

C. elegans

Earthworm



- C. elegans* is a roundworm
- C. elegans* is transparent
- C. elegans* is 3 mm in Length

WHY I AM RESEARCHING ABOUT THIS?

Researchers those have already research about it find that it is a powerful model organism for studying animal biology and human disease .

1. **Easy to maintain**

C.elegans is inexpensive to keep in a lab and can be fed escherichia coli.

2. **Simple anatomy:**

Each adult *C. elegans* has a fixed number of cells (around 1000), making it possible to track cell lineages and study development with great precision.

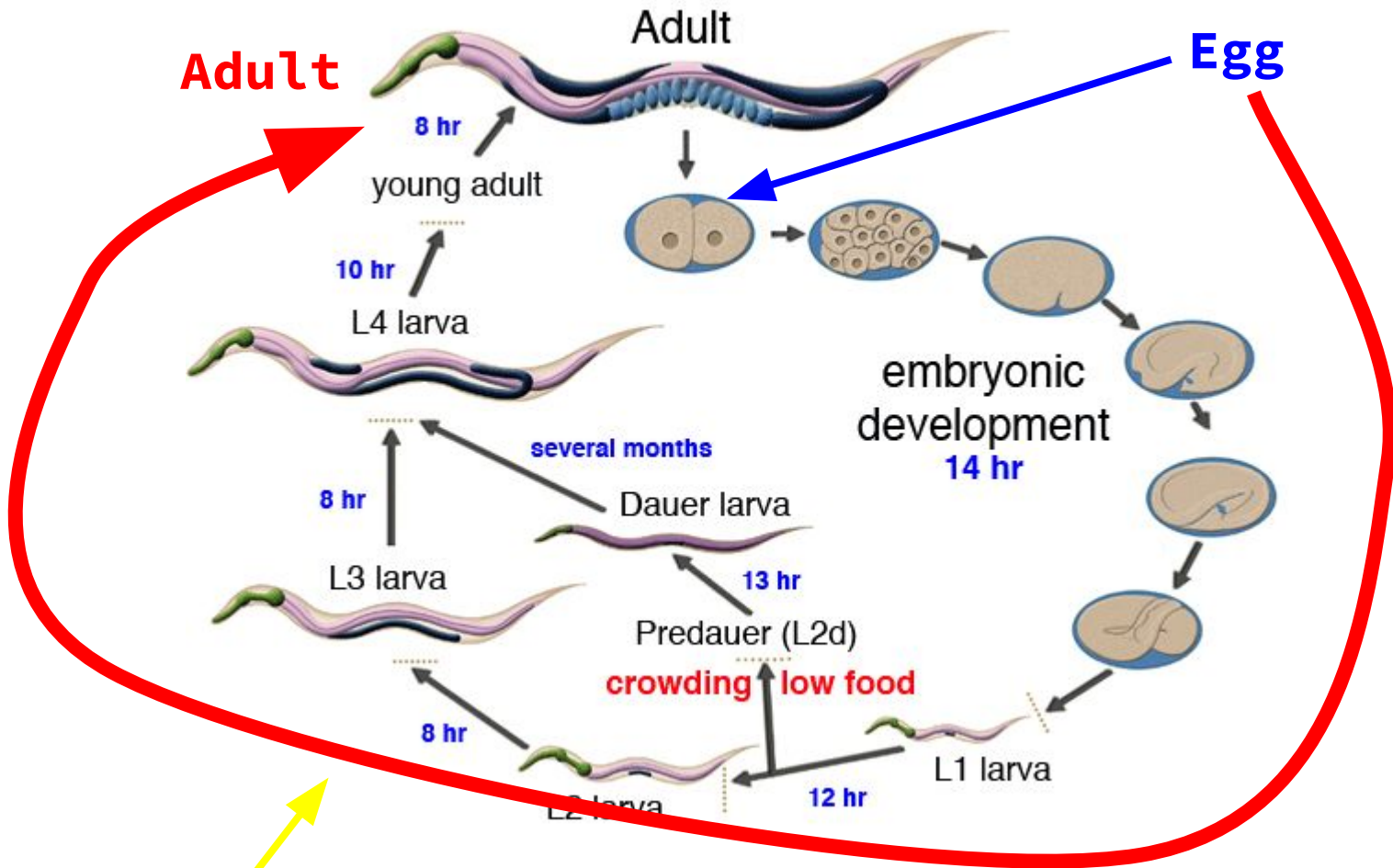
3. **Transparency:**

The transparent body allows researchers to directly observe internal structures and cellular processes under a microscope.

