

NUS DEEP TECH START-UP SHOWCASE TEAMS BOOKLET



RUN
8

LIFT-OFF DAY

FEATURING **12** DEEP
TECH INNOVATIONS AND
TECHNOLOGIES

PROGRAMME SCHEDULE

10:00AM



Opening Speech

10:15AM



Team Pitching and Q&A

Digital Technologies & Artificial Intelligence

- MetaSense
- Codaveri
- Verazt Security
- RoamAssist
- MediCert
- See Your Voice

Healthcare, Engineering & Agriculture

- NOVA
- Cell2Mix
- PharLyfe+
- RIDM
- GrowLights
- Cornucopia

11:30AM



Break

12:00PM – 5:00PM



1-to-1 Networking Session

OUR TEAMS



1	CELL2MIX	Revolutionizing Biomanufacturing – From Batch to Continuous	4
2	CODAVERI	Automated Programming Coach	5
3	CORNUCOPIA	Growing better crops, better	6
4	GROWLIGHTS	Grow More with Less	7
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9	RIDM	Innovative chip solutions – accelerate design, increase power efficiency, maximize processing capabilities	12
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11	SEE YOUR VOICE	Building an inclusive and equal society with AI-driven accessibility solutions	14
12	VERAZT SECURITY	Smart contract security for blockchain applications	15

Revolutionizing Biomanufacturing – From Batch to Continuous

Cell2mix™ is a deep tech company revolutionizing the biopharmaceutical manufacturing industry with a clog-free filter for ultra-high cell density filtration. The technology will significantly increase usable cells for drug manufacturing, resulting in the highest product yield efficiencies. This will transform the current practice of batch processing to continuous manufacturing, improving product quality and reducing cost.



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Dr Rerngchai Arayanarakool
(PhD)
Scientist and Co-founder



Dr Shireen Goh (PhD)
Scientific Advisor and
Co-founder



Tan Shan Mei (BEng)
Co-founder



Ou Chung Pei
Venture Dev Manager



Huang Ying Ying
Technology Manager

Automated Programming Coach

Every year, 150 million students struggle to learn programming, due to lack of real-time guidance from limited number of teachers. This is particularly demotivating for first time learners, depriving them of their potential in a talent-starved industry.

Our technology provides real-time guidance for students by accurately identifying where and why the student went wrong, and what needs to be done next. This technology has already demonstrated real world impact, helping students learn programming faster and better with reduced teacher effort.



Umair Z. Ahmed (PhD)
CEO



Shubham Sahai (PhD)
CTO



Ben Leong
Advisor



Edward Tay
Commercial Champion



Debashish Pal
Venture Dev Manager

Eyoh Chih Hong
Technology Manager

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CORNUCOPIA

Growing better crops, better

Cornucopia's goal is to empower sustainable and regenerative agricultural practices that are both economically viable and environmentally friendly. Our team of scientists and engineers developed a portfolio of proprietary biofertilizer products. These products help growers cultivate healthier, more nutritious crops with improved yields, all without altering their current production infrastructure.



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Nura Wong (PhD Student)
Co-founder



Darren Sim (PhD)
Co-founder



Shruti Pavagadhi (PhD)
Co-founder



Steve O'Connor
Commercial Champion



Roger Cheong
Venture Dev Manager



Yong Yoke Ping
Technology Manager

Grow More with Less

We at GrowLights have developed an energy-efficient LED lighting platform to help urban farms reduce energy consumption and operating costs, at the same time help governments achieve their food security goals, including Singapore's "30 by 30" plan. Our lighting platform features an AI-enabled algorithm that adjusts lighting parameters according to the growth stage of the plant, the type of plant and the environmental conditions. Our AI lighting product automatically modifies the colour combination, intensity and lighting time length to optimize both energy consumption and lighting needs of the plants at each growth stage without any human intervention.


