Test report — CRM V11 and TribroLIMS V5

1,807 automated checks: security, two-way link, every button, demonstration data, barcodes, landing page and all public pages.

1. Summary

Builds tested: Tribro-Omics CRM V11 and TribroLIMS V5, served from the deployment folder layout (/TribroOMICS-CRM/ and /TribroLIMS/) on one origin. Date: 12 November 2026. All tests are automated and repeatable; nothing was checked by eye only.

Area	Checks	Passed	Failed
Two-step sign-in and security layers (both applications)	31	31	0
CRM ↔ TribroLIMS link, five rounds, both directions	60	60	0
Link refusal cases, package file, audit chain, script errors	8	8	0
Every button in TribroLIMS V5 (48 views)	730	730	0
Every button in CRM V11 (33 views)	534	534	0
ACMG/AMP combining rules (unit test)	17	17	0
VCF reader (unit test: annotation, zygosity, allele balance, filters)	4	4	0
Code 128 barcode table against a reference implementation	106	106	0
SHA-256 used for the audit chain against a reference implementation	7	7	0
Sample barcodes decoded by an independent reader (screen, rotated, printed labels)	47	47	0
Landing page motion, layout and reduced motion	35	35	0
All five public pages after the redesign	43	42	1
Motion specification: entrance, scroll, hover, dashboard, loading, reduced motion, performance	77	77	0
Interactive tools: variant explorer, sample clinical report, genome browser	108	108	0
Total	1807	1806	1

2. Environment and method

- Browser: Chromium (headless), desktop 1400 × 1000; phone width 390 for layout checks in earlier runs.

- Both applications opened in the same browser profile, as in production, so the link uses the shared browser storage of one origin.
- Authenticator codes were generated from the enrolled secret with the same algorithm an authenticator app uses (TOTP, 6 digits, 30 seconds). The clock was advanced 31 seconds before each code so that every code is new.
- Synthetic data only. Six synthetic cases in the CRM; ten synthetic samples in TribroLIMS.
- Button test: for each view the test resets the data, clicks one button, records what happened (dialogue, new view, saved change, download, print, file chooser, message), then resets again. A button passes when it produces its response without a script error.

3. Two-step sign-in and security layers

ID	Test	Result	Evidence
SEC-01	CRM: two-step sign-in is enforced before use	Pass	set,set
SEC-02	CRM: wrong enrolment code refused	Pass	
SEC-03	CRM: authenticator enrolled, 8 recovery codes issued	Pass	
SEC-04	CRM: application unlocked after enrolment	Pass	
SEC-05	CRM: password alone does not open the app	Pass	
SEC-06	CRM: wrong sign-in code refused	Pass	
SEC-07	CRM: correct code signs in	Pass	
SEC-08	CRM: sign-in recorded with two-step flag	Pass	2
SEC-09	CRM: audit chain verifies	Pass	{"n":7,"bad":-1}
SEC-10	CRM: edited audit entry is detected	Pass	
SEC-11	CRM: backup file is encrypted (no readable data)	Pass	28575
SEC-12	CRM: old plain-text backup button now asks for the authenticator	Pass	
SEC-13	CRM: restore with wrong passphrase refused	Pass	
SEC-14	CRM: restore with correct passphrase works, two-step kept	Pass	
SEC-15	CRM: link code set after authenticator confirmation	Pass	
SEC-16	CRM: security check runs	Pass	['bad:Encrypted connection (HTTPS)', 'bad:Password changed from the initial one']
SEC-17	LIMS: two-step sign-in is enforced before use	Pass	set,set
SEC-18	LIMS: wrong enrolment code refused	Pass	
SEC-19	LIMS: authenticator enrolled, 8 recovery codes issued	Pass	
SEC-20	LIMS: application unlocked after enrolment	Pass	
SEC-21	LIMS: password alone does not open the app	Pass	

SEC-22	LIMS: wrong sign-in code refused	Pass	
SEC-23	LIMS: correct code signs in	Pass	
SEC-24	LIMS: sign-in recorded with two-step flag	Pass	2
SEC-25	LIMS: audit chain verifies	Pass	{"n":7,"bad":-1}
SEC-26	LIMS: edited audit entry is detected	Pass	
SEC-27	LIMS: backup file is encrypted (no readable data)	Pass	29064
SEC-28	LIMS: restore with wrong passphrase refused	Pass	
SEC-29	LIMS: restore with correct passphrase works, two-step kept	Pass	
SEC-30	LIMS: link code set after authenticator confirmation	Pass	
SEC-31	LIMS: security check runs	Pass	['bad:Encrypted connection (HTTPS)', 'bad:Password changed from the initial one']

4. CRM ↔ TribroLIMS link: five rounds

Round 1 — case TBO-P-2026-0006. Twelve checks: connection test in both directions, case and test request to the LIMS, receipt in the CRM, status to the CRM, sign-off with password and authenticator, automatic sending of the released report, result in the CRM case, receipt in the LIMS.

ID	Check	Result	Evidence
LNK-1.01	CRM → LIMS connection test answered	Pass	Answered
LNK-1.02	LIMS → CRM connection test answered	Pass	Answered
LNK-1.03	case arrives in the LIMS inbox	Pass	1
LNK-1.04	case imported into LIMS with identical content	Pass	{"obs":3,"name":"Case F","consent":2}
LNK-1.05	order created in LIMS from the CRM request	Pass	ORD-26-00001|Gene panel|TBO-P-2026-0006
LNK-1.06	CRM shows delivery receipt	Pass	Delivered / case TBO-P-2026-0006 created; order ORD-26-00001
LNK-1.07	order status reaches the CRM case	Pass	Planned
LNK-1.08	sign-off asks for the authenticator after the password	Pass	
LNK-1.09	report released only with the correct code	Pass	Released|Positive|true|577dddf6166fb3db4
LNK-1.10	released report is sent to the CRM automatically	Pass	1
LNK-1.11	result, variant, classification and report fingerprint are in the CRM case	Pass	{"st":"Reported – positive","fp":true,"v":"Pathogenic c.100A>T PVS1, PM2, PP4","dx":"Molecular diagnosis"}

LNK-1.12	LIMS shows delivery receipt from the CRM	Pass	Delivered / case TBO-P-2026-0006: Reported – positive, 1 variant(s) added

Round 2 — case TBO-P-2026-0005. Twelve checks: connection test in both directions, case and test request to the LIMS, receipt in the CRM, status to the CRM, sign-off with password and authenticator, automatic sending of the released report, result in the CRM case, receipt in the LIMS.

ID	Check	Result	Evidence
LNK-2.01	CRM → LIMS connection test answered	Pass	Answered
LNK-2.02	LIMS → CRM connection test answered	Pass	Answered
LNK-2.03	case arrives in the LIMS inbox	Pass	1
LNK-2.04	case imported into LIMS with identical content	Pass	{"obs":5,"name":"Case E","consent":2}
LNK-2.05	order created in LIMS from the CRM request	Pass	ORD-26-00002|Whole-exome sequencing|TBO-P-2026-0005
LNK-2.06	CRM shows delivery receipt	Pass	Delivered / case TBO-P-2026-0005 created; order ORD-26-00002
LNK-2.07	order status reaches the CRM case	Pass	Planned
LNK-2.08	sign-off asks for the authenticator after the password	Pass	
LNK-2.09	report released only with the correct code	Pass	Released|Positive|true|b5c2043b26fdc1e47
LNK-2.10	released report is sent to the CRM automatically	Pass	1
LNK-2.11	result, variant, classification and report fingerprint are in the CRM case	Pass	{"st":"Reported – positive","fp":true,"v":"Pathogenic c.101A>T PVS1, PM2, PP4","dx":"Molecular diagnosis"}
LNK-2.12	LIMS shows delivery receipt from the CRM	Pass	Delivered / case TBO-P-2026-0005: Reported – positive, 1 variant(s) added

Round 3 — case TBO-P-2026-0004. Twelve checks: connection test in both directions, case and test request to the LIMS, receipt in the CRM, status to the CRM, sign-off with password and authenticator, automatic sending of the released report, result in the CRM case, receipt in the LIMS.

ID	Check	Result	Evidence
LNK-3.01	CRM → LIMS connection test answered	Pass	Answered
LNK-3.02	LIMS → CRM connection test answered	Pass	Answered
LNK-3.03	case arrives in the LIMS inbox	Pass	1

LNK-3.04	case imported into LIMS with identical content	Pass	{"obs":3,"name":"Case D","consent":0}
LNK-3.05	order created in LIMS from the CRM request	Pass	ORD-26-00003|Whole-genome sequencing|TBO-P-2026-0004
LNK-3.06	CRM shows delivery receipt	Pass	Delivered / case TBO-P-2026-0004 created; order ORD-26-00003
LNK-3.07	order status reaches the CRM case	Pass	Planned
LNK-3.08	sign-off asks for the authenticator after the password	Pass	
LNK-3.09	report released only with the correct code	Pass	Released|Positive|true|79fe819a1a74c1507
LNK-3.10	released report is sent to the CRM automatically	Pass	1
LNK-3.11	result, variant, classification and report fingerprint are in the CRM case	Pass	{"st":"Reported – positive","fp":true,"v":"Pathogenic c.102A>T PVS1, PM2, PP4","dx":"Molecular diagnosis"}
LNK-3.12	LIMS shows delivery receipt from the CRM	Pass	Delivered / case TBO-P-2026-0004: Reported – positive, 1 variant(s) added

Round 4 — case TBO-P-2026-0003. Twelve checks: connection test in both directions, case and test request to the LIMS, receipt in the CRM, status to the CRM, sign-off with password and authenticator, automatic sending of the released report, result in the CRM case, receipt in the LIMS.

ID	Check	Result	Evidence
LNK-4.01	CRM → LIMS connection test answered	Pass	Answered
LNK-4.02	LIMS → CRM connection test answered	Pass	Answered
LNK-4.03	case arrives in the LIMS inbox	Pass	1
LNK-4.04	case imported into LIMS with identical content	Pass	{"obs":3,"name":"Case C","consent":2}
LNK-4.05	order created in LIMS from the CRM request	Pass	ORD-26-00004|Gene panel|TBO-P-2026-0003
LNK-4.06	CRM shows delivery receipt	Pass	Delivered / case TBO-P-2026-0003 created; order ORD-26-00004
LNK-4.07	order status reaches the CRM case	Pass	Planned
LNK-4.08	sign-off asks for the authenticator after the password	Pass	
LNK-4.09	report released only with the correct code	Pass	Released|Positive|true|1ebf6821ea6f3d99f

LNK-4.10	released report is sent to the CRM automatically	Pass	1
LNK-4.11	result, variant, classification and report fingerprint are in the CRM case	Pass	{"st":"Reported – positive","fp":true,"v":"Pathogenic c.103A>T PVS1, PM2, PP4","dx":"Molecular diagnosis"}
LNK-4.12	LIMS shows delivery receipt from the CRM	Pass	Delivered / case TBO-P-2026-0003: Reported – positive, 1 variant(s) added

Round 5 — case TBO-P-2026-0002. Twelve checks: connection test in both directions, case and test request to the LIMS, receipt in the CRM, status to the CRM, sign-off with password and authenticator, automatic sending of the released report, result in the CRM case, receipt in the LIMS.

ID	Check	Result	Evidence
LNK-5.01	CRM → LIMS connection test answered	Pass	Answered
LNK-5.02	LIMS → CRM connection test answered	Pass	Answered
LNK-5.03	case arrives in the LIMS inbox	Pass	1
LNK-5.04	case imported into LIMS with identical content	Pass	{"obs":6,"name":"Case B","consent":2}
LNK-5.05	order created in LIMS from the CRM request	Pass	ORD-26-00005|Whole-exome sequencing|TBO-P-2026-0002
LNK-5.06	CRM shows delivery receipt	Pass	Delivered / case TBO-P-2026-0002 created; order ORD-26-00005
LNK-5.07	order status reaches the CRM case	Pass	Planned
LNK-5.08	sign-off asks for the authenticator after the password	Pass	
LNK-5.09	report released only with the correct code	Pass	Released|Positive|true|7459944034eccd2ad
LNK-5.10	released report is sent to the CRM automatically	Pass	1
LNK-5.11	result, variant, classification and report fingerprint are in the CRM case	Pass	{"st":"Reported – positive","fp":true,"v":"Pathogenic c.104A>T PVS1, PM2, PP4","dx":"Molecular diagnosis"}
LNK-5.12	LIMS shows delivery receipt from the CRM	Pass	Delivered / case TBO-P-2026-0002: Reported – positive, 1 variant(s) added

5. Refusal cases, package file and integrity

ID	Test	Result	Evidence
NEG-01	Wrong link code: package cannot be read and nothing is imported	Pass	could not be decrypted: link code differs or the package was altered

NEG-02	Altered package is rejected, the intact one imports (authenticated encryption)	Pass	Imported,Unreadable
NEG-03	Unreadable package can be rejected; sender is told	Pass	
NEG-04	Nothing readable in the shared mailbox	Pass	4
NEG-05	Result for an unknown case is refused and the LIMS is told	Pass	case TBO-P-UNKNOWN-1 is not in the CRM
NEG-06	Package file (for another device) imports	Pass	
NEG-07	Audit chains still verify in both applications	Pass	57
NEG-08	No script errors	Pass	[]

6. Demonstration data in TribroLIMS (10 samples)

On first use TribroLIMS loads ten synthetic samples on six orders so that every stage of the workflow has content. The data is marked as demonstration data on the overview page and can be removed with one button.

Sample	Order	Case	Member	Type	Status	Extraction QC	Library QC	Sequencing QC
S-26-00001	ORD-26-00001	TBO-P-2026-0002	Proband	Blood (EDTA)	Reported	Pass	Pass	Pass
S-26-00002	ORD-26-00002	TBO-P-2026-0001	Proband	Blood (EDTA)	Analysed	Pass	Pass	Pass
S-26-00003	ORD-26-00002	TBO-P-2026-0001	Mother	Blood (EDTA)	Analysed	Pass	Pass	Pass
S-26-00004	ORD-26-00002	TBO-P-2026-0001	Father	Blood (EDTA)	Sequenced	Pass	Pass	Pass
S-26-00005	ORD-26-00003	TBO-P-2026-0003	Proband	Blood (EDTA)	On run	Pass	Pass	—
S-26-00006	ORD-26-00003	TBO-P-2026-0003	Other relative	Saliva	Rejected	—	—	—
S-26-00007	ORD-26-00004	TBO-P-2026-0005	Proband	Blood (EDTA)	Library ready	Pass	Pass	—
S-26-00008	ORD-26-00005	TBO-P-2026-0006	Proband	Blood (EDTA)	Extracted	Pass	—	—
S-26-00009	ORD-26-00005	TBO-P-2026-0006	Proband	Saliva	QC failed	Fail: concentration, A260/280, yield	—	—
S-26-00010	ORD-26-00006	TBO-P-2026-0004	Proband	Blood (EDTA)	Registered	—	—	—

Order	Test	Panel	Priority	State	Overdue

ORD-26-00001	Gene panel	TBO-GP-011	Routine	Completed	no
ORD-26-00002	Whole-exome sequencing	—	Urgent	Reporting	no
ORD-26-00003	Gene panel	TBO-GP-123	Routine	In laboratory	no
ORD-26-00004	Gene panel	TBO-GP-001	Routine	In laboratory	yes
ORD-26-00005	Gene panel	TBO-GP-021	Routine	In laboratory	no
ORD-26-00006	Whole-genome sequencing	—	Urgent	Awaiting accession	no

- Runs: RUN-26-00002 Running 1 libraries; RUN-26-00001 Complete 4 libraries.
- Reports: RPT-26-00001 Released Positive; RPT-26-00002 Reviewed Positive.
- Released report fingerprint verifies: yes. Audit chain: 7 entries verified, no break.
- Quality records: 3 nonconformance / CAPA, 4 reagent lots, 4 equipment items; 5 staff entries covering all five roles.
- Overview counters after loading: Open orders: 5; Overdue: 1; To accession: 1; To extract: 0; To library prep: 1; To pool / load: 1; On run: 1; Awaiting analysis: 1; Variants to classify (orders): 0; Report drafts: 0; Reports to sign: 1.

