

Ethics of stem cell-based embryo models (SCBEMs)



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About Me:

From Western Washington University (WWU) to KU Leuven

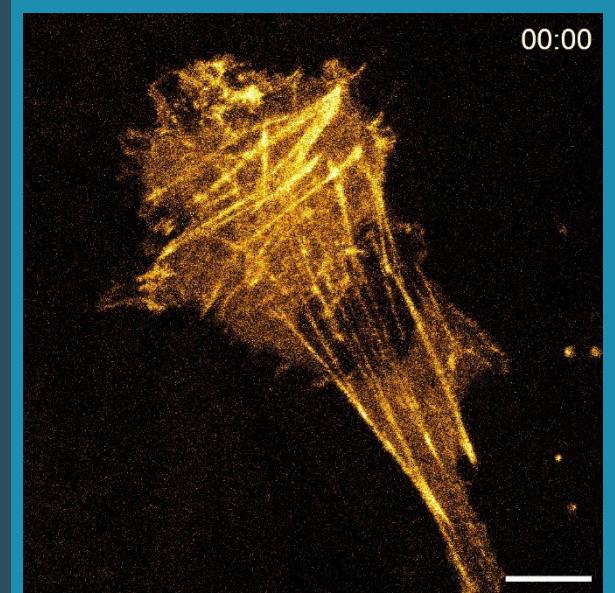


Photo taken while working in the **Galati Lab**, WWU

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

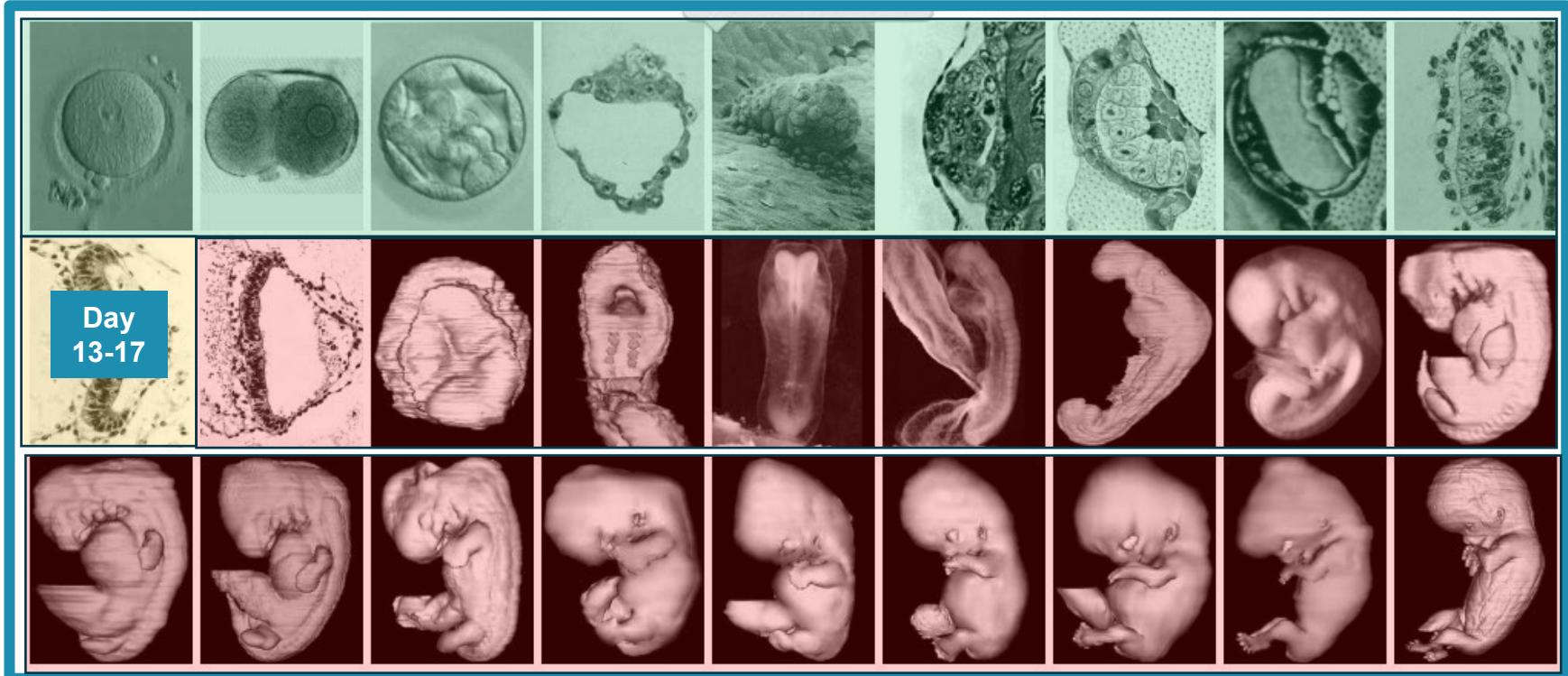
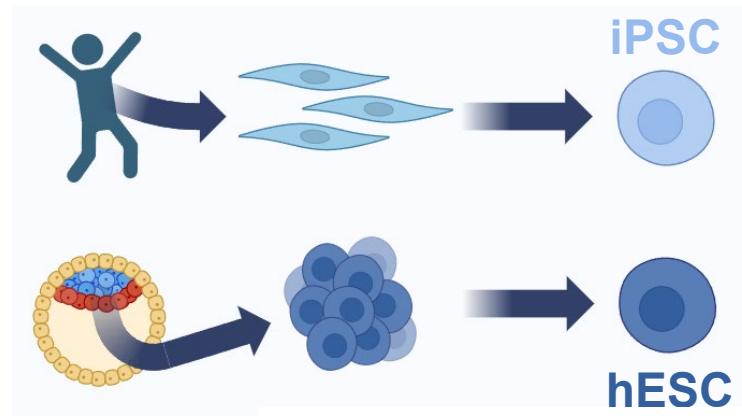


