C. elegans nomenclature

Advanced genetics
Yang Li
Caenorhabditis elegans (C. elegans)

- Sydney Brenner
- Small size
- Rapid life cycle
- Transparency
- Well-annotated genome.

[Image of microscopic view of C. elegans with E. coli, larvae, embryos, spermatheca, and oocytes labeled.]
Phenotypes

- Unc = uncoordinated
- Dpy = dumpy
- Rol = roller
- Egl = egg laying defective

http://wormclassroom.org/c-elegans-phenotypes
Mutations

• Wild-type is Bristol N2 (+)

• Alleles or variations
  - e2123 (simple mutation) (homozygous) e2123/+ (heterozygous)
  - nDp17 (duplication)
  - uADf5 (deficiency)
Genes

- **daf-2**
  - the gene name (lowercase and italicized)
- **daf-2(e1370)**
  - e1370 is an allele of daf-2
- **daf-2(m579)**
  - m579 is another allele of daf-2
Proteins

- DAF-2 is the protein encoded by *daf-2*
Genotypes

• Wild-type is Bristol N2 (+)

• $dpy-5(e61)$ I; $bli-2(e768)$ II; $unc-32(e189)$ III

• Heterozygotes
  – $dpy-5(e61)$ unc-13(+) / $dpy-5(+) unc-13(e51)$
  – $dpy-5$ +/- unc-13
  – $dpy-5$/unc-13
Strains

Strain » BS553

Overview

BS553

Genotype: fog-2(oz40) V.
Mutagen: Psoralen
Outcrossed: x8
Curatorial remarks

Origin

Made by: Tim Schedl
Available From: CGC, University of Minnesota, MN (Ann E Rougvie)
Visit the CGC home page.
Received at CGC: 25 Sep 2007
Sources

• Wormbase
• Wormbook
• Wormclassroom