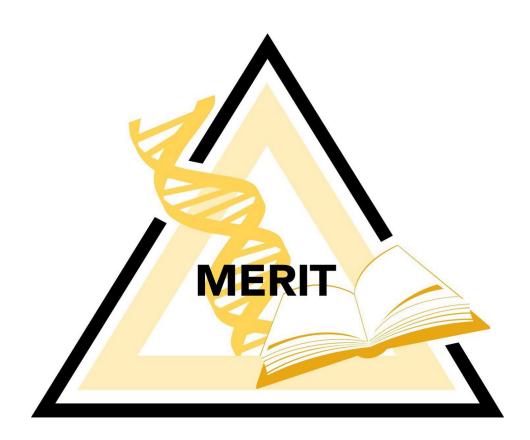
IRACDA-

Mentored Experiences in Research, Instruction, and Teaching Program



2023-2024 Handbook

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www.uab.edu/IRACDAMERIT

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I. IRACDA-MERIT Program Overview

A. Primary Goal

To provide postdoctoral scholars with outstanding research and teaching experiences while improving the recruitment of underrepresented minorities into the field of biomedical research

B. Objectives

1. short-term objective:

 to enhance the research backgrounds and teaching experiences of developing scientists to conduct high quality research in an academic environment

2. long-term objectives:

- to enhance research-oriented teaching at partner institutions
- to further promote interactions between research-intensive universities and partner institutions that will lead to collaborations in research and teaching
- to increase the number of well-qualified underserved students entering competitive careers in biomedical research

C. Mission of the MERIT Program

To provide experiences in both teaching and research that will permit a diverse community of postdoctoral scholars to become tomorrow's leading academicians

D. Partner Institutions

Lawson State Community College: Lawson State Community College (LSCC) is a public, historically black community college located in southwestern Birmingham. It was established in 2005 following the merger of Lawson State Junior College and Bessemer State Technical College. LSCC is accredited by the Southern Association of Colleges and Schools to award associate degrees in arts, science, and applied science; it is also accredited by the American Dental Association, the Alabama Board of Nursing and the Accreditation Commission for Education in Nursing. Since its beginning, LSCC has averaged an annual enrollment of approximately 5000 students.

Oakwood University: Established in 1896 as an industrial school, Oakwood University is a historically Black Seventh-day Adventist institution located approximately 100 miles north of UAB in Huntsville, AL. Oakwood University is accredited by several organizations, including but not limited to the Southern Association of Colleges and Schools (SACS), the Commission on Colleges for the award of Baccalaureate Degree, and the National Council of Accreditation for Teacher Education; it is also a member of the United Negro College Fund. It offers Bachelor Degree programs in four science-focused academic divisions, including the Biological Sciences and Chemistry, to an enrollment of more than 1,800 students.

The University of Montevallo: Established in 1896 as the Alabama Girls' Industrial School, the University of Montevallo is Alabama's only public, liberal arts university and one of just 29 such institutions across the US and Canada. It has been recognized as a national leader in liberal arts education and, accordingly, has been listed in the U.S. News and World Report's Best Colleges. In addition, the University of Montevallo has been named a National College of Distinction for seven consecutive academic years, from 2012-2013 to 2018-2019, and is one of only two schools in Alabama with this achievement. The average enrollment at the University of Montevallo is approximately 2600 students. It is accredited by the Southern Association of Colleges and the Schools Commission on Colleges for the award of baccalaureate degrees.

II. Summary of Expectations for IRACDA-MERIT Scholars

A. Research

MERIT Scholars are expected to engage in a program of high quality research in their respective Research Mentors' laboratories. They are expected to publish their research at least annually in abstracts submitted to scientific meetings and/or research articles in top-tier, peer-reviewed journals. Scholars are required to submit an updated 'Personal Research Skills Development Plan' (described below) annually to the Co-Program Director for Research Training.

