

DR MEGAN BEST

Fearfully and
Wonderfully
Made

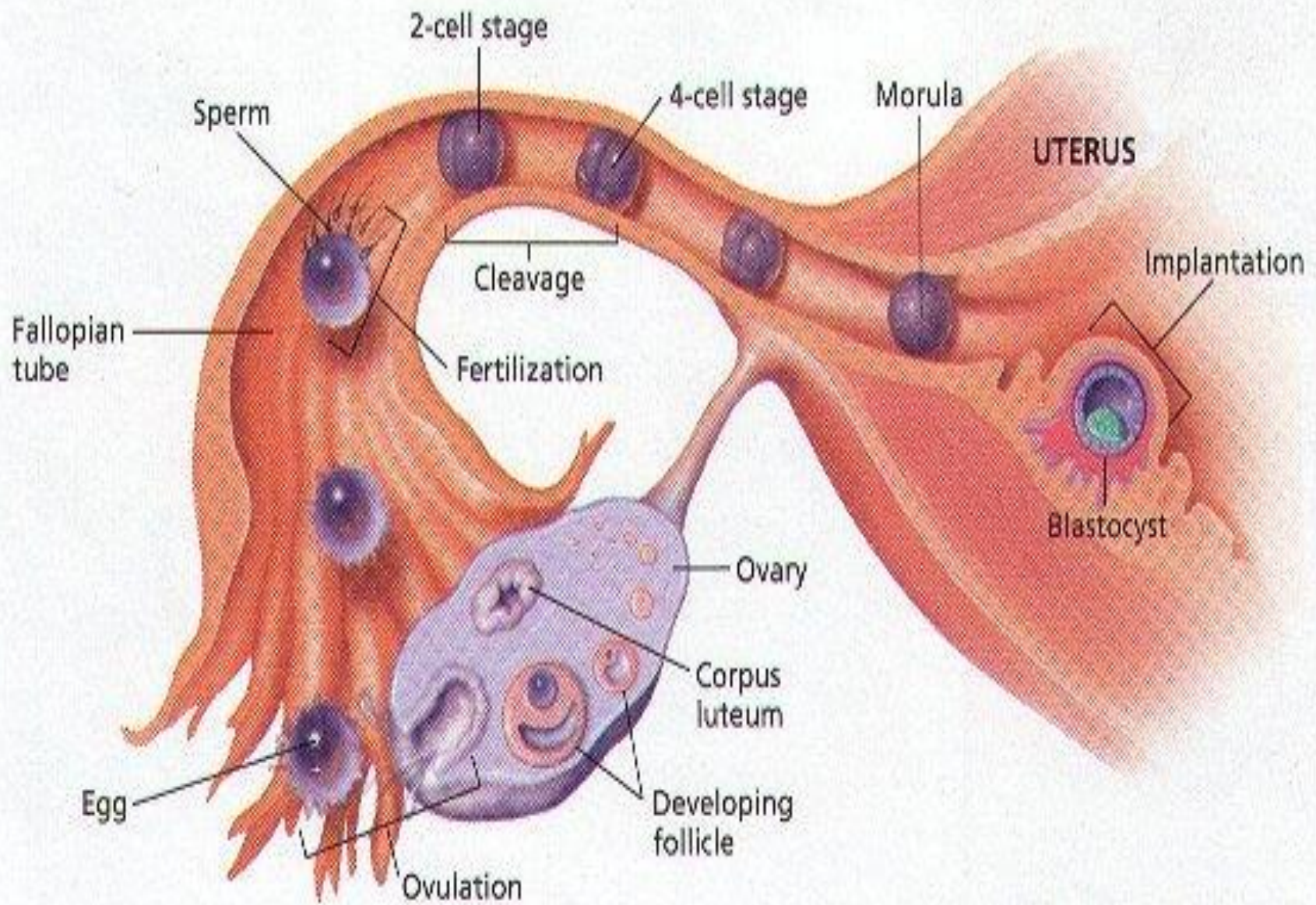
Ethics and the beginning of human life

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CMDFA 2013

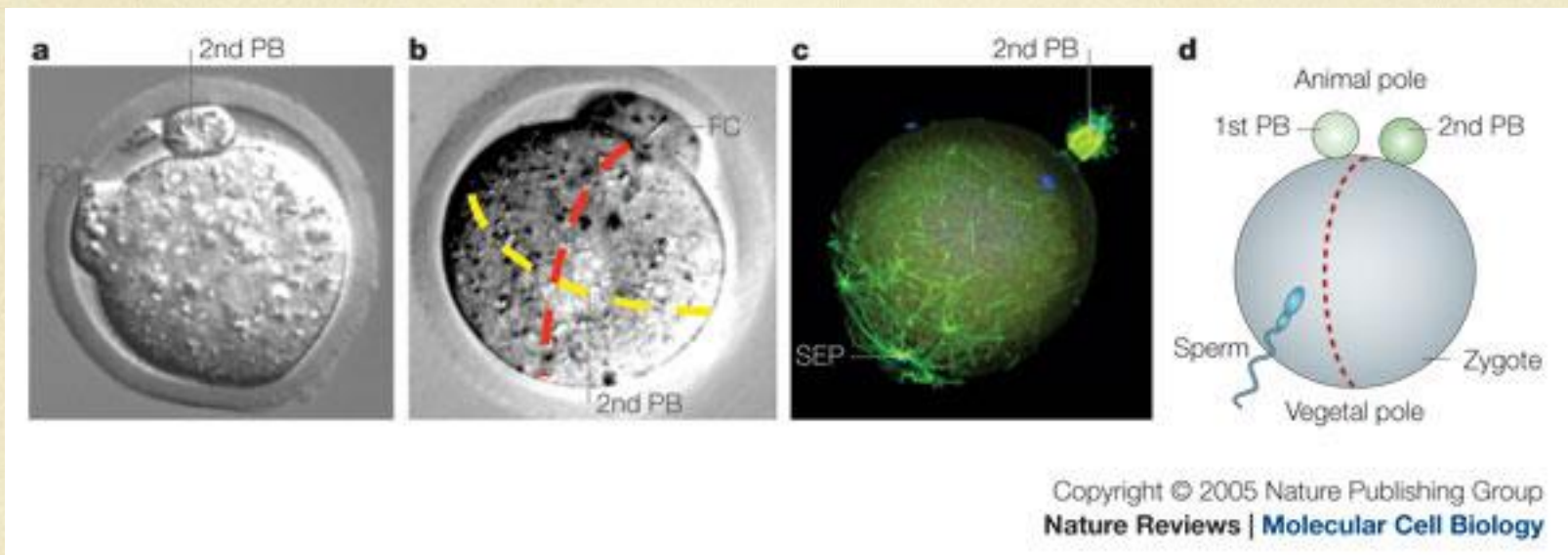
Dr Megan Best

OUTLINE

- Development of the embryo
 - A biology lesson
- Manipulation of the embryo
 - Why is there a problem
- The ethics of it all
 - How have they developed



Fertilized mouse egg.



Magdalena Zernicka-Goetz [Cleavage Pattern and Emerging Asymmetry of the Mouse Embryo](#)

Nature Reviews Molecular Cell Biology 6, 919-928 (December 2005)

Although life is a continuous process, fertilization... is a critical landmark because, under ordinary circumstances, a new, genetically distinct human organism is formed when the chromosomes of the male and female pronuclei blend in the oocyte [egg]. This remains true even though the embryonic genome is not actually activated until 2-8 cells are present, at about 2-3 days...

During the embryonic period proper, milestones include fertilization, activation of the embryonic genome, segregation of embryonic from extra-embryonic cells, implantation, and the appearance of the primitive streak and bilateral symmetry.

Despite the various embryological milestones, however, development is a continuous rather than a saltatory process, and hence the selection of prenatal events would seem to be largely arbitrary.

