African Trypanosome Interactions with the Human Blood-Brain Barrier: Beyond the Current Paradigm

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Human African trypanosomiasis (HAT; commonly called sleeping sickness) is a vector-borne parasitic disease that has a major impact on human health and wellbeing in sub-Saharan countries. Two subspecies (rhodesiense and gambiense) of the African trypanosome, Trypanosoma brucei, cause East African and West African sleeping sickness, respectively. In classical late stage HAT, the parasites invade the central nervous system (CNS) and the infected individuals suffer from progressive neurological involvement with concomitant psychiatric disorders and, if untreated, death. In this talk, I will summarize our progress to delineate the mechanism of African trypanosome traversal across the human blood-brain barrier (BBB) at the molecular and cellular levels, including how bioinformatics may change the way we think of neurological HAT. In the end, it is hoped that this research that will lead to better therapies against the disease caused by this deadly parasite.

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John A. Burns School of Medicine, Kakaʻako Campus
Medical Education Building Auditorium (Room 315)
For further information, contact (808) 692-1654

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