

Editorial

We are witnessing an unprecedented growth of information about the biological mechanisms underlying the aging process. There have been relatively few papers on this subject published, however, in the *Canadian Journal on Aging* up to the present time. It is a tribute to the *Journal's* tradition of excellence that its editorial staff has recognized the need to expand its focus to include a greater emphasis on biology. It is this recognition that has led to the publication of the current special issue devoted entirely to biology.

Although the range of subjects that are generally included under the term "biology" is extremely broad, this issue could only focus on selected topics. Of necessity, many areas of biology could not be presented. This issue is, however, only an introduction to biology within the *Canadian Journal on Aging* with the full expectation that future issues will contain articles from a wider spectrum of biological fields.

The response to the call for papers was excellent. The first article is by Thompson and Forbes and involves a discussion of the important question about the definition of aging. This is followed by Pfeiffer's paper presenting a wide range of material on the evolution of human longevity.

The next three articles relate to the growing field of neuropsychology and behavioural neurology. The first of these, by Hinkin and colleagues, is a neuropsychological study designed to enhance our understanding of the neuroanatomical mechanisms underlying the aging process. Their data support the hypothesis that the greatest changes occur in the frontal-subcortical systems. In the next paper, Lafleche et al. address the important question of speed of mental processing, using a short term memory scanning task, in patients with anatomical lesions involving the cerebral cortex as compared to those with subcortical brain lesions affecting the basal ganglia. Braun and Lalonde present a review of salient factors and neuropsychological findings on the cognitive profile in normal aging. They also review the neurochemical and neuropathological components of normal aging, as well as providing a critique of different models of normal aging and neuropsychological dysfunction.

Next are three papers related to metabolism and aging involving diabetes, calcium intake and protein turnover. In the first of these, Germinario reports on type II diabetic fibroblasts in relation to aging. McCulloch et al. review the relationship between calcium intake and bone density. Then Harley and Goldstein present their findings on protein turnover during aging.

Finally, there are two papers related to physical activity. Shephard addresses the measurement of physical activity patterns in the elderly, while Vandervoort et al. present a study comparing passive joint stiffness in the ankles in young vs elderly men.

The papers have all been peer-reviewed by leading experts in their disciplines. I wish to express my appreciation to these reviewers who gave their time and effort to making this issue possible. I would also like to thank Dr. Victor Marshall, Editor-in-Chief, for his advice and assistance and Vicki Giardino for her secretarial assistance.

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