Annual Report
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The Research Services Organization (RSO) of the Academic Health Center

A Summary of the Eighth Year of Operations

Submitted by:
Mark S. Paller, M.D., M.S.
Director, Research Services Organization
Assistant Vice President for Research, AHC

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Executive Summary

The Research Services Organization (RSO) was established in 1997 to provide researchers at the University of Minnesota Academic Health Center (AHC) convenient and effective support for the preparation of research proposals, performance of clinical trials, and management of research projects. The RSO was also designed to provide the private sector with single-source access to AHC researchers and technology.

The RSO is functionally divided into two parts. An Internal Service Organization (ISO) provides fee-for-service assistance for clinical trials, primarily industry-sponsored research. The non-ISO part provides training programs for research coordinators, non-reimbursable services for NIH-sponsored clinical research, assistance to investigators filing Investigational New Drug applications to the FDA, and access to the Academic Health Center for the private sector.

This report summarizes the RSO’s status during the eighth year of operations. Among the RSO’s accomplishments were:

- The RSO assisted investigators in reviewing or preparing 54 new clinical trial proposals. At the end of 2005, there were 51 active trials involving the RSO in some capacity (Exhibit 1), compared with 75 at the end of 2004. The number of projects for which the RSO was providing full services was 36 (increased from 32). The number of projects in the pipeline at years’ end was 30 (27 at end of 2004). Of these, 25 projects are in the final initiation stages. During 2005, RSO services for 33 projects were completed.
- The RSO worked with 40 faculty members belonging to 8 different departments.
- In 2005 the RSO continued its very successful training program for research coordinators. More than 250 research coordinators, faculty, and administrative staff have participated in the program since its inception.
- A clinical monitoring service was started to verify compliance with Good Clinical Practices (GCP). Two experienced clinical monitors were hired and a monitoring plan was established.
- Planning for a conference jointly sponsored with the Mayo Clinic was begun. This major national conference -- *Current Issues in Clinical Research Conference: Latest Trends in Clinical Research* -- will be held on October 4 and 5, 2006 in Minneapolis.
- The IND/IDE Assistance Program helped investigators submit 20 IND applications. Nine IND applications were in the process of being prepared. 51 reviews of IND sponsors’ programs were completed. A full description of this unique program was published in Academic Medicine (Arbit HM, Paller MS: A Program to provide regulatory support for investigator-

- The RSO monthly newsletter has been published continuously for more than seven years.
- In response to the NIH's call for applications for Clinical and Translational Science Awards (CTSA), dozens of faculty members and staff are working to develop a transforming vision for clinical and translational research at the University of Minnesota. The result will be the Institute for Clinical and Translational Research (ICTR). The combined assets of the RSO and GCRC will be the nucleus of two major components of the ICTR, for Research Support Services and Clinical Interaction Resources.
Introduction

The Research Services Organization (RSO) was established in 1997 to provide researchers at the University of Minnesota Academic Health Center (AHC) convenient and effective support for the preparation of research proposals, performance of clinical trials, management of research projects, and development of innovative technology. The RSO was also designed to provide the private sector with access to AHC researchers and technology.

The RSO is functionally divided into two parts. An Internal Service Organization (ISO) provides fee-for-service assistance for clinical trials, primarily industry-sponsored research. The non-ISO part provides training programs for research coordinators, non-reimbursable services for NIH-sponsored clinical research, assistance to investigators filing Investigational New Drug applications to the FDA, and access to the Academic Health Center for the private sector.

This report summarizes the RSO’s status during its eighth year of operations (calendar year 2005).

Key Performance Areas

The RSO has efforts in several major research areas, focusing on clinical research in the AHC. These are:

1) Clinical trials services
2) Proposal processing and monitoring
3) Assuring regulatory compliance
4) Education and training

Clinical Trials Services

This area continues to be the most visible activity of the RSO. Faculty acceptance of the RSO’s optional support services continues to be very positive. The RSO assisted researchers to initiate studies and to manage the approval process. RSO staff reviewed protocols, assisted with budget preparation and contract negotiation, prepared and submitted IRB, DEHS, conflict management review, GCRC, Cancer Protocol Review Committee, (solid organ) Protocol Review and Data Use committee, Sponsored Projects Administration, and regulatory [eg, FDA Form 1572] documents. Many researchers also opted to employ RSO nurse clinical research coordinators to perform their studies.