R O'Rahilly and F Müller, *Human Embryology & Teratology*, 3rd edn, Wiley-Liss, New York, 2001 , p. 8.

Biological Definition

Human embryo: a unified, unique, dynamic, self-directed whole from conception

Philosophical definition

- Human personhood: traditionally 'an individual being of a rational nature'
- Fletcher: current ability to exercise reason
- Varying starting points for **personhood**
 - Fertilisation
 - Implantation
 - 12-14 days
 - Quickening, 40 days
 - Viability
 - Birth
 - After birth

Warnock report UK 1984:

‘Emerging’ personhood

Destruction permissible up to 14 days -

‘the beginning of individual development’

‘twinning no longer possible’

Further arguments

Consequentialism – the end justifies the means

New definitions: American College of Obstetrics and Gynecology
1972

Other ethical concerns

- Superficial and ill-informed public debate
- Exaggerated claims of benefits
- Financial pressures

THEOLOGICAL DEFINITION

- All humans bear the image of God
 - Genesis 1:26-27
- Conception linked to birth
 - Genesis 4:1; Isaiah 46:3; Matthew 1:18
- Relationship with God while in the womb
 - Psalm 139; Job 10

Biblical themes

- We should not do evil in order to achieve good
 - Romans 3:8

- We should not kill an innocent human being
 - Exodus 20:13; see also Genesis 9:6