SYNAPSE 國際媒體報導簡報

Media Coverage Summary

World's first ultra-high resolution 3D comprehensive mapping of human brain kicks off

New mapping technique using powerful x-ray technology will provide clear and detailed images of the brain and aid development of more effective treatments for neurodegenerative diseases. The effort involves teams from Singapore, Japan, South Korea and Taiwan. Australia and China have also expressed interest to be part of the project.

15 January 2020: MOU Signing Ceremony between parties involved from the Asia Pacific region

National University of Singapore / JAN 15, 2020
EurekAlert / JAN 15, 2020
Biospectrumasia / JAN 16, 2020
Scienmag Science Magazine / JAN 16, 2020

Asia-Pacific effort to map human brain in four years

Image acquisition will take place at 1mm^3 per minute and at 0.3 micron resolution, with researchers intending to complete the map by 2024.

The work will link the synchrotron facilities in the Asia Pacific region under a collaboration called Synchrotron for Neuroscience Asia Pacific Strategic Enterprise - SYNAPSE - which is expected to involve more than 1000 researchers from Singapore, Japan, South Korea and Taiwan, Australia and China.

Wiley Analytical Science / JAN 16, 2020

Singapore scientists part of ambitious project to map the human brain by 2024

This commitment was sealed in a memorandum of understanding signed on Jan 15, 2020 by scientists from Singapore, Japan, South Korea and Taiwan, and witnessed by guests that included Professor Kurt Wuthrich, the 2002 Nobel laureate in chemistry. Australia and China are expected to join in at a later date.

Prof Kurt Wütrich, Nobel laureate, ETH Zurich, speaks at the inauguration of the Synchrotron for Neuroscience – Asia Pacific Strategic Enterprise.

THE STRAITS TIMES; The Star Online / JAN 15, 2020

Scientists in S'pore & around the world to map human brain in ultra high 3D resolution

This project will help enhance the understanding of the structure of the brain and its composition, and allow for clarification of its normal functions and identify causes of brain diseases. This could very well be the breakthrough needed to tackle brain diseases and psychiatric conditions.

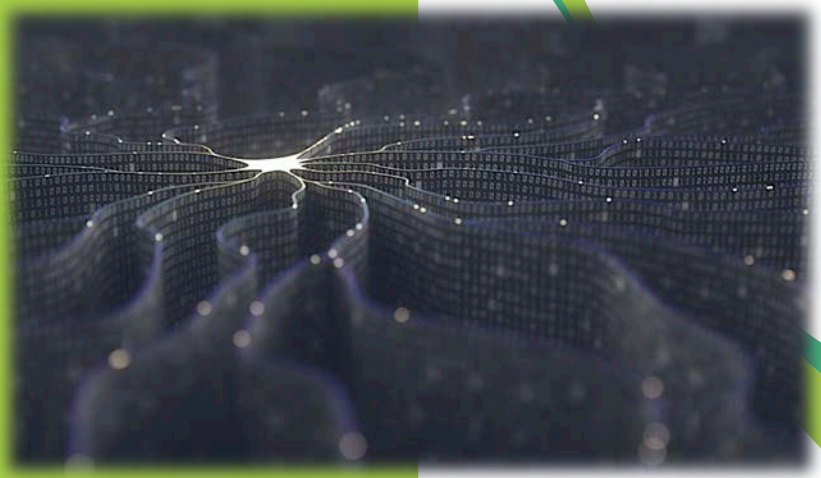
Mothership / JAN 16, 2020

Singapore scientists join international team to create ultra-high-resolution brain map

Announced on Wednesday (15 January), the founding members of the initiative aim to complete the project by 2024. They signed a Memorandum of Understanding (MOU) at the National University of Singapore (NUS) Shaw Foundation Alumni House Auditorium.

Yahoo News/ JAN 15, 2020

Creating A Comprehensive 3D Map Of The Human Brain



An international consortium of scientists in Asia are using X-rays to obtain a high-resolution 3D map of the human brain

Scientists from Singapore, Japan, South Korea and Taiwan are collaborating to produce a first-of-its-kind ultra-high-resolution 3D comprehensive map of the human brain' s neural network. Using synchrotrons—extremely powerful X-ray sources—scientists aim to trace the brain' s intricate networks. The project will link the synchrotron facilities in the Asia Pacific region under a collaboration called Synchrotron for Neuroscience—Asia Pacific Strategic Enterprise (SYNAPSE).

