

UP-3 Work Plan

Task #	Description	Expected Outcome	Responsible Party	Quarter
1	Develop Clinical algorithms for diagnosis of severe febrile illnesses due to EDPs according to evidence-based literature.	One algorithm per EDP examined in this study will be developed based on the scientific literature review.	Dr. Ramirez, UofL	1-4
1.1	Define the local epidemiology of infections in humans with viral febrile illness to facilitate data base design and management.	Review of current practices in Ukraine with project participants will drive the final database and management design.	Dr. Ramirez, UofL	1-4
1.2	Sample collection and data analyses to define the local epidemiology of infections in humans with viral febrile illness.	Analysis will allow for updating of the clinical algorithms based on actual data in the regions included in this study.	Dr. Ramirez, UofL	1-10
1.3	Rodent surveillance & sample collection/data analyses of L'viv and Volyn' oblasts of Ukraine.	Knowledge of major reservoirs for hantavirus and additional knowledge of endemic hotspots for viruses targeted.	Dr. Jonsson, UofL	1-10
2	Develop and implement modern molecular diagnostic tools for detection of EDPs.	Knowledge on how to develop and optimize diagnostic assays to increase sensitivity and specificity of detection of EDP.	Dr. Jonsson, UofL	1-12
2.1	Development of RT-PCR approaches and tools for discovery of prevalence of Hemorrhagic Fever Viruses.	Technical skills in RT-PCR of viruses	Dr. Jonsson, UofL Dr. Avsic, University of Ljubljana	1-8
2.2	Training of Ukraine scientist in design, development and qualification of qRT-PCR for hantavirus strains.	Technical skills in RT-PCR of viruses	Dr. Jonsson, UofL	1-4

2.3	Development of multiplex Luminex platform for detection and quantification of viral load in human, rodent, and/ or vector.	Technical skills in luminex for virus detection and amount	Dr. Jonsson, UofL	
2.4	Technology transfer to Ukraine.	All skills mentioned in Task 2	Dr. Jonsson, UofL	1-12
2.5	Diagnostic for viral infection (virus load) in human and rodent samples using assays developed in Subtasks 2.1 and 2.3.	Technical skills in RT-PCR and Luminex and knowledge of viral infection in conjunction with Dr. Avsic	Dr. Jonsson, UofL	1-12
3	Characterization of the immune response of infections in humans hospitalized with viral febrile illness and correlation with virus load and disease severity.	Knowledge of pathogenicity of viruses and infection in humans.	Dr. Avsic, University of Ljubljana Dr. Schmaljohn, USAMRIID	1-12
3.1	Determine cytokine profiles and antibody responses.	Knowledge of cytokine responses in context of diseases and potential elucidation of biomarkers.	Dr. Avsic, University of Ljubljana	1-12
3.2	Verify that the modern molecular biology methods being implemented reflect results obtained using traditional serological diagnostic tests for selected samples (rodents or patient).	Verification of findings with classical tests.	Dr. Schmaljohn, USAMRIID	3-12
3.3	Provide training to Ukrainian scientists in order to transfer methods for conducting tests.	Confidence in conducting assays and knowledge of strengths and weaknesses of test results.	Dr. Avsic, University of Ljubljana	1-12