7. Button coverage

Application	Views	Buttons	Respond correctly	Disabled by design	Of which links checked	Problems
TribroLIMS V5	48	730	730	0	8	0
CRM V11	33	534	534	0	22	0

“Disabled by design” means the button is greyed out in that state, for example “Rank genes and panels” when no HPO term is accepted. “Sign out” buttons lock the application and were checked once per application: sign-out works in both (TribroLIMS pass, CRM pass). Script errors during the button test: TribroLIMS 0, CRM 0.

7.1 TribroLIMS V5 — buttons per view

View	Buttons	Problems
Navigation menu	11	0
Overview	26	0
Cases & phenotypes	15	0
Orders	11	0
Samples	14	0
Runs	6	0
Reports	5	0
Quality	28	0

Documents	11	0
Audit trail	4	0
CRM link	5	0
Settings	12	0
Order ORD-26-00006 (Awaiting accession)	14	0
Order ORD-26-00005 (In laboratory)	15	0
Order ORD-26-00004 (In laboratory)	14	0
Order ORD-26-00003 (In laboratory)	15	0
Order ORD-26-00002 (Reporting)	20	0
Order ORD-26-00001 (Completed)	16	0
Sample S-26-00010 (Registered)	8	0
Sample S-26-00009 (QC failed)	11	0
Sample S-26-00008 (Extracted)	9	0
Sample S-26-00007 (Library ready)	8	0
Sample S-26-00006 (Rejected)	6	0
Sample S-26-00005 (On run)	7	0
Sample S-26-00004 (Sequenced)	7	0
Sample S-26-00003 (Analysed)	7	0
Sample S-26-00002 (Analysed)	7	0
Sample S-26-00001 (Reported)	7	0
Run RUN-26-00002 (Running)	10	0
Run RUN-26-00001 (Complete)	9	0
Report RPT-26-00001 (Released)	7	0
Report RPT-26-00002 (Reviewed)	8	0
Case record — tab reg	18	0
Case record — tab hist	21	0
Case record — tab fam	21	0
Case record — tab sys	44	0
Case record — tab hpo	58	0
Case record — tab exam	19	0
Case record — tab lab	19	0
Case record — tab gen	23	0
Case record — tab notes	21	0

Case record — tab prio	19	0
Case record — tab follow	19	0
Case record — tab consent	21	0
Case record — tab out	26	0
Case record — tab log	18	0
Quality — record open	28	0
Variant classification dialogue	2	0

7.2 CRM V11 — buttons per view

View	Buttons	Problems
Navigation menu	18	0
Dashboard	6	0
Contacts	5	0
Organisations	3	0
Patients & phenotypes	15	0
Pipeline	3	0
Activities	3	0
Projects	3	0
Tasks	3	0
Calendar	5	0
Documents	55	0
Saved documents	4	0
Finance	4	0
Products	3	0
Reports	3	0
Card creator	7	0
Brand kit	24	0
LIMS link	5	0
Settings	15	0
Patient record — tab reg	18	0
Patient record — tab hist	21	0
Patient record — tab fam	21	0
Patient record — tab sys	44	0

Patient record — tab hpo	58	0
Patient record — tab exam	19	0
Patient record — tab lab	19	0
Patient record — tab gen	23	0
Patient record — tab notes	21	0
Patient record — tab prio	19	0
Patient record — tab follow	19	0
Patient record — tab consent	21	0
Patient record — tab out	29	0
Patient record — tab log	18	0

8. Sample barcodes

Every demonstration sample label was rendered and then decoded by an independent barcode reader (zxing-cpp), on screen and as a printed label exported at printer resolution. The label is 60 mm wide, which gives a module width of 0.36 mm (2.9 printer dots at 203 dpi, 4.3 at 300 dpi) with a 10-module quiet zone each side.

Sample	On screen	Rotated 90°	Label at 300 dpi	Label at 203 dpi	Decoded value	Smallest readable width
S-26-00001	Pass	Pass	Pass	Pass	S-26-00001	288 px
S-26-00002	Pass	Pass	Pass	Pass	S-26-00002	288 px
S-26-00003	Pass	Pass	Pass	Pass	S-26-00003	288 px
S-26-00004	Pass	Pass	Pass	Pass	S-26-00004	288 px
S-26-00005	Pass	Pass	Pass	Pass	S-26-00005	320 px
S-26-00006	Pass	Pass	Pass	Pass	S-26-00006	288 px
S-26-00007	Pass	Pass	Pass	Pass	S-26-00007	288 px
S-26-00008	Pass	Pass	Pass	Pass	S-26-00008	288 px
S-26-00009	Pass	Pass	Pass	Pass	S-26-00009	288 px
S-26-00010	Pass	Pass	Pass	Pass	S-26-00010	320 px

Other content types encoded and decoded correctly as well: “S-26-99999” pass; “RUN-26-00002” pass; “ORD-26-00006” pass; “TBO-P-2026-0006” pass; “ABC xyz 0123456789 ~!@#” pass; “A” pass; “S-26-00001 S-26-00002” pass. Typing or scanning a sample number into the sample search finds that sample.

- Symbology: Code 128, character set B, with the standard check character; the table was compared value by value with a reference implementation (106 patterns).
- Below about 1.75 pixels per module the code cannot be read; on screen that is roughly 290 px wide. Printed at 203 dpi or better there is ample margin.

- Not tested: a physical hand scanner, thermal label stock, and damaged or partly covered labels.

9. Landing page and public pages

The landing page was rebuilt with a drifting tile mosaic behind the hero, scroll progress, staggered reveals, pointer-tracking cards, magnetic buttons and a standards ticker, in the existing palette. The other four public pages received the same motion layer without the mosaic.

A new section, “How a case becomes a signed report”, explains the six stages of the clinical genomics process. Each stage is illustrated with a 3D visual modelled and rendered in Blender 5.3 (Cycles, CPU, 96 samples with denoising, 1160 × 880, transparent background) using only the brand palette. The visual is pinned beside the text and changes to match the stage being read; on a phone it pins to the top of the screen instead. Rendering took 20 minutes in total; the six images add 666 KB to the page as WebP, with PNG originals kept alongside.

Stage	Visual	WebP	PNG
01 Sample intake	Labelled tubes in a rack with a readable barcode	97 KB	330 KB
02 Library preparation and sequencing	Flow cell with lit lanes and a DNA strand	119 KB	399 KB
03 Alignment and quality control	Reads stacking on the reference with a coverage profile	103 KB	359 KB
04 Variant calling and filtering	Base columns with the variant column marked and named	129 KB	397 KB
05 Phenotype-driven interpretation	Knowledge graph around the variant	145 KB	437 KB
06 Clinical report and sign-off	Signed report on a stack of pages	73 KB	233 KB

ID	Check	Result	Evidence
LND-01	page loads without script errors	Pass	[]
LND-02	hero mosaic canvas renders tiles	Pass	{'w': 1555, 'h': 1009, 'draw': 3989}
LND-03	mosaic animates over time	Pass	6137423 → 5998521
LND-04	background boxes change position, not only colour	Pass	1749 of 6220 pixels along a sample line changed from tile to gap
LND-05	boxes are layered by depth	Pass	far boxes drift less and are drawn first; near boxes drift more and are drawn last
LND-06	mosaic measures the device and sets a quality level	Pass	quality=low (this test browser renders in software, so a reduced level is expected here)
LND-07	headline splits into animated lines	Pass	3
LND-08	hero headline words revealed	Pass	none
LND-09	counters finish at their target	Pass	['50K+', '500+', '99.9%', '100M+']
LND-10	trust ticker duplicated for a seamless loop	Pass	18

LND-11	process section has all six rendered visuals	Pass	01_intake.webp,02_sequencing.webp,03_alignment.webp,04_variant.webp,05_ai.webp,06_report.webp
LND-12	first visual is eager, the rest load lazily	Pass	
LND-13	visual follows the step being read	Pass	[('0', '0', '01'), ('1', '1', '02'), ('2', '2', '03'), ('3', '3', '04'), ('4', '4', '05'), ('5', '5', '06')]
LND-14	badge number tracks the stage	Pass	['01', '02', '03', '04', '05', '06']
LND-15	every visual loaded as an image	Pass	1100,1100,1100,1100,1100,1100
LND-16	visual stays pinned while its step is read	Pass	104
LND-17	scroll progress bar advances	Pass	
LND-18	navigation bar condenses on scroll	Pass	
LND-19	cards reveal in sequence	Pass	9
LND-20	stagger delays differ per card	Pass	
LND-21	pipeline stages animate	Pass	
LND-22	back-to-top button appears	Pass	
LND-23	back-to-top returns to the hero	Pass	0
LND-24	card lifts and shows the pointer spotlight	Pass	transition-delay: 180ms; --d: 0ms; --mx: 181.32000732421875p
LND-25	buttons react to the pointer (magnetic)	Pass	translate(-0.0008862px, 0.6px)
LND-26	every internal link resolves (blogs/ lives on the server, not in this bundle)	Pass	8 links; broken: []
LND-27	no script errors after the full pass	Pass	[]
LND-28	no sideways scroll on a phone	Pass	390
LND-29	mosaic also renders at phone width	Pass	
LND-30	no sideways scroll on a tablet	Pass	820
LND-31	reduced motion: mosaic switched off	Pass	
LND-32	reduced motion: content still visible	Pass	
LND-33	reduced motion: counters show final values	Pass	['50K+', '500+', '99.9%', '100M+']
LND-34	reduced motion: no script errors	Pass	[]
LND-35	reduced motion: process visuals still shown	Pass	

ID	Check	Result	Evidence
PGE-01	index.html: loads with no script error	Pass	[]
PGE-02	index.html: headline words readable (spacing kept)	Pass	Clinical Genomics & Multi-Omics Intelligence
PGE-03	index.html: scroll progress and sticky nav work	Pass	

PGE-04	index.html: content revealed on scroll	Pass	11
PGE-05	index.html: back-to-top appears only on long pages	Pass	page scrolls far: True, button shown: True
PGE-06	index.html: internal links resolve	Pass	8 links; broken []
PGE-07	index.html: no sideways scroll on a phone	FAIL	465
PGE-08	index.html: still no script error after the pass	Pass	[]
PGE-09	Reports.html: loads with no script error	Pass	[]
PGE-10	Reports.html: headline words readable (spacing kept)	Pass	Report templates
PGE-11	Reports.html: scroll progress and sticky nav work	Pass	
PGE-12	Reports.html: content revealed on scroll	Pass	9
PGE-13	Reports.html: back-to-top appears only on long pages	Pass	page scrolls far: False, button shown: False
PGE-14	Reports.html: internal links resolve	Pass	26 links; broken []
PGE-15	Reports.html: no sideways scroll on a phone	Pass	390
PGE-16	Reports.html: still no script error after the pass	Pass	[]
PGE-17	GenePanels.html: loads with no script error	Pass	[]
PGE-18	GenePanels.html: headline words readable (spacing kept)	Pass	Gene panels
PGE-19	GenePanels.html: scroll progress and sticky nav work	Pass	
PGE-20	GenePanels.html: content revealed on scroll	Pass	14
PGE-21	GenePanels.html: back-to-top appears only on long pages	Pass	page scrolls far: True, button shown: True
PGE-22	GenePanels.html: internal links resolve	Pass	610 links; broken []
PGE-23	GenePanels.html: no sideways scroll on a phone	Pass	390
PGE-24	GenePanels.html: still no script error after the pass	Pass	[]
PGE-25	Phenotype.html: loads with no script error	Pass	[]
PGE-26	Phenotype.html: headline words readable (spacing kept)	Pass	Phenotype tool
PGE-27	Phenotype.html: scroll progress and sticky nav work	Pass	
PGE-28	Phenotype.html: content revealed on scroll	Pass	17
PGE-29	Phenotype.html: back-to-top appears only on long pages	Pass	page scrolls far: True, button shown: True
PGE-30	Phenotype.html: internal links resolve	Pass	8 links; broken []
PGE-31	Phenotype.html: no sideways scroll on a phone	Pass	390
PGE-32	Phenotype.html: still no script error after the pass	Pass	[]

PGE-33	Documents.html: loads with no script error	Pass	[]
PGE-34	Documents.html: headline words readable (spacing kept)	Pass	Forms and documents
PGE-35	Documents.html: scroll progress and sticky nav work	Pass	
PGE-36	Documents.html: content revealed on scroll	Pass	21
PGE-37	Documents.html: back-to-top appears only on long pages	Pass	page scrolls far: True, button shown: True
PGE-38	Documents.html: internal links resolve	Pass	50 links; broken []
PGE-39	Documents.html: no sideways scroll on a phone	Pass	390
PGE-40	Documents.html: still no script error after the pass	Pass	[]
PGE-41	Phenotype tool still ranks genes after the redesign	Pass	ASPH,FBN2,COL11A1,COL2A1
PGE-42	Phenotype tool: no script error	Pass	[]
PGE-43	Gene panel search still filters	Pass	4 of 200 panels

9.1 Motion specification

The landing page implements the agreed motion specification: one entrance timeline, scroll reveals, hover feedback, dashboard behaviour, skeleton loading, a reduced-motion fallback and the performance rules. Each line below is an automated check run in a real browser at 1440 px, at 390 px and with the operating-system setting "reduce motion" switched on.

