

PRESS RELEASE

Life Molecular Imaging and National Cyclotron and PET Centre, Chulabhorn Royal Academy, Thailand Announce a Collaboration for Brain PET Imaging with NeuraCeq™ and PI-2620

Brain imaging research study with amyloid and tau PET to investigate aging Thai individuals aiming for development of models for a healthier life in the Thai society

Bangkok / Berlin. June 14, 2019. Life Molecular Imaging (LMI) and Chulabhorn Royal Academy by the National Cyclotron and PET Centre, Chulabhorn Hospital announced today a research collaboration to investigate the accumulation of beta-amyloid plaques and neurofibrillary tau tangles in the brain of aging Thai individuals. The first subjects have been recruited and imaged. LMI and Chulabhorn Royal Academy leveraged their joint resources to establish availability of both tracers for use in research examinations.

The “FDG, Amyloid and Tau Brain PET imaging in Thai Individuals” program is part of the national “Holistic Approach to Alzheimer’s Disease in the Thai Population” study. This honorary project aims to integrate scientific knowledge into the standard of care for Alzheimer’s disease in Thailand towards a healthy and sustainable quality of life. The data obtained in this study will be used to develop models for a healthier lifestyle in the Thai society, to aid reducing the risk of dementia through better self-care and lessen the family burden in caring for the elderly in the country.

Brain imaging with FDG, NeuraCeq™ and PI-2620 is conducted at the National Cyclotron and PET Centre (NCPC), Chulabhorn Hospital of the Chulabhorn Royal Academy in Bangkok, where the PET tracers are manufactured under GMP. The combination of NeuraCeq™, for detection of beta-amyloid plaques, and the investigational PI-2620 tracer for the detection of tau pathology, provides a powerful imaging biomarker platform for characterization of subjects enrolled in clinical trials of neurodegenerative diseases.

“Life Molecular Imaging continues to expand the availability of innovative molecular imaging agents. We are truly excited about our collaboration with the Chulabhorn Royal Academy by the National Cyclotron and PET Centre, Chulabhorn Hospital, to generate data with NeuraCeq™ and the PI-2620 tau PET-tracer and further characterize people at risk of developing neurodegenerative diseases in clinical studies in Thailand. The conditions, professional environment and image quality at the National Cyclotron and PET Centre (NCPC) are excellent. This allows LMI to offer the manufacturing and supply of both tracers, as well as patient imaging to pharmaceutical customers to support their clinical trials of therapeutic drugs for AD or other neurodegenerative diseases.” said Ludger Dinkelborg, Ph.D., Managing Director at LMI.

Dr. Chanisa Chotipanich, deputy director of Chulabhorn Hospital, National Cyclotron and PET Centre, Chulabhorn Hospital added *“Teaming up with LMI on both the amyloid and tau PET tracers provides us the unique opportunity to better support clinicians with imaging biomarkers for studying neurodegenerative diseases. This collaboration provides us the opportunity for a better characterization of people at risk of Alzheimer’s disease using state-of-the-art medical technology, such as PET-CT scan and magnetic resonance imaging (Advance MRI). We are impressed by the high quality of both LMI PET tracers as well as the brain images acquired.”*

About NeuraCeq™(florbetaben 18F)

Indication

NeuraCeq™ is a radioactive diagnostic agent indicated for Positron Emission Tomography (PET) imaging of the brain to estimate beta-amyloid neuritic plaque density in adult patients with cognitive impairment who are being evaluated for Alzheimer's disease (AD) and other causes of cognitive decline.

A negative NeuraCeq™ scan indicates sparse to no amyloid neuritic plaques and is inconsistent with a neuropathological diagnosis of AD at the time of image acquisition; a negative scan result reduces the likelihood that a patient's cognitive impairment is due to AD. A positive NeuraCeq™ scan indicates moderate to frequent amyloid neuritic plaques; neuropathological examination has shown this amount of amyloid neuritic plaque is present in patients with AD but may also be present in patients with other types of neurologic conditions as well as older people with normal cognition. NeuraCeq™ is an adjunct to other diagnostic evaluations.

Limitations of Use

- A positive NeuraCeq™ scan does not establish the diagnosis of AD or any other cognitive disorder.
- Safety and effectiveness of NeuraCeq™ have not been established for (i) predicting development of dementia or other neurologic conditions and (ii) monitoring responses to therapies.

Important Safety Information

Risk for Image Interpretation and Other Errors

NeuraCeq™ can be used to estimate the density of beta-amyloid neuritic plaque deposition in the brain. NeuraCeq™ is an adjunct to other diagnostic evaluations. NeuraCeq™ images should be interpreted independent of a patient's clinical information. Physicians should receive training prior to interpretation of NeuraCeq™ images. Following training, image reading errors (especially false positives) may still occur. Additional interpretation errors may occur due to, but not limited to, motion artefacts or extensive brain atrophy.

Radiation Risk

Administration of NeuraCeq™, similar to other radiopharmaceuticals, contributes to a patient's overall long-term cumulative radiation exposure. Long-term cumulative radiation exposure is associated with an increased risk of cancer. It is important to ensure safe handling to protect patients and health care workers from unintentional radiation exposure.

