FY2013 A-133 Audit

For the fiscal year 2013 audit, Penn once again received an unqualified rating from PWC, our external audit firm. However, several research-related findings appear in this year's report, and these findings serve as a reminder that the entire Penn research and research support community plays a role in supporting Penn's compliance with federal requirements related to sponsored projects. Among the findings in this year's report, the following relate to Research and Development (R&D) for federal awards:

1. **Late submission of final progress report and invention statement for an NIH grant.** It is the responsibility of the PI to submit the final progress report for a grant, and the primary trigger to ORS on the invention statement is when the PI initiates the form in the NIH eRA Commons or other system. Please work with ORS and your faculty to make sure that everyone is aware of the reporting deadlines to support timely submissions.

2. **Failure to follow University policy in the retirement of equipment purchased with federal funds.** Penn Policy 1106.3 Plant Assets-Retirements requires that retirement of equipment with an original acquisition cost greater than $250,000 be approved by the Vice President for Finance. If you are working with a faculty member moving to another institution, please make sure that approvals for trans-

BEN Billing & Receivables Now Live

We are pleased to announce that the new BEN Billing and Receivables modules are now live in BEN Financials. BEN Billing and Receivables links PennERA with BEN Financials, and replaces Penn's Billing and Receivables Information Management (BRIM) system, which was used by the Office of Research Services to issue invoices and track receivables for sponsored projects.

Key Features and Benefits

BEN Billing and Receivables streamlines and improves invoice creation and billing, and automates reconciliation and collections activities. The new functionality reduces the number of shadow processes and duplicative data entry, as well as reduces overall processing time. The system features automatic notifications and logging of collection activities, better tracking and processing of outstanding receivables, and more flexibility to meet sponsors' evolving requirements. There is also the capability to handle other University receivables processing (non-grant related), which will be addressed in Phase II of the project. If you are interested in discussing how the system could be adapted for your re-

ceivables processing, please contact the project team at BillingAR@lists.upenn.edu.

BEN Billing and Receivables Modules

The new BEN Billing and Receivables modules are accessed through BEN Financials by authorized users:

- Grants/Projects – Used for invoice generation, overhead and revenue recognition, and award and project tracking

- Accounts Receivable – Used for customer setup, processing cash receipts,

The Value of Mission Continuity Planning: A Case Study

In the biomedical research environment, the vast majority of irreplaceable specimens are maintained in our ultra-low and cryogenic freezers. In some cases, these materials may support multiple decades worth of scientific findings. If a freezer fails and an appropriate plan is not in place, the loss of contents can be catastrophic. As such, these resources must be prioritized accordingly.

The Department of Cancer Biology (CBIO) and the Abramson Family Cancer Research Institute (AFCRI) Research Facilities team considered these most valuable of resources during our mission continuity planning process. Over the course of our project and through subsequent observation, we discovered several key weaknesses in our strategy that would require correction:

⇒ Emergency power was not available at all relevant freezers

⇒ We lacked a plan for catastrophic power loss that included loss of backup generators

⇒ While we maintained backup freezers, availability of open space was insufficient in comparison to the number of labs being supported

⇒ We were overly reliant on unpredictable human intervention due to two factors:

- Localized audible alarms on each freezer, which were our only system of notification, relied on battery power, and batteries were not always properly maintained

- This system of localized audible alarm relies largely on security patrols during nights, weekends and holidays. Each freezer will receive at most two passes over the course of a typical 8-hour shift, and possibly only one. At this, if a freezer goes into alarm shortly after the most recent observation during off hours, critical research material could already be lost prior to the next observation.

⇒ We were susceptible to human error because each audible freezer alarm has a manual silence mechanism, which is used by labs at times when they are retrieving samples from the freezer. If the alarm is not subsequently activated, the primary notification process fails.

Following the identification of our opportunities for enhancement, we prioritized implementation of solutions based on a combination of

ease, cost and gain in continuity planning. This led to short-term changes that ensured emergency power to all critical freezers and the routine overstock of liquid nitrogen in advance of forecasted storms and extended holidays. Aging freezers were creatively repurposed as they were replaced to bolster our available backup capacity to a minimum of 1 unit per floor of coverage. Additionally, we developed a catastrophic power failure plan to maintain appropriate temperatures for a time if faced with loss of backup power.

