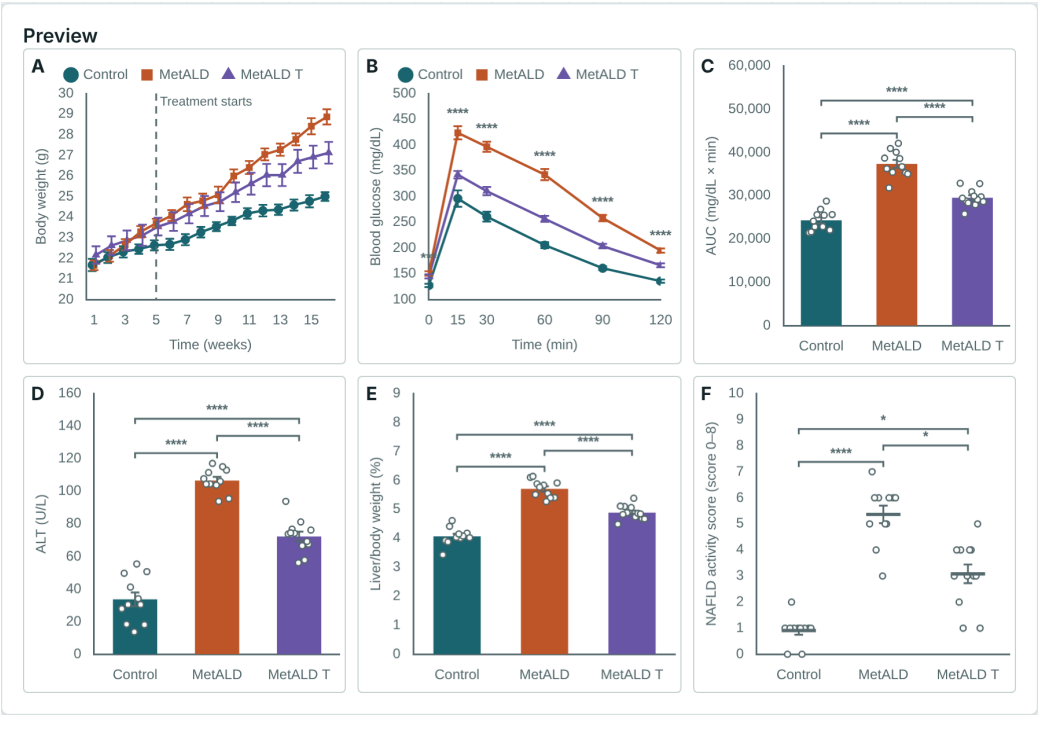
PreclinIQ
Study Tracker

SOFTWARE FOR PRECLINICAL AND CLINICAL RESEARCH

Your whole study. *One file.*

Record animals and participants, analyse every assay, and export journal-ready figures and reports, all in one desktop program that keeps your data on your own computer.



Animal studies · Clinical studies · ELISA · qPCR · Western blot · Statistics · Publication figures · Behaviour tests · Android phone app

Version 1.14 · Windows and Mac · Works offline

Study Tracker & Graph Studio

Less copying. Fewer errors. *More time for science.*

A typical study lives in a paper register, several spreadsheets, a statistics package and a graphing program, and every copy between them risks an error. PreclinIQ keeps records, analysis and finished figures together in one study file.

THE USUAL WAY

- Weights written on paper, then typed into Excel
- Graphs redrawn for every revision
- Unsure which statistical test is right
- Methods and legends written from scratch

WITH PRECLINIQ

- Enter data once; graphs update as you type
- Figures restyled for any journal in seconds
- A built-in guide to the right test
- Draft legends, results and methods text

Three jobs, one program

1 · Record

Groups, cages, animals, weigh-ins, food and fluid, dosing and behaviour tests, by day or by week, at the desk or on an Android phone in the animal house; or participants, visits and lab panels for a clinical study.

2 · Analyse

ANOVA, non-parametric tests, survival, regression, ROC, ELISA curve fitting, qPCR ΔΔCt, Western densitometry and behaviour tests against baseline.

3 · Report

Multi-panel figures, legends, methods drafts, ARRIVE and CONSORT material, and exports to PDF, Excel, Word and PowerPoint.

22
worked examples with sample data

7
ELISA standard-curve models

5
export formats: PDF, Excel, Word, PowerPoint, PNG

0
uploads: your data stays on your computer

Who it is for

PhD students and postdocs running animal studies (mice, rats or other species); lab managers keeping animal records in order; principal investigators who want consistent, checkable analysis across the group; and clinician-researchers running small, investigator-led studies with pseudonymised data.

Run the whole animal study *from one screen.*

For mice, rats or any other species. Set up groups and cages once; every weigh-in, food check and dose is then recorded in the same file and summarised automatically, by week or by day.

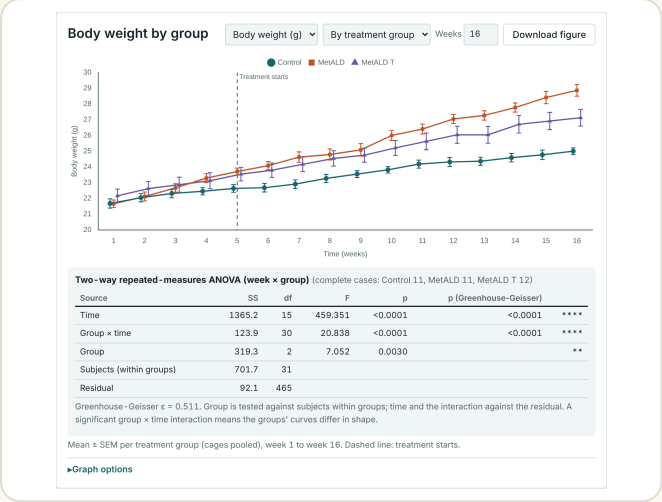


Figure 3.1 Body weight by treatment group (mean ± SEM) with a two-way repeated-measures ANOVA, updated as each weigh-in is typed.

WHAT YOU GAIN

- **Quick weigh-in entry**: one animal at a time or a whole cage, with Enter moving down like Excel. Doses from pg/kg to g/kg, by any route.
- **Typing checks**: a weight 15% or more above the last weigh-in is flagged as you type.
- **Food and fluid intake** per animal per day, from cage measurements, with any compound in the drinking water (ethanol optional).
- **Correct statistics**: repeated measures with Greenhouse-Geisser correction, not a row of separate t-tests.

