

Research Space Management Group
Michael L. Fisher, LP.D., Director

Department Overview

The Research Space Management Group (RSMG) fosters an equitable and cost-effective use of research space and resources through data collection, unbiased analysis, and efficient project management while maintaining MGH and government policies. Partnering with the MGH research community and hospital leadership, RSMG provides operational and client services to facilitate research efforts.

RSMG is responsible to the Executive Committee On Research (ECOR) for all aspects of research space allocation and management. The Department works with ECOR, Research Management, and MGH leadership to develop and implement research space allocation strategies that support overall institutional research objectives while, at the same time, optimizing the use of current and projected research space requirements.

The Department strives to improve and coordinate processes for planning, allocation, and renovation of research space through space utilization criteria, density metrics, benchmark construction standards, and equipment standards for use during programming, planning, and design to ensure adherence to the principle of exchangeable functionality. RSMG aims to improve and coordinate processes for planning, allocation, and renovation of research space.

RSMG compiles annual departmental surveys of research space utilization and reviews the results with Department/Center Chiefs or Program Directors to anticipate changing space needs and to develop plans for meeting future research space requirements.

The Research Space Management Group is responsible for developing and ensuring adherence to safeguards designed to prevent loss, damage, or theft of all research equipment valued at \$1500 and above. This entails the maintenance of the Research Equipment Inventory Database as well as responsibility for the identification, management, and disposition of research equipment.

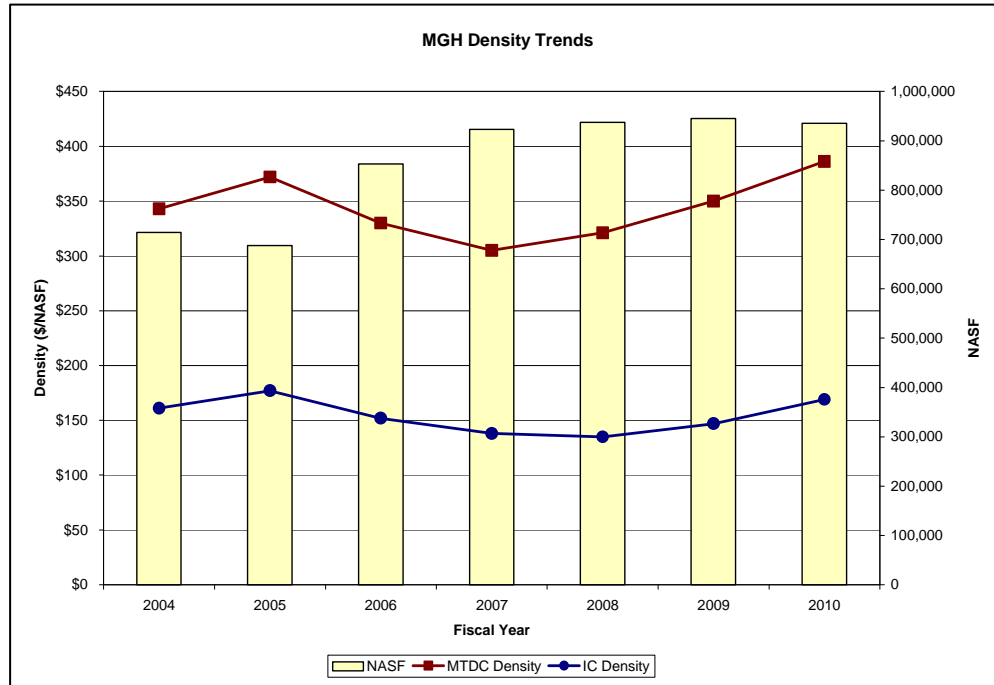
RSMG manages research facilities on both the main campus and in the Charlestown Navy Yard. RSMG operations staff is on call 24/7 to troubleshoot pressing lab issues. The RSMG facilities team also manages the Research Support Services Core in order to provide essential services to research groups in a cost-effective and efficient manner.

