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Singapore announces new collaborative project for cardiovascular disease research

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A*STAR, NHCS, NUS, and Novo Nordisk join hands



The Agency for Science, Technology and Research's (A*STAR) Genome Institute of Singapore (GIS) and Bioinformatics Institute (BII), as well as the National Heart Centre Singapore (NHCS), National University of Singapore (NUS), and pharmaceutical company Novo Nordisk have signed an agreement to study the mechanisms underlying cardiovascular disease progression especially the condition called heart failure with preserved ejection fraction (HFpEF).

The research collaboration is focused on understanding the underlying biology of HFpEF patients in Asia, and carrying out comprehensive studies of biomarkers that lead to the segmentation of these patients based on their pathologies, and in order to advance the development of therapeutics for heart failure.

The project leverages large and well-phenotyped heart failure patient cohorts from the **A**sian ne**T**work for **T**ranslational **R**esearch **a**nd **C**ardiovascular **T**rials (ATTRaCT), a translational cardiovascular research programme led by A*STAR that integrates efforts from basic, translational, and clinical scientists from multiple institutes across Singapore.

Specifically, the project will support the integration of clinical imaging, as well as molecular biological and clinical phenotypes; and advance the development of novel treatments for heart failure.

GIS and NHCS are carrying out cellular studies to dissect mechanisms of disease using patient specific cells, while NUS runs additional complex proteomic analysis on ATTRaCT patient biosamples. BII serves as the data custodian for the aggregated ATTRaCT datasets from across the multiple institutions, offering project parties access and analysis of the multiple data types. This includes the provision of computing requirements to both industry and academic researchers, and the administrative role of ensuring proper governance over data usage.

Image caption- *Key members of the research collaboration: (from left) Prof Roger Foo (Programme Director, ATTRaCT, and Senior Group Leader, GIS), Dr Karin Conde-Knape (Senior Vice President, Global Drug Discovery, Novo Nordisk), Dr Rasmus Rabøl (Corporate Vice President, Global Translation, Novo Nordisk), Dr Natasha Michaelsen (Principal Scientist, Global Translation, Novo Nordisk), Prof Mark Richards (Director, Cardiovascular Research Institute, NUS, and Deputy Director, National University Heart Centre), Prof Derek Hausenloy (Research Director, Senior Consultant, NHCS), Prof*

Carolyn Lam (Senior Consultant Cardiologist, NHCS)(not pictured), and Dr Sebastian Maurer-Stroh (Executive Director, BII)(not pictured).