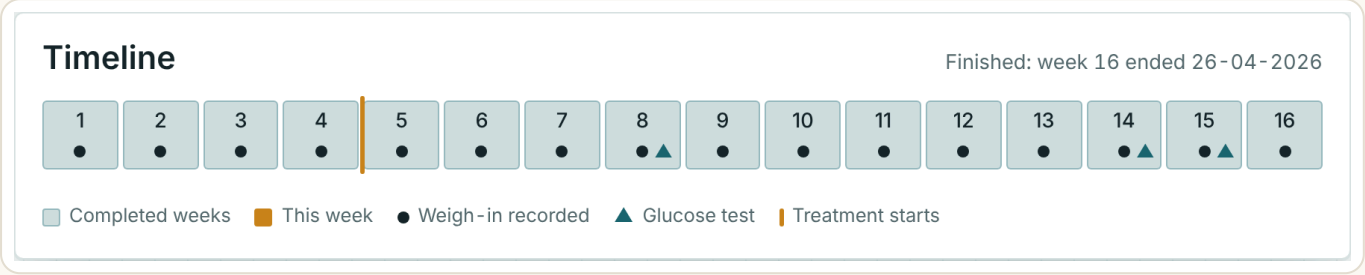


Figure 3.2 The study timeline: completed weeks, weigh-ins, glucose tests and the start of treatment at a glance.

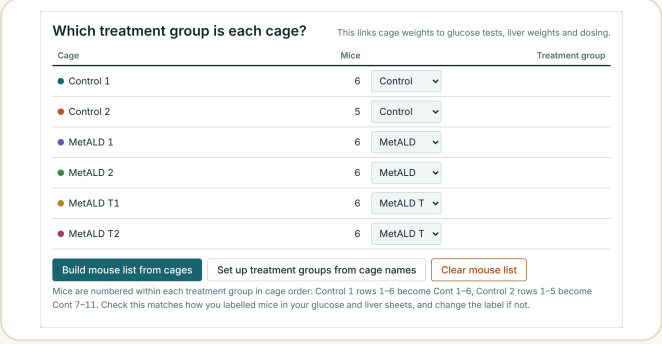


Figure 3.3 Cages are linked to treatment groups, so cage weights, glucose tests and organ weights land in the right group.

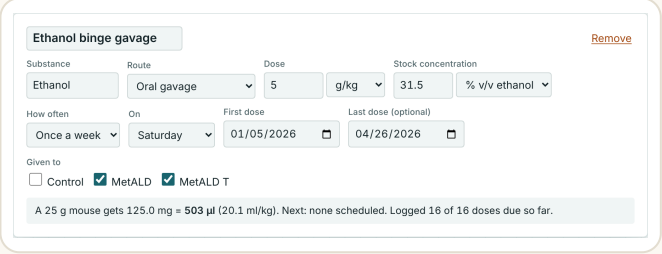


Figure 3.4 Dosing schedules work out the dose and volume for a 25 g mouse and count the doses logged so far. A printable dosing sheet lists what is due each day.

Every assay gets its own graph *and the right test.*

Glucose, insulin and other time-course tests, organ weights, serum biochemistry, histology, qPCR and behaviour tests (Y-maze, plus maze, beam walk and more) sit next to the study they belong to and are analysed the moment the numbers go in. Switch off the sections you don't use.

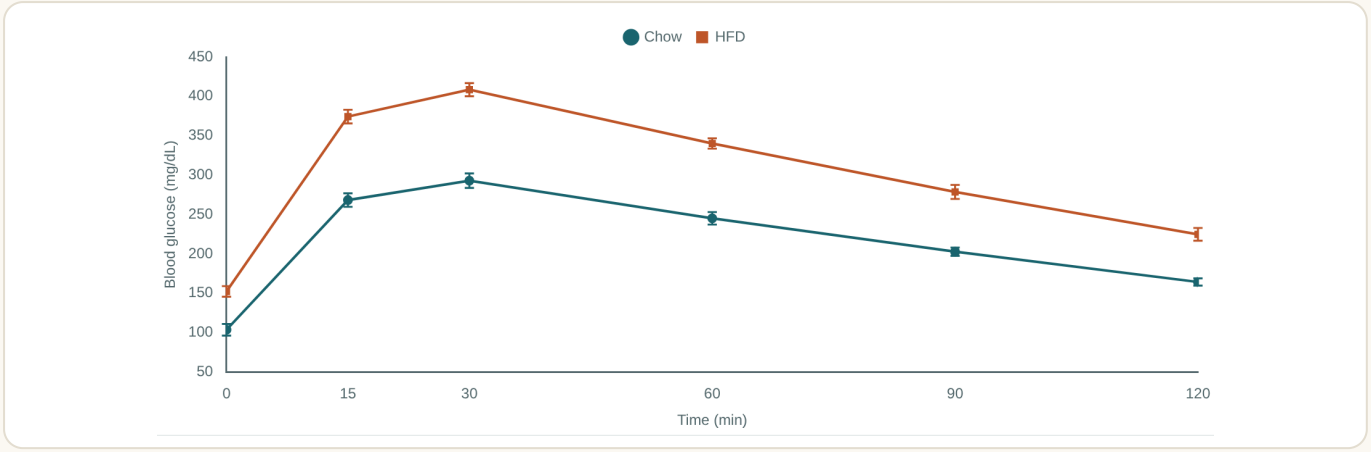


Figure 4.1 Glucose tolerance test: blood glucose over 120 minutes for each group, with area under the curve (AUC) and a repeated-measures ANOVA (group × time).

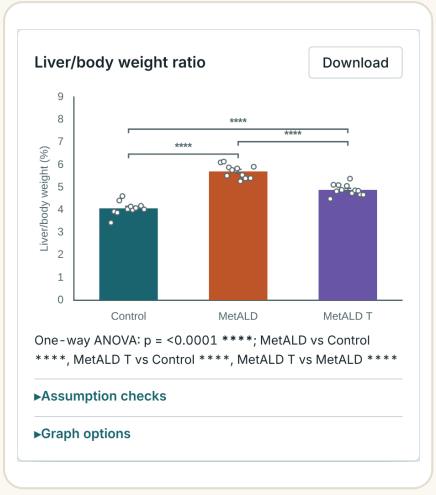


Figure 4.2 Organ weights and ratios at sacrifice, each animal shown as a point, with one-way ANOVA and multiple comparisons.

