

Cesar A. Carrera Jr.

San Francisco, CA

Summary

Graduate researcher in exercise physiology and ACSM-certified exercise physiologist, pursuing an MD/PhD. Experience leading an IRB-approved human subjects' study, cardiovascular and metabolic testing (ECG, HRV, VO₂), and clinical specimen collection as a licensed phlebotomist. Fluent in English and Spanish, with volunteer experience as a medical interpreter in underserved communities.

Education

San Francisco State University, San Francisco, CA

Master of Science in Kinesiology: Exercise Physiology. Expected Fall 2026

- Thesis: Sex differences in cardiovascular and autonomic nervous system recovery following two exercise protocols
- Relevant coursework: Clinical Exercise Physiology; Research Design and Analysis

San Francisco State University, San Francisco, CA

Bachelor of Health and Social Science: Exercise and Movement Sciences. May 2024

Research Experience

Graduate Thesis Researcher, Exercise Physiology Lab, San Francisco State University. May 2024 – Present

- Designed and led an IRB-approved human subjects' study (n=24) investigating sex differences in cardiovascular and autonomic nervous system recovery following two distinct exercise protocols
- Administered and monitored graded exercise tolerance tests, recording ECG, heart rate variability, blood pressure, and VO₂/ventilation data across 3 testing sessions per participant
- Designed and executed high-intensity interval and continuous exercise protocols based on individualized %VO₂ reserve targets
- Synthesized 15+ peer-reviewed studies to identify a research gap in sex-based autonomic nervous system responses to exercise
- Ensured participant safety and regulatory compliance as a BLS/CPR/AED-certified responder during all exercise testing
- Maintained data integrity and confidentiality through encrypted storage and participant de-identification protocols

Undergraduate Researcher, Muscle Physiology Laboratory, San Francisco State University

- Collaborated with kinesiology graduate students on research presentations and thesis development
- Primary author of two posters accepted to the College of Health and Social Sciences Undergraduate Research Showcase

- Learned to isolate muscle fibers and applied laser scanning confocal microscopy techniques

Participant, UCSF Pre-Health Undergraduate Program (PUP)

- Collaborated with a UCSF MD/MAS student to write, critique, and revise a clinical research protocol, and reviewed the medical literature behind the student's research question (a retrospective cohort study of urinary adverse events in prostate cancer patients)
- Wrote a literature review and presented findings to the PUP cohort
- Served as a PUP mentor to the following cohort of participants

Presentations

- "Impacts of Cystic Fibrosis and How Exercise Helps." Poster, Kinesiology Student Association (KSA) Research Exposition, San Francisco State University
- Poster on the relationship between physical activity and academic success. College of Health and Social Sciences Undergraduate Showcase, San Francisco State University
- Presentation on the importance of exercise, CDC physical activity guidelines, and research on daily walking benefits. Technology in Kinesiology & Health Research Symposium, San Francisco State University

Clinical Experience

Mobile Paramedical Examiner, ExamOne. January 2024 – Present

- Collect blood, urine, nasal swab, and saliva specimens from clients in the field, maintaining accuracy and chain-of-custody compliance with established lab protocols
- Centrifuge blood and aliquot serum/plasma into cryovials for transport, preserving specimen integrity through proper dry-ice storage and timely delivery
- Administer ECGs and measure vital signs for life insurance applicants
- Obtain informed consent for HIV testing and HIPAA-protected health information, ensuring full regulatory compliance
- Guide research participants through physical fitness assessments, memory tasks, and study protocols
- Exercise independent judgment to make protocol-based decisions in time-sensitive, rapidly changing field environments

Laboratory Intern, San Francisco City Clinic

- Completed an internship at a public health clinic specializing in STI testing and treatment
- Performed over 100 venipunctures and 75 capillary draws for rapid HIV and STI testing, working alongside registered nurses under quality assurance protocols
- Worked with diverse patient populations, including patients with substance use disorders and patients living with HIV, and assisted with difficult draws such as sclerosed veins

Volunteer, Walnut Creek Pediatric Outpatient Center, UCSF Benioff Children's Hospitals

- Observed clinical operations and patient treatment in a pediatric outpatient setting
- Built relationships with physical therapists and patients and contributed to patient rehabilitation

Community Service

Clinic Support / Spanish Interpreter, Clinic by the Bay. December 2025 – Present

- Intake uninsured patients in a low-income community, assisting with onboarding documentation and data entry
- Record vital signs and chief complaints and relay relevant medical history to providers in Spanish and English

Spanish Interpreter / Registrar, RotaCare Coastside Clinic. October 2025 – Present

- Register new and returning uninsured patients and record vital signs, chief complaints, and brief medical histories ahead of provider visits

Leadership

Vice President, then President, Exercise is Medicine (EIM) at San Francisco State University

- Helped revive the campus club, shaping its operations and strategy and organizing workshops and events for the SFSU community
- Hosted the Technology in Kinesiology & Health Research Symposium as President

Event Organizer, Kinesiology Student Association (KSA) Research Exposition

- Helped organize the department-wide event showcasing research from students at all levels

Honors

- Top student in section, KIN 483 Exercise Physiology Lab, San Francisco State University (grade of A)

Certifications and Training

- ACSM Certified Exercise Physiologist (EP-C)
- California Certified Phlebotomy Technician (CPT-I), License CPT-02350284
- American Heart Association CPR and Basic Life Support
- CITI Program: Human Social/Behavioral Research, Credential ID 59308150

Skills

Research: Clinical research design, human subjects research and IRB compliance, ECG/HRV/VO2 data collection, statistical analysis (SPSS), literature review, poster presentation, muscle fiber isolation, confocal microscopy

Clinical: Phlebotomy (venipuncture and capillary), specimen processing, vital signs, ECG administration, informed consent, patient intake

Technical: Microsoft Office, Google Workspace, database searching, data entry

Languages: English (fluent), Spanish (fluent)