Supporting STEM Education and Research at UNCG by facilitating faculty networking, professional development, public outreach, and small grants.
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To Our Stakeholders

A VIRTUAL YEAR
The 2020-2021 academic year was the 11th year of the RISE Network at UNCG and it was a year like no other due to the ongoing pandemic. However, unlike the previous year where most events were cancelled when the pandemic was emerging, we entered the 2020-2021 year prepared to host our programming in a virtual format to revive our commitment to our campus and local community. We learned a lot about how to host small and large events in a virtual space; skills that will serve us well as we consider hybrid formats in the future.

STRATEGIC HIGHLIGHTS
We hosted seven programming events in 2020-2021. Our biggest effort was transitioning Science Everywhere into a virtual event that ran from April 21-23. This consisted of scouring the internet for every STEM-related research talk/presentation/lecture from UNCG faculty/students that we could find and then rating their age appropriateness and type of content. In parallel, we worked with Craig Biles (University Digital Design and Mobile Communications Developer) to create a website that could host the videos in an appealing manner to the public. We ended up with 130 labeled and posted videos (see them here), which served as the “on-demand STEM videos” portion of our Virtual Science Everywhere event. In conjunction with the videos, we hosted 5 STEM demonstrations over Zoom for those who wanted a live experience. Lastly, we worked with our contacts in the university and local K-12 systems to notify the public of our Virtual Science Everywhere event. We had 1,011 people participate in our virtual event, a number we are very proud of. In addition to our effort with Science Everywhere, we hosted several professional development events, many of which specifically focused on equity, diversity, and inclusion in STEM. Lastly, we continued to help guide our UNCG community by serving as a resource for STEM-related grants, promoting associated workshops, and hosting the RISE Speaker Series.

FINANCIAL HIGHLIGHTS
In a testament to RISE’s cross-unit connections, our personnel and events were supported by many units at UNCG, including the Office of the Provost, Vice Chancellor for Research and Economic Development, Dean of the College of Arts and Sciences, Dean of the School of Health and Human Sciences, Dean of the School of Education, and the Departments of Biology, Chemistry & Biochemistry, and Computer Science. Collectively, these units provided $49,000 to support administrative time for the RISE Director and Associate Director, a RISE Graduate Assistant, the RISE Speaker Series, networking and professional development events, and the RISE Small Grant program. Additionally, the Office of the Provost provided $20,500 to support the Science Everywhere event that RISE co-leads, and RISE leadership worked with University Advancement to raise another $14,250 to support Science Everywhere.

LOOKING AHEAD
We are hopeful that the 2021-2022 academic year represents a time that we will shift out of the pandemic, which would afford more face-to-face interactions with our STEM community. Nevertheless, we are ready to continue offering virtual programming until it is safe to have in-person meetings. We are well prepared to meet these challenges given our past performance. We also have a changing of the guard, as Dr. Tracey Howell (RISE Associate Director from 2019-2021) has stepped down to take a faculty position at Appalachian State University. We extend a HUGE thank you to Tracey for her time helping lead RISE. We welcome Dr. Sarah Praskievicz as our new Associate Director for the 2021-2022 academic year. We are excited for Sarah to join our leadership team.

Sincerely,

Christopher K. Rhea, PhD
Department of Kinesiology
RISE Director
Programming Overview

The following was the schedule of events for the 2020-2021 academic year.

October

October 20 and 29: RISE Speaker Series
Speaker: Joe Palca (NPR)
Talk Title: “Once Upon A Time: Telling Stories About Science”

October 29: Professional Development Workshop
Topic: Picture a Scientist movie screening

November

November 5: Professional Development Workshop
Topic: Authorship Ethics

November 12 and 19: Professional Development Workshop
Topic: Fair Play in Academia

February

October 20 and 29: RISE Speaker Series
Speaker: Jerrod Henderson (University of Houston)
Talk Title: “Repairers of the Breach: A Conversation about the ‘Leaky STEM Pipeline’”

February 19: Conference
Topic: North Carolina Project Kaleidoscope (NC PKAL) Regional Meeting
Topic: Equity, Diversity, and Inclusion in STEM: Opportunities to Level the Playing Field

April

April 21: RISE Speaker Series
Speaker: Steven Zeisel (UNC Chapel Hill)
Talk Title: “Precision Nutrition: Lessons from studies on the nutrient choline”

April 21-23: Science Everywhere
Host: Co-sponsored by RISE and the UNCG Provost’s Office
Theme: “Homegrown Science”
RISE Speaker Series

The goal of the RISE Speaker Series is to bring nationally recognized experts in STEM research and instruction to UNCG. The Speaker Series helps stimulate conversations and generate new ideas around STEM education and research at UNCG. The Speaker Series reaches a broad audience, including UNCG faculty, postdocs, administrators, staff, graduate students, and community members. The Speaker Series is supported by funds from the College of Arts and Sciences (CAS), the School of Education (SOE), and the School of Health and Human Sciences (HHS). We are happy to report that the Joint School for Nanoscience and Nanoengineering (JSNN) has agreed to support our Speaker Series in 2021-2022. We would like to thank all the funders for making the RISE Network Speaker Series a success.

Below is a list of the three speakers for the 2020-2021 RISE Speaker Series. All were virtual due to COVID. Due to a February ice storm that knocked out power in Houston, Dr. Henderson was unable to join us, but we hope to invite him to be a part of our Speaker Series next year. The promotional flyers are included in Appendix 1. For the 2021-2022 RISE Speaker Series, we will continue to seek speakers from diverse backgrounds (e.g., discipline, academic/non-academic, gender, race/ethnicity, and other dimensions of diversity) as part of our mission to increase EDI in STEM.

