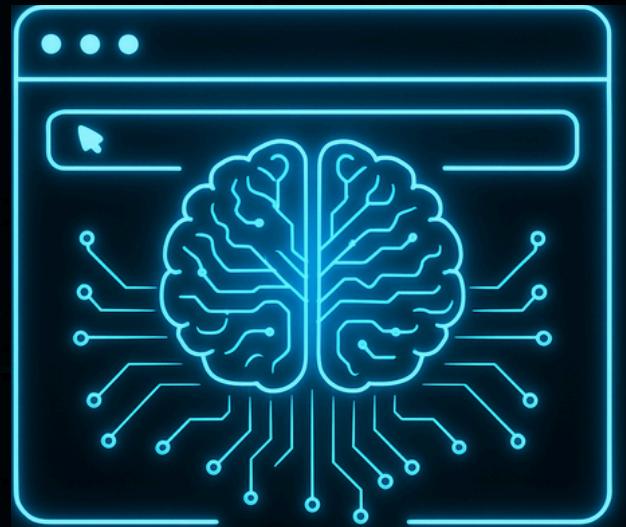
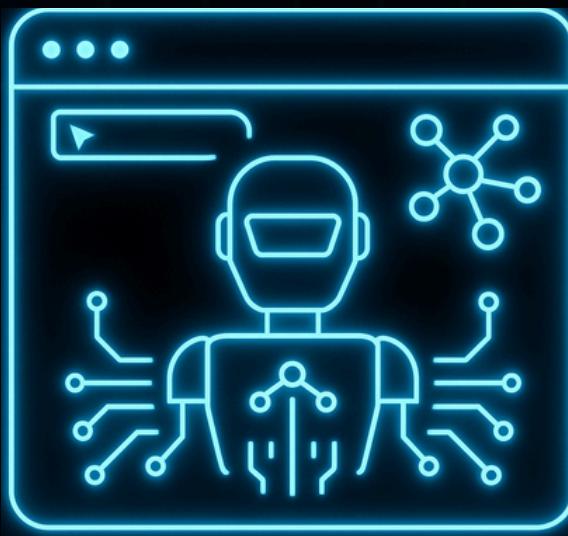


RISA

Case Study

You are PM at RISA Labs and are tasked to conceptualize an innovative AI-Powered Browser that caters to your chosen audience while showcasing innovative solutions to existing pain points in browsing. You are supposed to deliver a 6-pager deck along with 3-4 low fidelity WireFrames of the browser interface. Your AI-Browser could be constituted by numerous ML-driven key features, AI-controlled workflow automation, AI-Assistance and Privacy-First Features.

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GitHub : [link to all resume projects](#)





1.) The Life Sciences Research Universe

- A vast, ever-expanding **universe of scientific roles**.
- Includes **PhDs, analysts, writers, academic researchers, medical scientists**.
- Billions of data points, **disconnected workflows**, and **overwhelming information density**.

2.) The Biomedical Research Galaxy (Milky Way)

- A **refined cluster** within the larger universe.
- Home to disease-area researchers, **biomedical scientists, clinical researchers**.
- Work driven by **precision**, evidence, and domain expertise.

3.) Therapeutic Solar (Star) Systems

- Each **therapeutic area** is like its own solar system.
- **Oncology, Neurology, Immunology, Cardiology, Rare Diseases**.
- Each system orbits its own **evidence planets — biomarkers, endpoints, trials, pathways**.



© HERO PERSONA - DR. AAISHA SHIEKH

4.) The Hero Planet — Oncology Research

Where **evidence density, trial complexity**, and **scientific rigor** are at their **peak**.



