

# Meet *Propanagrolaimus* JU765



¡Holà!

- Phylum: Nematoda
- Family: Panagrolaimidae
- Hermaphroditic
- Diploid
- Genome size: ~50 Mb
- Number of chromosomes: 5





# The family Panagrolaimidae

PLOS GENETICS

OPEN ACCESS PEER-REVIEWED

RESEARCH ARTICLE

## A novel nematode species from the Siberian permafrost shares adaptive mechanisms for cryptobiotic survival with *C. elegans* dauer larva

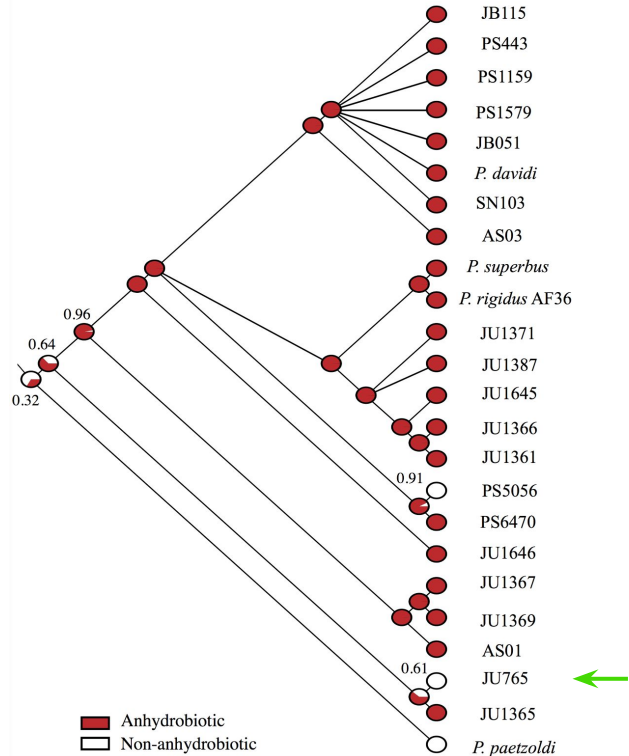
Anastasia Shatilovich , Vamshidhar R. Gade , Martin Pippel, Tarja T. Hoffmeyer, Alexei V. Tchesunov, Lewis Stevens, Sylke Winkler, Graham M. Hughes, Sofia Traikov, Michael Hiller, Elizaveta Rivkina, Philipp H. Schiffer , Eugene W. Myers, Teymuras V. Kurzchalia 

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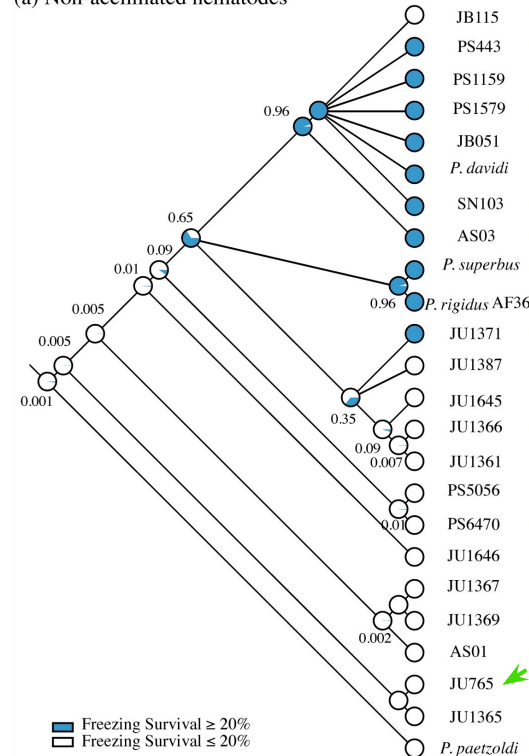
# The family Panagrolaimidae

