

Three of the best working for science

THREE researchers from the same school within the Faculty of Life and Physical Sciences have been recognised for various individual achievements over the course of the year.

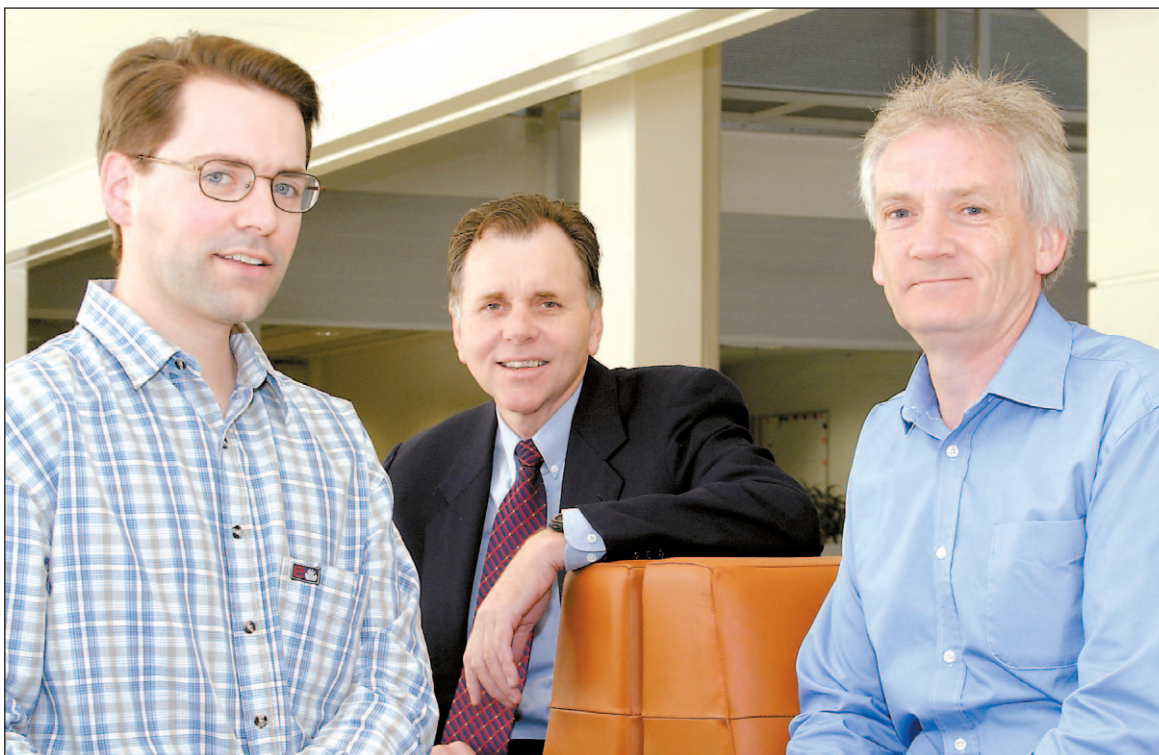
Professor Harvey Millar, a Professorial Fellow, Professor Steven Smith, an ARC Federation Fellow, and Professor Barry Marshall, a clinical senior lecturer and senior principal research fellow, are all from the School of Biomedical, Biomolecular and Chemical Sciences at UWA.

Their work has been instrumental in furthering the university's position as one of Australia's leading research-intensive universities.

Harvey is an Australian Research Council QEII Fellow, winner of the Premier's Prize for Early Career Achievement in Science in 2003, and team member of the successful bid for the ARC Centre of Excellence in Plant Energy Biology 2005, a significant achievement for UWA.

His main research is in respiration and in the functioning of mitochondria, the cellular machines driving respiration in plants and animals.

"We investigated mitochondrial functions in plants using a combination of biochemical and molecular approaches," he said.



Outstanding researchers (from left) Dr Harvey Millar, Professor Barry Marshall and Professor Steven Smith.

Barry Marshall is known around the world for his discoveries about the cause of peptic ulcers. His bold self-experimentation in 1984 led to a complete change in the treatment of the condition worldwide.

He worked with Robin Warren, a

pathologist interested in gastritis, during internal medicine fellowship training at Royal Perth Hospital in 1981, where they studied the presence of spiral bacteria in association with gastritis. The following year they performed the initial culture of

Helicobacter pylori and developed their hypothesis related to the bacterial cause of peptic ulcer and gastric cancer.

In 1984, Barry spectacularly demonstrated the cause of ulcers by drinking a culture of *H. pylori*, con-

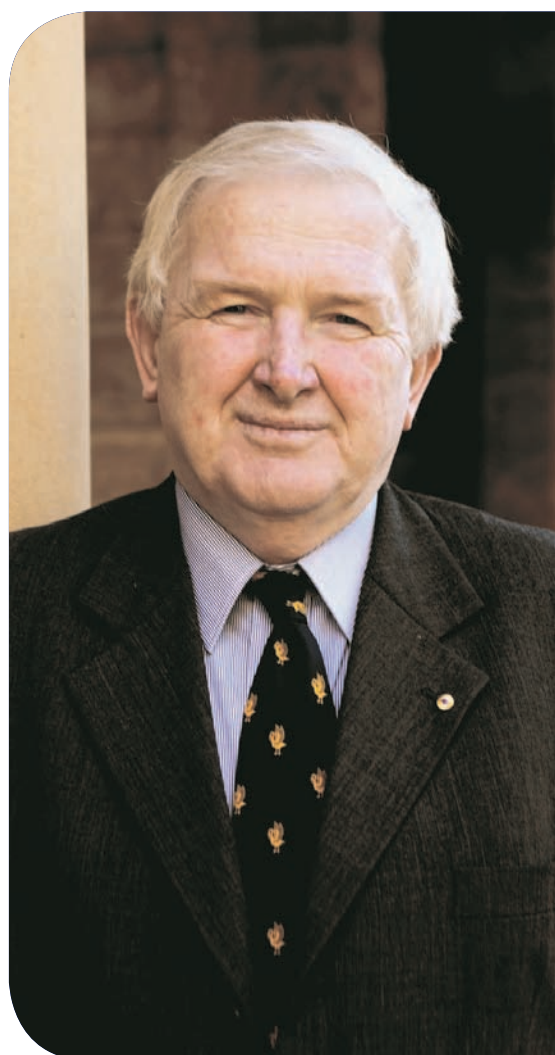
founding sceptics in the medical profession.

Recently, internationally renowned plant molecular biologist Steven Smith joined the school from the University of Edinburgh as an ARC Federation Fellow, and is a welcome addition to the school in the area of plant and molecular biology. Professor Smith is also a team member in the ARC Centre of Excellence in Plant Energy Biology 2005.

His research will focus on the metabolic and genetic approaches to the discovery of genes that direct carbon partitioning in plants, which ultimately determines crop productivity and quality for improved varieties.

He obtained his PhD from Warwick University (UK) where he studied the mechanism of protein import into chloroplasts. During this time, he isolated the first ever cDNA encoding a plant enzyme (Rubisco small subunit).

He has pioneered functional genomics approaches to plant metabolism using *Arabidopsis*, and made several discoveries in lipid and carbohydrate metabolism that require appreciable modification of the standard biochemistry textbooks. He also discovered cycloamylose, a novel glucan with potential industrial applications.



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Alan Robson ~ Vice-Chancellor

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people who have the intellectual and creative capacity to achieve international excellence. www.uwa.edu.au



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