Role:

Oncology Research Scientist

Domain:

Precision oncology, biomarkers, clinical trial evidence

Experience:

3–5 years

Environment:

Academic cancer center, biotech lab, clinical research group

Daily Workflow -

Use small icons horizontally:
PDF → Tabs → Notes → Sheet → Guidelines → Citations → Report

Goals -

Rapid literature understanding
Accuracy + credibility
Reduce cognitive fatigue

Pain Points -

- *Organized in layers:*
- 1.) General: Tab overload, no memory
- 2.) Research: Manual extraction, poor comparisons
- 3.) Oncology: Biomarker inconsistencies, high stake

Needs -

- Provenance
- Auto extraction
- AI synthesis
- Compare papers
- Research memory
- High Quality Synthesis

5 Pillars of Proposed Features

Pillar 1 — Evidence Engine

- AI Summaries (with citations)
- Structured Extraction (biomarkers, endpoints, cohorts)
- Provenance & Confidence (source-linked claims)

Pillar 2 — Browser Intelligence

- Context-Aware Sidebar
- Cross-Tab Reasoning
- Smart Omni-Search

Pillar 3 — Research Workspace OS

- Project-Based Tab Groups
- Linked Notes + Evidence Library
- One-Click Exports

Pillar 4 — Trust & Privacy Layer

- Transparent Provenance
- Confidence Scoring
- On-Device Preprocessing

Pillar 5 — Agentic Workflows

- Literature Sweep Agent
- Trial & Guideline Monitoring
- Automated Research Briefs

Feature Prioritization - RICE

Pillar	Reach (R)	Impact (I)	Confidence (C)	Effort (E)	Score
1. Evidence Engine	5	5	4	3	33.33
2. Browser Intelligence	4	4	4	2	32.00
3. Workspace	5	4	4	3	26.67
4. Trust & Privacy	5	5	3	4	18.75
5. Agentic Workflows	4	5	3	5	12.00

MVP Scope

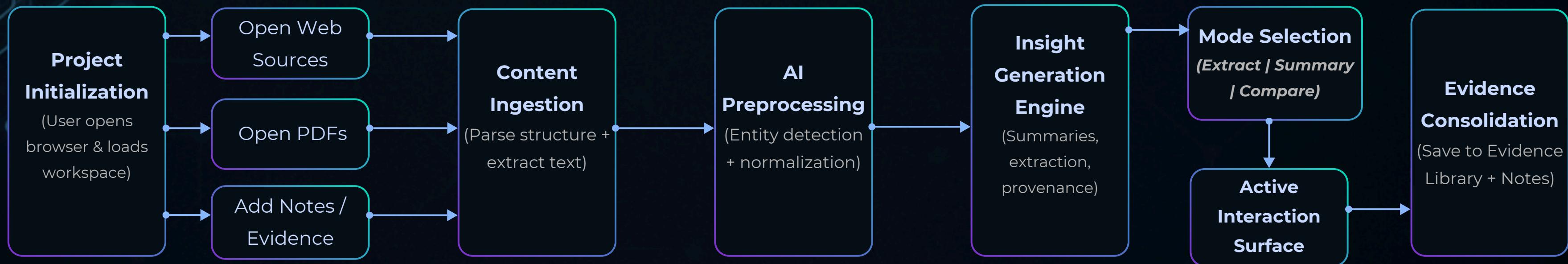
To be Included in MVP

- **Evidence Engine** - Summaries with citations · Structured extraction · Provenance trail
- **Browser Intelligence** - Context-aware sidebar · Cross-tab reasoning · Smart omni-search
- **Workspace OS** - Project-based tab groups · Evidence Library · 1-click exports
- **Minimal Trust Layer** - Source traceability · Confidence indicators

Post-MVP

- **Agentic Workflows** - Literature sweeps, Trial/guideline monitoring
- Auto Research Briefs (V1.1)

