

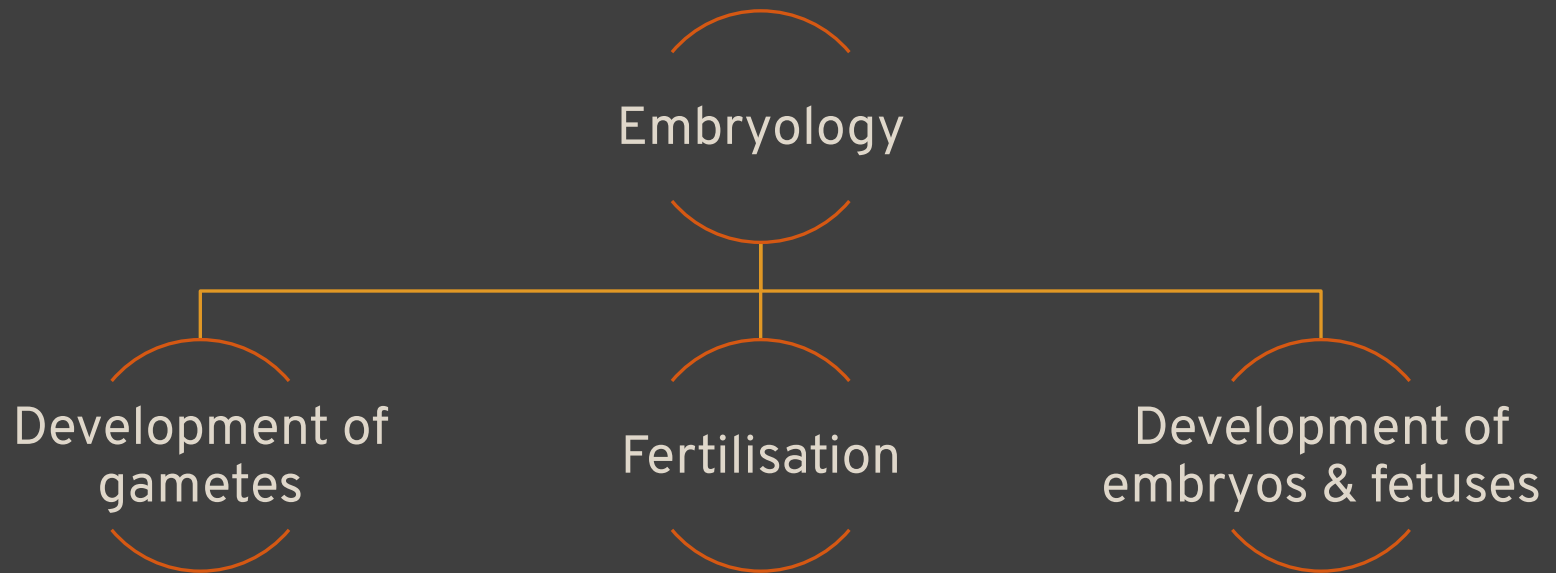


# Embryology

Performed: Student Korkunov Roman  
Group 26B181(1)

