**REMOVE THIS SECTION AFTER EDITING**

**(You may use this boilerplate freely. Be sure to customize it to match your other training plan documents and the specific requirements of your funding agency. For individual applicants, feel free to edit this document to your own voice, however, the areas highlighted in green include critical information that NIH will use to judge whether your RCR training plan meets NIH requirements, do not remove. The areas highlighted in yellow require customization.)**

**PLAN FOR INSTRUCTION IN THE RESPONSIBLE CONDUCT OF RESEARCH**

Scientific integrity and ethics are an essential component of my scientific training. To facilitate my development as a responsible member of the research community and a mentor capable of establishing a culture of responsible conduct, I have included both formal and informal RCR instruction in my training plan.

**Formal Training in Responsible Conduct in Research**

**YEAR 1 Course – C234: Ethics and Accountability in Biomedical** **Research** (Instructors: Dr. Lynn Talton and faculty discussants). This course in Biomedical Research Ethics and Responsible Conduct in Research is designed for trainees in laboratory and computational biosciences disciplines. Faculty members from the participating training programs actively participate as small-group discussion leaders, exposing the students to different perspectives and interpretations of these difficult issues. The class presentations are supported by reading assignments from selections such as *On Being a Scientist*, National Academies Press, *Making the Right Moves*, HHMI, and other additional articles. Trainees are asked to present case-studies within their small groups, while the discussion is led by the faculty mentor. Directed discussion is the primary mode of learning, although the course also contains more formal didactic instruction. The course introduces standard and ethical practices in biomedical and life sciences, with emphasis on responsibilities in research activities.

* The **course format** consists of mixture of didactic instruction and small-group discussions around case-studies. The instructor or invited guest speaker will present briefly on the topic of discussion, and then students break into groups of 10-12, to be led by faculty members from the participating training programs. Each student is asked to present a case, followed by group discussion.
* The **course subject matter** includes standard and ethical practices in biomedical research, including: research misconduct, malfeasance, and whistle-blowing, questionable research practices, data management (data acquisition, record-keeping, retention, ownership, security, analysis, interpretation, and sharing); responsible authorship and publication; peer review and open and confidential review standards; conflicts of interest and commitment; mentor/mentee responsibilities and relationships; collaborative research across research groups, with industry and internationally; policies regarding laboratory safety, biosafety, and dual use research of concern; animal and human subjects; maintaining safe and inclusive research environments which promote equity, mental health and wellness and combat discrimination, bias and harassment; views about scientists as responsible members of society; social and environmental impacts of research; and contemporary ethical issues in biomedical research.
* The **course faculty participation** consists of leadership of the small-group case-study discussions. Faculty participants attend the didactic portion of the class and join discussions of presented material. Then they lead groups of 10-12 students in discussions of related case-studies. 70 faculty mentors can participate as a small group leader during the course, rotating among the participating training programs so every faculty mentor has a chance to regularly participate.
* The **course duration** is 10 weeks of 2-hour classes offered each Spring quarter, 20 total hours. The **course frequency** is the full C234 course during the 1st year of training and a refresher course in the 4th year of training.

**Year 4 - Responsible Conduct of Research Refresher Course** (Instructors: Dr. Lynn Talton and Faculty discussants) The Year 1 course introduces the RCR topics from the perspective of a trainee navigating the training environment and mentored research, the Year 4 formal training, RCR Refresher Course, is taught with the goal of training developing mentors to develop a culture of RCR with their mentees. The format of the course is similar to the *NRMN/CIMER Entering Mentoring* training program, but with an RCR perspective. At the end of each module, the training packet is updated with the best practices and samples developed by the group and shared back with them as a handbook. The refresher course has the following changes from the C234 course:

The **refresher course format** is a small class of 15-20 trainees in directed discussion of case studies. The discussion is led by the instructor and a guest faculty mentor. The **refresher course duration** is 8 modules of 1.5 hours each (12 total hours of training). The **refresher** **course frequency** is once in the fourth year of training following the full, formal C234 course in the first year of training. The **refresher course subject** matter covers the same topics as C234, but from a mentorship perspective (see above). The **refresher course faculty** participation includes one active faculty mentor co-leading the discussion for each module (8 faculty).

**Informal Training in the Responsible Conduct of Research and Reproducibility**

I will also receive informal training in responsible conduct of research and reproducibility through [monthly] meetings with [my mentor/program/etc.] in which I can present my research and get feedback and advice on steering my project toward rigorous, reproducible science that is high quality. I work in a collaborative environment among more senior researchers who have also received RCR training and can provide a model for ethical science. These principles are further enforced in research presentations, lab meetings, seminars, etc.