

APPENDIX 1.

SUMMARY

It is not necessary to use embryonic stem cells to generate patient specific stem cells.

It is not necessary to use somatic cell nuclear transfer or cloning to obtain patient specific stem cells

Embryonic stem cells demonstrate relative DNA and epigenetic instability

ES lines still contain a proportion of undesirable/unstable cells

A single ES derived cell line will not necessarily cover all phenotypes of a particular disease

Immune rejection and immuno-suppression complications are significant problems with using ES cells

Non-embryonic or adult stem cells are scientifically advantageous as:

They are relatively stable genotypically and phenotypically

They are proof of principle and in studies pluripotent

Different types of cells can be obtained from an individual relatively simpler than embryonic cells

No need for cloning by Somatic Cell Nuclear Transfer

They do not require mixing human with animal products

They are already being used in clinical trials

They can be truly patient specific

They represent a more efficient use of time and proficient use of resources