# Embryology

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# History *ANCIENT TIMES*

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Preformism

Hippocrates



# History *xviii-xix*

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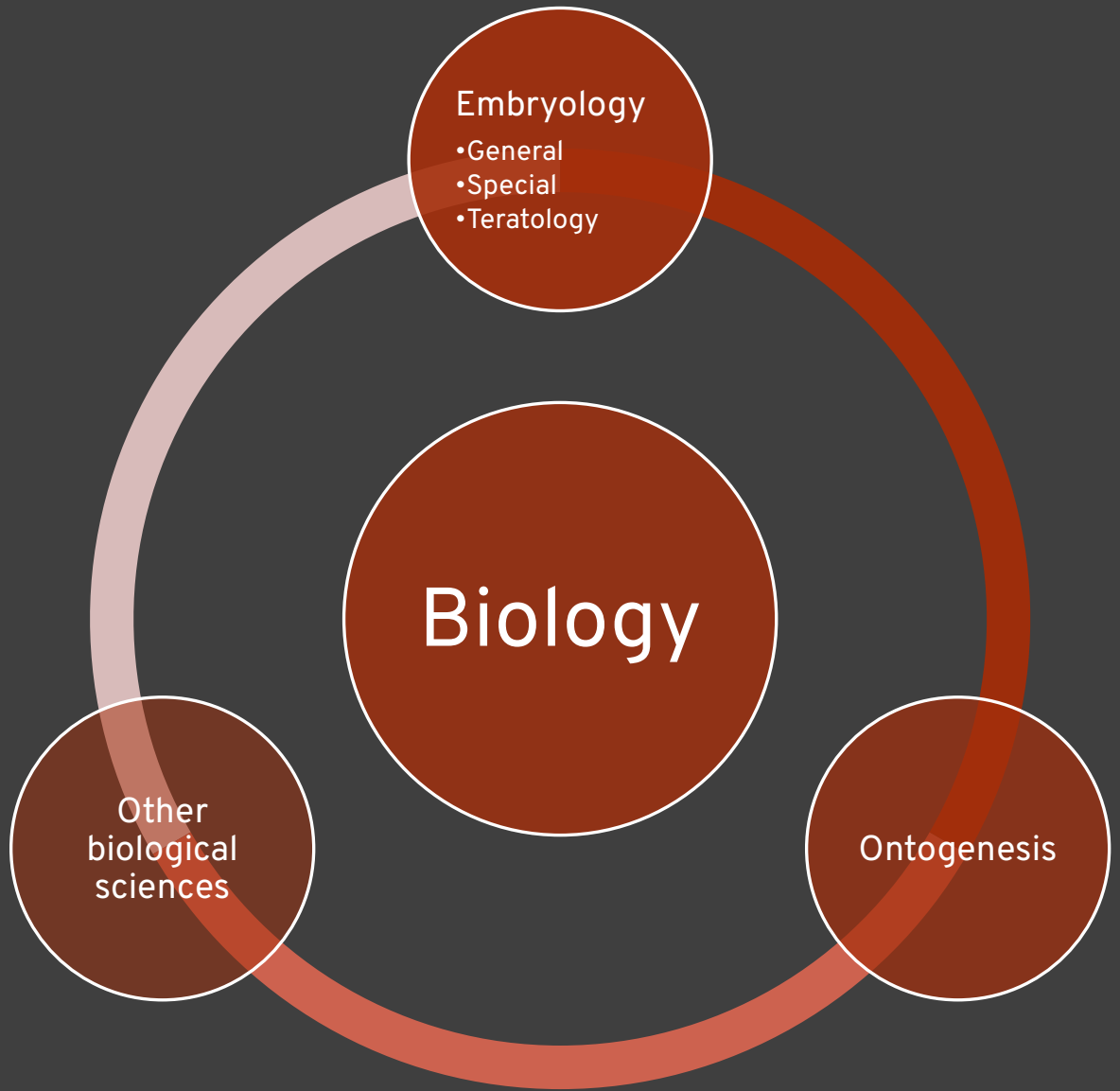
Karl Ernst von Baer