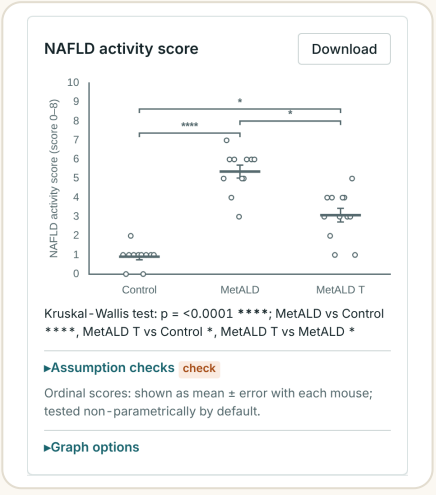


Figure 4.3 Histology scores are ordinal, so they are tested with Kruskal-Wallis and Dunn's test by default.

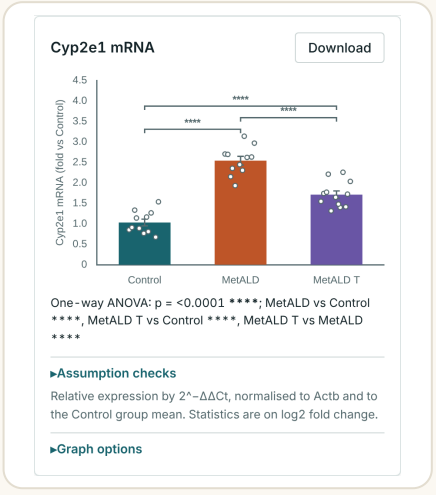


Figure 4.4 RT-qPCR by the ΔΔCt method. Technical replicates more than 0.5 Ct apart are highlighted.

Paste from Excel

Copy a block of results from an analyser export or spreadsheet straight into the table.

Assumptions checked

Normality and equal-variance checks sit under each graph, with a note when another test fits better.

Calculated for you

Organ/body-weight ratios (% or mg/g), HOMA-IR, QUICKI, fold changes, and behaviour change from baseline.

From plate reader to concentrations, *with the curve fitted properly.*

Paste the absorbance grid, choose a layout, and PreclinIQ subtracts the blank, fits the standard curve, interpolates every sample and converts the units, for sandwich and competitive assays alike.

Advice for your standards

- Suggested model: **4-parameter logistic (4PL)**, because your standards cover 2.1 log units and the curve is S-shaped.
- Suggested weighting: **1/Y²**, because replicate scatter is 43.4× larger at high OD than at low OD.

✓ You are using the suggested settings.

Always check the recovery of each standard and follow the kit insert if it names a model.

Figure 5.1 "Advice for your standards" suggests a curve model and weighting from your own standards and explains why. One click applies the suggestion.

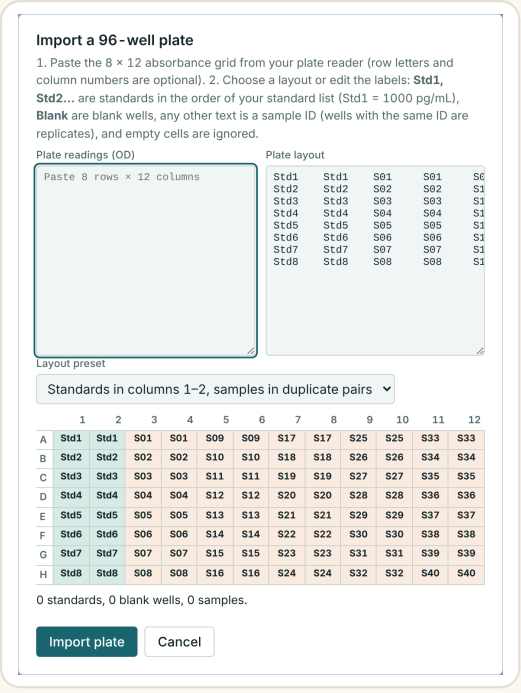


Figure 5.2 Import a 96-well plate: paste the 8 × 12 grid and pick a layout preset; standards, blanks and samples (in duplicate) are placed for you.

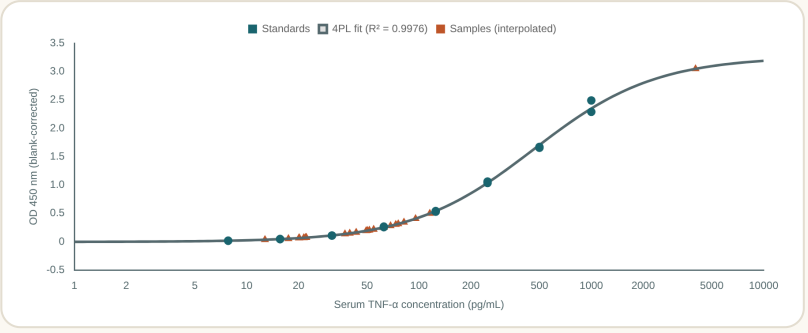


Figure 5.3 Sandwich ELISA (TNF-α): 4PL fit with 1/Y² weighting; interpolated samples shown on the curve.

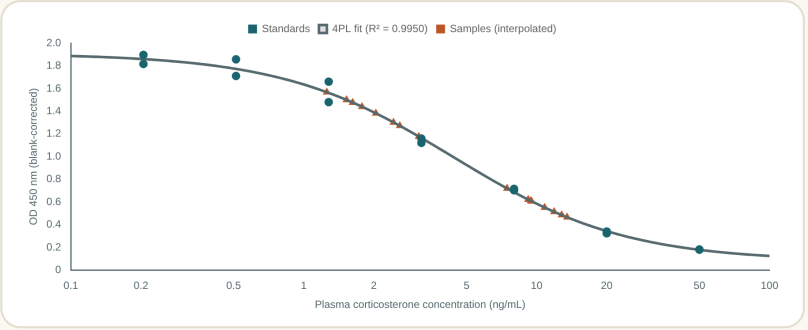


Figure 5.4 Competitive ELISA (corticosterone): signal falls as concentration rises, handled automatically.

Seven curve models, one consistent workflow

4-parameter logistic · 5-parameter logistic · Linear · Log-log · Logarithmic · Exponential · Quadratic

Plus optional 1/Y² weighting, replicate CV and standard-recovery checks, limit of detection, dilution factors, and unit conversion such as pg/mL to pM.

Beyond bar charts, *with statistics you can check.*

Graph Studio is a free-form workspace for any data, inside or outside the study. Paste a table, choose a graph type, and the matching test runs underneath. 22 worked examples with sample data show each one.

