

# Orin by RO Ecosystem

## Invest in India's Bioscience AI Revolution.

*Illuminating your research.*

**7 Lakh+**

Target Users in India

**TBA**

Pricing (Board Review)

**MVP**

Already Deployed

### FOUNDING TEAM

Name	Role	Equity	Email
Rahul Kota	Founder & CEO	52%	rahulkota0101@gmail.com
Arkoparno Das	Co-Founder & CSO	15%	dasarkoparno@gmail.com
Rushi Chaganti	Co-Founder & CTO	15%	rushi2004rushi@gmail.com
Rihan Kota	Co-Founder & Board Advisor	4%	rihankota2004@gmail.com
Ajay	CF & Social Media & Marketing	4%	nagachari898@gmail.com
Future Pool	Investors	10%	—

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# Research tools built for the West.

## Not for India's 7 lakh+ bioscience researchers.

India produces the 3rd largest number of bioscience researchers globally. Yet every student, PhD scholar, and lab scientist faces the same painful reality every day:

### 01 — Too Expensive

Enterprise research tools cost Rs.1,00,000+ per year — built for Western institutions with large budgets. The average Indian pharmacy student or PhD researcher simply cannot afford them.

### 02 — No Indian Context

General-purpose AI tools have no awareness of GPAT syllabus, Indian drug pricing, regional research patterns, or the specific needs of Indian bioscience education and research.

### 03 — Disconnected Workflow

Literature search, drug databases, molecular analysis, and AI reasoning all live in completely separate tools. There is no integrated research workflow built for the Indian researcher.

### 04 — No Personalisation

Current tools do not know if the user is a pharmacy student, a PhD researcher, or a lab scientist. Every query gets the same generic response. Orin identifies user intent and tailors every answer accordingly.

*"The gap is enormous. The market is real. Nobody has filled it yet."*

— Rahul Kota, Founder & CEO

# Built to think like a senior researcher.

## A precision-engineered AI system — domain-locked, database-connected, and always accurate.

Orin combines the world's most powerful AI models — Claude, Groq, Gemini — with a proprietary domain intelligence layer built specifically for bioscience. Every query is routed, reasoned, and verified against live scientific databases in real time. The result is a research partner that thinks, explains, and cites like a brilliant senior scientist.

### SYSTEM ARCHITECTURE

Layer	Component	Technology	Purpose
1 — Input	User Query	Web / Mobile / Voice	Text, image, PDF, or voice from user
2 — Router	Intent Classifier	FastAPI + Prompt Logic	Detects query type: casual, science, drug, image, doc, molecular
3 — Models	LLM Routing	Claude / Groq / Gemini	Routes to best model per query type
4 — Tools	Scientific APIs	PubMed, PubChem, ChEMBL etc.	Fetches live verified data from databases
5 — RAG	Document Store	Chunking + Embedding	Processes uploaded PDFs, stores and retrieves relevant chunks
6 — Output	Structured Answer	Orin System Prompt	Returns answer in Mechanism / Evidence / Clinical / Limitations format

### SMART ROUTING — MULTI-MODEL INTELLIGENCE LAYER

Orin does not blindly call one model. Every query is classified and routed to the optimal model — keeping quality high and cost minimal:

Query Type	Model	Cost	Reason
Casual (hi, bye, thanks)	Groq LLaMA3 70B	Free	Fast, instant, no deep reasoning needed
Simple factual science	Groq LLaMA3 70B	Free	Sufficient for factual recall
Image / diagram / molecule	Gemini 1.5 Flash	Free	Best vision model, free tier
Complex research & reasoning	Claude Sonnet	~Rs.2–3/query	PhD-level scientific reasoning

**Result: 80%+ gross margin architecture. Claude reserved for complex scientific reasoning only.**

## CAPABILITY STACK

Capability	What It Does	Powered By
Research Search	Live paper search with citation and synthesis	PubMed · Semantic Scholar · OpenAlex API
Drug Intelligence	Drug properties, bioactivity, targets, pathways	PubChem · ChEMBL · KEGG API
Document Analysis	Upload PDF → extract findings, summarise methods	PyMuPDF + Vision Model (Claude / Gemini)
Image Analysis	Molecular diagrams, microscopy, lab result images	Gemini Vision · Claude Vision API
Molecular Analysis	Lipinski Rule of 5, ADMET, SMILES processing	RDKit · SwissADME · pkCSM
Voice Interaction	Speak in Hindi, Telugu, Tamil — Orin responds	Sarvam AI STT/TTS · Whisper (open source)
Scientific Reasoning	Mechanism → Evidence → Clinical → Limitations	Claude Sonnet with domain system prompt
Casual Conversation	Greetings, general chat, small talk naturally	Groq LLaMA3 (free, instant)

# A \$3B+ market.

Built for researchers the world forgot.

