

NIH eRA Commons Working Group (CWG)

Date/Time:	Wednesday, January 12, 2005, 9:00 a.m. – 4:00 p.m.
Location:	Imperial Hotel – Las Vegas Nevada
Chair:	David Wright
Next Meeting:	TBD

Action Items

- 1. (eRA) Come back with a possible model for implementing electronic progress reports on training grants as well as initiate discussions with service providers on system to system model.
- 2. (Policy Office) Initiate some discussion regarding the necessity or appropriateness of submitting sub-project data on progress reports.
- 3. (Dan Hall) Publish request for Commons for UI interface for eNotification by February 15⁻
- 4. (David Wright) Consider Closeout and Invention Reporting as a possible future agenda item.
- 5. (Policy Office) Evaluate what the consequence to grantee would or should be for non-compliance on Human Subjects and Animal Assurance reporting on eSNAP
- 6. (eRA) Follow up on role issues with Principal Investigators and Fellows.
- 7. (CWG members) Forward the names of Program Directors or others who work with training grants who could work with eRA team on system development.
- 8. (David Wright) Publish X-Train User Interface and request for comments on eRA website. This will include list of possible rights and other information.
- 9. (CWG members) Forward list of PI-centric events to eRA for outreach opportunities.
- 10. (David Wright) Survey CWG on desirable options for publishing Commons contacts on eRA web site.
- 11. (David Wright) Survey CWG members to see if they are willing to drop the Financial Officer off of Relinquishing Statement to simplify processing.

Presentations

- Complex Non-competing (eNAP): <u>http://era.nih.gov/docs/CWG_eNAP.pdf</u>
- eSNAP Research Subjects: <u>http://era.nih.gov/docs/CWG_E-SNAP_Update.pdf</u>
- Multiple-PI implementation at NIH: <u>http://era.nih.gov/docs/CWG_CO-PI.pdf</u>

- eRA Exchange/CGAP/Grants.gov: <u>http://era.nih.gov/docs/CWG_eCGAP_eRAeXchange.pdf</u>
- One View: http://era.nih.gov/docs/CWG 011205 oneview.pdf
- Commons Update: <u>http://era.nih.gov/docs/CWG_CommonsRelease_update.pdf</u>

Welcome

David Wright welcomed the CWG members to the meeting. The time or location of the next meeting was not discussed.

424/R&R Updates

David Wright/Marcia Hahn

Marcia Hahn is forming NIH groups to compare the 424 and 398 grant applications and discuss implementation. One idea is to phase implementation in by certain grant mechanisms (like R03) and have 424 R&R be used for both electronic and paper submission. Paper and electronic would both be 424R&R. Suzanne Fisher said the Center for Scientific Review is committed to flexibility by providing reviewers with their choice of paper or CD for the foreseeable future. David Wright and Marcia Hahn expect full transition to the 424R&R to take a couple of years.

The question was posed that when PIs submit 424R&R with NIH specific info, should eRA generate the PDF version of the application with NIH specific items interwoven with other items or as a separate set? Nancy Wray asked how many NIH specific items are there and how does this fit with 106/107 initiatives? There are a number of data elements that NIH collects in the 398 that fall out of the R&R dataset. Marcia and Mike Goodman will be working with focus groups from the Grants Management, Program Module (PGM) and Review business areas. These groups will be looking at the business process that may need to be altered because of the switch to the R&R and also taking a critical look at the agency-specific data elements and making recommendations. For instance, can we eliminate any? Are there other data items that we would want to encourage be added to the R&R? For example degree is not in R&R as a distinct data element. NIH will probably make a request that it be added but in the meantime will have to be agency specific. With many other agency-specific items (like the extra human subjects data) eRA will have no choice but to separately collect those. Nancy Wray asked if it would be possible to have some "outside" persons working with the NIH groups. Marcia Hahn said they would consider it.

The group expressed concern that once data gets into the R&R data set, they will never get it out. Marcia Hahn suggested and the group agreed that this would keep the pressure on to move towards a common biosketch to solve some issues.