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Khoo Eng Huat (PhD)
Co-founder



Andrei Kulish (MSc Student)
Co-founder



Paul Singh Gill
Commercial Champion



Roger Cheong
Venture Dev Manager

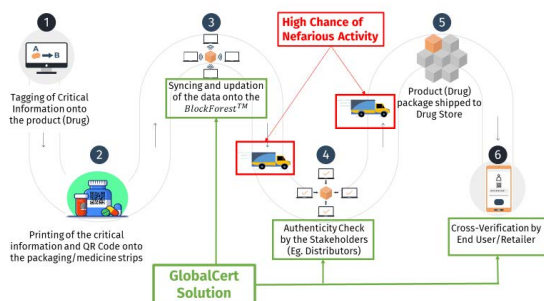


Cynthia Duan
Technology Manager

Enabling Pharma Manufacturers to tackle counterfeit medications

Spurious drugs are estimated to be a \$200 Billion market worldwide and in India around 15 percent of the drugs are estimated to be counterfeit. Spurious drugs pose a major threat to the health of the people and affect the pharmaceutical companies' profits.

MediCert solve this issue with an end-to-end and extremely secure drug authentication system, using our proprietary IP and technology – “BlockForest”. This allows swift, secure and easy verification by any stakeholder including the end consumer. “BlockForest” is currently the only solution on the market that can handle the high volume of data in this authentication process without compromising on security or speed.



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Aditya Ranjan (MComp)
CEO



Durvesh Satish Deshmukh
(MComp)
CTO



Dr Bhojan Anand (PhD)
Principal Advisor



Niloy Mukherjee
Commercial Champion

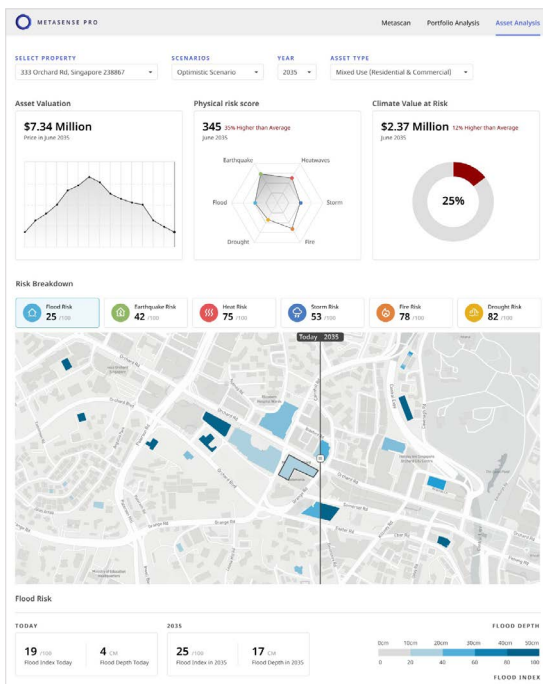


Cato Gullichsen
Venture Dev Manager

Eyoh Chih Hong
Technology Manager

Hyperlocal Climate Intelligence

Climate risk management has evolved from a good to have to a must-have for all companies. Businesses now need to evolve from reporting on climate risk to responding and integrating climate intelligence into their decision-making. MetaSense is a hyperlocal climate intelligence platform that provides high-resolution climate risk data for every building in the world to help Real Estate Investment Managers quantify and take action against their climate risk exposure without expensive on-site inspections.



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Abraham Wu (PhD)
CEO



Wang Tao (PhD)
CTO



Wang Hanmo (PhD)
COO



Patrick Ng
Commercial Champion



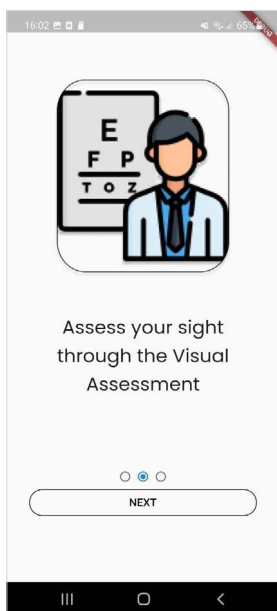
Kevin Leung
Venture Dev Manager



Cynthia Duan
Technology Manager

Efficient home-based cataract monitoring for the ageing population

Cataract patients who do not require surgery can now conduct their routine eye checks in the comfort of their own home. NOVA has developed an autonomous remote cataract monitoring tool that provides clinically validated visual acuity testing, a multilingual conversational chatbot and a clinical-grade cataract screening system in a self-enabled manner. This saves time and money for the patient, and significantly free up healthcare manpower and infrastructural resources.



