Addressing Molecular and Microbiology Gaps by project with estimated timeline

201 – NPP

* Update the broad spectrum PhaseIIb introduction and preliminary data sections of Research Plan (3/1/19)
  + This introduction will serve as the basis for a literature review section in the Project Summary Document that will be updated annually to stay current with the literature and maintain the Zotero Reference library for the project accordingly.
* Write report for the amended efficacy studies for 669 (201-109) by 2/26/19. A draft will be provided 5 days after we receive the latest data, barring higher priority studies.
* Draft protocols for a future studies on NPP-669 and NPP-671 to determine the toxicology and tissue concentrations of NPP and CDP-PP (maybe CDV-phosphocholine if doable) using dosing schedules with longer intervals. (2/18/19)
* Draft SRF applications and/or protocols for secondary potency studies and additional *in vivo* efficacy studies using NPPs against other dsDNA viruses for which we have promising potency data (3/1/19)
* Draft protocols for primary potency testing with NPP-671 against various dsDNA viruses (3/18/19)
* Submit revised USC-505 Intracellular Conversion paper to new journal (4/1/19)
* Write a report on the possible medical and commercial value of the NPPs as an oral chemotherapy with limited toxicity directed at cancers and skin lesions caused by dsDNA viruses (4/1/19)
* Write a report on the possible medical and commercial value of the NPPs as an oral treatment for viral mononucleosis (EBV and other viruses) (4/29/19)
* Write a report on the possible medical and commercial value of the NPPs as a treatment for agricultural and veterinary dsDNA viral diseases (5/31/19)
* Draft manuscript for NPPs describing synthesis, potency, PK and distribution, efficacy, and toxicology as a “finished product” from the R03 grant and prior funding (12/31/19)
* Draft review of broad-spectrum antivirals (7/1/19)

932- Prodrugs of Sofosbuvir

* Update the project summary document with a review of the literature that will be updated annually to stay current with the literature and maintain the Zotero Reference library for the project accordingly (4/1/19)
* Screen Sofosbuvir for potency against non-Hepatitis RNA viruses

927 – CPP -

* Update the project summary document with a review of the literature that will be updated annually to stay current with the literature and maintain the Zotero Reference library for the project accordingly (5/1/19)
* MIC90 studies on pathogens of interest
* Efficacy testing

925- Zanamavir MN –

* Update the project summary document with a review of the literature that will be updated annually to stay current with the literature and maintain the Zotero Reference library for the project accordingly (6/1/19)
* Evaluate MN for transdermal administration of other compounds we work on and related indications (12/31/19)

928 – MetRS -

* Update the project summary document with a review of the literature that will be updated annually to stay current with the literature and maintain the Zotero Reference library for the project accordingly (7/1/19)
* Write code to allow for visual lead selection based on multiple parameters, including hERG data (5/1/19)

930 – Tri/TOB

* Update the project summary document with a review of the literature that will be updated annually to stay current with the literature and maintain the Zotero Reference library for the project accordingly (8/1/19)
* Resubmit the DFU grant, if needed (9/5/19)

931 – Prodrugs of Foscarnet

* Update the project summary document with a review of the literature that will be updated annually to stay current with the literature and maintain the Zotero Reference library for the project accordingly (9/1/19)
* Investigate other viral indications for Foscarnet (12/31/19)
  + Requires
    - PK and biodistribution of Foscarnet-prodrug to confirm viability of indications
    - *In vitro* potency
* Evaluate Foscarnet prodrugs as adjuvant to Fosfomycin antibacterial therapy (10/1/19)
  + Ref: <https://www.ncbi.nlm.nih.gov/pubmed/28993329> - “additional toxicology studies are required to fully assess the feasibility of fosfomycin-PPF combinations, including proof-of-concept studies in an appropriate animal model”

Overall Goals

* Determine feasibility and develop method for nucleoside or related prodrugs and their metabolites using column separation and alkaline phosphatase (4/1/19)
* Determine resource needs and re-establish in-house viral potency testing at TSRL (8/1/19)
* Evaluate resource needs and feasibility of bacteriology at TSRL. (8/1/19)
* Write an SOP for the use of Zotero to store and reference outside sources in reports, protocols, and grants for implementation (5/1/19).
* Train others in Cell Culture Methods (12/31/19)