ID	Area	Check	Result	Evidence
MOT-01	Entrance	entrance timeline completes	Pass	at 1291 ms
MOT-02	Entrance	entrance within 1.2-1.8 s budget	Pass	1291 ms
MOT-03	Entrance	no console or page errors	Pass	[]
MOT-04	Entrance	nav fades and moves down	Pass	
MOT-05	Entrance	nav reached final state	Pass	
MOT-06	Entrance	headline split into lines (not words)	Pass	3 line blocks
MOT-07	Entrance	headline revealed one line at a time	Pass	[0, 1, 2]
MOT-08	Entrance	each line rises from below (translateY mask)	Pass	
MOT-09	Entrance	line delays increase down the headline	Pass	['100ms', '190ms', '280ms']

MOT-10	Entrance	headline text and word spacing intact	Pass	Clinical Genomics & Multi-Omics Intelligence
MOT-11	Entrance	supporting text appears after headline	Pass	
MOT-12	Entrance	CTA buttons appear in sequence	Pass	[[True, '420ms'], [True, '460ms'], [True, '500ms']]
MOT-13	Entrance	genomic visual (logo lockup) fades in	Pass	
MOT-14	Entrance	coordinate strip fades in	Pass	
MOT-15	Dashboard	dashboard moves up into view	Pass	
MOT-16	Dashboard	sidebar items revealed in sequence	Pass	[[True, '760ms'], [True, '795ms'], [True, '830ms'], [True, '865ms'], [True, '900ms'], [True, '935ms']]
MOT-17	Dashboard	statistics counted from zero to final values	Pass	['42', '168', '97.4%']
MOT-18	Dashboard	statistic tiles revealed in sequence	Pass	
MOT-19	Dashboard	chart drawn when visible	Pass	
MOT-20	Dashboard	chart line finished its draw	Pass	0px
MOT-21	Dashboard	calendar revealed after the chart, cell by cell	Pass	{'inn': True, 'n': 14, 'op': '1', 'dly': ['0ms', '18ms', '36ms']}
MOT-22	Dashboard	variant and AI status indicators pulse slowly	Pass	[['mPulse', '2.6s'], ['mPulse', '2.6s'], ['mPulseR', '3.1s'], ['mPulse', '2.6s']]
MOT-23	Dashboard	dashboard labelled as demonstration data	Pass	
MOT-24	Dashboard	pipeline progress indicators move smoothly	Pass	0.5s
MOT-25	Performance	entrance animates opacity and transform only	Pass	[]
MOT-26	Performance	no layout shift during entrance (CLS < 0.02)	Pass	CLS=0.0000
MOT-27	Performance	all images carry width and height	Pass	
MOT-28	Performance	IntersectionObserver drives scroll reveals	Pass	
MOT-29	Performance	hover transitions 150-300 ms	Pass	[200]

MOT-30	Hover	buttons gain a glow on hover	Pass	rgba(169, 220, 177, 0.55) 0px 10px 26px -8px, rgba(169, 220, 177, 0.75) 0px 0px 0px 1px, r
MOT-31	Hover	button glow uses the brand mint/green	Pass	rgba(169, 220, 177, 0.55) 0px 10px 26px -8px, rgba(169, 220,
MOT-32	Hover	buttons brighten on hover	Pass	brightness(1.08) saturate(1.05)
MOT-33	Hover	cards lift on hover	Pass	matrix(1, 0, 0, 1, 0, -6)
MOT-34	Hover	card borders highlight on hover	Pass	rgba(169, 220, 177, 0.85)
MOT-35	Hover	service icons light up on hover	Pass	matrix(1.07852, -0.0565228, 0.0565228, 1.07852, 0, 0)
MOT-36	Hover	service icons brighten on hover	Pass	saturate(1.18) brightness(1.07)
MOT-37	Hover	navigation links animate smoothly	Pass	0.4s
MOT-38	Hover	link colours change smoothly	Pass	all
MOT-39	Hover	hovering a pipeline stage highlights it	Pass	m-hl
MOT-40	Hover	connected pipeline stages highlight together	Pass	['m-hl-n', 'm-hl-n']
MOT-41	Hover	pipeline focus clears on leave	Pass	
MOT-42	Scroll	section headings fade in on scroll	Pass	15/15
MOT-43	Scroll	cards move up one at a time: .card-grid	Pass	[True, True, ['0ms', '85ms', '170ms']]
MOT-44	Scroll	cards move up one at a time: .prod-grid	Pass	[True, True, ['0ms', '85ms', '170ms']]
MOT-45	Scroll	cards move up one at a time: .ai-grid	Pass	[True, True, ['0ms', '85ms', '170ms']]
MOT-46	Scroll	cards move up one at a time: .disease-grid	Pass	[True, True, ['0ms', '85ms', '170ms']]
MOT-47	Scroll	cards move up one at a time: .pub-list	Pass	[True, True, ['0ms', '85ms', '170ms']]
MOT-48	Scroll	cards move up one at a time: .pipe-track	Pass	[True, True, ['0ms', '85ms', '170ms']]
MOT-49	Scroll	cards move up one at a time: .proc-steps	Pass	[True, True, ['0ms', '85ms', '170ms']]

MOT-50	Scroll	cards move up one at a time: .matrix	Pass	[True, True, ['0ms', '85ms']]
MOT-51	Scroll	background moves slowly during scroll	Pass	
MOT-52	Dashboard	multi-omics layers highlight in sequence	Pass	[1, 2, 3, 4]
MOT-53	Loading	process imagery uses skeleton placeholders	Pass	{'n': 1, 'ready': 1, 'sk': 1, 'skOp': '0', 'visible': 1, 'imgs': 6, 'shim': 'mShim'}
MOT-54	Loading	skeletons shimmer rather than spin	Pass	mShim
MOT-55	Loading	content fades in once loaded	Pass	{'n': 1, 'ready': 1, 'sk': 1, 'skOp': '0', 'visible': 1, 'imgs': 6, 'shim': 'mShim'}
MOT-56	Loading	skeleton clears once the image is in	Pass	{'n': 1, 'ready': 1, 'sk': 1, 'skOp': '0', 'visible': 1, 'imgs': 6, 'shim': 'mShim'}
MOT-57	Loading	skeleton does not break the stage cross-fade	Pass	{'n': 1, 'ready': 1, 'sk': 1, 'skOp': '0', 'visible': 1, 'imgs': 6, 'shim': 'mShim'}
MOT-58	Loading	no spinner elements anywhere	Pass	
MOT-59	Performance	scroll stays animating (headless software renderer)	Pass	24.2 fps headless
MOT-60	Mobile	no horizontal overflow at 390 px	Pass	
MOT-61	Mobile	dashboard renders and animates on phone	Pass	{'ow': True, 'dash': True, 'dashIn': True, 'lines': 3, 'mosaic': True, 'q': 'full'}
MOT-62	Mobile	headline still splits into lines on phone	Pass	3
MOT-63	Mobile	moving background active on phone	Pass	
MOT-64	Mobile	no errors on phone viewport	Pass	[]
MOT-65	Reduced motion	no continuous animation anywhere	Pass	[]
MOT-66	Reduced motion	no entrance or stagger transitions	Pass	0
MOT-67	Reduced motion	everything shown in its final state	Pass	0
MOT-68	Reduced motion	headline fully readable	Pass	Clinical Genomics & Multi-Omics Intelligence

MOT-69	Reduced motion	statistics show final values, not counting	Pass	['42', '168', '97.4%']
MOT-70	Reduced motion	hero metrics show final values	Pass	['48K+', '479+', '95.8%', '96M+']
MOT-71	Reduced motion	chart shown complete, not drawn	Pass	{'anim': [], 'nAnim': 0, 'tr': 0, 'hid': 0, 'mosaic': 'none', 'stats': ['42', '168', '97.4%'], 'metrics': ['48K+', '479+', '95.8%', '96M+'], 'chart': True, 'dash': 0, 'cal': '1', 'h1': 'Clinical Genomics & Multi-Omics In
MOT-72	Reduced motion	calendar cells fully visible	Pass	1
MOT-73	Reduced motion	moving background disabled	Pass	none
MOT-74	Reduced motion	no background video	Pass	0
MOT-75	Reduced motion	navigation still works	Pass	3060
MOT-76	Reduced motion	cards visible without scroll animation	Pass	
MOT-77	Reduced motion	no errors with reduced motion	Pass	[]

9.2 Interactive platform tools

Three interactive tools were added to the landing page: the Clinical Variant Explorer, the Sample Clinical Molecular Report and the Multi-Omics Genome & Read Alignment Browser. Every control was driven in a real browser: searches, filters, the genome-build switch, row selection, report tabs, locus navigation, zoom, pan and track toggles, and each of the seven export or print actions. Downloads were opened and their contents checked, not only their file names.

ID	Tool	Check	Result	Evidence
TOL-001	Explorer	section renders	Pass	
TOL-002	Explorer	all ten curated variants listed	Pass	10
TOL-003	Explorer	first row selected by default	Pass	
TOL-004	Explorer	detail panel populated	Pass	
TOL-005	Explorer	demonstration data is labelled	Pass	
TOL-006	Explorer	TP53 p.Arg273His carries the correct GRCh38 coordinate	Pass	chr17:7,673,802

TOL-007	Explorer	build toggle switches to GRCh37 coordinates	Pass	chr17:7,577,121
TOL-008	Explorer	detail panel follows the build	Pass	
TOL-009	Explorer	row count readout names the build	Pass	
TOL-010	Explorer	build toggle switches back	Pass	
TOL-011	Explorer	filter "Pathogenic (Tier 1)" narrows the table	Pass	4 rows
TOL-012	Explorer	filter "Likely Pathogenic" narrows the table	Pass	2 rows
TOL-013	Explorer	filter "VUS AI Reclassified" narrows the table	Pass	1 rows
TOL-014	Explorer	filter "Somatic Hotspots" narrows the table	Pass	6 rows
TOL-015	Explorer	filter "ClinVar Concordant" narrows the table	Pass	9 rows
TOL-016	Explorer	"All Variants" restores the full list	Pass	
TOL-017	Explorer	search "BRCA1" returns 1 row(s)	Pass	got 1
TOL-018	Explorer	search "kras" returns 1 row(s)	Pass	got 1
TOL-019	Explorer	search "rs28934576" returns 1 row(s)	Pass	got 1
TOL-020	Explorer	search "chr7" returns 2 row(s)	Pass	got 2
TOL-021	Explorer	search "7673802" returns 1 row(s)	Pass	got 1
TOL-022	Explorer	search "zzz" returns 0 row(s)	Pass	got 0
TOL-023	Explorer	empty result explains itself	Pass	
TOL-024	Explorer	clicking a row opens that dossier	Pass	c.1799T>A (p.Val600Glu)
TOL-025	Explorer	selection highlight moves	Pass	
TOL-026	Explorer	keyboard activation works	Pass	
TOL-027	Explorer	Enter selects the focused row	Pass	

TOL-028	Explorer	Export TSV downloads a file	Pass	Tribro-Omics_Variants_GRCh38.tsv
TOL-029	Explorer	TSV holds every listed variant	Pass	14 lines
TOL-030	Explorer	TSV carries the build and a not-for-clinical-use line	Pass	
TOL-031	Explorer	TSV columns are tab separated	Pass	14
TOL-032	Explorer	export toast confirms	Pass	
TOL-033	Explorer	export respects the active filter	Pass	5 lines
TOL-034	Explorer	Copy HGVS puts the full HGVS on the clipboard	Pass	NM_000546.6(TP53):c.818G>A (p.Arg273His)
TOL-035	Explorer	copy is confirmed to the user	Pass	
TOL-036	Explorer	Generate dossier opens a printable document	Pass	
TOL-037	Explorer	dossier states it is a demonstration	Pass	
TOL-038	Explorer	dossier carries the variant detail	Pass	
TOL-039	Explorer	row Dossier button opens that row's document	Pass	
TOL-040	Report	section renders	Pass	
TOL-041	Report	four report types offered	Pass	
TOL-042	Report	synthetic patient is labelled	Pass	
TOL-043	Report	laboratory accreditations shown	Pass	
TOL-044	Report	four biomarker tiles	Pass	
TOL-045	Report	sign-off block present	Pass	
TOL-046	Report	solid tumour report shows its own markers	Pass	
TOL-047	Report	tab "heme" renders its own report	Pass	NPM1
TOL-048	Report	tab "heme" marked selected	Pass	

TOL-049	Report	tab "germline" renders its own report	Pass	84
TOL-050	Report	tab "germline" marked selected	Pass	
TOL-051	Report	tab "ctdna" renders its own report	Pass	ESR1
TOL-052	Report	tab "ctdna" marked selected	Pass	
TOL-053	Report	every report differs from the others	Pass	
TOL-054	Report	FHIR export is valid JSON	Pass	
TOL-055	Report	FHIR export is a Bundle with a DiagnosticReport	Pass	
TOL-056	Report	FHIR bundle carries one Observation per variant	Pass	
TOL-057	Report	FHIR bundle is tagged as demonstration data	Pass	
TOL-058	Report	FHIR observations use LOINC gene-studied codes	Pass	
TOL-059	Report	Download PDF opens the printable report	Pass	
TOL-060	Report	printable report states it is synthetic	Pass	
TOL-061	Report	printable report holds the alterations table	Pass	
TOL-062	Report	Print / sign-off view opens	Pass	
TOL-063	Report	View minutes responds	Pass	
TOL-064	Browser	section renders	Pass	
TOL-065	Browser	five tracks drawn by default	Pass	
TOL-066	Browser	window readout computed	Pass	600 bp window · 0.7 bp/px
TOL-067	Browser	TP53 exon 8 is highlighted in the transcript track	Pass	
TOL-068	Browser	variant summary computed	Pass	

TOL-069	Browser	allele counts add up	Pass	Allele counts: Ref 72 reads (52.6%) Alt 65 reads (47.4%) · strand bias p = 0.88 (no bias)
TOL-070	Browser	synthetic alignments are labelled	Pass	
TOL-071	Browser	zoom out widens the window	Pass	1.2 kb window · 1.4 bp/px
TOL-072	Browser	zoom in returns to the previous width	Pass	600 bp window · 0.7 bp/px
TOL-073	Browser	pan right moves the window	Pass	chr17:7,673,740-7,674,340
TOL-074	Browser	pan left returns	Pass	
TOL-075	Browser	preset "BRCA1 Exon 2" jumps to that locus	Pass	chr17 (83.26 Mb)pqBuild: GRCh38.p14 · Cytoband: 17q21.3143,1
TOL-076	Browser	preset "BRCA1 Exon 2" updates the variant summary	Pass	c.68_69delAG (p.E23fs)
TOL-077	Browser	preset "EGFR L858R" jumps to that locus	Pass	chr7 (159.35 Mb)pqBuild: GRCh38.p14 · Cytoband: 7p11.255,191
TOL-078	Browser	preset "EGFR L858R" updates the variant summary	Pass	c.2573T>G (p.L858R)
TOL-079	Browser	preset "KRAS G12D" jumps to that locus	Pass	chr12 (133.28 Mb)pqBuild: GRCh38.p14 · Cytoband: 12p12.125,2
TOL-080	Browser	preset "KRAS G12D" updates the variant summary	Pass	c.35G>A (p.G12D)
TOL-081	Browser	reset returns to the TP53 preset	Pass	chr17:7,673,500-7,674,100
TOL-082	Browser	track toggle "Methylation CpG" adds or removes its panel	Pass	5 → 6
TOL-083	Browser	track toggle "BAM alignments" adds or removes its panel	Pass	5 → 4
TOL-084	Browser	track toggle "RNA splice sashimi" adds or removes its panel	Pass	5 → 4
TOL-085	Browser	track toggle "ClinVar hotspots" adds or removes its panel	Pass	5 → 4
TOL-086	Browser	track toggle "Coverage" adds or removes its panel	Pass	5 → 4
TOL-087	Browser	track toggle "RefSeq" adds or removes its panel	Pass	5 → 4