Staffing

The Department experienced several staff transitions over the past year. Arthur Howard retired after six years as RSMG's Asset Analyst. Yoel Jimenez was promoted from Research Technician to fill the Asset Analyst position. Yoel began working in RSMG in 2005 and was instrumental in the growth and success of its Research Support Services Core. Carmen Lilley joined the RSMG team to fill the role of Research Technician and Tyrone Alcorn, former RSMG student intern, re-joined the team in a part-time capacity to help with the growing Research Support Services Core as Research Laboratory Assistant.

FY10 Successes

In fiscal year 2010, Dr. Slavin formed the Densification Task Force to advise on matters relating to optimizing utilization of existing MGH research space. Task Force membership includes senior leadership from MGH Research Departments, the Vice President of Research, and RSMG Staff. The Task Force was charged with maximizing opportunities to accommodate research growth and improve recovery of indirect costs (IC) without increasing the MGH research footprint. In 2010, the Task Force was incorporated as a sub-committee of ECOR and was subsequently renamed the Research Densification Committee.



RSMG implemented several of the Committee's recommendations, including a greater focus on Indirect Cost (IC) density as an indicator of research space activity. IC density best represents a research department's ability to cover costs associated with maintaining their allocated space, and target IC densities were increased to more accurately reflect actual space costs. In FY10, IC density improved by 15% over FY09 IC density.

RSMG, with approval from the Densification Committee, had several successes in densification of MGH Research Space during FY10. The Department initiated and coordinated several projects that helped to densify MGH research space during the year. These projects included converting unused space in Building 149 formerly used by several Partners administrative departments and MBRC to research space for Anesthesia, Nephrology, Neurology, Pathology, Radiology, and the Phillip T. and Susan M. Ragon Institute. Several departments, including Radiation Oncology and Neurosurgery, agreed to consolidate their research efforts in order to create growth space for well-funded investigators from other hospital research departments.

The chart below represents a sample of renovation and relocation projects that increased research density and recovery of indirect costs.

Department	Project	Location	NASF	IC Density Before	IC Density After
Radiology	Bay 8 Human Connectome Phase 1	75-1	1,210	\$214	\$420
Radiology	PET/Cyclotron Installation	149-1	4,907	\$0	\$231
Anesthesia	Relocation to Radiation Oncology Space	149-4	950	\$152	\$182
Pathology	Empty Space to Labs	149-7	3,424	\$0	\$166
MGH Cancer Center	Lab Renovations	149-7	1,546	\$112	Pending Occupancy
Nephrology	Hallway to Office	149-8	125	\$0	\$89
Multiple	Empty Space to Offices	149-10	668	\$0	\$229 - \$396
Neurosurgery	Consolidation	Simches 3	331	\$73	\$108
Anesthesia	Expansion	Thier 4	2,074	\$0	\$225

In total, RSMG completed 45 construction projects totaling over seven million dollars and covering 35,500 NASF.

Space Requests

At the start of fiscal year 2010, RSMG received requests for over 50,000 NASF of research space; over 42,000 NASF of these requests were for wet lab space and 9,205 NASF of these requests were for dry space. RSMG was able to resolve 70% of these requests throughout the year, accounting for 22,188 NASF total. The remaining unresolved space requests are awaiting space availability. To date, RSMG has received over 37,000 NASF in wet space requests and 22,148 in dry space requests for fiscal year 2011. This represents a 145% increase in requested dry space NASF over fiscal year 2010. RSMG anticipates the need for dry research space to increase considerably in FY11 and beyond.

Survey Activity

In 2010, RSMG analysts completed 78 special reports involving 7 Thematic Centers, 16 Departments, and 9 research entities, which cumulatively totaled 720,117 square feet. RSMG staff provided nine comprehensive annual space surveys which detailed current space and staff, and analyzed departmental funding and metrics over multiple years. The information provided quantitative data for use as a tool in current and future space planning decisions by Department and Thematic Center Chiefs.

Numerous financial summaries and density analyses were sent to administrators in Thematic Centers, Departments, and Units throughout the year and 11 space justifications from 10 Departments were submitted to RSMG relating to new space requests. Additionally, analysts created several space models to assist in the analysis of existing space use and the potential impact of proposed space allocations. RSMG staff also prepared monthly Institutional density reports.