Several incremental enhancements in place, we established a longer-term goal to evaluate options and identify funding for remote freezer monitoring. Discussions with colleagues across campus revealed at least 5 different options installed, primarily in a localized individual lab-based setting. Broader evaluation of options uncovered yet another alternative installed heavily at CHOP. Feedback was gathered on existing campus systems and the CHOP system, with 5 vendors selected to come in and deliver informational sessions and prepare quotes. After careful consideration, Aegis Scientific (Aegis), previously not installed at Penn but a significant partner with CHOP, became our selected vendor for their combination of product quality, customer service, price, scalability, portability and flexibility. We then worked with Purchasing and Aegis to negotiate a contract to accommodate large-scale growth across campus and eliminate the cost barrier to entry at the individual lab level. Additionally, we partnered with the Institute for Immunology (IFI) and Perelman School of Medicine (PSOM) Space Planning and Operations (SPO) to manage startup costs and ensure broader availability.

Upon installation, the Aegis system communicates freezer temperatures remotely using Penn's existing wifi network. If designated thresholds are exceeded, notification can be sent via text, phone, email and pager, continuing to notify until a response is logged. Temperatures can be viewed remotely via a web portal, and data is maintained to support reporting when necessary. Further bolstering our emergency preparedness, redundancy was added by monitoring for power to our critical freezers. Addressing future needs related to regulatory requirements, the Aegis system includes several other environmental monitoring devices, able to be deployed using this single instance of software.

Through considerations arising out of our mission continuity planning, we have been able to implement a dramatic improvement toward safeguarding our most critical research materials. The previ-

Continuity Planning, *Continued*

ous system for freezer monitoring continues to be maintained as added redundancy and to accommodate for wifi outages. Collaborative efforts led to a University-wide contract to permit individual labs the opportunity to gain benefit of the system with a relatively small initial investment. Overall, this aspect of our mission continuity planning process led to the identification of key opportunities

for improvement, encouraged development of new partnerships, introduced a new, female-owned local business to campus, led to a much more robust safeguard system for our most valuable research materials and has reduced the number of off-hour emergency response calls that require a physical trip to campus.

Partners in this process included AFCRI, CBIO, IFI, Penn

Medicine Academic Computer Services, Purchasing, Information Systems and Computing and PSOM SPO. Additionally, several labs shared their experiences and insight surrounding previous selection of alternate monitoring solutions.

NIH Just-in-Time Procedures Reminder

NIH uses just-in-time (JIT) procedures for most grant applications. These procedures allow for parts of the application to be completed after the peer review process when the application is under consideration for funding. The request for JIT information is not a guarantee that the project will be funded.

There are two ways that Penn is notified that JIT information is necessary. For those applications that receive a score of 40 or less, an email request is automatically sent from the Commons to the investigator two weeks after release of the impact score. Other times, the NIH Grants Management Specialist will email Penn and the PI when just in time is needed. In certain instances,

the GMO will email to request the information or additional information regarding the application.

The specific information requested usually includes an "other support" document for key personnel and those devoting significant effort to the project. Other support includes all financial resources available in support of the individual. PIs are responsible for notifying NIH of any changes that could lead to budgetary overlap, scientific overlap or commitment of effort greater than 12 person-months for senior/key personnel. If applicable, NIH also requests certification of IRB approval and verification of IACUC approval. In addition, NIH requests evidence of

compliance with the education in the protection of human subjects and animals. Depending upon the complexity or unique qualities of the application, other specific information may also be requested as part of these procedures.

Once JIT information is gathered, it can either be uploaded to the eRA Commons using a JIT link made available after the release of the impact score, or, in the case of a direct email from a Grants Management Specialist, it will be emailed. All JIT information must be certified by an authorized official in the Office of Research Services.

Submitting Videos for Review with NIH Applications

The NIH allows videos to be included with an application, however the process is more complicated than embedding the video in the Research Strategy. In fact, the NIH will not review a video embedded in the Research Strategy. To be accepted for review, a video must be submitted to NIH using the following process. This information is from NOT-OD-12-141, "Interim Guidance for Videos Submitted as NIH Application Materials."