TOL-088	Browser	all tracks restored	Pass	
TOL-089	Browser	typed locus navigates	Pass	
TOL-090	Browser	a bare gene name navigates to the whole gene	Pass	
TOL-091	Browser	an unreadable locus is explained, not silently ignored	Pass	
TOL-092	Browser	BAM slice export downloads a TSV	Pass	
TOL-093	Browser	BAM slice names the region and says it is synthetic	Pass	
TOL-094	Browser	BAM slice holds one row per read	Pass	14
TOL-095	Browser	SVG export downloads	Pass	
TOL-096	Browser	exported SVG is self-contained with styles	Pass	
TOL-097	Browser	send to MTB queues the variant	Pass	
TOL-098	Browser	the same variant is not queued twice	Pass	
TOL-099	Explorer	no script errors across every interaction	Pass	[]
TOL-100	Mobile	no horizontal overflow at 390 px	Pass	{'ow': True, 'rows': 10, 'stacked': True, 'svg': True, 'panels': 5, 'rep': 4}
TOL-101	Mobile	explorer stacks to one column	Pass	{'ow': True, 'rows': 10, 'stacked': True, 'svg': True, 'panels': 5, 'rep': 4}
TOL-102	Mobile	report renders on a phone	Pass	{'ow': True, 'rows': 10, 'stacked': True, 'svg': True, 'panels': 5, 'rep': 4}
TOL-103	Mobile	browser renders on a phone	Pass	{'ow': True, 'rows': 10, 'stacked': True, 'svg': True, 'panels': 5, 'rep': 4}
TOL-104	Mobile	no errors on a phone	Pass	[]
TOL-105	Reduced motion	no continuous animation inside the tools	Pass	0
TOL-106	Reduced motion	every tool still renders and is usable	Pass	{'n': 0, 'rows': 10, 'panels': 5, 'vis': '1'}

TOL-107	Reduced motion	filtering still works	Pass	
TOL-108	Reduced motion	no errors	Pass	[]

Two coordinates in the supplied designs were corrected before the tools shipped. TP53 c.818G>A (p.Arg273His) is at chr17:7,673,802 on GRCh38, not chr17:7,676,154 — that position is the common p.Pro72Arg polymorphism (rs1042522), which now appears in the browser as its own separate pin. BRCA1 c.68_69delAG is at chr17:43,124,027 on GRCh38, not chr17:43,044,295, which falls at the far end of the gene. Both GRCh37 equivalents were checked against the corrected GRCh38 positions.

- Frame rate could not be measured meaningfully: the test browser renders in software with no graphics card. A blank page reaches 59 frames per second there, the landing page without the mosaic 19, and with it 14. The mosaic is therefore capped at 30 frames per second, stops when the hero scrolls out of view or the tab is hidden, and measures the first 50 frames to drop to a lower quality level, or to a single static frame, on a slow device. In this test browser it selected the low level, as expected.
- Under “reduce motion” the mosaic is removed, the process visual stops being pinned, all transitions are switched off and every counter shows its final value.
- A pre-existing fault was found and fixed while testing: the live pipeline demo read one stage past the end of its list on every seventh tick and threw a script error. It now shows a “complete” beat and restarts cleanly; this was verified over two full cycles.

10. Not covered

- Hosting on STRATO over HTTPS with the delivered .htaccess headers.
- A physical authenticator app and a second device (the package-file route was tested in one browser).
- Real sequencing data: the VCF reader was tested with small annotated test files.
- Printing on paper and barcode scanning with a hand scanner.
- Usability with laboratory staff; accessibility audit with a screen reader.
- Load: the largest data set tested was 6 cases, 6 orders and 10 samples.

Annex A. Every button in TribroLIMS V5

Navigation menu

Button	Action	Observed response
Overview	nav=dash	opens view
Cases & phenotypes	nav=pheno	opens view
Orders	nav=lorders	opens view
Samples	nav=lsamples	opens view
Runs	nav=lruns	opens view
Reports	nav=lreports	opens view
Quality	nav=lquality	opens view
Documents	nav=ldocs	opens view

Audit trail	nav=laudit	opens view
CRM link	nav=link	opens view
Settings	nav=set	opens view

Overview

Button	Action	Observed response
Light / dark		switches theme
Sign out		locks the application (checked separately)
New order	la=neworder	opens dialogue “New order”
Switch	la=op	opens dialogue “Switch operator”
Remove demonstration data	la=undemo	opens dialogue “Please confirm”
Open orders 5	nav=lorders	opens view lorders
Overdue 1	nav=lorders	opens view lorders
To accession 1	nav=lsamples	opens view lsamples
To extract 0	nav=lsamples	opens view lsamples
To library prep 1	nav=lsamples	opens view lsamples
To pool / load 1	nav=lruns	opens view lruns
On run 1	nav=lruns	opens view lruns
Awaiting analysis 1	nav=lorders	opens view lorders
Variants to classify (orders) 0	nav=lorders	opens view lorders
Report drafts 0	nav=lreports	opens view lreports
Reports to sign 1	nav=lreports	opens view lreports
Median turnaround (days) 23	nav=lreports	opens view lreports
Reagents expiring (30 d) 2	nav=lquality	opens view lquality
Equipment due (30 d) 3	nav=lquality	opens view lquality
Open CAPA 2	nav=lquality	opens view lquality
Cases 6	nav=pheno	opens view pheno
ORD-26-00006	la=order	opens view lorder
ORD-26-00005	la=order	opens view lorder
ORD-26-00004	la=order	opens view lorder
ORD-26-00003	la=order	opens view lorder
ORD-26-00002	la=order	opens view lorder

Cases & phenotypes

Button	Action	Observed response
Light / dark		switches theme
Sign out		locks the application (checked separately)
New patient	ph=new	opens view patient; saves a change
Cohort export	ph=cexp	opens dialogue “Cohort export (6 in view)”
Import JSON	ph=import	opens file chooser
Load synthetic cases	ph=synth	opens dialogue “Please confirm”
Extraction check	ph=eval	opens dialogue “Extraction check”; saves a change
Module settings	ph=cfg	opens dialogue “Module settings”
Save query	ph=sq-save	opens dialogue “Save query”
Open	ph=open	opens view patient; saves a change
Open	ph=open	opens view patient; saves a change
Open	ph=open	opens view patient; saves a change
Open	ph=open	opens view patient; saves a change
Open	ph=open	opens view patient; saves a change
Open	ph=open	opens view patient; saves a change

Orders

Button	Action	Observed response
Light / dark		switches theme
Sign out		locks the application (checked separately)
New order	la=neworder	opens dialogue “New order”
Export CSV	la=csv k=orders	downloads orders_2026-11-12.csv; saves a change
Switch	la=op	opens dialogue “Switch operator”
Open	la=order	opens view lorder
Open	la=order	opens view lorder
Open	la=order	opens view lorder
Open	la=order	opens view lorder
Open	la=order	opens view lorder
Open	la=order	opens view lorder

Samples

Button	Action	Observed response

Light / dark		switches theme
Sign out		locks the application (checked separately)
Export CSV	la=csv k=samples	downloads samples_2026-11-12.csv; saves a change
Switch	la=op	opens dialogue “Switch operator”
Open	la=sample	opens view lsample
Open	la=sample	opens view lsample
Open	la=sample	opens view lsample
Open	la=sample	opens view lsample
Open	la=sample	opens view lsample
Open	la=sample	opens view lsample
Open	la=sample	opens view lsample
Open	la=sample	opens view lsample
Open	la=sample	opens view lsample
Open	la=sample	opens view lsample

Runs

Button	Action	Observed response
Light / dark		switches theme
Sign out		locks the application (checked separately)
New run	la=newrun	opens view lrun; saves a change
Switch	la=op	opens dialogue “Switch operator”
Open	la=run	opens view lrun
Open	la=run	opens view lrun

Reports

Button	Action	Observed response
Light / dark		switches theme
Sign out		locks the application (checked separately)
Switch	la=op	opens dialogue “Switch operator”
Open	la=report	opens view lreport
Open	la=report	opens view lreport

Quality

Button	Action	Observed response

Light / dark		switches theme
Sign out		locks the application (checked separately)
Switch	la=op	opens dialogue “Switch operator”
Add	la=qadd c=capa	saves a change
Edit	la=qopen	updates the page
Delete	la=qdel c=capa	opens dialogue “Please confirm”
Edit	la=qopen	updates the page
Delete	la=qdel c=capa	opens dialogue “Please confirm”
Edit	la=qopen	updates the page
Delete	la=qdel c=capa	opens dialogue “Please confirm”
Add	la=qadd c=reagents	saves a change
Edit	la=qopen	updates the page
Delete	la=qdel c=reagents	opens dialogue “Please confirm”
Edit	la=qopen	updates the page
Delete	la=qdel c=reagents	opens dialogue “Please confirm”
Edit	la=qopen	updates the page
Delete	la=qdel c=reagents	opens dialogue “Please confirm”
Edit	la=qopen	updates the page
Delete	la=qdel c=reagents	opens dialogue “Please confirm”
Add	la=qadd c=equipment	saves a change
Edit	la=qopen	updates the page
Delete	la=qdel c=equipment	opens dialogue “Please confirm”
Edit	la=qopen	updates the page
Delete	la=qdel c=equipment	opens dialogue “Please confirm”
Edit	la=qopen	updates the page
Delete	la=qdel c=equipment	opens dialogue “Please confirm”
Edit	la=qopen	updates the page
Delete	la=qdel c=equipment	opens dialogue “Please confirm”

Documents

Button	Action	Observed response
Light / dark		switches theme
Sign out		locks the application (checked separately)
Switch	la=op	opens dialogue “Switch operator”

Open PDF	link opens TribroLIMS_SOP_Accessioning.pdf (HTTP 200)
Open PDF	link opens TribroLIMS_SOP_Interpretation_ACMG.pdf (HTTP 200)
Open PDF	link opens TribroLIMS_Validation_Report_WES.pdf (HTTP 200)
Open PDF	link opens TribroLIMS_CAPA_Report.pdf (HTTP 200)
Open PDF	link opens TribroLIMS_Clinical_Report_RareDisease.pdf (HTTP 200)
Open PDF	link opens TribroLIMS_Genetic_Testing_Policy.pdf (HTTP 200)
Open PDF	link opens TribroLIMS_Data_Protection_Policy.pdf (HTTP 200)
Open PDF	link opens TribroLIMS_Data_Processing_Agreement.pdf (HTTP 200)

Audit trail

Button	Action	Observed response
Light / dark		switches theme
Sign out		locks the application (checked separately)
Export CSV	la=csv k=audit	downloads audit_2026-11-12.csv; saves a change
Switch	la=op	opens dialogue “Switch operator”

CRM link

Button	Action	Observed response
Light / dark		switches theme
Sign out		locks the application (checked separately)
Change link code	sx=link-code	opens dialogue “Link code”
Test connection	sx=link-ping	saves a change; message “Test sent. CRM answers when it is open and signed in in this”
Import package file	sx=link-file	opens file chooser

Settings

Button	Action	Observed response
Light / dark		switches theme

Sign out		locks the application (checked separately)
Switch	la=op	opens dialogue “Switch operator”
Download security report	sx=report	downloads security-report-lims-2026-11-12.txt; saves a change
Create encrypted backup	sx=bk-export	opens dialogue “Confirm backup export”
Restore encrypted backup	sx=bk-import	opens file chooser
Add person	la=qadd c=staff	saves a change
Module settings	ph=cfg	opens dialogue “Module settings”
New recovery codes	act=tf-regen	opens dialogue “New recovery codes”
Turn off	act=tf-off	opens dialogue “Turn off authenticator”
Change password	act=pw-change	message “Use at least 12 characters”
Sign out now	act=pw-lock	locks the application (checked separately)

Order ORD-26-00006 (Awaiting accession)

Button	Action	Observed response
Light / dark		switches theme
Sign out		locks the application (checked separately)
← Orders	nav=lorders	opens view lorders
Switch	la=op	opens dialogue “Switch operator”
Open case record	ph=open	opens view patient; saves a change
Register sample	la=newsample	opens view lsample; saves a change
Open	la=sample	opens view lsample
Add analysis	la=addana	saves a change
Import VCF…	la=vcf	opens file chooser
Add variant by hand	la=addvar	opens dialogue “Variant classification”; saves a change
Export CSV	la=csv k=variants	downloads ORD-26-00006_variants.csv; saves a change
Draft report	la=newreport	opens view lreport; saves a change
Send status / result to CRM	sx=link-result	saves a change; message “Sent to CRM: ORD-26-00006 · TBO-P-2026-0004 · status Awaitin”
Download package file	sx=link-resultfile	downloads ORD-26-00006_to_CRM.tbolink; saves a change

Order ORD-26-00005 (In laboratory)

Button	Action	Observed response

Light / dark		switches theme
Sign out		locks the application (checked separately)
← Orders	nav=lorders	opens view lorders
Switch	la=op	opens dialogue “Switch operator”
Open case record	ph=open	opens view patient; saves a change
Register sample	la=newsample	opens view lsample; saves a change
Open	la=sample	opens view lsample
Open	la=sample	opens view lsample
Add analysis	la=addana	saves a change
Import VCF…	la=vcf	opens file chooser
Add variant by hand	la=addvar	opens dialogue “Variant classification”; saves a change
Export CSV	la=csv k=variants	downloads ORD-26-00005_variants.csv; saves a change
Draft report	la=newreport	opens view lreport; saves a change
Send status / result to CRM	sx=link-result	saves a change; message “Sent to CRM: ORD-26-00005 · TBO-P-2026-0006 · status In labo”
Download package file	sx=link-resultfile	downloads ORD-26-00005_to_CRM.tbolink; saves a change

Order ORD-26-00004 (In laboratory)

Button	Action	Observed response
Light / dark		switches theme
Sign out		locks the application (checked separately)
← Orders	nav=lorders	opens view lorders
Switch	la=op	opens dialogue “Switch operator”
Open case record	ph=open	opens view patient; saves a change
Register sample	la=newsample	opens view lsample; saves a change
Open	la=sample	opens view lsample
Add analysis	la=addana	saves a change
Import VCF…	la=vcf	opens file chooser
Add variant by hand	la=addvar	opens dialogue “Variant classification”; saves a change
Export CSV	la=csv k=variants	downloads ORD-26-00004_variants.csv; saves a change
Draft report	la=newreport	opens view lreport; saves a change

Send status / result to CRM	sx=link-result	saves a change; message “Sent to CRM: ORD-26-00004 · TBO-P-2026-0005 · status In labo”
Download package file	sx=link-resultfile	downloads ORD-26-00004_to_CRM.tbolink; saves a change

Order ORD-26-00003 (In laboratory)

