A pair of chemical compounds (light blue and purple) target wild-type and mutant forms of the *Plasmodium falciparum* chloroquine resistance transporter, which mediates the parasite’s (yellow) resistance to the widely used antimalarial drug. Using high-throughput chemical and genetic analyses, Yuan et al. identify potential new antimalarial drugs that could be used in combination to suppress the development of drug resistance. See page 724.

*Image: Ethan Tyler and Alan Hoofring, Division of Medical Arts, National Institutes of Health*
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