According to the NIH: "[t]he

only acceptable content for videos is demonstrations of devices and experimental data with a temporal element, which refers to the need to show how something functions or occurs over time, or demonstrates movement of change. Examples of acceptable content include unusual interventions or surgical procedures, prototype model use, visualization of 3-D structures or structural changes in molecules or cells, software or database demonstrations, educational materials or video games. Examples of

unacceptable content include virtual tours of laboratories, equipment in place, platform presentations, advertisements, commercials, or PowerPoint presentations [unless requested by the Scientific Review Officer (SRO) in lieu of a site visit]."

Review of a video is a two-part process. First, the application must have certain information to let the NIH know that videos will be submitted. In the application, the cover letter must indicate

Helpful Hints for PennERA

Is the deadline date on your proposal correct?

Funding Opportunities returned by SPIN will pre-populate a proposal record with the next "New" deadline date for NIH submissions. Be sure to check the deadline date on Setup Questions and update if needed.

Can I submit an NIH Type 7 "Change of Grantee Institution" as an S2S proposal?

Unless otherwise directed by the specific NIH Institution, grants with single-project Activity Codes Processed Electronically for NIH and Partner Agencies can be submitted as S2S applications in PennERA. Questions regarding the eligibility of a specific application should be directed to ORS Pre-Award. See also the article on page seven of this issue.

Can I submit an NIH Supplemental Proposal request as an S2S submission?

Supplemental requests submitted electronically through Grants.gov ***can*** be processed as S2S submissions in PennERA. These applications are as Child submission records under an existing, Parent, proposal. Check our Reference Materials website for the Child Submission Records guide.. Questions about setting up Child submissions should be directed to the PennERA helpdesk: pennerahelp@lists.upenn.edu. Many NIH supplemental requests use a single funding announcement (e.g., **PA-14-077**) but have multiple options (Competition IDs) from which to choose. *If you are unsure of the appropriate opportunity number to select, check first with your ORS or ORSS Preaward contact.*

ERA Helpdesks – Who do I contact for questions about PennERA **proposals**? Who do I contact for questions about Human Subjects or Lab Animal **protocols**?

- Issues regarding PennERA **proposal** development records should be directed to the PennERA helpdesk. Alternately, you can also use the Support 🛈 icon within the PennERA application.

- Problems experienced in HS-ERA with an IRB protocol should be directed to hsera_help@lists.upenn.edu.

- Problems occurring in ARIES with an IACUC protocol should be sent to aries_help@lists.upenn.edu.

- Use the Support 🛈 icon for issues with Human Subject or Lab Animal **protocols** in **PennERA**.

Can I really use the S2S process to submit all Grants.gov applications?

Yes! The lone exceptions are collaborative proposals submitted separately by more than one institution to NSF via FastLane. See our Reference Materials website for links to *NSF System-to-System (S2S) FAQs* and *Proposal Mechanisms for System-to-System (S2S) Submission*.

What should I do if my S2S application fails when it's submitted?

If the error message describes a non-technical problem, such as incorrectly named files or missing information, contact your ORS Pre-Award person to arrange for submitting a changed/corrected application.

If the error message seems technical in nature, especially if a system error is described, the best initial action is to write PennERA Help (and copy pennaors@lists.upenn.edu). We will handle filing any necessary help requests with the appropriate agencies to resolve the problem. We will also work with our vendor, InfoEd, when the problem is caused by our software. The PennERA Help Desk is your best resource for quick action on technical issues.

American Heart Association New Open Science Policies

Effective with applications submitted for July 2014 deadlines and new awards issued beginning January 2015, the AHA approved new Open Sciences policies. The Open Science policies include both a public access policy and a open data policy.

The public access policy requires that all journal articles resulting from AHA funding should be made freely available in PubMed Central within twelve (12) months of publication.

The open data policy requires grant applicants to include a data sharing plan as part of the application process. Any data that is needed for independent verification of research results must be made freely and publically available within twelve (12) months of the end of the funding period.

See more information on these policies here, including frequently asked questions. For assistance with the development of data management plans, please see the Penn Libraries Guide to DMP Tool.

Submitting Change of Institution (Type 7) Requests System-to-System to the NIH

In another time-and-effort-saving improvement from the NIH, most Type 7 applications can be submitted system-to-system (S2S) to the NIH eRA Commons. Type 7 applications are filed by the new institution when Principal Investigators (PI) want to take an award with them, when moving from one institution to another. Starting August 24, 2012, NIH piloted S2S Type 7 submissions for almost all activity codes, including the most common, e.g. R01, R03, R21, K08, K99, P01, P30, P50, U01, T32, F32, etc.

