Haem.io

Intelligent Diagnostics for Precision Haematology

Our Story

A New Year's conversation that changed everything

At a New Year's gathering, Robbie — an ex-lymphoma survivor — was talking to John, a consultant haematologist involved in cutting-edge research, about advances in AI. John said:

> *"That's great. We have a big problem in haematology diagnosis that we might be able to solve. Could AI do something with genetics lab reports?"*
>
> **— Dr. John Burthem, NHS Haematologist**

That conversation sparked Haem.io.

The Diagnostic Pathway Crisis

A problem in haematology today, all of oncology tomorrow

Haematology leads the way in genetics-driven diagnosis — and all oncology is heading in this direction

Unstructured Data

Haematologists manually pull together critical genetic markers from multiple sources—cytogenetics, flow cytometry, and molecular data—each in different formats with no standardization.

→

Overwhelmed Diagnostician

Clinicians spend hours manually extracting information before any diagnostic logic can begin

→

Increasing Pathway Complexity

Diagnosis must follow WHO 2022 and ICC 2022 global guidelines. But these contain hundreds of interconnected diagnostic pathways with precise criteria, too complex for consistent and timely human application.

"Accurate diagnosis forms the absolute bedrock of effective therapy"

— Dr. John Chadwick, The Christie NHS Foundation Trust

The Human Cost

When delays mean death

"Blood cancer patients have no time to lose — they need a diagnosis fast"

24 hours
Cancer cells can double

Days → Weeks
Current diagnostic delay

Every delay
Potentially fatal

This isn't just an efficiency problem — it's a patient survival problem

The Transformation

Haem.io offers the only end-to-end solution

2025

Manual Diagnosis

- ✕ Laminated flow charts on desks
- ✕ Hunt through reports for markers
- ✕ Cross-check multiple data sources
- ✕ Navigate complex guidelines manually
- ✕ Smaller trusts outsource to 5 specialist centres at great cost
- ✕ Hours → days to reach diagnosis

Error-prone · Slow · Exhausting

→

2026

With Haem.io

1. Upload report
2. AI + Logic engine runs
3. Receive diagnosis + plan

~2 minutes · Accurate · Effortless

The Scale of the Problem

Blood cancer doesn't discriminate

1.2M

Annual global diagnoses

**Low estimate—many go undiagnosed in LMEs*

Blood Cancer Reality

- Not lifestyle-related
- Any age, any gender
- No known prevention
- 3rd most fatal cancer (UK)

40,000+
UK diagnoses/year

1 / 26 sec
Global diagnosis frequency

15,000+
UK deaths/year

Every single diagnosis needs fast, accurate pathways — that's what Haem.io delivers

From Idea to Breakthrough

Building what works

1

Initial Approach: Pure AI

We built a system using LLMs for end-to-end diagnosis — feeding complete lab reports directly into the model. After rigorous testing against real clinical cases, we found critical failures: inconsistent classifications, missed diagnostic criteria, and no explainable reasoning trail.

2

Second Attempt: Hybrid AI + Logic

We used AI to extract structured parameters from reports, then applied formal logic engines with WHO/ICC diagnostic rules. This worked — but required too much upfront clinical input, making it impractical for real-world use.

