Publication strategy for a sample return mission: Takeaways from OSIRIS-REx

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Space missions bring together researchers from various specialties, perspectives, and institutions. This diversity of expertise is a scientific asset but can make it challenging to maintain consistency and narrative coherence among mission publications. Our presentation will describe how the OSIRIS-REx mission to Bennu [1] addressed this challenge by establishing an editorial office, a publication plan, a manuscript preparation guide, and an internal review process. This strategy was particularly useful for coordinating special issues in high-impact journals; preventing unaddressed contradictions and duplications from entering the scholarly record; validating that the mission's science requirements were met; cultivating collaboration withing the team; and, during the sample analysis phase of the mission [2,3], relating laboratory results to spacecraft observations. Future missions, such as MMX and OSIRIS-APEX (extended from OSIRIS-REx [4]), can benefit from implementing and refining aspects of our strategy in advance of the spacecraft encounter.

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References

[1] Lauretta D.S. et al. 2023. Bennu 3-D: Anatomy of an Asteroid. London Stereoscopic Company/University of Arizona Press. [2] Lauretta D.S. et al. 2023. OSIRIS-REx Sample Analysis Plan - Revision 3.0. arXiv [astro-ph.EP] 2308.11794. [3] Lauretta D.S. & Connolly H.C. Jr. et al. 2024. Asteroid (101955) Bennu in the Laboratory: Properties of the Sample Collected by OSIRIS-REx. Meteoritics & Planetary Science 59:2453-2486. [4] DellaGiustina D.N. et al. 2023. OSIRIS-APEX: An OSIRIS-REx Extended Mission to Asteroid Apophis. Planetary Science Journal 4:198.