

## ***IN VITRO* CULTURE OF *P. VIVAX***

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We are trying to establish a continuous culture line of *P. vivax* from natural parasite isolates in Thailand to provide materials for anti-malarial drug and vaccine development. With some modifications to the previously published methods of Golenda *et al.* (PNAS 94,6786-91,1997), we have cultured *P. vivax* parasites obtained from acutely infected patients coming for treatment at the Malaria Clinic in Mae Sod and at the Hospital for Tropical Diseases in Bangkok. Parasite density on admission ranged from 32 to 5,063 per microliter. After depleting leukocytes from the blood, partial enrichment of parasite infected RBCs by centrifugation increased the number of parasites by 4 to 10 folds. Under *In vitro* conditions for malaria culture, the *P. vivax* parasites matured and completed 4 schizogonic cycles with a continuous input of newly infected erythrocytes. However, the addition of fresh human erythrocytes into the culture containing segmented schizonts, resulted in only a low number of ring-infected erythrocytes. During the culture period there was a significant increase in the number of gametocytes during the time of culture termination. More modifications of the culture methods are being tested in order to extend the culture period and to increase the numbers of successful parasite invasions.

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