

The National Cancer Institute's Center for Bioinformatics

BUILDING CONNECTIONS TO DEFEAT CANCER

CASE STUDY

Booz Allen Hamilton is helping the National Cancer Institute to connect a global network of scientists working to end suffering from cancer.



About Booz Allen

Booz Allen Hamilton has been at the forefront of management consulting for businesses and governments for more than 90 years. Integrating the full range of consulting capabilities, Booz Allen is the one firm that helps clients solve their toughest problems, working by their side to help them achieve their missions. Booz Allen is committed to delivering results that endure.

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Client's Challenge

Each year, more than a million people receive a cancer diagnosis, and finding a cure remains the holy grail of medical science. Cancer research has produced tremendous amounts of data, but until now that data was mostly isolated within individual scientific environments. Sharing that information throughout the broader medical community could accelerate the discovery of new treatments. As the primary sponsor of taxpayer-funded cancer research, the National Cancer Institute (NCI) wanted to step up the pace of research by creating a network using interoperable tools, data standards, and infrastructure. The National Cancer Institute's Center for Bioinformatics (NCICB) turned to Booz Allen to help develop this system and close the gap between research and treatment.

What Booz Allen Did

Working with NCICB and a broad community of cancer researchers at 50 centers across the country, Booz Allen helped develop the cancer Biomedical Informatics Grid™ (caBIG™), connecting individuals and institutions to a world wide web of cancer research. Booz Allen brought researchers and senior leadership at NCI together to learn what tools were needed to standardize research and improve collaboration among scientists. In addition, experts in subjects including tissue banking, bioinformatics, and clinical trials were brought in to inform the development of caBIG™ specifications. More important, Booz Allen helped the researchers themselves to participate in the construction of the tools they needed to maximize the utility of caBIG™. This early stakeholder engagement fostered support that helped ensure rapid adoption and eliminated the disconnect that often occurs between the users and developers of structured software. Finally, by ensuring that the documentation for the caBIG™ software is open and public, all researchers can extend or build upon the tools now available—or build their own—to meet their needs.

Results

The caBIG™ project has fostered connections throughout the cancer research community: at cancer centers and their NCI-supported research endeavors; at almost 100 federal, academic, not-for-profit, and industry organizations; and with more than 1,000 individuals across the globe. Together, they have generated more than 40 new products, including biomedical tools, datasets, and infrastructure. NCI grantees are increasingly using caBIG™ data standards and tools as means of complying with NCI data sharing guidelines—a move that spurs greater collaboration.

The National Institutes of Health is actively exploring similar initiatives and has been studying caBIG™ as a model for other medical research informatics initiatives. Some tools, including the Cancer Tissue Database (caTISSUE), are already used by non-cancer researchers. Expanding the use of caBIG™ beyond cancer could help all medical scientists collaborate better and faster by reducing repetition and identifying results earlier. The caBIG™ initiative is also viewed as a precursor to the enormous potential of new health information technology. Hastening the transmission of information from the laboratory bench to the patient's bedside and back again could speed the development of novel and effective treatments and improve overall healthcare quality.

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