3

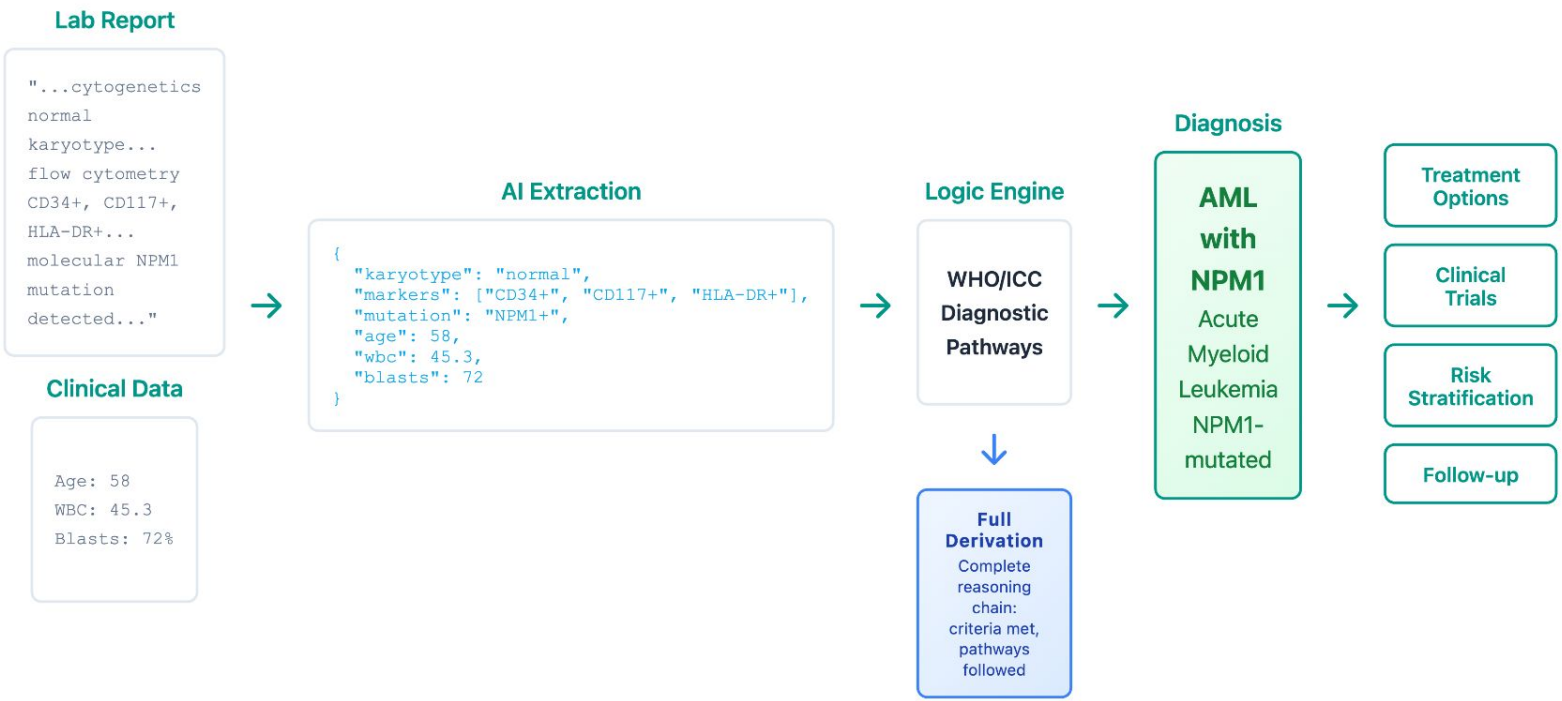
Our Breakthrough: Human-in-the-Loop

We developed a "just-in-time" approach: AI extracts what it can, logic engines run diagnostic pathways, and we ask clinicians for additional information only when necessary to reach a definitive diagnosis.

Minimal clinician input. Maximum diagnostic accuracy. This is what works.

What's Under the Hood

Not a black box: transparent, explainable, auditable



Why Is Haem.io Special?

What makes us hard to replicate

1

Zero Integration Friction

Works with any report format — PDF, scanned documents, text files. No IT integration required. Hospitals can start using it immediately without changing their existing systems.

2

Clinical Expertise as Code

Our in-house haematologists formalise WHO/ICC diagnostic logic into validated decision trees. Competitors can't replicate this without deep clinical domain knowledge embedded in the team.

3

Full Diagnostic Pipeline

Not just a diagnosis — we deliver treatment recommendations, clinical trial matching, risk stratification, and MRD monitoring. A complete decision support system, not a point solution.

4

Rapid Deployment Speed

From concept to working prototype in under 12 months. Our hybrid approach means faster iteration cycles and lower development costs than pure AI solutions.

