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PRESS RELEASE---IMMEDIATE

GIG WELCOMES DONALDSON REPORT

The Genetic Interest Group (GIG) welcomes the support offered to all forms of stem cell research by the report from the Chief Medical Officer's Expert Group reviewing the therapeutic potential of stem cell research and cell nuclear replacement ('The Donaldson Report'), which has been released today. This, along with the commitment by Government in its response to allow time for Parliamentary debate on the necessary extensions to the regulations in the Human Fertilisation and Embryology (HFE) Act, offers UK scientists the chance to participate in research that has already begun in other parts of the world. For patients suffering from a wide range of currently incurable disorders it offers the hope that new forms of therapies may be developed sooner rather than later.

A range of conditions, from Parkinson's disease to diabetes, spinal cord injury to severe burns have been highlighted as possible early targets for new cell-based therapies made possible by research on stem cells. Some single gene disorders, such as muscular dystrophy and perhaps Huntington's disease, might also figure in early attempts at practical applications of the new research. In the longer run, new insights offered by research into stem cells will have implications for the study of many genetic disorders. It is also possible that genetic modification to repair the genetic defect in a cell nucleus, followed by cell nuclear reprogramming to produce the required stem cells for transplantation into the patient, could provide a therapeutic option for a wide range of genetic disorders. In effect, modified stem cells would be the method for delivering gene therapy, in a process akin to bone marrow transplants for the treatment of leukaemia.

The Donaldson Report follows studies of the issues by a number of leading scientific and regulatory bodies, including the Human Fertilisation and Embryology Authority, the Human Genetics Advisory Commission, the Nuffield Council on Bioethics and the Royal Society. Alastair Kent, director of GIG, comments: "It is impossible to predict which areas of research will prove most fruitful. However, the consensus is that two areas of research may be crucial. On embryonic stem cells, because they have the potential to be developed into the widest range of tissues; and on the way in which the egg reprograms a nucleus after cell nuclear replacement, because this may provide the key to the development of stem cells immunocompatible with the patient."

The Donaldson Report emphasises that changes to the regulations contained in the HFE Act would only allow research on embryos and not treatment using stem cells derived from an early embryo, whether resulting from cell nuclear replacement or not. That would require a further change to the law. It may not be necessary to go down that route. Indeed the Donaldson Report envisages

research on embryos and into cell nuclear replacement leading to methods of cell nuclear reprogramming using cells other than egg cells.

GIG does not feel that the use of embryos for research which might result in improvements in human health poses any additional ethical dilemmas over and above those which are created by existing aspects of genetic medicine and assisted conception. Indeed, comments Alastair Kent, “the possibility of undertaking research in this area and choosing ***not*** to do it is not ethically neutral, in that such a decision would leave families to be affected by disease or disability that might otherwise have been treated.” It is GIG’s hope that Parliamentarians will keep this in mind when they debate the issue.

GIG also believes that if it is ethical to research on spare embryos and create embryos for research purposes, then it is ethical to use stem cells derived from very early embryos in treatments, whether they be from spare embryos destined to perish, or embryos resulting from cell nuclear replacement. In the latter case, the patient concerned would in effect be using their own cells, in a procedure perhaps made possible by eggs donated by a close female relative or friend should there be a general shortage of eggs. These issues should be returned to in the light of the results of the research outlined in the Donaldson Report.

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Note to editors

The Genetic Interest Group is the national alliance representing individuals and families affected by genetic disorders. There are currently more than one hundred groups in membership.

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