4. **Short life cycle: 3 Days ..** *C. elegans* has a rapid life cycle, allowing for large-scale genetic studies and quick observation of phenotypic changes across generations.

Adult

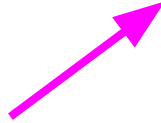
Egg



Life Cycle 3 Days

WHY C. ELEGANS?.....

Humans Have Millions of Neurons



1. Has only 302 Neurons

C. ELEGANS HAS A WELL STUDIED GENOME AND RESEARCHERS HAVE DEVELOPED GENETICS TOOLS TO MANIPULATE IT .

2. AWARDED WITH THREE NOBEL PRIZES

3. SHARES GENES WITH HUMANS

C. ELEGANS SHARES MANY GENES WITH HUMANS SO IT CAN BE USED TO MODEL HUMAN DISEASES. LIKE ALZHEIMER'S DISEASE

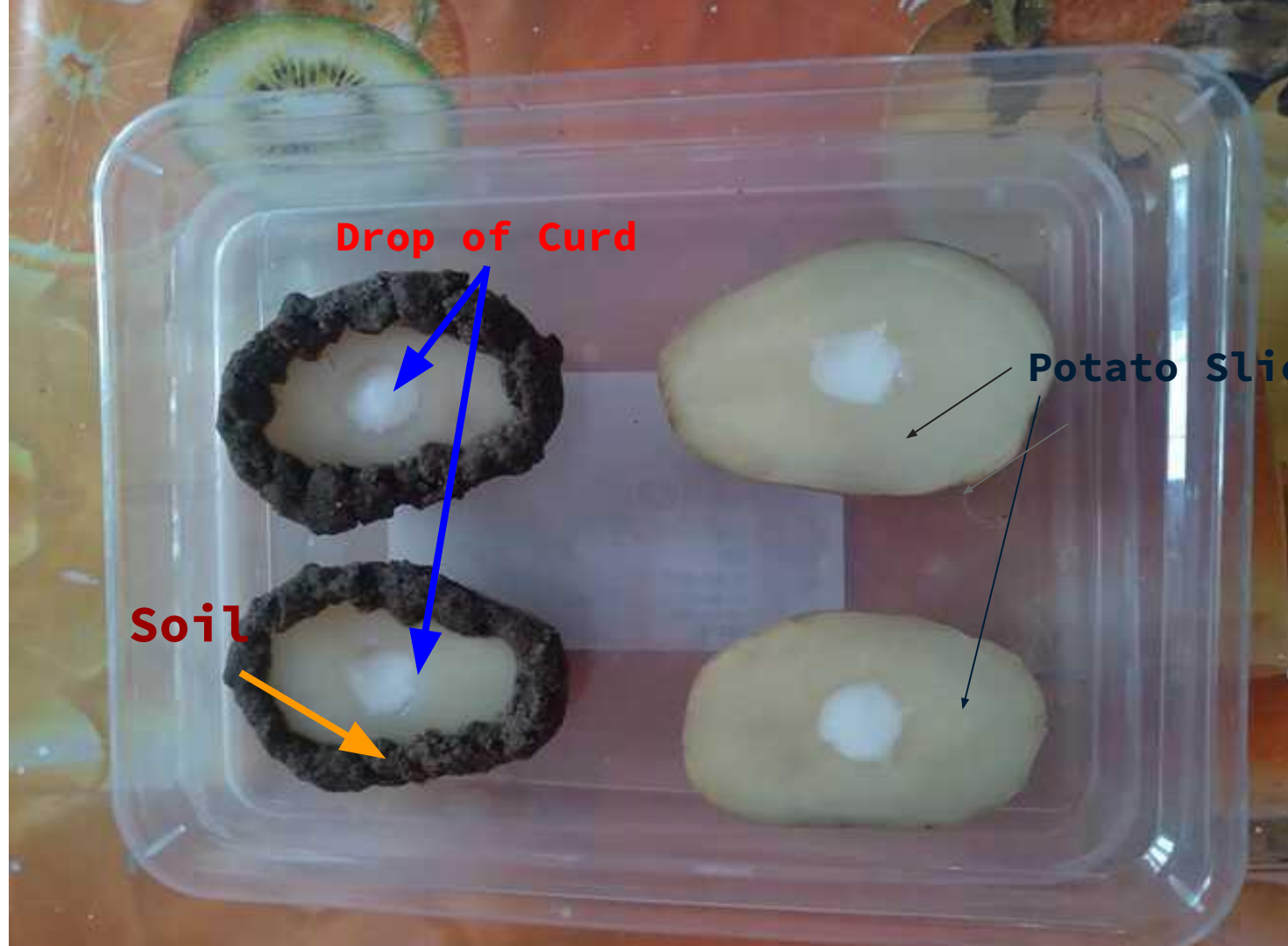
OBJECTIVE TO FIND C.E ELEGANS IN INDIAN NATIVE SOIL

