

Ethics of stem cell- based embryo models (SCBEMs)



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About Me:

From Western Washington University (WWU) to KU Leuven

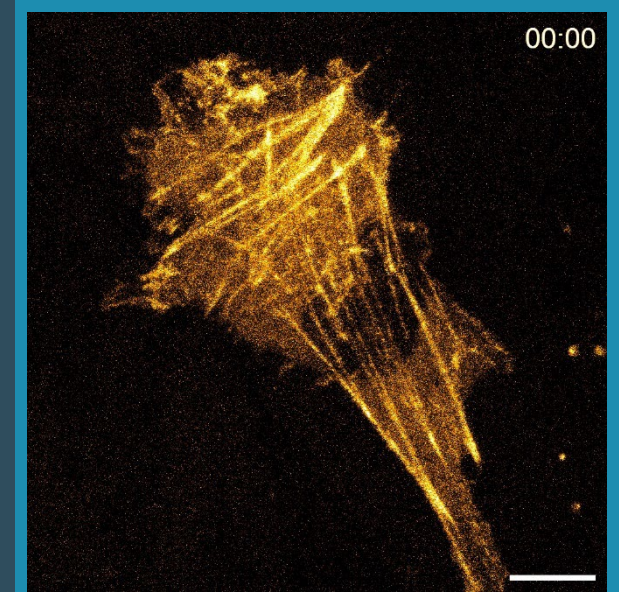


Photo taken while working in the **Galati Lab**, WWU

Major: Cell and Molecular Biology, minor in Honors Interdisciplinary Studies

Euro Scholars Project: Ethics of stem cell-based embryo models (SCBEMs) in research

Embryo Research: the 14-day rule

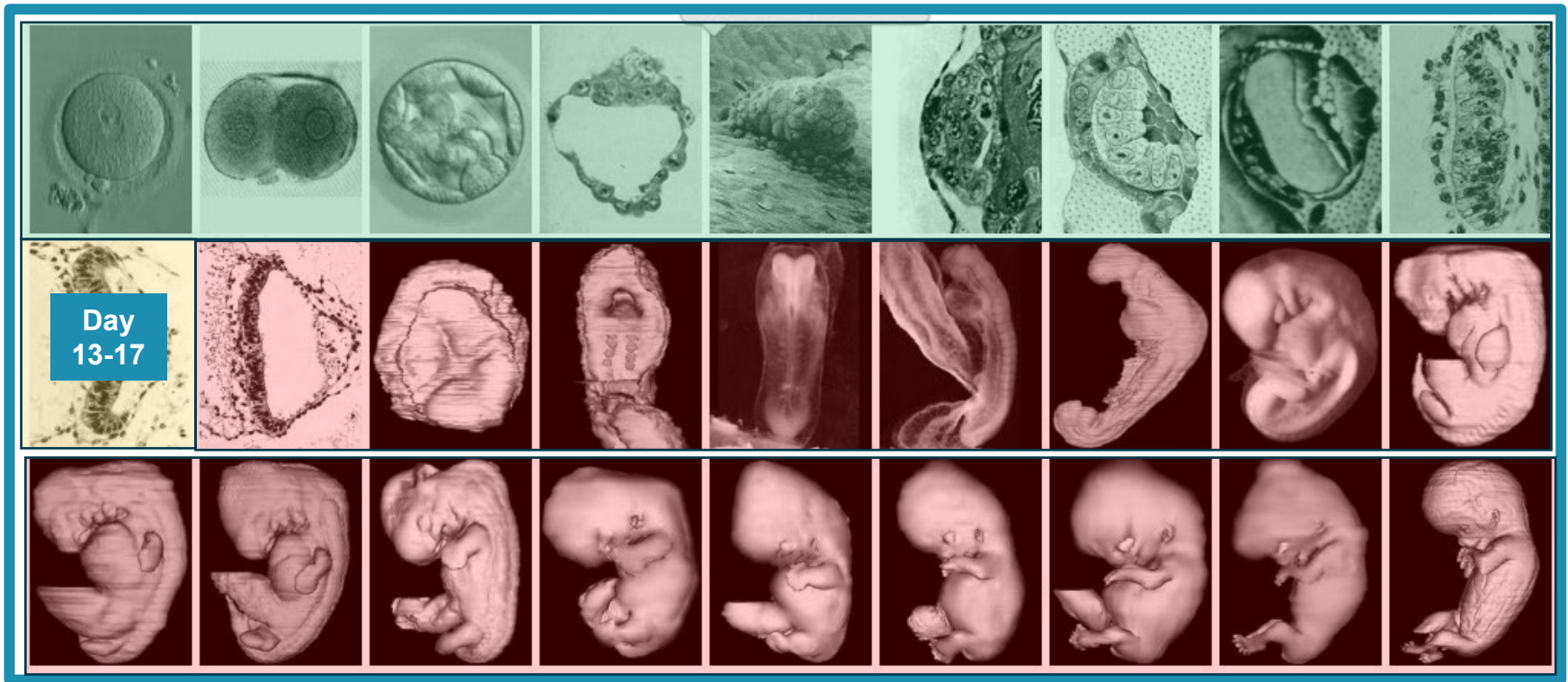
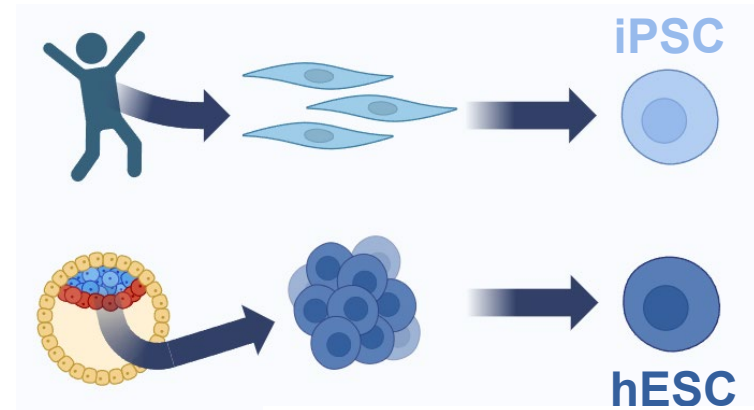


