The following request was submitted as an IT Project / Purchase Request to the ITMC Technical Review Team.

Request #: ITMC-1-1422991681000

Submission Date: 02/03/2015

Primary requestor: Laber, Kathy

Additional requestor(s): Fargo, David

Requestor's division: DIR,DNTP

Project/Purchase Title: Animal Resource Management

Project/Purchase Description: NIEHS requires a comprehensive software program that will electronically manage and coordinate the resource management needs of the CMB and the animal research needs of investigators within DIR/DTNP.

Why is this project important: Systems currently in use for animal management at NIEHS are old, inefficient, and not integrated. They will not support required reporting or efficient facility management. Facility management requires access to a variety of disconnected information sources to coordinate resource management with investigator needs. The NIEHS animal program serves 80% of the DIR/DNTP investigators, who house 35,000 animals in a 72,250 square foot animal facility. Unique, rare, genetically modified mice (535 strains), representing 83% of the animals in-house, are bred in-house. Animal facility program applications are currently decentralized and many records are maintained only on paper, placing valuable research data in jeopardy and significantly decreasing efficiency. We are unable to adequately analyze the data collected and stored in various databases and applications to increase efficiency and research productivity due to this decentralization and lack of interface. NIEHS currently uses eSirius for animal ordering, census, protocol management, invoicing, and training records. MIMS is used for space requests and Tg/KO mouse creation requests. Veterinary and Quality Assurance requests are kept on paper and on the CMB servers as spreadsheets and rudimentary databases. Vital facility management information is captured in a variety of disconnected data points. Centralizing and converting the process by which investigators enter protocols/amendments, manage breeding colonies, order animals, request space and services, and track veterinary care is essential if we wish to ensure data reproducibility, attain the goals set forth in the NIEHS strategic plan, and maintain a cutting edge intramural research program. Capturing breeding and facility management in a web based application will allow space maximization, increase investigator productivity, and decrease labor costs. The concept is for each investigator to have easy access an individual animal's 'life history' for integration in research results, and for CMB management to maximize resources and amplify quality of support. --We use eSirius for animal ordering, census, protocol management, invoicing, and training records (supported by Wendell Scott) --The Mouse Information Management System (MIMS, supported by Mark Rogers) is utilized for requests for housing space and production of novel genetically engineered mouse lines --Investigators submit Word-based animal study protocols and amendments via email --

Breeding records are hand written and entered into Excel spreadsheets. --Veterinary records are recorded on triplicate hand written forms and entered into a FileMaker Pro database --Quality Assurance Laboratory (QAL) requests for testing of cell lines/diets/cryopreservation are submitted in paper or by email. Results are recorded in a ledger and a PDF copy of the paperwork is kept on the CMB server.

Technical nature of the request: Any other request

When do you need this completed by: 09/30/2015

Please explain the completion date: Implementation of a centralized electronic system needs to be initiated this year and be in place within the next two years to ensure data integrity, and to support investigators in fulfilling the cutting edge mission of the NIEHS research enterprise. We currently are paying a significant fee for maintenance of eSirius but cannot fully utilize its benefits due to a lack of support staff. Protocols, animal ordering, census, and invoicing are all managed electronically in this web-based application; however it also offers on-line protocol submission, which we have been unable to develop due to lack of resources. This is just one piece of the total package required for the centralization of the animal resource program and needs to be expanded to cover veterinary care, quality assurance and breeding colony management in order to eliminate the paper records and decentralized spreadsheets and databases that are currently used for record keeping. We envision rolling out the conversion to a centralized system in phases implementing protocol submission/review, breeding colony management, with integration of veterinary care, quality assurance and facility management separately in the hopes that by FY16 the conversion and implementation would be complete.

Will benefits extend outside NIEHS: No

Please list outside outside users and groups: N/A

List of NIEHS staff served by this request: A comprehensive Animal Resource Management Program is a benefit for DIR as well as DNTP. Three hundred DIR/DTNP employees in addition to CMB use animals at NIEHS. This includes 45 Principal Investigators and ~ 170 research fellows. The animal program has a direct impact on 80% of DIR and 50% of DNTP investigators.

Will this involve collecting or displaying personally identifiable information (PII): No

Please provide the IRB#, if applicable: N/A

Have you gathered any cost information: Yes

Please upload any supporting data: N/A

Provide any additional background information: Please see attached file: 2014 IT Animal Management request follow up questions3.docx