



## 2021 Cystic Fibrosis Innovation Grant

partnering with 4DMedical

Cystic Fibrosis Australia (CFA) is pleased to announce a new addition to the 2021 Innovation Grant for post-doctoral researchers, currently working in cystic fibrosis (CF) research.

This year's Innovation Grant will continue to focus on respiratory research but now provide the opportunity to incorporate non-invasive, functional lung imaging provided by 4DMedical.

There is a clinical need to develop measures that accurately reflect treatment effects and sensitively to detect mild CF lung disease. And 4DMedical has agreed to make their imaging technology software - **XV LVAS** (XV Technology Lung Ventilation Analysis Software) – available to all researcher establishments.

The 4DMedical Innovation Grant will allow a CF researcher to explore novel respiratory research concepts at the initial feasibility stage and to incorporate 4DMedical's non-invasive functional lung imaging technology – **XV LVAS**. In brief, existing hospital fluoroscopic hardware is utilised to acquire lung images and the software is added to provide the functional data.

Innovation Grant applications relating to any aspect in the field of CF are encouraged, even those lacking pilot data. The grant aims to allow the researcher to generate sufficient data within the one-year grant period to be in a position to apply for additional support from an appropriate funding body to continue the research.

The Innovation Grant will be offered to post-doctoral researchers currently working in or proposing to work in CF research. The researcher will have completed a research higher degree in CF or a related area within the last ten years.

The recipient of the Innovation Grant is required to provide progress reports on their research to CFA every six months. In addition, and where appropriate, the recipient will be asked to make a presentation at a CFA conference (held every two years) in Australia.

The maximum amount awarded under the 4DMedical Innovation Grant will be \$80,000. The actual amount provided will be subject to approval of the applicant's budget. This grant is awarded annually to one applicant for one year.

4DMedical's functional clinical lung imaging - **XV LVAS** - will be provided free of charge to the winner of the 2021 Innovation Grant and other Grant applicants.

Applications can be made [HERE](#) through the website of The Thoracic Society of Australia & New Zealand (TSANZ) and must be received by TSANZ by 12th February 2021.

This deadline extension is to enable researchers to incorporate the use of 4DMedical's non-invasive functional lung imaging technology – **XV LVAS** in their application.

For more information about the 4DMedical Innovation Grant email [nickim@cfa.org.au](mailto:nickim@cfa.org.au) For more details about non-invasive functional lung imaging and 4DMedical's commitment to Australia go to [www.cysticfibrosis.org.au/who-we-are/our-partners](http://www.cysticfibrosis.org.au/who-we-are/our-partners) or [www.4DMedical.com](http://www.4DMedical.com) <https://vimeo.com/468393874>

## Q & A 2021 Innovation Grant

Here are some important points to note about the 2021 Innovation Grant

1. Application Deadline 12 February 2021 (extended from 31 January 2021). This deadline extension is to enable researchers to incorporate the use of 4DMedical's non-invasive functional lung imaging technology – **XV LVAS** in their application.
2. 4DMedical has sponsored the 2021 Innovation Grant and will provide their functional clinical lung imaging - **XV LVAS** - free of charge to the winner of the 2021 Innovation Grant and all other 2021 Innovation Grant applicants if they have an opportunity to use this cutting-edge technology.
3. Applications to be made via TSANZ **HERE**.
4. As in previous years there is one grant on offer and the maximum funding is \$80,000
5. The 2021 Innovation Grant run by TSANZ for the Australian Cystic Fibrosis Research Trust and Cystic Fibrosis Australia is for CF respiratory research
6. Existing hospital fluoroscopic hardware can be utilised to acquire lung images and the XV LVAS software is added to provide the functional data. 4DMedical will provide the necessary support and training for the relevant hospital / radiological service at no charge.
7. For more information about the 4DMedical Innovation Grant email [nickim@cfa.org.au](mailto:nickim@cfa.org.au).
8. For more details about non-invasive functional lung imaging and 4DMedical's commitment to Australia go to [www.cysticfibrosis.org.au/who-we-are/our-partners](http://www.cysticfibrosis.org.au/who-we-are/our-partners) or [www.4DMedical.com](http://www.4DMedical.com) <https://vimeo.com/468393874>

### 4DMedical and XV LVAS Technology

4DMedical is an Australian-based global MedTech company that develops innovative lung imaging technologies that quantify regional lung data in 4-dimensional (4D).

In order for physicians and patients to better understand their lung health 4DMedical's functional lung imaging (XV LVAS) provides accurate, 4DI, quantitative measurements of ventilation heterogeneity and regional lung deficiencies during spontaneous respiration.

This provides a unique platform to XV LVAS Technology operates with a higher sensitivity than other modality and achieves this non-invasively, with no contrast agents.

The 4D ventilation of lung tissues, provides quantitative support for diagnosis and follow up examinations.

XV LVAS can be used in the diagnosis and documentation of inhomogeneities and defects in pulmonary ventilation.

Quantification and statistics are provided in the form of a report that include:

- tidal volume (i.e. total lung ventilation), presented as a single value;
- visualization of lung ventilation with color-defined specific ventilation ranges;
- heterogeneity of lung ventilation, presented as three values, which quantifies the regional variability of the ventilation; and a ventilation graph/ histogram of the classified lung voxel's relative frequencies showing the frequency distribution of regional specific ventilation measured across the entire lung, including ventilation defect percentage (showing the volume of lung with low ventilation).

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Kind regards

A handwritten signature in cursive script that reads "Nettie Burke".

Nettie Burke, CEO

Cystic Fibrosis Australia

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