

Opportunity Title: USDA-ARS Postdoctoral Fellowship - Bio-Based Materials
from Lignin

Opportunity Reference Code: USDA-ARS-NEA-2026-0395

Organization U.S. Department of Agriculture (USDA)

Reference Code USDA-ARS-NEA-2026-0395

How to Apply *To submit your application, scroll to the bottom of this opportunity and click **APPLY**.*

A complete application consists of:

- An application
- Transcript(s) – For this opportunity, an unofficial transcript or copy of the student academic records printed by the applicant or by academic advisors from internal institution systems may be submitted. Click [here](#) for detailed information about acceptable transcripts.
- A current resume/CV, including academic history, employment history, relevant experiences, and publication list
- Two educational or professional recommendations

All documents must be in English or include an official English translation.

Connect with ORISE...on the GO! Download the new ORISE GO mobile app in the [Apple App Store](#) or [Google Play Store](#) to help you stay engaged, connected, and informed during your ORISE experience and beyond!"

Application Deadline 12/18/2026 3:00:00 PM Eastern Time Zone

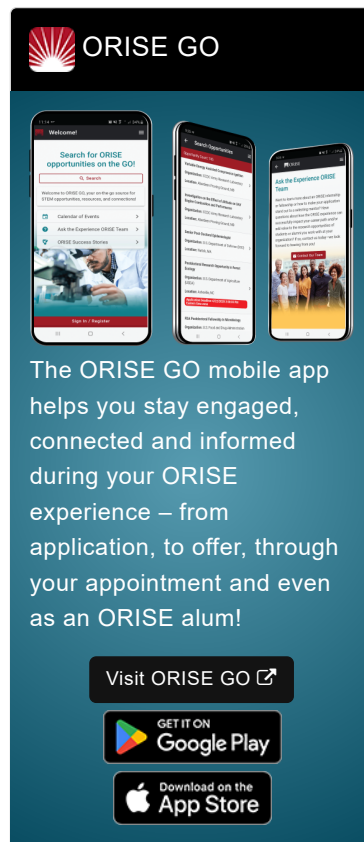
Description ***Applications are reviewed on a rolling-basis and applications may close before the deadline.**

ARS Office/Lab and Location: A research opportunity is currently available with the U.S. Department of Agriculture (USDA), Agricultural Research Service (ARS), located in Wyndmoor, Pennsylvania.

The Agricultural Research Service (ARS) is the U.S. Department of Agriculture's chief scientific in-house research agency with a mission to find solutions to agricultural problems that affect Americans every day from field to table. ARS will deliver cutting-edge, scientific tools and innovative solutions for American farmers, producers, industry, and communities to support the nourishment and well-being of all people; sustain our nation's agroecosystems and natural resources; and ensure the economic competitiveness and excellence of our agriculture. The vision of the agency is to provide global leadership in agricultural discoveries through scientific excellence.

The Sustainable Biofuels and Co-Products Research Unit (SBCP) in Wyndmoor, PA, develops technologies that support new markets and increased profitability for U.S. agriculture. Researchers in SBCP advance chemical, catalytic, thermal, enzymatic, and fermentative technologies to convert low-value agricultural materials into high-value products such as biofuels, renewable chemicals and materials.

Research Project: This research project aims to improve the utilization of



Opportunity Title: USDA-ARS Postdoctoral Fellowship - Bio-Based Materials
from Lignin

Opportunity Reference Code: USDA-ARS-NEA-2026-0395

herbaceous feedstocks by extracting, characterizing, and utilizing lignin for bio-based material applications. The project involves fractionating lignin out of lignocellulosic biomass (e.g. switchgrass and hemp) using chemical pretreatment followed by downstream recovery of the dissolved lignin. The recovered lignin will be characterized for physico-chemical properties and be utilized in research to prepare bio-based materials. You will participate in this research by helping conduct lignin fractionation experiments, perform analytical characterization of the recovered lignin, and prepare bio-based materials using the recovered lignin.

Learning Objectives: You will gain experience, in a research setting, by assisting with lignin fractionation experiments to include recording data, analyzing and summarizing data, preparing scientific reports, and presenting research progress during group meetings. You will also gain hands-on experience with a variety of analytical techniques such as HPLC, TGA, NMR, and FTIR.

During the appointment, You will:

- Increase knowledge in chemical and biological biomass conversion technologies and plant cell wall chemistry.
- Develop skills in statistical design of experiments.
- Gain experience with analytical techniques that support characterization of biomass and biomass conversion products.
- Learn how to collect, organize and process data from analytical instruments and experimental analyses.
- Enhance scientific communication skills by assisting with the preparation of detailed scientific reports and presenting research progress to the research unit.

Mentor(s): The mentor for this opportunity is Ryan Stoklosa (ryan.stoklosa@usda.gov). If you have questions about the nature of the research, please contact the mentor(s).

Anticipated Appointment Start Date: January 11, 2027. Start date is flexible and will depend on a variety of factors.

Appointment Length: The appointment will initially be for one year, but may be renewed upon recommendation of ARS and is contingent on the availability of funds.

Level of Participation: The appointment is full time.

Citizenship Requirements: This opportunity is available to U.S. citizens only.

ORISE Information: This program, administered by ORAU through its contract with the U.S. Department of Energy (DOE) to manage the Oak Ridge Institute for Science and Education (ORISE), was established through an interagency agreement between DOE and ARS. Participants do not become employees of USDA, ARS, DOE or the program administrator, and there are no employment-related benefits. Proof of health insurance is

Opportunity Title: USDA-ARS Postdoctoral Fellowship - Bio-Based Materials
from Lignin

Opportunity Reference Code: USDA-ARS-NEA-2026-0395

required for participation in this program. Health insurance can be obtained through ORISE.

Questions: Please visit our [Program Website](#). After reading, if you have additional questions about the application process, please email ORISE.ARS.Northeast@orau.org and include the reference code for this opportunity.

Qualifications The qualified candidate should have received or be currently pursuing a doctoral degree in the one of the relevant fields, at an accredited U.S. college, university, or technical institute and maintain satisfactory progress in academic coursework. Degree must have been received within the past five years, or anticipated to be received by 12/21/2026.

Preferred Skills:

- Experience with biomass chemical pretreatment and lignin separation processes
- Familiarity with chemical and physical analysis techniques including HPLC, TGA, NMR, and FTIR
- Statistical data analysis skills
- Scientific communication skills

Stipend \$6,857.00 Monthly

Point of Contact [Janeen](#)

Eligibility • **Citizenship:** U.S. Citizen Only

- Requirements**
- **Degree:** Doctoral Degree received within the last 48 months or anticipated to be received by 12/21/2026 12:00:00 AM.
 - **Discipline(s):**
 - **Chemistry and Materials Sciences** ([5](#) )
 - **Engineering** ([7](#) )