Close coordination between the original institution and the new institution is important. The start date and direct costs requested by the new institution depend on the Relinquishing Statement submitted by the original institution. The new institution should submit the Type 7 application before the anticipated start date, and the NIH suggests the submission be made several months in advance of that date. Therefore, the original institution should submit the relinquishing statement several months before the PI's end date so the new institution knows the amount of direct costs and the appropriate start date to be requested.

To submit a Type 7 application S2S, a BA would select the relevant choice of PA-14-078 (listed as "14-078") in PennERA, when the PennERA record in Proposal Development is creat-
ed. The PennERA record is then developed following the requirements of PA-14-078, the SF424 (R&R) Application Guide for NIH and Other PHS Agencies, and the NIH Grants Policy Statement. Some guidance from PA-14-078 is provided below.

On the SF424 screen, Field 4 (Federal Identifier) will have the current grant number (two letters of the IC and the six-digit serial number, with no spaces or dashes). Field 8 (Type of Application) will be marked "Revision", then mark "E. Other" and insert "Change of Grantee Organization" in the text field.

The PSH398 Research Plan must include a statement indicating whether the overall research plans/aims have changed from the original submission. If the research plans/aims have changed, then they should be updated using the applicable Specific Aims and Research Strategy uploads. If the research plans/aims have not changed, then the original Specific Aims and Research Strategy should be uploaded. If the change of Organization is made at the end of a budget period, a progress report for the current year should be included. In the case of a mid-year transfer, the IC should be contacted to determine whether a progress report is required.

For details: PA-14-078; NOT-OD-12-134.

Welcome, Susie Won

The Office of Research Services would like to extend a warm welcome to one of our newest staff members, Susie Won, Director of Cost Analysis.

A note from Susie to the Penn research community:
Hello! I am very excited to be a part of ORS and the larger Penn research community as the incoming Director of Cost Analysis. As many of you know, Bob McCann will be retiring in August and it is my hope to make as smooth a transition as possible.

This new role marks my return to the field of research administration and costing after an enlightening stint in academic financial administration as the Director of Finance at Drexel University's College of Computing & Informatics. Prior to moving to Philadelphia almost
three years ago, I lived in the Boston area and worked for nine years in the Office of Sponsored Programs at the Massachusetts Institute of Technology. That marked the

beginning of my career in higher education after several years of public accountancy.

I look forward to serving this university and working with many of you. Please don't hesitate to contact me with any questions you may have about F&A or EB rates, effort reporting, service centers, or sponsored program audits (susiewon@upenn.edu).

NIH POLICY UPDATES: Resubmission Applications

On April 17, 2014, the National Institutes of Health (NIH) and the Agency for Healthcare Research and Quality (AHRQ) issued a joint notice announcing a significant change in their policy on proposal resubmission.

Effective immediately, there is no longer a limit on the number of times a research project can be submitted for consideration for funding. Under the previous policy (see NOT-OD-09-003) new proposals (-01) not selected for funding were allowed one resubmission (-A1). In the event the resubmission (-A1) proposal was not recommended for funding, NIH would not give further consideration to the proposal without significant changes to the scope of work. If a subsequent application was received for a materially similar project, it would be administratively withdrawn by the agency.

Under the new policy (see NOT-OD-14-074), NIH and AHRQ will no longer be monitoring projects to assess the similarity to previously submitted proposals. For example, if a proposal has been submitted as new (-01), then followed by a resubmission (-A1), the same project can be submitted again for the next available opportunity. This third submission will be considered a new (-01) proposal without regard to the fact that the scope of work has not significantly changed. The highlights:

- Proposals not funded after the initial resubmission, may be resubmitted as a new project without changing the scope of work.
- All proposals must be submitted in response to an available Funding Opportunity Announcement (FOA).
- Proposals should be refined or enhanced between submissions to increase the likelihood that they will be selected for funding.
- As the number of proposal cycles is no longer limited, significant time may elapse between submissions. Proposals should be updated to incorporate the most currently available data, letters of reference, literature citations, etc.