B. Teaching

MERIT Scholars are expected to carry out a teaching program that includes scheduled meetings with the Co-Program Director of Teaching Instruction, their respective teaching mentors, and students. They are also expected to complete required coursework, participate in MERIT Program workshops, and attend the annual MERIT Program Retreat and national IRACDA Meeting.

C. Community

MERIT Scholars are expected to be professional in their relationships within the MERIT Community, which includes MERIT Scholars, Research and Teaching Mentors, Co-Program Directors, the Director, and their students. Scholars should perform their research and teaching in an ethical manner, and should conform to the University's Guidelines for Responsible Conduct of Scholarship and Research (http://www.uab.edu/handbook) as well as the UAB Postdoctoral Handbook. Scholars are strongly encouraged to seek timely, appropriate support for scientific, teaching, social, or personal problems should they arise.

III. Research Instruction

The research training component spans four years and incorporates laboratory - based instruction; research training accounts for 75% of the MERIT Scholars' total efforts.

A. 'Personal Research Skills Development Plan'

At the start of the research training component, each MERIT Scholar must formulate a *'Personal Research Skills Development Plan'* together with their research mentor. The purpose of this plan is to initiate a discussion between the scholar and mentor regarding the goals for the research project and the development of research-related professional skills. Throughout the research training, this plan serves as a template for the scholar's annual review of progress toward the stated research goals. A copy of each MERIT Scholar's initial plan and annual updates must be sent to the Co-Program Director for Research Training for evaluation.

B. Evaluation of MERIT Scholars' progress in research training

To ensure that MERIT Scholars receive successful research training experiences, the *Program Director*.

- meets with each MERIT Scholar together with their research mentor at the beginning of the fellowship in order to review programmatic requirements and the 'Personal Research Skills Development Plan'
- performs a 6-month review and assessment of each MERIT Scholar's progress toward completion of programmatic requirements
- assesses each MERIT Scholar's annual review, which will be provided by the respective research mentor, and the scholar's progress toward stated research goals; specific measurements will include the number of publications and presentations at local and national scientific meetings

IV. Teaching Instruction

The teaching skills component of the MERIT Program spans three years and includes experiences at each of the participating schools, including UAB, Lawson State Community College, Oakwood University, and the University of Montevallo; these experiences are described below. Throughout these experiences, Scholars are expected to balance the demands of their teaching instruction with those of their research training; teaching instruction accounts for 25% of the MERIT Scholars' total effort.

A. First Year

During the first year of teaching instruction, MERIT Scholars are required to complete teaching-related coursework, observe on-going classes at participating schools, select a teaching mentor, and mentor an assigned undergraduate student.

- 1. 'Personal Teaching Skills Development Plan': At the start of the teaching training component, each MERIT Scholar must devise a 'Personal Teaching Skills Development Plan' together with the Co-Program Director for Teaching Instruction. The purpose of this plan is to determine the scholar's teaching-related goals and professional skills needed. Upon selection of the MERIT Teaching Mentor (described below), the MERIT Scholar will discuss their 'Personal Teaching Skills Development Plan' together with the Mentor. Throughout the teaching instruction component, this plan serves as a template for the scholar's annual review of their progress toward the stated teaching goals. A copy of each MERIT Scholar's initial plan and annual updates must be sent to the Co-Program Director for Teaching Instruction for evaluation.
- **2. Completion of Teaching-Related Coursework:** During Year 1, each MERIT Scholar are required to complete the following teaching-related coursework:

Spring Semester:

• GRD 705: Teaching at the College Level and Beyond (3 credit hrs)

This course provides an overview of many important aspects of teaching at the college level and beyond. Topics include designing a course, writing an effective syllabus, writing learning objectives, enhancing lectures, testing and grading, dealing with challenging students and situations, and accessing appropriate learning strategies.

• GRD 713: Mentoring 101 (1 credit hr)

This seminar course covers the science and theory on mentoring, including the mentor-mentee relationship, issues of gender, culture, age, and other power differentials; contemporary mentoring strategies as they relate generally and specifically to situations and fields; applying different mentoring models to real life/classroom.