**October 20 and 29, 2020**
Joe Palca, Science Correspondent, National Public Radio (NPR)
Talk Title: "Once Upon A Time: Telling Stories About Science"

**February 18, 2021**
Dr. Jerrod Henderson, Cullen College of Engineering, University of Houston
Talk Title: "Repairers of the Breach: A Conversation about the 'Leaky STEM Pipeline'"

**April 21, 2021**
Dr. Steven Zeisel, University of North Carolina at Chapel Hill
Talk Title: "Precision Nutrition: Lessons from studies on the nutrient choline"
Professional Development Events

*Picture a Scientist* is a feature-length documentary film chronicling the groundswell of researchers who are writing a new chapter for women scientists. A biologist, a chemist, and a geologist lead viewers on a journey deep into their own experiences in the sciences, overcoming brutal harassment, institutional discrimination, and years of subtle slights to revolutionize the culture of science. From cramped laboratories to spectacular field stations, we also encounter scientific luminaries who provide new perspectives on how to make science itself more diverse, equitable, and open to all.

The RISE Network, in partnership with the [UNCG ADVANCE Team](#), offered a virtual movie screening of the film *Picture a Scientist*. This film was available for individual viewing via Vimeo from Tuesday, October 27 through Thursday, October 29. To facilitate conversation on this important topic, we held two discussion sessions. While not mandatory, we invited everyone who screened the film to join one of the sessions so we could learn from each other about perspectives gained from the film. The discussion sessions were from 3:30-5:00 pm and 7:00-8:30 pm on Thursday, October 29. A total of 120 faculty, staff, and students participated in this event. An evaluation of this workshop was provided by the UNCG ADVANCE Internal Evaluation Team and can be found in Appendix 2.
Professional Development Events

In Fair Play, players take the perspective of Jamal Davis, a Black graduate student, on his way to becoming a professor. As Jamal, players must address implicit bias, explore surroundings, and build Jamal’s network to prove his full potential. The game provides ample opportunity for players to experience implicit biases, particularly in encounters with other characters, as they navigate the world of academia. Throughout the game there are instances that exemplify several kinds of racial biases (e.g., microaggressions, "colorblind" racial attitudes), to which the player is given a list of responses. The player must identify the biases while trying to improve relationships with the game’s characters to succeed in his academic career.

In November, the RISE Network—in partnership with the UNCG ADVANCE Team—offered the Fair Play Workshop. This interactive event started with a 2-hour workshop on November 12 from 3:00-5:00 pm to discuss bias in academia, after which participants were given a 7-day window to play the Fair Play virtual game. Participants then reconvened for a second 2-hour workshop on November 19 from 3:00-5:00 pm to discuss lessons learned. A total of 30 faculty and staff participated in this event, which was the cap for this workshop. An evaluation of this workshop was provided by the UNCG ADVANCE Internal Evaluation Team and can be found in Appendix 2.
Professional Development Events

RISE also offered a workshop on November 5 that focused on Authorship Ethics that was co-sponsored by the Child and Family Research Network (CFRN) and the UNCG Office of Research Integrity. Twelve people participated in this workshop. The slide deck for this workshop can be found in Appendix 3.
Project Kaleidoscope (PKAL)

Project Kaleidoscope (PKAL) is at the center of the Association of American Colleges & Universities’ (AAC&U) effort to reform STEM in higher education. PKAL is dedicated to empowering STEM faculty, including those from underrepresented groups, to graduate more students in STEM fields who are competitively trained and liberally educated. In addition to the PKAL meeting at the National AAC&U Annual Meeting, PKAL supports state networks to run regional meetings that align with their national agenda. For the first time, the RISE Network agreed to host a PKAL meeting at UNCG. The theme of our meeting was “Equity, Diversity, and Inclusion in STEM: Opportunities to Level the Playing Field.” The virtual meeting was on February 19 and had 119 STEM faculty, staff, and graduate students from across the state participate. This included 51 people from UNCG, for whom the majority attended for free due to donations from the Departments of Biology, Chemistry & Biochemistry, and Computer Science. An overview of the workshop and our facilitators’ topics/bios are presented below and on the next page.
Project Kaleidoscope (PKAL)

Featured Workshops

Motivating factors for underrepresented students to stay in STEM disciplines

Dr. Henderson is an Instructional Associate Professor at the University of Houston in the Cullen College of Engineering where he is a part of the first-year engineering experience team. He was recently appointed by the Dean of the College as the Director of the Program for Mastery in Engineering Studies (PROMES), a program aimed at increasing engineering student achievement, engagement, and graduation rates. His research interests are in engineering identity formation and persistence among underrepresented students, especially African American males.

Equity, diversity, and inclusion considerations among STEM faculty

Dr. Boyce is an Assistant Professor in the Department of Educational Research Methodology in the School of Education at UNCG. She is also the Co-Director of the UNCG Office of Assessment, Evaluation, and Research Services (DAERS). Her research focuses on attending to value stances and issues related to diversity, equity, inclusion, access, cultural responsiveness, and social justice within evaluation—especially multisite, STEM, and contexts with historically marginalized populations. She also examines teaching, mentoring, and learning in evaluation. She has evaluated over 40 programs funded by the National Science Foundation (NSF), US Department of Education, National Institutes of Health, and Spencer and Teagle foundations. She is currently the external evaluator for five NSF funded projects and a Co-Principal Investigator on four NSF funded projects. She is a Co-PI on the recently funded 1 million-dollar NSF grant, Spartans ADVANCE: Adaptations of Practices For Faculty Equity, Diversity, and Inclusion at The UNCs. She encourages students to develop a strong methodological foundation, conduct studies based on democratic principles, and promote equity, fairness, inclusivity, and diversity.

