

March 18, 2017

Malaria molecule lures mosquitoes

Quest Through the Archives

Directions: After reading the article "[Malaria molecule lures mosquitoes](http://www.sciencenews.org)" use the archives available at www.sciencenews.org to answer these questions:

1. Search for an early article about malaria from before the 1950s in the *Science News* archives. Describe the article.
2. Search for another article about the malaria parasite and its effect on mosquito behavior. Discuss the research described in the article.
3. Search for an article that discusses other diseases carried by mosquitoes. Summarize what you find.

Responses to Quest Through the Archives:

- 1. Search for an early article about malaria from before the 1950s in the *Science News* archives. Describe the article.** Possible student response: "[Starve malaria germs](#)," published 4/10/1948, describes a possible "germ-starvation" treatment for malaria. The article suggests that the malaria parasite cannot grow and reproduce without methionine. Preventing methionine from interacting with the malaria parasite could be a possible treatment for malaria.
- 2. Search for another article about the malaria parasite and its effect on mosquito behavior. Discuss the research described in the article.** Possible student response: "[People with malaria attract more mosquitoes](#)," published 9/3/2005, discusses an experiment in which researchers studied mosquitoes' attraction to people infected with malaria at different stages in the parasite's life cycle. An experiment arranged three tents with connecting compartments, and a child was placed in each. One child carried the malaria parasite in its full transmissible stage, the second child was infected but did not yet carry the transmissible stage and the third child was not infected. One hundred mosquitoes were released and trapped before they reached the children. Researchers found that roughly twice as many mosquitoes were attracted to the child who carried malaria in its transmissible stage than the other two.
- 3. Search for an article that discusses other diseases carried by mosquitoes. Summarize what you find.** Possible student response: "[Vaccines may offer defense against dengue, Zika and chikungunya](#)," published 6/25/2016, describes the *Aedes aegypti* mosquito as the most dangerous species on Earth. Its saliva transmits viral particles including those that cause yellow fever, dengue and chikungunya. The article also suggests that vaccines may be the best means for defense against mosquito-borne viruses. A vaccine for yellow fever has been developed, but it is more difficult to produce a vaccine for dengue because four different viruses are responsible for it.