This week in therapeutics

Indication	Target/marker/pathway	Summary	Licensing status	Publication and contact information
Infectious disease				
Malaria	<i>Plasmodium falciparum</i> lysyl-tRNA synthetase (Pfkrsl)	<i>In vitro</i> and cell culture studies suggest inhibiting Pfkrsl could help treat liver- and blood-stage malarial infections. A high throughput screen of a natural product library identified cladosporin as a mid-nanomolar inhibitor of blood- and liver-stage <i>P. falciparum</i> proliferation. Emerging cladosporin-resistant <i>P. falciparum</i> showed amplification of the <i>krsl</i> locus, suggesting the gene is the direct target of cladosporin. In an <i>in vitro</i> assay, cladosporin inhibited Pfkrsl with an IC ₅₀ value of about 60 nM, whereas it had high micromolar concentrations for the human homolog. Next steps could include screening for more drug-like Pfkrsl inhibitors and testing them in animal models of malaria.	Patent and licensing status unavailable	Hoepfner, D. <i>et al. Cell Host Microbe</i> ; published online June 14, 2012; doi:10.1016/j.chom.2012.04.015 Contact: Dominic Hoepfner, Novartis AG, Basel, Switzerland e-mail: dominic.hoepfner@novartis.com Contact: Elizabeth A. Winzeler, University of California, San Diego, La Jolla, Calif. e-mail: ewinzeler@ucsd.edu
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