Event Registration

Click here to register. The general registration fee is $55 per person; graduate student registration is $25. The registration deadline is February 12, 2021. Space is limited.
Science Everywhere

Science Everywhere is an annual event that attracts 3000-5000 people to UNCG’s campus every Spring. The goal of the event is to have children and families from the community explore hands-on science on UNCG’s campus. The theme for the 2021 event was “Homegrown Science”. An event of this magnitude requires a village to plan. RISE co-leads the planning/execution of this event with Kim Sousa-Peoples (Division of Student Success) and Wendy Tapia (Event Planning). Others on the planning team include members from the School of Education (Adam Shull and Matt Fisher), Alumni Association (Dorian Thompson), University Communications (Kimberly Osborne, Eden Bloss, Michael Ream, Mark Unrue, Craig Biles, Natasha Williams, Alyssa Bedrosian, Martin Kane, Paige Ellis, Morgan Glover), Office of Intercultural Engagement (Augusto Pena), Office of Research and Engagement (Sangeetha Shivaji), and Admissions (Katty Castellon).

Due to COVID, we made the decision to shift to a virtual Science Everywhere event that consisted of 130+ STEM on-demand videos. You can find the titles and thumbnails on our Video Showcase page, where the videos are tagged by age group and topic area. We also created a Video Category page that separates the videos by age group. On that page, you will find links to STEM videos in Spanish, as well as a link that shows how to add Spanish closed captioning to the YouTube videos that are in English. We also hosted five live events over Zoom where children and their families got to participate in a STEM virtual escape room, learn 3D modeling, discover a nature smartphone app, meet a future scientist, and learn about skulls. Thanks to Google Analytics, we were able to track participation in our event. A total of 1,011 people participated in our Virtual Science Everywhere festival, resulting in 3,161 page views on our event website.

This event was partially supported by our community partners. RISE Leadership worked with University Advancement (Evelyn Lathers) to raise $14,250 from external sponsors to support the event, including $5,000 from LabCorp, $5,000 from Best Logistics, $2,500 from the NC Science Festival / UNC System, $1,000 from Duke Energy, and $750 from Thomas Built Buses. The external funding was combined with the $20,500 budget provided by the Office of the Provost to support the event’s costs. All of this funding was secured for the 2020 Science Everywhere event, which was cancelled due to COVID. However, the funders allowed us to retain funding for the 2021 Science Everywhere event.

A major feature of our Science Everywhere event is outreach to underrepresented communities. A deliberate effort was made to market our event to Latinx communities, spearheaded by Augusto Pena in the Office of Intercultural Engagement. Support for this effort was provided by many members of our planning team who helped with translation services and identified connections within the Latinx community for marketing the event. An example of this effort via the translated flyer is provided in Appendix 4.
Science Everywhere

Virtual Science Everywhere
April 21–23, 2021

AVAILABLE ON DEMAND
JUST FOR YOU!

Join us for a virtual version of UNCG's Science Everywhere. Find the topics, presentations, and experiments that are right for you and connect from wherever you are. You can learn from UNCG students, staff, graduate students, and faculty. See a presentation from a man who has an asteroid named after him because of all of the science he has conducted in space!
K-12 Science Fair Promotion/Assistance

As part of our ongoing effort to support K-12 science, the RISE Network helped promote and plan the North Carolina Science and Engineering Fair in February, for which the RISE Director provided the opening remarks.
Associated Workshop/Event Promotion

To support organizations and colleagues pursuing efforts aligned with RISE, we notified our community of the events below.

**North Carolina Biotechnology Center**

**NCBiotech Facts and Funding Series: Grants, Loans and Research Resources**
Virtual | 11:30 a.m. - 12:15 p.m. | September 3 | October 1 | November 6

**NSF Funding Opportunities**

**FREE WEBINAR**
Broadening Participation in STEM through Diversity, Equity, and Inclusion
Hosted by NSF Program Officers and Staff in the Directorate for Education and Human Resources

Registration Link
September 30, 2020
2:30 – 4:30 pm
Principal Investigators, faculty, administrators, researchers, evaluators, and other STEM and education professionals and community-based leaders interested or engaged in research and efforts to broaden participation in STEM are encouraged to attend.
CDLC Presents Dr. Ayesha Boyce, Department of Educational Research Methodology

Strategies for Mentoring and Advising Graduate Students of Color

While graduate students have many identities, ethnicity often remains the most salient identity for graduate students of color. Drawing from previous research on evaluation, higher education literature, and personal reflections, this presentation outlines five strategies for mentoring and advising graduate students of color. These include: 1) Consider the impact of vicarious trauma, 2) Assist with the facilitation of peer and mentors ‘squad’, 3) Respect, honor, and celebrate students’ culture, religion, and families, 4) Be vigilant of microaggressions and practice microvalidations, and 5) Develop mentoring competence. Each strategy will be presented along with reflections and practical examples for implementation.

2021 STEM for All Video Showcase

Register to be a presenter!
http://stemforall2021.videohall.com

Presenter Registration:
Jan 13th - Feb 12th

Video Submission:
March 2 - April 21

Interactive Online Event:
May 11-18

• Exchange ideas with colleagues
• Learn about related, innovative work
• Disseminate your work broadly

Funded by NSF
STEM Education and Research Guidance

RISE is commonly called upon to help facilitate and/or support research and scholarship programs on our campus. Below is a synopsis of those opportunities this year.