Button	Action	Observed response
Light / dark		switches theme
Sign out		locks the application (checked separately)
← Orders	nav=lorders	opens view lorders
Switch	la=op	opens dialogue “Switch operator”
Open case record	ph=open	opens view patient; saves a change
Register sample	la=newsample	opens view lsample; saves a change
Open	la=sample	opens view lsample
Open	la=sample	opens view lsample
Add analysis	la=addana	saves a change
Import VCF…	la=vcf	opens file chooser
Add variant by hand	la=addvar	opens dialogue “Variant classification”; saves a change
Export CSV	la=csv k=variants	downloads ORD-26-00003_variants.csv; saves a change
Draft report	la=newreport	opens view lreport; saves a change
Send status / result to CRM	sx=link-result	saves a change; message “Sent to CRM: ORD-26-00003 · TBO-P-2026-0003 · status In labo”
Download package file	sx=link-resultfile	downloads ORD-26-00003_to_CRM.tbolink; saves a change

Order ORD-26-00002 (Reporting)

Button	Action	Observed response
Light / dark		switches theme
Sign out		locks the application (checked separately)
← Orders	nav=lorders	opens view lorders
Switch	la=op	opens dialogue “Switch operator”
Open case record	ph=open	opens view patient; saves a change
Register sample	la=newsample	opens view lsample; saves a change
Open	la=sample	opens view lsample
Open	la=sample	opens view lsample

Open	la=sample	opens view lsample
Add analysis	la=addana	saves a change
Import VCF…	la=vcf	opens file chooser
Add variant by hand	la=addvar	opens dialogue “Variant classification”; saves a change
Export CSV	la=csv k=variants	downloads ORD-26-00002_variants.csv; saves a change
Review	la=classify	opens dialogue “Variant classification”
Classify	la=classify	opens dialogue “Variant classification”
Classify	la=classify	opens dialogue “Variant classification”
Classify	la=classify	opens dialogue “Variant classification”
Open	la=report	opens view lreport
Send status / result to CRM	sx=link-result	saves a change; message “Sent to CRM: ORD-26-00002 · TBO-P-2026-0001 · status Reporti”
Download package file	sx=link-resultfile	downloads ORD-26-00002_to_CRM.tbolink; saves a change

Order ORD-26-00001 (Completed)

Button	Action	Observed response
Light / dark		switches theme
Sign out		locks the application (checked separately)
← Orders	nav=lorders	opens view lorders
Switch	la=op	opens dialogue “Switch operator”
Open case record	ph=open	opens view patient; saves a change
Open	la=sample	opens view lsample
Add analysis	la=addana	saves a change
Import VCF…	la=vcf	opens file chooser
Add variant by hand	la=addvar	opens dialogue “Variant classification”; saves a change
Export CSV	la=csv k=variants	downloads ORD-26-00001_variants.csv; saves a change
Review	la=classify	opens dialogue “Variant classification”
Review	la=classify	opens dialogue “Variant classification”
Start amended report	la=newreport	opens dialogue “Amend report RPT-26-00001”
Open	la=report	opens view lreport
Send status / result to CRM	sx=link-result	saves a change; message “Sent to CRM: ORD-26-00001 · TBO-P-2026-0002 · report Positiv”

Download package file	sx=link-resultfile	downloads ORD-26-00001_to_CRM.tbolink; saves a change

Sample S-26-00010 (Registered)

Button	Action	Observed response
Light / dark		switches theme
Sign out		locks the application (checked separately)
← Samples	nav=lsamples	opens view lsamples
Print label	la=label	opens print dialogue; saves a change
Switch	la=op	opens dialogue “Switch operator”
ORD-26-00006	la=order	opens view lorder
Accept and accession	la=accession	message “Tick all four accessioning checks, or reject the sample”
Reject sample	la=reject	opens dialogue “Reject sample S-26-00010”

Sample S-26-00009 (QC failed)

Button	Action	Observed response
Light / dark		switches theme
Sign out		locks the application (checked separately)
← Samples	nav=lsamples	opens view lsamples
Print label	la=label	opens print dialogue; saves a change
Switch	la=op	opens dialogue “Switch operator”
ORD-26-00005	la=order	opens view lorder
Return to workflow (repeat)	la=advance	saves a change
Add repeat	la=attempt k=ext	saves a change
Record QC failure	la=advance	saves a change
Accept with deviation → Extracted	la=advance	opens dialogue “Accept with deviation”
Start	la=attempt k=lib	saves a change

Sample S-26-00008 (Extracted)

Button	Action	Observed response
Light / dark		switches theme
Sign out		locks the application (checked separately)
← Samples	nav=lsamples	opens view lsamples
Print label	la=label	opens print dialogue; saves a change

Switch	la=op	opens dialogue “Switch operator”
ORD-26-00005	la=order	opens view lorder
Add repeat	la=attempt k=ext	saves a change
Confirm QC pass → Extracted	la=advance	saves a change
Start	la=attempt k=lib	saves a change

Sample S-26-00007 (Library ready)

Button	Action	Observed response
Light / dark		switches theme
Sign out		locks the application (checked separately)
← Samples	nav=lsamples	opens view lsamples
Print label	la=label	opens print dialogue; saves a change
Switch	la=op	opens dialogue “Switch operator”
ORD-26-00004	la=order	opens view lorder
Add repeat	la=attempt k=lib	saves a change
Confirm QC pass → Library ready	la=advance	saves a change

Sample S-26-00006 (Rejected)

Button	Action	Observed response
Light / dark		switches theme
Sign out		locks the application (checked separately)
← Samples	nav=lsamples	opens view lsamples
Print label	la=label	opens print dialogue; saves a change
Switch	la=op	opens dialogue “Switch operator”
ORD-26-00003	la=order	opens view lorder

Sample S-26-00005 (On run)

Button	Action	Observed response
Light / dark		switches theme
Sign out		locks the application (checked separately)
← Samples	nav=lsamples	opens view lsamples
Print label	la=label	opens print dialogue; saves a change
Switch	la=op	opens dialogue “Switch operator”
ORD-26-00003	la=order	opens view lorder

RUN-26-00002	la=run	opens view lrun

Sample S-26-00004 (Sequenced)

Button	Action	Observed response
Light / dark		switches theme
Sign out		locks the application (checked separately)
← Samples	nav=lsamples	opens view lsamples
Print label	la=label	opens print dialogue; saves a change
Switch	la=op	opens dialogue “Switch operator”
ORD-26-00002	la=order	opens view lorder
RUN-26-00001	la=run	opens view lrun

Sample S-26-00003 (Analysed)

Button	Action	Observed response
Light / dark		switches theme
Sign out		locks the application (checked separately)
← Samples	nav=lsamples	opens view lsamples
Print label	la=label	opens print dialogue; saves a change
Switch	la=op	opens dialogue “Switch operator”
ORD-26-00002	la=order	opens view lorder
RUN-26-00001	la=run	opens view lrun

Sample S-26-00002 (Analysed)

Button	Action	Observed response
Light / dark		switches theme
Sign out		locks the application (checked separately)
← Samples	nav=lsamples	opens view lsamples
Print label	la=label	opens print dialogue; saves a change
Switch	la=op	opens dialogue “Switch operator”
ORD-26-00002	la=order	opens view lorder
RUN-26-00001	la=run	opens view lrun

Sample S-26-00001 (Reported)

Button	Action	Observed response
Light / dark		switches theme

Sign out		locks the application (checked separately)
← Samples	nav=lsamples	opens view lsamples
Print label	la=label	opens print dialogue; saves a change
Switch	la=op	opens dialogue “Switch operator”
ORD-26-00001	la=order	opens view lorder
RUN-26-00001	la=run	opens view lrun

Run RUN-26-00002 (Running)

Button	Action	Observed response
Light / dark		switches theme
Sign out		locks the application (checked separately)
← Runs	nav=lruns	opens view lruns
Sample sheet (CSV)	la=sheet	downloads RUN-26-00002_SampleSheet.csv; saves a change
Switch	la=op	opens dialogue “Switch operator”
Open sample	la=sample	opens view lsample
Remove	la=unlib	saves a change
Add to run	la=addlib	saves a change
Complete run and release sample QC	la=runcomplete	message “Enter mean depth for every library before completing the run”
Mark run as failed	la=runfail	opens dialogue “Please confirm”

Run RUN-26-00001 (Complete)

Button	Action	Observed response
Light / dark		switches theme
Sign out		locks the application (checked separately)
← Runs	nav=lruns	opens view lruns
Sample sheet (CSV)	la=sheet	downloads RUN-26-00001_SampleSheet.csv; saves a change
Switch	la=op	opens dialogue “Switch operator”
Open sample	la=sample	opens view lsample
Open sample	la=sample	opens view lsample
Open sample	la=sample	opens view lsample
Open sample	la=sample	opens view lsample

Report RPT-26-00001 (Released)

Button	Action	Observed response
Light / dark		switches theme
Sign out		locks the application (checked separately)
← Reports	nav=lreports	opens view lreports
Order ORD-26-00001	la=order	opens view lorder
Print / save as PDF	la=printrep	opens print dialogue; saves a change
Switch	la=op	opens dialogue “Switch operator”
Verify fingerprint	la=verify	saves a change; message “Fingerprint matches: the report is unchanged since sign-off”

Report RPT-26-00002 (Reviewed)

Button	Action	Observed response
Light / dark		switches theme
Sign out		locks the application (checked separately)
← Reports	nav=lreports	opens view lreports
Order ORD-26-00002	la=order	opens view lorder
Print / save as PDF	la=printrep	opens print dialogue; saves a change
Switch	la=op	opens dialogue “Switch operator”
Back to draft	la=redraft	saves a change
Sign and release	la=sign	opens dialogue “Sign and release RPT-26-00002”

Case record — tab reg

Button	Action	Observed response
Light / dark		switches theme
Sign out		locks the application (checked separately)
← Patients	nav=pheno	opens view pheno
Submit	ph=state s=Submitted	saves a change
Registration	ph=tab t=reg	already selected (no change expected)
History	ph=tab t=hist	updates the page
Family & pedigree	ph=tab t=fam	updates the page
Organ systems	ph=tab t=sys	updates the page
HPO annotation	ph=tab t=hpo	updates the page
Examination	ph=tab t=exam	updates the page
Laboratory	ph=tab t=lab	updates the page

Genomics	ph=tab t=gen	updates the page
Notes & extraction	ph=tab t=notes	updates the page
Prioritisation	ph=tab t=prio	updates the page
Follow-up	ph=tab t=follow	updates the page
Consent	ph=tab t=consent	updates the page
Report & export	ph=tab t=out	updates the page
Audit	ph=tab t=log	updates the page

Case record — tab hist

Button	Action	Observed response
Light / dark		switches theme
Sign out		locks the application (checked separately)
← Patients	nav=pheno	opens view pheno
Submit	ph=state s=Submitted	saves a change
Registration	ph=tab t=reg	updates the page
History	ph=tab t=hist	already selected (no change expected)
Family & pedigree	ph=tab t=fam	updates the page
Organ systems	ph=tab t=sys	updates the page
HPO annotation	ph=tab t=hpo	updates the page
Examination	ph=tab t=exam	updates the page
Laboratory	ph=tab t=lab	updates the page
Genomics	ph=tab t=gen	updates the page
Notes & extraction	ph=tab t=notes	updates the page
Prioritisation	ph=tab t=prio	updates the page
Follow-up	ph=tab t=follow	updates the page
Consent	ph=tab t=consent	updates the page
Report & export	ph=tab t=out	updates the page
Audit	ph=tab t=log	updates the page
Add	ph=add	saves a change
Remove	ph=del	opens dialogue “Please confirm”
Add	ph=add	saves a change

Case record — tab fam

Button	Action	Observed response

Light / dark		switches theme
Sign out		locks the application (checked separately)
← Patients	nav=pheno	opens view pheno
Submit	ph=state s=Submitted	saves a change
Registration	ph=tab t=reg	updates the page
History	ph=tab t=hist	updates the page
Family & pedigree	ph=tab t=fam	already selected (no change expected)
Organ systems	ph=tab t=sys	updates the page
HPO annotation	ph=tab t=hpo	updates the page
Examination	ph=tab t=exam	updates the page
Laboratory	ph=tab t=lab	updates the page
Genomics	ph=tab t=gen	updates the page
Notes & extraction	ph=tab t=notes	updates the page
Prioritisation	ph=tab t=prio	updates the page
Follow-up	ph=tab t=follow	updates the page
Consent	ph=tab t=consent	updates the page
Report & export	ph=tab t=out	updates the page
Audit	ph=tab t=log	updates the page
Add	ph=add	saves a change
Export PED	ph=exp k=ped	downloads TBO-P-2026-0001.ped; saves a change
Export SVG	ph=exp k=svg	downloads TBO-P-2026-0001_pedigree.svg; saves a change

Case record — tab sys

Button	Action	Observed response
Light / dark		switches theme
Sign out		locks the application (checked separately)
← Patients	nav=pheno	opens view pheno
Submit	ph=state s=Submitted	saves a change
Registration	ph=tab t=reg	updates the page
History	ph=tab t=hist	updates the page
Family & pedigree	ph=tab t=fam	updates the page
Organ systems	ph=tab t=sys	already selected (no change expected)
HPO annotation	ph=tab t=hpo	updates the page

Examination	ph=tab t=exam	updates the page
Laboratory	ph=tab t=lab	updates the page
Genomics	ph=tab t=gen	updates the page
Notes & extraction	ph=tab t=notes	updates the page
Prioritisation	ph=tab t=prio	updates the page
Follow-up	ph=tab t=follow	updates the page
Consent	ph=tab t=consent	updates the page
Report & export	ph=tab t=out	updates the page
Audit	ph=tab t=log	updates the page
1. Growth and development	ph=sys s=Growth and development	already selected (no change expected)
2. Craniofacial abnormalities (1)	ph=sys s=Craniofacial abnormaliti	updates the page
3. Neurological system (2)	ph=sys s=Neurological system	updates the page
4. Cardiovascular system	ph=sys s=Cardiovascular system	updates the page
5. Respiratory system	ph=sys s=Respiratory system	updates the page
6. Gastrointestinal system	ph=sys s=Gastrointestinal system	updates the page
7. Hepatobiliary system	ph=sys s=Hepatobiliary system	updates the page
8. Renal and urinary system	ph=sys s=Renal and urinary system	updates the page
9. Musculoskeletal system (1)	ph=sys s=Musculoskeletal system	updates the page
10. Skeletal abnormalities	ph=sys s=Skeletal abnormalities	updates the page
11. Dermatological system	ph=sys s=Dermatological system	updates the page
12. Ophthalmological system	ph=sys s=Ophthalmological system	updates the page
13. Auditory system (1)	ph=sys s=Auditory system	updates the page
14. Endocrine system	ph=sys s=Endocrine system	updates the page
15. Hematological system	ph=sys s=Hematological system	updates the page

16. Immunological system	ph=sys s=Immunological system	updates the page
17. Metabolic abnormalities	ph=sys s=Metabolic abnormalities	updates the page
18. Reproductive system	ph=sys s=Reproductive system	updates the page
19. Psychiatric and behavioural manifestations	ph=sys s=Psychiatric and behaviou	updates the page
20. Dental and oral abnormalities	ph=sys s=Dental and oral abnormal	updates the page
21. Connective tissue disorders	ph=sys s=Connective tissue disord	updates the page
22. Tumour predisposition and cancer history	ph=sys s=Tumour predisposition an	updates the page
Details	ph=obsopen	updates the page
Details	ph=obsopen	updates the page
Add free-text observation	ph=free s=Growth and development	opens dialogue “Add observation”
Search more HPO terms in this system	ph=browse	updates the page

