Responsible Conduct of Research at UAB: Resources and Requirements

The Responsible Conduct of Research (RCR) is a critical component of research and scholarly efforts at academic institutions. It serves to uphold public trust in research by helping ensure the impartiality and ethical conduct of investigators as demonstrated through their adherence to public laws, institutional policies, commitment to best practices, and observation of professional codes.

Policy & Regulations

The UAB Policy Concerning the Responsible Conduct of Research and Other Scholarly Activities underscores the principles standards of integrity by which all UAB faculty, employees, and trainees must abide in the performance, recording, and reporting of research and scholarly activities. It also sets forth procedures to be followed in cases of suspected research misconduct, from initial assessment through final outcome.

Training

The sheer number of RCR regulations, policies, and guidelines can be daunting, yet these expectations directly affect the daily work of researchers and their teams. It is vital that faculty and staff are knowledgeable about what is expected of them and can apply this knowledge effectively. For a sampling of resources available to help facilitate understanding of the broad scope of RCR, see page 3.

UAB is committed to ensuring students, faculty, and other researchers are appropriately prepared to address RCR expectations. Additionally, many funding agencies require training that varies according to researchers’ different roles. For example, while most federal granting agencies require RCR training of students and trainees, certain agencies

Compliance Challenge

How would you handle this situation? Click on an answer A.-E. from the list below to enter a drawing for one of two $10.00 Starbucks gift certificates to be held September 2, 2016. Only individuals with addresses ending in uab.edu/uabmc.edu qualify.

You are reviewing the CV of a departmental colleague for preparation of a grant proposal and decide to take a closer look at some of the papers on which he is listed as first author. You find that a number of them use the same blots and figures for different experimental conditions. You casually ask one of the co-authors listed about their joint experiments, and she recalls having only conducted one. While you want to believe there is a reasonable explanation, you begin to worry that there are potential problems with the data being reported. What would you do?

A. Bring your concerns to the attention of the department chair.
B. Immediately contact the Research Integrity Officer to discuss the situation.
C. Conduct a full review to determine if there are problems with the data. You may determine it is not worth reporting.
D. Take a few days to consider the repercussions of reporting your discovery and the effects it could have on your career, as well as that of the faculty member. You may determine it is not worth reporting.
E. Call the Ethics Hotline to anonymously report your concerns.
A lifelong cello player, Pam Bounelis recently decided to learn the five-string banjo, an instrument with which the cello has little in common – except for having strings. A banjo is tuned differently, isn’t traditionally classical, isn’t played with a bow, and is more percussive than melodic. After all these years as a cellist, why shake things up when she could have easily mastered a similar instrument such as viola or bass?

“It’s a completely different way of musical thinking,” says Dr. Bounelis. “That’s the challenge that I was looking for – to take on something new, to get another point of view. I’m still excited about learning, and that’s a trait I share with UAB colleagues.”

As UAB’s new Research Integrity Officer, her approach to promoting the responsible conduct of research across the institution is not so different from that of her personal challenge.

Philosophy and Motivation

After 30 years of service to UAB, Pam Bounelis remains motivated by a desire to help investigators do their best work. Her best day is when she can find a way to simplify a complex process or lower a hurdle.

As a veteran research team member herself, she understands the pressures PIs face in maintaining a rigorous research portfolio, meeting deadlines, and producing results that increase our knowledge, all while maintaining compliance with complex federal regulations and institutional policies. Dr. Bounelis sincerely believes that UAB investigators strive to do the right thing, to perform the highest quality and most meaningful research, to meet their required regulatory obligations, and to train the scientists of tomorrow to do the same. Her motivation is to serve as a resource to help researchers be successful as individuals, mentors, and team members.

Role of the RIO

While the responsibilities of a Research Integrity Officer (RIO) are many, one of the RIO’s primary functions is to assure that UAB uses established processes to assess, inquire, and investigate all allegations of misconduct and to administer those processes.

However, Dr. Bounelis sees her role as Research Integrity Officer more as providing guidance, training, and education.

“We want to give practical guidance, which takes a team effort. As the RIO, I’m not the judge or determiner of the outcome of a situation. It’s my responsibility to be impartial, to provide assurance that there is someone there to listen, and that there is an established process in cases where further attention to a matter is warranted. I regard every situation as an opportunity to foster a culture of scientific integrity, which is an institutional responsibility.”

She points out that the number of people involved in an issue gradually increases over the course of the process from the initial report through possible assessment, inquiry, and investigation. This ensures fairness, diversity of opinion, and respect for all involved.

“The more people who are thinking about any issue, the better the outcome. If we work as a group, we...”

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Pam Bounelis, PhD, Research Integrity Officer, can be reached at (205) 934-9693, bounelis@uab.edu. Resources shown below are grouped by nine areas identified as vital to conduct of research training.