After some discussion, the group generally agreed that NIH-specific forms should be kept separate at the end. Ken Forstmeier suggested that ideally NIH-specific forms would be at the end but with "links" from specific sections so related data could be easily viewed or located. The group agreed that this was the way to go; however, it was pointed out that this might not be technically feasible. John Rodman requested that whatever is decided, CWG as a group should put pressure on the other agencies to be

consistent as well. Marcia Hahn pointed out that NSF has already decided to reformat incoming 424R&R and NSF specific data to resemble "Fastlane" applications.

eRA Exchange/CGAP/Grants.gov

Jennifer Flach http://era.nih.gov/docs/CWG_eCGAP_eRAeXchange.pdf

NIH is encouraging electronic applications be submitted a little earlier than they have in the past pilots. It was suggested that PIs check the Commons to verify electronic applications rather than wait for the email notification because email is not always reliable. Suzanne Fisher stated that, ironically enough, it sometimes takes longer to receive electronic than paper because of the verification process and then they are technically late. The verification needs to be completed within 48 hours. The clocks start ticking at receipt deadline. In the past NIH has been "understanding" about late electronic submission but now, as production is going mainstream, NIH will be tightening its procedures.

Steve Dowdy was worried about volume of applications bogging down the server. Jennifer Flach said that it now takes milliseconds and she does not expect capacity to be a problem anytime soon. NIH has been doing some load testing using large files, etc. Hopefully, as people get used to this, NIH may be able to revisit deadlines to encourage e-submission. Dan Hall said that when Org hierarchy comes out we can ping the PI if not verified within 48 hours or at whatever timeframe would be reasonable. The PIs can verify as soon as the application has been submitted successfully.

Tolliver McKinney asked that since eSNAP submitters are given an extra 15 days, could "competing" applications also get some more wiggle room. Jennifer said it might be possible.

The group discussed the "culture change" required for electronic applications. PIs are used to thinking that their job is done once they forward the application to the Signing Official; they are not accustomed to going back to the application to verify it. It is up to the administrators to emphasize to them that an electronic submission involves two steps, not one. Group members questioned why the PI has to verify and asked whether this step could be eliminated or could the faculty have assistants verify the application instead David Wright said that was a possibility in the future, but at the present time verification by the PI is the only way to get the signature. He said that NIH might allow the signoff to proceed without making the PI actually open and review the application document. It is being done this way mainly to give PIs a comfort factor at this time. There was some disagreement over this issue. Ellen Beck said that PIs just want to be done with the application once their part is done. Christian Harker said that we need to get to a point where PIs are more comfortable with electronic submission without reviewing. Pamela Webb suggested NIH make verification optional; giving the option of digital signature at the time of verification or submission. There was some consensus on this among the group.

In the past, a reason why a few of the applications were rejected by the PI/SO and they reverted to paper submission is that the electronic image did not look like they thought it would; however, they seem to be getting more comfortable with the image now. A request was made to have the final hard copy of the grant applications for the next round that is sent to primary reviewers also be sent back to Service Providers and PI/SOs. Suzanne said that was unlikely to be done.

The group asked what type of evaluation is NIH doing of the process. Jennifer responded that NIH cannot evaluate the systems provided by Service Providers.

She noted that eCGAP will shortly be added to the Commons Demo Facility.

One of the CWG members suggested that the timeframe for verification is not sufficient as it does not allow enough time to fix errors and resubmit. Jennifer said that any errors should be fixed prior to submission.

Jennifer announced that NIH is looking to publish a Request For Applications or Program Announcement that will mandate electronic submission. The group would like to wait until Grants.gov is available, since not everyone uses the Service Providers. Steve Dowdy questioned if the eRA project is ready for ebXML. Jennifer replied that architecture feels that the way eRA is currently going with this is appropriate, and eRA is not going strictly with ebXML. David Wright pointed out that changing the direction eRA is going now would not be cost effective.

CWG members agreed that NIH needs to keep communications open with Grants.gov to ensure they are running on parallel paths. Ken Forstmeier commented on the different schema for NIH and Grants.gov and said that it would be swell if both had only one schema.

Steve Dowdy said that there is a mechanism to pass error messages from the agency through Grants.gov in the in new reference implementation for the applicant system–to-system interface. The group agreed that this would be a good thing.

Note: NIH did follow up with Grants.gov and found out that this mechanism does not exist, so there is still no way for agency validations to pass back through Grants.gov.

Complex Non-Competing Award Process (eNAP)

Cathy Walker http://era.nih.gov/docs/CWG_eNAP.pdf

This presentation was designed to stimulate some discussion on the next steps to be taken by eRA/NIH in developing an electronic process for the more complex (non eSNAP) type of progress reports.

Fifty-four percent of Non-SNAP are complex non-competing (R, P, U); training and fellows are each about a quarter (25%).

