

NUS FELLOWS PROGRAMME (SOUTHEAST ASIA)

List of Host Professors / PIs			
Science / Engineering / Medicine			
No.	Faculty/Institute	Professor / PI	Research Interests
1	NUS Environmental Research Institute (NERI)	Prof HU Jiangyong	Advanced Oxidation Process, Emerging Contaminants Detection and Removal, Water Disinfection Technology and Biofilm Control, Water reuse and reclamation
2		A/P Sanjay SWARUP	Metabolites biology, microbiomes in environment and agriculture, integrative systems biology
3		A/P Olivier Patrick LEFEBVRE	- Industrial wastewater treatment - Environmental electrochemistry - Advanced oxidations processes - Technology transfer - Water reuse
4		A/P ONG Ghim Ping, Raymond	Waste Plastics Adoption in Road Materials, Sustainable and Energy Harvesting Roads, Electric and Autonomous Vehicles, Sustainable Transportation and Mobility Systems
5		A/P LAU Siu Kit, Eddie	Noise pollution, Traffic noise modelling and control, Noise mapping
6		Asst. Prof Tedrick LEW	- Nanotechnology for plants and environment - Sensors - Biomaterials for agriculture - Antimicrobial nanoparticles
7		Prof Sam LI Fong Yau	Environmental analysis and sensing; environmental remediation; online water quality monitoring
8		Asst. Prof SEOW Wei Jie	Environmental health, non-communicable diseases, cancer epidemiology, population-based cohorts, molecular epidemiology, exposomics, disease prevention
9		Prof LI Jun	Design and synthesis of biodegradable polymers and hydrogels; self-assembly and nano-structures of macromolecular systems; biomaterials for drug/gene delivery and tissue engineering; polymers and hydrogels for agricultural and environmental applications
10	Mechanobiology Institute (MBI) – 1 of 2	Prof LIM Chwee Teck	Collective cell migration, Human Disease mechanobiology, Microfluidic technologies for disease detection and diagnosis, Flexible wearable Technologies for Healthcare Applications
11		A/P LOW Boon Chuan	Cell Signalling, Domain-discovery, Protein-protein Interaction, Structural Biology, Developmental Biology, Computational Biology and Mechanobiology
12		A/P Yusuke TOYAMA	Tissue dynamics, Apoptosis, Drosophila Development
13		Prof Rong LI	Cellular dynamics and mechanics, cell and tissue aging and regeneration, chromosomal biology in cellular adaptation

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14	Mechanobiology Institute (MBI) – 2 of 2	Prof Hanry YU	Cell and Tissue Engineering with a focus on innovative technologies for diagnostics, therapeutics and drug testing applications in pharmaceutical and healthcare industry
15		Prof YAN Jie	Stability and Interaction of Biomolecules under Mechanical Constraints
16		Prof Alexander BERSHADSKY	Actin Biomechanics and cell dynamics
17		A/P Pakorn Tony KANCHANAWONG	Nanoscale Structure-Function Relationship, Super-resolution Microscopy, Cell-Matrix Interactions, Cell-Cell Interactions, Cellular Biophysics, Mechanobiology of Cell Adhesions and Cell Cortex, Computer Vision, Machine Learning, Bioimaging Technology, Bioimage Informatics
18		Asst. Prof Andrew HOLLE	Cell Migration, Stem Cell Mechanobiology, Cancer Mechanobiology
19		Asst. Prof Chii Jou (Joe) CHAN	Mammalian oogenesis, embryogenesis, tissue hydraulics, mechanochemical feedback in tissue self-organisation
20		Asst. Prof Jennifer YOUNG	Tissue nanoenvironment, biomaterials, cell-ECM interactions
21	Faculty of Science (FoS) – 1 of 2	A/P KANG Hway Chuan	Surface Chemistry and Computational Chemistry (Silicon-germanium surfaces/interfaces, Electronic Structure and Reactivity of Nanoclusters of Pure and Mixed Transition metals, Sputtering Dynamics)
22		Prof Antonia MONTEIRO	Evolution of novel traits, evo-devo, evolution of phenotypic plasticity, and evolution of behavior, primarily using insects and butterflies as study systems.
23		A/P CHEW Fook Tim	(a) Allergens and Hypersensitivity; Epidemiology and Genetics of Asthma, Allergic Respiratory and Skin Diseases, Acne, COPD, Bronchiectasis, and Skin Ageing and Health (b) Genetics of Major Crops, Molecular Breeding/Genomic Selection and Genetic Systems in Plant and Animal Breeding, Large-Scale Plantation-wide Agri-Systems
24		Prof Thorsten WOHLAND	Single Molecule Fluorescence Spectroscopy: (a) Development of techniques (microscopy, optics); (b) Machine learning for data evaluation; (c) Measurements in cells and organisms
25		Prof Valerio SCARANI	Quantum science and technologies, foundations

