



Institute of Primate Research

STANDARD OPERATING PROCEDURE (SOP) DOCUMENT

Genome and Proteome Data Management

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Approvals

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1. PURPOSE

To provide standard procedures for secure, compliant, and reproducible management of genomic and proteomic datasets generated or curated by DS&AS.

2. SCOPE

Applies to all genome and proteome data collected, processed, or stored under DS&AS, including raw sequence reads, processed alignments, annotations, and proteomic mass-spectrometry data.

3. PERSONS RESPONSIBLE:

- **Bioinformatician:** Oversees data handling and quality control.
- **Data Engineer:** Maintains secure databases and repositories.
- **Head of DS&AS:** Ensures compliance with institutional and regulatory standards.

4. FREQUENCY

- Continuous during project lifecycle.
- Annual data audits to ensure compliance.

5. MATERIALS

- Secure servers/cloud storage with encryption.
- Reference databases (GenBank, UniProt, Ensembl).
- Metadata templates (MIAME/MIAPE standards).
- Institutional Data Protection and Sharing Policy.

6. PROCEDURE

1. **Data Collection:** Store raw data in secure servers immediately after sequencing/analysis.
2. **Metadata Capture:** Document experimental details using MIAME/MIAPE standards.
3. **Quality Control:** Run sequence/proteome QC (FastQC, ProteoQC).
4. **Access Control:** Restrict access to sensitive datasets via role-based permissions.
5. **Archiving:** Maintain backups and mirror copies in long-term storage.
6. **Compliance:** Ensure anonymisation of sensitive human-derived data before sharing.

7. REFERENCES