

# Probiotic News

Issue 5 January 2011

## Spotlight on Professor Simon Cutting



Professor Simon Cutting D.Phil

**Protexin:** We are privileged to obtain an exclusive interview with a world expert on *Bacillus subtilis*.

**Prof Cutting:** Thank you for your invitation, I hope that I can provide you with an insight into this fascinating field.

### Background:

**Protexin:** Professor Cutting, please can you tell us a bit more about your career so far?

**Prof Cutting:** Yes, I was lucky enough to do my D.Phil at Oxford University and then 7 years as a post-doctoral researcher at Harvard University in America. I then spent 3 further years as an Assistant Professor at the University of Pennsylvania before returning to the UK in 1996. I became a Professor in 2005.

### Career Highlights:

**Protexin:** Certainly a busy career, what would you say have been your career highlights so far?

**Prof Cutting:** I think the most important contribution I have made is the development of bacteria as oral (i.e. edible) vaccines.

### Current Priority:

**Protexin:** Wow, great achievements already, what are you working on now?

**Prof Cutting:** Currently, my team and I are working on a number of areas.

Firstly - an oral vaccine to *Clostridium difficile*, an important disease in the UK.

Secondly - the development of carotenoid-producing probiotic bacteria which we hope will one day be added to foods to enhance nutrition.

### The Future:

**Protexin:** Sounds like there is a lot of work still to be done on *B. subtilis*. What do you think the future holds for probiotics in general and the *B. subtilis* strain?

**Prof Cutting:** Probiotics have received a lot of attention in the UK in the last 5 years. I think we are now approaching the second generation of these products where consumers will be offered high-specification probiotic products which have been well characterised.

*Bacillus subtilis* produces spores and it is this property that makes them appealing as probiotics since they can be stored on the shelf and survive for a long time in our gut. Moreover, we have now shown that these spore-forming bacteria can live in our guts providing beneficial

effects which we are currently characterising.

**Protexin:** Finally, can you give us 10 things everyone should know about *B. subtilis*?

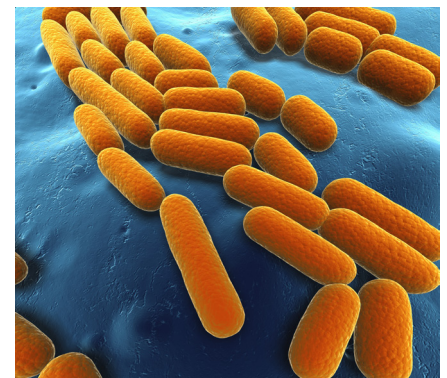


Image - *B. subtilis*

Prof Cutting:

1. *Bacillus* spores can survive for up to 200 million years!
2. *Bacillus* spores can survive within our gut.
3. *Bacillus* is a gut resident and can grow happily there.
4. Some spore formers can survive for short periods of extreme heat (200 degrees for 4 minutes).
5. *Bacillus* is found in a variety of traditional fermented foods, for example, Natto a Japanese staple, Kim Chi (Korea) and Vietnamese fish sauce.
6. *Bacillus* spores have been shown to be able to survive in space.
7. Most species of *Bacillus* are completely safe.
8. Most animals have *Bacillus* in their gut.
9. Although the population of gut *Bacillus* is quite low compared to *Lactobacillus*, big does not necessarily mean better!!
10. The soil is full of *Bacillus* spores and some of these are used as insecticides (have a look at probiotic insecticides found at B&Q!).

# About Protexin

## Introduction

Most of you will know Bio-Kult, the advanced multi-strain probiotic brand, but you may not know too much about Protexin Health Care, the company behind Bio-Kult.

We have specialised in the research and manufacture of probiotic products for over 20 years, it is the reason the company was created and it will remain our focus for the future.

## Family owned company



Being a British family owned company we can plan longer term and are not answerable to large corporate boards. This allows us to have a much longer term view and to ensure that profit for investors is not our primary concern but rather that we can continue to invest in the advancement of probiotic research and ensure we continue to develop the most innovative products to the highest quality.