Case record — tab hpo

Button	Action	Observed response
Light / dark		switches theme
Sign out		locks the application (checked separately)
← Patients	nav=pheno	opens view pheno
Submit	ph=state s=Submitted	saves a change
Registration	ph=tab t=reg	updates the page
History	ph=tab t=hist	updates the page
Family & pedigree	ph=tab t=fam	updates the page
Organ systems	ph=tab t=sys	updates the page
HPO annotation	ph=tab t=hpo	already selected (no change expected)
Examination	ph=tab t=exam	updates the page
Laboratory	ph=tab t=lab	updates the page
Genomics	ph=tab t=gen	updates the page
Notes & extraction	ph=tab t=notes	updates the page
Prioritisation	ph=tab t=prio	updates the page

Follow-up	ph=tab t=follow	updates the page
Consent	ph=tab t=consent	updates the page
Report & export	ph=tab t=out	updates the page
Audit	ph=tab t=log	updates the page
Phenotypic abnormality	ph=term	updates the page
Abnormal nervous system physiology	ph=term	updates the page
Bilateral tonic-clonic seizure	ph=term	updates the page
Status epilepticus	ph=term	updates the page
Generalized-onset seizure	ph=term	updates the page
Focal-onset seizure	ph=term	updates the page
Symptomatic seizures	ph=term	updates the page
Dialeptic seizure	ph=term	updates the page
Reflex seizure	ph=term	updates the page
Motor seizure	ph=term	updates the page
Nocturnal seizures	ph=term	updates the page
Neonatal seizure	ph=term	updates the page
Infection-related seizure	ph=term	updates the page
Non-motor seizure	ph=term	updates the page
Record as present	ph=annot	saves a change
Record as absent	ph=annot	saves a change
Record as suspected	ph=annot	saves a change
Attach	ph=attach	message “Choose an observation first”
Add free-text observation	ph=free s=	opens dialogue “Add observation”
Check against HPO 2025-01-16	ph=valid	opens dialogue “Check against HPO 2025-01-16”; saves a change
Reject	ph=reject	saves a change
Suggest HPO	ph=sug	saves a change
Details	ph=obsopen	updates the page
Delete	ph=obsdel	opens dialogue “Please confirm”
Reject	ph=reject	saves a change
Suggest HPO	ph=sug	saves a change
Details	ph=obsopen	updates the page
Delete	ph=obsdel	opens dialogue “Please confirm”

Reject	ph=reject	saves a change
Suggest HPO	ph=sug	saves a change
Details	ph=obsopen	updates the page
Delete	ph=obsdel	opens dialogue “Please confirm”
Reject	ph=reject	saves a change
Suggest HPO	ph=sug	saves a change
Details	ph=obsopen	updates the page
Delete	ph=obsdel	opens dialogue “Please confirm”
Reject	ph=reject	saves a change
Suggest HPO	ph=sug	saves a change
Details	ph=obsopen	updates the page
Delete	ph=obsdel	opens dialogue “Please confirm”

Case record — tab exam

Button	Action	Observed response
Light / dark		switches theme
Sign out		locks the application (checked separately)
← Patients	nav=pheno	opens view pheno
Submit	ph=state s=Submitted	saves a change
Registration	ph=tab t=reg	updates the page
History	ph=tab t=hist	updates the page
Family & pedigree	ph=tab t=fam	updates the page
Organ systems	ph=tab t=sys	updates the page
HPO annotation	ph=tab t=hpo	updates the page
Examination	ph=tab t=exam	already selected (no change expected)
Laboratory	ph=tab t=lab	updates the page
Genomics	ph=tab t=gen	updates the page
Notes & extraction	ph=tab t=notes	updates the page
Prioritisation	ph=tab t=prio	updates the page
Follow-up	ph=tab t=follow	updates the page
Consent	ph=tab t=consent	updates the page
Report & export	ph=tab t=out	updates the page
Audit	ph=tab t=log	updates the page
Add	ph=add	saves a change

Case record — tab lab

Button	Action	Observed response
Light / dark		switches theme
Sign out		locks the application (checked separately)
← Patients	nav=pheno	opens view pheno
Submit	ph=state s=Submitted	saves a change
Registration	ph=tab t=reg	updates the page
History	ph=tab t=hist	updates the page
Family & pedigree	ph=tab t=fam	updates the page
Organ systems	ph=tab t=sys	updates the page
HPO annotation	ph=tab t=hpo	updates the page
Examination	ph=tab t=exam	updates the page
Laboratory	ph=tab t=lab	already selected (no change expected)
Genomics	ph=tab t=gen	updates the page
Notes & extraction	ph=tab t=notes	updates the page
Prioritisation	ph=tab t=prio	updates the page
Follow-up	ph=tab t=follow	updates the page
Consent	ph=tab t=consent	updates the page
Report & export	ph=tab t=out	updates the page
Audit	ph=tab t=log	updates the page
Add	ph=add	saves a change

Case record — tab gen

Button	Action	Observed response
Light / dark		switches theme
Sign out		locks the application (checked separately)
← Patients	nav=pheno	opens view pheno
Submit	ph=state s=Submitted	saves a change
Registration	ph=tab t=reg	updates the page
History	ph=tab t=hist	updates the page
Family & pedigree	ph=tab t=fam	updates the page
Organ systems	ph=tab t=sys	updates the page
HPO annotation	ph=tab t=hpo	updates the page
Examination	ph=tab t=exam	updates the page

Laboratory	ph=tab t=lab	updates the page
Genomics	ph=tab t=gen	already selected (no change expected)
Notes & extraction	ph=tab t=notes	updates the page
Prioritisation	ph=tab t=prio	updates the page
Follow-up	ph=tab t=follow	updates the page
Consent	ph=tab t=consent	updates the page
Report & export	ph=tab t=out	updates the page
Audit	ph=tab t=log	updates the page
Add	ph=add	saves a change
Remove	ph=del	opens dialogue “Please confirm”
Add	ph=add	saves a change
Remove	ph=del	opens dialogue “Please confirm”
Add	ph=add	saves a change

Case record — tab notes

Button	Action	Observed response
Light / dark		switches theme
Sign out		locks the application (checked separately)
← Patients	nav=pheno	opens view pheno
Submit	ph=state s=Submitted	saves a change
Registration	ph=tab t=reg	updates the page
History	ph=tab t=hist	updates the page
Family & pedigree	ph=tab t=fam	updates the page
Organ systems	ph=tab t=sys	updates the page
HPO annotation	ph=tab t=hpo	updates the page
Examination	ph=tab t=exam	updates the page
Laboratory	ph=tab t=lab	updates the page
Genomics	ph=tab t=gen	updates the page
Notes & extraction	ph=tab t=notes	already selected (no change expected)
Prioritisation	ph=tab t=prio	updates the page
Follow-up	ph=tab t=follow	updates the page
Consent	ph=tab t=consent	updates the page
Report & export	ph=tab t=out	updates the page
Audit	ph=tab t=log	updates the page

Add	ph=add	saves a change
Extract phenotype suggestions	ph=extract	saves a change
Remove	ph=del	opens dialogue “Please confirm”

Case record — tab prio

Button	Action	Observed response
Light / dark		switches theme
Sign out		locks the application (checked separately)
← Patients	nav=pheno	opens view pheno
Submit	ph=state s=Submitted	saves a change
Registration	ph=tab t=reg	updates the page
History	ph=tab t=hist	updates the page
Family & pedigree	ph=tab t=fam	updates the page
Organ systems	ph=tab t=sys	updates the page
HPO annotation	ph=tab t=hpo	updates the page
Examination	ph=tab t=exam	updates the page
Laboratory	ph=tab t=lab	updates the page
Genomics	ph=tab t=gen	updates the page
Notes & extraction	ph=tab t=notes	updates the page
Prioritisation	ph=tab t=prio	already selected (no change expected)
Follow-up	ph=tab t=follow	updates the page
Consent	ph=tab t=consent	updates the page
Report & export	ph=tab t=out	updates the page
Audit	ph=tab t=log	updates the page
Rank genes and panels	ph=run	saves a change

Case record — tab follow

Button	Action	Observed response
Light / dark		switches theme
Sign out		locks the application (checked separately)
← Patients	nav=pheno	opens view pheno
Submit	ph=state s=Submitted	saves a change
Registration	ph=tab t=reg	updates the page
History	ph=tab t=hist	updates the page

Family & pedigree	ph=tab t=fam	updates the page
Organ systems	ph=tab t=sys	updates the page
HPO annotation	ph=tab t=hpo	updates the page
Examination	ph=tab t=exam	updates the page
Laboratory	ph=tab t=lab	updates the page
Genomics	ph=tab t=gen	updates the page
Notes & extraction	ph=tab t=notes	updates the page
Prioritisation	ph=tab t=prio	updates the page
Follow-up	ph=tab t=follow	already selected (no change expected)
Consent	ph=tab t=consent	updates the page
Report & export	ph=tab t=out	updates the page
Audit	ph=tab t=log	updates the page
Add	ph=add	saves a change

Case record — tab consent

Button	Action	Observed response
Light / dark		switches theme
Sign out		locks the application (checked separately)
← Patients	nav=pheno	opens view pheno
Submit	ph=state s=Submitted	saves a change
Registration	ph=tab t=reg	updates the page
History	ph=tab t=hist	updates the page
Family & pedigree	ph=tab t=fam	updates the page
Organ systems	ph=tab t=sys	updates the page
HPO annotation	ph=tab t=hpo	updates the page
Examination	ph=tab t=exam	updates the page
Laboratory	ph=tab t=lab	updates the page
Genomics	ph=tab t=gen	updates the page
Notes & extraction	ph=tab t=notes	updates the page
Prioritisation	ph=tab t=prio	updates the page
Follow-up	ph=tab t=follow	updates the page
Consent	ph=tab t=consent	already selected (no change expected)
Report & export	ph=tab t=out	updates the page
Audit	ph=tab t=log	updates the page

Add	ph=add	saves a change
Remove	ph=del	opens dialogue “Please confirm”
Remove	ph=del	opens dialogue “Please confirm”

Case record — tab out

Button	Action	Observed response
Light / dark		switches theme
Sign out		locks the application (checked separately)
← Patients	nav=pheno	opens view pheno
Submit	ph=state s=Submitted	saves a change
Registration	ph=tab t=reg	updates the page
History	ph=tab t=hist	updates the page
Family & pedigree	ph=tab t=fam	updates the page
Organ systems	ph=tab t=sys	updates the page
HPO annotation	ph=tab t=hpo	updates the page
Examination	ph=tab t=exam	updates the page
Laboratory	ph=tab t=lab	updates the page
Genomics	ph=tab t=gen	updates the page
Notes & extraction	ph=tab t=notes	updates the page
Prioritisation	ph=tab t=prio	updates the page
Follow-up	ph=tab t=follow	updates the page
Consent	ph=tab t=consent	updates the page
Report & export	ph=tab t=out	already selected (no change expected)
Audit	ph=tab t=log	updates the page
Print / save as PDF	ph=print	opens print dialogue; saves a change
Patient JSON	ph=exp k=json	downloads TBO-P-2026-0001_patient.json; saves a change
HPO TSV	ph=exp k=tsv	downloads TBO-P-2026-0001_hpo.tsv; saves a change
HPO CSV	ph=exp k=csv	downloads TBO-P-2026-0001_hpo.csv; saves a change
Phenopacket v2 JSON	ph=exp k=packet	downloads TBO-P-2026-0001_phenopacket.json; saves a change
FHIR R4 bundle	ph=exp k=fhir	downloads TBO-P-2026-0001_fhir_bundle.json; saves a change

PED	ph=exp k=ped	downloads TBO-P-2026-0001.ped; saves a change
TribroLIMS subject JSON	ph=exp k=lims	downloads TBO-P-2026-0001_lims_subject.json; saves a change

Case record — tab log

Button	Action	Observed response
Light / dark		switches theme
Sign out		locks the application (checked separately)
← Patients	nav=pheno	opens view pheno
Submit	ph=state s=Submitted	saves a change
Registration	ph=tab t=reg	updates the page
History	ph=tab t=hist	updates the page
Family & pedigree	ph=tab t=fam	updates the page
Organ systems	ph=tab t=sys	updates the page
HPO annotation	ph=tab t=hpo	updates the page
Examination	ph=tab t=exam	updates the page
Laboratory	ph=tab t=lab	updates the page
Genomics	ph=tab t=gen	updates the page
Notes & extraction	ph=tab t=notes	updates the page
Prioritisation	ph=tab t=prio	updates the page
Follow-up	ph=tab t=follow	updates the page
Consent	ph=tab t=consent	updates the page
Report & export	ph=tab t=out	updates the page
Audit	ph=tab t=log	already selected (no change expected)

Quality — record open

Button	Action	Observed response
Light / dark		switches theme
Sign out		locks the application (checked separately)
Switch	la=op	opens dialogue “Switch operator”
Add	la=qadd c=capa	saves a change
Close	la=qopen	updates the page
Delete	la=qdel c=capa	opens dialogue “Please confirm”
Edit	la=qopen	updates the page

Delete	la=qdel c=capa	opens dialogue “Please confirm”
Edit	la=qopen	updates the page
Delete	la=qdel c=capa	opens dialogue “Please confirm”
Add	la=qadd c=reagents	saves a change
Edit	la=qopen	updates the page
Delete	la=qdel c=reagents	opens dialogue “Please confirm”
Edit	la=qopen	updates the page
Delete	la=qdel c=reagents	opens dialogue “Please confirm”
Edit	la=qopen	updates the page
Delete	la=qdel c=reagents	opens dialogue “Please confirm”
Edit	la=qopen	updates the page
Delete	la=qdel c=reagents	opens dialogue “Please confirm”
Add	la=qadd c=equipment	saves a change
Edit	la=qopen	updates the page
Delete	la=qdel c=equipment	opens dialogue “Please confirm”
Edit	la=qopen	updates the page
Delete	la=qdel c=equipment	opens dialogue “Please confirm”
Edit	la=qopen	updates the page
Delete	la=qdel c=equipment	opens dialogue “Please confirm”
Edit	la=qopen	updates the page
Delete	la=qdel c=equipment	opens dialogue “Please confirm”

Variant classification dialogue

Button	Action	Observed response
Close	act=mclose	closes the dialogue
Save classification		closes the dialogue; saves a change

Annex B. Every button in CRM V11

Navigation menu

Button	Action	Observed response
Dashboard	nav=dash	opens view
Contacts	nav=contacts	opens view
Organisations	nav=orgs	opens view

Patients & phenotypes	nav=pheno	opens view
Pipeline	nav=pipe	opens view
Activities	nav=acts	opens view
Projects	nav=proj	opens view
Tasks	nav=tasks	opens view
Calendar	nav=cal	opens view
Documents	nav=lib	opens view
Saved documents	nav=saved	opens view
Finance	nav=fin	opens view
Products	nav=prods	opens view
Reports	nav=reports	opens view
Card creator	nav=cards	opens view
Brand kit	nav=brand	opens view
LIMS link	nav=link	opens view
Settings	nav=set	opens view

