Scientists use light to 'tag and track' genetic processes

In a new study, UT Dallas researchers outline how they used fluorescent molecules to "tag" DNA and monitor a process called DNA looping, a natural biological mechanism involved in rearranging genetic material in some types of cells.

The UT Dallas "tag and track" method not only sheds light on how DNA loops form, but also might be adapted to screen drugs for effectiveness against certain viruses that shuffle genetic material, such as HIV.

Until now, scientists primarily had "snapshots" of the initial and final stages of DNA loop formation, with only limited information about what happens during the intermediate steps, said Dr. Stephen Levene, professor of bioengineering, molecular and cell biology, and physics at UT Dallas. He is senior author of the study, published online and in an upcoming issue of the journal *Nucleic Acids Research*

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