**Protexin®**  
health care  
*Science and nature in balance*

## Quality

You expect the products you purchase for yourself or recommend to others to be of the highest quality and we agree with you. To ensure that Bio-Kult is made to the highest possible standards we manufacture this in our own purpose built, state-of-the-art facility in Somerset.



## Education

We are committed to education whether this is through a CPD evening, a stand at a show such as CAM Expo, the popular CAM conferences (see our next conference 26th February 2011) or through our regular publication of technical articles by leading Professors in the probiotic field. Whatever the medium you can be sure you are being educated by the experts in probiotics.

## Research

Although there is already plenty of research on probiotics, we are still at the beginning of understanding how our microbiota influences digestive diseases and immunity. We believe it is of paramount importance that we are leaders in this field and for this reason we have been working with leading universities and research centres in the UK and around the world to advance the understanding of probiotics.

## New look for 2011

'current look'



After listening to many of your comments in 2010, we have taken your advice and will be introducing a new look for Bio-Kult in 2011. The product will remain the same unique, highly efficacious and natural formula but the packaging will be improved to give the product a much better impact and identity.

## Breaking News

Bio-Kult has had a winning start to 2011 by winning 'Best VMS Product' in the CAM awards 2010 for our unique multi-strain probiotic Bio-Kult Candéa.

To find out more on this award winning product...

[www.bio-kult.com](http://www.bio-kult.com)

## Support

You can count on getting the very best advice both on technical aspects of probiotics and of course the practical use of Bio-Kult from our team of Nutritionists, Microbiologists and Doctors.

If you have any questions, queries or comments we always look forward to hearing from you.

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See the next page for details of our latest conference...





## 'Probiotics for Life'

Saturday 26th February 2011

5.5 BANT CPD Hours

Cavendish Conference Centre, London

This CAM Conference will take you through a series of lectures that follow the theme of how probiotics can be used throughout life and in different areas of life.

### YOUR PERSONAL INVITATION TO SUBSCRIBE TO THIS POPULAR CONFERENCE

#### 'Understanding IBD, and how probiotics can help'

Peter Cartwright



Inflammatory bowel disease (IBD) is a malfunction of the gut immune system that has increased in prevalence in the UK over the past 50 years, with about 150,000 people currently affected. The condition usually starts in young adults and there is no cure. Randomised control trials with probiotics have shown benefit in one of the main IBDs (ulcerative colitis), but not in the other (Crohn's disease). New evidence about the microflora in people with Crohn's gives hope for future relief by probiotics. Peter will give a clear introduction to IBD, and describe the latest news on probiotic benefits.

#### 'Wet surfaces, probiotics and immune tolerance - a clinical conundrum - resolved'

Michael Ash



The practitioner today has two current strategies - that of bacterial colonisation and the subsequent use of probiotics as a non specific mechanism for attempting to manipulate the ratios of commensal and pathogenic bacteria colonies. Or, specific immunological strategies in which the organism is selected based on strain specificity and condition being treated. Inevitably the two have a cross over - but what to use and when? This presentation will help the practitioner place immunology in context and provide a clear approach to decision making.

#### 'Probiotics for the Older Generation'

Professor Ian Rowland



Ageing is associated with changes in the gut microflora and a decline in the effectiveness of the immune system (immunosenescence) which may underlie the increased incidence of gastrointestinal disorders, such as diarrhoea, constipation and colon cancer, as well as greater susceptibility to respiratory tract infections. Ian will describe the developing body of evidence from well-conducted, placebo-controlled trials that certain probiotics can reduce the risk of these conditions and in some cases alleviate symptoms.

#### 'Probiotics in Pregnancy'

Natasha Campbell-McBride



In the last few decades we have generations of people with abnormal gut flora and the damage can get deeper with every generation. As the mother passes her bodily flora to the baby at the time of birth, many babies acquire abnormal gut flora from the start, which later leads to many health problems. Dr Natasha Campbell-McBride will talk about the importance of gut flora and probiotics in pregnancy and childhood with practical steps to make sure that our babies acquire healthy bodily flora from the start.

**TO BOOK YOUR PLACE**

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