Most Common Adverse Reactions

In clinical trials, the most frequently observed adverse drug reactions in 872 subjects with 1090 NeuraCeq™ administrations were injection/application site erythema (1.7%), injection site irritation (1.1%), and injection site pain (3.4%).

About PI-2620

Tau deposits, in conjunction with beta-amyloid plaques, represent the other pathological hallmark of Alzheimer's disease, with tau deposits further playing an important role in other neurodegenerative diseases. PI-2620 is binding to tau deposits and is a next generation ¹⁸F-labeled investigational PET tracer with favourable properties and imaging characteristics. It was discovered using the Morphomer™ platform and developed in a research collaboration between Life Molecular Imaging and AC Immune, a Swiss-based clinical stage biopharmaceutical company. Life Molecular Imaging has the exclusive, world-wide license for research, development and commercialization of tau PET tracers generated within the discovery program.

About Life Molecular Imaging (LMI)

Life Molecular Imaging (LMI, formerly Piramal Imaging) was formed in 2012 with the acquisition of the molecular imaging research and development portfolio of Bayer Pharma AG. It is now part of the Alliance Medical Group (a member of the Life Healthcare Group) offering an integrated business including research and development laboratories, a network of cyclotrons, radiopharmacies and imaging facilities. By developing novel PET tracers for molecular imaging, LMI is focusing on a key field of modern medicine. The organization strives to be a leader in the Molecular Imaging field by developing innovative products that improve early detection and characterization of chronic and life-threatening diseases, leading to better therapeutic outcomes and improved quality of life.

Please visit <https://life-mi.com>.

About Life Healthcare Group

The Life Healthcare Group has more than 33 years' experience in the private healthcare and hospital industry. Headquartered in Johannesburg, South Africa, the Group is a listed company on the Johannesburg Stock Exchange. The company's primary business is private acute hospital care with 65 healthcare facilities in seven of South Africa's nine provinces and one hospital in Botswana, as well as providing services for acute physical rehabilitation, acute mental healthcare and renal dialysis. Life Employee Health Solutions services both occupational health and employee wellness to private and public employers. The Group includes an international presence through Alliance Medical Group (UK/Europe) and Scanmed S.A. (Poland). For more information visit lifehealthcare.co.za

About Chulabhorn Royal Academy, Thailand

Chulabhorn Royal Academy is an educational institute that aims to produce scholars and professionals in medicine, nursing, public health, environmental toxicology, science and technology. Moreover, one important mission is to discover new knowledge through scientific and medical research and to apply them to improve Thailand's health care for the benefits of Thai people. It was the royal initiative of Professor Dr. HRH Princess Chulabhorn Krom Phra Srisavangavadhana to further develop and build on the achievements of "Chulabhorn Hospital", which was originally a hospital specializing in the treatment and care of cancer patients, with a capacity of 100 beds, to become "HRH Princess Chulabhorn College of Medical Science", an institution of higher learning and comprehensive medical services, complete with policies and plans to develop medical and health science professionals of outstanding potential in problem solving through research process with the Chulabhorn Hospital, comprising "Bhadra Maharajanusorn Medical Centre", "Chulabhorn Oncology Medical Centre" and "Chulabhorn Chalermprakiet Medical Centre", and National Cyclotron and PET Centre as part of the Academy. It is graciously founded on the aspirations and vision of Professor Dr. HRH Princess Chulabhorn Krom Phra Srisavangavadhana, with the set course of actions and supports towards international collaboration networks, such as The International Atomic Energy Agency (IAEA) as a centre for diagnosis of cancer, neurological, and heart diseases through modern, advanced technology and the most cost-effectiveness of researches and knowledge transfer for the most quality of life and better health care among Thai people as a whole. At present, National Cyclotron and PET Centre can produce 15 radiopharmaceuticals as follow: 18F-FDG, 18F-FDOPA, 11C-Choline, 11C-Erlotinib, 18F-THK-5351, 18F-FLT, 68Ga-PSMA-11, 68Ga-DOTATATE, 18F-PSMA-1007, 177Lu-DOTATATE, 177Lu-PSMA-617, 18F-FBB, 18F-PI-2620, 15O-H₂O (Radiowater) and 18F-NaF. In addition, HRH gave a further directive to include in the amalgamation the "Chulabhorn Graduate Institute", a post-graduate academic institution whose role is producing scientists in

various disciplines necessary for national development, and mandated that all of these agencies shall engage in full cooperation under the name of a unified organization, "**Chulabhorn Royal Academy**"

Contact person at National Cyclotron and PET Centre:

Ms. Natphimol Boonkawin
Radiochemist
National Cyclotron and PET Centre, Chulabhorn Hospital
E-mail: koh.natphimol@gmail.com

For media queries

Nicole Fletcher | Marketing Communications | Life Molecular Imaging
Tel#: 857-202-1122 | n.fletcher@life-mi.com