Cross-species malaria immunity induced by chemically attenuated parasites

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Malaria, a mosquito-born infectious disease, kills over 600,000 people every year. Research has focused on the development of a vaccine to prevent the disease; however, many malaria vaccines targeting parasite antigens have failed because the antigen targets are highly variable.

Based on the observation that low-density infections can induce antibody-independent immunity to different malaria strains, Michael Good and colleagues at Griffith University in Australia created a vaccine using blood-stage malaria parasites that were attenuated with a chemical agent that keeps the parasite from multiplying.

In this issue of the *Journal of Clinical Investigation*, they demonstrate that mice inoculated with a single species of attenuated parasite display immunity to multiple malaria species for over 100 days. These data indicate that vaccination with chemically attenuated parasites provides protective immunity and suggest that such vaccines could be used to target human malaria species.

More information: Cross-species malaria immunity induced by chemically attenuated parasites, *J Clin Invest*. doi:10.1172/JCI66634

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