TEXAS A&M AGRILIFE RESEARCH | EXTENSION

TEXAS A&M UNIVERSITY
AGRICULTURE & LIFE SCIENCES

DEPARTMENT OF HORTICULTURAL SCIENCES

Position Description for Horticultural Crop Secondary Metabolism

The Department of Horticultural Sciences, College of Agriculture and Life Sciences at Texas A&M University seeks outstanding applicants for one full-time, tenure-track position with a 9-month academic appointment beginning Fall 2024. Applicants will be considered for the faculty title of Assistant Professor in **horticultural crop secondary metabolism** with an emphasis on grapes, but also in other fruits, vegetables, and other horticultural crops relevant to industries in Texas and beyond. The distribution of effort for this position is as follows: research (60%), teaching (30%), outreach, and service (10%) responsibilities.

The research program is expected to elucidate the regulation and biosynthesis of specialized secondary metabolites, including flavor and aroma compounds, polyphenols, flavonoids, and other metabolites contributing to the quality and nutritional value of horticulture crops and products. The study approach can focus on, but is not limited to, understanding of key factors of natural biochemical diversity and regulatory roles in plant secondary metabolism, which enable metabolic production of beneficial compounds. The successful candidate will have strong technical proficiency and hands-on experience in utilizing advanced analytical platforms such as GC/LC-MS-TOF, MALDI TOF-TOF NMR, GC-MS-O, or other high-resolution multi-omics technologies for detecting and quantifying metabolites. With an understanding of plant primary and secondary metabolism, and the underlying biochemical and molecular regulatory pathways and networks, they are also expected to translate developed technologies and knowledge into practical applications, including plant breeding, physiology, health-promoting compounds, and enhancement of crop quality, and have a working experience with horticultural crops and handling extensive datasets.

The position is part of an interdisciplinary cluster hire including two additional positions in Horticulture Crop Breeding and Horticulture Crop Physiology. The applicant will work closely with other horticulture crop secondary metabolism and physiology researchers, production scientists, breeding, genomics, and genetics researchers, and biotechnology scientists within the department and Texas A&M University and Texas A&M AgriLife Research and AgriLife Extension faculty both on and off-campus, along with other scientists in the region, nationally, and internationally to establish a highly impactful, extramurally funded research program.

The successful individual will develop and teach one undergraduate and one graduate course related to secondary metabolism in horticulture. The successful candidate will also advise and mentor undergraduate and graduate students, postdoctoral scientists, and research technicians and participate in outreach and service activities related to the position. The individual will be expected to publish regularly in peer-reviewed journals appropriate to the discipline.

The Department of Horticultural Sciences is a nationally ranked program with a mission focused on sustainability, wellness and food security to support the economic viability, and national and global competitiveness of Texas horticulture valued at over $70 Billion per year to the state economy, develop the next generation of academic and industry professionals and leaders, ensure physical and mental well-being of Texans and Americans with abundant availability and access to aesthetic and nutritious horticulture crops.

202 Horticulture/Forest Sciences Building
2133 TAMU
College Station, TX 77843-2133

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HortSciences.tamu.edu

The Department houses 19 full-time faculty members and 13 additional faculty located at Research and Extension Centers across Texas. The Department offers two undergraduate degrees; a B.A. and B.S. in Horticulture; certificates in Floral Design, Viticulture and Enology, and Landscape Design, and M.S. and Ph.D. degrees in Horticulture, Plant Breeding, and the Master of Agriculture (non-thesis) in Horticulture. Areas of research, teaching and Extension emphasis in the department include horticulture crop physiology; post-harvest physiology; plant breeding and genetics; horticultural genomics and biotechnology; controlled environment horticulture; viticulture and enology; floral design; vegetable and fruit Production; food science & technology, bioactive compounds; greenhouse and floriculture production & marketing; nursery and floriculture economics; international and social horticulture; ornamental horticulture, landscape plant development; plant-associated microorganisms and plant health; sustainable horticulture crop production.

The department is located in the Horticulture/Forest Science Building (HFSB) in College Station, TX. It boasts the Benz Gallery of Floral Art, modern research and teaching laboratories, and a growth chamber complex. Greenhouses (38,000 sq. ft.) are located behind the HFSB building and at the Horticulture, Teaching, Research, and Extension Center facility (HortTREC) near Snook, TX. Departmental faculty enjoy productive relationships in and with Texas A&M AgriLife Research; the Texas A&M AgriLife Extension Service; the Norman Borlaug Institute of International Agriculture; the Multi-Crop Transformation facility; Texas AgriLife Genomics and Bioinformatics Services; and the Texas A&M Supercomputing facility.

Distribution of Effort: 60% research, 30% teaching, 10% outreach and service.

Responsibilities:

- Conduct needs and hypothesis-driven research to understand regulation and biosynthesis of secondary metabolites that are important for quality and nutritional value of horticulture crops.
- Provide leadership and team building with multi-disciplinary Research Scientists and Extension Specialists to address key issues affecting the horticulture crop industry in Texas.
- Develop and/or lead research teams to apply for internal and external research grant opportunities with the involvement of research faculty from Texas A&M University, Texas A&M AgriLife Research and AgriLife Extension, as well as other research institutions.
- Develop secondary metabolism knowledge and translate the information to enable sustainable and affordable production of nutritious and high-quality fruits for the citizens and industry of Texas.
- Teach one undergraduate and one graduate course in horticulture crop secondary metabolism or a related subject in the Department of Horticultural Sciences.
- Mentor and train the next generation of plant secondary metabolism professionals including students and post-docs.
- Publish in high-impact, peer-reviewed journals

Salary and Benefits: Salary is competitive and commensurate with background and experience. An attractive fringe benefits package is provided.

Qualifications

Ph.D. or equivalent degree in Plant Biology, Biochemistry, Chemistry, or a related discipline, along with a strong knowledge and experience in plant secondary metabolism, evidence of peer-reviewed scholarly accomplishments in plant biochemistry, and excellent verbal and written communication skills are required. Demonstrated success in identifying critical issues, and act on those needs through research activities that resolve problems, and securing external grants and contracts is preferred. A minimum of two years of

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independent or postdoctoral research experience, along with at least one year of teaching experience at the undergraduate or graduate level, is preferred.

Application Instructions
Applications will only be accepted online at apply.interfolio.com/135676.
Applicants must upload the following components: (1) a Cover Letter (two-page limit), (2) Curriculum Vitae, (3) a Personal Statement (your statement should include your philosophy and plans for research, teaching and service, as applicable, and (4) Names and Contact Information of five (5) professional references.

To be given full consideration, please submit applications by January 22, 2024. The position will remain open until a suitable candidate is identified. The anticipated start date is August 1, 2024.
Questions: Address inquiries to Search Committee Co-Chairs: Bhimu Patil, Ph.D. - Phone: (979) 458-8090
Email: Bhimanagouda.Patil@ag.tamu.edu and Andreea Botezatu, Ph.D. Phone: (979) 900-8442
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