferation, (iii) remodeling of the tumor microenviron-

ment, (iv) impairment of cancer cell metabolism, and (v) CSC removal, all of which leads to the observed inhibition of tumor growth. In the next stage of the investigation, the team of Prof. Varda Shoshan Barmatz is analyzing the extracts in order to identify the active principles involved in antitumor activity. Considering these findings and that the side effects of these plant extracts in relation to those of conventional chemotherapy are minor or even null, the team of Prof. Varda Shoshan-Barmatz suggests that the plant extract or a combination of its compounds assets are a great hope for a human therapeutic approach applied to GBM and various types of cancer, with the second phase of identification of the molecules responsible for these effects already advanced. Taking into account these very auspicious results regarding antitumor properties of Immune Biogreencell components, it is possible to indicate that the plant extract has enormous potential to become an alternative therapy to current chemotherapies that will help millions of people around the world, with trials in humans already being planned.



Reuters

International Moose Count

Underway

By BOB O'BOBSTON

The UN-sponsored International Moose Census got off to a flying start today with hopes for an increase in the worldwide moose population compared to last year's disappointing figures. Among the traditional early reporters were Egypt, returning figures of six moose, a twenty percent increase on 2011's figures of five, and Uruguay whose moose population remains stable at eleven.

According to Robbie McRobson, head of the UN Moose Preservation Council, worldwide moose numbers are expected to grow markedly on last year due to the traditional moose strongholds of Canada and the United States, with the larger developing moose ecologies also poised to make gains. The largest percentage increase in moose will likely come from China", says McRobson, "The Chinese government has invested heavily in moose infrastructure over the past decade, and their commitment to macrofauna is beginning to pay dividends". Since 2004 China has expanded moose pasture from 1.5% of arable land to nearly 3.648% and moose numbers are expected to rise to 60,000 making China a net moose exporter for the first time. This is good news for neighbouring Mongolia, a barren moose-wasteland whose inhabitants nonetheless have an insatiable desire for the creatures. The increase in Beijing-Ulanbataar trade is anticipated to relieve pressure on the relatively strained Russian suppliers, but increase Mongolia's imbalance of trade with its larger neighbour.

Historically the only competitor to China in the far eastern moose markets has been Singapore but the tiny island nation is set to report a net loss, expecting a decrease of more than five percent on last year's 50,000 moose counted. The head of Singapore's Agency for Agriculture, Jing-Feng Lau, explained to an incredulous Singaporean parliament yesterday that bad weather had contributed to this season's poor showing, most notably when a cargo of 150 moose were swept out into the Indian ocean

in a monsoon.

Yet again the global demand for moose will be met largely by the US and Canada. The recession-hit States is taking comfort in its moose growth figures with gross production expected to break 700,000 and net exports to grow by 2%. The worldwide dominance of Canada shows no signs of abating though with this year's moose population expected to match last year's record figures of one hundred million billion.

Europe's rise as an international moose power will slow slightly this year as a response to the European Union's move towards standardising the European moose. Stringent quality controls are holding back the development of the eastern european populations compared to last year when they contributed significantly to europe's strong growth figures. Norway, which is not an EU member but has observer status, strengthened in numbers relative to the Euro area with numbers of Norwegian moose, known locally as elk" expected to rise for the tenth consecutive year, particularly thanks to a strong showing in the last quarter.

As moose season reaches its close, researchers world wide are turning to science in an attempt to boost next year's figures. NASA stunned the scientific community today with the announcement of their discovery that the moon is significantly smaller than previously believed. This conclusion, which is the conclusion of a ten-year collaborative project, will have profound implications for the moose community as the gravitational field is now known to be of the right strength to support moose in orbit.

According to John Johnson, head of the NASA Moon Sizing Experiment the first delivery of moose into low moon orbit could be achieved as early as the third quarter of next year. The technology to nurture moose in space is available now", he said, "all that is needed is political will".

Granny wins World Wrestling Championship

By ROY MCROYSTON

Records were smashed in Nicaragua's World Wrestling Championship last night as 78-year-old Maud Johnson, grandmother of five, became the first woman for fifty-six years, and the oldest competitor ever, to claim the gold medal. She walked away with her million dollar share of the prize money, runner up Tommy Thompson from Nigeria taking half a million, and third place New Zealander John Smith receiving a warm handshake from the umpire.

Having started the tournament a rank outsider she began to impress in her second match when she took US number three Ron Ronson by surprise and subdued him in twenty seconds with her unique move that has been dubbed "Maud's Death Grip". The injection of a new wrestling style into the tournament was welcomed by spectators and Johnson's pre- and post-match breakdances have proved entertaining to fans. However, she was still not expected to win in round three last Wednesday, facing off against title-holder Paulo "Spine-Snapper" Lutti, of Vatican City. Underdog Johnson was soon showing her worth with stamina and agility easily matching last year's winner. Lutti's experience paid off initially as he took the first two rounds, but as Johnson became more confident her superior strength came to the fore and she clawed back two rounds to take the contest into a decider. By this time Lutti's body language indicated that he already felt overawed by the pretender to his crown, and the newcomer took advantage of this to engage a mutual headlock which she held for three hours until the Vatican man retired from exhaustion. The next seven matches were barely a contest as the news of Johnson's supremacy overawed all her opponents who became too intimidated to fight properly.

Nigerian Tommy Thompson is also a relative newcomer to the wrestling scene, but with his 210lb frame he was expected to fare well against Johnson who weighs in at only 90lb. However Johnson's lithe and slender, some would say scrawny,

figure belies her agility and strength which she demonstrated by holding Thompson above her head several times during the bout and throwing him into the crowd once. With the scores tied at 2-2 time ran out and the contest went to a panel of judges to be assessed. They awarded Thompson a C grade whilst Johnson received an A, becoming the first grandmother to ever win the title.

The new champion explained her success as the result of a strict train-

ing regimen instituted by her coach and grandson five-year-old Sammy Johnson. "I've been drinking ten raw eggs for breakfast every morning, sprinting fifty miles a day and carrying my daughter's car to the end of the road and back whenever I felt my arthritis was OK" she said. Sammy added "I always knew she could do it. She's my grandma.". The youngster is also her manager and has reportedly arranged sponsorship deals which will dwarf her one million dol-

lar prize fund. Her new contract with headband designer Nike alone is set to earn her fourteen billion dollars over the next year. She will also be promoting Tupperware, Halliburton, the Republic of Macedonia, and Gala Bingo. Her continued participation in the sport is not assured as she wants to spend more time on her bungee-jumping business, and knitting. Everyone here at the World Championships, however, hopes for her return.