The STAMPS (Science, Technology and Math Preparation Scholarships) Program at UNCG has been supported by the National Science Foundation and the Provost’s Office. It offers scholarships of up to $4,600 per year for academically talented undergraduate students in the sciences. The primary goal of the STAMPS program at UNCG is to provide financial and community support for undergraduate students who are majoring in Biology, Chemistry, Computer Science, Geography, Mathematical Sciences, and Physics and Astronomy. Students are awarded scholarships based on demonstration of both a significant promise for success in science/math and a measurable financial need. In addition to financial support, STAMPS incorporates a variety of community-building measures including peer mentors, a science colloquium series, tutoring, and field trips to research facilities. The program was funded by the National Science Foundation and UNCG Office of the Provost. The RISE Network serves at the advisory board for the STAMPS program. The STAMPS Program was named the winner of the Dean’s Award for the Promotion of Diversity & Inclusiveness in the College of Arts & Sciences this year. See Appendix 5 for the announcement.

The MARC U-STAR (Maximizing Access to Research Careers Undergraduate Student Training in Academic Research) Program at UNCG is supported by the National Institutes of Health (NIH) and seeks to increase the number of individuals from groups that are underrepresented in biomedical sciences by preparing students for high-caliber graduate training at the PhD level. The goal of the program is to help create a more diverse research workforce by working to: (1) prepare UNCG students during their junior and senior year to be the research scientists of the future and (2) support and enhance an atmosphere conducive to undergraduate research in the sciences at UNCG. Students accepted to the MARC U-STAR program participate in activities designed to enhance their confidence, academic skills, and technical abilities. Two of the Marc U-STAR Primary Investigators serve on the RISE Advisory Board. They provide monthly reports to RISE on their progress and RISE provides general assistance with the program with respect to promotion and execution of the activities.

The RISE Director was asked to serve on an internal review panel to help decide which UNCG proposal(s) would be submitted to the National Science Foundation (NSF) Major Research Instrumentation (MRI) program. Three proposals were vetted, which included proposal review and interviews with the PIs.
STEM Education and Research Guidance

The RISE Director reviewed an NIH R15 proposal submitted by Dr. Jennifer Erausquin in the Department of Public Health Education.

The RISE Director reviewed an NSF Career Award proposal submitted by Dr. Somya Mohanty in the Department of Computer Science and provided a letter of support indicating RISE’s enthusiasm to partner with Somya for his proposed Career Award community outreach activities.

RISE also provided a letter of support for the NSF Rapid Response Research proposal submitted by Dr. Ben Dyson in the Department of Kinesiology that focused on a STEM and physical activity education program at the UNCG Moss Street Partnership School.

The RISE Director served on a committee that reviewed 17 applications for the University Research Excellence Award.

The RISE Director serves on the Internal Advisory Committee for the UNCG ADVANCE Project, which is a multi-year National Science Foundation (NSF) funded project that seeks to address the need for increasing diversity and inclusion on our faculty, especially in STEM (science, technology, engineering, and mathematics) departments.
Proposed Action Items for 2021-2022

With the ongoing pandemic, there is still plenty of uncertainty about how this upcoming year will look. It will likely consist of mostly virtual offerings, at least in Fall 2021. We hope to be able to move some of our programming back to face-to-face once it is safe to do so, including our Science Everywhere event. The major elements in our 2021-2022 portfolio are:

1. **RISE Speaker Series** – Consistent with previous years, national-level scholars will be recruited to speak to our UNCG faculty and students on the topic of STEM research and education. One speaker relevant to faculty in each of the units funding this venture (College of Arts and Sciences, School of Education, School of Health and Human Sciences, Joint School of Nanoscience and Nanoengineering) will be recruited. At least in the Fall, the talk and smaller group meetings will occur virtually, allowing for the potential of a wider audience gathering from UNCG and surrounding community. The Speaker Series events will be spaced out over the Fall and Spring semesters.

2. **PKAL Meeting** – After successfully hosting the 2021 North Caroling PKAL meeting in February 2021, we will co-host the 2022 meeting with NC A&T this coming February. Our event’s title is “Equity, Diversity, and Inclusion in STEM: Practical Applications for the Classroom”, which is a logical progression from last year’s meeting topic.

3. **Science Everywhere** – We hope to host this event in person in April, but we will plan to shift to a virtual version if necessary.

4. **Workshops and Professional Development Events** – We are soliciting our constituents on what type of workshops and professional development events they would like for us to facilitate. We will continue to focus significant effort on providing events that connect equity, diversity, and inclusion topics to STEM.

In addition to the aforementioned items, we will continue to:

1. Advocate for the recruitment of STEM education and research faculty.
2. Support new STEM faculty though encouraging their involvement in grant opportunities, networking activities, mentoring, and linkages to other STEM related faculty.
3. Support the submission of grant proposals that increase our ability to attract and retain quality STEM research and education students, particularly women and underrepresented groups.
4. Facilitate preparation of interdisciplinary NSF, DOD, NIH, DOE, and foundation grant applications.
5. Serve as Advisory Board for funded activities promoting STEM Education, such as the STAMPS Program.
6. Facilitate UNCG’s STEM funded programs, such as MARC U-STAR and NSF ADVANCE.
7. Continue to maintain and promote the RISE Network webpage and social media.
8. Support the University Teaching and Learning Commons (UTLC) to promote quality STEM teaching and learning at UNCG.
9. Identify opportunities to collaborate with local businesses, community and state networks, JSNN, Gateway, and NC A&T to support STEM research, education, and outreach efforts; and identify leadership opportunities for UNCG in STEM research and education.
10. Provide additional connections to our Alumni for the purposes of highlighting STEM research and education at UNCG, making connections for internships, and promoting campus activities.
Connection with the UNCG Strategic Plan