Caspar Friedrich von Wolf

# Embryology

## TAXONOMY



# Embryogenetic periods

## *EMBRYONIC*



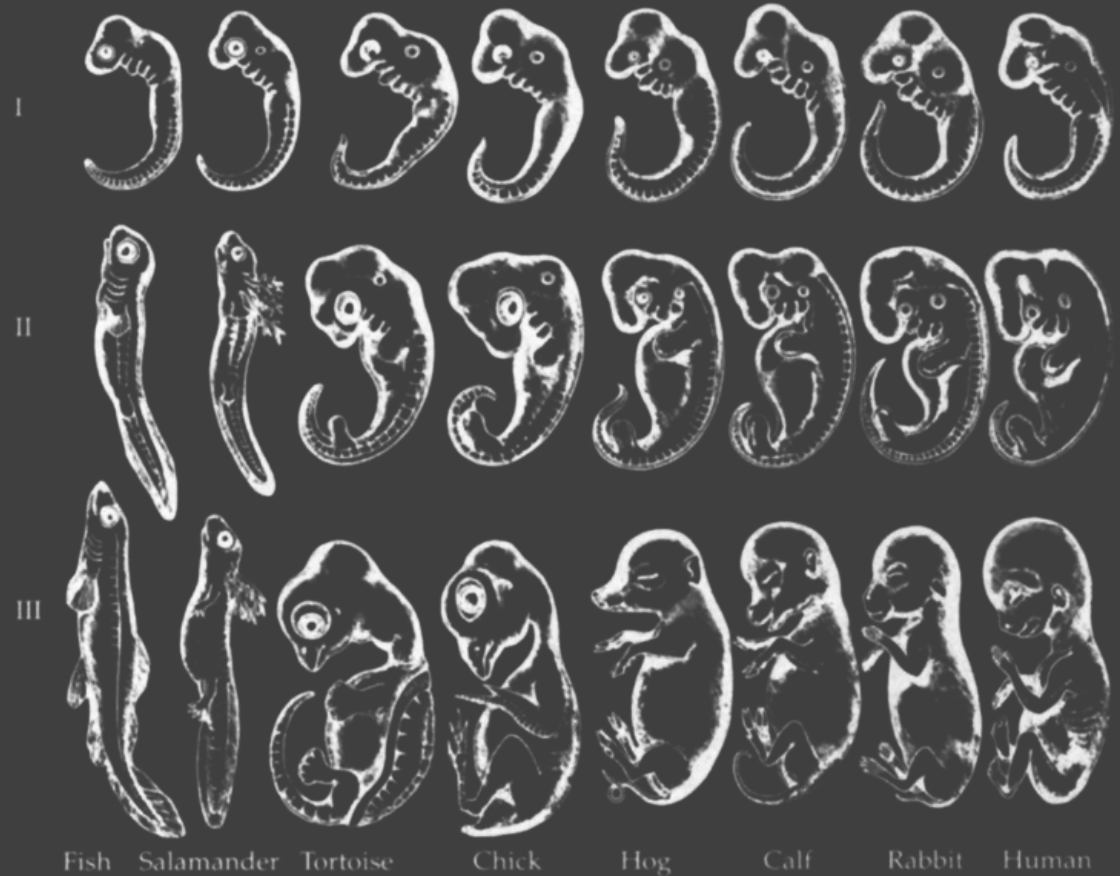
Cleavage

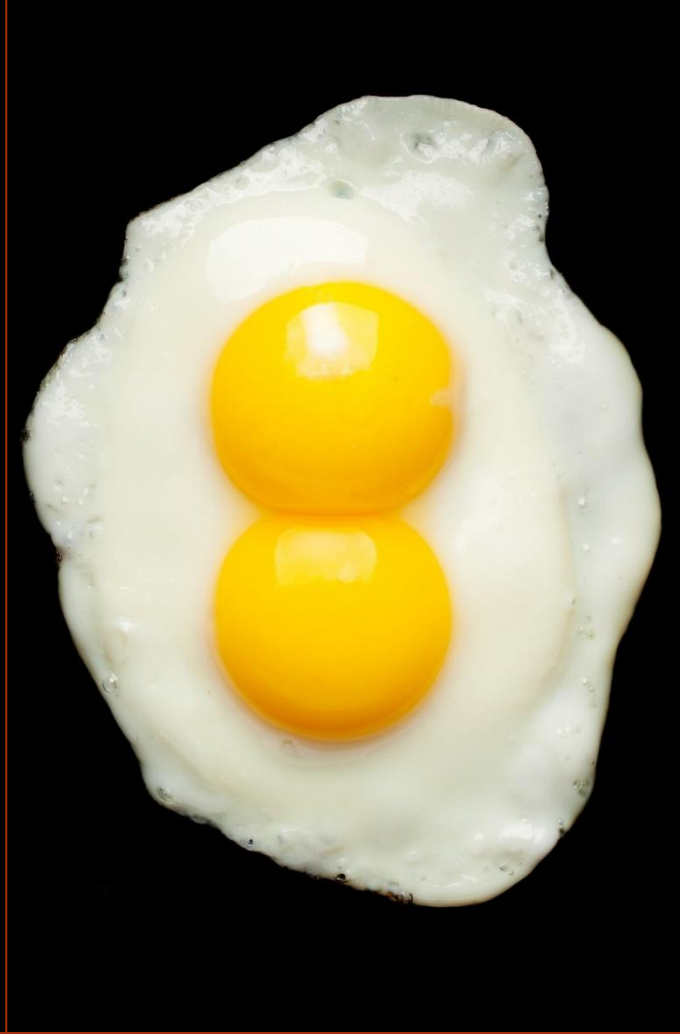


Gastrulation



Organogenesis





# Ovulum

*In the picture: A fertilized egg and a couple of yolks.*

# Ovulum *IMPORTANT*

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Maternal set of chromosomes



Nourishment



Protection





# Spermatozoon

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## A MOTILE SPERM CELL – SPERMATOZOON



