Synchronization Method

(Updated 2008)

- This method is designed to eliminate the trophozoite and schizont stages hence selecting for ring-stage parasites.

- The most important thing for synchronization is to be sure that you have enough ring-stage parasites.

- For tighter synchronization, this method should be done several times until the ring-stage predominates in the cultures.

1) Make a 5 % Sorbitol (sterile-filtered) solution in PBS. Pre-warm for 15 minutes in 37°C water bath. (It can be stored long-term at 4 °C.)

2) Transfer 50 mL of ring-stage culture to a 50 mL conical tube and spin the cells down in a tabletop centrifuge at 1500 RPM for 5 minutes, low brake.

3) Aspirate off the media.

4) Take 8.0 ul of culture and do a smear on a microscope slide for analysis of parasitaemia and to check the general synchrony of the culture.

5) Resuspend cells in a total of 50 mL of 5% Sorbitol per 3 flasks (general rule of thumb) and transfer to one 50 mL conical tube. Mix well and incubate the cells for 10 minutes at room temperature.

6) Spin the cells out of the Sorbitol solution in a tabletop centrifuge at 1500 RPM for 5 minutes, low brake.

7) Aspirate off the supernatant.

8) Wash the cells by resuspending in 50 mL media and spinning down in a tabletop centrifuge at 1500 RM for 5 minutes, low brake.

9) Aspirate off the supernantant.

10) Resuspend the cells in media such that when you add back to the flasks the total volume is 50 mL of culture.

11) Place back into the incubator.