



## BIFP Institutional Partners

- BRITE-North Carolina Central University\*
- David H Murdock Research Institute
- Gateway University Research Park
- Joint School of Nanoscience and Nanoengineering
- National Center for the Biotechnology Workforce\*
- NC Biotechnology Center\*
- NC State- BTEC\*
- NIIMBL\*
- Wake Forest Innovation Quarter
- Wake Forest Institute for Regenerative Medicine

## Laboratory Skills Boot Camps

- Alamance Community College
- Forsyth Tech Community College\*
- Rowan Cabarrus Community College
- Capstone Center\*-Wake Technical CC

\* denotes member National Institute for Innovation in Manufacturing Biopharmaceuticals

**Fellows will also visit a multitude of NC Bioscience Industrial Facilities!**

## Frequently Asked Questions

- 1) How do you qualify to be a Fellow?
- a) Be an accomplished instructor & educational professional with strong leadership potential, high-impact & an interest in learning/sharing new insights in the bioscience industry.
  - b) Currently be in good standing with your home institution.
  - c) Be nominated by your administration.
  - d) Be willing to share data on the outcomes of this experience.

2) How do I apply?

- a) Complete an application at <https://www.surveymonkey.com/s/3VL2N32>
- b) Submit a current resume and two letters of reference.
- c) Participate in a telephone interview with the Selection Committee

3) Is there compensation for participants?

Meals, transportation, lodging, and a weekly participation allowance will be awarded for fellows that qualify

4) Is past training in the biosciences required?

No. All disciplines are encouraged, but an interest in science and laboratory work is required.

5) When and where will this Fellowship occur?

The Fellowship Project will be held in North Carolina from June 3-June 21, 2019. Fellows will participate in laboratory "boot camps" at 4 of NC's community colleges, and visit multiple educational institutions and industry sites.



### For More Information:

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NSF ATE DUE  
Grant #1304010



The National Institute for Innovation in Manufacturing Biopharmaceuticals

**Professional Development Opportunity in Winston-Salem, NC  
June 3-21, 2019**

*"Gives a real feel of what is going on in the biotech industries"*



**Apply now!**

[www.biotechworkforce.org](http://www.biotechworkforce.org)

## What is the Bioscience industrial Fellowship Project?

The Bioscience Industrial Fellowship Project (BIFP), funded by the National Science Foundation through the Advanced Technological Education Program Grant #1304010 and in partnership with NIIMBL, is a three week hands-on and observational fellowship program for high-impact instructors. Fellows reside in Winston-Salem, North Carolina from June 3-21, 2019. During their stay, fellows will travel to multiple universities, educational programs, research parks and NC Biosciences industrial facility laboratories to elucidate a further understanding of how their curricula translates in this expansive industry. In addition to the observational site visits, Fellows are immersed in a skills lab “boot camp” provided by four of the NC Community Colleges covering a broad range of skills including but not limited to: instrumentation, sample preparation, cell culture and transfection. Fellows will also gain invaluable insight from industry leaders that provide first-hand experience of the application of concepts, techniques, and skills that students need in order to successfully enter the bioscience workforce.



## BIFP Leadership

**Russ H. Read** is the BIFP PI. He has worked in the bioscience industry for over thirty-five years. He served as an executive at Burroughs Wellcome and Glaxo Wellcome companies. Russ was heavily involved with the commercial development of antivirals like AZT and 3TC. Russ was the CEO of the Kucera Pharmaceutical Company, a start-up biopharmaceutical company. He has recently led a national biotechnology workforce effort for fourteen years called the National Center for the Biotechnology Workforce (NCBW).



Russ also served as the Project Director for c3bc, a twelve member national consortium of community colleges, led by Forsyth Tech through a \$15 million US DOL TAA grant, whose primary focus is building the biosciences workforce with skills and credentials. He is PI on this grant and one other NSF ATE called BETA Skills. The NCBW is based in Winston-Salem. The NCBW focuses on achieving best practices for bioscience workforce training with its national partners such as the US DOL and the NSF. Russ currently serves on the Advisory Committee for the NC Biotech Center's Piedmont Triad regional office and is a Director of NC BIO. He has served on the National Visitor's Committee of the NSF ATE national program called Bio-Link, the AC2 program at Austin Community College, Austin, TX, and is an advisor to the NSF ATE NBC2 Program of Montgomery Community College of Blue Bell, PA.

**Denise Schweizer** is the BIFP Co-PI and is the Division Chair of Physical Sciences at Rowan-Cabarrus Community College. Denise graduated with a Master's degree from Ohio State University in Food Science and Nutrition Development and worked with Ross Laboratories Research and Development. Denise has been an instructor with RCCC for the past 15 years and established the Analytical Chemistry lab to support the Biotechnology program on the North Carolina Research Campus. When not working, Denise takes care of her family's small farm. In addition to Biotechnology, she is interested in water quality issues.



### The BIFP will:

- Help instructors contextualize learning by providing real-world exposure through hands-on externships in bioscience industry/organizational settings.
- Demonstrate key competencies & critical bioscience workforce skills to help prepare students for increasingly technical coursework geared to industry standards.
- Make meaningful associations between classroom & workplace by producing inquiry-based curriculum materials that integrate valid bioscience concepts and processes.
- Enable education professionals to generate a better-prepared workforce and highlight new career opportunities.

### What the Fellows have to say:

*“I can now answer, with confidence, the question ‘why do I need to know this’. I am excited to share this experience and the new applications with both my students and colleagues.”*

*“It is definitely the best professional development I have done in my career.”*

*“The learning module allowed me to see how I can incorporate examples from biosciences into my developmental math classes.”*