The RSO’s clinical trials service is organized within the University as an internal service organization (ISO). Services by RSO Research Process Managers (RPMs) and Clinical Research Coordinators (CRCs) are billed to research accounts on a fee-for-service basis. A project is billed
for the time that personnel devote directly to it. The advantages to investigators are that they pay only for time they actually use, have access to a pool of highly skilled and experienced research personnel, and avoid the hassle of recruiting and supervising employees. Multiple RSO staff members may contribute to a single project, providing a diversity of abilities not otherwise readily available, especially to smaller projects. As an ISO, our business plan has been reviewed by the controller’s office to ascertain that our fees are based upon reasonable costs. A software program (TASCS) is employed to manage staffing levels, track staff contributions to individual projects, and prepare monthly statements.

Accomplishments

- **RSO managed project activity.** In 2005, the RSO assisted investigators in reviewing or preparing 54 new clinical trial proposals. The number of studies declined or ultimately withdrawn by the sponsor was 19, compared with 27 in 2004, 30 in 2003, and 63 in 2002.

  The clinical trials for which the RSO provides services are in various stages of development at the AHC. At the end of 2005, there were 51 active trials involving the RSO in some capacity (Exhibit 1), compared with 75 at the end of 2004. The number of projects for which the RSO was providing full services was 36 (increased from 32). The number of projects in the pipeline at years’ end was 30 (27 at end of 2004). Of these, 25 projects are in the final initiation stages. During 2005, RSO services for 33 projects were completed. Many of these projects were initiated in prior years. To handle this volume of work, the RSO staff assigned to this function included approximately 2.7 FTE research process managers, 4 FTE nurse research coordinators, 0.8 FTE executive assistant, and one secretary.

  These active research projects have an estimated contract value of > $6.9 million. An additional 25 projects in the final initiation stages (waiting final approvals or budget negotiation; final budgets are not yet available for several of these projects) have an estimated contract value of $3 million.

  Nineteen clinical trials were reviewed, but not undertaken. In two cases (10%), an adequate budget could not be negotiated. Trials were not undertaken because of insufficient PI interest in the project in four cases (21%), and in five cases (26%) the sponsor withdrew the protocol (various or unknown reasons). A variety of reasons contributed to decisions to not pursue the remainder of the projects.

  RSO staff received 18 approvals from the IRB during 2005. The complexity and amount of time required for a single clinical trial continues to be a concern. In 2005 the RSO processed 21 protocol amendments.

- **Satisfying faculty needs.** Researchers continue to commend RSO staff on the quality of
their work. In 2005, the RSO worked with more than 40 different faculty members on their research projects. These faculty belong to eight different departments in the Medical School. The disciplines represented include rheumatology, endocrinology, pulmonary, hematology/oncology, gastroenterology, cardiology, pediatrics, neurosurgery, anesthesiology, dermatology, surgery, cardiothoracic surgery, obstetrics/gynecology, therapeutic radiology.

“My overall experience with ____ has been excellent. She consistently gets the job done and has been very flexible... I look forward to working with ____ for a long time.”

“____ is the best! [RPM]. Absolutely delightful to work with.”

“____ has always done a wonderful job with all of my protocols. She is efficient and always available. She is an extremely hard worker and will do anything possible to help out.”

- **Satisfying sponsor needs.** RSO staff has received many favorable reviews by the sponsors with whom we worked. Some of the spontaneous feedback the RSO received included the following remarks:

  “… Frankly, that was otherwise one of the fastest turn-arounds from a university setting, ever!”

  “Exceptional study coordinator.”

- **AHC Clinical Trials website.** The AHC Clinical Trials web site <www.ahc.umn.edu/trials> displays information about active clinical trials at the University of Minnesota and automates the process whereby potential volunteers may obtain information about participation in current or future clinical trials. There are also links to the NIH resource website about clinical trials.