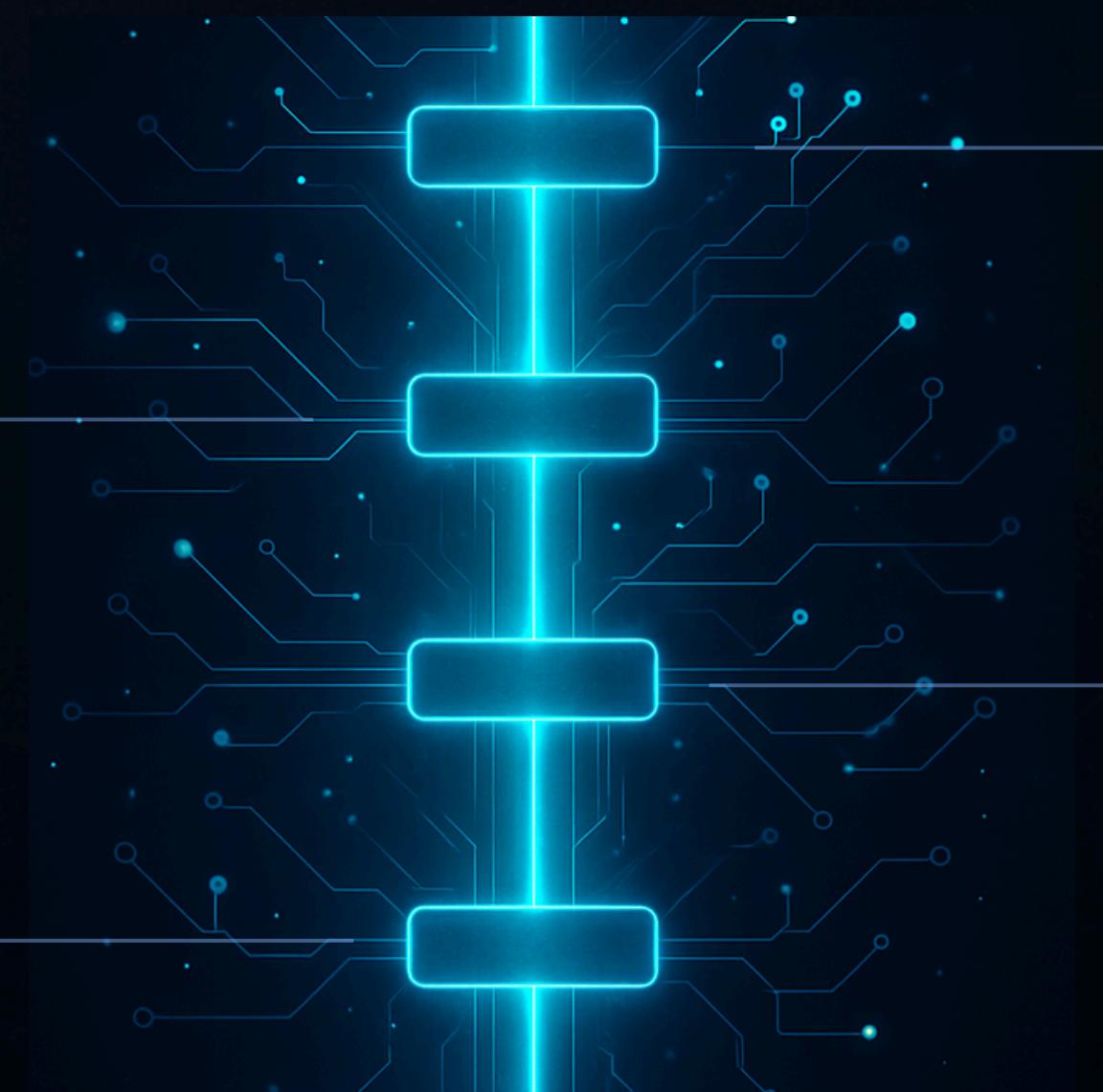
User Flow



Tech Backbone

- 2. Browser Foundation Layer**
- **Chromium-based** browser shell
 - Custom **extensions/APIs** for tab intelligence
 - On-device session memory for **context continuity**

- 4. Research OS Layer**
- **Graph-based** evidence store connecting notes, citations, and extracts.
 - **Centralizes** all research artifacts into an organized workspace.
 - **Syncs** automatically into Projects + Evidence Library.



1. AI Reasoning Layer

- **LLM-based reasoning** for summaries, extraction, comparison
- **Multi-agent orchestration** (summary agent, extract agent, compare agent)
- **Adaptive mode switching** (PDF → Summary → Compare)

3. Evidence Extraction Pipeline

- **Layout-aware PDF parser** with biomedical entity extraction.
- **Pulls biomarkers, endpoints, cohorts** into structured fields.
- Adds **provenance + confidence** to every extracted insight.

