

Postdoctoral Fellowships in Genomic Instability

Two postdoctoral training positions are available in the laboratory of [Dr. Peter Ly, Ph.D.](#) in the Children's Medical Center Research Institute at UT Southwestern to study the fundamental mechanisms of genomic instability and their consequences for human disease. The [Ly Laboratory](#) investigates how mitotic cell division errors reshape the cancer genome and drive tumor evolution. We recently discovered that direct cell–cell contact can mediate the intercellular transfer of genomic DNA between human cells, revealing a previously unrecognized mechanism of genome exchange with broad implications for normal physiology and disease. Our research integrates interdisciplinary approaches ranging from high-resolution live-cell imaging and cytogenetics to CRISPR-based genetic screens. The laboratory is embedded within a highly collaborative research environment at the [Children's Medical Center Research Institute](#), with strong basic science foundations in cancer biology, regeneration, and metabolism.

Recent Publications:

- Maurais et al. [Genome instability triggers intercellular DNA transfer between human cells](#). *Cell* (2026)
- Engel et al. [The Fanconi anemia pathway induces chromothripsis and ecDNA-driven cancer drug resistance](#). *Cell* (2024)
- Mazzagatti et al. [Boveri and beyond: Chromothripsis and genomic instability from mitotic errors](#). *Molecular Cell* (2024)
- Hu et al. [Non-homologous end joining shapes the genomic rearrangement landscape of chromothripsis from mitotic errors](#). *Nature Communications* (2024)
- Lin et al. [Mitotic clustering of pulverized chromosomes from micronuclei](#). *Nature* (2023)

Candidates with expertise in mouse models, organoid systems, advanced microscopy, and/or computational genomics are strongly encouraged to apply. We seek highly creative, self-motivated scientists who are excited to develop independent research projects within the broad themes of the laboratory and who thrive in an interdisciplinary and collaborative environment. The laboratory is committed to mentoring postdoctoral fellows toward successful independent careers in academia and biotech.

Applications will be reviewed on a rolling basis until the positions are filled. Candidates must hold a Ph.D. and/or M.D. degree before starting. Interested individuals should email a CV, cover letter with a description of research interests and goals, and the contact information for three references to:

Peter Ly, Ph.D.

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Lab Website: www.thelylab.org

Information on our postdoctoral training program, benefits, and a virtual tour can be found at <https://cri.utsouthwestern.edu/postdoctoral-fellowships> and <http://www.utsouthwestern.edu/postdocs>.

UT Southwestern Medical Center is committed to an educational and working environment that provides equal opportunity to all members of the University community. UT Southwestern prohibits unlawful discrimination, including discrimination based on race, color, religion, national origin, sex, sexual orientation, gender identity, gender expression, age, disability, genetic information, citizenship status, or veteran status. To learn more, please visit [here](#).