

Junior Specialist Position

Dr. Savithramma Dinesh-Kumar Lab, Department of Plant Biology, UC Davis

The laboratory of Dr. Savithramma Dinesh-Kumar wishes to employ a Junior Specialist, who will work 75% of the time from March 1, 2025, to February 27, 2026, on the molecular basis of plant immunity against pathogens. The Junior Specialist will work directly with the Principal Investigator.

1. Research (90%)

The candidate will investigate the role of genes in immune signaling in plants. The candidate will develop plant viral and non-viral vectors to express transgenes and gene-editing components in plants to induce gene modifications toward understanding the molecular basis of plant-pathogen interactions. In addition, the candidate will develop viral vectors to knock down gene expression using the virus-induced gene silencing (VIGS) approach and overexpress proteins. As a research team member, I will work on cloning, which involves amplifying viral sequences using PCR, confirming these clones by colony PCR and Sanger DNA sequencing, and then doing data analysis. The candidate will optimize infection methods and test the infectivity of cloned viral clones in plants; evaluate the expression of transgenes and Cas nucleases and expression of gRNAs and VIGS by *Agrobacterium*-mediated transient assays. Screening edited progenies by genotyping and sequencing. The candidate will maintain plants in the tissue culture, greenhouse, and growth chambers and perform *Agrobacterium*-mediated transient plant transformation and genotyping to assess the gene editing efficiency. Additional duties include general laboratory maintenance such as ordering supplies, preparation of solutions and media, preparing *E. coli* and *Agrobacterium* stocks, and maintaining frozen stocks of plasmids. Strong work ethics is expected. The candidate will assist in preparing data for presentations and publications.

2. Professional Competence and Activities (5%)

The Junior Specialist is expected to work semi-independently with oversight from the principal investigator, postdoc, and graduate students. The candidate will keep a detailed laboratory notebook/digital notebook, including experimental methods and results. The candidate will assist in preparing data figures and tables and a summary of results for progress reports to the funding agency. The candidate will also participate in writing research results for publication by writing sections of the manuscript and help editing the manuscript. The candidate will participate in lab meetings and monthly journal updates. The candidate may present research findings in suitable external scientific meetings on campus or outside, depending on the availability of funds.

3. University and Public Service (5%)

The Junior Specialist will actively contribute to lab activities through meetings, unit/campus presentations, and lab outreach activities.

JOB QUALIFICATIONS:

Basic Qualifications:

- Bachelor's degree in Biochemistry and Molecular Biology, Plant Biology, or related field with experience working in the biology laboratory settings.

- Requires demonstrated experience and expertise in PCR, bacterial transformation, molecular cloning, plasmid preps, agarose gel electrophoresis/analysis, protein expression and analysis, Agrobacterium transformation, Agrobacterium-mediated transient expression in plants, and genomic DNA extraction and processing. Working with viral vectors and using viral vectors for gene editing and genotyping Cas nuclease-based edited plants.

Preferred Qualifications:

- Preference will be given to candidates with demonstrated experience in growing plants and maintenance, plant Agrobacterium-mediated transient transformation, screening, genotyping gene-edited plants, and plant tissue culture. Working with CRISPR in plants using viral vectors.

To apply, Qualified applicants should submit a cover letter, CV, name and contact information for at least one reference who was a previous employer or supervisor, and a Statement of Contributions to Diversity, Equity, and Inclusion via this <https://recruit.ucdavis.edu/JPF06869>. The deadline for full consideration is January 11, 2024.

The University of California, Davis, commits to inclusion excellence by advancing equity, diversity, and inclusion in everything we do. We are an Affirmative Action/Equal Opportunity employer and particularly encourage applications from members of historically underrepresented racial/ethnic groups, women, individuals with disabilities, veterans, LGBTQ community members, and others who demonstrate the ability to help us achieve our vision of a diverse and inclusive community.

Under Federal law, the University of California may employ only individuals who are legally able to work in the United States, as established by providing documents as specified in the Immigration Reform and Control Act of 1986. Certain UC Davis positions funded by federal contracts or subcontracts require the selected candidate to pass an E-Verify check. More information is available at <http://www.uscis.gov/everify>.

UC Davis is a smoke & tobacco-free campus (<http://breathefree.ucdavis.edu/>). If you need accommodation due to a disability, please contact the recruiting department