DANIELA OSORIO RODRIGUEZ

SCIENCE MULTIMEDIA SPECIALIST

Bilingual (Spanish/English) science communicator and multimedia producer with a Ph.D. in Geobiology and over 3 years of experience producing scientific content across written, video, and graphic formats. Expertise in turning complex technical topics into compelling stories for non-expert audiences. Experienced managing production pipelines, collaborating with field scientists, and creating content for investors and the public.

CONTACT

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SKILLS

Professional

- Project Management
- Scientific Storytelling
- Video Production
- Technical Writing
- Graphic Design
- Public Speaking

Software

- Microsoft Suite
- Adobe Suite (Premiere Pro, Photoshop, Illustrator)
- Affinity Designer
- Canva
- Figma
- Procreate
- Caard
- Kit
- WordPress
- SquareSpace
- HTML
- Reason
- Quicktime
- iMovie
- Descript

Coding

- Python
- R
- Julia

Languages

- Spanish (native)
- English (fluent)
- French (proficient)

RELEVANT EXPERIENCE

Freelance science writing

Science newsletter creator and writer Jan 2026 - present

Creator and writer of "Ground Truth", a weekly LinkedIn newsletter at the intersection of science, sustainability, and technology. Writes and edits all content; manages design, production, and distribution.

Ghostwriter for sustainability companies 2025 - present

Developer of 5-day educational email courses for 3 sustainability companies. Projects encompass research, writing, landing page design and copywriting in Caard, and automation setup in Kit/SquareSpace. Email templates are created with HTML. Activities with clients are coordinated in Figma.

Geobites contributing writer 2022 - 2024

Writer of short articles for Geobites (a Wordpress platform), a geology blog for plain-language communication of scientific papers.

Video Creation

Science Communication on YouTube 2022 - 2023

Produced, recorded, edited, and added English subtitles (in Adobe Premiere Pro, QuickTime, and iMovie) to at least 10 videos in Spanish, communicating science and interviewing Latin academics. Designed thumbnails in Canva.

Graphics

Scientific figures and poster design 2020 - 2025

Designed scientific posters and data figures for 5 international conferences. Produced scientific illustrations and infographics for academic publications and outreach.

EDUCATION

Ph.D., Geobiology 2017 - 2023
California Institute of Technology

B.Sc. Geology (Honors) 2013 - 2017
National University of Colombia

M.Sc. Microbiology 2011-2013
Universidad de los Andes, Colombia

B.Sc. Microbiology 2005-2011
B.Sc. Biology 2005-2011
Universidad de los Andes, Colombia

SCIENTIFIC PUBLICATIONS

- **Osorio-Rodriguez, D.**, Metcalfe, K. S., Schubotz, F., Hinrichs, K.-U., Orphan, V. J. & Grotzinger, J. P. Relevance of early silica cementation for the preservation of anaerobic methanotrophic archaea and sulfate-reducing bacteria (ANME-SRB) consortia in methane-seep carbonates. *In review at* PALAIOS.

- **Osorio-Rodriguez, D.,** Hanson, T. E., LaRowe, D. E., Orphan, V. J., Sessions, A. L. & Adkins, J. F. Small sulfur isotope fractionations by environmentally relevant sulfur oxidizers under oligotrophic conditions. Geochimica et Cosmochimica Acta, 432: 329-342.

- **Osorio-Rodriguez, D.,** Pavia, F. J., Utter, D. R., Quinan, M., Landry, K., Gomes, M., Dalleska, N. D., Orphan, V. J., Berelson, W. M. & Adkins, J. F. (2025). Microbial cycling of sulfur and other redox-sensitive elements in porewaters of San Clemente Basin, California, and Cocos Ridge, Costa Rica. Geobiology, 23 (1), e70013.

- **Osorio-Rodriguez, D..***, Metcalfe, K. S.*, Yu, H., Dekas, A. E., Ellisman, M., Deerinck, T., Aristilde, L., Grotzinger, J. P. & Orphan, V. J. (2023). Microbially induced precipitation of silica by anaerobic methane-oxidizing consortia and implications for microbial fossil preservation. Proceedings of the National Academy of Sciences, 120(51), e2302156120. (*equal contribution).

- **Osorio-Rodriguez, D.,** Razo-Mejia, M., Dalleska, N. F., Sessions, A. L., Orphan, V. J., & Adkins, J. F. (2021). Sulfur isotope fractionations constrain the biological cycling of dimethylsulfoniopropionate in the upper ocean. Limnology and Oceanography, 66(10), 3607-3618.

- Scheller, E.L., Swindle, C., Grotzinger, J., Barnhart, H., Bhattacharjee, S., Ehlmann, B.L., Farley, K., Fischer, W.W., Greenberger, R., Ingalls, M. Martin, P.E., **Osorio-Rodriguez, D.**, & Smith B. P. (2021). Formation of Magnesium Carbonates on Earth and Implications for Mars. Journal of Geophysical Research: Planets, 126(7), e2021JE006828.

- Zárate-Chaves, C.A., **Osorio-Rodríguez, D.**, Mora, R.E., Pérez-Quintero, Á.L., Dereeper, A., Restrepo, S., López, C.E. & Bernal, A.J. (2021). TAL effector repertoires of strains of Xanthomonas phaseoli pv. manihotis in commercial cassava crops reveal high diversity at the country scale. Microorganisms, 9(2), 315.

- Cortés, A.J., López-Hernández, F., & **Osorio-Rodriguez, D.** (2020). Predicting thermal adaptation by looking into populations' genomic past. Frontiers in Genetics, 11, 564515.

- **Osorio-Rodriguez, D.**, & Sanchez-Quiñónez, C. A. (2018). Biological and geological characterization of modern biofilms and microbial mats and comparison with similar lithified structures in Colombian Cretaceous formations. Earth Sciences Research Journal, 22(3), 159-168.

- Arrieta-Ortiz, M. L., Rodríguez-R, L. M., Perez-Quintero, A. L., Poulin, L., Díaz, A. C., Arias Rojas, N., (others, including **Osorio, D.**) & Bernal, A. J. (2013). Genomic survey of pathogenicity determinants and VNTR markers in the cassava bacterial pathogen Xanthomonas axonopodis pv. manihotis strain CIO151. PloS one, 8(11), e79704.

- Castiblanco, L. F., Gil, J., Rojas, A., **Osorio, D.**, Gutiérrez, S., Muñoz-Bodnar, A., Perez, A., Koebnik, R., Szurek, B., Lopez, C., Restrepo, S., Verdier, V. & Bernal, A.J. (2013). TALE 1 from Xanthomonas axonopodis pv. manihotis acts as a transcriptional activator in plant cells and is important for pathogenicity in cassava plants. Molecular plant pathology, 14(1), 84-95.