



Welch Informationist Collaboration With the Johns Hopkins Medicine Department of Radiology

Victoria H. Goode, Blair Anton

Johns Hopkins University, Baltimore, MD, USA

Abstract

With the announcement of the NLM Administrative Supplement Grant, the informationists at the Welch Medical Library found an interested and enthusiastic Principal Investigator (PI) in the Department of Radiology at The Johns Hopkins School of Medicine. Although the PI had not used the services of a Welch informationist before, he was eager to collaborate with an informationist on the grant "Dose-Response in Radionuclide Therapy" (Parent Grant Number: 5R01CA116477-07), and had self-identified the need for "a literature review by experts" to fulfill his funded work.

Targeted radionuclide therapy is an emerging modality for cancer therapy that involves the delivery of radioactive atoms using carriers that preferentially bind to tumor cells. Such treatment is best implemented with patient-specific dosimetry calculations. This mutually beneficial partner

ship brings the specialized skill set, knowledge base and expertise of an informationist to the biomedical research team to assist in accomplishing the broader work of improving RPT delivery in metastatic cancer patients.

The informationist will carry out multiple tasks to produce an effective and efficient workflow that facilitates the dissemination of the information to a globally dispersed research team. This collaboration will be evaluated both quantitatively and qualitatively, and the important role of the informationist in the success of this project will demonstrate the value of including an informationist in the research team. This demonstrated value will assist Welch Library in continuing to promote the embedded informationist program to other interested researchers throughout the institution.

When the NLM Administrative Supplement grant opportunity was announced, the informationists at the Welch Medical Library partnered with a keenly interested and enthusiastic Principal Investigator in Dr. George Sgouros, Professor of Radiology, Oncology and Radiation Oncology, at the Johns Hopkins School of Medicine. Although he had not used the services of a Welch informationist before, Dr. Sgouros was eager to collaborate with an informationist on his existing grant, and had self-identified the need for "a literature review by experts" to fulfill his

funded work. Performing literature searches and gathering data for scientific review from relevant studies are central to the current work of the grant. This work is in the wheelhouse of the informationist.

Dr. Sgouros' Grant

Dr. Sgouros' research, "Dose-Response in Radionuclide Therapy" (Parent Grant Number: 5R01CA116477-07), is intended to develop the methodology and tools needed to improve radiopharmaceutical therapy (RPT)

Correspondence to Victoria Goode: vgoode1@jhmi.edu

Keywords: Informationist services, Welch Medical Library, grant-funded research, information science, NLM Administrative Supplement Grant, Radiology

by implementing a patient-specific, absorbed-dose-based (AD) approach to treatment. Targeted radionuclide therapy, a form of RPT, is an emerging modality for cancer therapy that involves the delivery of radioactive atoms using carriers that preferentially bind to tumor cells. For patients with metastatic cancer, RPT is one of the few feasible alternatives to chemotherapy. Currently, this therapy is delivered in a chemotherapy model, but it is best implemented with patient-specific dosimetry calculations (NIHRePorter 2013).

Johns Hopkins Research and Welch Informationist Services

The Johns Hopkins Medical Institutions (JHMI) is a world-renowned, research-intensive institution with a substantial clinical practice and top-ranked Schools of Medicine, Public Health, and Nursing. In order to best serve this busy population of researchers, clinicians, and educators, Welch Library created and implemented an informationist services program in 2002. This specialized delivery model involves information experts providing customized services to meet the information needs of the faculty, students, and staff of the JHMI. Informationists work with patrons at their points of research, teaching, and clinical care. This practice emphasizes proactive interactions with library users and the integration of an informationist into their settings and workflows to be able to answer questions faster, fulfill information needs more effectively, and participate in the role of information expert on research and care teams. Informationists assist researchers in developing answerable questions, translating questions into search queries, providing expert literature searching in multiple databases, filtering and critically appraising studies, data abstraction, and optimizing information retrieval, management, and storage of information.

