PAXMAN
PIONEERS IN SCALP COOLING

PAXMAN ANNOUNCES SINGAPORE-UK TEAM TO DEVELOP A NOVEL DEVICE TO REDUCE CHEMOTHERAPY SIDE-EFFECTS

Highly-efficient and miniaturised cooling-compression technology aims to prevent/ reduce pain and sensitivity in hands and feet due to chemotherapy

Today, Paxman announces a team of clinicians and scientists from the National University Cancer Institute, Singapore (NCIS) at the National University Hospital (NUH) and the N.1 Institute for Health at the National University of Singapore (NUS) have partnered Paxman Coolers Ltd (UK) (Paxman) to develop a device that may prevent or reduce numbness and pain caused by certain types of anti-cancer therapy[1]. Chemotherapy-induced peripheral neuropathy (CIPN) is a severe side-effect of chemotherapy drugs called taxanes, which are used to treat common cancers such as breast, lung, ovarian and stomach cancer. CIPN affects about 1.4 million cancer patients globally every year[2].

A novel solution for CIPN
In collaboration with Paxman, the Singapore research team from NUHS comprising clinicians and researchers from the Department of Haematology-Oncology at NCIS and NUH, and the N.1 Institute for Health at NUS are developing a portable limb cryocompression device specifically targeting prevention of CIPN in cancer patients. The team has studied various proof of concept aspects of the cryocompression technology, over the past eight years[3], previously supported by the National Health Innovation Centre Singapore (NHIC) through its Innovation to Develop grant. Working together as a team since 2019, Paxman, global leaders in scalp cooling for prevention of chemo-induced hair loss, was identified as the ideal commercialisation partner for the project.

The research team has been awarded a translational grant of $1.57M SGD from the National Research Foundation (NRF) Central Gap Fund in May 2021, which will be administered by NHIC. Pilot studies will commence in Q2 2022 to investigate the device in healthy volunteers, and cancer patients undergoing CIPN-causing chemotherapy. The efficacy of prevention will be monitored using various clinical and patient-reported outcomes.

“This funding is a testimony to the high impact the new product will have on the quality of life for cancer patients receiving taxane-based therapies, not only in Singapore, but throughout the world. It will allow our collaborative team, not only to crucially accelerate the research and development process but will also significantly de-risk the project from a commercial perspective,” commented Richard Paxman, CEO of Paxman.

“Paxman is determined, not only to provide patient access to scalp cooling technology to prevent chemotherapy-induced hair loss globally, but now also to give patients the chance to reduce or prevent the debilitating side effect of peripheral neuropathy. We bring to this collaboration extensive expertise in design, development, manufacture, regulatory approval, along with experience of commercialising medical cooling devices. The company is perfectly placed to roll out this technology to its existing and growing customer base throughout the world.”

About the National University Health System (NUHS)
The National University Health System (NUHS) aims to transform how illness is prevented and managed by discovering causes of disease, development of more effective treatments through collaborative multidisciplinary research and clinical trials, and creation of better technologies and care delivery systems in partnership with others who share the same values and vision.

With member institutions under a common governance structure, NUHS creates synergies for the advancement of health by integrating patient care, health science education and biomedical research.

As a Regional Health System, NUHS works closely with health and social care partners across Singapore to develop and implement programmes that contribute to a healthy and engaged population in the Western part of Singapore.

For more information, please visit http://www.nuhs.edu.sg.

About the National University Hospital
The National University Hospital is a tertiary hospital and major referral centre with over 50 medical, surgical and dental specialties, offering a comprehensive suite of specialist care for adults, women and children. It is the only public hospital in Singapore to offer a paediatric kidney and liver transplant programme, in addition to kidney, liver and pancreas transplantation for adults.

As an academic health institution, patient safety and good clinical outcomes are the focus of the Hospital. It plays a key role in the training of doctors, nurses, allied health and other healthcare professionals. Translational research is pivotal in the Hospital's three-pronged focus, and paves the way for new cures and treatment.

About National University Cancer Institute, Singapore
The National University Cancer Institute, Singapore (NCIS) offers a broad spectrum of cancer care and management covering both paediatric and adult cancers, with expertise in prevention, screening, diagnosis, treatment, rehabilitation and palliative care. The Institute's strength lies in the multi-disciplinary approach taken to develop a comprehensive and personalised plan for each cancer patient and his or her family. Our award-winning clinician-scientists and clinician-investigators conduct translational research and clinical trials, providing patients with access to evidence-based cancer diagnostics, technology and therapies.
For more information about NCIS, please visit www.ncis.com.sg.