Summer Semester:

• GRD 750: Seminar on Learning (2 credit hr)

This seminar course provides opportunities to read and discuss basics of effective teaching and learning.

3. Observation of On-going Classes: During Year 1, MERIT Scholars observe on-going classes at Lawson State, Montevallo, and Oakwood 1 - 2 days per week. The purpose of this observation exercise is three-fold: i) to introduce the MERIT Scholars to each participating minority-serving institution; ii) to familiarize the MERIT Scholars with the respective undergraduate student bodies; and iii) to assist each MERIT Scholar with their selection of a teaching mentor (described below).

- **4. Selection of MERIT Teaching Mentor:** During the spring semester of Year 1, each MERIT Scholar selects a MERIT Teaching Mentor at Lawson State, Montevallo, or Oakwood. The Co-Program Director for Teaching Instruction will meet with each MERIT Scholar to discuss their selection and to assist in the decision-making process. The selected faculty member requires approval by the Co-Program Director for Institutional Liaison at the respective institution.
- **5. Assignment of Undergraduate Mentee:** During the Summer semester of Year 1, each MERIT Scholar is assigned to an undergraduate student intern who has been accepted into a UAB summer research experience program such as the Summer Internships in the Biomedical Science (SIBS) Program. In conjunction with the MERIT Research Mentor, MERIT Scholars work together with the assigned summer undergraduate intern on research projects, related course material, and poster presentations.

B. Second Year

In Year 2, each MERIT Scholar must participate in on-going, established courses at Lawson State, Montevallo, or Oakwood, prepare a course that they will teach in the third year, and continue mentoring an assigned undergraduate mentee. They are encouraged to complete the Center for the Integration of Research, Teaching, and Learning (CIRTL) Practioner Certificate.

- 1. Participation in On-going, Established Courses: During the Fall semester of Year 2, MERIT Scholars participate in on-going, established bioscience courses that are instructed by their respective MERIT Teaching Mentors; Scholars' participation should be limited to 1 2 days per week. It is anticipated that MERIT Scholars, together with their MERIT Teaching Mentors, introduce fresh scientific topics generated from their research efforts and apply new pedagogical approaches learned during the coursework completed in Year 1 to enhance the content of the existing courses. In addition, it is expected that MERIT Scholars give guest lecturers in these courses and assist with exam grading and/or tutoring.
- 2. Preparation of Course / Laboratory for 3rd Year Teaching Experience: During the Spring semester of Year 2, each MERIT Scholar must prepare a course or laboratory that they will teach in Year 3; preparation should be done under the direction of the MERIT Teaching Mentor. This course or laboratory may include expansion and/or redesign of an existing bioscience course / laboratory or present a novel topic that will complement existing curricula. Preparation should include construction of a syllabus, lectures or laboratory sections, quizzes and exams, and course / laboratory evaluations; each of these elements must be reviewed and approved by the MERIT Teaching Mentor. During this preparation process, MERIT Scholars will meet monthly in a group format together with Co-Director for Teaching Instruction in order to exchange ideas and critique one another's plans.

During a one-day workshop at the end of the Spring semester, each MERIT Scholar must present their prepared course or laboratory to the entire MERIT Community, including the MERIT Program Executive Committee, MERIT Teaching Mentors, MERIT Research Mentors, and all MERIT Scholars. Following this workshop and throughout the summer semester of Year 2, MERIT Scholars should incorporate the MERIT Community's suggestions and gather or create elements needed for the execution of the course in Year 3.

3. Completion of Teaching-Related Coursework: During Year 2, each MERIT Scholar should complete the following teaching-related coursework:

Fall Semester:

• GRD 751: Teaching Methods (2 credit hrs)

This CIRTL seminar provides opportunities for students to read and discuss teaching as research projects.