Space Management System Database Development

Throughout fiscal year 2010, RSMG collaborated with Partners Real Estate and Facilities and Brigham and Women's Hospital on a redesign of the Space Management System (SMS) database. The goals of this project included streamlining the database with Partners Real Estate and Facilities technology infrastructure to simplify reporting and also to update the database to reflect the changing policies and procedures that impact space management. Although the project is still under development, enhanced functionality will be available in FY11 that will upgrade the database's query and floor plan user interface.

Research Capital Equipment

In 2010, RSMG received information on 2,014 newly purchased pieces of capital equipment. RSMG reviewed each item to determine if it met eligibility criteria for inclusion in the Research Equipment Inventory Database; 626 items were deemed eligible items. These items, which can be situated in any MGH research building, were located and tagged following which detailed data about the equipment was entered into the database.

RSMG conducts periodic "mini-audits" to validate equipment records maintained in the Research Equipment Inventory Database. These audits provide RSMG, Research Management, Research Finance, Capital Accounting, and external auditors with frequent feedback concerning the adequacy of various components of the capital management process allowing for mid-course process improvements when indicated.

Six audits were performed during 2010; a total of 598 pieces of equipment were randomly selected. Total population size of equipment eligible for audit was 5150; this is a statistically acceptable sample of the total population of research equipment at MGH.

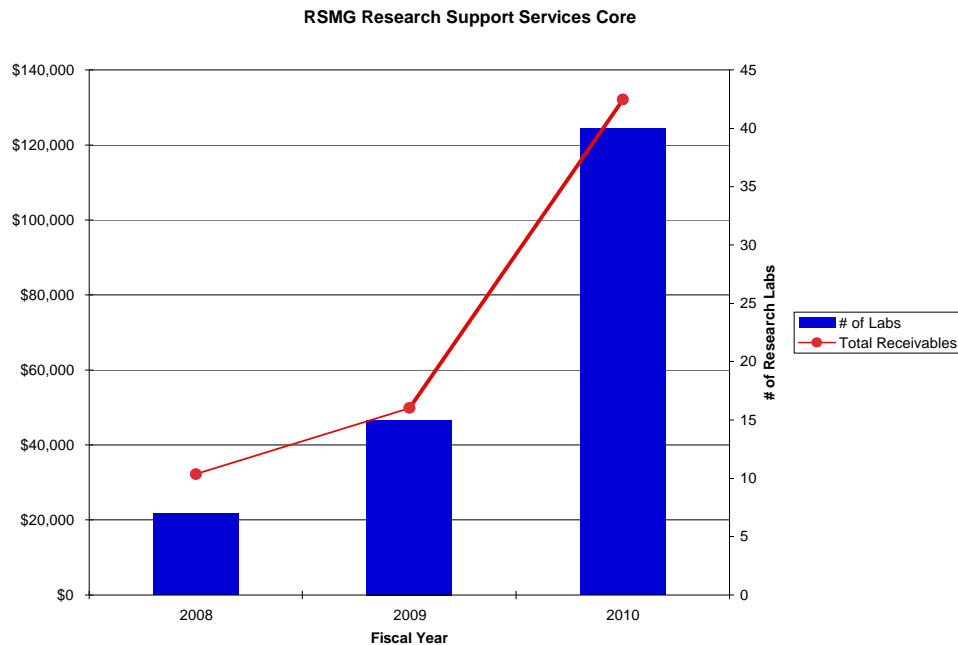
Audit Type	Audit Success
Equipment purchased with Federal and Non-Federal sources valued at \$1500 - \$4999	97%
Equipment purchased through Federal Contracts valued at \$5000 or greater	100%
Equipment purchased with Federal sources valued at \$5000 and greater	97%
Equipment purchased with Federal and Non-Federal sources valued at \$5000 or greater	98%
Equipment categorized as Category N (Due-Diligence)	100%
Equipment purchased with Non-Federal sources valued at \$5000 or greater	98%

According to applicable audit guidelines, a successful audit is defined by audit success of 99% or greater. RSMG Equipment Management instituted a number of process improvements in order to increase probability of audit success in subsequent years. RSMG worked with Police & Security, Research Administration, and other MGH support departments in 2010 to update hospital policies and processes aimed at preventing MGH research assets from being inappropriately or inadvertently removed from hospital property. RSMG also altered processes for entering equipment information into the Research Equipment Inventory Database to minimize potential for human error. In the future, RSMG plans to automate the research equipment tagging process through handheld computer technology as part of the Space Management System (SMS) Database upgrade.

