weight women; however, neither absolute nor adiposity-corrected plasma leptin concentrations were different for untreated overweight postmenopausal women (36.3 ± 1.7 ng/ml, 1.03 ± 0.10 ng/ml per kg) and overweight postmenopausal women with hormone replacement (40.8 ± 4.1 ng/ml, 1.20 ± 0.08 ng/ml per kg). Thus, both absolute and adiposity-corrected plasma leptin levels are unaffected by hormone replacement in either normal weight or overweight postmenopausal women. Therefore, gender differences in plasma leptin concentrations are unlikely to be explained by either increased adiposity or by reproductive hormone status. Differences in body fat distribution between men and women could contribute to the sexual dimorphism, because *ob* gene expression varies between fat depots[5]. Moreover, cerebrospinal fluid leptin levels are higher in women than in men, even after correcting for the higher plasma levels[6], which suggests enhanced transport of leptin into the CNS in women. These data suggest that women require increased leptin production and delivery to the brain for normal body weight regulation. Unraveling the mechanisms underlying these gender differences may have important physiologic and pharmacologic ramifications.

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Gaucher's treatment: First things first

To the editor — In a News & Views article, Dr. Beutler criticizes an NIH Technology Assessment Panel for providing no solution to the huge costs of treatment of Gaucher patients by enzyme replacement therapy[1]. As an audience participant at this conference and researcher in the field of recombinant protein production, I would like to offer a more positive perspective.

That a therapy providing dramatic improvements in patients' health and quality of life has been developed is a tremendous achievement. Quoting from the summary statement, this important success is indeed "a credit to the investigators, the National Institutes of Health, the pharmaceutical manufacturer, and the many patients and their families" who all participated in the development of this therapy[2]. Genzyme Corporation took significant financial risks in providing the native and recombinant enzymes (modified glycoforms) and continues to invest in new forms of transgenic recombinant protein production systems as well as gene therapy approaches to treatment. Also, it should be remembered that the NIH panel that Beutler comments on was not charged with the resolution of the cost issue. Nor could it be expected to.

This problem has now attracted new researchers who will focus on lowering the costs of treatment through a combination of novel transgenic production methods and improvements in bioprocessing. For example, at least two groups are working toward harnessing the economies of scale of agriculture for this purpose. Thus far the results are very encouraging. It is therefore hoped that one solution is simply to lower the costs of therapy with future research and development in pharmaceutical production technology.

I prefer not to underestimate the wealth of our society nor the capacity of its individual members to have compassion for their fellow man. The confidence I have in economics is based on the value of new ideas, not theories of scarcity and limitations.

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Neither the author nor Biosource Technologies has any relationship with Genzyme corporation.

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