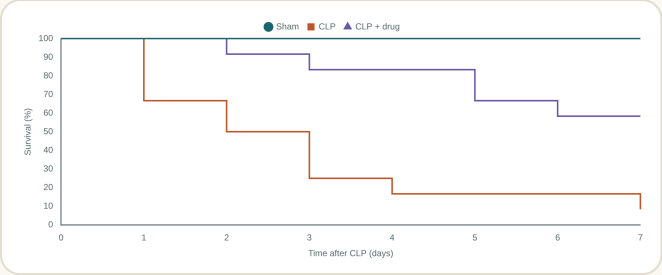


Figure 6.1 Kaplan-Meier survival with log-rank test and Cox hazard ratios.

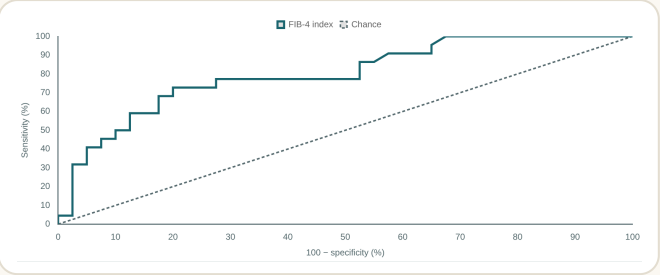


Figure 6.2 ROC curve with area under the curve, 95% CI and the best cut-off (Youden index).

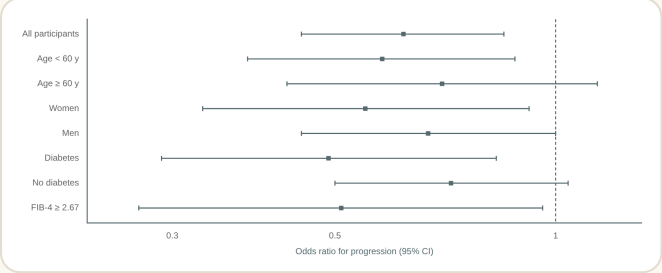


Figure 6.3 Forest plot of subgroup odds ratios with 95% confidence intervals.

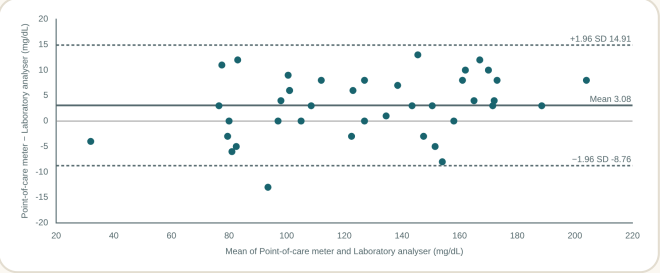
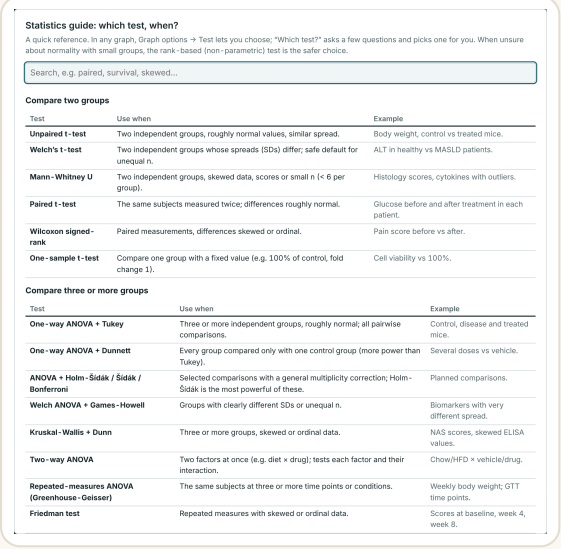


Figure 6.4 Bland-Altman agreement between two methods: bias and limits of agreement.



Statistics guide: which test, when?

A quick reference. In any graph, Graph options → Test lets you choose; "Which test?" asks a few questions and picks one for you. When unsure about normality with small groups, the rank-based (non-parametric) test is the safer choice.

Search, e.g. paired, survival, skewed...

Compare two groups

Test	Use when	Example
Unpaired t-test	Two independent groups, roughly normal values, similar spread.	Body weight, control vs treated mice.
Welch's t-test	Two independent groups whose spreads (SDs) differ; safe default for unequal n.	ALT in healthy vs MASLD patients.
Mann-Whitney U	Two independent groups, skewed data, scores or small n (< 6 per group).	Histology scores, cytokines with outliers.
Paired t-test	The same subjects measured twice; differences roughly normal.	Glucose before and after treatment in each patient.
Wilcoxon signed-rank	Paired measurements, differences skewed or ordinal.	Pain score before vs after.
One-sample t-test	Compare one group with a fixed value (e.g. 100% of control, fold change 1).	Cell viability vs 100%.

Compare three or more groups

Test	Use when	Example
One-way ANOVA + Tukey	Three or more independent groups, roughly normal; all pairwise comparisons.	Control, disease and treated mice.
One-way ANOVA + Dunnett	Every group compared only with one control group (more power than Tukey).	Several doses vs vehicle.
ANOVA + Holm-Šídák / Šídák / Bonferroni	Selected comparisons with a general multiplicity correction; Holm-Šídák is the most powerful of these.	Planned comparisons.
Welch ANOVA + Games-Howell	Groups with clearly different SDs or unequal n.	Biomarkers with very different spread.
Kruskal-Wallis + Dunn	Three or more groups, skewed or ordinal data.	NAS scores, skewed ELISA values.
Two-way ANOVA	Two factors at once (e.g. diet × drug); tests each factor and their interaction.	Chow/HFD × vehicle/drug.
Repeated-measures ANOVA (Greenhouse-Geisser)	The same subjects at three or more time points or conditions.	Weekly body weight; GTT time points.
Friedman test	Repeated measures with skewed or ordinal data.	Scores at baseline, week 4, week 8.

Figure 6.5 The built-in Statistics guide explains when to use each test, with a lab example. "Which test?" asks a few questions and picks one.

TESTS INCLUDED

- **Two groups**: unpaired, Welch and paired t-tests; Mann-Whitney; Wilcoxon; one-sample tests
- **Three or more groups**: one-way and Welch ANOVA, Kruskal-Wallis, with your choice of Tukey, Dunnett, Šídák, Holm-Šídák, Bonferroni, Fisher's LSD, Games-Howell or Dunn
- **Two factors and time**: two-way and repeated-measures ANOVA (Greenhouse-Geisser) with the same choice of post-hoc test; Friedman; AUC
- **On the graph**: 3- or 4-level stars, exact p values, or both, to match the journal
- **Categories**: chi-square, Fisher's exact, odds and risk ratios, Cohen's kappa
- **Models**: linear and logistic regression, ROC, survival, Bland-Altman

Results were cross-checked against established scientific software: **SciPy, statsmodels, pingouin and lifelines**.