RISE serves as a node within our broader campus network for the “Areas of Transformation” identified in our strategic plan. Current effort in the Student Transformation area is focused on experiential learning and co-curricular/extracurricular offerings, which is supported by RISE through our effort with STAMPS and MARC U-STAR Programs. University effort in this area is also being placed on enrolling and graduating students, for which support while enrolled is incredibly important. RISE meets these challenges by inviting undergraduate and graduate students to our Speaker Series, PKAL meeting, Science Everywhere, workshops, and professional development events. The Knowledge Transformation area is supported by RISE through our participation in STEM research and education initiatives (scientific evaluation of the STAMPS program, reviewing campus STEM grants) and translating research to practice via our workshops. Lastly, regional transformation is supported by RISE through our commitment to community events, such as Science Everywhere that includes outreach to underrepresented communities, and by running the PKAL meeting focusing on Equity, Diversity, and Inclusion in STEM that is open to attendees from all of North Carolina.
2020-2021 RISE Network Advisory Board

Christopher K. Rhea, RISE Director, Department of Kinesiology

Tracey H. Howell, RISE Associate Director, Department of Mathematics & Statistics

Amy Adamson, College of Arts and Sciences Office of Research

Malcolm Schug, Department of Biology

Omari Dyson, Department of Peace & Conflict Studies

Bob Henson, School of Education Office of Research

Lynn Sametz, Department of Geography, Environment, and Sustainability

Victoria Jacobs, Department of Teacher Education & Higher Education

Daniel Herr, Department of Nanoscience

Jing Deng, Department of Computer Science

Edna Tan, Department of Teacher Education & Higher Education

Jeff Milroy, Department of Public Health Education

Jerry Walsh, Department of Chemistry & Biochemistry

Lee Phillips, Undergraduate Research, Scholarship, and Creativity Office

Jared McGuirt, Department of Nutrition

Jeff Patton, Department of Geography, Environment, and Sustainability
Appendix 1: RISE Speaker Series Flyers

SAVE THE DATE

Joe Palca
NPR Science Correspondent

Tuesday, October 20, 2020
3:00-4:00: public lecture
4:00-5:00: student Q&A session

Thursday, October 22, 2020
3:00-4:00: faculty and community member Q&A session
4:00-5:00: administrator Q&A

Free and open to the public
All events will be virtual over Zoom

Talk Title: “Once Upon A Time: Telling Stories About Science”

Joe Palca is a science correspondent for NPR. He comes to journalism from a science background, having received a Ph.D. in psychology from the University of California at Santa Cruz where he worked on human sleep physiology. Since joining NPR in 1982, Palca has covered a range of science topics — everything from biomedical research to astronomy. He is currently focused on the eponymous series, “Joe’s Big Idea.” Stories in the series explore the minds and motivations of scientists and inventors. He is also founder of the NPR SciCommers program, a collective of science communicators. Palca has also worked as a television science producer, a senior correspondent for Science Magazine, and Washington news editor of Nature. Palca has won numerous awards, several of which came with attractive certificates. With Flora Lichtman, Palca is the co-author of Annoying: The Science of What Bugs Us (Wiley, 2011).
SAVE THE DATE

Dr. Jerrod Henderson
Instructional Associate Professor
Cullen College of Engineering
University of Houston

Thursday, February 18
3:00-4:00: public lecture
4:00-5:00: Q&A

Free and Open to the Public
All Events will be virtual over Zoom

Talk Title: “Repairers of the Breach: A Conversation about the ‘Leaky STEM Pipeline”

Dr. Henderson is currently an Instructional Associate Professor in the Cullen College of Engineering at the University of Houston after being a chemical engineering faculty member at the University of Illinois for six years. He has dedicated his career to increasing the number of students who are in the pipeline to pursue STEM careers. He believes that exposing students to STEM early will have a lasting impact on their lives and academic pursuits. He is a co-founder of the National Science Foundation, funded by the St. Elmo Brady STEM Academy (SEBA). SEBA is an educational intervention aimed at exposing underrepresented 4th and 5th-grade boys to hands-on, inquiry-based STEM activities. SEBA accomplishes its goals through an innovative educational curriculum and by engaging students’ fathers and/or male mentors who learn STEM alongside them. He has been recognized by community organizations, the University of Illinois as a recipient of the Chancellor’s Award for Excellence in Public Engagement, and most recently by INSIGHT Into Diversity Magazine as an Inspiring STEM Leader Award recipient and the North Carolina School of Science and Mathematics with the Chancellor’s Award for Exemplary Service. He was recently appointed by the Dean of the College as the Director of the Program for Mastery in Engineering Studies (PROMES), a program aimed at increasing engineering student achievement, engagement, and graduation rates. His research interests are in engineering identity formation and persistence among underrepresented students, especially African American males.
SAVE THE DATE

Dr. Steven Zeisel
Kenan Distinguished University Professor in Nutrition and Pediatrics
Director of the Nutrition Research Institute
Director of the UNC Nutrition Obesity Research Center
University of North Carolina at Chapel Hill

Wednesday, April 21
3:00-4:00: public lecture
4:00-5:00: Q&A

Free and Open to the Public

All Events will be virtual over Zoom

Talk Title: “Precision Nutrition: Lessons from studies on the nutrient choline”

