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Application Title: Aquisition of Ingenuity Pathway Analysis (IPA) Match Explorer CL Software

Lead contact for the RDF Application:

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Key Participating units:

College of Medicine

College of Agriculture & Life Sciences

College of Veterinary Medicine & Biomedical Sciences

College of Pharmacy

Total dollar amount requested: $174,526.80 (Compus license for 36 months)

Executive summary of this application to utilize Research Development Funds:

We propose to obtain a campus license for Ingenuity Pathway Analysis (IPA) Match Explorer CL Software. The IPA software occupies a unique space for biological and life science infrastructure. This platform solves a major limitation that exists for current life science genome-scale research, a platform of annotated data to interrogate and interpret -omic data to provide a functional context. The data in IPA is automatically and manually curated from the publishd literature and has become an indispendible infrastructure to compete in the life science space. It supports data analysis form experiments using technologies including RNA-seq, small RNA-seq, metabolomics, proteomics, microarrays including miRNA and SNP, and small-scale genomic studies. The capabilities extend to predicting downstream effects and identification of new targets or candidate biomarkers. It supports pattern search with the entire database, graphical summary of major biological themes, and visualization of Upstream Regulators, Causal Networks, Canonical Pathways, Diseases or Functions using >96,000 public and private datasets among other functions. The Texas A&M Institute for Genome Sciences and Society will maange the campus licenses that is cloud accessible and requires no local computational infrastructure. To ensure sustainability of the resrouce, user groups (defined by specific PIs) will be billed a fraction of the individual licenses. The resources will be used to provide a sustainable fund for future renewals.