From results to manuscript, *without starting from a blank page.*

Every graph can be styled for a journal, combined into a multi-panel figure, and described in a draft legend, results sentence and methods section that you check and edit.

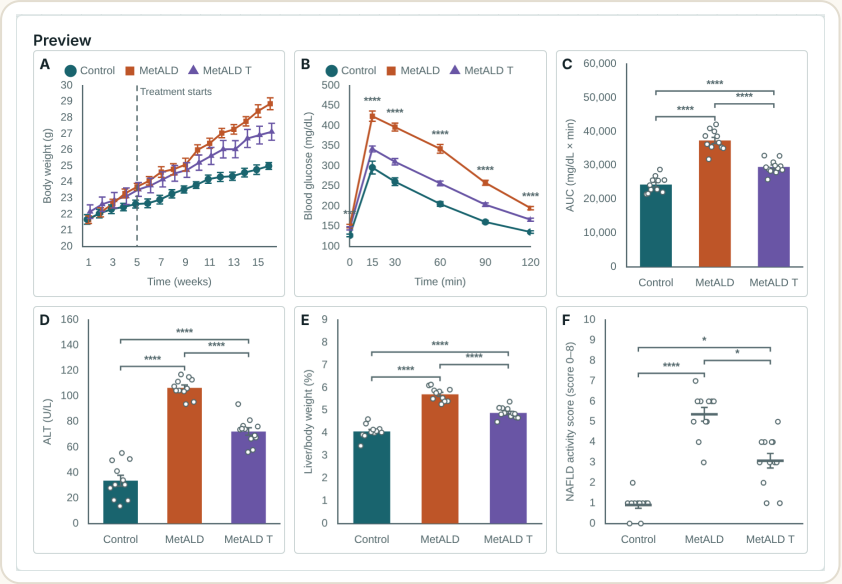


Figure 7.1 The Figure builder arranges graphs into panels A–F at the journal's exact width and resolution (for example 190 mm at 500 dpi), with panel letters added automatically.

WHAT YOU GAIN

- One graph style (fonts, sizes, colours, error bars) applied to every figure
- Significance brackets and stars placed for you
- Download as PDF or PNG, or send to Word and PowerPoint
- Restyle for a new journal in seconds when a paper is resubmitted

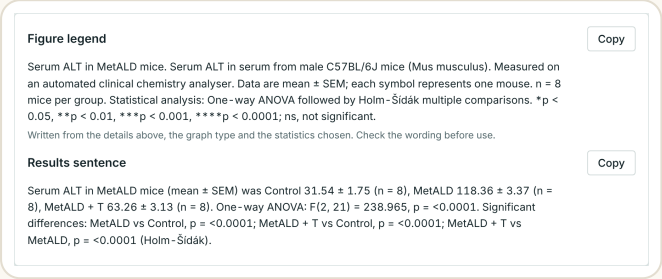


Figure 7.2 A draft figure legend and results sentence with means, n, the test used and exact p-values, ready to copy.

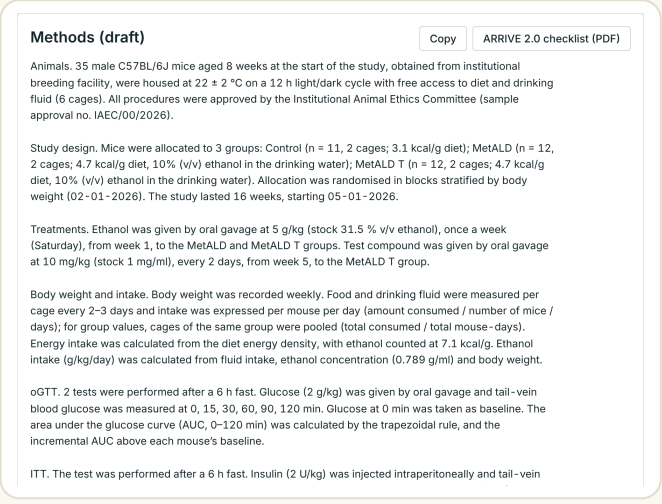


Figure 7.3 A methods draft written from your study details, plus a pre-filled ARRIVE 2.0 checklist (PDF) to review before submission.

Drafts are written from the data, the graph type and the statistics you chose. Always read and adjust the wording before you submit.

Investigator-led human studies, *organised from day one.*

Register the study and its arms, enrol participants with pseudonymised codes, randomise them, record visits and adverse events, and produce the reporting material journals ask for.

For academic research with pseudonymised data. Use participant codes (P-001…), never names or contact details. The clinical module is not validated for regulatory submissions (GCP, 21 CFR Part 11).

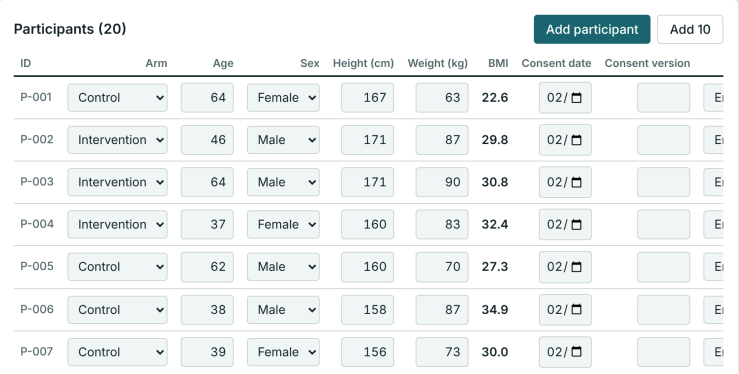


Figure 8.1 The participant list: arm, age, sex, height and weight with BMI calculated, consent date and status. Add one participant or ten at a time.

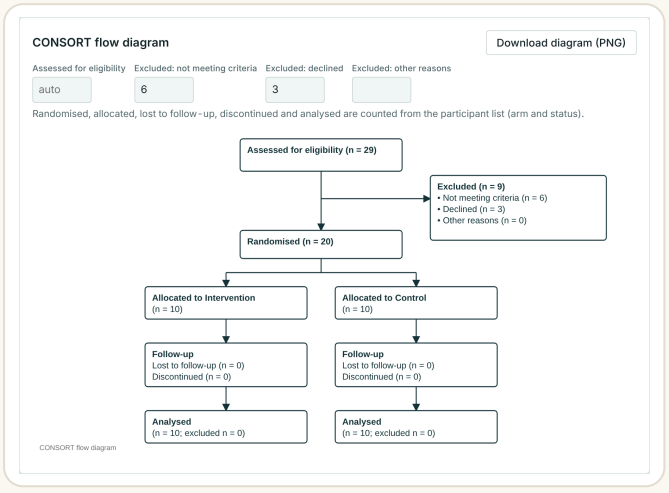


Figure 8.2 The CONSORT flow diagram is counted from the participant list and downloads as an image. CONSORT 2010 and STROBE checklists are included.

