Key questions defining research program:

1) Can pre-exposure prophylaxis prevent transmission of drug-resistant HIV?
2) Can pre-exposure prophylaxis select for HIV drug resistance?
3) How is HIV disseminated after mucosal transmission and how are viral tissues reservoirs established?
4) What are the host cell factors involved in early, post-entry events of HIV infection (e.g. capsid uncoating, reverse transcription, and nuclear entry)?
5) Can we identify novel anti-HIV compounds to treat or prevent HIV infection, including drug-resistant virus?

Key words describing research program:

1) Transmission and prevention of HIV
2) Establishment and persistence of viral reservoirs in vivo
3) HIV treatment and drug resistance
4) Biology of the early events of HIV-1 infection of cells

Titles for shovel-ready research projects:

1) Efficacy of PrEP on vaginal or rectal transmission of drug-resistant clinical isolates
2) Contribution of macrophages/dendritic cells on HIV transmission, establishment of reservoirs, and treatment efficacy
3) Determine how M. tuberculosis infection affects replication and evolution of HIV
4) Pharmacokinetics and HIV inhibition of novel integrase inhibitors in mice