Quick Start — Experimenter (v4.0)

BlindKit v4.0 — Quick Start (Experimenter, **blinded**)

*You operate **only** inside the EXPERIMENTER root. You should not have the blinder repo on your laptop.*

Environment (choose one)

Conda (recommended)
```
conda env create -f environment.yml
conda activate blindkit
```

Or: venv + pip
```
python -m venv venv && source venv/bin/activate
pip install -r requirements.txt
```

Initialize your repo (on your laptop)

Create only the experimenter tree:
```
python blindkit_v4_0.py init-dual \
   --study-id STUDY_X \
   --experimenter-root ./study_X_experimenter \
   --only experimenter
```

Layout
- `study_X_experimenter/`
- `media/photos///...` — optional photos taken before injection
- `receipts/*.json` — append-only injection receipts
- `configs/anatomy_blinded_manifest.json` — blinded anatomy manifest
- `provenance/*.json` — edit lineage (optional)
- `audit/actions.jsonl` + `audit/actions.log` — your audit trail

Day■to■day injections

Receive a syringe/aliquot with a blinded label (and QR). Photograph it, then log a receipt.

Behavior (4 sessions per animal)

```
python blindkit_v4_0.py inject-scan \
   --experimenter-root ./study_X_experimenter \
   --animal-id RAT001 \
   --stage BEHAVIOR \
   --session 1 \
   --photo /path/to/RAT001_beh_s1.jpg
```

Physiology (single terminal)

```
python blindkit_v4_0.py inject-scan \
   --experimenter-root ./study_X_experimenter \
   --animal-id RAT001 \
   --stage PHYSIOLOGY \
   --photo /path/to/RAT001_phys.jpg
```

Viral aliquot (single per animal)

```
python blindkit_v4_0.py inject-scan \
  --experimenter-root ./study_X_experimenter \
  --animal-id RAT001 \
  --stage VIRAL \
  --photo /path/to/RAT001_viral.jpg
```

Tip: if your label includes a QR, you can copy its JSON payload and pass it via `--qr-payload '...json...'` to avoid manual entry.

Anatomy (blinded analysis)

Verify the blinded set before analysis:

```
python blindkit_v4_0.py verify-anatomy-blinded \
  --experimenter-root ./study_X_experimenter
```

Provenance for legitimate edits (optional)

```
python blindkit_v4_0.py record-derivative \
  --experimenter-root ./study_X_experimenter \
  --parent /path/to/anatomy_blinded/ANA-XXXXXX/IDX_003-007.tif \
  --child  /path/to/anatomy_working/ANA-XXXXXX/IDX_003-007_adj.tif \
  --note "contrast +12%"
```

Post■hoc verification (after unblinding package is handed over)

```
python blindkit_v4_0.py verify-posthoc \
  --bundle ./study_X_unblinding_bundle.zip \
  --experimenter-root ./study_X_experimenter
```

Audit log queries

```
# Last 20 actions you performed
python blindkit_v4_0.py audit-show --root ./study_X_experimenter --tail 20

# Only injection receipts for RAT001
python blindkit_v4_0.py audit-show --root ./study_X_experimenter --action inject-scan --animal RAT001

# Entries mentioning PHYSIOLOGY
python blindkit_v4_0.py audit-show --root ./study_X_experimenter --grep PHYSIOLOGY
```

Good practice

• Keep this repo under version control (separate from the blinder repo).
• Do not create/modify any `labels/` files — those live in the blinder repo only.
• If a verify step fails, stop and contact the blinder for reconciliation.