

## Rwandan genocide permanently altered survivors' DNA, epigenetic study finds

Scientists with the USF Genomics program and Center for Global Health and Infectious Disease Research have taken a significant step in providing the people of Rwanda the scientific tools they need to help address mental health issues that stemmed from the 1994 genocides of the Tutsi ethnic group.

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In a first of its kind study, Professors Monica Uddin and Derek Wildman of the College of Public Health looked at the entire genomes of Tutsi women who were pregnant and living in Rwanda at the time of the genocide and their offspring and compared their DNA to other Tutsi women pregnant at the same time and their offspring, who were living in other parts of the world.

In the [study published in "Epigenomics,"](#) they found that the terror of genocide was associated with chemically modifications to the DNA of genocide-exposed women and their offspring. Many of these modifications occurred in genes previously implicated in risk for mental disorders such as PTSD and depression. These findings suggest that, unlike gene mutations, these chemical "epigenetic" modifications can have a rapid response to trauma across generations.

[This is an excerpt. Read the original post here.](#)