## WHY IMPORTANT

Motile activity towards the ovulum

Carrier of the paternal chromosome

Baby sex determination

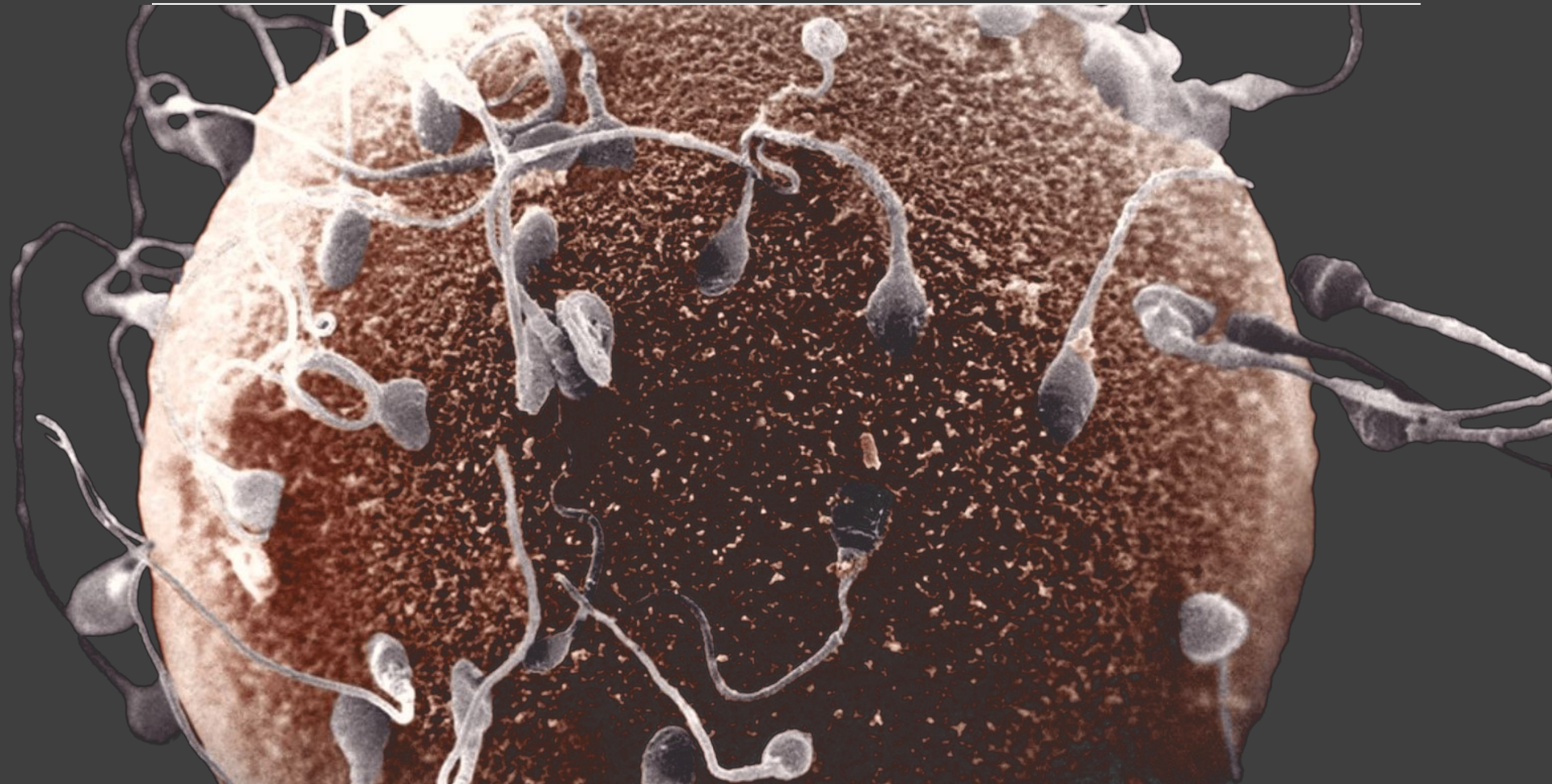
Integral in mitochondrial DNA

Part in fragmenting a signalling protein

