Switzerland Omics - Investor Document

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Executive summary

- **Company**: Switzerland Omics AG
- **Location**: Zurich, Switzerland
- **Mission**: To define the future of genomic interpretation through standardised probabilistic frameworks, curated datasets, and intelligent automation.
- **Vision**: Genomics as a persistent and horizontal infrastructure technology—interwoven with every area of human health and biomedical decision-making.
- **Investment ask**: Seeking CHF [insert amount] to expand productisation, scale dataset partnerships, and drive regulatory-ready deployments.
- **Investment thesis**: Genomics is crossing from research to routine care, but clinical interpretation remains bottlenecked by qualitative, non-standardised methods. Switzerland Omics addresses this gap with foundational frameworks and tools already running in real-world diagnostics. This is a deeply technical team working on a category-defining opportunity.
- **Competitive advantage**: Proprietary data assets, novel probabilistic methods, early clinical deployment, and expert-led development.

Problem

- Genomics lacks formal quantitative priors, leading to unquantified uncertainty in variant interpretation.
- Clinical and research pipelines remain heuristic, with poor integration of probabilistic outcomes across variant classes.
- Absence of standardised tooling or data infrastructure to assess and interpret negative/uncertain signals in addition to positive calls.

Solution

A suite of products delivering theoretical innovation and applied utility in genomic diagnostics:

- **QV Standard**: A new framework for qualifying variants in clinical pipelines.
  [Application Note] [Public Resource] (1)
- **PanelAppRex**: Unified ontology and API for gene panel logic and curation.
  [Application Note] [Public Resource] (2)
- **Quant**: Statistical risk estimator for variant observation probabilities.
  [Application Note] (3)
- **Bayesian variant interpretation**: 16-state model for causal inference, unifying theoretical and empirical insight.
  [Preprint in progress]
- **GuRu**: ACMG-guided variant curation automation.
  [GitHub Repository]
- **Dante**: End-to-end WGS-to-report system for clinical diagnostics.
  [Application Note]

Market

- **TAM**: Global genomics and precision medicine market >CHF 100B.
- **Initial focus**: Diagnostics labs, national genomic initiatives, population health platforms.
- **Expansion**: Pharma (biomarker qualification), AI healthcare infrastructure, insurance risk scoring.

Go-to-market strategy

- Clinical diagnostic labs using variant interpretation and reporting tools (GuRu, Dante).
- Licensing model for data-driven frameworks (QV Standard, Quant) to academic and government genomics programmes.
- Sales led by founder team with academic relationships; future partner-led distribution planned for enterprise.

Regulatory and compliance plan

- Data privacy and security aligned to Swiss and EU requirements (in clinical use already).
- CE-IVDR eligibility scoped for report generation (Dante) and variant interpretation (GuRu).
- No direct patient contact or therapeutic claim; software classified as clinical support tool.

Traction

- Open-source tools and public datasets actively used in national and research settings.
- Hundreds of real clinical cases processed via framework tools (Dante, GuRu).
- Letters of intent and institutional interest in place; further documentation available on request.

Team

- **Founder**: Dylan Lawless – background in statistical genomics, clinical interpretation, and AI infrastructure.
- **Advisory network**: Genetics, bioinformatics, and regulatory experts from academic and clinical environments.
- Team roadmap includes first hires in engineering, compliance, and partner success.

Roadmap

- **H1 2025**: Expand pilot programmes in clinical genomics (GuRu, Dante).
- **H2 2025**: Launch enterprise-ready data packages (Quant, PanelAppRex).
- **2026**: CE-mark regulatory filing; scale commercialisation across EU and UK.

Funding and use of proceeds

- Raising CHF [insert] seed round to fund 18–24 month runway.
- **Use of proceeds**:
  - Product development and engineering: 40%

  - Regulatory and compliance: 20%
  - Business development and partnerships: 25%
  - Operational and legal: 15%

Risks and mitigation

- **Adoption risk**: mitigated by early clinical deployment and co-development with labs.
- **Regulatory delay**: initial use cases are decision-support and do not require direct certification.
- **Technical complexity**: codebases are modular, published, and in use; risk managed via strong engineering standards.

Financials (summary)

- Currently pre-revenue. Tools are deployed in live clinical diagnostic workflows supporting variant interpretation for hundreds of patients.
- Projected CHF 1.5M Annual Recurring Revenue (ARR) within 24 months based on expected contracts with labs and institutional partners.
- Minimal burn rate with founder-led development and clinical collaborations in place (estimated CHF 8K–12K/month).
- Bootstrapped to date; no prior external funding.

Cap table

- 100% founder-owned.
- Seed round to offer 15–20% equity to strategic capital partners.

Appendix: scientific appendix and data room

- White papers, application notes, and benchmarks for each product.
- Code repositories, API documentation, and datasets.
- Clinical and research use summaries (anonymised).
- Available upon request or under NDA in shared data room.

References

[1] Dylan Lawless, Ali Saadat, Mariam Ait Oumelloul, Simon Boutry, Veronika Stadler, Sabine Österle, Jan Armida, David Haerry, D. Sean Froese, Luregn J. Schlapbach, and Jacques Fellay. Application of qualifying variants for genomic analysis. May 2025. doi: 10.1101/2025.05.09.25324975. URL http://medrxiv.org/lookup/doi/10.1101/2025.05.09.25324975.

[2] Dylan Lawless. PanelAppRex aggregates disease gene panels and facilitates sophisticated search. March 2025. doi: 10.1101/2025.03.20.25324319. URL http://medrxiv.org/lookup/doi/10.1101/2025.03.20.25324319.

[3] Dylan Lawless. Quantifying prior probabilities for disease-causing variants reveal the top genetic contributors in inborn errors of immunity. March 2025. doi: 10.1101/2025.03.25.25324607. URL http://medrxiv.org/lookup/doi/10.1101/2025.03.25.25324607.

Acronyms