Spring Semester:

• GRD 716: Developing a Teaching Portfolio (2 credit hrs)

This hybrid course guides participants in developing a Teaching Portfolio for improving teaching practices and enhancing job search potential. The web-based curriculum introduces essential elements of the portfolio, provides tools for gathering necessary documentation, and through individual feedback from the instructor, assists participants in drafting a personal *Philosophy of Teaching*, upon which the Portfolio is built.

4. Continuation of Mentoring Undergraduate Mentee: In the Summer semester of Year 2, MERIT Scholars continue the mentoring of summer undergraduate interns who are enrolled in the MHRC Summer Enrichment Program, SIBS Program, or pursuing a senior research thesis as described above.

C. Third Year

In Year 3, each MERIT Scholar is expected to teach their prepared course or laboratory and continue mentoring an assigned undergraduate mentee.

- 1. Instruction of Prepared Course or Laboratory: In the Fall semester of Year 3, MERIT Scholars must teach their prepared courses or laboratories in a format that meets 2 days per week; the respective MERIT Teaching Mentors must attend each class / lab to assist the MERIT Scholar and to provide immediate feedback. Periodically throughout the semester, the Co-Program Director at the respective institution and the Co-Program Director for Teaching Instruction will attend a class or laboratory to observe the MERIT Scholar in a class setting; this observation is integral to the teaching evaluation of each MERIT Scholar. As constructed by the MERIT Scholars, each course and laboratory should include a student evaluation of the course / laboratory and the individual MERIT Scholar; these evaluations will also be included in the teaching evaluation of each MERIT Scholar.
- **2. Completion of Teaching-Related Coursework:** Delivery of the prepared course or laboratory, as just described, will fulfill:
 - GRD 755: Teaching Practicum (3 credit hrs)
 This course provides an opportunity to teach a semester-long course and engage in a variety of guided teaching activities.
- **3. Continuation of Mentoring Undergraduate Mentee:** In the Summer semester of Year 3, MERIT Scholars continue the mentoring of summer undergraduate interns who are enrolled in the MHRC Summer Enrichment Program, SIBS Program, or pursuing a senior research thesis.

D. Fourth Year

In Year 4, each MERIT Scholar is expected to secure an academic teaching position. Early in the Summer semester before Year 4, MERIT Scholars meet as a group together with the Co-Program Director for Teaching Instruction to discuss the following job search-related topics: i) searching for available academic positions; ii) responding to advertisements for academic positions; and iii) constructing curriculum vitae, resumes, and teaching portfolios. The group will meet again during the early Spring semester to discuss and practice interviewing skills and presenting job-related seminars.

E. Evaluation of MERIT Scholars' progress in teaching instruction.

To insure that MERIT Scholars receive successful teaching training experiences, the *Co-Program Director for Teaching Instruction*:

- meets with each MERIT Scholar at the beginning of the fellowship in order to review programmatic requirements and the 'Personal Teaching Skills Development Plan'
- performs a 6-month review and assessment of each MERIT Scholar's progress toward completion of programmatic requirements
- assesses each MERIT Scholar's annual review, which will be provided by the respective teaching mentor, and the scholar's progress toward stated teaching goals; specific measurements will include use and awareness of teaching tools and enhanced lecturing skills

V. Training & Professional Development

A. Required Ethics Instruction

During the first year of research training, each MERIT Scholar <u>must complete</u> instruction in ethics:

- Principles of Scientific Integrity (GRD 717). A survey of ethical issues and principles in the
 practice of science. Topics include the nature, extent, and causes of fraud in science; UAB
 policies on fraud; ideals of good science; responsibilities of authorship and peer review; bias
 and sloppy practices; potential problems raised by the commercialization of research;
 scientists as public policy advisors; and ethical issues involved in animal experimentation and
 in clinical trials. This course is offered every semester.
- *IRB training:* MERIT Scholars who perform research on human subjects must complete an approved training course on human subjects protection and will update their training annually. There are a number of avenues for fulfilling this training requirement, including on-line opportunities and seminars. For example, MERIT Scholars may fulfill this requirement via completion of the web-based training program *Collaborative IRB Training Initiative (CITI)*.
- IACUC training: MERIT Scholars who are involved in research that utilizes animals must complete IACUC training via on-line coursework combined with individualized instruction from IACUC veterinarians. Specifically, IACUC training will review the humane use of animals in research together with related ethical issues.

