

**October 25, 2006**

**Submission to Senators and Members of the Australian Parliament**

**RE: Contents of October 23, 2006 Submission by Professors Skene and Schofield**

Dear Mr. Humphrey:

It was brought to my attention that in their recent submission, received by Parliament on October 23, 2006, Professors Loane Skene and Peter R. Schofield referred to specific text in my previous submission (dated October 16, 2006). I wish for the members of Parliament to know that Professors Skene and Schofield misrepresented my submission.

It is good to see that Professors Skene and Schofield acknowledge my main point, which is that there is a need for complete and accurate disclosure that embryonic stem cells cannot replace the required function of adult stem cells in adult tissues. Moreover, neither embryonic stem cells nor differentiated cells produced from them can provide new therapies for mature tissues.

However, thereafter, the Professors mislead Parliament when they suggest that it will be straightforward to convert cloned embryonic stem cells into therapeutic adult stem cells. They mislead Parliament because in their submission they fail to address, or even mention, my subsequent caution in the very next paragraph of my submission:

“The only possibility for development of new therapies based on embryonic stem cells would require that they first be converted into adult stem cells. However, the conversion process is formidable compared to use of naturally occurring adult stem cells. So, why would any government decide to waste taxpayers’ dollars on embryonic stem cell research that will not even get them to where they *already are* with adult stem cell research? In addition, even if adult stem cells could be developed from cloned embryonic stem cells, they would be ineffective because of the gene expression defects found in all cloned embryonic cells.”

In case there is any misunderstanding, let me clarify the point. Gene expression defects found in cloned embryonic stem cells would be inherited by adult stem cells derived from them.

I think there is really no more discussion needed on this point. Because it is based on fundamental biological principles that define the abilities of embryonic and adult stem cells, it cannot be refuted. I caution members of Parliament to be aware that frank obfuscation is the only way around it.

Yours sincerely,

James L. Sherley, M.D., Ph.D.  
Associate Professor of Biological Engineering  
Massachusetts Institute of Technology  
Cambridge, Massachusetts 02139