

CLONING MIMI THE MOUSE

Where: Go to www.biologybynapiet.com and left click on the Biotechnology Unit Page. Scroll down to the “click and clone” link in the right

side column or type in this address into the address bar: <http://learn.genetics.utah.edu/content/cloning/>

1. (Under the **EXPLORE AND CLONING**, Click on **CLICK AND CLONE**)
2. What is your mission? _____
3. What color is Mimi the mouse going to be after you clone her? _____
4. (Click on **MIMI THE MOUSE** to start cloning)
5. Match the explanation of how each mouse was used for with its description below:

- A: Pregnant mother
 B: The mouse that will be cloned.
 C: Donates an Egg



Mimi: _____



Megdo: _____



Momi: _____

6. (Click “Let’s Clone Mimi”)
7. Read the instruction in grey, perform the experiment and answer the questions as you go along.

List the Step Descriptions:	Circle the Best Answer for all the Questions
1. Isolate the Donor Cells	1. What cell did Mimi donate? GAMETIC / SOMATIC 2. What cell did Megdo donate? GAMETIC / SOMATIC
2. Removal of Nucleus.	1. What is removed from the egg cell? NUCLEUS / CYTOPLASM
3. Transfer of Nucleus.	1. What is taken out of the somatic cell? NUCLEUS / CYTOPLASM 2. The _____ nucleus was transferred into the nucleus-less egg cell. GAMETIC / SOMATIC
4. Stimulate Cellular Division.	3. How long does it take for the cell to divide? DAYS / MINUTES / HOURS / WEEKS
5. Implanting of Egg into the surrogate mother.	1. What role does Momi play? BIOLOGICAL MOTHER / EYE WITNESS / SURROGATE MOTHER 2. What is placed inside Momi’s Womb? GENETICALLY MODIFIED EGG / A REGULAR EGG / SPERM 3. How long will Momi’s pregnancy be? 19: HOURS / WEEKS / DAYS / MINUTES / MONTHS
6. Delivery of Cloned Baby	1. Which mouse was successfully cloned? MEGDA / MOMI / MIMI 2. What color is the baby mouse? WHITE / BROWN / BLACK 3. Are the cloned mouse and the original mouse the same color? YES / NO 4. Is the DNA from the cloned mouse and the original mouse the same? YES / NO