B. Professional skills development

Throughout their training experiences, MERIT Scholars are encouraged to receive training in new skills that differ from and/or complement those that they learned as graduate students. Each MERIT Scholar will also be encouraged to interact with the mentor's research team, including other postdoctoral scholars, graduate students, and collaborators, through laboratory meetings, journal clubs, and departmental seminar series. In addition, each MERIT Scholar will be provided with opportunities to develop professional skills, including presentation and publication skills, workshops and seminars offered through the UAB Office of Postdoctoral Education.

In addition, each MERIT Scholar <u>must complete</u> the following instruction in research ethics, lab management and grant writing:

- GRD 773: Research Lab Management (3 credit hrs)
 This course introduces every aspect of laboratory management, including hiring staff, managing start-up budgets, and practicing safe laboratory practices, to postdoctoral scholars. This course is offered every Fall semester.
- GRD 709: Grant Writing for Postdocs (3 credit hrs)

This course, which is offered as either a 1-day workshop or 14-week course, introduces every aspect of grant writing, including selecting funding mechanisms, writing individual grant sections and understanding administrative policies, to postdoctoral scholars. This course is offered every Spring semester.

C. MERIT Program Joint Workshop Series

The purpose of MERIT Program Joint Workshop Series at Lawson State, Montevallo, and Oakwood is to provide additional teaching experiences for MERIT Scholars and to promote interactions between members of the MERIT Community, including MERIT Scholars and their Research and Teaching Mentors. MERIT Scholars are involved directly in the planning of these seminars. Seminars are held monthly throughout the academic year via Zoom and include presentations on research- or teaching-related topics.

D. MERIT Program Annual Retreat

Each year, the MERIT Program holds a retreat for the entire MERIT Community. It includes an invited, key-note speaker, who gives the plenary address on a topic that is fundamental to the mission of the MERIT Program. In addition, the retreat includes presentations by MERIT Scholars and MERIT Teaching and Research Mentors as well as 'break-out' sessions that discuss policy and organizational matters related to the MERIT Program.

It is a day-long event at a venue that is central to the participating institutions. All members of the MERIT Program Community are expected to attend; attendance is required for all MERIT Scholars.

E. Annual IRACDA Conference

MERIT Scholars together with members of the MERIT Program Executive Committee are expected to attend the Annual IRACDA Conference each year. Because this conference brings together the greater IRACDA community, it provides MERIT Scholars and program administrators an opportunity to share experiences and challenges with those that share similar career goals in research and science education.

VI. MERIT Scholar Compensation

A. Salary & Fringe Benefits

Each fellow will be supported for a maximum of four years: Year one will be 100% supported by the respective MERIT Research Mentor with the MERIT Program providing 100% support in Years 2 through Year 4. The annual amount of each stipend is based on the recommended stipend levels for individuals receiving support through institutional or individual National Research Service Awards (NRSA) at Fiscal Year 2019 levels. The stipend will also include additional funds to cover costs of health insurance offered through UAB. In addition to health insurance, UAB offers a comprehensive benefits package including, but not limited to dental plan, vision plan, retirement benefits, disability insurance, and life insurance. A summary of these benefits that are generally available to postdoctoral fellows may be found at http://www.uab.edu/postdocs. Many of the benefits can be paid for on a before-tax basis. Please contact UAB Employee Benefits at (205) 934-3458 for eligibility requirements, or log into the UAB for Me portal.