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David Chen (PhD)
Research Lead



Dayna Yong (FRCOphth)
Clinical Lead



Kazel Koh (A-levels)
Sales and Operations Lead



Pranav Govindaraj (BSc)
Technology and Product Lead



Alex Tay
Commercial Champion



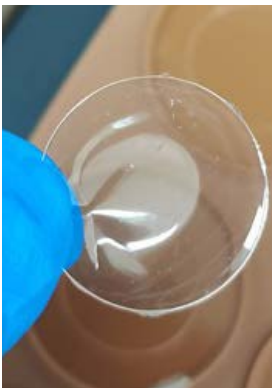
John Phillip
Venture Dev Manager



Jonathan Tan
Technology Manager

Empowerment, Dignity, Independence

Although injections are routinely given to patients by healthcare professionals, they cause pain, anxiety, and complications, as well as generate biohazard waste such as injection syringes and needles. PharLyfe+ is an advanced drug delivery company with expertise in formulation of medicines. We have developed an alternative to injections, the “RelieFilm”, a small thin film designed to stick on the inner cheek inside the mouth to release medicine into the bloodstream. Its use is painless and effective. The dose is accurate and safe. The film can be taken by the patient or given by their caregiver, thereby reducing nursing burden. It is also environmentally friendly and saves the cost of disposal of used syringes and needles. The first “RelieFilm” contains the medicine RF01 to abort epilepsy and to calm end-of-life agitation and delirium.



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Tan Poh Leng (PhD Student)
CEO



Chua Qi Shan (BSc)
CTO



Chan Sui Yung (PhD)
CMO



Barnabas Chan
Commercial Champion



Ou Chung-Pei
Venture Dev Manager

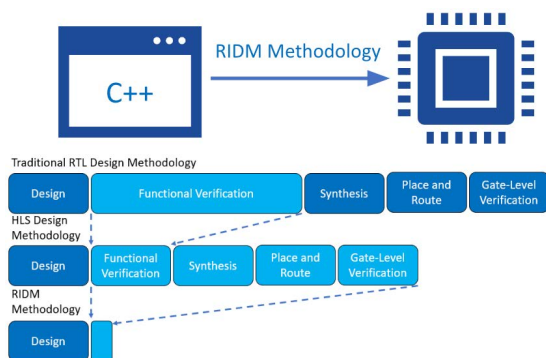


Ang Hui Ying
Technology Manager



Innovative chip solutions – accelerate design, increase power efficiency, maximize processing capabilities

Current digital chip design methodologies consist of many tedious phases that take days and even months to finish. RiDM provide an innovative software solution consisting of “High-Level Synthesis” software package and our proprietary hardware IP block that helps IC engineers build their products 10 times faster than using conventional methodologies.



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Lee Jinho (PhD Candidate)
CEO



Burin Amornpaisannon
(PhD Candidate)
CTO



Serena Xie (MBA)
CFO



Xiang Tingting (PhD Candidate)
CMO



Trevor Erik Carlson (PhD)
Advisor



Lim Chye Seng
Commercial Champion



Saw Bing Huei
Venture Dev Manager



Chia Mun Loong
Technology Manager

Guide dogs of the future

Visually impaired people are often isolated and must rely on others to get around. While guide dogs are the current best solution, less than 1% of visually impaired people are using them. There aren't enough guide dogs for everyone, nor is everyone a match for a guide dog. RoamAssist developed navigation and interactive systems that enable robots to help the visually impaired walk around independently. Our robotic dogs are safe, easy to use and low maintenance. With RoamAssist, the user can navigate freely and avoid obstacles smoothly, an experience that no other solution is currently able to provide.



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Cai Shaojun (PhD)
CEO & CTO



Wan Yingjia (PhD)
Sales & Marketing



Yuan Yuhui (MBA)
Business Development



Wang Hui
Advisor



Francine Martindale
Commercial Champion



Cato Gullichsen
Venture Dev Manager



Yuan Ziyang
Technology Manager



See Your Voice

Building an inclusive and equal society with AI-driven accessibility solutions

See Your Voice provides an AI-driven sign language digitalization and translation system that includes a digital sign language library, a mobile application and multimodal sensors. Our 2-way translation system translates both sign language to speech and text and vice versa. Our system will assist over 70 million Deaf people all over the world in overcoming communication barriers and achieving better quality of life.