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26	Faculty of Science (FoS) – 2 of 2	Prof Ariando	Condensed Matter Physics, Strongly Correlated Systems, Superconductivity, Complex Oxides Heterostructures, Moire Physics and heterostructures
27		A/P WANG Zhisong	Molecular motors, DNA nanotechnology, biomedical applications
28		A/P Andriwo RUSYDI	Condensed matter physics (experiment & theory), photon science (from optics to x-rays), thin film growth and new technologies based on Mott-insulators
29		A/P Frank RHEINDT	Population-genomics, phylogenomics, evolutionary biology, conservation science, ornithology, taxonomy
30	Solar Energy Research Institute of Singapore (SERIS)	Prof Armin ABERLE	Photovoltaic materials, Crystalline Solar Cells devices and modules, CIGS Solar Cells and Modules
31	College for Design & Engineering (CDE) – 1 of 2	Prof Philip LIU	Coastal Oceanography and Engineering (water wave theories, tsunamis dynamics, wave-breaking processes, sediment transport processes, and interactions of water waves with structures)
32		Prof Rajasekhar BALASUBRAMANIAN	Sustainable Development, Climate Change Mitigation, Urban Air Quality, Health Risk Assessment, Aerosol Science and Technology
33		A/P LAU Siu-Kit, Eddie	Environmental acoustics, Soundscape, Architecture acoustics, Mechanical Noise and Vibration Control, Human perception, Solar energy, Agrovoltatics, Educational research
34		Prof Iftekhar Abubakar KARIMI	Low-Carbon Energy Systems Modelling
35		A/P Daniel John BLACKWOOD	Aqueous corrosion
36		A/P Stefan ADAMS	Lithium- and sodium-based batteries; all-solid-state batteries; Ion transport in solids
37		A/P KOH Yee Kan	Heat Transfer, thermal comfort, thermoelectrics, radiative cooling
38		A/P CHUI Chee Kong	Medical Devices; Robotics; Imaging and Vision; Cyber-physical Systems
39		Prof OUYANG Jianyong	Flexible/wearable electronics and flexible thermoelectrics
40		Prof HU Jiangyong	Water quality, water treatment and reuse
41		Dr DU Hongjian	Advanced Manufacturing, Low-carbon Construction
42		A/P Filip BILJECKI	GIS, urban data science, artificial intelligence, urban planning, digital twins, geographic data, 3D, building information modelling
43		A/P Rudi STOUFFS	Circular economy principles applied to building design and construction, and urban and architectural planning and design for adaptation to and mitigation of climate change

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44	College for Design & Engineering (CDE) – 2 of 2	Asst. Prof FONG Xuanyao Kelvin	Exploratory computational devices/circuits/systems, Modeling/simulation/applications of non-volatile electronic devices, Computing machinery (neuromorphic/stochastic/Ising)
45		Asst. Prof YANG Kaidi	Intelligent Transportation Systems, Intelligent Vehicles
46		A/P HUANG Zhiwei	Biomedical Optics; Biophotonics and Bioimaging; Advanced Fibreoptic; Raman spectroscopy and imaging; Coherent Raman scattering microscopy; Label-free super-resolution microscopy and imaging; Super-deep volumetric optical bioimaging
47		Prof ZHANG YONG	Nanomedicine, Nanobiophotonics, Biomaterials
48		Asst. Prof SING Swee Leong	Additive manufacturing; 3D printing; Machine learning; Materials
49		A/P Justin YEOH	Construction Management/ Building information Modeling/ Artificial Intelligence & Machine Learning for Built Environment
50		Asst. Prof Guillaume Adrien SARTORETTI	Multi-agent systems, multi-robot systems, decentralized control, distributed learning, deep reinforcement learning, legged robots
51		A/P YUAN Chao	1. Sustainable Urban Planning 2. Future Climate Resilience 3. Multi-physics-scale Microclimate Sensing and Modelling
52		Asst. Prof Iris YU	1. Biomass Valorization 2. Food Waste Upcycling 3. Microwave 4. Green Catalysis
53	Faculty of Dentistry (FoD)	A/P Vinicius ROSA	Bioactive materials, personalized dentistry/medicine, dental pulp tissue engineering, hydraulic calcium silicate cements
54		A/P Stephen HSU	Caries risk assessment/prediction; oral-systemic link
55	Tropical Marine Science Institute (TMSI)	Dr Srivatsan V RAGHAVAN	Climatology, Regional Climate Modelling, Climate Change Impacts and Adaptation, Hydrology, Food Security, Climate risk assessments, Sustainability
56	Yale NUS College	A/P Michiel VAN BREUGEL	Ecology of Forests and Trees in human-modified landscapes