## Desiccation

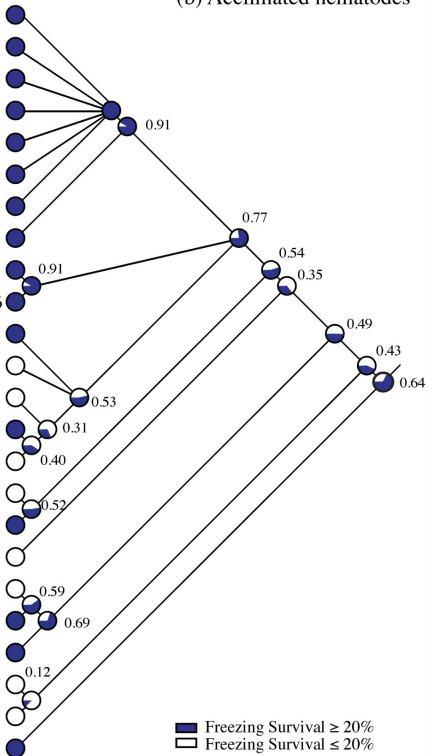


## Freezing resistance

(a) Non-acclimated nematodes

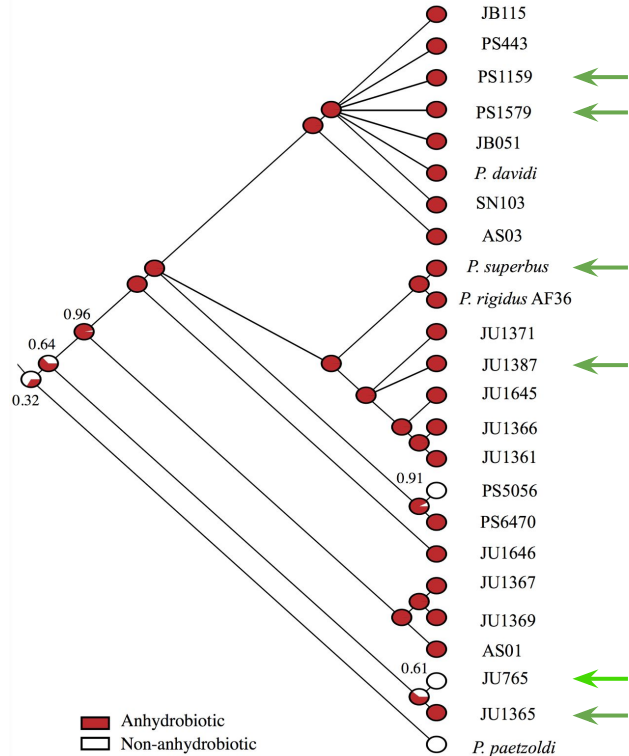


(b) Acclimated nematodes



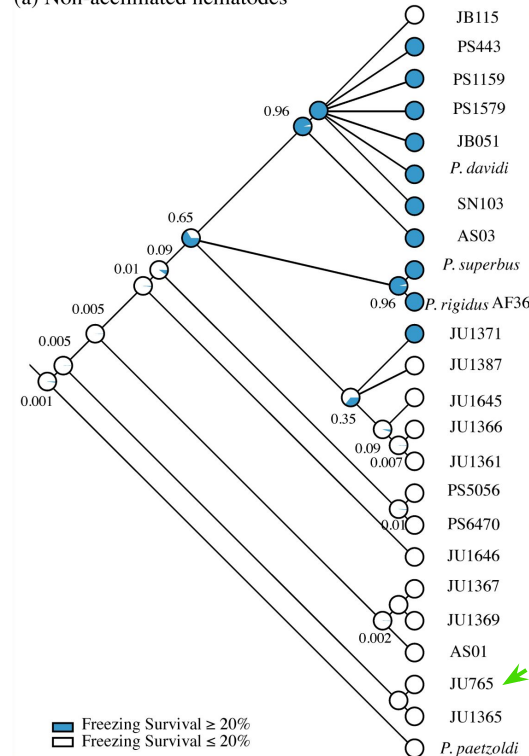
# The family Panagrolaimidae

## Desiccation

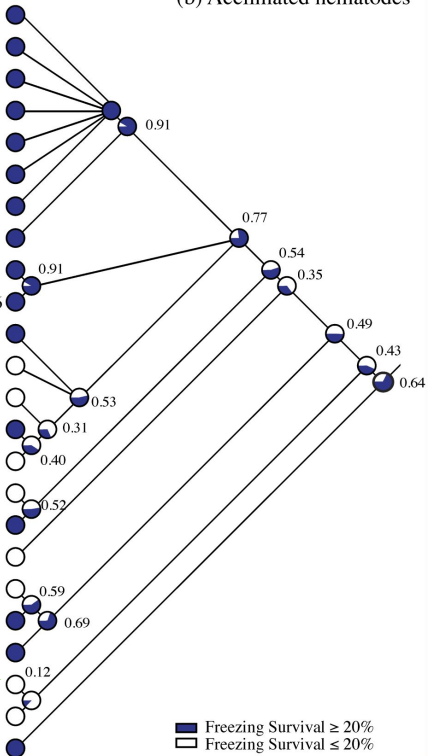


## Freezing resistance

(a) Non-acclimated nematodes



(b) Acclimated nematodes



# Datasets

All datasets were generated from pools of individuals

HMW DNA extraction: CTAB + potassium acetate + phenol chloroform + AMPure XP beads

Revisiting genomes of non-model species yields new insights into their biology and evolution. Guiglielmoni et al. bioRxiv, 2023.

- ▶ Pacific Biosciences HiFi reads: ultra-low input protocol
- ▶ Nanopore R10.4.1 reads: fragment selection with Circulomics SRE XS (>10 kb) and library preparation with LSK114, sequenced on a MinION, basecalled with Dorado and trimmed
- ▶ Arima Hi-C v2.0 reads: sequenced with Illumina
- ▶ Illumina RNA-seq reads

# People involved in the project

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