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## *Pseudomonas* and salad vegetables: Myth or menace?

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Most salad vegetables are eaten raw by consumers. However, uncooked or untreated vegetables may pose a risk of transmitting opportunistic bacteria to various risk groups, including cystic fibrosis (CF) sufferers, children and the elderly. In particular, CF patients are vulnerable to chronic *Pseudomonas aeruginosa* lung infections. Clonal variants of *P. aeruginosa* have been identified as emerging threats however the source of these clones has not yet been definitely demonstrated. Due to the organism's environmental niche, our team investigated the possibility that salad vegetables may be a source of these clones. To test this conjecture, lettuce, tomatoes, mushrooms and bean sprout packages (n=150) were analyzed from different categories of supplier: a green grocer, a supermarket and farmers market within the Brisbane (Australia) region, availability permitting. The internal and external areas of the vegetables were analyzed separately in order to establish the site of the contamination (surface or body), which would provide vital clues as to the original source and also that recommendations could be made to decrease or eliminate *P. aeruginosa* from these foods prior to consumption. Soil and water samples (n=17) from local farms were also analyzed for the presence of *P. aeruginosa*, again in order to verify a potential original source of contamination. Although 72 *P. aeruginosa* were isolated, none of these proved to be clonal strains. The significance of these findings is that vegetables may pose a risk of transmitting sporadic strains of *P. aeruginosa* to people with CF and possibly, other immune compromised risk groups.

## Biography

Megan H Hargreaves graduated from the University of Queensland in 1974 with first class honors in a Bachelor of Science degree, majoring in microbiology. She immediately embarked on an academic career with special interest in the teaching of science, both full time and part time for some years. Her specialist teaching area was that of infection control in the health professions such as Medicine, Dentistry and Pharmacy. She joined the Queensland University of Technology in 1993 and adopted the QUT corporate identity as a "University for the Real World" in both her teaching and research interests. She undertook doctoral studies in Higher Education, gaining a PhD in 2000. Since 2000, she has expanded her research interests to include a strong focus based on her earlier interest in infection control, now directed towards environmental microbiology and food quality control. The latter has appropriately included an interest in food manufacturing and fermentation technology. Her publications have covered the gamut of these areas, and include a continuing interest in teaching quality. These publications demonstrate a focus on quality control, with special interest in the microbiological aspects of QC. Further, previously unpublished work includes cutting edge studies on production of food additives using previously unrecognized micro-organisms isolated from the environment. Outside of the academic arena, she continues to act as a senior technical assessor for NATA (the National Association of Testing Authorities) in Australia, with specialty areas of focus in food and water quality.

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