  Any principal investigator may list her/his IRB-approved, active clinical trials so that sponsors and the general public are aware of the clinical research activities taking place at the University of Minnesota. Patients and potential volunteers have access to a listing of active trials. Any individual can volunteer to be contacted by the designated contact person for possible participation in a trial. PIs are notified of potential volunteers by automated email and will follow-up with these potential volunteers. Volunteers can also request that their name be kept on file and that they be contacted for future clinical trials in specified areas.
**Future Plans**

As shown above, the number of clinical trials in which the RSO participates has now reached a plateau after several years of growth. This may be the result of a greater emphasis placed by faculty on NIH-sponsored research rather than industry-sponsored research. This is consistent with a national trend as documented by CenterWatch (February, 2006). It may also reflect saturation of the capacity of clinical researchers to perform clinical trials.

The RSO will be integrated into the AHC’s new Institute for Clinical and Translational Research. The final section summarizes those plans.

**Easing the Administrative and Logistical Burdens of Research Projects for Researchers**

Investigators using the RSO to initiate their studies are relieved of administrative burdens because the RSO assists the investigator in all steps of the process. Many projects require coordinated review by the IRB, sponsored projects, and one or more additional committees (Cancer Protocol Review, General Clinical Research Center, Biosafety, Radiation Protection, and others). There is clearly opportunity for continued progress. The RSO remains committed to its time performance goals.

For trials initiated in 2005 for which the RSO provided complete RPM services (n=30), the average RSO turn-around time (time from beginning work on an IRB application and consent form to submission of an application to the IRB) was 20 days (range 4-52), down from 30 days. (Exhibit 2). This interval was highly dependent upon the complexity of the tasks required to submit all applications and the anticipated initiation date. The time from IRB submission to IRB final approval was 77 days (range 36-134) (down from 82 days in 2004). The average time from signature of the Proposal Routing Form to contract execution by Sponsored Projects Administration was 88 days (range 27-209) (up from 67 days). Moreover, the total elapsed time from receipt of protocol to contract execution was 153 days (range 70-245) (up from 150 days).

Thus, there has been little change in the cumulative time required to move a clinical trial through the University process. The RSO has also tracked the time from submission to approval for several internal university committees. The average time until approval by the Cancer Protocol Review Committee decreased from 76 to 66 days (n=2), for the General Clinical Research Center 47 days (up from 45; n=5), and for the [solid organ transplant] Protocol Review and Data Use committee down from 76 to 32 days (n=2).

**Future Plans**

Further improvements in grants processing are being examined by the Office of the Vice President for Research. Changes in NIH regulations for GCRCs will eventually eliminate a specific GCRC review, but other internal reviews will still be required. The ICTR will be
addressing this problem in the overall context of clinical research performance improvements.

Assuring Regulatory Compliance

Proper training in and adherence to Good Clinical Practice is essential to quality participation in clinical trials. The RSO is committed to providing investigators with experienced, highly-trained research coordinators to assist in conducting clinical trials. Certification by the Association of Clinical Research Professionals (ACRP) is an RSO staff education and development goal for all eligible staff members.

The RSO newsletter, a monthly e-mail communication, is a useful source of information for investigators and their staff. The newsletter regularly contains short articles about clinical research ethics, educational events, and changes in the national regulatory environment. Topics in the past year have included financial news about pharmaceutical development, individual and institutional conflict of interest, RSO data related to costs of performing clinical trials, human subject protection, fraud in research, and public opinion of clinical research.

Accomplishments

- **Clinical Research Coordinator Training Program.** In 2005 the RSO continued its very successful training program for research coordinators. The available training consists of several modules, each with a different focus. The AHC awards a certificate to research coordinators who complete all of the modules successfully. However, coordinators may enroll in individual modules depending upon their prior experience and education. Modules 2 and 3 (see www.ahc.umn.edu/research/rsoinformation/training/clinicaltraining/ for a full description of the program) were delivered once in 2005. More than 250 research coordinators, faculty, and administrative staff have participated in Modules 2 and 3 since inception of the training. This free program is open to all AHC employees. Comments from attendees were very positive.