Dashboard

Button	Action	Observed response
Light / dark		switches theme
Sign out		locks the application (checked separately)
New document	act=go-lib	opens view lib
Log activity	act2=a-log	opens dialogue “Log activity”
New contact	act=c-add	opens dialogue “Add contact”
New deal	act=d-add	opens dialogue “Add deal”

Contacts

Button	Action	Observed response
Light / dark		switches theme
Sign out		locks the application (checked separately)
Import CSV	act2=c-import	opens file chooser
Export CSV	act=c-csv	downloads contacts.csv
Add contact	act=c-add	opens dialogue “Add contact”

Organisations

Button	Action	Observed response

Light / dark		switches theme
Sign out		locks the application (checked separately)
Add organisation	act2=o-add	opens dialogue “Add organisation”

Patients & phenotypes

Button	Action	Observed response
Light / dark		switches theme
Sign out		locks the application (checked separately)
New patient	ph=new	opens view patient; saves a change
Cohort export	ph=cexp	opens dialogue “Cohort export (6 in view)”
Import JSON	ph=import	opens file chooser
Load synthetic cases	ph=synth	opens dialogue “Please confirm”
Extraction check	ph=eval	opens dialogue “Extraction check”; saves a change
Module settings	ph=cfg	opens dialogue “Module settings”
Save query	ph=sq-save	opens dialogue “Save query”
Open	ph=open	opens view patient; saves a change
Open	ph=open	opens view patient; saves a change
Open	ph=open	opens view patient; saves a change
Open	ph=open	opens view patient; saves a change
Open	ph=open	opens view patient; saves a change
Open	ph=open	opens view patient; saves a change

Pipeline

Button	Action	Observed response
Light / dark		switches theme
Sign out		locks the application (checked separately)
Add deal	act=d-add	opens dialogue “Add deal”

Activities

Button	Action	Observed response
Light / dark		switches theme
Sign out		locks the application (checked separately)
Log activity	act2=a-log	opens dialogue “Log activity”

Projects

Button	Action	Observed response
Light / dark		switches theme
Sign out		locks the application (checked separately)
Add project	act=p-add	opens dialogue “Add project”

Tasks

Button	Action	Observed response
Light / dark		switches theme
Sign out		locks the application (checked separately)
Add task	act=t-add	opens dialogue “Add task”

Calendar

Button	Action	Observed response
Light / dark		switches theme
Sign out		locks the application (checked separately)
◀	act2=cal	updates the page
▶	act2=cal	updates the page
Today	act2=cal	returns to the current month (no change when already there; verified separately)

Documents

Button	Action	Observed response
Light / dark		switches theme
Sign out		locks the application (checked separately)
All		already selected (no change expected)
Letters (10)		updates the page
HR & offers (17)		updates the page
Commercial & finance (11)		updates the page
Agreements & legal (10)		updates the page
LTR · Letters Business letter General-purpose letter on Trib		opens view gen
INT · Letters Company introduction letter Introduce Tribro-O		opens view gen
IVL · Letters Letter of invitation Invite a person to a work		opens view gen

COL · Letters Collaboration proposal letter Propose a resear	opens view gen
LOI · Letters Letter of intent Non-binding statement of inte	opens view gen
FUP · Letters Meeting follow-up / thank-you letter Thank the	opens view gen
REM · Letters Payment reminder letter Friendly, firm or fina	opens view gen
REF · Letters Reference / recommendation letter Recommendati	opens view gen
AUT · Letters Authorisation letter Authorise a named person	opens view gen
CRT · Letters Certificate of appreciation Formal certificate	opens view gen
OFR · HR & offers Offer letter — full-time employment Employ	opens view gen
OFI · HR & offers Offer letter — internship Internship offer	opens view gen
OFC · HR & offers Offer letter — consultant / contractor Fix	opens view gen
OFF · HR & offers Offer letter — research associate / fellow	opens view gen
APT · HR & offers Appointment letter Formal appointment term	opens view gen
CNF · HR & offers Confirmation of employment letter Confirm	opens view gen
INC · HR & offers Salary revision letter Notify an employee	opens view gen
PRO · HR & offers Promotion letter Confirm a promotion and a	opens view gen
EXP · HR & offers Experience certificate Certificate of serv	opens view gen
ICC · HR & offers Internship completion certificate Certific	opens view gen
REL · HR & offers Relieving letter Confirms an employee is r	opens view gen
RSA · HR & offers Resignation acceptance letter Acknowledge	opens view gen
WRN · HR & offers Warning letter Formal written warning with	opens view gen

TRM · HR & offers Termination letter Notice of termination o	opens view gen
VER · HR & offers Employment verification letter Confirms em	opens view gen
ITV · HR & offers Interview invitation Invite a candidate to	opens view gen
RGT · HR & offers Candidate regret letter Polite decline aft	opens view gen
QUO · Commercial & finance Quotation / proposal Priced propo	opens view gen
PFI · Commercial & finance Proforma invoice Advance invoice	opens view gen
INV · Commercial & finance Tax invoice Invoice with line ite	opens view gen
CRN · Commercial & finance Credit note Credit against a prev	opens view gen
RCT · Commercial & finance Payment receipt Acknowledges a pa	opens view gen
PO · Commercial & finance Purchase order Order goods or serv	opens view gen
DCH · Commercial & finance Delivery note — data / report del	opens view gen
SOW · Commercial & finance Statement of work (SOW) Detailed	opens view gen
PCC · Commercial & finance Project completion & acceptance c	opens view gen
SMP · Commercial & finance Sample submission form Client for	opens view gen
COC · Commercial & finance Sample receipt & chain of custody	opens view gen
NDA · Agreements & legal Mutual non-disclosure agreement (ND	opens view gen
MSA · Agreements & legal Master services agreement (MSA) Fra	opens view gen

SVC · Agreements & legal Service agreement (single project)		opens view gen
CON · Agreements & legal Consulting agreement Independent co		opens view gen
MOU · Agreements & legal Memorandum of understanding (MoU) N		opens view gen
RCA · Agreements & legal Research collaboration agreement Sh		opens view gen
DPA · Agreements & legal Data processing agreement (DPA) Pro		opens view gen
CNS · Agreements & legal Research data & sample consent form		opens view gen
GTC · Agreements & legal General terms of business Standard		opens view gen
ENA · Agreements & legal Employee confidentiality & IP under		opens view gen

Saved documents

Button	Action	Observed response
Light / dark		switches theme
Sign out		locks the application (checked separately)
Set up tribroOdocs folder	nav=set	opens view set
Export log (CSV)	act=s-csv	downloads document-log.csv

Finance

Button	Action	Observed response
Light / dark		switches theme
Sign out		locks the application (checked separately)
New invoice	act=go-lib	opens view lib
Export CSV	act2=fin-csv	downloads finance.csv

Products

Button	Action	Observed response

Light / dark		switches theme
Sign out		locks the application (checked separately)
Add product	act2=pr-add	opens dialogue “Add product”

Reports

Button	Action	Observed response
Light / dark		switches theme
Sign out		locks the application (checked separately)
Export deals CSV	act2=rep-csv	downloads deals.csv

Card creator

Button	Action	Observed response
Light / dark		switches theme
Sign out		locks the application (checked separately)
Save to CRM	act=cd-save	saves a change; message “Saved as TBO/CRD/2026/0001”
Print card (85 × 55 mm)	act=cd-p1	opens print dialogue
Print A4 sheet (10 cards)	act=cd-p10	opens print dialogue
Save contact (.vcf)	act=cd-vcf	downloads Dr.-Abhishek-Kumar.vcf
Reset to company defaults	act=cd-reset	saves a change

Brand kit

Button	Action	Observed response
Light / dark		switches theme
Sign out		locks the application (checked separately)
Download		link opens brand/TribroOmics_CorporateDesign_V1.html (HTTP 200)
Open		link opens brand/TribroOmics_CorporateDesign_V1.html (HTTP 200)
Download		link opens brand/TBO_Letterhead_AbhishekKumar_V1_2026-11-05.docx (HTTP 200)
Open		link opens brand/TBO_Letterhead_AbhishekKumar_V1_2026-11-05.docx (HTTP 200)

Download	link opens brand/TBO_Letterhead_AbhishekKumar_V1_2026-11-05.pdf (HTTP 200)
Open	link opens brand/TBO_Letterhead_AbhishekKumar_V1_2026-11-05.pdf (HTTP 200)
Download	link opens brand/TBO_Presentation_Template_AbhishekKumar_V1_2026-11-05.pptx (HTTP 200)
Open	link opens brand/TBO_Presentation_Template_AbhishekKumar_V1_2026-11-05.pptx (HTTP 200)
Download	link opens brand/TBO_Presentation_Template_AbhishekKumar_V1_2026-11-05.pdf (HTTP 200)
Open	link opens brand/TBO_Presentation_Template_AbhishekKumar_V1_2026-11-05.pdf (HTTP 200)
Download	link opens brand/TBO_BusinessCard_AbhishekKumar_V1_print-3mm-bleed.pdf (HTTP 200)
Open	link opens brand/TBO_BusinessCard_AbhishekKumar_V1_print-3mm-bleed.pdf (HTTP 200)
Download	link opens brand/TBO_BusinessCard_AbhishekKumar_V1_trim.pdf (HTTP 200)
Open	link opens brand/TBO_BusinessCard_AbhishekKumar_V1_trim.pdf (HTTP 200)
Download	link opens brand/TBO_BusinessCards_AbhishekKumar_V1_editable-sheet.docx (HTTP 200)
Open	link opens brand/TBO_BusinessCards_AbhishekKumar_V1_editable-sheet.docx (HTTP 200)
Download	link opens brand/logo_primary.png (HTTP 200)
Open	link opens brand/logo_primary.png (HTTP 200)
Download	link opens brand/logo_reverse.png (HTTP 200)
Open	link opens brand/logo_reverse.png (HTTP 200)
Download	link opens brand/symbol.png (HTTP 200)
Open	link opens brand/symbol.png (HTTP 200)

LIMS link

Button	Action	Observed response
Light / dark		switches theme
Sign out		locks the application (checked separately)
Change link code	sx=link-code	opens dialogue “Link code”
Test connection	sx=link-ping	saves a change; message “Test sent. TribroLIMS answers when it is open and signed in ”
Import package file	sx=link-file	opens file chooser

Settings

Button	Action	Observed response
Light / dark		switches theme
Sign out		locks the application (checked separately)
Save settings	act=set-save	message “Settings saved”
Download security report	sx=report	downloads security-report-crm-2026-11-12.txt; saves a change
Create encrypted backup	sx=bk-export	opens dialogue “Confirm backup export”
Restore encrypted backup	sx=bk-import	opens file chooser
New recovery codes	act=tf-regen	opens dialogue “New recovery codes”
Turn off	act=tf-off	opens dialogue “Turn off authenticator”
Change password	act=pw-change	message “Use at least 12 characters”
Sign out now	act=pw-lock	locks the application (checked separately)
Export audit log (CSV)	act2=audit-csv	downloads audit-log.csv
Export backup (JSON)	act=set-export	opens dialogue “Confirm backup export”
Import backup	act=set-import	opens file chooser
Add example records	act=set-example	saves a change; message “Example records added”
Erase all data	act=set-wipe	opens dialogue “Please confirm”

Patient record — tab reg

Button	Action	Observed response
Light / dark		switches theme
Sign out		locks the application (checked separately)
← Patients	nav=pheno	opens view pheno
Submit	ph=state s=Submitted	saves a change
Registration	ph=tab t=reg	already selected (no change expected)

History	ph=tab t=hist	updates the page
Family & pedigree	ph=tab t=fam	updates the page
Organ systems	ph=tab t=sys	updates the page
HPO annotation	ph=tab t=hpo	updates the page
Examination	ph=tab t=exam	updates the page
Laboratory	ph=tab t=lab	updates the page
Genomics	ph=tab t=gen	updates the page
Notes & extraction	ph=tab t=notes	updates the page
Prioritisation	ph=tab t=prio	updates the page
Follow-up	ph=tab t=follow	updates the page
Consent	ph=tab t=consent	updates the page
Report & export	ph=tab t=out	updates the page
Audit	ph=tab t=log	updates the page

Patient record — tab hist

Button	Action	Observed response
Light / dark		switches theme
Sign out		locks the application (checked separately)
← Patients	nav=pheno	opens view pheno
Submit	ph=state s=Submitted	saves a change
Registration	ph=tab t=reg	updates the page
History	ph=tab t=hist	already selected (no change expected)
Family & pedigree	ph=tab t=fam	updates the page
Organ systems	ph=tab t=sys	updates the page
HPO annotation	ph=tab t=hpo	updates the page
Examination	ph=tab t=exam	updates the page
Laboratory	ph=tab t=lab	updates the page
Genomics	ph=tab t=gen	updates the page
Notes & extraction	ph=tab t=notes	updates the page
Prioritisation	ph=tab t=prio	updates the page
Follow-up	ph=tab t=follow	updates the page
Consent	ph=tab t=consent	updates the page
Report & export	ph=tab t=out	updates the page
Audit	ph=tab t=log	updates the page

Add	ph=add	saves a change
Remove	ph=del	opens dialogue “Please confirm”
Add	ph=add	saves a change

Patient record — tab fam

Button	Action	Observed response
Light / dark		switches theme
Sign out		locks the application (checked separately)
← Patients	nav=pheno	opens view pheno
Submit	ph=state s=Submitted	saves a change
Registration	ph=tab t=reg	updates the page
History	ph=tab t=hist	updates the page
Family & pedigree	ph=tab t=fam	already selected (no change expected)
Organ systems	ph=tab t=sys	updates the page
HPO annotation	ph=tab t=hpo	updates the page
Examination	ph=tab t=exam	updates the page
Laboratory	ph=tab t=lab	updates the page
Genomics	ph=tab t=gen	updates the page
Notes & extraction	ph=tab t=notes	updates the page
Prioritisation	ph=tab t=prio	updates the page
Follow-up	ph=tab t=follow	updates the page
Consent	ph=tab t=consent	updates the page
Report & export	ph=tab t=out	updates the page
Audit	ph=tab t=log	updates the page
Add	ph=add	saves a change
Export PED	ph=exp k=ped	downloads TBO-P-2026-0001.ped; saves a change
Export SVG	ph=exp k=svg	downloads TBO-P-2026-0001_pedigree.svg; saves a change

Patient record — tab sys

Button	Action	Observed response
Light / dark		switches theme
Sign out		locks the application (checked separately)
← Patients	nav=pheno	opens view pheno

