# NATIONAL RESEARCH FOUNDATION
## PRIME MINISTER'S OFFICE
### SINGAPORE

# Foundational Research Capability (FRC) Studies

The Foundational Research Capability (FRC) Studies are a series of studies commissioned by NRF and led by study teams consisting of members of the Singapore research community to systematically identify areas for fundamental research capability building in Singapore and recommend how these could be grown. Such areas could include i) important nascent areas of foundational science and technology that are emerging in the world, ii) potential peaks of excellence that could emerge from capability already seeded in Singapore, which could benefit from additional capability and resources, or iii) areas where research capability is needed to fulfil near/long term needs of Singapore.

## 2024 – 2025 FRC Full Studies

| Topic | Overview | Link |
|---|---|---|
| **AI for Science** | This report explains that Singapore recognises the transformative potential of artificial intelligence in advancing scientific research, necessitating strategic coordination to position the nation as a global leader in AI-driven scientific innovation. Building on this recognition, the National Research Foundation has established the AI for Science (AI4SCI) Initiative as a collaborative endeavour. The Initiative focuses on exploring AI's current impact and future potential across multiple research domains including materials science, life sciences, environmental science, physics, finance, software security, and computational sciences through comprehensive workshops, scoping studies, and community consultations conducted from February to July 2024, culminating in the flagship AI4Science and Nobel Turing Challenge Initiative Conference. NRF would like to thank the team led by A/Prof Kedar Hippalgaonkar from NTU and A*STAR, and Prof Yang Zhang from NUS, for their efforts in bringing together the research community and producing this study report. | https://go.gov.sg/frc-report-ai4sci<br><br>https://go.gov.sg/frc-report-ai4sci |

**Acronym**

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| **NRF** | National Research Foundation |
| **NTU** | Nanyang Technological University |
| **NUS** | National University of Singapore |
| **A*STAR** | Agency for Science, Technology and Research |
| **NNI** | National Neuroscience Institute |
| **SAEng** | Singapore Academy of Engineering |
| **SUTD** | Singapore University of Technology and Design |