Source of soil



School campus pot



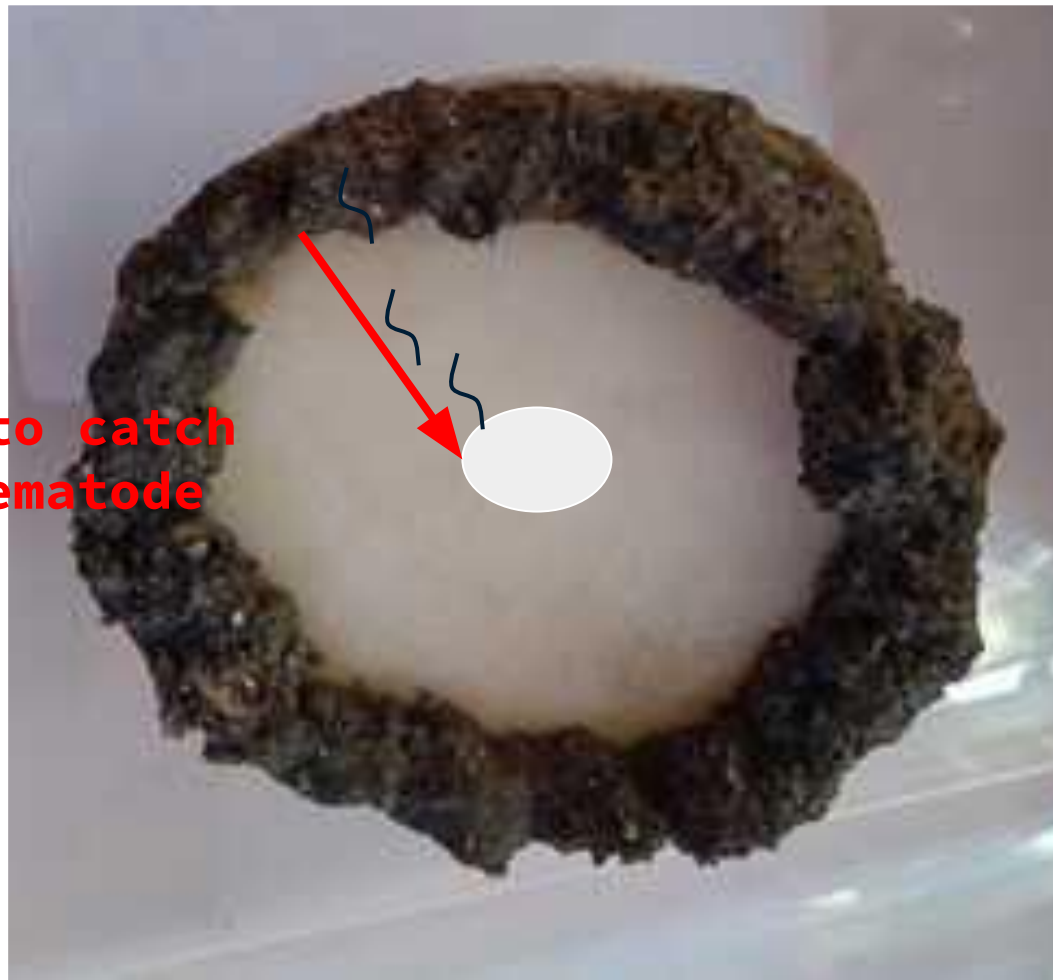


Drop of Curd

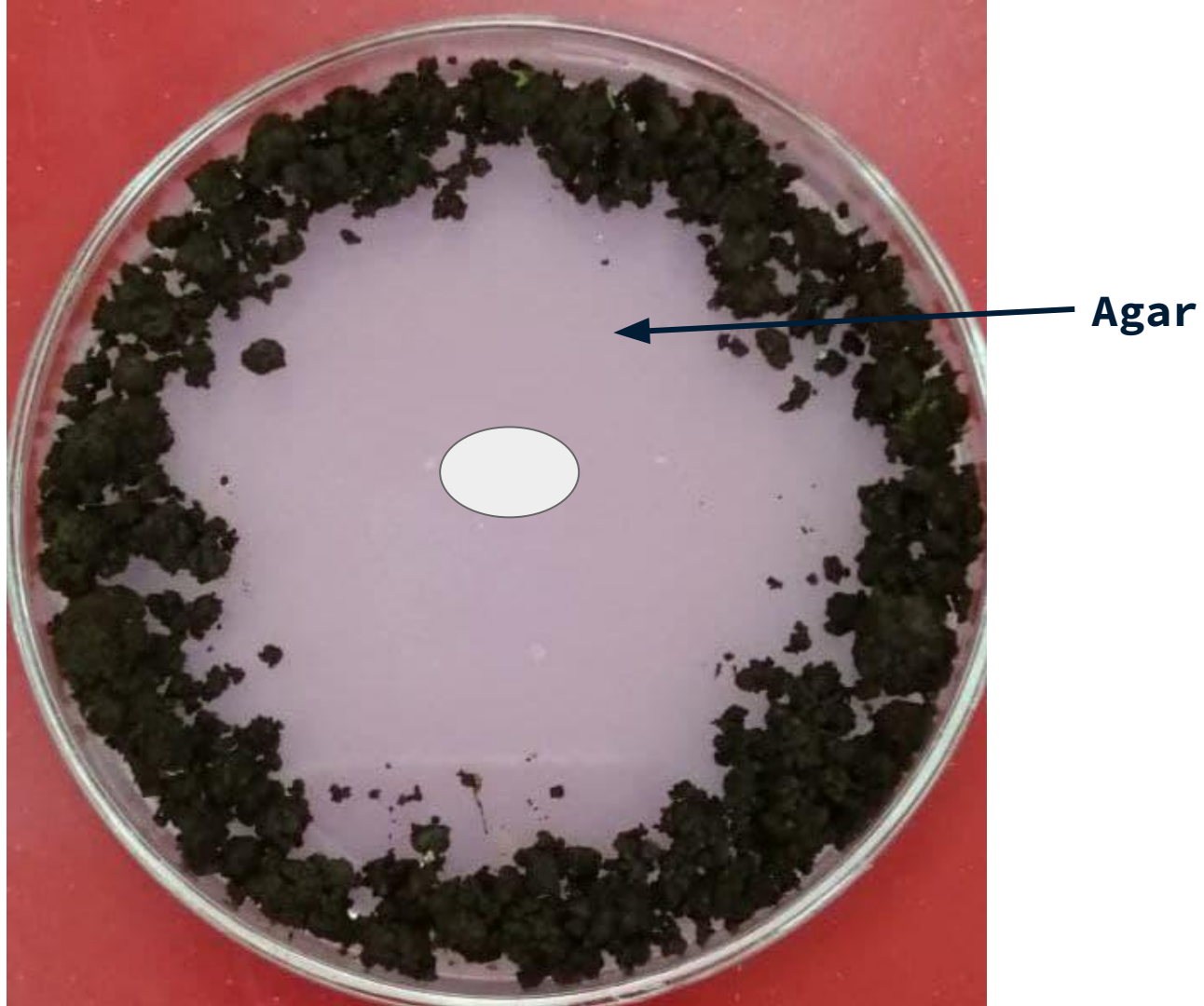
Potato Slice

Soil

**Path to catch
the nematode**



Lab





Date of Video 06.11.2024





C. elegans



**Nematode we
found**

Date of Video 08.11.2024

FUTURE PLAN

- 1. To find Nematodes from different sources**
- 2. To identify found nematode as *C. elegans***

LABS WORKING ON C.ELEGANS

- ❑ NCBS (National Center for Biological Sciences) Bangalore
- ❑ TIFR (Tata Institute of Fundamental Research) Mumbai
- ❑ HBCSE-TIFR Mankhurd Mumbai
- ❑ Cold Spring Harbor, New York
- ❑ University of Massachusetts USA

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 - ❖ **Hon. Vice Principal Sir**
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 - ❖ **Mrs. Beena Ma'am**
 - ❖ **Mr. Rohit Sir**
 - ❖ **Mr. Madan Sir**
 - ❖ **Mrs. Deepa Ma'am**

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