

## Aging Center Science Culture and Accountability Plan (SCAP)

### Introduction

The primary goal of the Aging Center is to make significant research contributions to the study of aging and to educate future gerontologists and researchers in fields relevant to the study of aging. Research conducted by the approximately 130 Duke Scientists and scholars from a multitude of disciplines includes multidisciplinary, biologic, clinical, and social and behavioral research. The resulting diversity in investigators and research activities necessitates the articulation and implementation of a plan to promote standards for research, including open, honest, and critical research-centered discussions among faculty, staff, trainees, and all others affiliated with Center research.

In alignment with the leadership of the Duke School of Medicine the Aging Center embraces these important principles:

1. We foster an environment where scientific integrity is the highest priority.
2. We emphasize high-quality reproducible data and results.
3. We value constructive critiques of research.
4. We allow open discussion of any concerns regarding research conduct or integrity.

### Plan Components

#### Training in the Responsible Conduct of Research

All center personnel are required to be familiar with and follow the [DUKE Code of Conduct](#). Additionally those personnel engaged in scientific research are required to complete additional institutional training modules.

#### Data Validity, Integrity and Responsible Management

Principal Investigators are required to regularly review the quality and accuracy of data collection and analysis in their studies. This step includes reliable review and evaluation of the relevance and soundness of basic research questions, hypotheses to be tested, logical consequences to be determined (predictions), methodologies for data collection and testing, and analysis. All faculty and research staff are expected to follow Duke, IRB and Federal policies for data security and integrity. The Center maintains a zero tolerance policy for falsification or misrepresentation of data or study findings.

#### Forums to Encourage Open and Critical Discussion

The Aging Center, in conjunction with other departments, uses several mechanisms to foster discussion of the relevant ethical and professional norms of research and scholarship and to openly and critically discuss research data and analysis.

--The Center Director is always available for one-on-one conversations with all who may have concerns regarding the conduct of research.

--The Monthly Geriatrics Division Research Seminars and twice-a-month Pepper Center Data Integration Working Group meetings serve as a valuable opportunities for our investigators to review and openly discuss the quality of data and reliability and validity of data analysis findings.

--Monthly meetings between Division and Center-affiliated faculty in mentorship roles also serve as a forum to discuss research standards.

--Monthly staff meetings between leadership, administration and faculty also serve as a forum in which any concerns regarding Center activities may be discussed in an open manner.

--All faculty, trainees, and staff also have the option to report suspected wrongdoings to the Compliance Office or the Integrity Hotline. In addition, investigators also have the option of discussing any concerns with the DOM Clinical Research Units.

All above referenced forums share a routinely communicated set of expectations that place a high value on research integrity, the responsible conduct of research, the importance of peer review, and the sharing of data and data analysis findings. To encourage constructive critical exchange in these venues, meeting leaders will reiterate that during the meeting and through other venues there are ample opportunities to express concern and engage in meaningful discussion.

#### External and Internal Control Processes

The Center relies not only on external control processes noted above but also on internal control processes, or self-motivation, to conduct research ethically and responsibly. Self-motivation begins with understanding the basic premise fundamental to conducting research: competency in research entails responsible conduct and the capacity for ethical decision making and open communication. Self-motivation and self-responsibility has to develop early in an investigator's career so fellows and junior faculty are particularly important in this regard. Young investigators are most likely to learn self-motivation and self-responsibility from senior investigators who personally exemplify it in their behavior. Furthermore, young investigators are most likely to learn these traits if their mentors and supervisors require it.

Center/Division senior leadership and investigators are expected to model self-motivation and self-responsibility and convey their belief that junior investigators are capable of operating self-responsibly and are expected to do so. If mentors and supervisors deal with them consistently from this perspective, junior investigators will respond positively and a culture of self-responsibility will flourish.

#### Environment to Express Concerns

The Center Director will serve as the Integrity Coordinator to whom any question about research data management can be taken. Faculty, trainees, and staff are encouraged to approach leadership, supervisors, or other parties if they believe that research is not conducted according to the highest levels of professional and ethical standards. This encouragement is especially important for junior faculty who may feel uneasy to report any suspected wrongdoing. The fostering of such an environment is an ongoing effort and we believe the most effective way of creating such an environment is through repetitive messages regarding the importance of critical thinking and accountability, as well as showing willingness and ability to act appropriately if things do go wrong. We expect that verbal direct communication between leadership and faculty will be the most effective means of communicating the idea of an open environment to freely express concerns. Because all Aging Center faculty are required

to have a faculty appointment in a Department, the Aging Center represents a complementary and alternative venue that our faculty may use for reporting concerns. Center leadership will educate investigators and staff about the Duke Compliance and Fraud Hotline so that any investigator can anonymously report a suspected compliance violation or concern.

Lapses in communication, or concerns about research integrity, can be brought forward to the Center Directors: [Dr. Heather Whitson](#) and/or [Sara Patillo](#) for discussion and problem-solving.

If someone has concerns or are in any way uncomfortable contacting Center leadership, there are other resources available:

- The School of Medicine uses **IntegrityLine** (1-800-826-8109) a service that can be used by anyone to anonymously express concerns about research integrity or professionalism.
- The **Duke Faculty Handbook** outlines [Duke's Policies Related to Research](#) and [Research Misconduct](#).
- The School of Medicine now requires all [faculty and staff](#) engaged in research to participate in responsible conduct of research (RCR) education. RCR programs are also required for **all** [graduate students](#) and [post-docs](#), and [recipients of NIH training grants](#), a Research Ethics course is required for [medical students](#) during their 3rd year of scholarly research, and an RCR program is required for Duke [undergraduate students](#) supported by NSF or NIH research funding.
- A research integrity session is included in the School's [new faculty orientation](#).
- Duke University has recently acquired [iThenticate](#) licenses for faculty and a limited number for staff. Please contact [asist@duke.edu](mailto:asist@duke.edu) to inquire about licenses if you are interested in scanning manuscripts, grant applications, or thesis documents through this plagiarism detection software.
- Duke University has purchased a university wide license for the Epigeum, Oxford University Press interactive online course: [Research Quality and Reproducibility](#). Review and access these interactive online modules to learn more about best practices in research study design, authorship, communication, data management, and other research topics.
- [MyRESEARCHhome](#) is a customizable dashboard designed to guide researchers through the Duke research system with additional support provided by the [Office of Research Initiatives](#).
- The [Trent Center for Bioethics](#), Humanities, and History of Medicine teaches courses and provides consultation to Duke faculty, students, and staff in bioethics and research ethics.
- The [Office of Research Integrity](#) within the Department of Health and Human Services maintains an active website on the scientific community and culture with current events, articles, and resources.