A research team led by a University of California, Riverside scientist has generated a 3D model of the human malaria parasite genome at three different stages in the parasite's life cycle, the first time such 3D architecture has been generated during the progression of the life cycle of a parasite.

The team found that genes that need to be highly expressed in the parasite tend to cluster in the same area of the cell nucleus.

Says Karine Le Roch, an associate professor of cell biology and neuroscience at UC Riverside who led the study: "If we understand how the malaria parasite genome is organized in the nucleus and which components control this organization, we may be able to disrupt this architecture and disrupt, too, the parasite development. Now we can more carefully search for components or drugs that can disrupt this organization, helping in the identification of new anti-malaria strategies."

For more information: http://ucrtoday.ucr.edu/21448

Short video: http://youtu.be/y9fGJW4xikA