PathogenCombat
for safe food

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Second Announcement

Round table discussion

Bacterial triggers in the etiology of Crohn's disease and other autoimmune and autoinflammatory diseases

will be held by the EU 6th Frame Programme integrated project PathogenCombat
on 14-16 May, 2009
in Brno, Czech Republic

Mycobacteria, namely *Mycobacterium avium* subsp. *paratuberculosis* (MAP), have long been suspected as being a possible etiological agent of Crohn's disease. A similar animal disease, paratuberculosis (Johne's disease), has a high prevalence in dairy cattle herds in the European Union, USA and Canada. Animals with paratuberculosis produce enormous numbers of MAP cells, containing known triggers of autoimmune diseases including Crohn's disease. Infected milk, dairy products and meat are not eliminated from the food chain because paratuberculosis is not considered a zoonosis. Thus, consumers are exposed to bacterial triggers (peptidoglycans, muramylpeptides etc.) from killed MAP cells. Moreover, MAP is very resistant to heat treatment and about 2% of heat treated retail milk contains cultivable MAP. Mycobacteria can also contaminate drinking water. It is probable that under certain conditions of concentration, time and duration of exposition bacterial triggers (e.g., the use of contaminated baby food and water during the first days or weeks after birth) can provoke autoimmune and autoinflammatory diseases which only appear many years later. It is not straightforward to prove this hypothesis experimentally and it is not easy to glean reliable data from anamneses. However, much indirect data are available and relationships should be established.

Relevant results from different scientific fields have been published. This meeting should facilitate the convergence and integration of these findings. Experts from various, often disparate fields, should come to the common understanding that paratuberculosis poses a public health risk which is separate from the economic impact on the dairy industry. The resulting great economic and political problem can be solved only by the joint efforts of international institutions like the European Union, governments of economically robust countries, international scientific and breeder organizations. The measures for consumer protection will be complicated and expensive and the threat of panic should be offset.

The discussion will be organized into distinct modules, moderated by invited experts. They will have the possibility to edit the information prepared in advance that is made available to the participants, and to introduce and moderate the discussion. The Proceedings will cover the most important published data, an authorized discussion, a summary from the meeting and recommendations to be offered to the respective committees and authorities of the European Commission. The Proceedings will also be offered to governments alarmed by the increasing incidence of Crohn's disease and other autoimmune and autoinflammatory diseases.

The meeting is open for PathogenCombat partners and for the representatives of related international research projects or international organizations/associations dealing with food safety and consumer protection, inflammatory bowel diseases or paratuberculosis. The number of participants is limited, however all registered bodies will receive the Publication Excerpts and the Proceedings.

Professor Karel Hruska
Professor Ivo Pavlik
Veterinary Research Institute
Brno, Czech Republic
http://www.vri.cz/en/departments/food-and-feed-safety/oie-reference-laboratory-for-paratuberculosis/

2009-02-25

Dead line for registration: 31 March 2009
http://www.vri.cz/userfiles/file/hide/PathogenCombat/Registration(2).doc

Programme

Bacterial triggers in the etiology of Crohn's disease and other autoimmune and autoinflammatory diseases

Round table discussion to be held by the PathogenCombat integrated research project
(the European Union 6th Frame Programme)

14-15 May, 2009
Červený mlýn, Tišnov, Czech Republic

MODERATORS AND PARTICIPANTS

Marcel A. Behr, Montreal, Canada
Douwe Bakker, Lelystad, The Netherlands
Joe O. Falkinham III, Blacksburg, USA
John Hermon-Taylor, London, UK
Karel Hruska, Brno, Czech Republic
Mogens Jakobsen, Copenhagen, Denmark
Ramon A. Juste, Bizkaia, Spain
Jindrich Kazda, Kiel, Germany
Jiri Mestecky, Birmingham, USA
Ivo Pavlik, Brno, Czech Republic
Helena Tlaskalova, Prague, Czech Republic
Miroslav Toman, Brno, Czech Republic
Ulrich Sperling, Bern, Switzerland

PART ONE
CROHN'S DISEASE
Incidence, etiology, pathogenesis, diagnosis, therapy, epidemiology, social factors.

PART TWO
PARATUBERCULOSIS (JOHNE'S DISEASE)
Incidence, etiology, pathogenesis, diagnosis, control. *Mycobacterium avium* subsp. *paratuberculosis* in milk and meat.

PART THREE
AUTOIMMUNE AND AUTOINFLAMMATORY DISEASES
Bacterial triggers with special attention to mycobacteria (peptidoglycans, muramylpeptides, heat shock proteins), genetic and environmental factors, proinflammatory cytokines.

PART FOUR
MYCOBACTERIA IN WATER, BIOFILMS AND AEROSOLS
Environmental factors

PART FIVE
CROHN'S DISEASE AND BREAST FEEDING
Notable associations

PART SIX
MUCOSAL IMMUNITY
Possible modifications during postnatal development

PART SEVEN
A PUZZLE TO BE SOLVED
Say muramylpeptides together with MAP, food pathogens together with food allergens, zoonoses together with autoinflammation

PART EIGHT
KEY RESEARCH ISSUES

PART NINE
RECOMMENDATIONS
To EU Food Safety and Health Authorities
and to the World Organization for Animal Health (OIE)