devastating effect of smoking on male longevity (various reports show smoking costs men from 5 to 12 years of life). They also know that the number of smoking years of men is much greater than that of women. Therefore, we find it strange that some professionals should not accept a negligible MFLD among nonsmoking men and women.

At present we need more studies to determine the longevity of nonsmoking men and women. These studies should carefully classify lifetime nonsmokers, former smokers, and current smokers. With these classifications clearly delineated, more precise estimates of life expectancy can be determined for each classification.

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Computers, Intelligence, and Emotion

In his 27 April article on attempts to program computers so that they will truly understand language and can translate it properly, M. Mitchell Waldrop (Research News, p. 372) does not indicate the ultimate roadblock: to truly understand what is said or written by humans about humans one must feel human emotions. A grasp of words, idioms, grammar, and context may suffice in understanding and translating sentences dealing solely with objective matters such as coal mining or automobile repair. But man's most important sentences—human-interest sentences—are rich in metaphor drawn from decades of hoping and fearing, loving and hating, laughing and crying. Could any computer, or any person who lacks emotions, fully understand: "The paths of glory lead but to the grave"?

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Leptospirosis in Laboratory Mice

The occurrence of *Leptospira interrogans* serovar *ballum* infections in laboratory mice has been reported by several laboratories in the United States (*1–3*) and in other countries (*4–7*). These findings were reported primarily by researchers who were familiar with this disease and its occurrence in animals. Leptospirosis in laboratory rodents is unlikely to be considered by the many physiologists, pharmacologists, psychologists, biochemists, microbiologists, and other scientists who handle these animals. Such was the case in this institution when leptospirosis was detected in a large white mouse colony being used for biochemical studies. The examination for leptospirosis was prompted because of the planned introduction into the same room of the animal facility of mice from a different source for use in a leptospirosis study. It was therefore important to rule out any possibility of cross-infections.

Leptospires were demonstrated in six of six ICR Swiss white mice from a colony of 1200 by microscopic or cultural examinations. Isolates from four of these six mice were identified as members of the Ballum serogroup of *Leptospira interrogans*. The identification was confirmed at the Leptospirosis Reference Laboratory, Centers for Disease Control, Atlanta, Georgia.

The leptospiral infection may have been introduced by mice provided by any one of several vendors or by a house mouse or field mouse that gained access to the colony. The high prevalence of leptospirosis, especially serovar *ballum* infections, in feral mice has been repeatedly demonstrated (*2, 5, 8*). The *ballum* serovar is well adapted to the mouse, in which infection can be established without signs of disease. Once introduced, serovar *ballum* infection spreads among cagemates and possibly between animals in different cages via shared water bottles. The organisms nest in the kidneys and are shed in the urine apparently for the remainder of the animal's life (*4, 6*). Leptospires are transmitted by contact with infective urine or waters contaminated with such urine. Organisms enter hosts through abrasions of the skin or mucosal surfaces of mouth, nasopharynx, eye, or esophagus (*9*). Transmission by coitus can also occur.

The clinical manifestations of serovar *ballum* infections in humans are not pathognomonic and may be mistaken for influenza or other common ailments (*10*). The disease is usually mild and not accompanied by jaundice, but severe infections with a protracted 3- to 4-week period of convalescence may occur (*6, 11*). An associated orchitis has been reported by several investigators (*3, 6, 11*).

Rowen (*12*) estimates that approximately 45 million laboratory mice are used annually in the United States. Awareness of leptospirosis in mice deserves broader recognition in view of the thousands of individuals handling mice and the possibility that research findings with infected mice may be compromised. Cultural and serological procedures are available for monitoring animal colonies and for serological diagnosis of infection (*9*). For workmen's compensation claims, it would be advisable to maintain a reference serum sample from all personnel handling mice or other animals. The serum would serve as a baseline for any subsequent demonstrable antibody titer associated with leptospirosis or any other disease episode related to handling animals. Although leptospirosis in personnel handling laboratory animals has been primarily associated with mice, infections in rats, other laboratory rodents, dogs, and nonhuman primates are known to occur and may pose similar infection hazards (*5, 13*).

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Erratum: The obituary for William A. Altemeier, Jr. (4 May, p. 525), was incorrect. Dr. Altemeier was chairman of the Department of Surgery at the University of Cincinnati.