



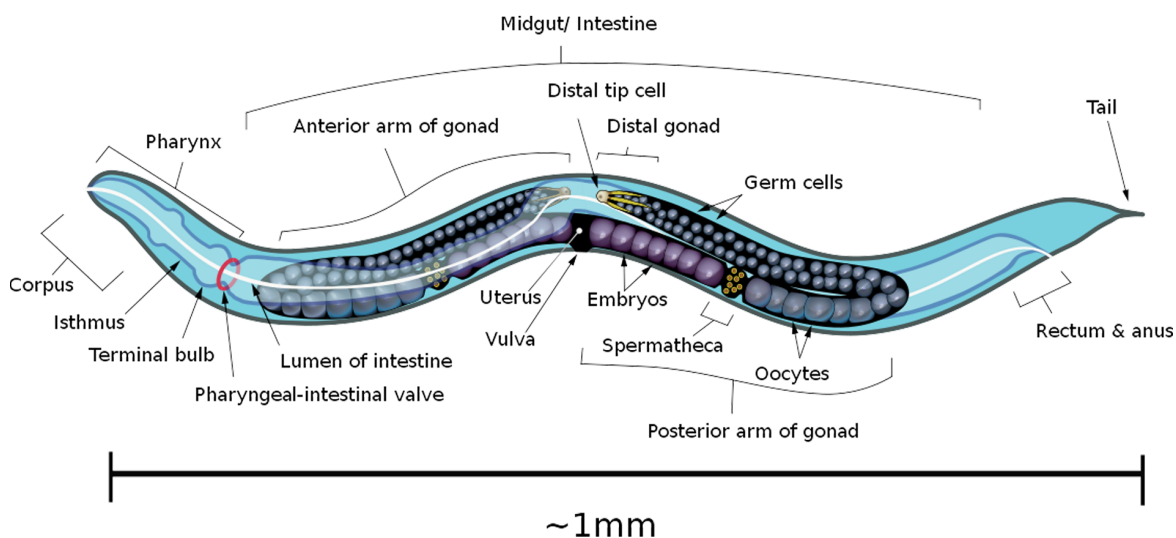
Discoveries in Biology Using *C. Elegans*

[Source: TH](#)

The roundworm *Caenorhabditis elegans* has played a **pivotal role** in numerous [Nobel Prize-winning discoveries](#), shedding light on **fundamental biological processes**.

- **Nobel Winning Research on *C. Elegans*:**
 - **Victor Ambros and Gary Ruvkun (2024 Nobel Prize in Physiology or Medicine):** Discovered [microRNAs](#) and their crucial role in **gene expression** control.
 - **Osamu Shimomura, Martin Chalfie, and Roger Tsien (2008 Nobel Prize in Chemistry):** Developed **green fluorescent protein (GFP)**, enabling live-cell imaging and revolutionizing biological research.
 - GFP is a tool used in **molecular and cell biology** for **visualizing and tracking** biological processes.
 - **Andrew Fire and Craig Mello (2006 Nobel Prize in Medicine):** Discovered **RNA interference (RNAi)**, revolutionizing gene-silencing techniques.
 - It led to the discovery that **double-stranded RNA (dsRNA)** can **silence specific genes**, offering potential **therapeutic applications**.
 - **Sydney Brenner (2002 Nobel Prize in Medicine):** His research contributed to understanding **programmed cell death**.
- **About *C. Elegans*:** It is a **tiny invertebrate**, measuring just **1 mm in length**, and **transparent nematode**.
 - Nematodes, also called **roundworms**, are **unsegmented, cylindrical, and often microscopic** organisms and a major component of **soil and sediment ecosystems**.
 - They are **parasitic** in animals or plants or **free-living in soil or water**.

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Read More: [Nobel Prize 2024 in Physiology or Medicine](#)

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