



# Institute of Primate Research

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## STANDARD OPERATING PROCEDURE (SOP) DOCUMENT

### Database and workflow management

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**Approvals**

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## 1. PURPOSE

To establish procedures for managing research databases and workflows in DS&AS, ensuring interoperability, quality, and compliance.

## 2. SCOPE

Covers all DS&AS-managed research databases, workflows, and metadata systems.

## 3. PERSONS RESPONSIBLE:

- **Data Engineer:** Designs and maintains databases/workflows.
- **Biostatistician/Data Scientist:** Validates data pipelines.
- **Head of DS&AS:** Ensures standardization and compliance.

## 4. FREQUENCY

- Database/workflow audits conducted **semi-annually**.
- Updates made with each major research project.

## 5. MATERIALS

- Database platforms (PostgreSQL, MySQL, Neo4j).
- Workflow management tools (Airflow, Next flow, R scripts).
- Metadata and schema standards (FAIR, HL7 FHIR, CDISC).

## 6. PROCEDURE

1. **Design:** DS&AS defines schema and metadata standards.
2. **Implementation:** Data Engineer configures database with access controls.
3. **Validation:** Biostatistician tests pipelines for accuracy and reproducibility.
4. **Audit:** Semi-annual checks for data quality, interoperability, and compliance.
5. **Documentation:** All workflows documented and stored in DS&AS repository.

## **7. REFERENCES**