Arabia in 2012. Cases are known to have occurred in Tunisia and in the United Kingdom, Germany, France, and Italy, related to travel to and from the Middle East. Now Abdulaziz N. Alagaili of King Saud University, Riyadh, Thomas Briese of Columbia University, New York, N.Y., et al. report that the virus is identical to that circulating among dromedary camels across Saudi Arabia. Two-thirds of camels tested had virus at titers varying from scant to copious; 75% had antibodies. However, many camel handlers do not get sick, and many who are infected lacked a history of contact with camels. “Current data suggest that people with preexisting health problems appear to be at highest risk,” says Briese.


NEW IN ASM JOURNALS

Certain Drug Treatments Actually Boost MTB Survival

Mycobacterium tuberculosis infection is extremely difficult to eradicate, requiring treatment with four drugs over at least six months. Now Galina Mukamolova of the University of Leicester, United Kingdom, et al. show that it’s worse than that. “Certain front-line drugs used for treatment of tuberculosis, ethambutol and isoniazid, can actually improve survival of mycobacteria under the sorts of stressful conditions that do not permit replication,” she says. Induction of a particular transcription regulator resulted in reduced expression of specific ATP-dependent efflux pumps and promoted long-term survival of mycobacteria, while deleting the regulator accelerated bacterial death in nonpermissive growth conditions in vitro and during macrophage or mouse infection. “Our findings may influence the current chemotherapeutic strategies, especially in cases of treatment failure,” she says, noting the scientific significance of this novel mechanism contributing to bacterial survival.


NEW IN ASM JOURNALS

Breast Feeding Major Influence on Gut Flora Development

Establishment of the human intestinal microbiota during infancy is influenced by delivery mode, sanitary conditions, administration of antibiotics to the infant or mother, and breastfeeding. Now Tine Rask Licht of Technical University of Denmark, et al. show that time of cessation of breastfeeding had the greatest impact on the composition of the gut flora, and confirm that breastfeeding until at least nine months of age increases prevalence of Lactobacilli and Bifidobacteria, known to contribute to development of a healthy immune system. They sampled the gut microbiota in 300 children at 9, 18, and 36 months. They found that while one enterotype was most common at 18 months and another at 36 months, these children frequently flipped a few times between the two. “The research could ultimately lead to supplementation of infant formulas—or food for adults—with specific bacteria or carbohydrates expected to promote a healthy gut microbiota,” says Licht. The team is currently involved in studies testing pre- and probiotics in animal models and humans.