## Responsible Conduct of Research Resources

UAB Policies & Resources That Address All Nine Areas

<table>
<thead>
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<th>Component</th>
<th>Selected Informational Resources</th>
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| I. Conflict of interest – personal, professional, and financial | * UAB Enterprise Conflict of Interest and Conflict of Commitment Policy  
* Conflict of Interest Review Board (CIRB)  
* DHHS Office of Research Integrity webpage on Conflicts of Interest and Commitment |
| II. Policies regarding human subjects, live vertebrate animal subjects in research, and safe laboratory practices | * Policy on the Protection of Human Subjects in Research  
* Human Subject Research-Related Policies, Procedures & Guidelines  
* Animal Research-Related Policies, Procedures & Guidelines  
* IACUC  
* DHHS Office of Research Integrity webpages on Human Subject Research and Animal Resources |
| III. Mentor/mentee responsibilities and | * DHHS Office of Research Integrity webpage on Mentorship |
| IV. Collaborative research including collaborations with industry | * DHHS Office of Research Integrity webpage on Collaborative Science |
| V. Peer review | * DHHS Office of Research Integrity webpage on Peer Review |
| VI. Data acquisition and laboratory tools; management, sharing, and ownership | * UAB's Research Data Management website  
* DHHS Office of Research Integrity webpage on Data Management |
| VII. Research misconduct and policies for handling misconduct | * UAB Policy Concerning the Responsible Conduct of Research and Other Scholarly Activities  
* DHHS Office of Research Integrity webpage on Research Misconduct |
| VIII. Responsible authorship and publication | * UAB Ethics for Authors  
* UAB Authorship Policy |
| IX. The scientist as a responsible member of society, contemporary ethical issues in biomedical research, and the environmental and societal impacts of scientific research | * Ethics Policy  
* UAB Ethics Matter website  
* UAB Enterprise Code of Conduct  
* Compliance with Alabama Ethics Law and Related UAB Policies  
* State of Alabama Ethics Law  
* DHHS Office of Research Integrity webpage, RCR Casebook: Social Responsibility |

Confidential Ethics Hotline: 1-866-362-9476
Defining FFP:
What Are Falsification, Fabrication, and Plagiarism?

The Federal Office of Science and Technology Policy (OSTP) and the UAB Policy Concerning the Responsible Conduct of Research and Other Scholarly Activities define research misconduct as "fabrication, falsification, or plagiarism in proposing, performing, or reviewing research, or in reporting research results".

Fabrication is making up data or results and recording or reporting them. Falsification is manipulating research materials, equipment, or processes, or changing or omitting data or results such that the research is not accurately represented in the research record. Plagiarism is the appropriation of another person’s ideas, processes, results, or words without giving appropriate credit. Research misconduct does not include differences of opinion or honest error.

The OSTP also describes legal thresholds for proving misconduct:
1. There must be a significant departure from accepted practices of the relevant research community;
2. The misconduct must be committed intentionally, or knowingly, or recklessly; and
3. The allegation must be proven by a preponderance of evidence.

It is important to understand that when using this definition of research misconduct, it only represents "a minimum standard for measuring acceptable behavior, not a standard for judging all behavior," according to the ORI-Introduction to the Responsible Conduct of Research. This does not mean that all other behavior is acceptable. It also does not encompass criminal behavior, personal disputes, violations of grant management policies or other unacceptable behaviors not unique to research, such as discrimination or harassment.

Selling Textbooks:
What the Law Says

State of Alabama Ethics Law says that state employees cannot receive personal gain for themselves or members of their families as a result of their state employment. Violations of this law occur if a UAB employee sells his or her instructor edition or a complimentary copy of a textbook or related materials to anyone, including a student, bookstore, or online textbook reseller, unless the proceeds of that sale are retained by the University rather than the employee. Such sale proceeds can be deposited into a departmental account to purchase office supplies or used for similar institutional purposes. For more information, see Alabama Code, Section 36-25-5, Use of Official Position or Office for Personal Gain.

New Research Data Management Requirements

2013 White House directives are aimed at making federally-funded research more readily available. Many NSF and NIH investigators are currently required to develop data management plans and ensure articles are deposited into designated repositories. Now, other federal agencies, as well as many non-government funders, are developing new policies requiring similar data management and reporting. To help UAB investigators comply, Senior Vice Provost Suzanne Austin and Vice President for Information Technology Curt Carver have established a working group to study the issue and make recommendations for resources. The group has developed a Research Data Management website as an initial step. Questions can be directed to T. Scott Plutchak at tscott@uab.edu.
UAB is committed to providing outstanding, high-quality services to students, patients, families, visitors, business partners, colleagues, affiliates, and the community, whether provided through teaching, research, patient care, or business interactions. With respect to teaching and research, UAB community members are expected to:

