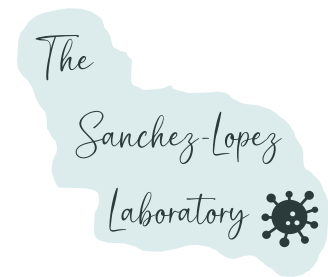


## POSTDOCTORAL SCHOLAR and RESEARCH SCIENTIST POSITIONS



The **Sanchez-Lopez Lab**, within the Department of Orthopaedic Surgery at the University of California San Diego (UCSD), is seeking applications for a highly motivated **Postdoctoral scholar** and a **Research Scientist** to join an NIH-funded research project.

### About the project & research focus

Our research program investigates how metabolic and bioenergetic adaptation in macrophages shapes both acute and chronic inflammation. We develop and apply a diverse combination of experimental approaches, including in vivo, ex vivo, and in vitro systems, using human and mouse primary immune cells alongside patient-derived tissue samples. Our ultimate goal is to uncover the molecular basis of metabolic reprogramming during macrophage activation and determine how these adaptations dictate immune function in osteoarthritis and lung disease.

### Work Environment & Resources

The Sanchez-Lopez laboratory is located on the Altman Clinical and Translational Research Institute (ACTRI) on the UC San Diego Health Sciences campus in La Jolla. This prime location offers full-time access to outstanding departmental and university resources. The lab is fully equipped with cutting-edge technology, including dPCR, advanced flow cytometers, and confocal microscopy. The vivarium is located just one floor below the laboratory, allowing for highly efficient execution of in vivo experiments.

### Job Summary

Successful applicants will possess a strong interest in immunometabolism, musculoskeletal diseases, chronic inflammation, or fibrosis. While candidates are expected to work independently, they will interact with the Principal Investigator, laboratory team members, and external collaborators.

Key responsibilities: The applicant will be expected to make significant contributions to project development, experimental design, data collection, and interpretation. The candidate will be required to present and share their findings within the laboratory and outside the laboratory at local, national, and international conferences. They will also be expected to participate and collaborate with other lab members, thereby serving as a co-author on laboratory publications. The successful applicant may also be requested to take on some supervisory activities.

### Job Requirements

#### **Required:**

- Education:
  - For Postdoctoral scholar: Ph.D. in biochemistry, cell biology, molecular biology, immunology, immunometabolism, rheumatology, or other relevant field. Ph.D. candidates nearing graduation are strongly encouraged to apply. We also welcome candidates trained in adjacent research fields who demonstrate and justify translatable expertise.

- For research scientist: Bachelor of Science in Human Biology, Biochemistry, or Molecular Biology, or related field with 1-2 years of hands-on wet lab experience, OR a Master's degree in Molecular biology, Biochemistry, or related field.
- **Publications:** For the postdoctoral scholar position, at least two first-author peer-reviewed publications, and for the research scientist, at least one first-author peer-reviewed publication.
- **Technical proficiency:** Hands-on experience in multi-color flow cytometry, immune cell isolation, tissue culture, ELISA, western blotting, cloning, immunoprecipitation, immunofluorescence, si/shRNA or CRISPR, animal handling, and histochemical evaluation.
- **Project Management:** Demonstrated experience managing an independent research project to completion, culminating in a scientific publication.
- **Communication:** Excellent scientific writing and communication.
- **Interpersonal Skills:** Exceptional problem-solving abilities, the capacity to learn quickly, and the ability to work productively both independently and as part of a diverse, collaborative team.

**Preferred:**

- Experience with metabolic flux analysis (Seahorse Bioanalyzer), NMR, or LC-MS utilization and data analysis.
- Experience working with mouse models of acute and chronic inflammation (e.g., ARDS, osteoarthritis (DMM, ACLT, MIA), CKD, gout, myositis).
- Proficiency with in vivo dosing techniques, including oral gavage, tail vein, and i.p. injection.

**Commitment**

One-year position with the potential for annual reappointment, pending satisfactory progress and the availability of grant funding.

**Application Process**

Interested applicants should submit their application materials directly to Dr. Sanchez-Lopez at [esl023@health.ucsd.edu](mailto:esl023@health.ucsd.edu).

Please combine your application into a single PDF file and specify the position you are applying for (Postdoctoral Scholar or Research Scientist) in the email subject line. Your PDF must include:

1. A 1-2 page cover letter detailing:
  - a. Your specific interest in joining the Sanchez-Lopez Lab.
  - b. Your past and current research background.
  - c. How joining our research group aligns with your long-term career goals.
2. A current Curriculum Vitae (CV).
3. Contact information for 3 professional references.