Discussion on multi-project grants—Pamela Webb said there is no single point where primary and subproject budgets are worked up. Subproject budget information often gets faxed to the Sponsored Projects office and they just enter the information in the composite budget. Steve Dowdy questioned whether NIH would take 50 pdfs for subprojects and upload each one or just add it to the composite. The group questioned the need to submit the budgets, let alone the subproject budgets for these grants. eRA members noted that it is the current policy. Members also questioned why each of the subs put their own data in and then the parent does the validation. Allowing the prime grantee to do this leaves room for erroneous data to be filled in. Nancy Wray stated that the National Science Foundation has the subproject recipient enter their own budget information. Marcia asked whether the subproject recipient has access to the parent information. If not, maybe this functionality could be built in. The prime grantee should be able to say they are going to redistribute funds and have the sub-contract be able to redo their budget. If NIH allows the subcontract recipient to enter his or her own budget, the prime grantee should not be allowed to alter the budget. A discussion ensued on whether NIH should allow revisions to the budget in future years or whether there should be a bottom line for subcontracts. Cathy Walker said that grants management needs to review this information. The group questioned why a breakdown for the budget in the out years is needed. Marcia suggested that maybe NIH should only require a breakdown if there is

rebudgeting involved. The group would like a review from the Policy office as to why we are doing this before we build a system. Jim Randolph wondered whether NIH could get rid of the need to report other support every year, whether there is a change or no change. Tim Twomey said that without consensus on e-multi-budget progress report submission, he would like a policy review before NIH continued down that path. Bob Beattie suggested that NIH could possibly use the change of institution model to upload subproject data.

Training Grant Discussion—Marcia Hahn said that there is a size and complexity issue with training grants. She referred to multiple data tables that are in the progress report. Tim Twomey asked if these tables are part of the budget or just the progress report. Marcia said that the tables are part of the progress report so they could just be uploaded as part of PDF. A benefit to training grant applicants is that NIH could populate the progress report with 2271 information from X-Train . Group members said they would like a more thorough look into how it might work. (Side note: NIH is discussing consistency across all NIH Institutes with regard to the training data tables. Once all ICs agree to use a standard format, this might actually aid electronic submission.)

Fellowship discussion—Fellowship grants may be an even easier place to start but there are routing issues as well as issues with capturing sponsor information (that is not currently collected in eRA) that will need to be addressed. Marcia noted that the fellowship application is a good choice for a government wide initiative, but the resources are an issue. There are still issues with letting fellows into Commons as "PIs".

- Action: (eRA) Come back with a possible model for training grants as well as initiate discussions with Service Providers on system to system model. (In a subsequent meeting, 3 out of the 4 Service Providers expressed interest in developing an interface for non-competing grants, eSNAP and eNAP)
- Action: (Policy Office) Initiate some discussion regarding the necessity or appropriateness of submitting sub-project data on progress reports.

Commons Update

David Wright http://era.nih.gov/docs/CWG_CommonsRelease_update.pdf

David announced that a number of software releases will be coming out shortly.

Release 2.7.0—This release will contain content management, Closeout, better error handling and Internet Assisted Review enhancements. This will allow simple editing changes, such as typos, to be corrected without waiting for a release. This release has now been combined with release 2.7.1

Release 2.7.1—Scheduled for February, this release will include a few maintenance changes. This also will include the ability for PIs to see eCGAP submission errors using Status.

Release 2.7.2 — May be delayed because of "Public Access" development.

Release 3.0.0—Scheduled for April/May 2005, this new-development release will include the new organizational hierarchy, Web QT, National Library of Medicine (NLM) integration and the ability to download Financial Status Report search results into Excel.

Commons and NIH merging information together "One View"

http://era.nih.gov/docs/CWG_011205_oneview.pdf

Tammy Custer said that program at several ICs (not the auto-mailer) does not promote submission of Just-In-Time through the Commons. Jim Randolph suggested that university officials would like to see a notice that says "score posted," so that administrators could inform faculty when the scores and summary statements have been posted in the Commons. The group noted it was a good idea.

Tolliver said he would like to see the specialist's name added to the summary statement. Marcia Hahn said that summary statement is generated too early in the review process to add the name to the document. The name could be added once the application is assigned but sometimes it is not assigned until later. If the name is added too early in the process, grantees will start calling for payment status and the specialist will not be able to answer those types of questions, since funding decisions are generally made in program areas or at the director's level at the institute.

Combining Org/Commons/end-to-end

Dan Hall

Dan Hall gave a demonstration of eRequest/eNotification. He plans to publish request for Commons for User Interface for eNotification by Feb. 15.