B. Travel Allotment

There is an allotment in the grant of funds to MERIT Scholar for allowable travel expenses, including transportation, hotel registration, and meals, to a scientific meeting. In addition, each MERIT Scholar is allotted funds for travel to the annual IRACDA meeting. **Scholars should notify The Office of Postdoctoral Education of cost.** As a general policy, second, third, and fourth year Scholars should present a poster or talk at each meeting they attend. First year Scholars are encouraged to attend

appropriate scientific meetings for professional development and may also submit abstracts for posters or presentations.

If you have travel funds available, Scholars can make the travel arrangements yourself; costs will be reimbursed following completion of the trip and the filing an expense report with the Office of Postdoctoral Education (OPE). The cost of side trips, first class, and late purchase fees will not be reimbursed. Registration costs for meetings will be charged to the allotment. Any unspent travel money will be lost as of August 31st; travel allotments do not 'roll over'.

Travel to/from and parking at teaching related activities will be reimbursed out of the travel allowance pool of the grant and not debited to the specific MERIT Scholar.

C. Research and Teaching Allowance

Newly recruited First Year MERIT Scholars receive a laptop computer allotment. Second and Third Year MERIT Scholars are provided funds each year (grant fiscal year is Sept. 1 – Aug. 31) to spend on research and teaching related items; allowable expenses include books, and laboratory and teaching supplies. All purchases against the annual allowance must be made through Office of Postdoctoral Education. Please check with Dr. Schwiebert for details; all purchases should be made by Aug. 31st.

VII. FAQ

- When do we receive our annual increase?
 - Annual increases are given at the annual anniversary of the initial appointment date.
- What is the best way to handle travel expenses?

Ultimately, you are responsible for the bill; however, upon returning from your conference, bring all your receipts to the Office of Postdoctoral Education and fill out a *Travel Reimbursement* form. This way your reimbursement to pay your travel expenses should be in your account by the time the bill arrives.

How do we purchase items with our research and teaching allowance?

All items purchased with the research and teaching allowance should be ordered through the OPE or you will not be able to get reimbursed. High ticket items must go through the University Purchasing Department for their approval. Smaller items such as software or books may be purchased by you individually; however, please check with the office *prior to purchase* to make sure you still have funds available and that these expenditures are allowed.

- What is the deadline to spend the research and teaching allowance?
 - August 31st of each calendar year is the deadline for ordering equipment and supplies with your research and teaching allowance. Any unspent money will not carry forward to the next year and ultimately will be lost.
- Who can I contact to find out how much money I have left in my account?
 Dr. Schwiebert can be contacted to find out exactly how much money you have left in your account.
- How many conferences can I attend?

Fellows are allotted funds for travel to scientific conferences. This will generally cover one scientific meeting each year depending on the location. Contact Dr. Schwiebert regarding available funds.

VIII. Directory of MERIT Scholars and Important Contacts

Name	Email	MERIT Role
Kenneth Laihing, PhD	laihing@oakwood.edu	Co-Director at Oakwood
Farah Lubin, PhD	flubin@uab.edu	Co-Director for Research
Brett Noerager, PhD	noeragerb@montevallo.edu	Co-Director at Montevallo
David Schneider, PhD	dschneid@uab.edu	Program Director
Scott Snyder, PhD	ssnyder@uab.edu	Program Evaluator
Joe Talty, MBA	<u>italty@uab.edu</u>	MERIT Business Coordinator
Stefanie Verghese, PhD	sbvarghese@uab.edu	Co-Director for Teaching
Tracey Wilson, PhD	twilson@lawsonstate.edu	Co-Director at Lawson

IX. Useful Links

 UAB MERIT Program
 www.uab.edu/meritprogram

UAB Office of Postdoctoral Ed.www.uab.edu/postdocsNational Postdoctoral Assoc.www.nationalpostdoc.org/

NIH IRACDA Program www.nigms.nih.gov/Training/CareerDev/TWDInstRes.htm