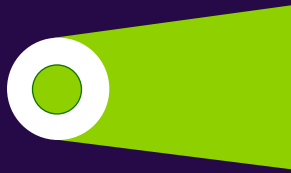


Totipotent

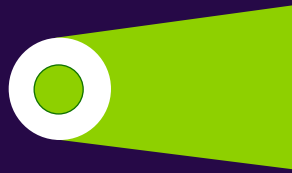
STEM CELL



- Completely undifferentiated • Can produce an entire organism

Totipotent

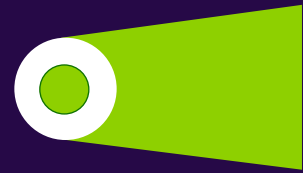
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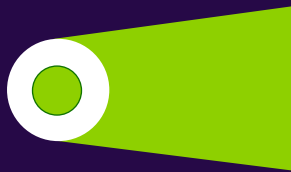
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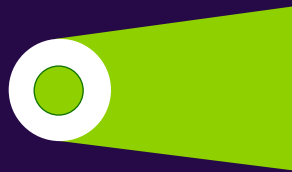
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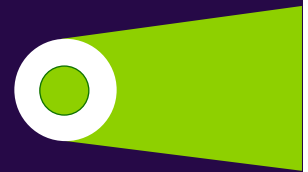
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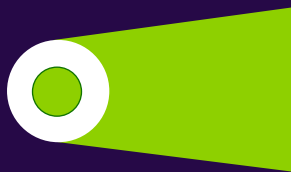
STEM CELL



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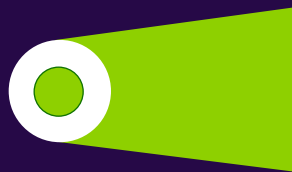
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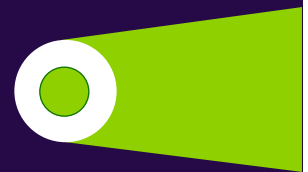
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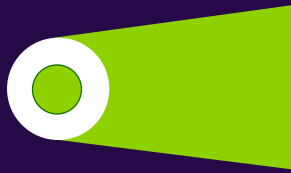
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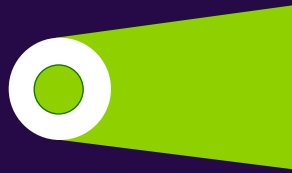
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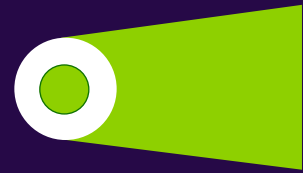
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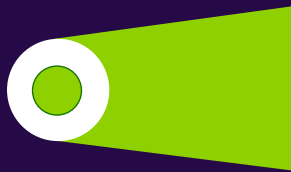
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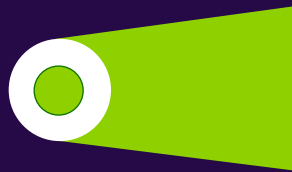
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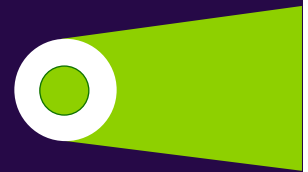
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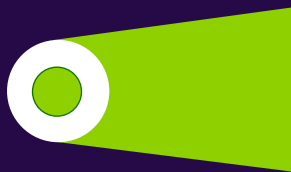
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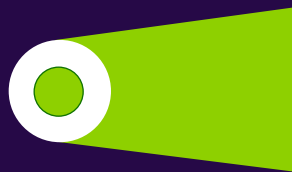
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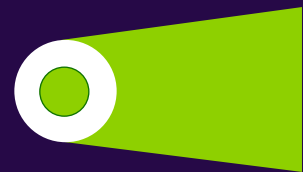
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Pluripotent

STEM CELL



ENDODERM

MESODERM

ECTODERM

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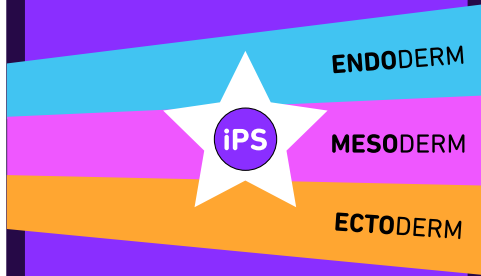
MESODERM