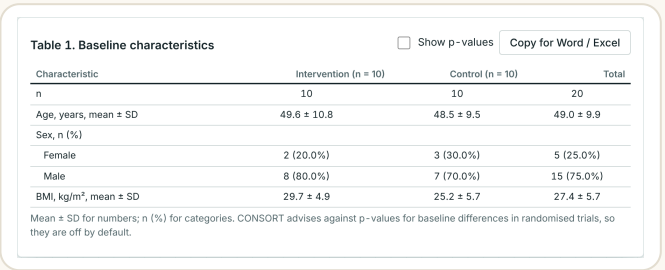


Figure 8.3 Table 1 of baseline characteristics by arm, ready to copy into Word or Excel.

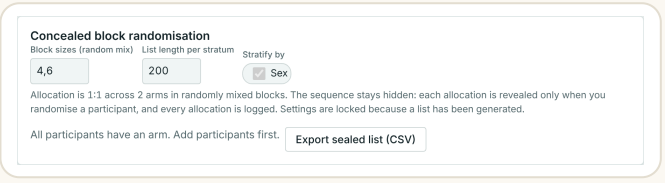
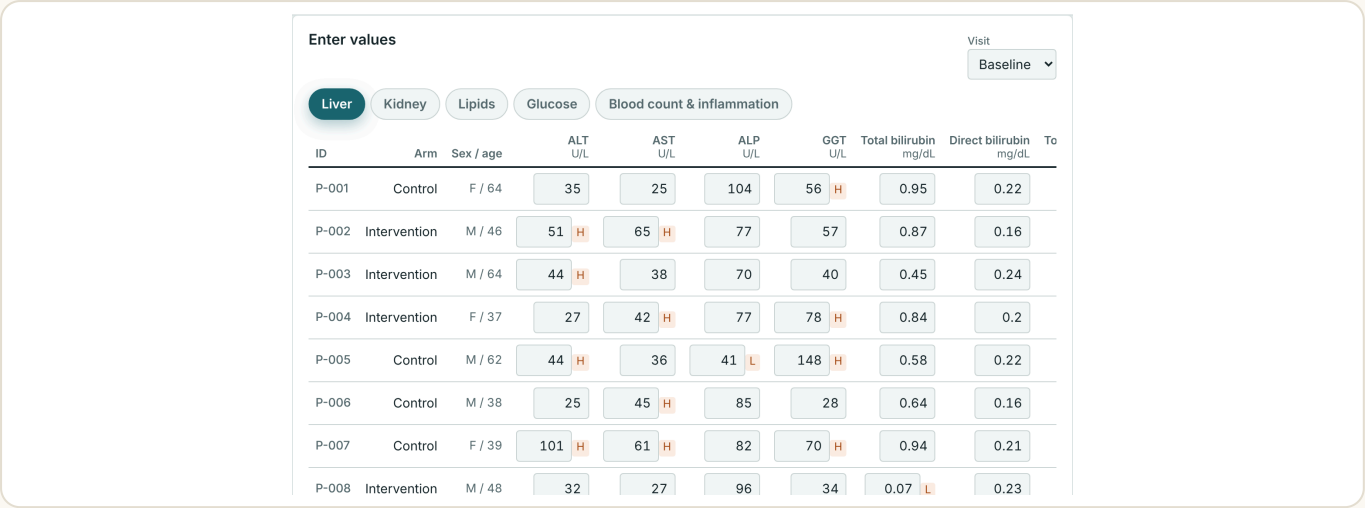


Figure 8.4 Concealed block randomisation, stratified if needed, with an allocation log.

Audit trail. Every change to clinical data is logged with the old and new value, who made it, when, and the reason given. Entries cannot be edited, and the log is included in the Excel export.

Biochemistry and glucose tests *for human samples.*

Enter results by visit; out-of-range values are flagged, derived values are calculated with published formulas, and each panel sends its data to Graph Studio for any further analysis.



ID	Arm	Sex / age	ALT U/L	AST U/L	ALP U/L	GGT U/L	Total bilirubin mg/dL	Direct bilirubin mg/dL	To
P-001	Control	F / 64	35	25	104	56 H	0.95	0.22	
P-002	Intervention	M / 46	51 H	65 H	77	57	0.87	0.16	
P-003	Intervention	M / 64	44 H	38	70	40	0.45	0.24	
P-004	Intervention	F / 37	27	42 H	77	78 H	0.84	0.2	
P-005	Control	M / 62	44 H	36	41 L	148 H	0.58	0.22	
P-006	Control	M / 38	25	45 H	85	28	0.64	0.16	
P-007	Control	F / 39	101 H	61 H	82	70 H	0.94	0.21	
P-008	Intervention	M / 48	32	27	96	34	0.07 L	0.23	

Figure 9.1 The biochemistry panel by visit, with liver, kidney, lipid, glucose and blood-count tabs. Values above or below the normal range are marked H or L.

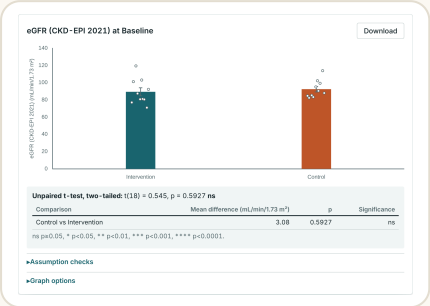


Figure 9.2 eGFR (CKD-EPI 2021) by arm, with KDIGO stages G1–G5.

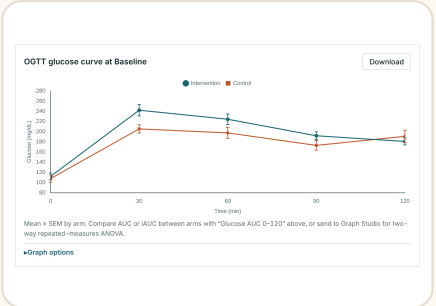


Figure 9.3 Oral glucose tolerance: glucose over 0–120 min by arm (mean ± SEM).

