

# Postdoctoral Associate - Institute for Conservation Research

15600 San Pasqual Valley Rd, Escondido, CA 92027, USA Req #431

Friday, November 1, 2019

San Diego Zoo Global is a conservation organization dedicated to the science of saving endangered species worldwide. San Diego Zoo Global operates three world-class facilities: the San Diego Zoo, the San Diego Zoo Safari Park, and the San Diego Zoo Institute for Conservation Research.

## JOB SUMMARY

The Plant Conservation team at the Institute for Conservation Research and the Horticulture Department at San Diego Zoo seek a Plant Cryobiology Postdoctoral Associate to investigate and refine protocols for cryopreservation of IUCN endangered *Quercus dumosa* shoot tips, embryos, and pollen. In the course of this fellowship, the Postdoctoral Associate will have opportunities to work with plant cryopreservation scientists, including Dr. Raquel Folgado at The Huntington Library and Botanical Gardens, Dr. Valerie Pence at the Center for Research on Endangered Wildlife (CREW) at Cincinnati Zoo and Botanical Garden, and Dr. Christina Walters at the National Laboratory for Genetics Resources Preservation (NLGRP). At San Diego Zoo Global, the Postdoctoral Associate will report to Dr. Joyce Maschinski, Institute for Conservation Research, SDZG and Center for Plant Conservation, and work closely with Christy Powell, San Diego Zoo Horticulture. The Postdoctoral Associate will work at The Huntington and CREW to develop a reliable *in vitro* (tissue culture) recovery system for *Q. dumosa* embryos and shoots. Tests of antioxidants and cryoprotectants on tissue types will determine optimal cryopreservation procedure. With SDZG staff, the Postdoctoral Associate will collect acorns, pollen and shoots from populations in U.S. and Baja California and measure habitat ecological traits. At NLGRP, the Postdoctoral Associate will explore plant traits, refine tests of cryopreservation and tissue culture and contribute to a large meta-analysis of oak characteristics and liquid nitrogen/ tissue culture success. The aim is to crystalize our understanding of general patterns influencing cryopreservation success.

## ESSENTIAL JOB FUNCTIONS

- Conducts tissue culture and cryobiology experiments on shoot tips, embryos, and pollen
- Collects, processes, and enters research data; Interprets and analyzes research results and revises procedures as necessary
- Establishes and maintains databases
- Documents research methodology and results
- Prepares progress reports
- Publishes papers in peer-reviewed scientific journals and popular literature
- Makes presentations to professional groups and Society staff
- develops research proposals for grants and other sources of funding
- Keeps abreast of relevant research and technology developments
- Trains and oversees volunteers and staff

- Maintains project budget and recommends purchases of supplies and equipment
- Maintains a variety of contacts in order to respond to inquiries and requests
- Interprets and analyzes research results and revises procedures as necessary to achieve desired results
- Assists in the preparation of grant applications and the administering of grants
- Develop, administer, and monitor assigned budgets as needed
- May interact with visitors, land managers, and the general public to promote plant conservation and Zoo horticulture
- May participate in other Plant Conservation or Zoo Horticulture team activities
- Performs related duties and responsibilities as required

## **QUALIFICATIONS**

- Ph.D. in botany, biology, and/or related field
- Proven research and publication record in areas of tissue culture, cryobiology, pollen, cell, or seed biology
- Proficient with MS Word, Excel, PowerPoint and specialized R code for statistical analysis.

## **JOB EXPERIENCE**

- Experience interpreting and synthesizing the scientific literature
- Knowledge of governmental regulations applicable to plant cryobiology research and safe handling of hazardous materials related to research

## **SKILLS**

- Ability to work as part of a team and independently
- Great attention to detail
- Strong written and verbal communication skills
- Willingness to travel to other laboratories within California and the U.S.

## **PHYSICAL REQUIREMENTS**

Qualified applicants must be able to safely lift and carry up to 25 lbs, and sit and stand for several hours with or without a reasonable accommodation as these are a routine part of the daily work.

## **WORKING ENVIRONMENT**

The Plant Cryobiology Postdoctoral Associate position will primarily be an office and laboratory position with some periods of field work with the Plant Conservation team. Work involves possible exposure to hazardous materials in the laboratory and field including potentially hazardous chemicals, radiation and biohazardous materials. Work will occasionally require the ability to work outdoors in varying weather conditions, possibly for extended periods. Work may require the ability to move moderately heavy objects. Ability to travel to other

laboratories within California and out of state is required.

**Location:** Institute for Conservation Research

**Duration:** - Year round

**Positions Available:** 1

**Non-Union Exempt Position** – Salary commensurate with experience

If you are currently in a union position and are hired for a non-union position there will be a change in benefits so please make sure to reach out to your Benefits Representative.

**Availability** – 40 hour work week

**Transportation:** Access via public transportation is extremely limited and there is no public transportation on the weekends.

**NOTE:** Candidates must be available for an interview if contacted.

#### **THIS EMPLOYER PARTICIPATES IN E-VERIFY**

To apply, see <https://usr57.dayforcehcm.com/CandidatePortal/en-US/sdzg/Posting/View/950> to submit application. Applicants should ask three references to send letters of recommendation to Dr. Joyce Maschinski, SDZG Institute for Conservation Research, 15600 San Pasqual Valley Rd., Escondido, CA 92027.

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**All New Hires are subject to passing a drug screen and some employment is contingent upon passing pre-placement testing.**