Bob Beattie asked if one of the goals is to have all OPDIVs in the Commons. Mark Siegert replied that it would just be for research awards. Data for CDC should be migrated over by the end of the fiscal year. Tim Twomey reminded the group that the goal was not to get all OPDIVs into the Commons; the mandate was that all OPDIVs would use one system – that system being eRA. A byproduct of that is that the OPDIV information would also be in Commons. NIH is currently filtering OPDIV data out of Commons. NIH is getting pressure from the OPDIVs to be part of the Commons.

Marcia clarified that Invention statement only needs be done at the end of the *project* period; not at the end of each budget period.

Group members also raised the issue of ongoing issues with JIT. Tim Twomey stated it has taken much too long to get the routing feature in for JIT and that the product is not fully functional without it. Dan Hall stated that eRA is building in a pop-up that "this is saved, but not submitted" but while the "warning" will be stronger it does not solve the problem. The group questioned that if the technology exists for eSNAP, why is it not being used for JIT?

- Action: (Dan Hall) Publish request for Commons for User Interface for eNotification by February 15 Update: UI to be published by March 1
- Action: (David Wright) Consider Closeout and Invention Reporting as a possible future agenda item.

eSNAP Research Subjects

Marcia Hahn

Marcia Hahn presented an update on a retrospective data review of Institutional Review Board (IRB) and Institutional Animal Care and Use Committee (IACUC) approval dates for eSNAPs. A lot of the followup discussion focused on "offenders" and how NIH should deal with institutions that are "repeat offenders." *Discussion*—Steve Dowdy asked if there was a reason that the paper processes were not included in the analysis. Marcia Hahn explained that that data was not available. Jim Randolph commented that if the institution does not submit the review dates electronically, they will not be considered non-compliant because the grants specialist will simply remind the institute to send in the IRB. The award will only be delayed until the review date is received. This process does not really address the institutional systems problems either.

Jim Randolph asked if compliance means no gap in approval or approval by the anniversary date. Marcia Hahn replied that non-compliance means there is no approval by the anniversary date. Members suggested that NIH work to better define "offender" and "non-compliant". One CWG member reported that on their non compliance issues in one case it was a matter of a one day gap. In another case, the PI was out of town and the project was IRB active, but no human work was being done because the PI was not there. The CWG member was glad the issue came up as the analysis helped to pinpoint areas where internal system improvements need to be made.

The group noted that the degree of non-compliance should also be considered. If an institute has two missing IRBs out of 400 projects, should it be viewed at the same level as someone who has two missing IRBs out of 4 projects?

In addition, is simply reviewing non-compliance in electronic submission really a fair evaluation of compliance? With no evaluation of paper submission, there can be no determination made on whether the non-compliance in electronic submission is worse than that in paper submission? One option to spur compliance was to not allow offending institutions to use eSNAP again until they showed compliance. Ken Forstmeier likened this option to cutting off one's nose to spite one's face because it would cut off people who are non-compliant from electronic submission. These are the individuals who need more assistance. Prohibiting eSNAP is only going to punish the PI. Joe Ellis stated that the data needs to be looked at as a whole and not institution by institution. The group agreed. CWG members also agreed that there is a distinction between not being compliant because you are not doing any work with humans currently but did not report it versus being non-compliant and putting research subjects at risk. Overall, NIH has not seen compliance in any single round. In the most recent round of data collection/analysis, for the first time there were two institutions that were "repeat offenders." Pamela Webb said that institutions were led to understand that this was going to be a temporary process; she wondered if institutions that have been compliant, could move to not entering the dates at all. Marcia said probably not. Joe Ellis noted that the data had not been shared with OLAW and OHRP. They could move to taking over monitoring compliance, but it is highly doubtful. Based on the current analysis, NIH will most likely move to a random sampling to gauge compliance rather than a hundred percent verification.

Action: (Policy Office) Evaluate what the consequence to grantee would or should be for noncompliance on Human Subjects and Animal Assurance reporting on eSNAP

X-Train Usability

David Turner/Pamela Mayer

Linda Katzper, Pamela Mayer and David Turner are working on the second iteration of X-Train, which is for the termination of a trainee appointment functionality. Iteration 1 included the creation, amendment and the reappointment of a trainee appointment, which is currently in development.