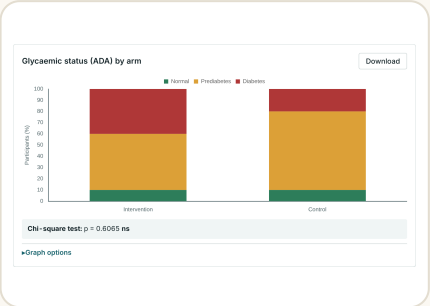


Figure 9.4 Glycaemic status (ADA) by arm, compared with a chi-square test.

Kidney: eGFR by CKD-EPI 2021, KDIGO staging

Insulin resistance: HOMA-IR, Matsuda index

Classification: WHO / ADA, or IADPSG in pregnancy

Lipids: LDL by the Friedewald equation

OGTT: AUC, incremental AUC, insulinogenic index

Units: mg/dL ↔ mmol/L and other conversions

Liver (MASLD) and sepsis panels are also included. For academic research with pseudonymised data; not validated for regulatory submissions.

Mouse tissue or patient serum: *the same tools, the right wording.*

ELISA, biochemistry, qPCR and Western blot tables in Graph Studio work for human samples too. Set Species to Human and the legends, gene symbols and checks adjust.

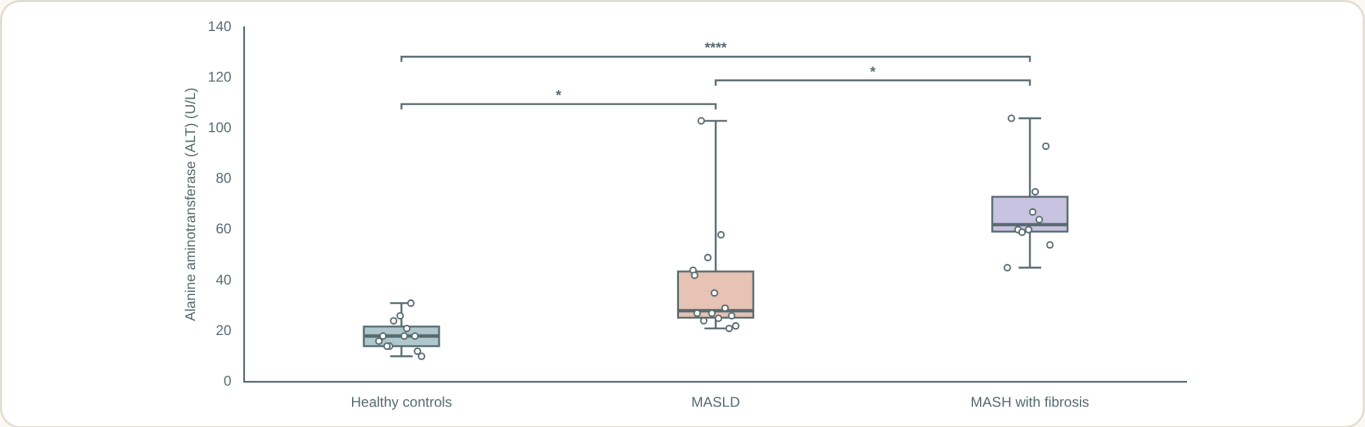


Figure 10.1 Human serum ALT in healthy controls, MASLD and MASH with fibrosis: box plots with each participant shown, Kruskal-Wallis and Dunn's test.

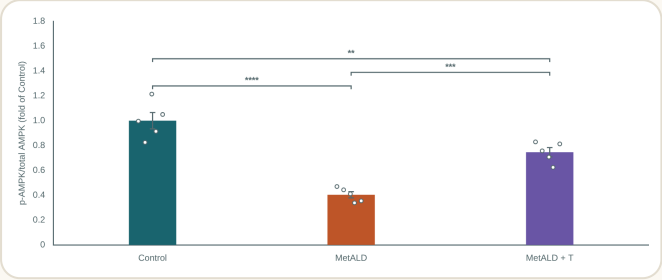


Figure 10.2 Western blot densitometry: target over loading control, normalised to the control group.

WITH SPECIES = HUMAN

- "Participants" instead of "animals" in legends
- Human gene symbols (GAPDH, ACTB)
- An ethics and consent line in the legend
- A warning if a sample ID looks like a person's name

Everyday lab calculators

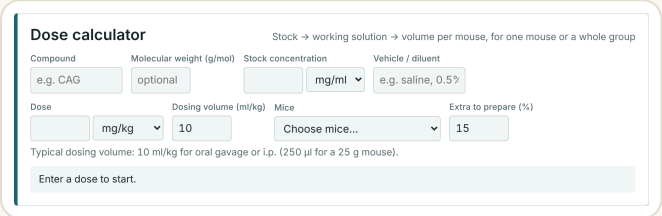


Figure 10.3 Dose calculator: from stock to working solution to volume per mouse, for one mouse or a whole group.

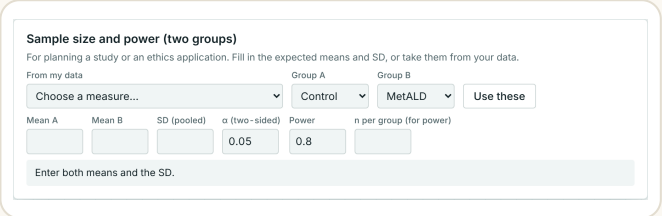


Figure 10.4 Sample size and power for two groups, using your own pilot data, for ethics applications.

Also included: unit conversion between mass and molar concentrations, C1V1 = C2V2 dilutions, and making a stock from powder.

Share results your way.
Keep the data on your computer.

Reports go out in the formats supervisors, collaborators and journals expect, while the study itself never leaves your machine unless you send it.

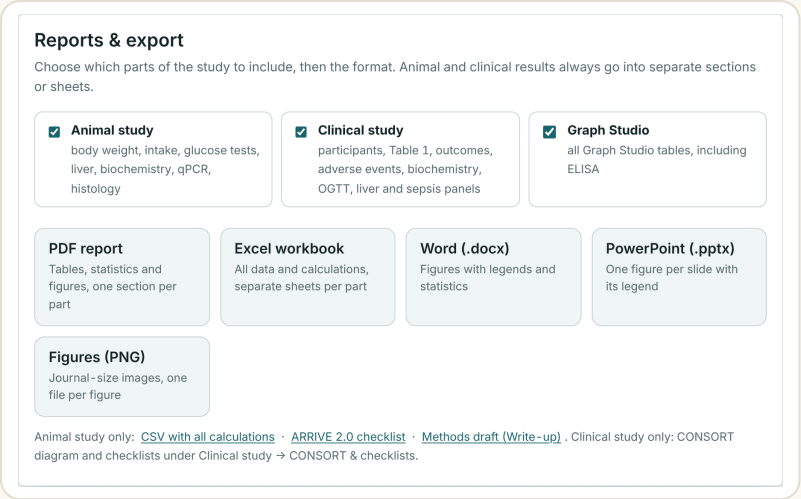


Figure 11.1 Reports & export: choose the animal study, the clinical study and/or Graph Studio, then the format. Each part gets its own sections or sheets, so results are never mixed.