The Nutrition Research Institute focuses on using genetic, epigenetic and metabolomic methods to discover why there is individual variation in responses to, and requirements for nutrients. The UNC Nutrition Obesity Research Center is one of twelve centers of excellence in nutrition research funded by the US National Institutes of Health. Dr. Zeisel's research focuses on dietary requirements for the nutrient choline, genetic variation as a source of individual differences in requirements for, and responses to nutrients, effects of choline and folate on stem cell proliferation and apoptosis and resulting effects on cancer and neurogenesis. His research team works with cells, mouse models, and human clinical studies. Dr. Zeisel is the author of more than 300 peer reviewed scientific papers. Dr. Zeisel is a leader in the development of an innovative nutrition curriculum used by more than 150 medical schools.
Appendix 2: *Picture a Scientist* and Fair Play Workshop Evaluations

### Picture A Scientist & Fair Play Evaluation Survey Results Memorandum

**Prepared by:** Tyler Clark, Charity Odetola, Anna Lisa Bokungu Ndol, Ayesha Boyce, Aileen Reid, Tiffany Smith  
**Prepared for:** Carissa Glann Mangault, Julia Smith, Malcolm Schug, Shelly Brown-Jeffy, Chris Rhea  
**Date:** February 11, 2021

#### Purpose
This memorandum provides a summary of the Picture A Scientist screening and Fair Play workshops evaluation survey findings. The workshops and video screening sessions were offered by UNCG RISE and UNCG SPARTANS ADVANCE in Fall 2020.

#### Overview
On November 24, 2020, the UNCG ADVANCE Internal Evaluation Team distributed the survey to 125 individuals who registered for the Picture A Scientist and/or Fair Play implicit bias training. Of the email recipients, 43 participants completed the survey via the Qualtrics platform. The survey consisted of six questions: 5 selected response items, including 2 Likert scaled and 1 demographic item, and one open-ended item. Participants were asked to share their perceptions of the usefulness, organization, and increased understanding from the training and/or video screening. In addition, participants were asked to provide feedback and offer suggestions for future training. Descriptive and thematic analysis of the survey results are reported in the following sections.

#### Attendance
Of the 43 survey respondents, 32 (76.2%) reported attending either the Fair Play or Picture a Scientist session or both. See figure 1 for the percentage of people who attended each session.

#### Figure 1: What Session Participants Attended

<table>
<thead>
<tr>
<th>Session</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Both Sessions</td>
<td>28.10%</td>
</tr>
<tr>
<td>Fair Play Training</td>
<td>28.10%</td>
</tr>
<tr>
<td>Picture A Scientist</td>
<td>43.80%</td>
</tr>
</tbody>
</table>

#### Gender Identity
Most participants (75.7%) identified as cisgender female. See figure 2 for a breakdown of participants’ gender identity.

#### Figure 2: Gender Identity

<table>
<thead>
<tr>
<th>Gender Identity</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nonbinary</td>
<td>2.70%</td>
</tr>
<tr>
<td>Prefer not to answer</td>
<td>8.10%</td>
</tr>
<tr>
<td>Cisgender male</td>
<td>13.50%</td>
</tr>
<tr>
<td>Cisgender female</td>
<td>75.70%</td>
</tr>
</tbody>
</table>
Perceptions of Picture A Scientist
Several respondents indicated that they registered to view the Picture A Scientist movie and/or attended the follow-up panel discussion. Of those participants who attended the Picture A Scientist screening session, 100% agreed that viewing the movie was a good use of their time. In addition, 100% of those who attended the panel discussion agreed that it was well organized, increased their understanding of women in STEM, and that it was a good use of time. In addition, 85% of attendees agreed that the movie itself increased their understanding of women in STEM. 15% neither agreed nor disagreed. See figure 3 for a visual display of this information.

Figure 3: Perceptions of Picture A Scientist Movie & Panel
- 100% agreement
- 85% agreement
- Viewing the movie was a good use of my time
- The follow-up panel discussion was well organized
- The panel discussion increased my understanding of women in STEM
- Attending the panel discussion was a good use of my time
- The movie increased my understanding of women in STEM

Perceptions of Fair Play Training
All 17 participants who attended this training session agreed that it was useful. The training session was organized, and the training session increased their understanding of implicit bias. See figure 4 for a display of this information.

Figure 4: Satisfaction with Fair Play Trainings
- 100% agreement
- The training was useful
- The training was well organized
- The training increased my understanding of implicit bias

“Those last two [events] were particularly good. I think the combination of having a focused, meaningful experience using a resource (movie, game) together with the opportunity to then discuss it with faculty was particularly powerful, and I would love to see that in the future. We definitely have not exhausted the topic of diversity and equity. Even though I have read outside of these about different biases, it is not always easy to identify them or to know how to respond. Seminars on education research combined with practical application is very good. Specific topics could be around creating community in the classroom.”

“I wish there were more outcome-focused things like workshops where we create diversity and inclusion statements, or land acknowledgement statements... I love all this awareness part - and I need it! But I get stuck on where to go next, what are my action items.”

