# *Factors for consideration in academic research space allocation*

**Elizabeth J. Parks, PhD [1, 2] and William P. Fay, MD [2,3]**

[1] Department of Nutrition and Exercise Physiology, [2] Department of Medicine, [3] Office of the Senior Associate Dean for Research
University of Missouri School of Medicine, Columbia, MO 65212

Presented at the 2020 ELAM® Leaders Forum, September 9, 2020

**Background and Significance**
Within academic medical centers, research is conducted in laboratories and other spaces. Research space is limited at most medical centers and this necessitates the need to establish policies to support its efficient use. Well-considered policies governing space allocation allow leadership to utilize these data to make decisions that support the school's strategic plan.

**Objectives**
The goals of this project were to
1) Determine the factors that influence research space utilization in Schools of Medicine (SOM).
2) Develop recommendations for the University of Missouri (MU) designed to support the efficient and fair use of both wet lab and dry lab space.

**Methods spanning four areas of inquiry**
1) Review the published literature.
2) Review the policies/procedures of five other medical schools.
3) Participate in a newly-formed SOM working group to understand how faculty members, department chairs, and other leaders view the issues. Identify and understand key issues.
4) Review data available within the MU SOM on research space use, space currently assigned, and the grant dollars and employees associated with research in these spaces.

## Factors taken into consideration in space assignment

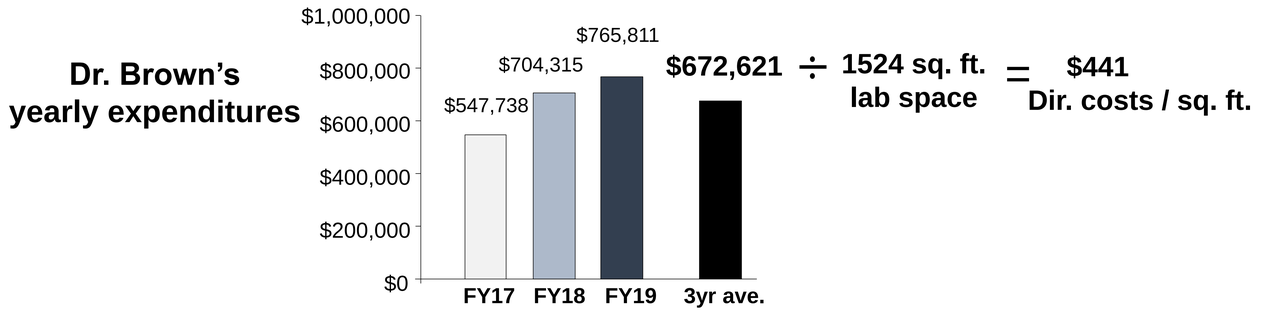
### I. Financial Concerns

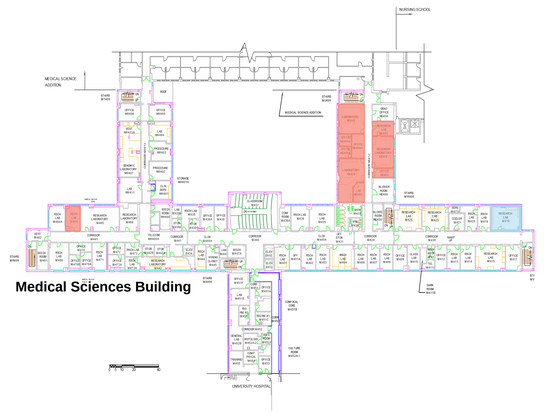
a. Choosing the basis of the calculation
b. Research team size and make up
c. Collaborative use of lab space
d. The open laboratory concept
e. Grant awards vs yearly expenditures
f. Direct costs vs indirect costs
g. Calculate a running average: Expenditures over the last 3 yrs, 5 yrs?

### II. Return on Mission

a. Varying overhead on different types of grants
b. Many foundations restrict overhead
c. Missouri's use of the "shared credit" concept
d. Contributions to the mission
e. NIH R01 vs fellowships and training grants
f. Undergraduate research and instruction
g. Exempting assistant professor start-up $

### III. Sample calculations

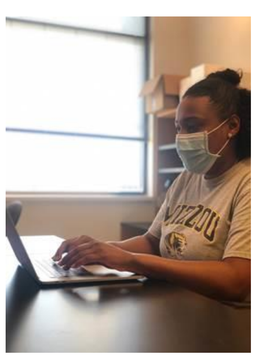



### IV. Communicating with Faculty
***How will the data be used?***

- Space allocation = an emotional sphere within a scientist's life.
- Without space, research cannot be conducted.
- Research space serves as a home for students, trainees, and employees and thus, this represents the scientific home of a researcher. Scientists feel a strong responsibility as the "employer" of students and staff.
- Long hours spent in a laboratory by trainees further intensifies the influence that lab space has in the life of an early-career scientist. All scientists I spoke with clearly remembered the space in which they conducted graduate research.
- The quantity of research space can reflect the status of the PI.

Dry lab: clinical & public health informatics



Wet lab: biochemical & molecular research

### V. Summary and Conclusions

- Published literature on space allocation primarily originates from the perspective of business *organizational structure*, which highlights how workers organize into smaller groups to work efficiently. In business, the primary driver of space utilization is profit. In the academic environment, space allocation supports the research mission, and can also support teaching and service missions.
- Space allocation decisions are key components of the financial structure of medical schools. Efficient use of space will optimize research productivity and future grant success. Policies should encourage faculty collaboration which may include sharing space.
- The work of our committee included discussion of both national and local issues influencing space decisions. The working group met on five occasions, then calculations were made for faculty in the various SOM departments ($/sq. ft.), and a white paper was developed.
- Communication to faculty about research space metrics can be folded into yearly academic evaluations. Faculty should be aware of their own statistics and how they compare to others within their unit. Chairs will be sensitive to issues highlighted in section IV above.
- Calculating research metrics supports the democratization of lab space allocation, allows for department chair input, and provides flexibility as research space needs change. Given that scientific methods are evolving quickly, spa*ce needs will change dramatically* in the future.