

## Postdoc Position in Bioinformatics, Evolutionary Biology

Matthew Meselson (Professor of Biology, Harvard), in collaboration with Tim Sackton (Director of Bioinformatics, Harvard FAS), has an opening for a postdoctoral position to use long-read technology (Nanopore, PacBio, 10x) to better understand the unique biology of bdelloid rotifers. The position is available immediately, for one year initially with possible extension dependent on funding. Start date is flexible.

The great majority of eukaryotes reproduce sexually, either constitutively or facultatively, and nearly all that are thought to be entirely asexual diverged only recently from sexual relatives, suggesting that the loss of sex leads to early extinction. Posing a challenge to this generalization and to hypotheses for the evolutionary benefit of sex are a few groups of ancient origin in which, despite considerable study, sexual reproduction has never been observed -- the so-called ancient asexuals. The most extensively studied of these are the rotifers of Class Bdelloidea. Although certainly ancient, evidence for their asexuality is entirely negative -- the failure, despite much observation, to find males. Using 10x and nanopore sequencing to obtain phased genomic sequences of individuals of the bdelloid rotifer *Macrotrachela quadricornifera*, the project would conduct a critical test of recent population-genetic evidence that bdelloids occasionally do reproduce sexually, perhaps with meiosis of an atypical sort -- a situation possibly adapted to the unusual bdelloid life history (Signorovitch *et al.* 2015. *Genetics* **200**: 581-590).

Candidates must be proficient in advanced bioinformatic methods of sequence assembly and analysis. Doctoral degree in bioinformatics, evolutionary biology, or related field. Prior experience with analysis of genetic sequences required. Strong communication skills including scientific reading and writing in English necessary,

To apply, please email as a single PDF file to Matthew Meselson ([msmeselson@gmail.com](mailto:msmeselson@gmail.com)) and Tim Sackton ([tsackton@g.harvard.edu](mailto:tsackton@g.harvard.edu))

-- Cover letter briefly describing your research experiences, skills, interests, and future plan  
-- CV with full publication list and contact information for at least two references..

Contact Matthew Meselson ([msmeselson@gmail.com](mailto:msmeselson@gmail.com)) or Tim Sackton ([tsackton@g.harvard.edu](mailto:tsackton@g.harvard.edu)) for more information.

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