Fabián Gutiérrez Aguilar, Universidad Nacional Autónoma de México, Mexico City, Mexico City, Mexico for their project: *Barium Isotopes as Tracers of Sediment Recycling in Mexican and Colombian Arc Magmas***.**

Fabián Gutiérrez-Aguilar, a Ph.D. candidate in Earth Sciences at UNAM advised by Dr. Arturo Gómez-Tuena, investigates element and volatile transport along subduction zones. Holding a B.S. in Geological Engineering and an M.S. in Earth Sciences from UNAM, he has taught igneous and metamorphic petrology since 2019. His research couples field geology, mineral chemistry, isotope geochemistry, and phase-equilibrium modeling to resolve key questions surrounding fluid-rock interaction, crustal melting, and intermediate-depth earthquakes across Mexico and Colombia.

Focused on decoding element recycling along convergent margins, Fabián's Lipman Research Award project, "*Barium Isotopes as Tracers of Sediment Recycling in Mexican and Colombian Arc Magmas*," investigates whether subducted sediments impart distinct Ba isotope compositions to volcanic rocks. The study capitalizes on a unique regional contrast, with terrigenous and hydrothermal sediment inputs in Mexico versus Ba-rich biogenic sediments subducting beneath Colombia. Coupling high-precision ^{135}Ba–^{137}Ba double-spike Thermal Ionization Mass Spectrometry measurements of high-Mg andesites and trench sediments with trace-element and radiogenic data, Fabián aims to clarify how slab-to-mantle transfer processes and sediment provenance shape arc magmatism.

Fabián aspires to build an academic career in petrology while developing non-traditional isotope tracers in Mexico. Through collaborative research, he aims to link rigorous analytical geochemistry with large-scale questions surrounding Earth-system element cycling, arc magmatism, and volcanic hazards.