- Act with high ethical and professional standards of conduct;
- Be honest in performing one’s duties, with no exceptions;
- Promote academic freedom, including the freedom to discuss all relevant matters in the classroom and to explore all avenues of scholarship, research, and creative expression;
- Propose, conduct, and report research with integrity and honesty;
- Protect people & humanely treat animals involved in teaching or research;
- Undertake human subjects research only in accordance with approved protocols;
- Learn, follow, and demonstrate accountability for meeting requirements of regulatory bodies, sponsors, and partners;
- Faithfully transmit research findings;
- Protect rights to individual, UAB, and third-party intellectual property;
- Ensure originality of one’s work and provide credit for the ideas of others upon which work is built;
- Be responsible for the accuracy and fairness of information reported and/or published; and
- Fairly assign authorship credit on the basis of significant contributions.

For more information on specific requirements, see the UAB Enterprise Code of Conduct, UAB Enterprise Conflict of Interest and Conflict of Commitment Policy, and Policy Concerning the Responsible Conduct of Research and Other Scholarly Activities.

Congratulations to our April 2016 Compliance Challenge winners Josh Carter and Teri Kennedy! By participating in our April Compliance Challenge, they were entered into a drawing, and each won a Newk’s gift certificate. To participate in the Compliance Challenge and enter a drawing for one of two $10.00 Starbucks gift certificates, see page 1 of this issue of Compliance 411.
New Chemical Inventory System

Safety of laboratory personnel is a critical element of responsible conduct of research. As the Association of Public & Land-grant University’s (APLU) Council on Research stated in a guide published in spring of 2016, “Good science is safe science.” In 2014, the UAB Department of Occupational Health & Safety (OH&S) began implementing a comprehensive, campus-wide inventory system to identify, locate, and track hazardous chemicals in all UAB laboratories.

In addition to enhancing the personal safety of individuals working with flammable, reactive, toxic, or otherwise harmful chemicals and addressing federal and state regulatory requirements, UAB’s chemical inventory system provides a convenient means of monitoring what is currently on hand in order to better meet research needs. Users can log in and search for a specific chemical by name or barcode, add and delete chemicals as they are being used or disposed of, and even designate a specific location for chemicals, such as refrigerator, freezer, hood, etc. Many find the system implementation process to be an opportunity to ask questions and get clarification from the UAB OH&S team on topics of proper storage, waste, and disposal.

The chemical inventory system is on track for full implementation by the end of 2017. For more information, or to find out when your lab is scheduled for inventory, contact Judy McBride at jmcbride@uab.edu. Look for more on the APLU report coming soon.

Pam Bounelis, PhD

get a better answer.” Bounelis describes committee members as “unsung heroes”:

“They work very hard and long in their consideration of complex and confidential issues. They understand what’s at stake and invest their professional time and expertise. They are committed to finding and considering all the facts and arriving at the best and fairest judgment they can make. Many committee members who have served have acknowledged that they have had the collateral benefit of learning some best practices for lab and data management, too.”

Information and identities of parties involved are treated with the utmost discretion and respect of privacy to the extent law, regulation, and policy allow.

Specific Challenges

When most people think of scientific misconduct, they consider FFP (Falsification, Fabrication, and Plagiarism — for more information, please see the article on FFP on page 4). When it comes to the complexities of scientific integrity and ethical authorship, Dr. Bounelis offered some simple rules of thumb: “Give credit where credit is due, keep detailed records, and be honest. Often, where we see people struggle is in inadequate lab notebook documentation and incomplete records.”

There are numerous resources on how to keep lab notebooks. A couple of examples include the NIH’s Keeping a Lab Notebook or UAB’s Guidelines for Data Collection, Documentation, and Storage.

Asking Questions, Reporting Problems

When asked how to report an issue or raise a question, Dr. Bounelis responds that she is glad to take calls herself. “They can call me directly or report anonymously to the hotline. My cell phone number is listed in the UAB directory.” She encourages good faith reporting and finds that often those who contact her may simply have a question rather than an actual report of misconduct.

“I’m approachable. It’s my goal to provide assurance that the University takes such matters seriously. We don’t want people not to ask questions for fear of something punitive coming down the pike. We are glad to help you understand the regulations.”

Having served in the area of Research Integrity for more than a decade, in April of this year, Dr. Bounelis was appointed UAB’s Research Integrity Officer. She also serves as Assistant Vice President for Research, Assistant Dean for Biomedical Research in the School of Medicine, and Associate Professor in the Department of Cell, Developmental, and Integrative Biology. And in addition to her numerous academic appointments, university activities, and national service positions, she’s an accomplished cellist who hopes to add “pretty good banjo player” to her CV.