David Turner displayed the eRA X-Train application User Interface (UI) for the Termination of a Trainee functionality. The sample User Interface demonstrated the process of terminating a trainee from a specific appointment. There are three levels involved in terminating a trainee from an appointment; the levels are 1) the program director (PD) level, 2) the trainee level and 3) the business official level. He demonstrated how X-Train would work from the individual perspective of the PD, the trainee and the business official.

The application will use e-notification and/or email to communicate individually to the program director for each trainee or a consolidated report or to the trainees who have an end-date on their appointments of less than 60 days. The correspondence will include a link to the X-Train application that will allow the user to access the termination or re-appointment functionality. In cases where the trainee has left the institution or is otherwise unreachable, the system will allow the program director to bypass the trainee in order to have the termination processed in a timely manner. There will most likely be a new role established in Commons for "business" level signatures for appointments. From a CWG perspective, some of this is done in the department and others at the SPO level. Additional signatures are needed for terminations because of financial issues. There may be a payback obligation incurred by the trainee that must be documented and managed.

The X-Train application will allow minor adjustments to the stipend levels when the trainee is terminated to account for the different accounting periods for each institution. The group was asked what the wiggle room should be for the stipend adjustments. The group did not have a definitive response. David Turner demonstrated the process of adjusting the stipend via the X-Train UI —this feature is not available from the eRA webpage yet. CWG members said they would like to be able to demonstrate this feature to people at their institutions who actually do this work. David Wright said eRA will post the UI on the eRA website for comments and include a list of possible rights and other information so the CWG members can demonstrate the functionality of the application to the relevant people at their institutions for feedback.

Pam Mayer requested that the CWG members send names of Program Directors with large trainee programs to eRA to enable them to get feedback on X-Train. David Wright said he will send out the reminder. Marcia Hahn said it would be good to get names of people with prior experience with the previous systems. The group noted that the PD delegates could also provide good input. eRA clarified that institutions will need to create Commons accounts for all their trainees. The group discussed the possibility of filtering search for a trainee.

Steve Dowdy said the institutions would like to follow the trainees throughout their careers, and asked how someone could find a trainee after he or she leaves the institution? David Wright replied that it was the same way one tracked down a PI. Dan Hall said it is good for the PI to show they have had training at NIH. CWG members noted that needed to be able to identify the PIs that were trainees without remembering grant numbers or if their names changed. Create affiliation vs. create an account was explained. The need to get trainee validation into the eRA account validation system was brought up and the eRA team agreed that it needs to be done.

Group members asked if Fellowship Termination will also be included. Pam Mayer stated that terminations on fellowships are harder than trainee because there is not a named PI other than fellow. Fellows use the PI role in eRA. This is causing some problems for organizations who do not want to give "PI" role to a fellow. It was suggested that eRA change the PI role name to something else that would not be a problem for assigning to fellows.

Action: (eRA) Follow up on role issues with Principal Investigators and Fellows.

- Action: (CWG) Forward the names of Program Directors or others who work with training grants who could work with eRA team on system development.
- Action: (David Wright) Publish X-Train User Interface and request for comments on eRA website. This will include list of possible rights and other information.

Multiple-PI implementation at NIH

Tim Twomey/Marcia Hahn <u>http://era.nih.gov/docs/CWG_CO-PI.pdf</u>

The presentation and handout were what Walter Schaffer presented to the Grants Management Advisory Committee a week ago on how NIH will be moving forward with the implementation of multiple PIs on grants and applications. A few slides were added at the end to facilitate discussions of how this might be implemented in Commons.

Marcia Hahn led a very brief discussion on how NIH is expected to handle Multiple PI implementation. The Office of Extramural Research staff has initiated discussions with the Office of General Counsel to see if we can eliminate the PI signature altogether (which is also an issue on the RR dataset.) At this point in time we are not discussing multiple awards (in the case of subcontracts.) Grant regulations currently only support the naming of an individual PI, so there may actually be a need for regulatory change.

Pamela Webb asked why we did not consider the National Science Foundation model. Since NIH is trying to implement practices in a consistent manner, why is it implementing the issue of Co-PIs in a manner different from both NSF and the Department of Defense? Marcia Hahn explained that there is a perception that Co-PI is a subordinate in the NSF and DoD models and NIH would like to view them more as equals. NIH does expect to maintain the concept of one PI as a contact for needed documents, questions and notifications etc.

Tim Twomey went through possible Commons implementation strategies. The group was in general agreement on the options presented by Tim with one exception — the delegate submit authority on eSNAPs. The group would prefer multiple delegations allowed instead of limiting one person to be delegated on each record as proposed.