Photo from the Virtual Human Embryo Project

Stem cell-based embryo models (SCBEMs)

1. Induced pluripotent stem cells (**iPSCs**) allow for embryo models without embryonic tissue.

- “14-day” rule not very suitable

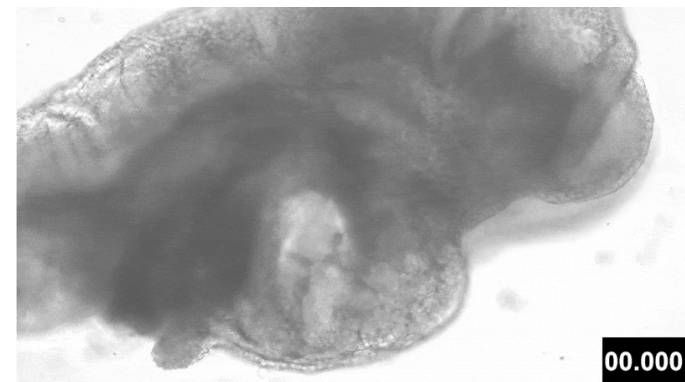


Created in <https://BioRender.com>

2. Technology advances, modeling more complicated stages of development.

- Post-implantation models

Mouse embryoid model from mouse ESCs.

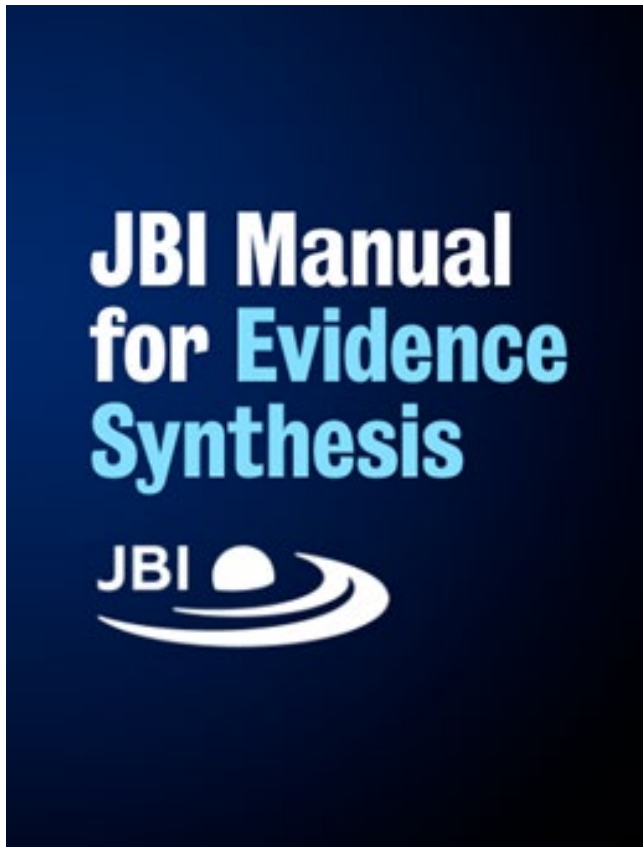


(Lau et al., 2022)

Research Question:

What are the attitudes of stakeholders towards SCBEMs?