ECTODERM

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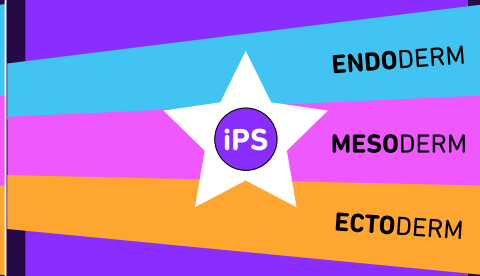
STEM CELL



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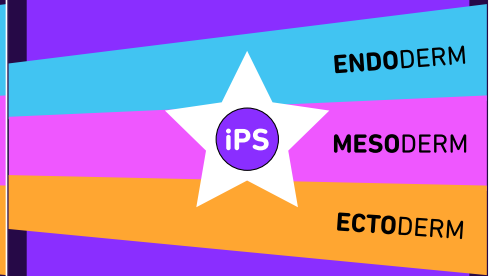
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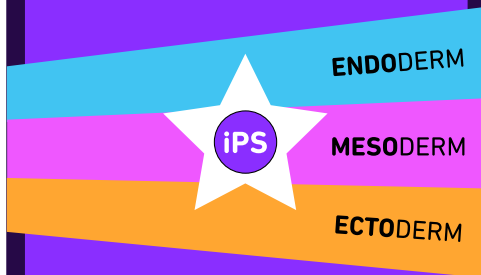
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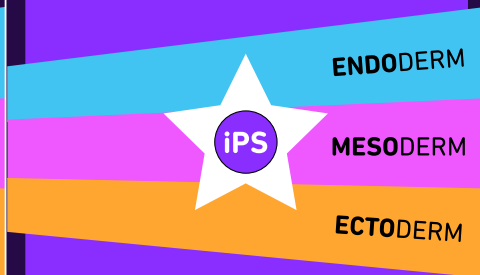
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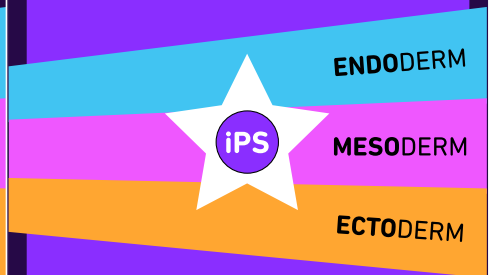
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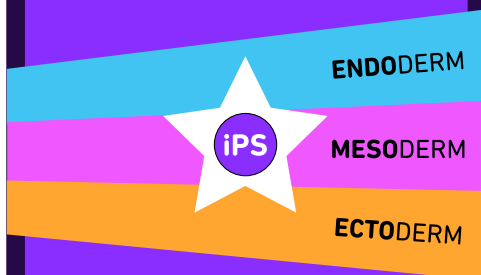
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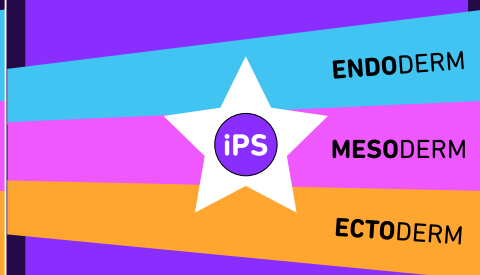
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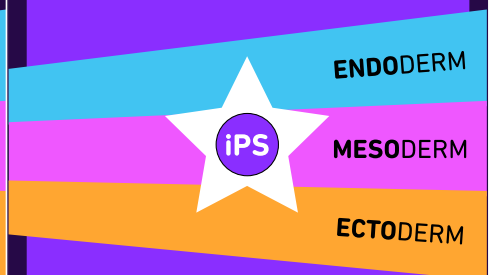
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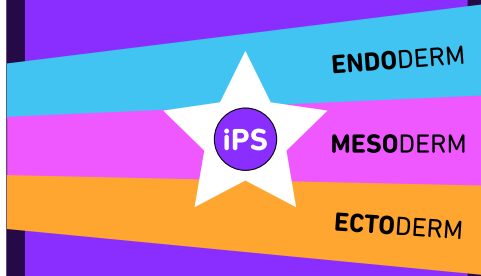
