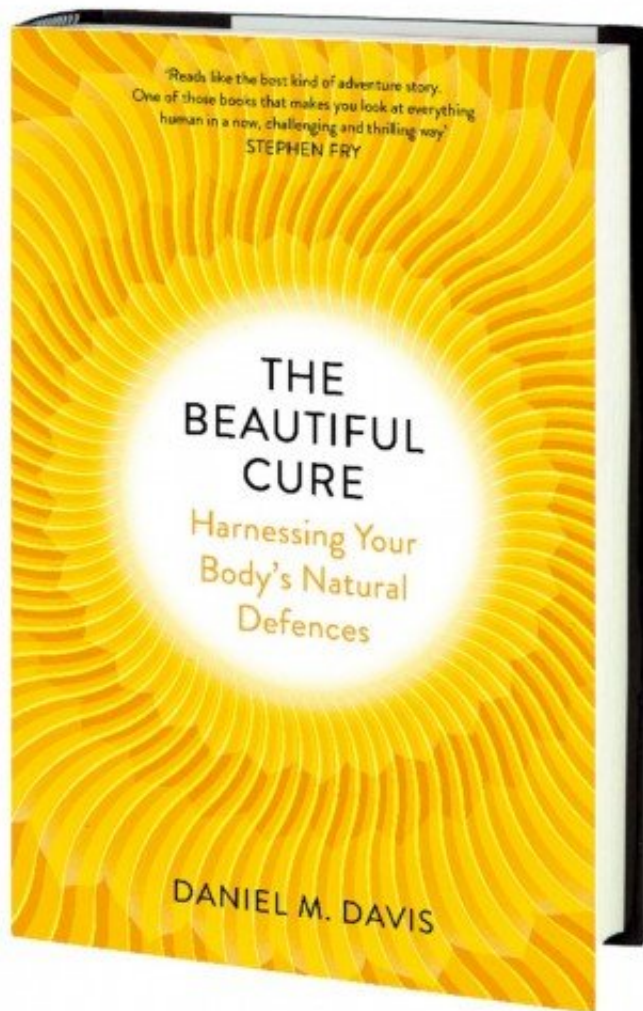


Immunologist heralds the dawn of a new health revolution

January 24 2018, by Michael Addelman



Credit: University of Manchester

A brave new world of immune system therapies – harnessing the body's own defences – could help treat all kinds of different illnesses, according to one of the UK's leading immunologists.

But in his new book *The Beautiful Cure: Harnessing Your Body's Natural Defences*, Professor Daniel M. Davis, from The University of Manchester, says this also raises vital new issues for society, not least being how we cope with the expense of [new medicines](#).

The book, published by Random House, describes the scientific quest to understand how the immune system works, and how it is unlocking a revolutionary approach to our fight with [disease](#).

American immunologist Professor James P. Allison, he writes, was one pioneer who, by studying how our immune system works, has found a way to help treat some types of cancer.

The journey to a modern understanding of the immunity can be said to have begun in 1989, when Charles Janeway expanded our understanding of innate immunity, the body's first line of defence against infection.

Then followed a global adventure of digging into cells and molecules, leading to discoveries about how immune cells switch on and off in their fight with disease.

"Take one example," Davis says: "Immunologists have learnt how to switch off a brake on the immune system – to unleash its power more forcefully in fighting cancer."

"Another example is how anti-TNF therapy was developed for arthritis and [inflammatory bowel disease](#).

"But these successes are probably still just the tip of the iceberg. All

kinds of different diseases could feasibly be tackled with immune system therapies: cancers, viral infections, arthritis, and a range of other conditions.

"There are many other break receptors in the immune system which can switch off specific types of immune [cells](#). We must now test whether or not blocking these, alone or in combination, can unleash [immune cells](#) to tackle different types of disease."

He added: "We also know that stress has a vital influence on the immune system. This raises crucial questions about whether practices that reduce stress, like tai chi and mindfulness, can help our fight with disease.

"A new detailed knowledge of how our immune [system](#) works has unlocked a revolutionary new approach to medicine and well-being."

Provided by University of Manchester

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