About The N.1 Institute for Health (N.1) at the National University of Singapore (NUS)
The N.1 Institute for Health (N.1) is an internationally recognised clinical stage research institute focused on N-of-1 medicine, where clinical trials are designed specifically for each patient recruited into its ongoing clinical studies. The institute currently has over 10 prospective clinical trials cleared or ongoing.

The N.1 team is comprised of pre-eminent and multidisciplinary researchers with expertise in engineering, clinical trial innovation, behavioural sciences, strategy, and policy, among other domains. For more information about N.1, please visit https://n1labs.org/.

About The National Research Foundation (NRF)
The National Research Foundation (NRF) is a department within the Prime Minister's Office. The NRF sets the national direction for research and development (R&D) by developing policies, plans and strategies for

research, innovation and enterprise. It also funds strategic initiatives and builds up R&D capabilities by nurturing research talent. The NRF aims to transform Singapore into a vibrant R&D hub that contributes towards a knowledge-intensive, innovative and entrepreneurial economy; and make Singapore a magnet for excellence in science and innovation.

[1] J Binder, E Unver, J Clayton, P Burke, R Paxman, R Sundar, A Bandla. A Limb Hypothermia Wearable for Chemotherapy-Induced Peripheral Neuropathy: A Mixed-Methods Approach in Medical Product Development. *Frontiers in Digital Health*. Published: 15 Dec 2020.
[2] Charles L Loprinzi, Christina Lacchetti, Jonathan Bleeker, et al. Prevention and Management of Chemotherapy-Induced Peripheral Neuropathy in Survivors of Adult Cancers: ASCO Guideline Update*Journal of Clinical Oncology*. Published: 1 Oct 2020, E-published: 14 Jul 2020.
[3] (i) Bandla A, Tan S, Kumarakulasinghe NB, Huang Y, Ang S, Magarajah G, Hairom Z, Lim JSJ, Wong A, Chan G, Ngoi N, Ang E, Lee YM, Chan A, Lee SC, Thakor N, Wilder-Smith E, Sundar R. Safety and tolerability of cryocompression as a method of enhanced limb hypothermia to reduce taxane-induced peripheral neuropathy. *Support Care Cancer.* Published: August 2020. E-published: 6 December 2019 (ii) Sundar R, Bandla A, Tan SS, Liao LD, Kumarakulasinghe NB, Jeyasekharan AD, Ow SG, Ho J, Tan DS, Lim JS, Vijayan J, Therimadasamy AK, Hairom Z, Ang E, Ang S, Thakor NV, Lee SC, Wilder-Smith EP. Limb Hypothermia for Preventing Paclitaxel-Induced Peripheral Neuropathy in Breast Cancer Patients: A Pilot Study*. Frontiers in Oncology.* Published: 10 January 2017.(iii) Bandla A, Sundar R, Liao LD, Sze Hui Tan S, Lee SC, Thakor NV, Wilder-Smith EP. Hypothermia for preventing chemotherapy-induced neuropathy - a pilot study on safety and tolerability in healthy controls. *Acta Oncologica.* E-published: 11 September 2015.

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About Us

The Paxman Scalp Cooling System has been developed by the Paxman family to reduce hair loss in breast cancer patients undergoing chemotherapy. The concept behind the system came when the mother of four, Sue Paxman, experienced first-hand the trauma of chemotherapy-induced hair loss. With close to 3,500 systems delivered in to hospitals, clinics and treatment centres around the world, PAXMAN is the leading supplier of Scalp Cooling technology. PAXMAN's scalp-cooling cap is made from lightweight, biocompatible silicone that is soft and flexible, providing a snug yet comfortable fit during treatment. PAXMAN AB (publ) has its headquarters in Karlshamn (Sweden), with subsidiaries in Huddersfield (UK) and Houston, Texas (US).

The PAXMAN share is listed on Nasdaq First North Growth Market. FNCA Sweden AB is the company's Certified Adviser and can be contacted via info@fnca.se and +46 (0)8 528 003 99.

This information is information that PAXMAN is obliged to make public pursuant to the EU Market Abuse Regulation. The information was submitted for publication, through the agency of the contact persons set out above, at 2021-05-21 15:35 CEST.

Attachments

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