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57	School of Computing (SoC)	Asst. Prof Umang MATHUR	Programming Languages, Formal Methods, Software Engineering
58		Prof CHUA Tat Seng	Unstructured Multimodal Data Analytics, Multimedia and Social Media Computing, Computational Wellness and Finance, Multimedia Information Processing
59	Duke NUS Medical School – 1 of 2	Prof Marcus ONG Eng Hock	Emergency Medicine, Prehospital Emergency Care, Health Services Research, Data Science, Artificial Intelligence, Medical Devices, Global Health
60		Prof WANG Linfa	Emerging zoonosis and zoonotic diseases, virus host interface, novel diagnostics, vaccine and therapeutics, bat immunology and pathogen discovery
61		Asst. Prof OOI Yaw Shin	Virus-host interactions; discovery of host factors for mosquito-borne viruses and human respiratory viruses
62		A/P Ashley Lauren ST JOHN	Viral immunology (Zika viruses, dengue), immune responses to respiratory viral pathogens (respiratory syncytial virus and SARS-CoV-2)
63		Prof Gavin SMITH	Evolutionary genetics, virology, ecology, and infectious disease epidemiology
64		A/P LIU Nan	Health data science, AI in medicine, interpretable machine learning, explainable artificial intelligence, and biomedical engineering, with applications to a wide range of clinical domains including emergency and critical care, health service research, cardiology, and many others
65		A/P Rahul MALHOTRA	(1) Correlates and outcomes of physical and psychosocial health of older adults; (2) Impact of caregiving on caregivers and older care recipients; (3) Health communication and Health literacy; (4) Health expectancy, for spatial and temporal comparison of population health; (5) Scale development, and/or validation of scales for older adult or caregiver outcomes.
66		Prof TEH Bin Tean	Impact of Biodiversity, Herbal Medicine, Nutrition and Microbiome, Plant Genomics and Metabolomics

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67	Duke NUS Medical School – 2 of 2	Prof Paul PRONYK	Genomic surveillance; the design of novel diagnostics/therapeutics/ vaccines; health systems research; global health law; regulatory, procurement and supply chain management; and the links between environment and communicable disease risk
68	Saw Swee Hock School of Public Health (SSHSPH)	A/P Hannah CLAPHAM	Infectious disease dynamics and control, Impact of vaccination, Dengue epidemiology and control, Japanese Encephalitis epidemiology and control and Inference from serological data
69		Prof HSU Li Yang	Methicillin-resistant Staphylococcus aureus: Genomics and Epidemiology Bacterial antibiotic resistance: Epidemiology, Mechanisms, and Intervention
70		A/P Natasha HOWARD	Global health, Infectious disease control policy and practice, Health systems, particularly issues relevant to low and middle-income countries in Asia and the Middle East, qualitative, mixed and participatory methods
71		A/P Yann Felix BOUCHE	Discovery and characterization of novel pathogens: genomic taxonomy and epidemiology, Human and environmental reservoirs of enteric pathogens: molecular microbial ecology, Emergence of novel pathogens: experimental evolution and evolution on human timescales
72		A/P Jeremy LIM	Global Health; Health Economics; Healthcare Services and Management; Health Systems and Policy.
73		A/P YI Siyan	Infectious diseases (HIV, sexually transmitted infections, tuberculosis, viral hepatitis), Sexual & reproductive health, Substance abuse & mental health and Harm reduction & human rights
74		Asst. Prof Kiesha PREM	Infectious disease modelling, Global Health and Health economic & policy modelling
75		Asst. Prof Jasper TROMP	Cardiovascular disease in Southeast Asia and Healthcare services & systems
76	Centre for Sustainable Asian Cities (CSAC)	Prof HENG Chye Kiang	Asian Urban Planning and Design History of Chinese Architecture and Cities