

## Activity

### Introduction

In this activity you will first produce an ethical matrix and then use it as a tool to discuss some ethical issues surrounding stem cells.

The ethical matrix (designed by Professor Ben Mepham, Centre for Applied Bioethics at the University of Nottingham) is a tool to help people analyse an ethical issue and make informed choices. It can aid reflection and discussion about a topic and here it is used to help people explore for themselves the ethical issues surrounding using embryos in research. The strength of the ethical matrix is that it allows users of the matrix to 'put themselves in the shoes of others', appreciating the different perspectives on the issue and the different criteria people use to make their decisions.

The ethical matrix is based on three key ethical principles (for further information on these see Mepham, 2008):

1. wellbeing: that is, the safety, welfare and health of an individual or group;
2. autonomy: that is, an individual's right to be free to choose and make their own decisions; and,
3. justice: that is, to what extent a situation is just or fair for an individual or group.

These principles are very useful for exploring ethical concerns but it should be noted that there can be some crossover between them and they will not cover every ethical concern in all cases. Furthermore, they do not easily pose questions of principles, for example, that something is fundamentally right or wrong in terms of an individual's principles. In the blank ethical matrix below the three key principles form the headings of the columns. The first column contains a list of interest groups, individuals, groups of people or institutions which have an interest in or are affected by stem cell research using embryos. Completing the ethical matrix means that you apply these three ethical principles in order to consider and then map (e.g. list) the issues for each interest group.

### Task

(this is described here as a group activity but note it is a useful individual activity as well):

1. Working in groups, give each person a photocopy of the blank ethical matrix.
2. Consider the interest groups (read through the list) and decide whether there are any additional groups which you would like to add (a blank space at the bottom of the 'interest groups' columns is provided, if needed).
3. For each interest group consider how stem cell research using embryos affects the group's wellbeing, autonomy and justice and list the key issues in the appropriate blank space in the table. When completing each row remember that you should do it as if you

were a member of the interest group in question e.g. complete spaces on the 'patients' row as if you were a patient needing a treatment, complete the spaces in the 'scientists' row as if you were a scientific researcher using embryonic stem cells.

4. Once everyone has completed the ethical matrix consider these questions:

- What are the most significant issues or impacts for each interest group (e.g. the most significant for the patient group). Discuss your answers.
- How does your analysis of the significant issues or impacts for each interest group differ from your colleagues? Compare your matrix with those produced by your colleagues (or other groups involved in this activity), identify any similarities and discuss the differences. Would you change your matrix (e.g. edit the list of key issues for each interest group) based on this group discussion?
- By weighing up all of the issues for each interest group can you make a decision on the acceptability of this type of research? Does your decision allow all of the ethical principles (i.e. wellbeing, autonomy and justice) to be respected or upheld for all interest groups? Discuss your answer.
- Compare your final decision with your colleagues (or other groups involved in this activity). Does your decision differ? Discuss your decision-making, e.g. how did you weigh up the issues?
- Discuss how different people may weigh the ethical issues and come to a final decision on the acceptability of the research, such as pro-life groups (e.g. people or organisations who for religious or other reasons are interested in this issue), patient groups (e.g. promoting the benefits of research) or politicians.
- You have considered the overall issues raised by stem cell research using embryos. Now consider if your analysis would change if you were discussing a specific use or a specific research project. For example, identify the ethical issues raised by using embryonic stem cells to develop a specific cancer treatment. Does your analysis change if the research aims change, e.g. research related to diabetes rather than cancer, or research focused on understanding basic cellular processes rather than towards a medical treatment?