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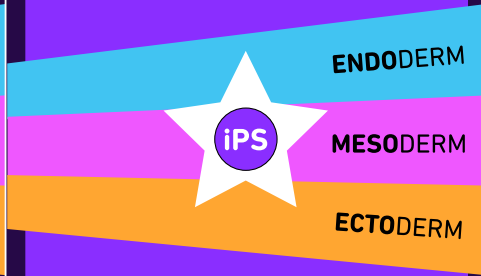
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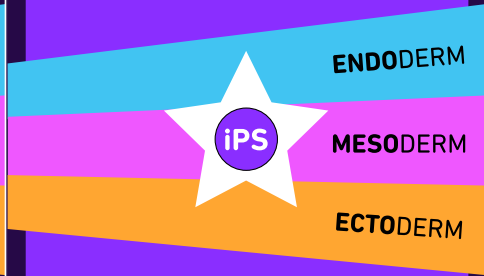
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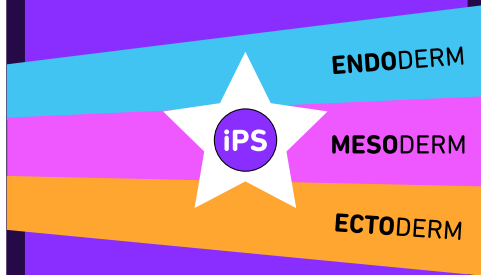
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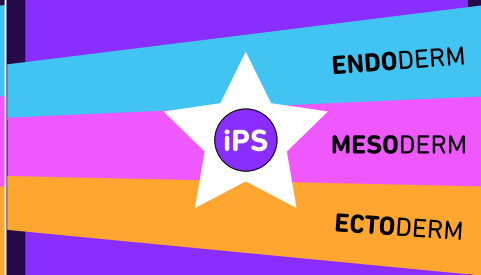
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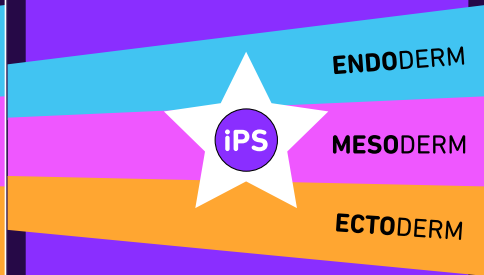
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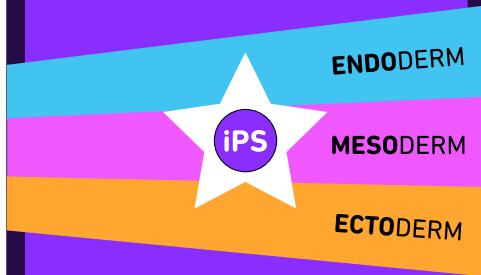
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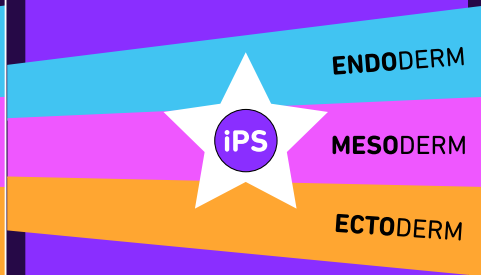
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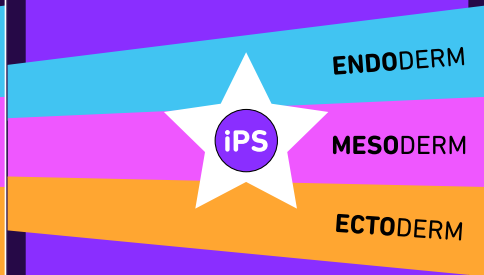
STEM CELL



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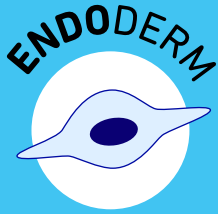
STEM CELL



