

EXPERIMENTAL

PLANNING and DEVELOPING RESEARCH

Preregister experimental protocols, hypotheses, or statistical analysis plans to support transparency and **reduce undisclosed flexibility**.

Document planned materials, reagents, instrumentation, software environments, and calibration **procedures** to enable **reproducibility**.

Identify which **experimental materials, protocols, or datasets** may be suitable for later sharing via recognised protocol or data repositories.

Maintain detailed and contemporaneous records of **experimental procedures, protocol deviations, environmental conditions, and instrument settings**.

CONDUCTING RESEARCH and ACQUIRING DATA

Laboratory notebooks (including electronic): ensure entries are structured, timestamped, and sufficiently detailed to **support traceability**.

If experiments are iterative or multi-phase, record how design adjustments influence subsequent runs or data collection.

For sensitive or hazardous data, ensure that appropriate storage and access controls are in place.

ANALYSING and SHARING DATA

Document **analytical pipelines, statistical models, preprocessing steps, and parameter choices** to support reproducibility.

Share **analysis scripts, calibration datasets, and computational workflows** that allow verification of findings.

Prepare **replication materials** that enable others to **reproduce experimental analyses** using shared data, protocols, and documented assumptions.

Distinguish clearly between raw data, processed outputs, and derived analytical results to support interpretability.

Include **clear data, materials, and protocol availability statements** within publications.

Where replication materials are available, **clearly signal** how these may be accessed or reused.

DISSEMINATING and PUBLISHING RESEARCH

Report **null, negative, or non-confirmatory** findings transparently to **contribute to cumulative scientific knowledge** and reduce publication bias.

Where intellectual property, biosafety, or dual-use considerations apply, coordinate **dissemination decisions with relevant institutional teams**.

