Professor Julie R Steele

Professor Julie Steele, PhD, is a Senior Professor in Biomechanics, School of Medicine, University of Wollongong. She is also founder and current Director of the Biomechanics Research Laboratory and Breast Research Australia, also known as "BRA".

Professor Steele's research has focused on developing innovative strategies, based on rigorous applied biomechanics research, to decrease injury potential and optimise quality of life for individuals across the age spectrum. She has presented over 325 scientific talks around the world and has been the recipient of numerous research awards, including the 2005 NSW Telstra Business Woman of the Year.

A current member of the World Council of Biomechanics, Julie has served on the Executive Council of several professional associations, and was President of the International Society of Biomechanics.

Developing Wearable Technologies for Real Women

Wearable technologies include those technologies that are incorporated into items that individuals wear on a daily basis.

The wearable technology market is estimated to be worth more than USD $34 billion by 2020, with smart clothing predicted to form a major component of this market.

Smart garments have enormous potential to enhance human performance and health. However, to have a meaningful purpose and to be effective, it is imperative that wearable devices are developed based on evidence rather than merely serving as gimmicks. Furthermore, to be comfortably wearable the devices must suit the individuals for which they are designed, particularly taking into account the structure and function of the human body and the forces involves in an activity.

This presentation will describe development of a unique wearable technology, the "**Smart Bra**", including an overview of the technology underlying the device, and how we need to ensure wearable devices are developed for "real women".