A suggestion was made to have CWG members send information about any PI-centric event to eRA so that eRA can plan outreach activities at the event.

Action: (CWG members) Forward list of PI-centric events to eRA for outreach opportunities

Miscellaneous

Public Access

David Wright

David Wright pointed out that with the advent of the public access site at the National Library of Medicine (NLM), we will have two NIH systems that will be using the same Commons log-in. The group agreed that it is a good thing. Group members had no issues with the approach to "Public Access" as presented.

A group member noted that the author wanting to submit a paper may not be the Principal Investigator and this could be an issue and that, in general, a lack of a Commons account for submitting articles could be a another issue. David Wright agreed these are issues that will need to be addressed.

Publishing Institution Commons Admin Info

A suggestion was made to CWG sometime ago that NIH add institution contacts to the "Commons Org List" so that NIH staff could refer PIs to these contacts for information on accounts. It was proposed that the site would list just the name of all AA, Administrative Official and Signing Official staff at the organization. Most CWG members did not want this information published as they were afraid PIs would call the wrong persons. Some suggested each organization publish a single name or URL of a contact. They wondered if one Commons contact person would do. The field does not currently exist but NIH could create it and make it optional. While this is a good long-term solution it does not address the short term problem.

Action: (David Wright) Survey CWG on desirable options for publishing Commons contacts on eRA web site.

Changes to PHS 3734 - Relinquishing Statement

Marcia Hahn

Through a collaborative effort between NIH and representatives from the grantee community, improvements to the Change of Grantee Institution process are being discussed. One such improvement is to include on the PHS 3734 Relinquishing Statement estimated carryover money. This is actually a long standing desire of the grantee community so that the new institution has some idea of the carryover funds being transferred. This form currently requires both the signature of the Authorized Official and that of a "Financial Officer". However, in discussing the development of an eRA Commons system to accommodate the Change of Grantee Institution process, the question has been raised whether a change in business process could be adopted to eliminate the signature of the Financial Officer. No consensus was reached. Instead, David Wright said he will poll the members later on the issue.

Action: (David Wright) Survey CWG members to see if they are willing to drop the Financial Officer off of Relinquishing Statement to simplify processing.

Attendees

CWG Members

Beck, Ellen (UCLA) Custer, Tammy (Cornell Univ.) Dowdy, Stephen (Mass. Institute of Technology) Fant, Jane (Univ. of Medicine and Dentistry of New Jersey) Forstmeier, Kenneth (Pennsylvania State Univ.) McKinney, Tolliver (St. Jude Children's **Research Hospital**) Randolph, James (Univ. of Mich.) Robins, Sandi (Univ. of Wisconsin Medical School) Ross, Susan (Northwestern Univ.) Sommers, Holly (Emory Univ.) Steelman, Marie (Oregon Health and Sci Univ) Sweet, Mark (Univ of Wisconsin, Madison) Wray, Nancy (Dartmouth College)

Other Institutional Representatives

Beattie, Robert (Univ. of Mich.) Carr, Olga (Columbia Univ) Cheng-Chong, Cora (Mass. General Hospital) Clark, Denise (Renselaer Polytech Inst) Cook, Faye (St. Jude Children's Res. Hospital) Drinane, Tom (Dartmouth Coll.) Dwyer, Dan (Cornell Univ.) Kirk, Graydon (Emory Univ.) Luddington, Andrew (Northwestern Univ) Marcusen, Tom (Oregon Health and Sci Univ) Robinson, David (Oregon Health and Sci Univ) Smith, Marcia (Mass. General Hospital) Swavely, Todd (Univ. of Pennsylvania) Sweeny, Todd (Univ. of Pennsylvania) Wilson, Thomas (Discovery Alliance) Wray, Wayne (St. Jude's Children's Hospital) Valenzuela, Richard (UCLA)

Service Providers

Bozler, Dianne (ERA Software Systems) Burnette, Travis (Clinical Tools) Harker, Chris (Cayuse) Hulette, Forest (ERA Software Systems) Rodman, John (RAMS)

NIH Staff/Contractors

Ellis, Joe (OPERA) Fisher, Suzanne (CSR) Flach, Jennifer (OD) Hahn, Marcia (OPERA) Hall, Dan (Z-Tech) Mayer, Pamela (NINDS) Siegert, Mark (OD) Tatham, Tom (CSR) Turner, David (OD) Twomey, Tim (OD) Walker, Cathy (OD) Wright, David (OD)