

Mr Elton Humphrey
Secretary
Community Affairs Committee
Australian Senate

Dear Mr Humphrey,

I am following up on an invitation by Senator Gary Humphries, Chairman of the Committee analysing legislative responses to recommendations of the Lockhart Review, to respond to a question on notice asked of me on Monday afternoon this week.

Senator Fierravanti-Wells asked me for my comments on statements made by Professors Silburn and Williamson advising that adult cells were **the** future for treatment of people with type 1 diabetes. I hope am correctly remembering the question.

I advised the Standing Committee that I knew of no adult stem cell treatment for diabetes currently being practiced. I further advised that adult human islets, which are clusters of insulin-producing cells, derived from donor pancreases after death, are being trialled by my Unit and others in Australia and overseas. However, these islets are not stem cells.

Since the Standing Committee meeting, I have read the Hansard report from Friday October 20, containing the comments of Professors Silburn and Williamson. Professor Silburn made a general statement that adult stem cells are the future as regards therapies; Professor Williamson advised that for some disorders, such as cystic fibrosis, adult stem cells were the more likely option, but in other cases, embryonic stem cells would be the answer. Neither of the Professors commented specifically on diabetes as regards which was the optimal source of stem cells.

My Unit is investigating the use of both embryonic and adult stem cells. At present, we are further ahead in creating insulin-producing cells from embryonic than adult stem cells. As such, therefore, it seems that embryonic stem cells are the better option; however, we are continuing to examine both sources of cells to reach a definitive answer.

At the Standing Committee, I indicated that a new discovery had recently been announced (October 19) in converting human embryonic stem cells into insulin-producing cells. This came from California. I indicated I would table this. A copy of the publication, which appeared in *Nature Biotechnology* is attached.

Thank you for the opportunity of having input to the Committee.

Professor Bernie Tuch
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