Letters

Combined Antimicrobial Treatment of Infectious Diseases

I read with great interest the letter from Albert Balows in Microbe, August 2006, p.347. I did not wish to imply the concept of combined antimicrobial treatment was new. In my letter to the editor in Microbe, May 2006, p. 209, I was trying to stimulate discussion on the subject of combined antimicrobial treatment since I had used this concept with tissue culture systems during my graduate school studies in the early 1960s. We were using penicillin, streptomycin, and fungizone in our tissue culture systems and had no contamination problems, if we used relatively careful sterile techniques.

In addition, more recent data from clinical studies has demonstrated that the use of combination topical antiseptics is significantly more effective than the use of a single antiseptic alone (J. S. Hibbard, J. Infusion Nursing 28:194–207, 2005).

I also received an e-mail from ASM member J. Peter Kusel shortly after my letter appeared in Microbe stating, “It is interesting to learn from you that the concept of dual antibiotic therapy for initial treatment of infections was also being discussed beyond my training site, and at about the same time. I wonder just how widespread this was at the time, yet it failed to be implemented in practice. Had it succeeded at the time, we might have been spared the formation of the multiple antibiotic resistant strains that presently abound. Has the time already passed for this eminently rational idea, or could it be implemented currently with newer antibiotics?”

I would like to hear from more ASM members concerning the use of combined antimicrobial treatment, particularly in light of Albert Balows’s comment that, “In each of the above publications we provided data to show that the effect of the combined antibiotics in serum attainable levels was bactericidal as opposed to the ineffectiveness of the maximum dosage of each antibiotic when given singly.” I believe that in addition to the mutation rates I discussed in my initial letter, Albert Balows’s comments and the data from clinical studies on topical antiseptics are extremely compelling reasons for the use of combined antimicrobial treatment of infectious diseases.

John S. Hibbard
4311 W. 112th Terrace
Leawood, Kans.
JSHibbard@aol.com

Mars and Microbes

In my youth, I looked through an early 1900s volume of The Book of Knowledge that had been owned by my grandparents. It assured me that space travel was unattainable, due to the impossibility of building an acceptable space craft using brick and mortar, the most durable building materials of the time.

Howard Gest’s letter in the October 2006 issue of Microbe (“Phantom Life on Mars: Microbes and ‘Super-bees’”, p. 449) reminds me of that volume, only more so. Gest resorts to the old trick of building a straw man, only to tear it down—and he does it multiple times in a short letter! Percival Lowell is not the modern standard bearer for the potential of life on Mars, nor is Gerald Heard’s view on flying saucers pertinent to NASA’s interests in the exploration of that world. Gest would have been better off blaming the chemoauolithotrophs of the Galapagos Rift for our interest—they exist in profusion in Earth environments unknown to science until 7 months after the 1976 Viking missions supposedly “showed conclusively that there were no living organisms on Mars greater than 2 mm in diameter” (where did he get that figure?). We are ignorant about life on Earth—that I know—and Gest should willingly admit that we are even more ignorant about environments (habitats?) that may exist on Mars.

The meteorite results reported in 1996 did not provide accepted evidence of life, but they did provide evidence for organics and water on Mars over 4 billion years ago. Nonetheless, the real interest in life on Mars, today, derives from more recent circumstances—the presence of recent (<4-million-year old) volcanism, abundant carbon dioxide, and crater features showing strong evidence of recent flowing water on the Martian surface. And deep under that surface there is strong evidence of water ice, and perhaps liquid water, today—now.

This is not a quest that relies on evidence from Howard Gest’s youth, or even the Viking days of 30 years ago. There is evidence from spacecraft on or around Mars that habitats exist that possibly could support Earth life—perhaps even the kind of life that girds the Earth’s oceans in deep-sea hydrothermal vent communities. Isn’t it natural, and even reasonable, to investigate those environments, and inquire whether they support their own life?

I think so—and so do many, many others.

John D. Rummel
Science Mission Directorate
NASA Headquarters
Washington, D.C.
jrummel@hq.nasa.gov

Appreciation of Ad Hoc Reviewers

The Publications Board and the editors would like to express their appreciation of the outstanding work done by the ad hoc reviewers during 2006. The time and effort invested by these people have helped to maintain the high quality and reputation of the ASM journals.