





2 Ethics

In this module, the students work through the legal and ethical basics of stem cell research. As participants in a scientific conference, they prepare a panel, a poster and a pitch.

All students take part in the Panel and Fishbowl task. Small groups work in parallel on the Poster and Pitch tasks. Alternatively, they may complete the *Pitch* task only.

 135 minutes

 **Tasks:**
panel, poster, pitch, fishbowl

 **Material:**
Panel
Poster A
Poster B
Pitch

Introduction

“Scientific progress makes moral progress a necessity.”

Anne Louise Germaine de Stael, French-Swiss Writer, 1766-1817


“Progress is only possible when you intelligently break the rules.”

Boleslav Barlog, German director, 1906-1999

Panel

The students answer the question from a personal standpoint: “At which point on does an embryo represent a life worthy of protection?” A timeline is provided for this purpose. The students should first position themselves on the timeline. Ask individual students about their position. What point in time did you choose? Why?

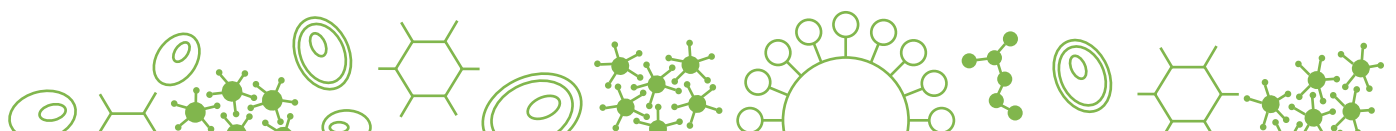
Then distribute the panel material and ask four students to be panel participants and debate with each other. They can each adopt one of the four positions described in the material.

 30-40 minutes

Large group
Panel exercise sheet
Panel material sheets

4 students

Then distribute either the Poster or the Pitch task





Poster

Two small groups of students (A and B) each develop a poster. Both groups are given materials on their topic. The students then briefly present their posters. They each have 5 minutes to do this. The audience can ask questions.

⌚ 30 minutes preparation
2 x 5 minutes presentation
2 x 5 minutes questions

2 groups

Poster exercise sheet
A poster material sheets
B poster material sheets
Flip chart-Paper and pens/
pencils Stopwatch

Pitch

The students work in two groups. They all read the research project material. One group prepares a short pitch on the project. The other group prepares test questions on the project. Notes on presentation structure and test levels are given to the students on the exercise sheet.

⌚ 30 minutes preparation
10 minutes presentation
10 minutes test

2 groups

Pitch exercise sheet
Pitch materials sheets

Fishbowl

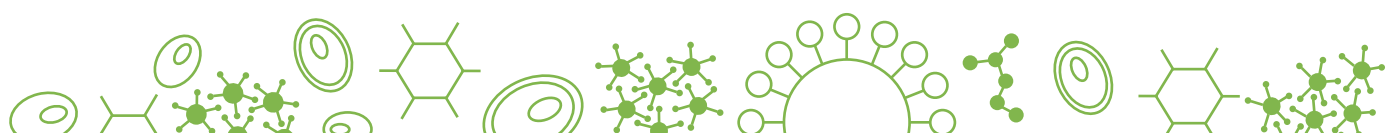
Students work in 3 groups. Everyone reads the 'Fishbowl' handout. Working in their groups, students then prepare arguments for one of the three positions. The worksheet includes information on these positions and a suggested structure for the opening statement. Each group also prepares three critical questions for, or counterarguments, to the other positions.

⌚ 20 minutes preparation
3 x 1 minute opening statement
20 minutes discussion

3 groups

Fishbowl worksheet
Fishbowl handout

Place four chairs at the front of the class. Each group sends one speaker into the fishbowl. The speakers each take a seat and outline their positions in an opening statement. The groups then take it in turns to send one person into the fishbowl to introduce one of the prepared questions or counterarguments into the debate. To do so, they take a seat on the unoccupied fourth chair.



**Online fishbowl**

You can also use the fishbowl technique in online lessons.

1. Tell the students to read the 'Fishbowl' handout.
2. Meet up in your virtual classroom.
3. Welcome the class to the 'Fishbowl' online conference.
4. Introduce the 'Fishbowl' worksheet.
5. Divide the students into three groups and use the meeting tool to get the groups working through the exercise (on Zoom, for example, groups can be assigned and activated using "breakout rooms").
6. Come back together in the online classroom for the fishbowl.
7. The three speakers should make their opening statements and begin the debate.
8. The groups then pose their questions and make their counterarguments. To become involved, students can raise their hands or use the appropriate meeting tool feature (on Zoom, for example, listeners can use the reaction button or the messaging feature).

Outlook

"Our conference continues. In the next module we look at therapies based on stem cell research."