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Multipotent

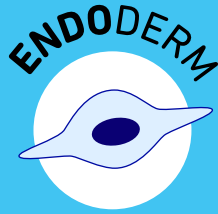
STEM CELL



• Partially differentiated •
Sorted into one of three cell layer

Multipotent

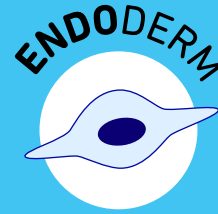
STEM CELL



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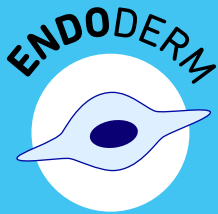
STEM CELL



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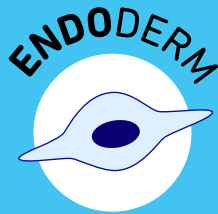
STEM CELL



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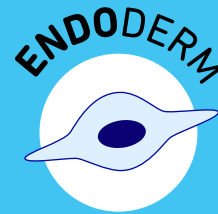
STEM CELL



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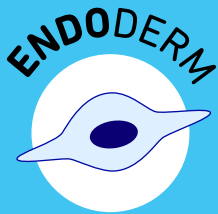
STEM CELL



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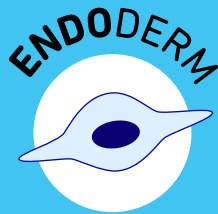
STEM CELL



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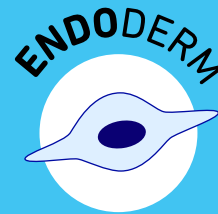
STEM CELL



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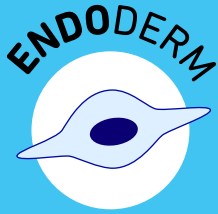
STEM CELL



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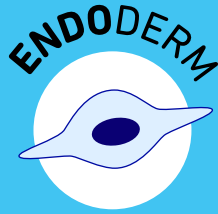
STEM CELL



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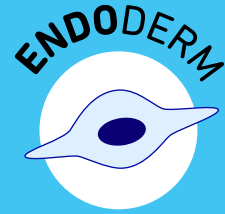
STEM CELL



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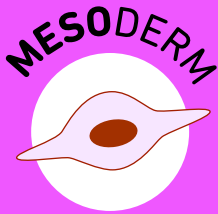
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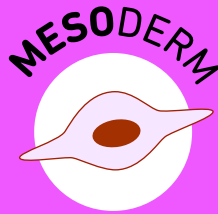
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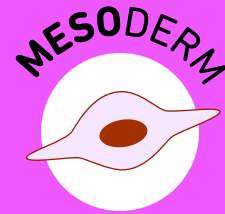
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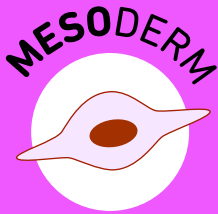
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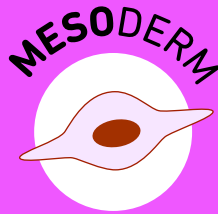
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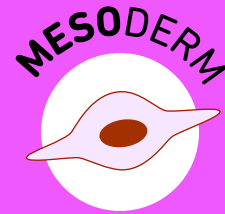
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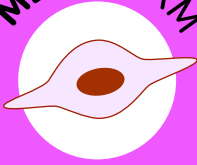
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MESODERM

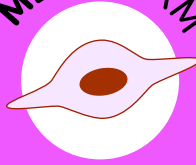


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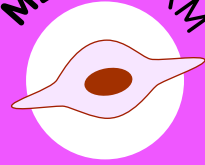


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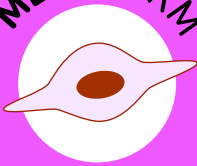


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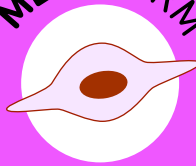
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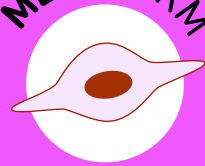
MESODERM