Submit	ph=state s=Submitted	saves a change
Registration	ph=tab t=reg	updates the page
History	ph=tab t=hist	updates the page
Family & pedigree	ph=tab t=fam	updates the page
Organ systems	ph=tab t=sys	already selected (no change expected)
HPO annotation	ph=tab t=hpo	updates the page
Examination	ph=tab t=exam	updates the page
Laboratory	ph=tab t=lab	updates the page
Genomics	ph=tab t=gen	updates the page
Notes & extraction	ph=tab t=notes	updates the page
Prioritisation	ph=tab t=prio	updates the page
Follow-up	ph=tab t=follow	updates the page
Consent	ph=tab t=consent	updates the page
Report & export	ph=tab t=out	updates the page
Audit	ph=tab t=log	updates the page
1. Growth and development	ph=sys s=Growth and development	already selected (no change expected)
2. Craniofacial abnormalities (1)	ph=sys s=Craniofacial abnormaliti	updates the page
3. Neurological system (2)	ph=sys s=Neurological system	updates the page
4. Cardiovascular system	ph=sys s=Cardiovascular system	updates the page
5. Respiratory system	ph=sys s=Respiratory system	updates the page
6. Gastrointestinal system	ph=sys s=Gastrointestinal system	updates the page
7. Hepatobiliary system	ph=sys s=Hepatobiliary system	updates the page
8. Renal and urinary system	ph=sys s=Renal and urinary system	updates the page
9. Musculoskeletal system (1)	ph=sys s=Musculoskeletal system	updates the page
10. Skeletal abnormalities	ph=sys s=Skeletal abnormalities	updates the page
11. Dermatological system	ph=sys s=Dermatological system	updates the page

12. Ophthalmological system	ph=sys s=Ophthalmological system	updates the page
13. Auditory system (1)	ph=sys s=Auditory system	updates the page
14. Endocrine system	ph=sys s=Endocrine system	updates the page
15. Hematological system	ph=sys s=Hematological system	updates the page
16. Immunological system	ph=sys s=Immunological system	updates the page
17. Metabolic abnormalities	ph=sys s=Metabolic abnormalities	updates the page
18. Reproductive system	ph=sys s=Reproductive system	updates the page
19. Psychiatric and behavioural manifestations	ph=sys s=Psychiatric and behaviou	updates the page
20. Dental and oral abnormalities	ph=sys s=Dental and oral abnormal	updates the page
21. Connective tissue disorders	ph=sys s=Connective tissue disord	updates the page
22. Tumour predisposition and cancer history	ph=sys s=Tumour predisposition an	updates the page
Details	ph=obsopen	updates the page
Details	ph=obsopen	updates the page
Add free-text observation	ph=free s=Growth and development	opens dialogue “Add observation”
Search more HPO terms in this system	ph=browse	updates the page

Patient record — tab hpo

Button	Action	Observed response
Light / dark		switches theme
Sign out		locks the application (checked separately)
← Patients	nav=pheno	opens view pheno
Submit	ph=state s=Submitted	saves a change
Registration	ph=tab t=reg	updates the page
History	ph=tab t=hist	updates the page
Family & pedigree	ph=tab t=fam	updates the page
Organ systems	ph=tab t=sys	updates the page

HPO annotation	ph=tab t=hpo	already selected (no change expected)
Examination	ph=tab t=exam	updates the page
Laboratory	ph=tab t=lab	updates the page
Genomics	ph=tab t=gen	updates the page
Notes & extraction	ph=tab t=notes	updates the page
Prioritisation	ph=tab t=prio	updates the page
Follow-up	ph=tab t=follow	updates the page
Consent	ph=tab t=consent	updates the page
Report & export	ph=tab t=out	updates the page
Audit	ph=tab t=log	updates the page
Phenotypic abnormality	ph=term	updates the page
Abnormal nervous system physiology	ph=term	updates the page
Bilateral tonic-clonic seizure	ph=term	updates the page
Status epilepticus	ph=term	updates the page
Generalized-onset seizure	ph=term	updates the page
Focal-onset seizure	ph=term	updates the page
Symptomatic seizures	ph=term	updates the page
Dialeptic seizure	ph=term	updates the page
Reflex seizure	ph=term	updates the page
Motor seizure	ph=term	updates the page
Nocturnal seizures	ph=term	updates the page
Neonatal seizure	ph=term	updates the page
Infection-related seizure	ph=term	updates the page
Non-motor seizure	ph=term	updates the page
Record as present	ph=annot	saves a change
Record as absent	ph=annot	saves a change
Record as suspected	ph=annot	saves a change
Attach	ph=attach	message “Choose an observation first”
Add free-text observation	ph=free s=	opens dialogue “Add observation”
Check against HPO 2025-01-16	ph=valid	opens dialogue “Check against HPO 2025-01-16”; saves a change
Reject	ph=reject	saves a change
Suggest HPO	ph=sug	saves a change

Details	ph=obsopen	updates the page
Delete	ph=obsdel	opens dialogue “Please confirm”
Reject	ph=reject	saves a change
Suggest HPO	ph=sug	saves a change
Details	ph=obsopen	updates the page
Delete	ph=obsdel	opens dialogue “Please confirm”
Reject	ph=reject	saves a change
Suggest HPO	ph=sug	saves a change
Details	ph=obsopen	updates the page
Delete	ph=obsdel	opens dialogue “Please confirm”
Reject	ph=reject	saves a change
Suggest HPO	ph=sug	saves a change
Details	ph=obsopen	updates the page
Delete	ph=obsdel	opens dialogue “Please confirm”
Reject	ph=reject	saves a change
Suggest HPO	ph=sug	saves a change
Details	ph=obsopen	updates the page
Delete	ph=obsdel	opens dialogue “Please confirm”

Patient record — tab exam

Button	Action	Observed response
Light / dark		switches theme
Sign out		locks the application (checked separately)
← Patients	nav=pheno	opens view pheno
Submit	ph=state s=Submitted	saves a change
Registration	ph=tab t=reg	updates the page
History	ph=tab t=hist	updates the page
Family & pedigree	ph=tab t=fam	updates the page
Organ systems	ph=tab t=sys	updates the page
HPO annotation	ph=tab t=hpo	updates the page
Examination	ph=tab t=exam	already selected (no change expected)
Laboratory	ph=tab t=lab	updates the page
Genomics	ph=tab t=gen	updates the page
Notes & extraction	ph=tab t=notes	updates the page

Prioritisation	ph=tab t=prio	updates the page
Follow-up	ph=tab t=follow	updates the page
Consent	ph=tab t=consent	updates the page
Report & export	ph=tab t=out	updates the page
Audit	ph=tab t=log	updates the page
Add	ph=add	saves a change

Patient record — tab lab

Button	Action	Observed response
Light / dark		switches theme
Sign out		locks the application (checked separately)
← Patients	nav=pheno	opens view pheno
Submit	ph=state s=Submitted	saves a change
Registration	ph=tab t=reg	updates the page
History	ph=tab t=hist	updates the page
Family & pedigree	ph=tab t=fam	updates the page
Organ systems	ph=tab t=sys	updates the page
HPO annotation	ph=tab t=hpo	updates the page
Examination	ph=tab t=exam	updates the page
Laboratory	ph=tab t=lab	already selected (no change expected)
Genomics	ph=tab t=gen	updates the page
Notes & extraction	ph=tab t=notes	updates the page
Prioritisation	ph=tab t=prio	updates the page
Follow-up	ph=tab t=follow	updates the page
Consent	ph=tab t=consent	updates the page
Report & export	ph=tab t=out	updates the page
Audit	ph=tab t=log	updates the page
Add	ph=add	saves a change

Patient record — tab gen

Button	Action	Observed response
Light / dark		switches theme
Sign out		locks the application (checked separately)
← Patients	nav=pheno	opens view pheno

Submit	ph=state s=Submitted	saves a change
Registration	ph=tab t=reg	updates the page
History	ph=tab t=hist	updates the page
Family & pedigree	ph=tab t=fam	updates the page
Organ systems	ph=tab t=sys	updates the page
HPO annotation	ph=tab t=hpo	updates the page
Examination	ph=tab t=exam	updates the page
Laboratory	ph=tab t=lab	updates the page
Genomics	ph=tab t=gen	already selected (no change expected)
Notes & extraction	ph=tab t=notes	updates the page
Prioritisation	ph=tab t=prio	updates the page
Follow-up	ph=tab t=follow	updates the page
Consent	ph=tab t=consent	updates the page
Report & export	ph=tab t=out	updates the page
Audit	ph=tab t=log	updates the page
Add	ph=add	saves a change
Remove	ph=del	opens dialogue “Please confirm”
Add	ph=add	saves a change
Remove	ph=del	opens dialogue “Please confirm”
Add	ph=add	saves a change

Patient record — tab notes

Button	Action	Observed response
Light / dark		switches theme
Sign out		locks the application (checked separately)
← Patients	nav=pheno	opens view pheno
Submit	ph=state s=Submitted	saves a change
Registration	ph=tab t=reg	updates the page
History	ph=tab t=hist	updates the page
Family & pedigree	ph=tab t=fam	updates the page
Organ systems	ph=tab t=sys	updates the page
HPO annotation	ph=tab t=hpo	updates the page
Examination	ph=tab t=exam	updates the page
Laboratory	ph=tab t=lab	updates the page

Genomics	ph=tab t=gen	updates the page
Notes & extraction	ph=tab t=notes	already selected (no change expected)
Prioritisation	ph=tab t=prio	updates the page
Follow-up	ph=tab t=follow	updates the page
Consent	ph=tab t=consent	updates the page
Report & export	ph=tab t=out	updates the page
Audit	ph=tab t=log	updates the page
Add	ph=add	saves a change
Extract phenotype suggestions	ph=extract	saves a change
Remove	ph=del	opens dialogue “Please confirm”

Patient record — tab prio

Button	Action	Observed response
Light / dark		switches theme
Sign out		locks the application (checked separately)
← Patients	nav=pheno	opens view pheno
Submit	ph=state s=Submitted	saves a change
Registration	ph=tab t=reg	updates the page
History	ph=tab t=hist	updates the page
Family & pedigree	ph=tab t=fam	updates the page
Organ systems	ph=tab t=sys	updates the page
HPO annotation	ph=tab t=hpo	updates the page
Examination	ph=tab t=exam	updates the page
Laboratory	ph=tab t=lab	updates the page
Genomics	ph=tab t=gen	updates the page
Notes & extraction	ph=tab t=notes	updates the page
Prioritisation	ph=tab t=prio	already selected (no change expected)
Follow-up	ph=tab t=follow	updates the page
Consent	ph=tab t=consent	updates the page
Report & export	ph=tab t=out	updates the page
Audit	ph=tab t=log	updates the page
Rank genes and panels	ph=run	saves a change

Patient record — tab follow

Button	Action	Observed response
Light / dark		switches theme
Sign out		locks the application (checked separately)
← Patients	nav=pheno	opens view pheno
Submit	ph=state s=Submitted	saves a change
Registration	ph=tab t=reg	updates the page
History	ph=tab t=hist	updates the page
Family & pedigree	ph=tab t=fam	updates the page
Organ systems	ph=tab t=sys	updates the page
HPO annotation	ph=tab t=hpo	updates the page
Examination	ph=tab t=exam	updates the page
Laboratory	ph=tab t=lab	updates the page
Genomics	ph=tab t=gen	updates the page
Notes & extraction	ph=tab t=notes	updates the page
Prioritisation	ph=tab t=prio	updates the page
Follow-up	ph=tab t=follow	already selected (no change expected)
Consent	ph=tab t=consent	updates the page
Report & export	ph=tab t=out	updates the page
Audit	ph=tab t=log	updates the page
Add	ph=add	saves a change

Patient record — tab consent

Button	Action	Observed response
Light / dark		switches theme
Sign out		locks the application (checked separately)
← Patients	nav=pheno	opens view pheno
Submit	ph=state s=Submitted	saves a change
Registration	ph=tab t=reg	updates the page
History	ph=tab t=hist	updates the page
Family & pedigree	ph=tab t=fam	updates the page
Organ systems	ph=tab t=sys	updates the page
HPO annotation	ph=tab t=hpo	updates the page
Examination	ph=tab t=exam	updates the page
Laboratory	ph=tab t=lab	updates the page

Genomics	ph=tab t=gen	updates the page
Notes & extraction	ph=tab t=notes	updates the page
Prioritisation	ph=tab t=prio	updates the page
Follow-up	ph=tab t=follow	updates the page
Consent	ph=tab t=consent	already selected (no change expected)
Report & export	ph=tab t=out	updates the page
Audit	ph=tab t=log	updates the page
Add	ph=add	saves a change
Remove	ph=del	opens dialogue “Please confirm”
Remove	ph=del	opens dialogue “Please confirm”

Patient record — tab out

Button	Action	Observed response
Light / dark		switches theme
Sign out		locks the application (checked separately)
← Patients	nav=pheno	opens view pheno
Submit	ph=state s=Submitted	saves a change
Registration	ph=tab t=reg	updates the page
History	ph=tab t=hist	updates the page
Family & pedigree	ph=tab t=fam	updates the page
Organ systems	ph=tab t=sys	updates the page
HPO annotation	ph=tab t=hpo	updates the page
Examination	ph=tab t=exam	updates the page
Laboratory	ph=tab t=lab	updates the page
Genomics	ph=tab t=gen	updates the page
Notes & extraction	ph=tab t=notes	updates the page
Prioritisation	ph=tab t=prio	updates the page
Follow-up	ph=tab t=follow	updates the page
Consent	ph=tab t=consent	updates the page
Report & export	ph=tab t=out	already selected (no change expected)
Audit	ph=tab t=log	updates the page
Send case to TribroLIMS	sx=link-case	opens dialogue “Send TBO-P-2026-0001 to TribroLIMS”
Download package file	sx=link-casefile	downloads TBO-P-2026-0001_to_LIMS.tbolink; saves a change

Open link inbox (0)	nav=link	opens view link
Print / save as PDF	ph=print	opens print dialogue; saves a change
Patient JSON	ph=exp k=json	downloads TBO-P-2026-0001_patient.json; saves a change
HPO TSV	ph=exp k=tsv	downloads TBO-P-2026-0001_hpo.tsv; saves a change
HPO CSV	ph=exp k=csv	downloads TBO-P-2026-0001_hpo.csv; saves a change
Phenopacket v2 JSON	ph=exp k=packet	downloads TBO-P-2026-0001_phenopacket.json; saves a change
FHIR R4 bundle	ph=exp k=fhir	downloads TBO-P-2026-0001_fhir_bundle.json; saves a change
PED	ph=exp k=ped	downloads TBO-P-2026-0001.ped; saves a change
TribroLIMS subject JSON	ph=exp k=lims	downloads TBO-P-2026-0001_lims_subject.json; saves a change

Patient record — tab log

Button	Action	Observed response
Light / dark		switches theme
Sign out		locks the application (checked separately)
← Patients	nav=pheno	opens view pheno
Submit	ph=state s=Submitted	saves a change
Registration	ph=tab t=reg	updates the page
History	ph=tab t=hist	updates the page
Family & pedigree	ph=tab t=fam	updates the page
Organ systems	ph=tab t=sys	updates the page
HPO annotation	ph=tab t=hpo	updates the page
Examination	ph=tab t=exam	updates the page
Laboratory	ph=tab t=lab	updates the page
Genomics	ph=tab t=gen	updates the page
Notes & extraction	ph=tab t=notes	updates the page
Prioritisation	ph=tab t=prio	updates the page
Follow-up	ph=tab t=follow	updates the page
Consent	ph=tab t=consent	updates the page
Report & export	ph=tab t=out	updates the page
Audit	ph=tab t=log	already selected (no change expected)