

When Lipoproteins Turn Bad

Host School/Institute: Heart Research Institute

URL: <http://www.hri.org.au/>

Project Code: HRI2

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Description of Project:

Atherosclerosis (hardening of the arteries) is characterised by the accumulation of cholesterol and lipids in cells within the artery wall. Modified low-density lipoproteins (LDL) or “bad” cholesterol are believed to be the source of this lipid. In contrast, high-density lipoproteins (HDL) or “good” cholesterol play a protective role in atherosclerosis by mediating the removal of cholesterol from the artery wall. However, modification of HDL can compromise its ability to remove cholesterol from diseased arteries. This project will investigate how modifications to LDL and HDL induced by reactive oxidants contributes to the development of atherosclerosis, particularly in smokers. The data from this project will be important for the development of new drug treatments to reduce the incidence and severity of atherosclerosis.

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