Asian Scientist Magazine / Feb. 4, 2020

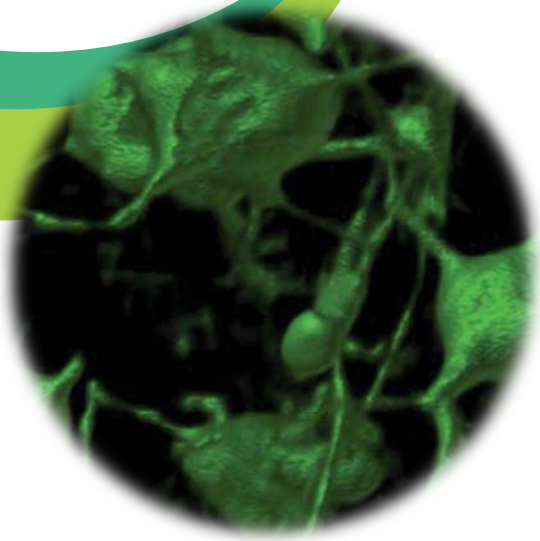
Mapping The Brain's Mysteries

Scientists in Asia are now bringing the world' s most sophisticated computer technology to bear on this eternal mystery by comprehensively mapping the human brain for the first time—by as soon as 2024. This three-dimensional map, known as a connectome, could have a huge impact on everything from Alzheimer' s disease to artificial intelligence. From studies of monkey brains, to mapping the human brain and even simulating human neural activity on supercomputers, this effort could have profound consequences for both brain science and some of our fundamental questions about what it means to be human.

Supercomputing Asia /July 8 2020

Asian Scientist Magazine / Oct. 8, 2020

Mapping the Human Mind



The images captured by SYNAPSE will form an extensive human brain map. The map will show how neurons are connected and how they interact to result in cognition and intelligence. Our findings could potentially contribute to effective treatments for increasingly important neurodegenerative pathologies such as Alzheimer' s disease and other forms of dementia.

Supercomputing Asia /July 8 2020

亞太科學家聯手挑戰繪製人類全腦神經圖譜圖

SYNAPSE 聯盟於新加坡揭幕啟動

台灣提議創立的 SYNAPSE 聯盟將增進人腦結構的理解，有助阿茲海默症、其他失智症的治療

使用強大的三維 X 光顯微成像技術進行次細胞層級的人腦神經網路成像配合超高速的超大型運算，SYNAPSE 聯盟預計於三年內完成第一個人類全腦神經網路的三維圖譜。計畫關鍵人物胡宇光特聘研究員服務於中央研究院物理研究所，在科技部卓越領航計畫、中央研究院以及國家同步輻射中心等之長期支持下，積極推動國際合作，這次於新加坡國立大學（National University of Singapore）舉行亞太六國人腦圖譜合作計畫簽約儀式。目前此聯盟現已發展成包括新加坡、澳洲、中國、日本、韓國和臺灣的六個強大的同步輻射光源以及神經科學、計算科學、物理、化學、工程的各類型研究單位數百名科學家參與的國際研究網絡。

科技部 Ministry of Science and Technology /JAN 15, 2020

台灣媒體相關報導

.: TechNews :.

亞太科學家聯手挑戰繪製人類全腦神經圖譜圖：SYNAPSE 聯盟於新加坡揭幕啟動

TechNews 科技新報 /JAN 15, 2020

台灣提議SYNAPSE組織 號召亞太科學家繪製人類全腦神經圖譜:X光,斷層掃描,科技部

【CTIMES/SmartAuto 報導】 2020年01月15日 星期三

瀏覽人次：【1282】

知識結構圖

進階查詢

由台灣的科學家所提議創立的SYNAPSE（Synchrotrons for Neuroscience–An Asia Pacific Strategic Enterprise），目標在三年的時間內利用超高解析度的X光三維成像技術及超大型計算設施，繪製第一個超高解析度人類大腦全腦神經細胞及其網路連結的圖譜。

CTIMES_SmartAuto/JAN 15, 2020

≡ 聯合新聞網

台灣領軍 亞太六國科學家聯手繪製人類全腦神經圖譜

2020-01-15 22:37 聯合報 記者陳宛茜／即時報導

由台灣的科學家所提議創立的SYNAPSE聯盟，今天於新加坡國立大學正式成立、並舉行簽約儀式。此聯盟目標是在三年之內，利用超高解析度的X光三維成像技術及超大型計算設施，繪製第一個超高解析度人類大腦全腦神經細胞及其網路連結的圖譜。

計畫關鍵人物胡宇光，服務於中央研究院物理研究所，在科技部卓越領航計畫、中央研究院以及國家同步輻射中心等之長期支持下，積極推動國際合作。目前此聯盟現已發展成包括新加坡、澳洲、中國、日本、南韓和台灣等六國數百名科學家參與的國際研究網絡。

UND 聯合新聞網 /JAN 15, 2020