A Surprising Family Legacy: the Molecular Scars of Trauma

The past our ancestors have endured may not be in the past. In fact, according to a recent article written by Stacey Colina in US News, trauma that your ancestors faced might be embedded in certain genes and levels of stress hormones in your body.

One particular study from researchers at Icahn School of Medicine at Mount Sinai measured methylation in the FKBP5 gene in Holocaust survivors and their adult offspring. They found that compared to the control group, the survivors and their offspring had alterations in the gene. In a follow up study, the researchers found that many descendants of Holocaust survivors had low levels of cortisol, which is indicative of a higher vulnerability to PTSD.

Scientists have reason to speculate that such permanent changes may be important for survival. “…The stress hormone axis may be already prepared to encounter these environmental conditions,” explains Dr. Torsten Klengel, a psychiatrist and research scientist at McLean Hospital. Of course, there are still a lot of unanswered questions and it is important to remember that a family history of trauma might not mean that you are doomed.