



2012-12-31-199 CGN minireviews on mycobacteria: (10) The New Paradigm for Crohn's Disease: A call to action  
To: (04) Food-borne, water-borne and air-borne diseases; (05) Zoonoses, general; (08) Mycobacterial diseases; (22) Veterinary administration; (27) Scientific information

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**CGN minireviews on mycobacteria as a public health risk**

A new series, aimed at stimulating discussion on published literature dealing with the threat to public health posed by mycobacteria. Although some information of global significance has been known for decades, the risk posed by mycobacteria remains underestimated.

Prepared by the [Reference Laboratory for Paratuberculosis and Avian Tuberculosis](#) of the World Organization for Animal Health (OIE) and [Biomedical Technology, Epidemiology and Food Safety Global Network](#) operating in the Veterinary Research Institute, Brno, Czech Republic

We believe in the [One Health Initiative](#)

**(10) The New Paradigm for Crohn's Disease: A call to action**

Shortened from a document by [Lipton et al. 2005](#) and published in the Publication Excerpts (2009)

As physicians and scientists who have been personally affected by Crohn's Disease, we write with a sense of urgency. We do not simply care for patients with this illness. Each of us suffers from it, or has an intimate family member who does so. We therefore find it both exciting and frustrating that growing evidence points to a microbial, infectious cause of Crohn's Disease: exciting because genuine prevention and cure (as opposed to mere palliation) may be achievable, but frustrating because the public as well as the medical community remains largely unaware of this possibility, while hundreds of thousands of people, many of them children, suffer from the illness itself or iatrogenic complications.

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It has not escaped our notice that the proposed MAP-based etiology for Crohn's will not only have substantial implications for public health, but also important economic, political, and psychological consequences, given that 7-55% of dairy herds in Western Europe and North America appear to be infected with MAP.<sup>13</sup> Thus, we anticipate that the emerging pathogenic explanation of Crohn's will encounter considerable resistance, from industry as well as government. The situation is remarkably parallel to that experienced by Nobel Prize recipients Drs. Barry Marshall and Robin Warren, who demonstrated a bacterial cause of gastric ulcers, but whose work was strongly opposed by the medical and pharmaceutical establishment. Given heightened awareness of zoonotic infections, as evidenced by concern about a possible avian influenza pandemic, we are cautiously optimistic that in this case, the medical profession as well as the public will be amenable to our message. We endorse the precautionary principle: when there is a significant threat of harm to human health or the environment, precautionary measures should be undertaken promptly even in the absence of indisputable proof. If even only a proportion of Crohn's disease cases are caused by infection with MAP, action should be taken to protect public health from this pathogen and to establish effective treatment regimes.

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A scientific revolution is underway, implicating an infectious agent, namely *Mycobacterium avium* paratuberculosis (MAP) in the etiology of Crohn's disease. We think compelling evidence suggests that Crohn's Disease can be caused by a zoonotic infection that could be prevented with sensible public health measures and improved farming practices. There are, moreover, exciting treatment options for eradication of the bacterium as well as for the enhancement of appropriate host responses to infection. It is socially as well as scientifically irresponsible to ignore or minimize this problem. We, as medical professionals, can and must lead the way toward preventing and curing Crohn's Disease.

[Judith Eve Lipton, M.D., J. Todd Kuentner, M.D., M.S., David Barash, Ph.D., and James Biesecker M.D., Ph.D.](#)

Hruska K, Pavlik I (2009): Bacterial triggers in the etiology of Crohn's disease and other autoimmune and autoinflammatory diseases. Electronic bulletin Centaur Newsletter Flash Information, Suppl.1 13, 1-60. Publications Excerpts, prepared for the Moderated round table discussion held by the PathogenCombat integrated research project of the European Union 6th Frame Programme in Brno, Czech Republic, 14-15 May, 2009



**A comment by the CGNI Editor:**

Note the date of this Paradigm for Crohn's Disease: 2005. The evidence of MAP, participating with other bacterial triggers in the aetiology of Crohn's disease and other autoimmune and autoinflammatory diseases has been well documented already in 2009. More data were published during the last three years (see the databases [Publications on paratuberculosis](#) and [Crohn's Disease Digest](#)). Nevertheless, the World Organization for Animal Health OIE intends to remove paratuberculosis from the Animal Health List in 2013. Ask your National Chief Veterinary Officer to vote against such proposal if it would be presented at the General Assembly. Send a copy of relevant correspondence to [centaur@vri.cz](mailto:centaur@vri.cz) to be published in the Discussion on Mycobacteria as a Public Health Risk.

[Please share your comments, opinions or suggestions.](#)

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[Infectious diseases incorporated FUIDI premises](#)

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