Research Support Services Core

RSMG's Research Support Services Core underwent rapid expansion in 2010. The Core is a break-even operation designed to provide essential services, such as centralized CO₂, glass washing, autoclaving, copier services, and cable TV, to researchers at a reasonable cost. The Research Support Services Core currently provides its services to laboratories in the Simches Research Center, the MGH Main Campus, and Building 149.

The number of laboratories utilizing the glass washing, autoclaving, and photocopier services increased in fiscal year 2010 to 40 labs. Total receivables rose by 165% from \$49,898 (FY2009) to \$132,100 (FY2010).



Looking Ahead to 2011

A flat or reduced NIH budget will likely present continued challenges for MGH's research enterprise. Although increased NIH funding through the American Reinvestment and Recovery Act bolstered MGH research activity throughout 2010, this funding is set to expire at the end of FY11. To offset the impact of anticipated NIH budget challenges, RSMG continues to look for ways to densify the current research space configuration to maximize the institution's indirect cost recovery. There are several research construction projects on the horizon for FY11 and beyond that will further this aim.

As required by their funding agreement, in FY10 the Phillip T. and Susan M. Ragon Institute for AIDS research began planning for a relocation to the MIT/Broad Institute area. These plans will continue into FY11 with a move anticipated by the end of FY12. RSMG will initiate a formal planning process in order to backfill the 20,000 NASF of research space that the Institute will vacate in Building 149.

RSMG will also be renovating several spaces for the Athinoula A. Martinos Center in the Charlestown Navy Yard in order to accommodate new equipment technologies that will further its imaging research. In Building 75, a portion of the first floor (bay 8) will be renovated for the NIH Human Connectome project, which aims to construct a map of the complete structural and functional neural connections in vivo within and across individuals. In Building 149, infrastructure improvements and renovations will allow for the installation of two research magnets on the first floor in 1,850 NASF of space.

RSMG identified several underutilized spaces in Building 149 and has secured funding to renovate these areas to accommodate research needs. Planning is underway to convert an unused mechanical room on the second floor to equipment storage space that will accommodate 17 freezers. Freezer storage space has been a perpetual need at MGH, especially for clinical trial research programs that do not currently have allocated research space. Additionally, RSMG plans to convert 400 NASF of underutilized waiting area space, also on the second floor, to fellows space for three research groups. The Psychiatry department also plans to consolidate research activity and renovate lab space on the second floor to accommodate a surgery, perfusion, and histology site.

In order to accommodate the increased demand for dry research space, MGH recently negotiated a lease for additional office space at 100 Cambridge Street. Four well-funded lab groups will occupy over 12,000 square feet in the building. This move will also free up dry space on the fourth floor of 50 Staniford Street to fulfill a commitment to a recruit in the Anesthesia Department. Additionally, planning is underway to convert 1,600 NASF of wet lab space in the Simches Building to dry research space in order to accommodate a growing bioinformatics research program.

We expect continued success in these initiatives for FY11 due in part to the professionalism and dedication of RSMG staff.

- Nancy Hanafin, Supervisory Analyst
- Denise Adan, CAD/CAFM Specialist, Asset Management, and Special Projects
- Tyrone Alcorn, Research Laboratory Assistant
- Lauren Barsanti, Training Manager
- Norah Chen, Senior Space Analyst
- Patricia Frederico, Research Operations and Facilities Manager
- Meghan Hennelly, Office Coordinator
- Trevor Higgins, Space Analyst
- Wendy Hobbs, Space Analyst
- Yoel Jimenez, Asset Analyst
- Jeanne Kotelly, Research Operations and Facilities Manager
- Carmen Lilley, Research Technician
- Paul Sarkisian, Data Development Manager