The Johns Hopkins Departments of Radiology and Radiation Oncology currently have 68 active National Institutes of Health (NIH)

sponsored grants. The Department of Radiology has approximately 195 faculty and numerous training programs for researchers, post-doctoral fellows, and residents. Informationist services began for this department with the establishment of office hours three hours per week in its Musculoskeletal Section (MSK), where it became evident that members were heavily involved with data and its management. Over the past two years, multiple collaborations with researchers, including systematic review projects, have deepened the informationist's knowledge of the literature in this specialized clinical discipline and prepared her to expand into more complex subject matter.

Partnership with Dr. Sgouros' Research Team

This mutually beneficial partnership with Dr. Sgouros brings the specialized skill set, knowledge base, and expertise of the information science field to the biomedical research team to assist in accomplishing the broader work of improving RPT delivery in metastatic cancer patients. The informationist begins her work using standard information practices, such as teaching searching skills in various bibliographic and research networking tools, information management software and troubleshooting, library access, and technology issues. Moving beyond traditional searching, the informationist will investigate the content of this technical literature. Using iterative search techniques to identify and examine the relevant literature, she will mine for parameter values for scientific review by the research team. This work supports a panel of experts to credential the parameter values. In addition, she will work to develop guidelines on how to best share the data with a broader community. Finally, the work will result in a protocol for reviewing new literature in order to update the parameter values in a publicly accessible, on-line database. In sum, the informationist's work will produce an effective and efficient workflow that facilitates the dissemination of the information to a globally

dispersed international research team.

The informationist benefits from this collaboration by developing new information management and discovery skills, including how this literature is indexed thus improving her ability to identify and understand appropriate search terms as well as her understanding of the conceptual basis for those terms. Dr. Sgouros teaches the informationist about radiopharmaceutical therapy, with its highly technical, descriptive language, and an understanding of how dosing for this therapy is structured. This instruction enables the informationists to more comprehensively search the literature.

Observations to Date

Each day has brought the opportunity to utilize existing skills, gain new knowledge, and embrace new learning opportunities, all of which strengthen the collaboration with the research team. Effectively working on this project amidst the multitude of other information requests at a busy medical library, demands devoted time and concentration. The informationist's ability to manage priorities, balance multiple tasks, and set clear goals, both weekly and monthly, help to put structure around this ongoing, in-depth research project and has kept this collaboration moving forward.

In addition to the technical complexities of this work, the dissemination of information and data management needs also present challenges for the informationist working with the research team. The project calls for a systematic review and the gathering of values from the relevant literature, which will produce a large amount of information and data, all of which will have to be organized, shared, and managed over the long term. For the data management aspects of the project, the informationist will research and learn about data management strategies, software, and best practices in order to develop a format for the identified parameter values that can be easily accessed and up-

dated by the globally dispersed research team.

Evaluation of the Informationist Collaboration

The impact of collaborating with an informationist will be evaluated both quantitatively and qualitatively. The informationists at Welch Library regularly enter and track data on direct-service contacts with users in a locally developed database. The work performed in conjunction with this grant will be entered and tracked throughout the process and will be available for further evaluation and reporting at the completion of the grant. Search performance by the informationist will be compared with results previously obtained by research team members. Team members will also be asked to score the impact of the informationist's participation. In addition to these measures, the research team will be asked to complete the informationist services portion of the Welch Medical Library Value Survey which measured the effects of information and informationist services on clinical and research decisions, as well as the value of selected library services (Welch Medical Library 2011).

Final Thoughts

The future of the project promises to be exciting. This collaboration has already led to another project related to this grant and will likely lead to others within the department. Proactive library service promotion was fundamental to finding a new research collaborator in Radiology. Welch informationists continue to benefit from putting effort into building partnerships with our users. The important role of the informationist in the success of this project will demonstrate the value of including an informationist in the research team, and will assist Welch Library in continuing to promote the embedded informationist program to other interested researchers throughout the institution.

References

NIHRePorter. "Dose Response in Radionuclide Therapy." Accessed February 7, 2013. http://projectreporter.nih.gov/project_info_description.cfm?aid=8325044&icde=15231998.

Welch Medical Library. "Value Survey." Internal Report, November 2011.

Disclosure: The authors report no conflicts of interest.

All content in Journal of eScience Librarianship, unless otherwise noted, is licensed under a Creative Commons Attribution 4.0 International License.

<http://creativecommons.org/licenses/by/4.0>

ISSN 2161-3974