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Gong He (MSc)
Business Lead | Co-founder



Huang Yunqi (MEng Student)
Hardware Lead | Co-founder



Xu Xuanqi (PhD Candidate)
Algorithm Lead | Co-founder



Sun Shizhuo (MSc)
Software Lead | Co-founder



Dr Pang Yan James
Advisor



Dr Chong Chee Leong
Commercial Champion



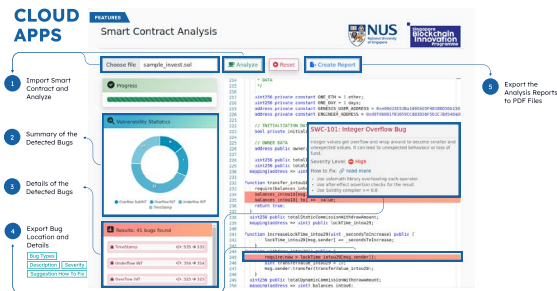
Kevin Leung
Venture Dev Manager



Jonathan Tan
Technology Manager



Verazt Security provides comprehensive and automatic security assessment solutions to help companies secure their blockchain smart contracts. Blockchain technology has been actively adopted by many companies and industries since it provides a novel data-sharing mechanism and efficient transaction management frameworks using smart contracts. However, smart contracts are written by developers and are prone to coding errors which can result in monetary losses, stolen assets and business disruptions. Our solution can help companies detect and eliminate such potential risks so that they can focus on their businesses with peace of mind.





THE FLAGSHIP INNOVATION PROGRAMME

by NUS Industry Liaison Office enabling NUS postgraduate students and researchers to develop commercially viable and investible deep tech start-ups.

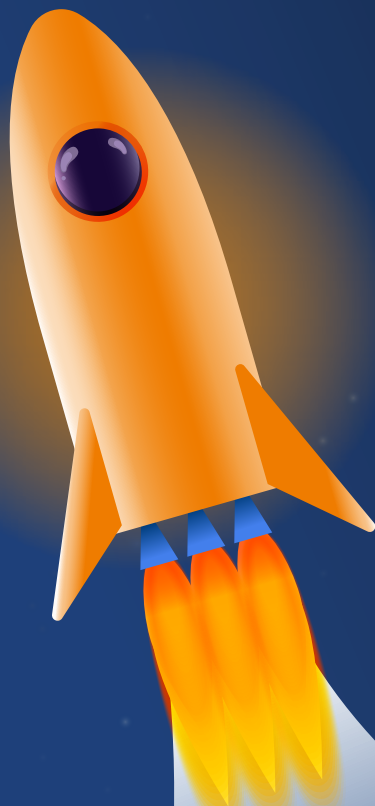
ABOUT NUS GRIP

Launched in October 2018, the NUS Graduate Research Innovation Programme (NUS Grip) is the Industry's Liaison Office's flagship innovation programme.

Based on our extensive experience working with deep technology, the programme will provide step-by-step guidance to NUS postgraduate students and researchers to cultivate deep tech entrepreneurs, to transform the university's world-class research into their own deep tech start-ups.

Twice a year, 25 teams are selected from the best and brightest NUS researchers and postgraduate students to equip them with entrepreneurial skills and experience. Launched in October 2018, the NUS Graduate Research Innovation Programme (NUS Grip) is the Industry's Liaison Office's flagship innovation programme.

For the duration of one year, teams will undergo a transformation journey through a series of workshops, mentorships, industry linkages and incubation support, to develop commercially viable and investible deep tech start-ups. NUS will invest up to S\$100,000 in startups demonstrating high commercial potential to accelerate their growth. We are committed to take in 50 teams a year, generating a pipeline of up to 250 teams in five years.



Find out more at
nus.edu.sg/grip



Connect with the teams
grip@nus.edu.sg



NUS INDUSTRY LIAISON OFFICE

The NUS Industry Liaison Office (ILO) is the technology translation and commercialisation arm of the National University of Singapore (NUS). Over the last five years, ILO has played a pivotal role in getting more than 740 patents granted and more than 130 technology-based companies spun off from the NUS.

Through innovative programmes delivered in a customer-centric manner, ILO provides funding, connections and expertise to students, researchers and professors, whether they are seeking to create a spinoff company or partner with established industry players to translate their innovations into the market place. The ILO team comprises of technical, business and legal expertise that commercialises any technology-based opportunities.



More than **740** Patents Granted



More than **130** Tech Company Spin-offs from NUS



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