



**SAPPHIRE**  
SUPPORTING RESEARCH EXCELLENCE

## Application Summary

### Application Details

<b>Grant Opportunity:</b>	2020 Ideas Grants
<b>Application ID:</b>	2002025
<b>Application Title:</b>	Pathways to health: advancing bicycling as an active mode of transport
<b>Chief Investigator A:</b>	
<b>Administering Institution:</b>	Monash University
<b>Grant Duration:</b>	4 Years

### Participating Institutions

Participating Institution	Department
Monash University	School of Public Health and Preventive Medicine
University of Melbourne	
University of New South Wales	
University of New South Wales	
University of British Columbia	
Simon Fraser University	
Arizona State University	

### Research Team

Role	Investigator	Primary Institution
<b>Associate Investigator</b>		<b>Institution</b>
	Prof Xiaojun Chang	
	Prof Hai Vu	

### Research Classification

<b>Broad Research Area</b>
Public Health Research
<b>Fields of Research</b>
PUBLIC HEALTH AND HEALTH SERVICES   Public Health and Health Services not elsewhere classified
<b>Research Keywords</b>
transport - injury prevention - physical activity - road safety - health promotion

### Synopsis

Cycling, as an active mode of transport, is critical to providing easy and affordable physical activity as part of everyday life, and has profound physical and mental health benefits. Despite these benefits, the number of people commuting by bicycle in Australia and many other countries is low. The key barrier to increased cycling participation is how safe someone feels when riding a bicycle. It is well known that the provision of safe and connected cycling infrastructure is critical to overcoming this barrier. However, effective decision making on where to invest cycling infrastructure for the greatest impact cannot be achieved in the absence of cycling exposure data (defined as bicycle volume data on individual street segments). The absence of this cycling exposure data has crippled our ability to improve safety and advance cycling for health.

Through cutting edge statistical and machine learning modelling, we will develop a universal platform for city-wide modelling of cycling exposure. For the first time, we will provide a detailed understanding of which infrastructure types lead to the largest injury reductions, and where we need to implement infrastructure to enhance cycling participation and safety.

We anticipate the proposed project will lead to improved safety for cyclists, lower injury rates, greater equity and a substantial increase in the number of people riding bikes, therefore realising the potential for huge gains in population and environmental health.

### **Media Summary**

Cycling has substantial health, environmental and social benefits. However, our ability to improve safety, prioritise cycling infrastructure and increase participation is crippled by the absence of data on where and when people cycle. In this project, we will develop a platform to model city-wide cycling volumes, and provide the evidence that is needed to implement safe and connected infrastructure to enhance cycling as a safe and healthy mode of transport.

