being far from sufficient to replace me. Nevertheless, soon thereafter, activities began that resulted in the dismissal of the whole EAS presidium. The procedure of impeachment was ignored, and the very new and democratic constitution of the EAS was violated.

An objective analysis would reveal that the years of dissolution of the Soviet Union and the first years of Estonian independence brought hard times for science in our country, and especially for the EAS. This was caused by a drastic decrease of financing, and also by the inability of the new president, who came to power after the independence of Estonia was reestablished in 1991, to have good relations with the people. The positive factor that helped keep Estonian science alive was the remarkable increase in contacts with the West and support from the West.

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Growth Hormone Research and Therapy

In their Perspective "A new receptor for growth hormone–release peptide [GHRP]" (16 Aug., p. 923), P. Michael Conn and Cyril Y. Bowers do an excellent job of describing the physiology behind an exciting discovery (A. D. Howard *et al.*, Reports, p. 974). However, when discussing potential uses of GHRP, Conn and Bowers describe the use of growth hormone in the elderly, citing an open label study (*1*). Subsequent data from a long-term, double-blind placebo-controlled study indicate that, although body composition may improve with growth hormone therapy, there is no sign of functional improvement and there are many manifestations of toxicity in the elderly (*2*). These data should be contrasted with growth hormone therapy for AIDS cachexia, where increases in lean body mass were accompanied by increased exercise tolerance and fewer side effects (*3*). The role of growth hormone and GHRP agonists needs further study before it is promoted as a therapeutic drug for the aged.

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Response: We agree with Grunfeld and Papadakis that one should be conservative about therapeutic agents believed to attenuate aging. Furthermore, when given to elderly subjects, recombinant human growth hormone (rhGH) has been found to improve body composition, without a change in the other functions measured, and to definitely produce adverse side effects (*1*).

Our clinical excitement about the study by the Merck group concerned the possibility that the GHRP neuroendocrine approach may have some special advantages. Having a small, potent molecule that could be taken orally would be advantageous for elderly subjects in terms of administration and expense. The GHRP approach appears to offer a more physiological therapy because it increases the normal spontaneous *pulsatile* secretion of growth hormone (GH) in the elderly, which may produce the possible advantages of GH with fewer adverse side effects.

The adverse side effects produced by rhGH therapy in some of the initial studies were likely a result of the "high" dosage of rhGH. Nevertheless, even at lower dosages, rhGH will not stimulate the normal spontaneous pulsatile secretion of GH, while the GHRP neuroendocrine approach will increase GH in a physiological manner. The physiological replacement of GH in the elderly needs to be more completely studied.

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Letters to the Editor

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