UCDAVIS
DEPARTMENT OF ENTOMOLOGY AND NEMATOLOGY

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Postdoctoral Position in Plant–Nematode Interaction Research

University of California, Davis

Are you passionate about understanding host-parasite interactions at molecular and metabolic levels? Do you want your research to contribute to sustainable agriculture and global food security? The Siddique Lab at the University of California, Davis invites applications for one or more postdoctoral researchers to join our research team.

About the Lab

The Siddique Lab focuses on understanding the complex interactions between plants and parasitic nematodes, with an emphasis on molecular mechanisms and metabolite-mediated responses. Our research aims to translate fundamental discoveries into solutions for crop protection. Current projects involve economically important California crops, including tomato, cucumber, almond, and walnut.

Research Focus

The successful candidates will lead and contribute to projects investigating the molecular, genetic, and metabolic basis of plant–nematode interactions, with the goal of developing durable resistance strategies.

Position Description

Plant-parasitic nematodes are destructive pests responsible for major agricultural losses worldwide. The postdoctoral researchers will manage independent and collaborative projects that integrate metabolomics, molecular biology, and functional genomics approaches. The work will involve laboratory, greenhouse, and field components.

Key responsibilities may include:

- Designing and executing experiments to study nematode infection processes and plant defense responses
- Investigating plant metabolites and signaling pathways involved in nematode interactions
- Applying molecular techniques such as gene cloning, qPCR, RNA-seq, CRISPR/Cas-based approaches, and metabolite profiling
- Conducting biochemical and molecular assays related to plant–nematode interactions
- Performing greenhouse and field trials to evaluate resistance and biotechnological interventions
- Analyzing data and preparing manuscripts for peer-reviewed publications

What We Offer

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- Collaborative Environment: A diverse, supportive, and interdisciplinary research team
- Professional Development: Training, mentorship, and career-planning support
- Conference Travel: Opportunities to present research at national and international meetings
- Research Flexibility: Freedom to shape projects within the broader framework of plant–nematode biology
- Impactful Research: Work that addresses critical challenges in agriculture and food security
- Immigration Support: Visa assistance for international candidates through UC Davis Services for International Students and Scholars (SISS)

Essential Qualifications

- PhD in nematology, plant biology, plant pathology, molecular biology, or a related field
- Strong background in molecular and/or metabolite-based plant biology
- Ability to work independently and collaboratively
- Excellent written and verbal communication skills

Desirable Qualifications

- Prior experience with plant–nematode interactions
- Familiarity with metabolomics, biochemical assays, or systems biology approaches

Mentoring and Career Development

Postdoctoral researchers will receive:

- Regular one-on-one meetings to discuss research progress and career goals
- Guidance on project design, funding opportunities, and publication strategy
- Support in exploring academic, industry, and government career paths
- Access to multiple mentors within and beyond the lab

Position Details

- Application Deadline: February 28, 2026
- Start Date: Flexible; Summer–Fall 2026
- Salary: Competitive, commensurate with experience ($68,000–$90,000/year)
- Duration: Initial 24-month appointment, with possible extension based on performance and funding

- Research Scientist Option: Candidates with more than 5 years of post-PhD experience may be considered for a research scientist position

How to Apply

Please email Dr. Shahid Siddique at ssiddique@ucdavis.edu with the subject line "Nematology Jobs". Submit a single PDF containing:

- A one-page tailored cover letter
- A current CV including contact information for three references

For more information about the lab and ongoing projects, visit: www.nemaplant.org