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STEM CELL

MESODERM



Multipotent

STEM CELL

ECTODERM



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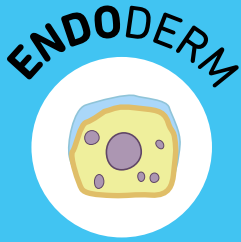
ECTODERM



- Partially differentiated • Sorted into one of three cell layer

Differentiated

CELL

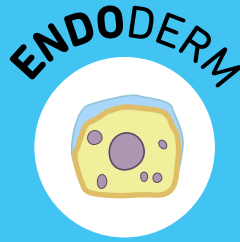


LUNG

• Specialized •
Cell with a specific form and function

Differentiated

CELL

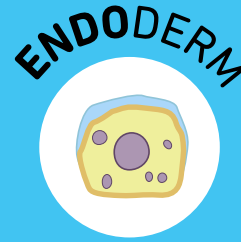


LUNG

• Specialized •
Cell with a specific form and function

Differentiated

CELL

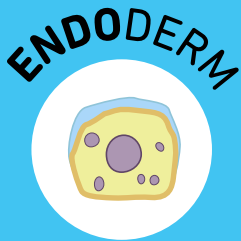


LUNG

• Specialized •
Cell with a specific form and function

Differentiated

CELL

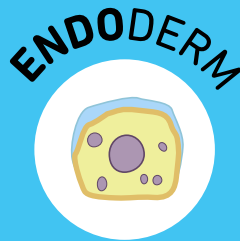


LUNG

• Specialized •
Cell with a specific form and function

Differentiated

CELL

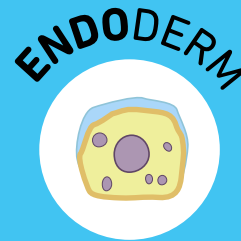


LUNG

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Cell with a specific form and function

Differentiated

CELL

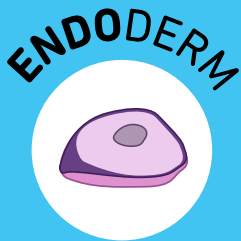


LUNG

• Specialized •
Cell with a specific form and function

Differentiated

CELL

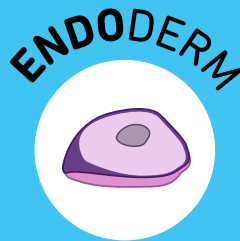


PANCREAS

• Specialized •
Cell with a specific form and function

Differentiated

CELL

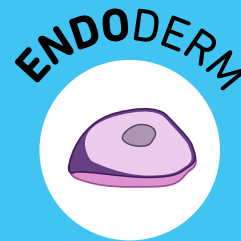


PANCREAS

• Specialized •
Cell with a specific form and function

Differentiated

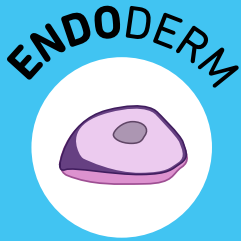
CELL



PANCREAS

• Specialized •
Cell with a specific form and function

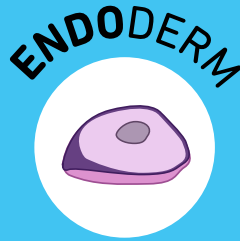
Differentiated
CELL



PANCREAS

• Specialized •
Cell with a specific form and function

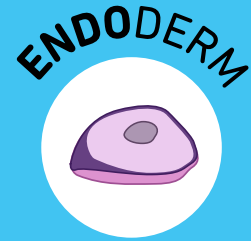
Differentiated
CELL



PANCREAS

• Specialized •
Cell with a specific form and function

Differentiated
CELL



PANCREAS

• Specialized •
Cell with a specific form and function

Differentiated
CELL



HEART MUSCLE

• Specialized •
Cell with a specific form and function

Differentiated
CELL



HEART MUSCLE

• Specialized •
Cell with a specific form and function

Differentiated
CELL



HEART MUSCLE

• Specialized •
Cell with a specific form and function

Differentiated
CELL



HEART MUSCLE

• Specialized •
Cell with a specific form and function

Differentiated
CELL



HEART MUSCLE

• Specialized •
Cell with a specific form and function

Differentiated
CELL



HEART MUSCLE

• Specialized •
Cell with a specific form and function

Differentiated

CELL



RED BLOOD CELLS

• Specialized •
Cell with a specific form and function

Differentiated

CELL



RED BLOOD CELLS

• Specialized •
Cell with a specific form and function

Differentiated

CELL



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Differentiated

CELL



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Cell with a specific form and function

