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3 December 2018

To whom it may concern,

I am Yuwen Zhang, a PhD student enrolled in the Auckland Bioengineering Institute (University of Auckland, New Zealand). This is the final year of my PhD. My project is a study segmenting pulmonary lobes from CT scans automatically. Automatic identification of pulmonary lobes from imaging is important in lung disease assessment and treatment planning. However, the pulmonary lobar fissure can be difficult to detect automatically, as it is thin, usually of fuzzy appearance and incomplete, and can be obscured by or confused with features of disease. Traditional anatomical knowledge-based methods heavily rely on anatomic knowledge and largely ignore individual variability, which may result in failure in pathological lungs. So my current work is to develop a new method to use a statistical shape model to help with the automatic lung lobe segemention.

My research abstract has been accepted for poster presentation at SPIE Medical Imaging Conference which will be held in San Diego, US from 16 -21 February 2019. This conference is one of the biggest conferences in medical imaging research all over the world. This is a conference where the latest information is presented by leading researchers in image processing, physics, computer-aided diagnosis, perception, image-guided procedures, biomedical applications, ultrasound, informatics, radiology and digital pathology, with an increased focus on fast emerging areas like deep learning, AI, and machine learning. Listening to the presentations by other researchers who are working in similar research areas is a great opportunity for me to learn new knowledge and help me come up with new ideas. This will also allow me to build a connection with other researcheres. Moreover, by presenting my poster at SPIE Medical Imaging conference, I will get the comments and recommendations on my project from researchers who work in lung research but in different aspects from my projects. This will help me to improve my work to make it more realistic and reliable, and help me solving the current limitations of my work.

Here I have brought all the expenses (registration, accommodation, flight etc.) and the funding resources (accepted):

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|  | **Item** | **Cost** |
| **Cost to attend SPIE Medical Imaging conference** | Registration | UZ$ 850 |
| Accommodation | NZ$ 750 |
| Flight (can be changed based on the departure time) | NZ$ 700 |
| **Total cost** | | NZ$ 2300 |
| **Accepted/available funds (PRESS account)** | | NZ$ 1006 |
| **Fund required** | | NZ$ 1294 |

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| **Accepted Funds** |
| PRESS account (NZ$ ) 1006 |
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As I have indicated in the table, I have approved fund from the University of Auckland PRESS account, and now there is NZ$ 1006.00 avaliable in this account. Therefore, my funding resource will be insufficient (NZ$ 1294 shortage) to cover the total cost to attend SPIE Medical Imaging conference.

This is the first time I am applying for ABI (Auckland Bioengineering Institute) Funding. I would appreciate it if I am granted with additional financial resources from ABI to help support attendance to SPIE Medical Imaging conference.

Yours Sincerely

Yuwen Zhang