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**Message from the Executive Director**

This month I would like to extend my congratulations to Lucretia Ong, who was nominated for a HSQ Customer’s First Award. Lucretia’s efforts in supporting researchers and the research process have ensured that FSS has guidelines, processes, and administrative tools to enhance the relevance and innovation of our staff and the research and development conducted here. Lucretia was nominated by a client, which indicates that our research staff, and staff undertaking research, are finding value in the services provided by the Research & Development office.

Lucretia has sought new ways to include the researcher in the process, she has defined the goals of research in FSS and HSQ and always seeks to communicate research outcomes to FSS clients, stakeholders and the public. Well done!

The Customer’s First award recognises an individual or team who is delivering outstanding customer service. I encourage all team leaders and staff to identify themselves or their colleagues who are ‘going the extra mile’ or just generally doing a good job.

A purpose of the Research News is to ‘celebrate successes’ of our staff. Research and Development and the Library are able to facilitate the promotion of these successes via various channels. Please send through notification of client feedback, successes, acknowledgement, publications, presentations, collaborations or any good news relating to the business through to FSS_Research@health.qld.gov.au or FSS_IRS@health.qld.gov.au

**New research projects**

Assessment and expansion of arbovirus surveillance and monitoring using next generation sequencing – Principal investigator: Dr Alyssa Pyke - Public Health Virology

Recombinant Yellow Fever virus antigen expression in baculovirus cell – Principal investigators: Carmel Taylor and Dr David Warnlow - Public Health Virology

Procedures for the safe handling and analysis of illicit drug samples containing low-dose opioids and other high-risk drugs - Principal investigators: Karen Blakey and Jenny McGowan - Forensic Chemistry

Developing capability in scheduled peptide analysis – Principal investigators: Sarah Atkinson and Jenny McGowan - Forensic Chemistry

Capacity to analyse low level cannabinoids in various matrices – Principal investigators: Aaron Schulze and Sarah Atkinson - Forensic Chemistry

Can mosquito excreta be used to enhance surveillance of Ross River and West Nile viruses? – Principal investigator: A/Prof Andrew van den Hurk, Public Health Virology;

Collaborators: James Cook University

Development and validation of Total Oxidisable Precursor Assay (TOPA) in soil and water – Principal investigators: Martha du Plessis and Scott Turner - Organic Chemistry

**Staff publications**


**RNS—3D mapping and modelling**

Radiation and Nuclear Sciences (RNS) have been using innovative methods to perform research into radon exposure in historical underground mines in Queensland. Part of this project requires measurement of the test mine volume and surface area so that the radon concentration can be theoretically estimated from surface exhalation rates and compared to long-term radon monitor results. The information can also be used to calculate ventilation rates and air exchange within the mine.

To improve quality of measurements, RNS have collaborated with industry partners to utilise a portable 3D laser scanner to assay the mine. The system takes over 40,000 spatial measurements per second and generates a file with a resolution of less than 3cm. The total scanning time of 3 hours was required to complete the 349m long mine, which generated over 430 million data points. From this file a rendered model of the entire mine is prepared which enables accurate volume and surface area calculations. A complete rendered walk through of the mine is available from RNS or the Library, or here http://qhpsseprints.sth.health.qld.gov.au/1904/ for a limited time.
Understanding and unlocking the value of public research data

The supporting data has also been made available in CSIRO’s Data Access Portal.

Full report is available at: https://doi.org/10.4225/08/58a5e8d940904

Grant pool funding round

The Research and Development grant pool funding round for 2017-18 opens on Monday 13 March 2017.

Application forms and submission guidelines below and will be distributed via FSS-Comms.

QIS 27005 FSS Research and Development Grant Pool Application
QIS 33705 FSS Research and Development Funding Guidelines

EOI - Scientific Review panel members

Research and Development is currently calling for expressions of interest to be a Scientific Review panel member.

Panel members will review FSS R&D grant pool applications for 2017-18. Eligibility criteria: PhD qualification or 5 years research experience.

Closing date: Friday 31 March 2017 Join here: QIS 33070

Upcoming events


41st Annual Scientific Meeting of the Australasian Division of the International Academy of Pathology, 2-4 Jun 2017. Sydney, NSW. http://www.iap-aus-conference.com.au


CAHRLI 'New to research' seminar series

Workshop #1 - Designing a study with quantitative methodology, presented by Dr Jack Bell (February 2017).

The full presentation can be viewed at http://qphsseprints.sth.health.qld.gov.au/1895/ for a limited time only.

Architects drawings of the 'Government Chemical Laboratory Nathan' [n.d.]. Dept of Works, Qld.