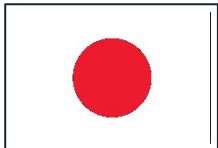
Qualitative Methodology



Conducting a scoping review:

1. Preliminary assessment
2. Gathering evidence from databases
(e.g. PubMed, Web of Science)
 - Search string development
 - Defining inclusion criteria
3. Evidence screening
4. Analysis

Preliminary Work



Varied methods:

Workshops, surveys, focus groups, individual interviews

Stakeholders:

IVF patients, researchers, professionals in health ethics, the public

Recurring themes: lack of public awareness, moral status, mixed feelings towards regulation

Concept 1: SCEBMs	Concept 2: Attitudes	Concept 3: Stakeholders
embryo* bod*	Interview	Scientist*
3D embryo*	telephone survey	Researcher*
artificial embryo*	poll	General public
blasto*d*	questionnaire	Lay citizens
embryo like*	Online survey	Lay people
embryo-like*	workshop	Parents
embryo model*	statement	Religious group
embryo-model*	Case study	Religious community*
embryo* organo*d*	Perspective*	church
embryonic organo*d*	Attitude*	Popular media
ETX embryo*	Group discussion	News organization*
ETS embryo*	Focus group*	Social media
gastrulo*d*	Perception*	Journalist*
hESC colon*	Dialogue	Parent
iblasto*d*	View*	Stakeholder*
iETX embryo*	Conversation*	Citizen*
model* of human development*	Survey*	Health care professional*

PubMed Draft:

((("embryo" bod*[tw] OR "3D embryo"[tw] OR "artificial embryo"[tw] OR "blasto*d"[tw] OR "embryo like"[tw] OR "embryo-like"[tw] OR "embryo model"[tw] OR "embryo-model"[tw] OR "embryo organo*d"[tw] OR "embryonic organo*d"[tw] OR "ETX embryo"[tw] OR "ETS embryo"[tw] OR "gastrulo*d"[tw] OR "hESC colon"[tw] OR "iblasto*d"[tw] OR "iETX embryo"[tw] OR "model" of human development*[tw] OR "SHEEF"[tw] OR "synthetic embryo"[tw] OR "embryo" construct*[tw] OR "model" of embryo*[tw] OR "blastocyst" model*[tw] OR "embryogenesis model*[tw] OR "embryo" structure*[tw] OR "embryo" entit*[tw] OR "epiblast model*[tw] OR "SCBEM*[tw] OR "stem cell embryo*[tw] OR "stem cell"-based embryo*[tw] OR "embryo" cultur*[tw] OR "embryo" model*[tw] OR "embryo" stem cell research*[tw] OR "embryoid*[tw] OR "stem cell-derived embryo*[tw] OR "embryoid bodies"[tw] OR "hSCEBM*[tw] OR "human embryonic stem cell*[tw] OR "cultured" of human embryo*[tw] OR "creation of embryo*[tw] OR "embryo" SCR*[tw] OR "hESC"[tw] OR "embryonic stem cell*[tw] OR "embryo research*[tw] OR "surplus embryo*[tw] OR "embryo research"[tw]) AND ("interview"[tw] OR "telephone survey"[tw] OR "online survey"[tw] OR "poll"[tw] OR "questionnaire"[tw] OR "workshop"[tw] OR "statement"[tw] OR "case study"[tw] OR "perspective"[tw] OR "attitude"[tw] OR "focus group"[tw] OR "perception"[tw] OR "dialogue"[tw] OR "view"[tw] OR "conversation*[tw] OR "survey"[tw] OR "Delphi"[tw] OR "public engagement"[tw] OR "opinion*[tw] OR "consultation"[tw] OR "awareness"[tw] OR "citizens" [tw] OR "citizens assembly"[tw]) AND ("scientist*[tw] OR "researcher*[tw] OR "general public"[tw] OR "lay citizens"[tw] OR "lay people"[tw] OR "lay perspective*[tw] OR "religious group"[tw] OR "religious community"[tw] OR "church"[tw] OR "popular media"[tw] OR "news organization*[tw] OR "social media"[tw] OR "journalist*[tw] OR "parent*[tw] OR "stakeholder*[tw] OR "citizen*[tw] OR "health care professional*[tw] OR "members of the public"[tw] OR "religion"[tw] OR "health care personnel*[tw] OR "health care provider*[tw] OR "physician*[tw] OR "ethicist*[tw] OR "donor*[tw] OR "bioethicist*[tw] OR "policy maker*[tw] OR "policymaker*[tw] OR "policy-maker*[tw] OR "clinician*[tw] OR "advocacy group*[tw] OR "community*[tw] OR "the public"[tw] OR "social groups"[tw]))

Thank you!

Questions?

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