LETTERS

physical resource into waste.

On the other hand, Vincent and Panayotou include in "private consumption" all marketable goods and services. A college education, for instance, is "privately consumed" in their definition; in Myers', as in common parlance, it is only bought, sold, and enjoyed (or not).

Vincent and Panayotou actually use "consumption" more broadly still: according to them, when I sit in the garden I "consume" chair, garden, apple blossom, birdsong, sunshine, the neighbors' conversation, and all. These word games serve merely to draw an academic veil over issues that need to be clear to everybody. If rising wealth enables us to enjoy more while consuming less (in Myers' sense), then prosperity can cause less damage to our planet. But if people equate wealth with ownership of the pretty objects they see on the television, then we will drown in our own "riches." This simple fact seems to have escaped the development economists. Maybe they need to take time out to consume the roses.

Robert Alcock Energy Research Group, University College, Richview, Clonskeagh, Dublin 14, Ireland E-mail: robert@erg.ucd.ie

Metabolic Rates

In the Research News article "Fractal geometry gets the measure of life's scales" (4 Apr., p. 34), Nigel Williams propagates a distressingly common misperception: that the scaling of metabolic rate to a power less than 1 means that "the bigger the creature, the slower its metabolism." In fact, a larger animal expends energy at a "faster" rate (as measured in watts or a proxy variable such as oxygen consumed per hour). The idea that larger animals have lower metabolic rates is an artifact of expressing such rates in mass-specific units (that is, divided by body mass to give joules per gram per second, which practice, although conventional for decades in animal physiology, obscures the more ecologically relevant whole-animal measurement while failing to correct for the confounding variable of body size. The question of "why" metabolic rates scale allometrically to body mass is fascinating and elusive, and the approach of Geoffrey West et al. (Reports, 4 Apr., p. 122) is an interesting one.

> Charles C. Peterson Department of Zoology, Oklahoma State University, Stillwater, OK 74078–3052, USA E-mail: ccp@okway.okstate.edu

Corrections and Clarifications

- The report "An occurrence of metastable cristobalite in high-pressure garnet granulite" by R. S. Darling *et al.* (4 Apr., p. 91) and the accompanying Perspective "Seeing a mountain in a grain of garnet" by J. G. Liou *et al.* (p. 48), should have stated that the length of time that cristobalite remained at temperatures greater than 600°C was 50 to 100 million years.
- The letter "The cause of obesity" by Per Södersten (7 Mar., p. 1405) was not listed in the Table of Contents of the same issue (p. 1390).

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.

WE CAN DRIVE YOUR TRANSGENICS RESEARCH.

Chrysalis DNX Transgenic Sciences keeps you ahead of the competition with...

🔼 A proven track record.

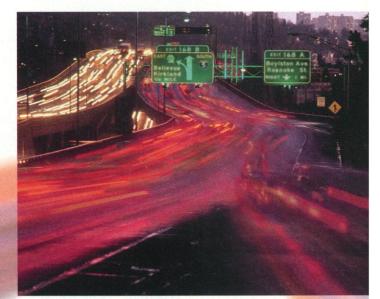
- Complete transgenic and gene targeting programs
- A decade of experience at providing commercial transgenic services
- Transgenics produced from over 1,000 genes
- AAALAC accredited animal facility

Custom model development.

- Project design
- Gene cloning
- Homologous recombination
- Mouse and rat transgenic production
- Animal housing, breeding, and genotyping
- Animal model characterization

To speed your transgenics research, call Chrysalis DNX Transgenic Sciences at (609) 520-0300, or fax (609) 520-9864. Or send e-mail to: transgenic@chrysalisintl.com.

© 1997 Chrysalis International Corp.





301B College Road East, Princeton, NJ 08540

Circle No. 7 on Readers' Service Card