Participant Suggestions and Topics of Interest
We asked the participants what other professional development activities would they like the RISE Network and the UNCG Spartan ADVANCE to offer in the future. Thirteen participants provided comments. The following suggestions were highlighted by participants:

- Providing more opportunities for reflection and further dialogue/conversation
- Self-empowerment workshops for women in STEM
- Identifying and responding to bias
- Supporting underrepresented and new faculty (through orientations, parenting workshops, etc.)
- Creating community and awareness of inclusivity and diversity in education
- Hosting outcome-focused events with practical application and action items
- Potentially repeating current workshops and expanding the audience/participation
- Hosting an extraordinary scientist
Appendix 3: Authorship Ethics Workshop

Authorship Ethics Workshop

Part of the Responsible Conduct of Research (RCR) Workshop series sponsored by the UNCG Office of Research Integrity

Christopher K. Rhea, PhD
Department of Kinesiology
Director, Research and Instruction in STEM Education (RISE) Network

Co-sponsored by the Child and Family Research Network (CFRN)

Questions to consider today:

1. How do you decide who should be an author on a manuscript?

2. What guidelines exist to help with this decision?

3. Are there cultural differences within each discipline you should consider?
Key Events Timeline

Purdue University professor indicted for defrauding NSF

Duke Whistleblower Lawsuit

Joseph Thomas, a laboratory technician at Duke University, blew the whistle on Duke data that was used in 30 grants by Eric Potts, after which he received a $125,000 dollar settlement from Duke.
Scholarly journal retracts 60 articles, smashes ‘peer review ring’

Who’s Afraid of Peer Review?

A spoof paper concocted by *Science* reveals little or no scrutiny at many open-access journals.
Dear Dr. White:

We would be grateful to receive your opinion on a manuscript that has been submitted to The American Journal of Physical Medicine and Rehabilitation for publication. Please find the manuscript abstract (if applicable) listed below.

Next, we would like to offer a few tips on how to review a scientific article. Experienced and new reviewers alike will enjoy this simple and clear introduction to an important process in science and medicine. For more information and to sign up here:

http://dx.doi.org/10.1002/ajpm.2013013002

The journal is now offering the potential for CME Credit for Reviewers. Should your interest incline, the editor will score your assessment and if your comments have been submitted. Scores of 70 and above (out of 100) will automatically receive CE credit. Please note that the evaluation of your review is independent of the quality of the article. Even if you recommend against publishing the article, credit can be awarded if the quality of the review scores a 70 or above.

For more information, please refer to our Reviewer CME FAQ on the Editorial Manager Home Page or at the following link:

http://dx.doi.org/10.1002/ajpm.2013013002

Additionally, please note that if you have any potential conflicts of interest with this paper, the invitation to review should be declined. A commercial interest is defined as any entity producing, marketing, distributing health care goods or services consumed by, or used on, patients. If you have any possible conflicts of interest or any questions regarding this policy, please contact the editorial.

Scientists pressured to falsely credit co-authors

Scientists need to publish to get research grants - and established scientists are demanding to be cited as co-authors on younger scientists’ work. Experts say it’s time for more rules.
• “There is no doubt that a large amount of those credited as co-authors of academic papers ought to be on the ‘acknowledgements’ list instead, as their contribution has consisted of little more than giving good advice."

• “Both parties can have an interest in the practice: The established scientist has their credentials boosted, and the young scientist has their name seen alongside a well-known scientist, and gets a partner that can help get the necessary research grants to further their career. In other cases, co-authorship is negotiated as ‘payment’ for allowing a colleague to use one’s research data in their paper."

• “In the few existing Danish and international surveys on co-authorship, one in five scientists say they have offered colleagues unwarranted co-authorship, and an equivalent amount received unwarranted offers to have their names included on a paper."

• “The problem is essentially built into the grant system."

• “Research has changed so that it’s now normal for scientists to collaborate much more than it was in the past, and that will automatically lead to more co-authorship of scientific papers”

• “We have to stop favouring super-human CVs, even if it means less grant money in the short-term.”
Recommendations for the Conduct, Reporting, Editing, and Publication of Scholarly Work in Medical Journals

I. About the Recommendations
A. Purpose of the Recommendations
B. Scope of the Recommendations
C. History of the Recommendations
D. Roles and Responsibilities of Authors, Contributors, Editors, Editors-in-Chief, and Owners
   1. Defining the Role of Authors and Contributors
   2. Who is an Author?
   3. Contributions of Authors
   4. Contributions of Editors
   5. Contributions of Owners
   6. Conflict of Interest
   7. Participating Authors
   8. Peer Review
   9. Peer Review in the Journal Staff
   10. Reporting Conflict of Interest
   11. Responsibility in the Submission and Peer-Review Process
   12. Authorship
   13. Publication in Diverse Journals
   14. Editorial Considerations
   15. Transparency
   16. Peer Review
   17. Integrity
   18. Journal Ethics
   19. Peer Review

II. Journal Ethics
A. Citation and Reference
B. Journal Ethics and Editorial Freedoms
C. Freedom of Thought
D. Freedom of Research Participants

III. Publishing and Scholarly Issues Related to Publication in Medical Journals
A. Commentary, Reviews, Reproductions, and Versions
B. Commercial Relationships, Operation of Conferences, and Journal Advertisements
C. Copyright
D. Overlapping Publications
E. Reprint Subscriptions
F. Postprint and Peer Publication
G. Verbatim Repetition: Publication
H. Copyrighted Material in the Journal

II. Clinical Trials
A. Design
B. Reporting

IV. Manuscript Preparation and Submission
A. Preparing a Manuscript for Submission to a Medical Journal
   1. General Principles
   2. Reporting Guidelines
   3. Research in Human Subjects
   4. Animals
   5. Human Subjects
   6. Scientific Information
   7. Statistics

V. Standards
A. Image Selection
B. Image Accuracy
C. Image Comparison
D. Image Comparison
E. General Considerations
F. Style and Format

VI. Acknowledgment
A. Authors and Acknowledgments
B. Funding the Manuscript to the Journal

2. Who is an Author?

The ICMJE recommends that authorship be based on the following 4 criteria:

1. Substantial contributions to the conception or design of the work; or the acquisition, analysis, or interpretation of data for the work; AND
2. Drafting the work or revising it critically for important intellectual content; AND
3. Final approval of the version to be published; AND
4. Agreement to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved.

