materially closed biospheric system. Then the true "lessons" from Biosphere 2's operation can be more accurately drawn.

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Cohen and Tilman repeatedly refer to "surprises" encountered by the Biosphere 2 management (which from 1991 through 1993 was me, Margret Augustine, William Dempster, and Abigail Alling). But they did not talk to those of us who designed and ran the experiment, nor do they cite our papers, with one exception. They omit the fact that the Biosphere 2 experiment immensely increased our predictive power in biospheric-scale phenomena, artificial and natural. My colleagues and I designed Biosphere 2 to be an experiment in biospherics with two things in mind: (i) to determine how much was known about biospheres (*1*) by seeing if what had been tested by us and the Russians on a smaller scale would work as predicted in Biosphere 2, and (ii) to see how much that was new could be discovered about designing sustainable, closed life systems (artificial biospheres) with humans living in them on a healthy, long-term basis. The goal was both to throw light on Earth's biosphere and to make settlements in space possible. Biosphere 2 has much to teach us, perhaps as much from the way its Mission Two has been destroyed and its achievements attacked as from its contributions to our knowledge (*2*).

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2. http://www@biospherics.org

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Correction: Raloxifene Response Needs More Than an Element

In our report "Identification of an estrogen response element activated by metabolites of 17β-estradiol and raloxifene" (30 Aug., p. 1222) (*1*), we examined regulation by raloxifene of the human transforming growth factor–β3 (TGF-β3) promoter and proposed a new pathway of gene transcription mediated by the estrogen receptor (ER) and a raloxifene response element (RRE).

In new experiments to characterize the RRE sequence further, we found that one of the reporter plasmids described in this study, pTGFβ+35Luc (figure 3A in the report), contained a deletion of the luciferase coding region introduced during DNA amplification in *Escherichia coli*. This alteration in the vector resulted in a lack of luciferase expression, which we had earlier interpreted incorrectly as the complete inability of this promoter region to respond to raloxifene. With the use of a newly constructed pTGFβ+35Luc with the correct vector sequence and $ER_{\Delta BCD}$, we have determined that the deletion of the +35 to +75 region, defined in our report as the RRE, causes only a partial loss of raloxifene-induced pTGFβ3-luciferase activation, as measured by fold induction. This result is consistent with our observation (*1*) that when this region was transferred to the SV40 promoter, only partial activity was detected (figure 3C in the report). Thus, we would like to change the statement in the report (p. 1223) that "the RRE may be essential, but not sufficient by itself, to mediate full hormonal regulation of the TGF-β3 gene" to read

although the originally defined RRE sequence appears to be a factor, it is not sufficient by itself to mediate full hormonal regulation of the TGF-β3 gene by this pathway.

Our new data indicate that regulation of the TGF-β3 gene by raloxifene may involve a complex mechanism and multiple regions of the promoter. To the best of our knowledge, all the other published data (*1*) are valid, and our conclusion that a new ER-mediated gene activation pathway of TGF-β3 regulation may be activated by raloxifene or metabolites of 17β-estradiol remains correct.

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Letters to the Editor

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