sive evidence shows that *x*'s are safe." This is especially the case given no statement of quantity, density, individuals, circumstances, and so forth.

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Combining Expert Opinions

Readers of the article "A new way to ask the experts: Rating radioactive waste risks" by Richard A. Kerr (News & Comment, 8 Nov., p. 913) may be left with the impression that the elicitation and mathematical combination of expert opinion is a technique invented by earth scientists. In fact, this method has been in use for several decades. Notable applications of the formal elicitation of probabilities from experts in the 1970s include the Rasmussen report on nuclear reactor safety (*1*), the National Academy of Sciences study of the depletion of stratospheric ozone (*2*), and the National Defense University study of global warming (*3*).

Furthermore, there is a substantial body of social science literature on the elicitation and combination of expert judgment. Two conclusions can be drawn from experience and psychological research on elicitation of probability judgments: (i) if done properly and with care, it can be a valuable tool for quantifying uncertainty, and (ii) the apparent simplicity of the technique hides methodological pitfalls that can lead to misleading results. Alternative question-framing and response modes are just two examples of the types of methodological choices that can influence the elicited probabilities. Just as in earth sciences or biomedical research, appropriate background and training are necessary for researchers who conduct expert judgment studies.

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Estonian Physicist: Active and Productive

Richard Stone's article "Estonian researchers lead the way in science reform" (News & Comment, 4 Oct., p. 29) gives a realistic picture of recent developments in science administration in Estonia. We are encouraged to continue in this direction.

However, the article represents Karl Rebane, the former president (1973–1990) of the Estonian Academy of Sciences (EAS) and member of the Russian (formerly Soviet) Academy of Sciences, a physicist of international reknown, as merely an aged enemy of Estonian scientific reform. This is definitely not true.

Rebane's contribution to physics as well

as to Estonian scientific organization has been remarkable. It is true that he headed the EAS during the last 17 years of Soviet domination and was forced to resign in the wave of the liberation movement. But he also managed, in spite of all difficulties, to build up an institution of international competitiveness, which has been clearly demonstrated during the past few years when we have had the chance to compete for research grants internationally. Rebane is still an active and productive physicist who deserves our respect.

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Stone's article includes critical statements about me as the former president of the Estonian Academy of Sciences. In these statements, my behavior and role in Estonian science reform are not portrayed correctly.

Many documents show that, as the president of the EAS (and before that, the vice-president and member of the academy presidium), I initiated and introduced measures directed to and successful in promoting democracy and effectiveness in the EAS and also in the Academy of Sciences of the Soviet Union. In the Soviet academy, I was chairman of the Joint Council for Optics and deputy of the USSR People's Congress (elected by the Soviet academy, together with Yuri Ossipyan, Andrei Sakharov, Vitalii Ginzburg, and several other progressive academicians), and a member of the Commission for Science and Education of the USSR People's Deputies Congress. I proposed and started to implement the science grant system in Estonia and was one of the activists implementing the grant system in Soviet science. I acknowledge, however, that I was and still am firmly against hasty, unreasonable changes and, especially, against populism and populists in science.