Completion of meiosis egg stimulation

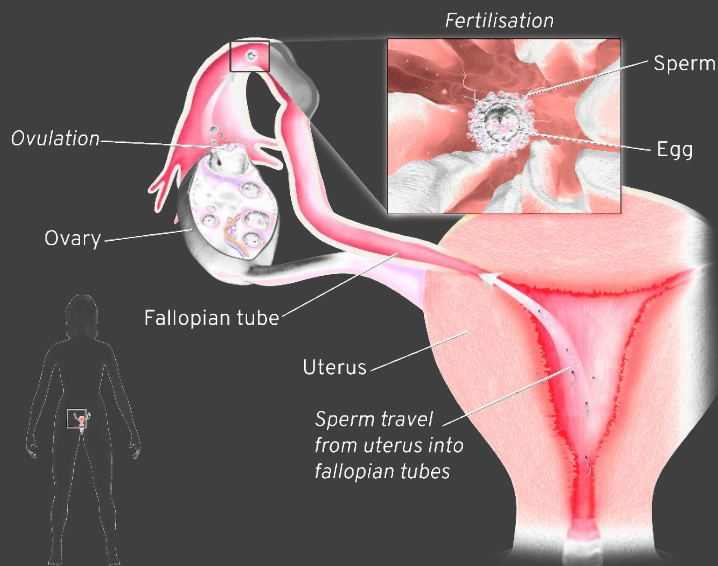
# Fertilization

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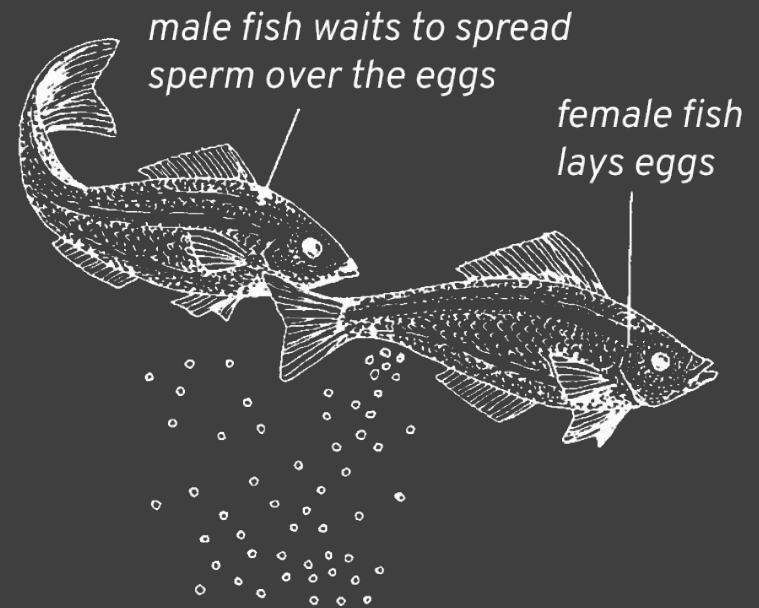


