Gold Coast Health

Clinician Researcher
FELLOWSHIPS

2023 Recipients

The recipients of the inaugural Gold Coast Health Clinician Researcher Fellowships were announced at the Gold Coast Health Future Focus, Research, Innovation and Transformation Showcase held on 22nd November.

The three-year Fellowship program will provide the successful applicants with the opportunity to pursue research, whilst continuing to work clinically, allowing them to develop and hone their research skills while contributing to high quality research needed to improve healthcare delivery.

Gold Coast Health is committed to setting a future-focussed research agenda which embraces novel approaches to diagnostics and treatment, as well as systematically evaluating our clinical practice and the implementation of new knowledge to deliver world class healthcare.

The Gold Coast Health Research Strategy 2022-2024 outlines our vision to embrace research to drive the best possible care for our community. Our mission is to empower our staff to work with our partners and consumers to continuously improve the care we deliver, through quality research and its translation into practice. The Fellowships will enable our clinicians to develop a program of research aligned to the vision and mission of the Gold Coast Health Research Strategy and the priorities of the Gold Coast Hospital and Health Service Strategic plan; being designed to concurrently advance their research and clinical practice careers.

Congratulations to our 2023 recipients:

Adjunct A/Professor Thuy Frakking
Advanced Speech Pathologist (Paediatrics), Allied Health and Rehabilitation Services

Dr. Vikas Goyal
Paediatric Respiratory and Sleep Specialist, Paediatrics

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Queensland Government

Dr. Thuy Frakking *accepting the certificate from Sandip Kumar,* Executive Director

Adjunct A/Prof Thuy Frakking

Advanced Speech Pathologist (Paediatrics), Allied Health and Rehabilitation Services

Program of Research

Application of machine learning to swallowing sounds for the accurate detection of swallowing impairment and aspiration in critically-ill children: towards a new gold standard

Vision for Research Fellowship

My vision is to improve health, social and economic outcomes related to swallowing impairment in neonates and children worldwide. To achieve this, I plan on using cutting-edge artificial intelligence to develop a new accessible gold standard test for the assessment and diagnosis of swallowing impairment and aspiration that is valid and reliable. Standardisation of cervical auscultation (e.g. listening to swallowing sounds) will mark a new era for paediatric services by i) providing better access to safer, more accurate and cost-effective diagnostic capabilities for health professionals worldwide; and ii) informing novel therapeutic interventions for swallowing impairment and aspiration in neonates and children.

The use of machine learning to develop cervical auscultation as a gold standard assessment tool for the assessment of swallowing impairment and aspiration within critical care (the focus of this research program) aligns with the delivery of world-class care that is innovative and future-focussed. My clinical skills as an advanced speech pathologist, in conjunction with critical care, speech pathology and respiratory expert clinicians (e.g. A/Prof George, A/Prof Weir, Prof Chang) will ensure the translation of cervical auscultation into clinical practice across health professionals. My proposed research program builds on my track record as an early career clinician researcher and will help me to grow and develop into a reputable leader internationally, with ambitions to become the world's top ranked author on cervical auscultation by the end of my fellowship.

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Dr. Vikas Goyal accepting the certificate from Sandip Kumar, Executive Director, Strategy, Transformation, Major Capital and Digital, Gold Coast Health.

Dr. Vikas Goyal

Paediatric Respiratory and Sleep Specialist, Paediatrics

Program of Research

Improving the management and outcomes for children with bronchiectasis

Vision for Research Fellowship

My broad research vision is to produce novel and robust data on the management of childhood bronchiectasis unrelated to cystic fibrosis that leads to improved management and long-term outcomes. First and foremost, my research vision aims to achieve the best health outcomes for children with bronchiectasis, a relatively under-sourced and under-researched chronic illness that is particularly prevalent in First Nations Australians. Gold Coast Health is uniquely placed to support my research because we have paediatric as well as adult patients with bronchiectasis.

Improving child bronchiectasis outcomes will invariably lead to improved quality-of-life for children and their families. In the longer term, it will also improve adult lung health. This aligns with Gold Coast Health strategic plan points to embed research, research translation and evidenced-based practice to deliver optimal health outcomes for patients and to implement the Health Equity Strategy for Aboriginal and Torres Strait Islander people in collaboration with key stakeholders.

The evidence produced by my research will decrease the burden of care for children with bronchiectasis, by decreasing the number of exacerbations and thus hospitalisations, which aligns with the goal of a more sustainable health care system. 11% of exacerbations lead to hospitalisations with each costing ~$32,000 in 2016. I have access national and international collaborations and will be able to build further on these relationships and improve the organisation's standing as being amongst the best in the world.