How Will Clinicians Use Haem.io?

From raw data to actionable report in minutes

01

Upload

User uploads unstructured lab reports and adds clinical details

~30 seconds

→

02

Analyse

Haem.io is the only system that combines AI extraction with formal logic to classify disease and assess risk

~1 minute

→

03

Report

Comprehensive PDF report generated for clinical team

~30 seconds

Before

Hours to Weeks

Manual diagnosis process

→

With Haem.io

3-5 Minutes

Automated diagnostic report

Early Traction

Clinical validation with leading NHS trusts

£7M Grant Inclusion

Invited to integrate Haem.io into UK National AML Relapse Study

Pilot Studies

UK AML Research Network — Signed letter of intent for pilot study validation

Manchester Foundation Trust — In process of ethical approval

The Christie NHS — Kickoff stage with Prof. John Chadwick

Clinical Endorsements

"Haem.io offers the potential to standardise complicated cases and provide patients with a good quality diagnosis before commencing treatment."

— Dr. Tom Coats, Royal Devon & Exeter NHS Trust

"I believe Haem.io has the potential to revolutionise the quality of care that patients receive."

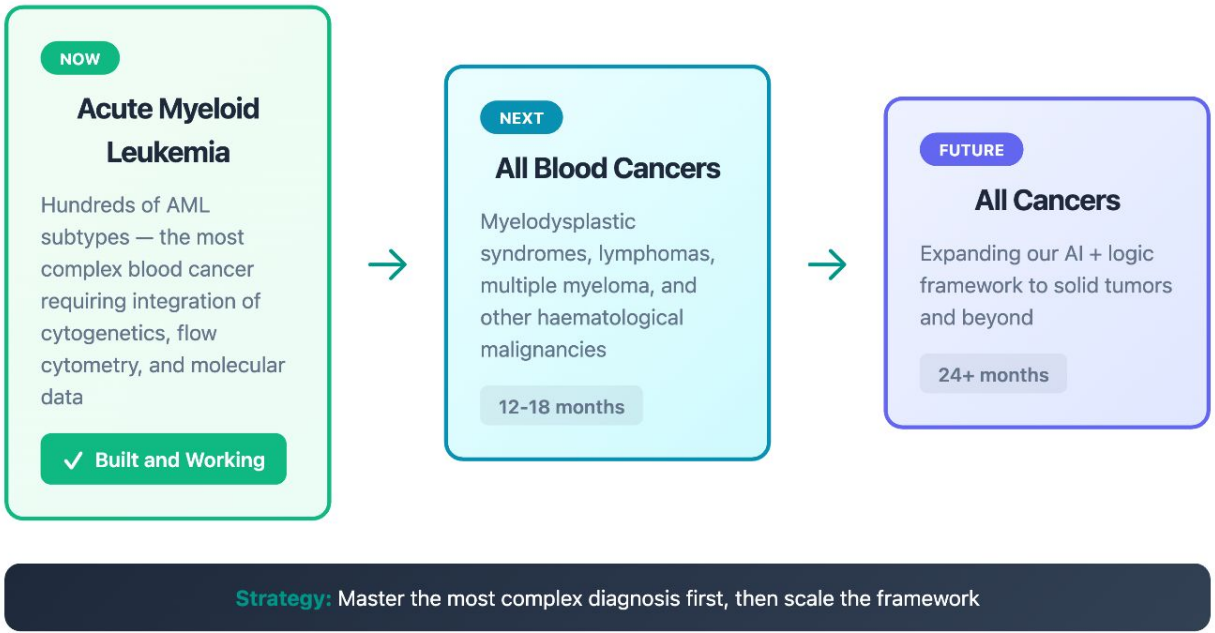
— Dr. John Chadwick, The Christie NHS Foundation Trust

"The UK AML Research Network is committed to participate in a future pilot study to help validate the platform's clinical utility."