Introducing NEXA - Research Browser

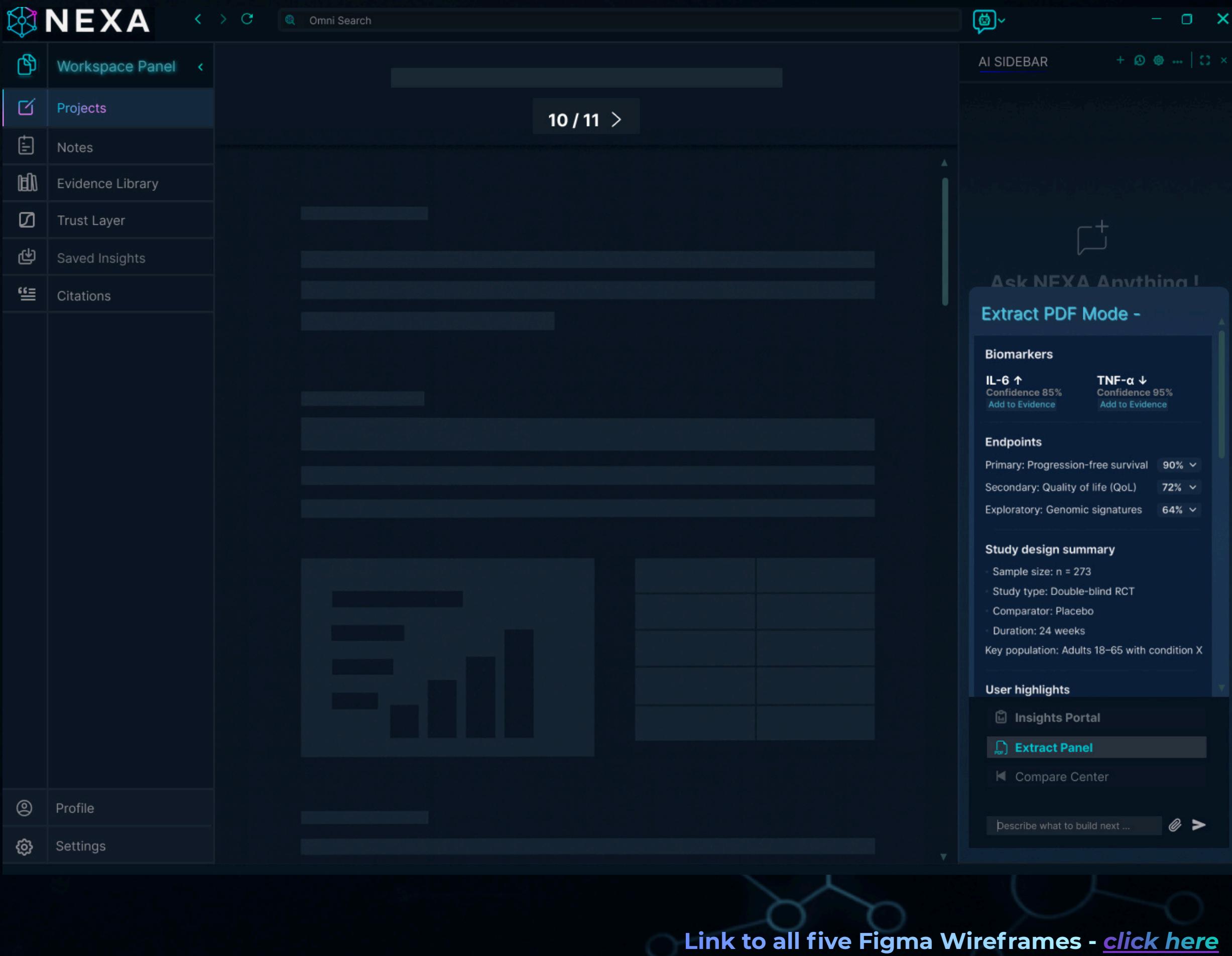
Browser Overview

- 1) Intelligent Omni-Search** - across tabs, PDFs, notes, and evidence in one unified bar.
- 2) Toggleable AI Panel** - Open/close AI instantly for summaries, comparisons, and follow-ups.
- 3) Collapsible Workspace Panel** - Projects, Notes, Evidence Library, Trust Layer — neatly organized & collapsible.
- 4) Adaptive AI Sidebar** - Context-aware actions for PDF Extract, Summary Mode, and Compare Center.
- 5) Trust Layer Built-In** - Provenance trails, confidence scores, and citation-linked outputs.
- 6) Multi-View Layout** - Seamless switch between PDF View, Insight Portal, Compare Center, Notes.
- 7) Unified Evidence Memory** - All extracts, insights, and highlights auto-sync into the Evidence Library

1. Extract PDF Mode — Evidence

Extraction Layer

- Auto-detects biomarkers, endpoints, cohorts, & study design parameters.
- Every extracted item carries provenance → source line, page number, confidence.
- Instantly syncs highlights & structured insights into the Evidence Library.