FORMATS

- **PDF report**: tables, statistics and figures
- **Excel**: all data and calculations
- **Word**: figures with legends and statistics
- **PowerPoint**: one figure per slide
- **PNG**: journal-size images
- **CSV**, ARRIVE 2.0 and CONSORT material

Your data stays yours

- Works fully offline; no cloud, no account
- One study file in a folder you choose, plus daily backups
- Optional password protection for the study file
- No usage tracking or data collection

Built to be checked

- Statistics cross-checked against SciPy, statsmodels, pingouin and lifelines
- Clinical formulas checked against their published equations
- Every calculation visible in the Excel export

System requirements

Computer	Windows 10 or 11 (64-bit), or macOS 12 or later (Apple silicon or Intel)
Phone app	Android 8 or later, in Chrome
Disk space	About 400 MB
Memory	4 GB RAM or more recommended
Installation	For your user account, no administrator rights needed

Record at the cage side. *Analyse at your desk.*

PreclinIQ Mobile is a companion app for entering data in the animal house. It works with no signal, keeps entries on the phone, and sends them to the program when you are back at a computer. It is included with the PreclinIQ licence.

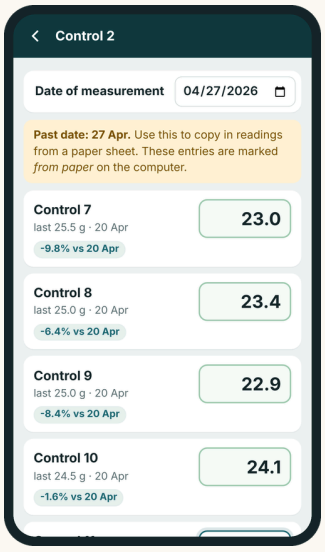


Figure 12.1 Weigh cage by cage, with the last weight shown and a warning for weight loss. Pick an earlier date to copy in a paper sheet.

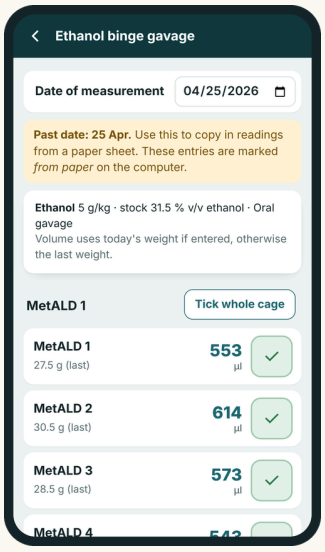


Figure 12.2 Dose volumes worked out from each animal's weight, with a tick per animal or a whole cage at once.

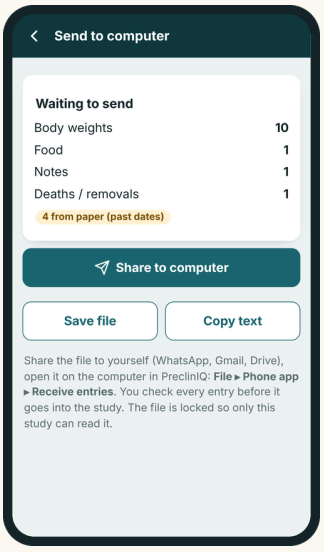


Figure 12.3 One locked file back to the computer, shared through WhatsApp, email or Drive.

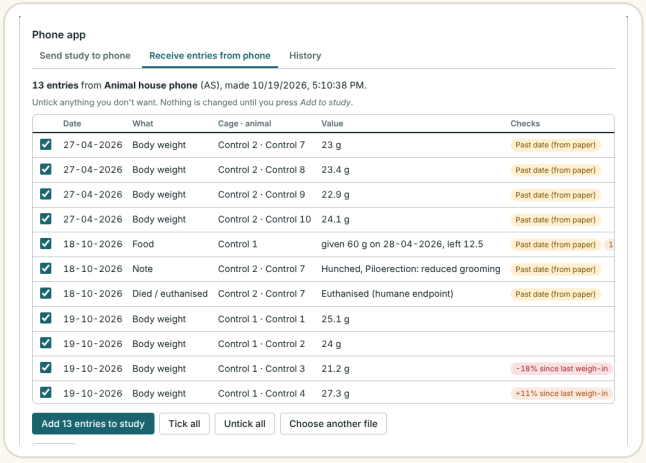


Figure 12.4 Every entry is checked before it goes into the study: past dates, replaced values and large weight changes are flagged.

HOW IT WORKS

1. **Send the study to the phone.** The program shows a QR code; the phone scans it and receives the cages, animals, recent weights and dosing plans.
2. **Enter data offline.** Weights, food and water, doses, health observations, deaths and removals, for several studies at once.
3. **Send back and check.** Share one file to the computer, review the entries with their warnings, and add them to the study.

ALSO ON THE PHONE

- Scan the QR on a printed cage card to open that cage
- Food and water intake per animal per day
- Warning when an animal passes a weight-loss limit you set

Private by design. No account and no cloud. The file a phone sends is encrypted so that only its own study can open it. Animal studies only: participant data is never sent to a phone.

PRICING & GETTING STARTED

Everything included. *One simple licence.*

75% off at launch

₹5,500 ~~₹22,000~~

per computer, per year · US$59 outside India (list US$236)

- Animal and clinical modules
- Graph Studio and ELISA
- Android phone app for the animal house
- Windows and Mac, all export formats
- All version 1.x updates

Getting started takes three steps

1

Try the demo

Explore every feature in your browser with a full sample study, before you buy.

2

Install

Download for Windows or Mac from precliniqsoft.com. No administrator rights are needed.

3

Activate

Click Buy now in the program and pay in ₹ or US$. The key arrives in seconds and PreclinIQ activates itself.

Contact us

Email: admin@precliniq.com
Website: precliniqsoft.com

Institutional licences

Buying for a lab or department? Write to us for several computers on one order.

PreclinIQ
Study Tracker

Created by **Dr. Ambuj Shahi**

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The clinical module is for pseudonymised, academic research and is not validated for GCP or 21 CFR Part 11.
Prices and features as of version 1.14.