Photo from the Virtual Human Embryo Project

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

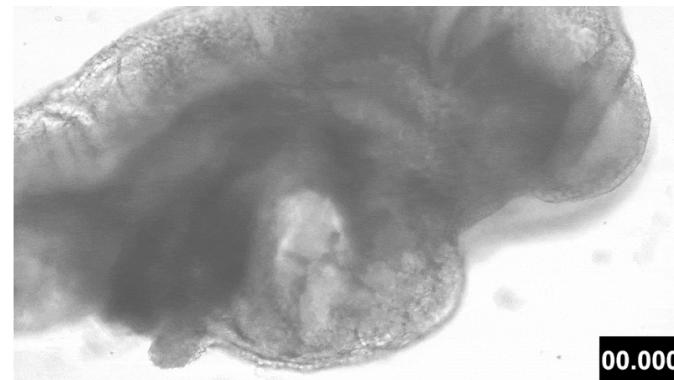


Created in <https://Biorender.com>

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

- Post-implantation models

Mouse embryoid model from mouse ESCs.

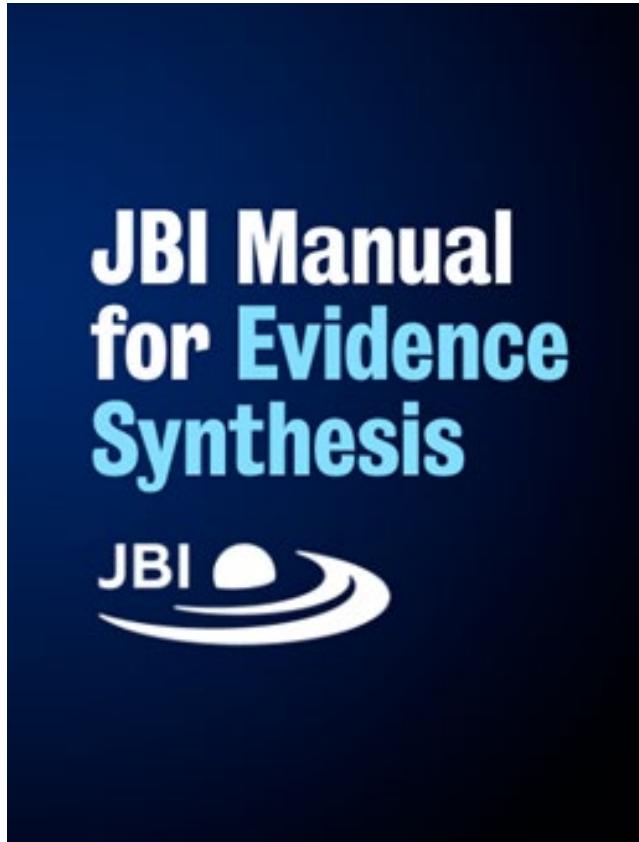


(Lau et al., 2022)

Research Question:

What are the attitudes of stakeholders towards SCBEMs?

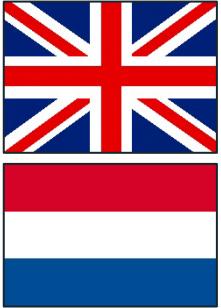
Qualitative Methodology



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 commun*
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* 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 "embryo* construct*"[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* entity*"[tw] OR "epiblast model*"[tw] OR "SCEBM*"[tw] OR "stem cell embryo*"[tw] OR "stem cell-based embryo*"[tw] OR "embry* cultur*"[tw] OR "embry* model*"[tw] OR "embry* stem cell research*"[tw] OR "embryoid*"[tw] OR "stem cell-derived embryo*"[tw] OR "embryo bodies*"[MeSH] OR "hSCEBM*"[tw] OR "human embryonic stem cell*"[tw] OR "cultur* of human embryo*"[tw] OR "creation of embryo*"[tw] OR "embry* SCR*"[tw] OR "hESC*"[tw] OR "embryonic stem cell*"[tw] OR "embryo research*"[tw] OR "surplus embryo*"[tw] OR "embryo research*"[MeSH] 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 "citizen* assembly*"[tw] OR
("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 commun*"[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 "communit*"[tw] OR "the public*"[tw] OR "social groups*"[tw]))

Thank you!

Questions?

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