Differentiated

CELL

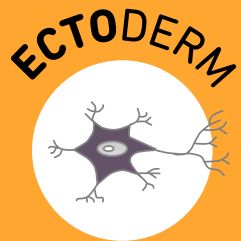


RED BLOOD CELLS

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Cell with a specific form and function

Differentiated

CELL

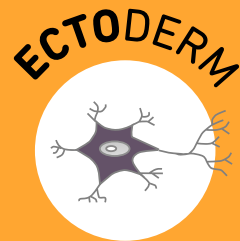


NEURON

• Specialized •
Cell with a specific form and function

Differentiated

CELL

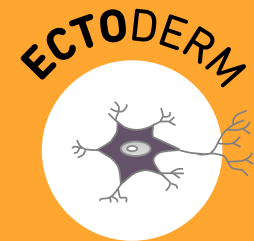


NEURON

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Cell with a specific form and function

Differentiated

CELL

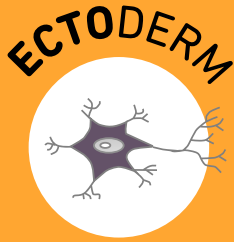


NEURON

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Cell with a specific form and function

Differentiated

CELL

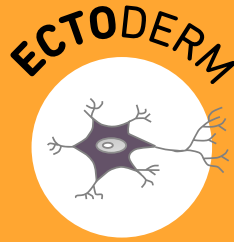


NEURON

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Cell with a specific form and function

Differentiated

CELL

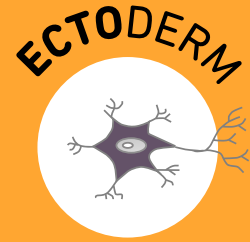


NEURON

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Cell with a specific form and function

Differentiated

CELL

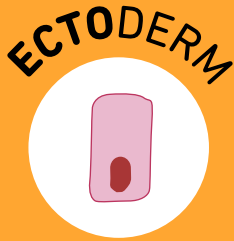


NEURON

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Cell with a specific form and function

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CELL

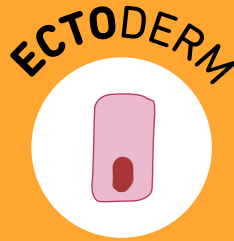


SKIN

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Cell with a specific form and function

Differentiated

CELL

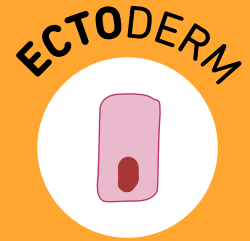


SKIN

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Cell with a specific form and function

Differentiated

CELL

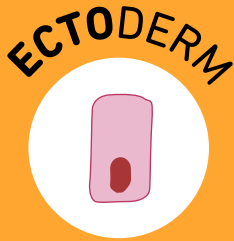


SKIN

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Cell with a specific form and function

Differentiated

CELL

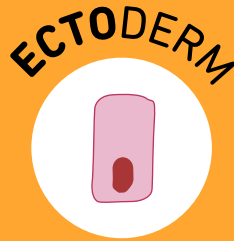


SKIN

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Differentiated

CELL

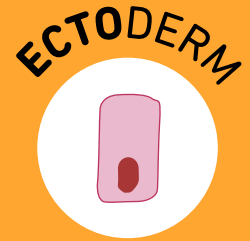


SKIN

• Specialized •
Cell with a specific form and function

Differentiated

CELL



SKIN

• Specialized •
Cell with a specific form and function

CELL DEATH

Starvation

We ran out of cell growth medium, so the cells are starving!



CELL DEATH

Infection

A virus infected the cells and killed them!



CELL DEATH

Lab Fumble

Uh-oh! You tripped and spilled the cells out of the dish!



CELL DEATH

Incubator Malfunction

Oh no! The electricity went out and temps are too cold for cells to live!