— Prof. Charles Craddock, Chair, UK AML Research Network

Our Expansion Path

Starting with the hardest problem first



Strategy: Master the most complex diagnosis first, then scale the framework

Competitive Landscape

Haem.io is the only end-to-end solution for modern haematology

Existing tools address single pieces of the diagnostic puzzle. We're the only team providing an integrated solution built for the complexity of 2022 guidelines.

Lab Automation

e.g., Scopio Labs

Focus: AI-powered morphology

Gap: No genomic integration or WHO/ICC classification

Genomics Platforms

e.g., SOPHiA GENETICS

Focus: Genomic sequencing analysis

Gap: No automated diagnosis or risk stratification

AI Pathology

e.g., PathAI

Focus: Solid tumor histology

Gap: Not built for haematology complexity

Our Unique Position

Integrated, Not Siloed

We're the first to fuse morphology, flow cytometry, and genomics into a single diagnostic workflow

Built for 2022 Guidelines

We purpose-built our platform for WHO & ICC 2022 mutation-based criteria—not retrofitting old systems

Diagnosis to Decision

We go beyond classification: our platform integrates risk stratification (ELN 2022, IPSS-M) and treatment guidance

Perfect Market Convergence

Riding the wave: multi-billion dollar market transformation

£120B

AI in Healthcare Market by 2030

49.1% CAGR

GlobeNewswire, 2025

**Figures converted from USD to GBP using 16/10/2025 exchange rates and rounded down*

AI in Diagnostics

£1B → £30B by 2034

37.6% CAGR

GlobeNewswire, 2025

NHS AI Diagnostic Fund

£20M targeting AI diagnostics

Cancer, stroke & heart disease focus

Gov.uk, June 2023

The Team

World-class expertise in AI, physics & medicine

Robert Edward Lee

FOUNDER & CEO

Background in Computer Science & FinTech AI. Leading software development and driving the business vision.

Dr. Daniel Clarke

FOUNDER & DATA AND ANALYTICS LEAD

PhD in Nuclear Physics from CERN. Leading technology and platform architecture.

Dr. John Burthem

FOUNDER & CO-CMO

Lead Haematology Diagnostician at Manchester Foundation Trust. Focused on clinical logic development, validation, and pilot deployment strategy.

Dr. Luke Carter-Brzezinski

FOUNDER & CO-CMO

Practising haematologist focused on clinical outreach, demonstrations, and pilot studies. Overseeing clinical strategy and validation.

£750k to Transform Haematology

18 months to revenue & Series A

£750,000

Seed Investment | 18-Month Runway

Team (18 months)

Founder & Engineer	£165k
Compliance Officer	£105k
Clinical Validation Lead	£90k
	£360k

Regulatory & Pilots

UKCA certification	£100k
4 NHS pilot studies	£80k
	£180k

Infrastructure & Operations

Cloud & AI compute	£15k
Legal & accounting	£25k
Insurance & professional fees	£15k
Office & equipment	£20k
Marketing & business development	£15k
Contingency buffer (24%)	£120k
	£210k

Key Milestone: UKCA certification + 4 NHS pilot validations → Series A ready

**A more detailed breakdown is available in the financial projections document*

Revenue Model & Financial Projections

Path to profitability

Pricing Strategy

NHS Trusts	Private Hospitals	Diagnostic Labs
£50k-£100k/year	**£75k-£150k/year**	**£100k-£200k/year**

Year	Customers	Revenue	Net P/L
Year 1	Pilots & validation	£0	**-£450k**
Year 2	UKCA approval, first sales	£0	**-£300k**
Year 3	10 NHS + 2 UK private	£700k	**+£150k**
Year 4	15 NHS + Middle East + 3 labs	£2.4M	**+£1.2M**
Year 5	20 NHS + Malaysia + GCC	£5.6M	**+£3.2M**

Built on WHO & ICC global standards—ready to scale worldwide

Transforming Medical Guidelines into Engineering-Grade Logic Systems

We're not just building another AI diagnostic tool. We're creating the framework for complex medical decision-making.