

Supplementary data descriptions:

Supplementary Data 1

Description: **Parasitemia counts in dormancy induction and recovery experiments.**

Supplementary Dataset 1 contains an Excel file with multiple sheets with parasitemia counts underlying multiple panels in the figures and supplementary figures depicting conversion to dormancy and, subsequently, recovery rates to asexual growth. These include: **1A**, containing raw parasitemia counts of multiple IDC stages across the 12-day dormancy experiment; **1C** (left and right panels) depicting the recovery rate estimations; **S1A** containing overall parasitemia counts in four biological replicates of the dormancy experiments; **S1B** containing parasitemia counts of individual developmental stages counts by an independent microscopist; **S1C** parasitemia counts of multiple biological replicates of the dormancy time course experiments; **S4A** containing dormancy induction experiments for multiple *P. falciparum* strains; **S4B** with conversion rate calculations; **S4C&E** with parasitemia counts during chloroquine induction experiment.

Supplementary Data 2

Description: **Quantitative PRC measurements of dormancy-specific markers.**

Supplementary Dataset 2 contains real-time-PCR-based measurements of seven dormancy markers, with 3 downregulated and 4 upregulated. The Excel file contains raw values of the RT-PCR measurements depicted in Figure 3D and the oligonucleotide design for the corresponding PCR reactions ("**PCR design**").

Supplementary Data 3

Description: **Quantitative MitoTracker signal measurements in dormant parasite populations.**

Supplementary Dataset 3 encompasses quantitative measurements of the MitoTracker staining in the live cell imaging of the dormant parasites at Day 1, Day 5 and the control unindicted ring stages depicted in **Figure 4D**. In addition, MitoTracker measurements for quantitative plotting of 100 cells presented in **Figure S9b** are included.

Supplementary Data 4

Description: **Recrudescence delays and inhibitions by antimalarial drugs.**

Supplementary Dataset 4 contains raw measurements of the time delays (in days) after the dormant parasite treatments with common antimalarial drugs and experimental compounds depicted by **Figures 5B and S11b**.

Supplementary Software 1

Description: Supplementary software 1 is designed to organize transcriptomic results of malaria parasites *P. falciparum* according to the periodicity of their expression pattern. Specifically, it is an R-package program that can receive a single dataset with transcriptomic profiles of all *P. falciparum* genes across a time course and their evaluated periodicity using the Fourier transformation formula. Subsequently, it orders the genes according to the timing of the gene expression from the earliest to the latest. The output results are suitable for visualizations using heat maps and/or equivalents.