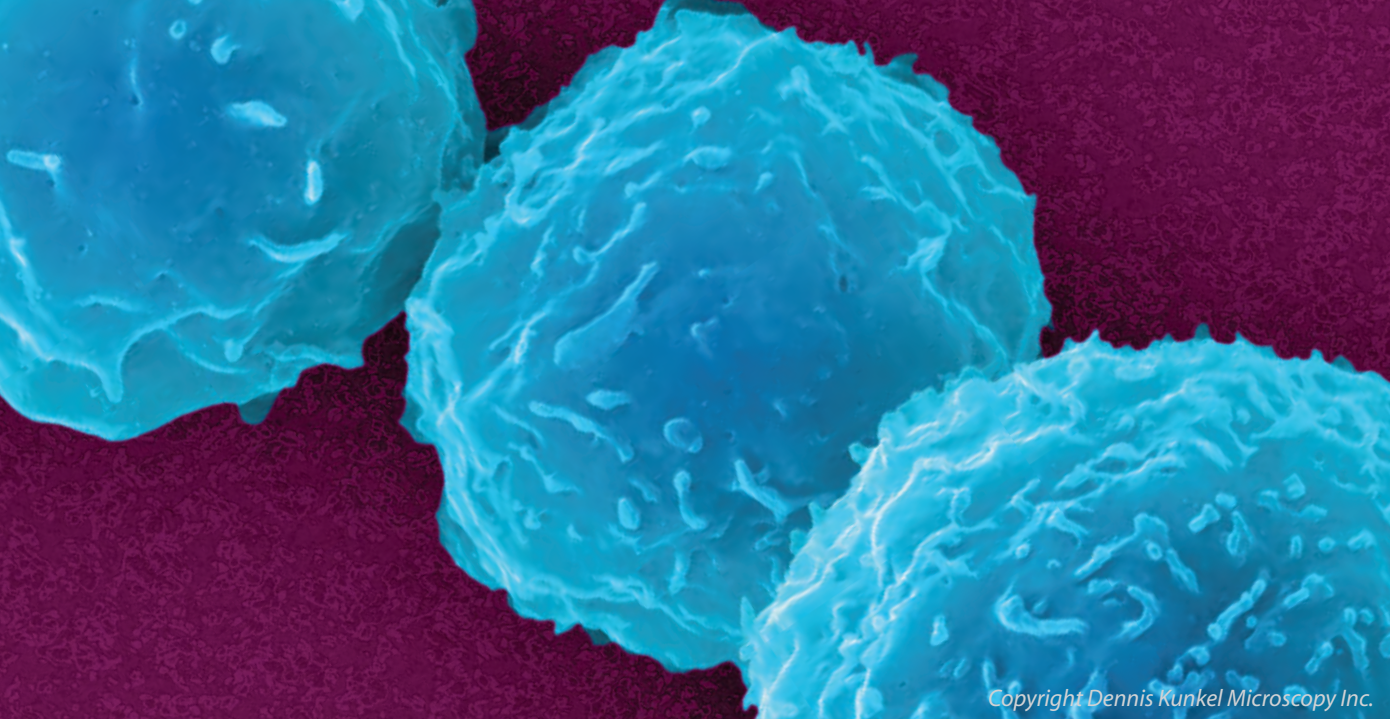
*This activity is adapted from and has been reproduced with kind permission and assistance from Dr Kate Millar, Department of Ethical Engagement Methods developed by staff at the Centre for Applied Bioethics, University of Nottingham, UK (see <http://www.nottingham.ac.uk/bioethics/>). Mepham, T.B. (2008) *Bioethics: An introduction for the biosciences*. Oxford, Oxford University Press.*

## The Ethical Matrix

Interest Groups	Wellbeing (safety, welfare and health)	Autonomy (freedom and choice)	Justice (fairness)
<p>Patients</p> <ul style="list-style-type: none"> <li>- people who are hoping that stem cell therapies will treat an illness, disease or injury.</li> </ul>			
<p>Scientists</p> <ul style="list-style-type: none"> <li>- people working in stem cell research and developing stem cell therapies to treat patients.</li> </ul>			
<p>Embryo</p> <ul style="list-style-type: none"> <li>- the source of embryonic stem cells for research.</li> </ul>			
<p>Society</p> <ul style="list-style-type: none"> <li>- issues for wider society such as social priorities, research and medical priorities and how money should be allocated.</li> </ul>			

Autonomy is concerned with the interests of an individual. 'Embryo' is included as an interest group as some might consider the embryo as an individual.

This activity is an extract from a booklet produced by BBSRC on Stem Cells: Science and Ethics. The booklet contains information on the science of stem cells, the legal and ethical implications of the science and a selection of discussion activities. To see the complete version of this resource please visit:  
[www.bbsrc.ac.uk/stemcellsresource](http://www.bbsrc.ac.uk/stemcellsresource)



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# Stem Cells

## science and ethics



*It is the mark of an educated  
mind to be able to entertain a thought  
without accepting it.*

*Aristotle (384 BC - 322 BC)*

