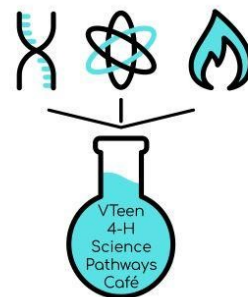




# VTeen Science Explorations



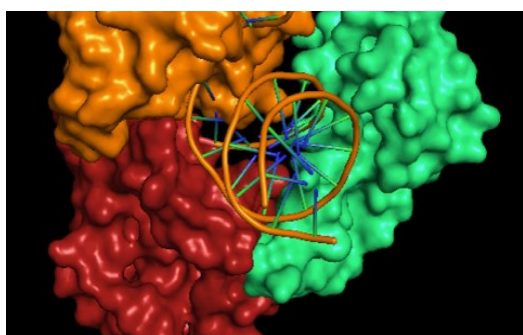
## Breaking Bad: DNA Double Strand Break Repair with DNA Polymerase Theta

Wednesday, December 9, 2020, 3:30-4:45 pm

Open to all youth entering grades 7-12 in VT and across the country!

Register@ [www.uvm.edu/extension/youth/announcements](http://www.uvm.edu/extension/youth/announcements)

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DNA encodes all of the information required by your body to live and function. However, that DNA is broken daily and must be repaired so that cells can divide and allow us to grow, heal, process, and develop. There are a number of ways that your DNA can break, but the worst type of break is a double strand break. A double strand break completely interrupts the message contained in the DNA and must be repaired before the cell can continue to divide. A protein made by the cell called polymerase theta has the ability to bring two sets of broken DNA strands together and repair the double strand break.

The repair process of polymerase theta isn't perfect though... Tune into this virtual Teen Science Café to find out the trouble caused by polymerase theta's repairs and how we can exploit the structure of the polymerase theta protein to treat cancer and parasite-based infectious diseases.

### ABOUT OUR SPEAKER

**Lea Drogalis** is a PhD candidate working in the lab of Sylvie Doublé at the University of Vermont (UVM). Her research is focused on the structural aspects of the DNA double strand break repair protein polymerase theta utilizing X-ray crystallography. She completed her Bachelor's degree in Biochemistry at the University of Colorado, Boulder (CU Boulder) in 2016 where she then worked as a lab technician before attending graduate school.

**What is a Virtual Teen Science Café?** It is a free, fun way for teens to explore science, engineering and technology with local scientists, engineers and technology experts. Teens will "meet a scientist", learn about their work, and be able to participate in informal discussions.

**Questions?** Contact [lauren.traister@uvm.edu](mailto:lauren.traister@uvm.edu)

*To request a disability-related accommodation to participate in this program, please contact the 4-H Office at 802-888-4972 or [lauren.traister@uvm.edu](mailto:lauren.traister@uvm.edu) by November 16, 2020 so we may assist you.*



[www.uvm.edu/extension/youth](http://www.uvm.edu/extension/youth)

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