2. Insight Portal — Scientific Synthesis Layer

- Paper-level executive summary with citation-linked claims and confidence scoring.
- Structured key findings (biomarkers, outcomes, unexpected signals).
- Asks follow-up questions and supports deeper reasoning via the AI sidebar.

Insight Portal — Summary Mode

IL-6 and TNF- α as Prognostic Biomarkers in Oncology

Doe, J.; Smith, A.; Lee, B.
Oncology Research · 2024
doi:10.1234/oncor.56789

Executive Summary

- IL-6 elevation correlates with a 35% increase in progression-free survival 92%
- TNF- α reduction is linked to reduced metastasis risk 78%
- Secondary endpoints show no significant changes 95%

Key Findings

Ask follow-up questions

NEXA

Compare Center
Multi-Paper Comparison

	Study 1	Study 2	Study 3
Study Title	Study title	Study title	Study title
Year / DOI	2023	2020	2017
Sample Size	n = 240 95%	n = 350 98%	n = 120 81%
Population	RCT	Cohort	Retrospective
Biomarkers	IL-6 ↑	IL-6 stable	IL-6 ↓
Primary Endpoint	Primary	Primary	Primary
Secondary Endpoints	Secondary endpoints	Secondary endpoints	Secondary endpoints
Main Outcomes	Outcomes	Outcomes	Outcomes

Study 3 shows strongest sample size (n=350), while Study 1 reports the largest improvement in QoL metrics. Study 2 has conflicting biomarker signals (IL-6 inconsistent).

AI SIDEBAR

Comparison Created !

3. Compare Center — Multi-Paper Reasoning Layer

- Side-by-side comparison of multiple studies across design, outcomes, biomarkers.
- Detects contradictions & alignment and produces meta-insights.
- Source-level provenance on every cell for auditability and trust.

Adoption Strategy

01

Why choose NEXA ? 🚀

- Purpose-Built for Scientific Research**
- Research-native browser with PDF intelligence, extraction, provenance, multi-paper comparison.
- Context-aware AI + Trust Layer → auditable, source-linked reasoning (not a generic AI wrapper).

02

How we acquire users ? 🔗

- Oncology-First, Academic-Driven GTM**
- Bottom-up academic adoption: free tier, lab workshops, NEXA-for-thesis campaigns.
- Vertical expansion: oncology → immunology → neurology; community + workflow content.

03

Integration & Growth Levers 📈

- Ecosystem Integrations + Scientific Partnerships**
- Seamless with Notion, Slack, Zotero, Scholar, PubMed APIs → removes workflow friction.
- Collaborations with research labs, cancer centers, PhD programs → drives trust + institutional adoption.

Pricing Model

Tier 1 — Free / Academic 🎓

- Freemium Model**
- Basic browser + free upto 3 projects, limited extraction credits
- Perfect for students & early researchers
- Goal: viral adoption + pipeline for enterprise

SUBSCRIPTION - PLAN

Tier 2-A — Premium Researcher 💊

- Unlimited extraction | Compare Center
- Evidence Library | Integration pack
- Priority AI | **\$12-\$15 / user / month**

Tier 2-B — Team / Lab Plan 🧪

- Shared workspace
- Organization-wide Evidence Layer
- Collaboration tools | **\$25-\$35 / user / month**

Tier 3 — Institutions / Enterprise 🏢

- \$30k-75k / year**
- Enterprise Contracts
- SSO, on-prem/hybrid privacy
- Domain-tuned NER models, SLAs, compliance logging
- Perfect for hospitals, CROs, pharma

Go To Market