NIH POLICY UPDATES: Research Performance Progress Report (RPPR)

NIH requires use of the RPPR module to submit progress reports for Streamlined Non-competing Award Process (SNAP), fellowship, and multi-year funded awards. NIH has piloted the use of the RPPR for non-snap type 5 awards since November 2013, and is now expanding the requirement to use the RPPR to all type 5 non-SNAP awards. See more at: http://grants.nih.gov/grants/guide/notice-files/NOT-OD-14-092.html and http://grants.nih.gov/grants/rppr/

As a reminder, compliance with NIH's Public Access Policy is required. All publications listed in the RPPR must include PMID and PMCID numbers. Non-competing years will not be issued until all publications are compliant.

NIH POLICY UPDATES: New Biosketch Format in Second Round of Piloting

NIH is launching its second round of pilot testing for a new biographical sketch format. The new format, completely described on the SF424 (R&R) Applications and Electronic Submission Page, will allow up to five pages for the entire biosketch, and researchers will be permitted to describe up to five of their most significant contributions to science, the influence of their contributions on their scientific field, and any subsequent effects of those contributions on health or technology. The first round of pilot tests was conducted last year and appeared in two requests for applications (RFA-CA-13-501 and RFA-CA-13-502). The next round of tests will involve more applications and will include surveys of both reviewers and applicants to help fine tune the application instructions and guidance to reviewers. For more information see http://grants.nih.gov/grants/guide/notice-files/NOT-OD-14-091.html. The current series of pilot RFAs will be issued over the next few months beginning with RFA-NR-15-001.

ferring equipment purchased with federal funds are properly documented and that the equipment is retired before it is moved to the new institution.

3. **Lack of appropriate documentation of the reason for cost transfers (less than 90 days from the original transaction date).** Authorized administrators performing Grant and Contract (category 15 and 16) cost transfers on sponsored project funds are required to take online training through PennWorks prior to getting access to do transfers. Per Penn Sponsored Projects Policy # 2113, all cost transfers, including those performed within 90 days of the original transaction date, require documentation of the reason for the transfer as well as PI approval for the transfer. When making the journal entry in Ben Financials, keep in mind that "to correct an error" or "to transfer to the correct project" is not sufficient as a justification for the transfer. The journal line description field must be used to ex-

A-133 Audit *Continued*

plain the error that is being corrected and how the expense correlates to the project for each line of the journal.

4. **Lack of documentation of certification of time and effort for activities falling outside the research effort reporting system.** While the majority of federally funded sponsored activities at Penn are captured through the effort reporting system, it is important to keep records of payroll certification for those individuals who are not captured in the effort reporting system.

Penn is a decentralized and complex organization with a very large volume of federally sponsored activities. The number and prevalence of the findings is small. We continue to do very well in complying with the myriad of requirements imposed by the federal government on our research activities, but we can do even better. If you have questions about any of Penn's policies related to the oversight of sponsored programs, they can be viewed at http://www.finance.upenn.edu/vpfinance/fpm/ .

BEN Billing *Continued*

collections, reporting, and processing receivables transactions

Affected Users

BEN Billing and Receivables will only be used by staff in the Office of Research Services and the Office of Research Support Services involved in sponsored projects billing, receivables, and collections-related operations. Users of the Data Warehouse BRIM collection were automatically given access to the new Billing and Receivables data collection in the Data Warehouse. An effort was made to minimize

impact on current BEN Financials users with the introduction of the new modules. There were minor changes to reports, and BEN Financials users received direct communications about these changes.

Questions

This project is jointly sponsored by the Division of Finance, the Provost's Office, and Information Systems and Computing. Please address any questions about the project to the project team at BillingAR@lists.upenn.edu.

NIH Videos *Continued*

the intent to submit a video. The research strategy must include key still images of the video and a brief description of the video with enough detail for a reviewer to understand what is presented in the video. The description is necessary, since not all reviewers may be able to play the video.

Second, the video is submitted as Post-Submission Application Material. At least 30 days before the peer review meeting, investigators, through their ORS representative, may

send videos as Post-Submission Application Materials to the SRO, by CD/DVD or by email. Videos received less than 30 days before the peer review meeting will not be reviewed. The videos must be embedded in pdf files no larger than 25 MB for each file – popular formats include mp4, mov, avi, flv, and wmv. Captioning is recommended to help reviewers, with narration as an acceptable alternative. The aggregate length of videos cannot exceed 2 minutes for single-project applications or 5 minutes for multi-component applications.