**Roadmap to Designing a Successful Electronic Application Process for
Private Sector Sponsors of Research.**

The Investigator, Researcher, and Institutional Administrators' Wish List

Prepared by Jay Walton

The following is not intended to be an all inclusive list of the make up of a great application, but rather a review of major points that have been raised by researchers and administrators that would enhance the effectiveness of applications.

Following these suggestions will enable private foundations and/or public charities to more effectively achieve their mission. In this regard, it will affect how efficiently institutional administrators of grant and contract applications validate both compliance information and institutional commitments. More importantly, sponsors who follow these suggestions will enable researchers to spend more time doing their research, and thus less time on the preparation of applications to fund their research.

It should be noted that it is <u>not</u> a goal to have a single, uniform or comprehensive standard application for all non-federal sponsors. Rather, it is the similarity in structure, order and feel on the <u>front</u> end of an electronic/online application that we are after. Data can be reorganized as desired on the backend of the application; that is, the portion that is actually reviewed by the sponsor. It is also understood that each sponsor will have their own unique questions and information they want to request, and this is not an attempt to suppress the uniqueness of sections of the application and review process.

Grants.gov has bridged the challenge of agreement on a common application <u>system</u> between dozens of federal agencies by taking a modular approach. Different sections of the each agencies application, including unique sections and questions, are compiled in one manner on the front end that is similar across agencies, but regenerated on the backend in any format conducive to a particular agency's needs. It is believed that this is also a good model for the private sector as well, and therefore many professionals encourage these sponsors to *Structure and Function Like the Feds*.

Structure and Function Like the Feds:

Investigators are increasingly requesting that applications be modeled after the Electronic Applications for Federal Programs that fund similar research with the most weight being given to Grants.Gov, but also consider the National Science Foundation's (NSF) Fastlane, and the National Institutes of Health's (NIH) eRA Commons. These are formats your applicants are familiar and comfortable with.

The essential elements that should receive particular focus for standardization and commonality between the applications of sponsors include:

- **Underlying Technology**: open face such as xml.

- **Structure**: Have the same layout and order for different sections of the application (e.g. demographics, abstract, science, budget, bio sketch, compliance, institutional review and approval, etc.)

- **Demographic Data**: the same order, (e.g. first name, middle, initial, last name, suffix, degrees, institution's name, street address, additional address line, City, State/Province, zip/mail code, country, etc.). Have forms function the same, for example dashes are auto filled for telephone numbers as sections of the number are entered. The country selected, should drive the arrangement and number of characters for telephone numbers, zip/mail codes, etc.

- **Centralized Storage of Data and Compliance Documentation:** Securely store demographic and other frequently static data elements on a central server. The data should be recallable by the applicant to auto-populate many of the static data fields on an application. (The data is accessible once security checks have been satisfied – user name and password, etc.) Similarly centrally store compliance documentation and pop feed these documents into the application, versus the applicant providing the copies. Please don't reinvent the wheel; instead, make time to explore federal and other locations that may already maintain centralized data, and identify agencies/organizations that would be willing to work out security issues that provide applicants access to this data for their applications. System-to-System transfer of data without human re-entry is highly desired wherever possible.

- **Institutional Review**: Use a common method for obtaining the electronic "signature" from an authorized official of an applicant's institution. A suggested model for this process will be provided separately, but ultimately functioning like the federal application that most of your applicants would also be completing is perhaps the best model.

- **Paper or Electronic – But Not Both**: Have the application either be totally electronic, and preferably web based, or totally in paper format. For example, it is probably wise to <u>not</u> require that a separate hard copy for signatures be submitted and the rest of the application be submitted electronically (and rule that the application is not complete and acceptable until both portions are received prior to the same deadline).

- **Peer Review Format:** Besides being a strong preference among applicants, peer reviewers also prefer standardization in the look, feel, format and structure of the copy of the applications they are reviewing for different sponsoring organizations. (Order the sections the same, same legible, easy on the eyes fonts, etc.)

Again, this is not intended to be a totally comprehensive list of the problems applicants are having with electronic or paper applications but rather an outline of the major issues and problems that applicants and institutional administrators have identified in our discussions and meetings.

In summary, it is not for this Task Force to state what the right and wrong structure, order of elements, and parts of any one application should be. There are too many variables that sponsors truly need to solve for themselves, and one way to do this is to look for ideas and practical guidance from federal agencies that sponsor similar research.

There is a growing sentiment among research institutions that the "reverse correlation" between the size of an award—and the level of non-reimbursed indirect costs and administrative burdens incurred to obtain the award—simply cannot continue. The brightest, best, most prestigious and most successful researchers will simply obtain their funding elsewhere.

In light of the above, it is imperative that private foundations and public charities begin work to collaboratively solve shared issues.