

***Mycobacterium avium paratuberculosis:*
Infrequent Human Pathogen or Public Health Threat?**

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More than 800,000 people in North America suffer from Crohn's Disease (CD), a debilitating chronic gastrointestinal disorder in search of a cause and a cure. Researchers and clinicians agree that CD onset requires inherited genetic traits, an environmental stimulus, and an overzealous inflammatory response. Long considered an autoimmune inflammatory disorder, current CD therapies treat symptoms of overactive inflammation in the gut. Chronic inflammation, however, does not generally induce itself. Inflammation is normally caused by a "foreign body," an inanimate object or rogue tissue cells or microorganisms. Until the cause of inflammation is eliminated, the body continues to send in its clean-up crew, the white blood cells of inflammation whose job it is to expel the tissue invader. Inflammation subsides when the causative agent is finally banished. Evidence suggests that CD may have a currently unrecognized infectious origin, and one suspect is *M. avium paratuberculosis* (MAP). People with CD have 7:1 odds of having a documented presence of MAP in blood or gut tissues than those without CD, thus the association of MAP and CD is no longer in question. The critical issue today is not whether MAP is associated with CD, but whether MAP causes CD or is only incidentally present, not an inciter or participant in the disease. If MAP is involved in the disease process of CD or other gastrointestinal disorders, then we need to determine how people are exposed to this microorganism, how to prevent that exposure, and how to treat the infection. In this session, investigators report the isolation of MAP from meat of Johne's diseased cattle, transmission of MAP from infected goats to goatherd attendants who develop CD-like gastrointestinal symptoms, correlation of human genetic factors with CD, identification of MAP-reactive CD4 T cells from CD patients, and the absence of nicotine effects on MAP growth.