In addition to being accountable for the parts of the work he or she has done, an author should be able to identify which co-authors are responsible for specific other parts of the work. In addition, authors should have confidence in the integrity of the contributions of their co-authors.

All those designated as authors should meet all four criteria for authorship, and all who meet the four criteria should be identified as authors. Those who do not meet all four criteria should be acknowledged—see Section II.A.3
Author Contributions
Conceived and designed the experiments: CKR AWK. Performed the experiments: MWW KBL. Analyzed the data: CKR AWK MWW RPM WGW FJH. Contributed reagents/materials/analysis tools: CKR AWK MWW RPM. Contributed to the writing of the manuscript: CKR AWK MWW KBL RPM WGW FJH.

Authorship order?
Scenario 1: Joe is a postdoc who just joined a lab. The PI asked Joe to be a co-author on a manuscript that is nearly completed to show Joe’s contribution to the lab, which is good for both Joe and the PI’s annual report. Should Joe be a co-author?

Scenario 2: Sally is has been the PI on a longitudinal project for 12 years. She is no longer working at the university, but the graduate students in her former department are continuing to publish off of the longitudinal dataset. Should Sally be a co-author?
Scenario 3: A manuscript was submitted and a revise/resubmit was granted. However, the reviewers asked for a new analysis that the current authors don’t know how to do. They found an expert who can help. Should the expert be a co-author on the manuscript when it gets resubmitted?
Appendix 4: Science Everywhere Flyers and Promotions

Flyer distributed to the public in English

UNCG #UNCGscifest
Science Everywhere

CELEBRATE SCIENCE

APRIL 21-23
This is a virtual event
scienceeverywhere.unCG.edu

Tour a virtual reality lab, learn how to make slime, see how fungi are used for research, watch a talk about how we may someday live on Mars, see the science behind clothing used within a video game, learn how portable sensors can be used to monitor human health, and much more!

- Engage with more than 70 on-demand STEM videos
- Topics include biochemistry, kinesiology, nanoscience, and more!
- We will also feature limited seat live events

Science Everywhere is a North Carolina Science Festival event.
CELEBRA LAS CIENCIAS

21–23 DE ABRIL

Esto es un evento virtual

 scienceeverywhere.uncg.edu

Visita un laboratorio de realidad virtual, aprende a hacer baba, mira cómo se usan los hongos para investigaciones académicas, mira una charla de cómo algún día quizás podremos vivir en Marte, mira la ciencia detrás de la ropa utilizada en videojuegos, aprende cómo sensores portátiles pueden ser usados para hacerle seguimiento a la salud humana, y mucho más!

- Participa en más de 70 videos de STEM en línea
- Los temas incluyen bioquímica, kinesiología, nanociencia, y más!
- También presentaremos eventos en vivo con plazas limitadas

Science Everywhere es un festival de ciencias en Carolina del Norte.
UNCG SCIENCE EVERYWHERE FESTIVAL
GOES VIRTUAL.

From Mars and human health to wildlife and nature’s cures, discover science explorations happening everyday at UNCG.

Geared for high school and college students, as well as adults with senior parents and nature enthusiasts, UNCG’s Science Everywhere provides a glimpse into collegiate research in the fields of biology, chemistry, kinesiology and more. Learn about exciting discoveries at the virtual, free UNCG Science Everywhere.

scienceeverywhere.uncg.edu
Appendix 5: Announcement of Dean’s Award for the Promotion of Diversity & Inclusiveness in the College of Arts & Sciences

DIVERSITY AWARD PRESENTATION

The STAMPS Program
Science, Technology and Math Preparation Scholarships

Tuesday, September 15
3 – 4 p.m.
Zoom Link: https://uncg.zoom.us/s/93514637634

Join us over Zoom to learn more about UNC Greensboro's STAMPS program, this year's recipient of the Dean's Award for the Promotion of Diversity & Inclusiveness in the College of Arts & Sciences.

You’ll also get to meet some of the students as they share their experiences in the program!

Led by Dr. Jeffrey Patton and Dr. Lynn Sametz of the Geography, Environment, and Sustainability Department, STAMPS’ mission is to create a culture of interdisciplinary support for a diverse group of low-income, academically talented students in science and math.
Appendix 6: Units Integrated within RISE’s Efforts

Alumni Association
College of Arts and Sciences Office of Research
Department of Anthropology
Department of Biology
Department of Chemistry & Biochemistry
Department of Computer Science
Department of Educational Research Methodology
Department of Geography, Environment, and Sustainability
Department of Kinesiology
Department of Mathematics & Statistics
Department of Nanoscience
Department of Nutrition
Department of Peace & Conflict Studies
Department of Physics and Astronomy
Department of Public Health Education
Department of Teacher Education and Higher Education
Division of Student Success
Event Planning
Joint School of Nanoscience & Nanoengineering
Moss Street Partnership School
Office of Admissions
Office of Intercultural Engagement
Office of the Provost
Office of Research and Engagement
Office of Research Integrity
Office of Sponsored Programs
School of Education Office of Research
School of Health and Human Sciences Office of Research
Teaching Resources Center/SELF Design Studio
Undergraduate Research, Scholarship and Creativity Office
University Advancement
University Communications