

part of the "missing carbon problem" (4) and balance the global carbon budget for 1980.

Such issues should be studied in detail, but we do not think our study lends support to Sedjo's argument. In response to a climatic warming, the boreal zone can act as a source of carbon dioxide rather than as a sink. Soil organic carbon in active exchange with the atmosphere constitutes approximately two-thirds of the carbon in terrestrial ecosystems (5). Increased release of carbon from soil in response to climatic warming may more than compensate for the effect of growth stimulation.

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#### La Différence

Donald S. McLaren (Letters, 22 July 1988, p. 399) contends that the sex difference in the relation between resting oxygen consumption and surface area that I have postulated to prevail (Letters, 8 Apr. 1988, p. 130) disappears when expressed in terms of lean body mass. McLaren's contention is supported by experiments "carried out by medical students on themselves" (1). However, extensive studies by others, particularly those of Novak (2), clearly show in 215 healthy men and 305 women that fat-free mass and cellular mass are significantly lower ( $P < 0.001$ ) in women than in men at all adult age levels. Fat-free, that is, lean body mass, was determined with  $^{40}\text{K}$  gamma-ray spectrometry (fat does not contain potassi-

um), and it was found that relative (fat-free) body cell mass is 18.5, 13.4, 17.21, 19.4, and 13.4% lower in women in the age brackets 18-25, 25-35, 35-45, 45-55, 55-65, and 65-85 years, respectively. The data on the 18- to 25-year-old group, that is, the age group of the medical students (1) cited by McLaren, display a large standard deviation.

My contention that women live longer than men because of their more efficient use of energy is expressed in terms of resting oxygen consumption. That a constant proportion of the difference in longevity is based on the relation between body mass and energy expenditure is, however, also manifest in the differential response to performance on a variety of tasks, including standing, walking, household work, football, and mining. On all tasks men expend more energy than women (3). I reiterate, therefore: "Vive la Différence!"

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