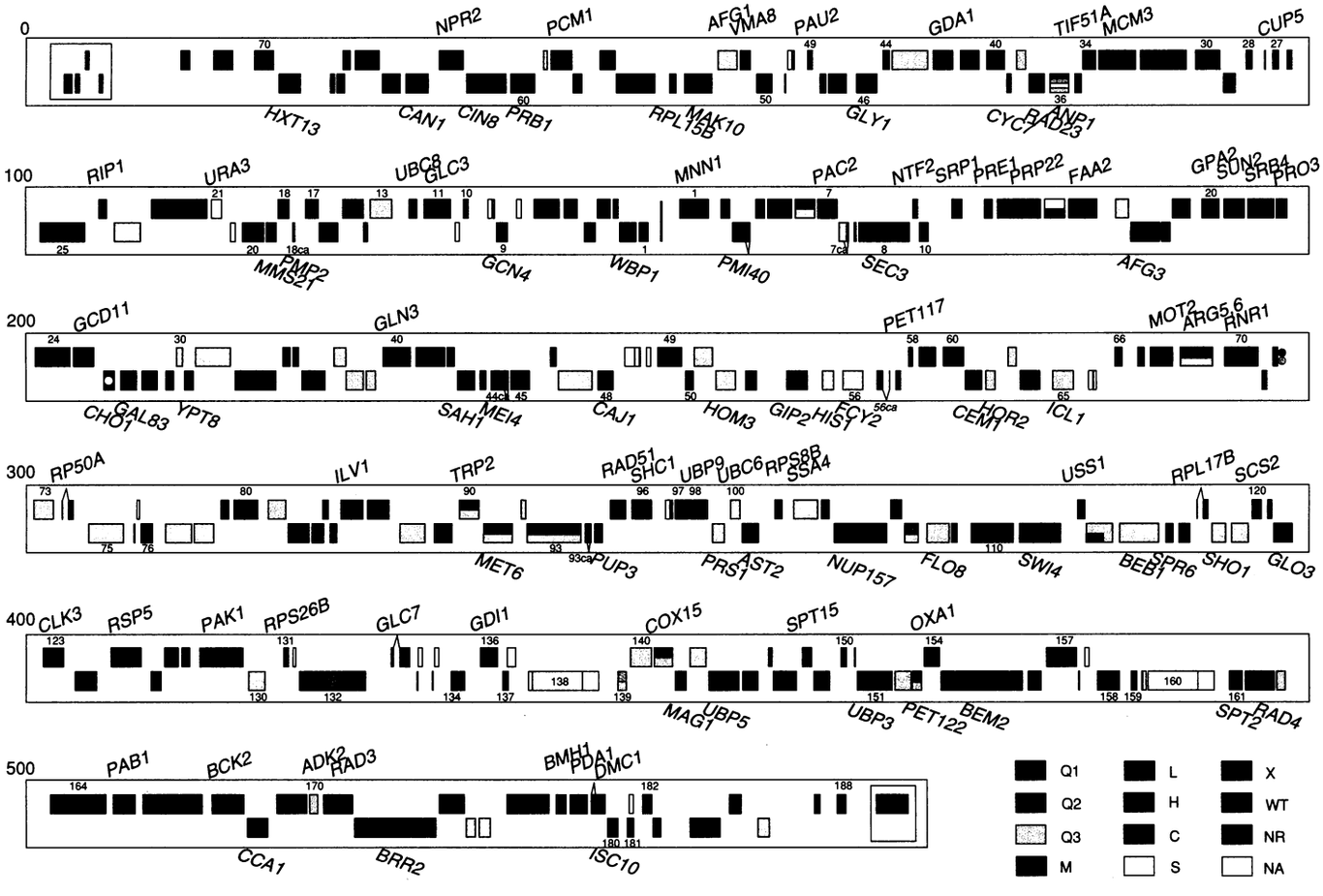
If Estonian science is relatively strong, how can one ascribe that to measures taken 1 to 3 years after the change of the presidium? The state of Estonian science is the result of hard and well-focused work in the EAS and universities promoting effective cooperation between them and contacts with the West (strongly limited but alive even in the Soviet years).

My reelection as EAS president in 1987 showed that I had a "normal size" opposition, with the number of "against" votes

Corrections and Clarifications

In the report "A role for phosphoinositide 3-kinase in bacterial invasion" by K. Ireton *et al.* (1 Nov., p. 780), in the legend for figure 3A on page 781, the symbols for wortmannin and dimethylsulfoxide (DMSO) were reversed and were inconsistent with those in the figure. The correct symbol for wortmannin is (■) (a filled square) and the correct symbol for DMSO is (□) (an open square). In the legend for figure 3B, the symbols for the wild-type strain EGD and the Δ*inlB* mutant strain were also reversed. The correct symbol for EGD is (□) (an open square), and the correct symbol for Δ*inlB* is (■) (a filled square).

Figure 1 (p. 2070) in the report "Functional analysis of the genes of yeast chromosome V by genetic footprinting" by V. Smith *et al.* (20 Dec., p. 2069) was printed incorrectly. The correct figure appears below.



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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1. D. Rudman *et al.*, *N. Engl. J. Med.* **323**, 1 (1990).
2. M. A. Papadakis *et al.*, *Ann. Int. Med.* **124**, 708 (1996).
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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

Letters may be submitted by e-mail (at science_letters@aaas.org), fax (202-789-4669), or regular mail (*Science*, 1200 New York Avenue, NW, Washington, DC 20005, USA). Letters are not routinely acknowledged. Full addresses, signatures, and daytime phone numbers should be included. Letters should be brief (300 words or less) and may be edited for reasons of clarity or space. They may appear in print and/or on the World Wide Web. Letter writers are not consulted before publication.