# Fertilization *METHODS*

## INTERNAL



## EXTERNAL




# Practical applications of embryology

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Artificial cultivating problem eggs

Conducting in vitro fertilizations

Conducting implantations of embryos in the uterus



**Thank you for your attention**

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# Go back to...

The image displays a grid of 12 educational slides related to embryology. The slides are arranged in three rows and four columns:

- Slide 1 (Top Left):** Titled "Embryology", it shows a flowchart starting with "Embryology" at the top, branching into "Development of gametes", "Fertilisation", and "Development of embryo & foetus".
- Slide 2 (Top Middle-Left):** Titled "History ANCIENT TIMES", it features a classical bust of Hippocrates with the text "Profession: Hippocrates".
- Slide 3 (Top Middle-Right):** Titled "History XVII-XIX", it shows portraits of scientists with the text "Profession: Scientist".
- Slide 4 (Top Far Right):** Titled "Ontogenesis PERIODISATION", it shows a diagram with three stages: "Pre-embryonic", "Embryonic", and "Post-embryonic".
- Slide 5 (Second Row Left):** Titled "Embryogenetic periods EMBRYONIC", it lists "Oogenesis", "Gastrulation", and "Organogenesis" next to diagrams of cell division.
- Slide 6 (Second Row Middle-Left):** Titled "Ovulum IMPORTANCE", it shows a microscopic view of an ovum and lists "Maternal set of chromosomes", "Nourishment", and "Protection".
- Slide 7 (Second Row Middle-Right):** Titled "Spermatozoon", it shows a sperm cell and lists "Why important?" with points like "Male entity towards the female", "Size of the paternal chromosome", "Why sex determination", "Transfer mitochondrial DNA", and "Not participating in dividing process".
- Slide 8 (Second Row Far Right):** Titled "Fertilization", it shows a microscopic view of a fertilizing egg.
- Slide 9 (Bottom Row Left):** Titled "Fertilization METHODS", it compares "INTERNAL" and "EXTERNAL" fertilization.
- Slide 10 (Bottom Row Middle):** A diagram showing the development of an embryo from Day 1 to Day 16, including stages like "Zygote", "Morula", "Gastrula", and "Implantation".
- Slide 11 (Bottom Row Right):** Titled "Practical applications of embryology", it lists "Artificial cultivating problem eggs", "Conducting in vitro fertilizations", and "Conducting implantations of embryos in the uterus".

# References

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[1] "Embryology," 17 April 2020. [Online]. Available: <https://en.wikipedia.org/wiki/Embryology>. [Accessed 4 May 2020].

[2] J. Maienschein, "Epigenesis and Preformationism," 2005. [Online]. Available: <https://plato.stanford.edu/archives/fall2008/entries/epigenesis/>. [Accessed 4 May 2020].

[3] "Ontogeny," Wikipedia, 16 December 2019. [Online]. Available: <https://en.wikipedia.org/wiki/Ontogeny>. [Accessed 4 May 2020].

[4] "The Will to Bud," 07 March 2019. [Online]. Available: <https://www.longdom.org/open-access/the-will-to-bud-25583.html>, [Accessed 4 May 2020].

[5] "Germ layer," 06 November 2009. [Online]. Available: <https://www.britannica.com/science/germ-layer>, [Accessed 4 May 2020].