- **Clinical Trial Monitoring Service.** A clinical trial monitoring service has been established to assure that all University of Minnesota clinical research – regardless of funding source – meets the standards for the conduct of clinical research outlined in GCP guidelines. The purposes of trial monitoring include verification that the reported trial data are accurate, complete and verifiable from source documents; that the conduct of the trial has followed the currently approved protocol/amendment(s), and that the study team has followed GCP and other regulatory requirements. The highest priority of the clinical trial monitoring service is clinical trials conducted under investigator-held IND or IDE.
applications. Two experienced clinical monitors have been hired, a monitoring plan has been established, and informational meetings have been held with investigators and their staff. Monitoring activities commence on March 1, 2006.

- **IND/IDE Assistance Program and IND/IDE Compliance.** The IND/IDE Assistance Program helps investigators with IND (Investigational New Drug application) or IDE (Investigational Device Exemption application) submissions and ongoing FDA communications when the investigators also serve as the sponsor of an IND or IDE. The IND/IDE Assistance Program website can be viewed at [www.ahc.umn.edu/research/ind-ide/](http://www.ahc.umn.edu/research/ind-ide/).

  In 2005, twenty IND applications were submitted, 9 are in the process of being prepared, and an additional 10 may lead to an IND application. In 2005, 51 reviews of IND sponsors’ programs were completed.

  A full description of this unique IND Assistance Program was published in *Academic Medicine* (Arbit HM, Paller MS: A Program to provide regulatory support for investigator-initiated clinical research. *Academic Med* 81:146-153, 2006).

- **Communication.** The RSO monthly newsletter has been published continuously for more than seven years.

**Future Plans**

The AHC is jointly sponsoring a major national conference on October 4 and 5, 2006 in Minneapolis with the Mayo Clinic: *Current Issues in Clinical Research Conference: Latest Trends in Clinical Research*. This conference will be available to faculty and staff, at no charge.

Plenary topics will include:

- an overall summary of good clinical practices (David Markovitz)
- patient advocacy (Sydney Wolf, MD)
- genomic initiatives and the FDA prospective (Janet Woodcock, MD)
- NIH Roadmap update (Barbara Alving, MD), and
- special populations.

Breakout sessions will cover:

- genomics (the future of genomics in clinical research; practical aspects of incorporating genomics into clinical trials; and ethical considerations for clinical trials that collect genetic information)
- ethical considerations for clinical trials (aspects of design; sample-size; co-authorship; conflicts of interest and conflicts of commitment)
- study design (newer design methodologies; the use of surrogate markers in clinical trials)
- clinical trial monitoring and data monitoring committees
- the consent process
- PI credentialing (pro and con)
- INDs.
- e-trials, and
- clinical studies testing medical devices.
The Institute for Clinical and Translational Research

In response to the NIH’s call for applications for Clinical and Translational Science Awards (CTSA), dozens of faculty members and staff are working to develop a transforming vision for clinical and translational research at the University of Minnesota. The result will be the Institute for Clinical and Translational Research (ICTR). RSO Director Mark Paller is a member of the executive committee. Plans are to facilitate the performance of clinical and translational research by providing access to the necessary resources in a “one-stop shop,” to build a robust pipeline of investigators and future leaders in clinical and translational research, to increase the speed at which new health solutions are made available to the public, and to engage the public and community health practitioners in the performance of clinical research. Many excellent existing AHC programs will be coordinated under the new umbrella institute and other capabilities will be strengthened or newly developed.

The combined assets of the RSO and GCRC will be the nucleus of two major components of the ICTR, for Research Support Services and Clinical Interaction Resources.
Cross sectional data representing the number of active projects at the indicated time point. Completed studies are cumulative. RPM only indicates that the RSO assisted in initiating the study, but did not supply a research coordinator. RPM + CRC indicates RSO involvement throughout the entire trial, including providing the research coordinator. Await approval indicates that final approvals have not yet been obtained but are anticipated within the next 30 days. Under development indicates planned preparation of regulatory documents within 90 days.
Time Performance for Initiation of Clinical Trials

Total elapsed time is interval between receipt of final protocol by RSO and study initiation. Time until final contract approval is interval between submission of contract to Sponsored Projects Administration and contract execution. Time for IRB approval is interval between IRB application submission and receipt of written approval by the principal investigator. Time to submit documents is interval between receive protocol and prepare IRB application, and (*) includes 7.5 days between delivery of documents to PI for review and obtaining PI’s signature.