## 7 Lakh+

Total Addressable Users in India

## Rs.50,000+

Annual cost of existing tools

## 0

Indian bioscience AI competitors

### USER SEGMENTS

User Segment	Size in India	Pain Point	How Orin Helps
Pharm D Students	3.5 Lakh+	No affordable drug AI	Drug info, ADMET, exam prep, language support
M.Sc Biotech / Biology	2 Lakh+	Scattered literature tools	Integrated literature review and synthesis
PhD Researchers	1.2 Lakh+	No affordable research AI alternative	Paper synthesis, molecular analysis, docking
GATE XL Aspirants	50,000+	No domain-specific study AI	Concept clarity, scientific reasoning, explanations
Small Biotech Labs	5,000+	Enterprise tools too expensive	Drug discovery workflow, docking, batch analysis
Pharmacy Colleges	4,000+	No AI for institutional use	Multi-user institutional plans, admin dashboard

### EXPANSION ROADMAP

Phase	Timeline	Geography	Milestone
MVP	Now	India	Full agent live — pharmacy students, PhD researchers, labs
Launch	Month 2–3	India	First 100 paying users, Sarvam AI voice integrated
Scale	Month 4–8	India	1,000+ users, institutional pilots, college partnerships
South Asia	Year 2	IN/BD/LK/NP	Same language and affordability gap across South Asia
Global	Year 3	Worldwide	English-first global launch for any bioscience researcher

# SaaS. Affordable by design.

Priced for Indian researchers. Not Western budgets.

## PRICING TIERS

Plan	Price	Who It's For	Key Features
Free	TBA	Exploring students	10 queries/day · English only · Core tools
Student Pro ★	TBA	Serious students	Queries (Board Review) · Voice · PDF · All Indian languages
Lab Plan	TBA	Research labs	API access · Docking tools · Batch processing
Institutional	TBA	Colleges & institutes	Multi-user · Admin dashboard · LMS integration

★ Pricing under board review. Final tiers to be confirmed post-funding round.

## REVENUE PROJECTION (POST-FUNDING ESTIMATE)

Scenario	INR Revenue	USD Equivalent
5,000 Student Pro users	Rs.1.5Cr+ / month	~\$180K / month
200 Lab Plans	Rs.50L+ / month	~\$60K / month
50 Institutional	Rs.2Cr+ / year	~\$240K / year
Combined ARR	Rs.~20Cr+ / year	~\$2.4M+ ARR

Pricing finalised post board meeting. Projections based on revised tier structure.

## WHY ORIN WINS THE INDIAN MARKET

### Orin — Bioscience AI

Pricing TBA — Self-serve. Indian languages. Live databases. Domain-locked reasoning. Affordable by design.

“Orin will be priced for accessibility, without compromising intelligence. That’s how we win India.”  
— Rahul Kota

# From MVP to market leader.

## Funding accelerates what we've already proven works.

Orin's backend is live. The routing works. The system prompt is locked. Scientific databases are connected. What we need now is fuel — to hire, deploy, scale, and win the Indian bioscience market before anyone else does.

### WHAT FUNDING UNLOCKS

Area	Current State	With Funding
Team	Founder + CSO + CTO	Full engineering team + ML engineer + product designer
Infrastructure	Local PC + free tiers	Railway/AWS deployment, Supabase Pro, scalable APIs
Voice (Sarvam AI)	Planned, not integrated	Full Hindi/Telugu/Tamil voice — live in product
Molecular Docking	RDKit basic, no AutoDock	AutoDock Vina server, 3Dmol.js 3D viewer live
User Acquisition	Zero marketing spend	College outreach, social media, early adopter campaigns
Legal & Compliance	Pre-revenue informal	Pvt. Ltd. registration, GST, IP filing, GDPR compliance
Paid API Access	Free tiers only	Claude API credits, PubMed premium, ChEMBL bulk access

### USE OF FUNDS BREAKDOWN

Allocation	Percentage	Estimated Spend	What It Buys
Product Dev & Infrastructure	40%	Rs.4L–20L	Railway hosting, Supabase Pro, API credits, RDKit server, AutoDock
Team Expansion & Salaries	30%	TBD	ML engineer, frontend dev, part-time stipends for CSO/CTO
User Acquisition & Marketing	20%	Rs.2L–10L	College outreach, LinkedIn/Instagram campaigns, student ambassadors
Legal, Compliance & Operations	10%	Rs.1L–5L	Pvt. Ltd., GST registration, IP filing, domain + tools

## HIRING PLAN (POST FUNDING)

Role	Priority	Salary Range	Why Critical
ML / Backend Engineer	High	Rs.25k–50k/month	AutoDock integration, RAG pipeline, model fine-tuning
Frontend Developer	High	Rs.20k–40k/month	Chat UI, 3Dmol viewer, voice interface, mobile app
Scientific Advisor	Medium	Equity / Stipend	Domain validation, research paper quality control
Student Brand Ambassadors	Medium	Rs.3k–5k/month	College-level organic user acquisition across India
CSO (Arkoparno)	Active	Post-revenue salary	Scientific accuracy, database integration, veto authority
CTO (Rushi)	Active	Post-revenue salary	Technical architecture, FastAPI, deployment, CI/CD

# Version 1 is live. Version 2 changes everything.

A clear two-phase roadmap from MVP to full AI research platform.

## VERSION 1 — CURRENT MVP (LIVE NOW)

Feature	Status	Description
FastAPI Backend	✓ Live	Smart routing across Claude, Groq, Gemini with domain system prompt
Groq LLaMA3 Routing	✓ Live	Free casual and factual queries — instant responses
Gemini Vision	✓ Live	Image and diagram analysis — molecular structures, lab results
Claude Sonnet	✓ Live	Deep scientific reasoning with 4-layer framework
PubMed Integration	✓ Live	Real-time research paper search and synthesis
PubChem / ChEMBL	✓ Live	Drug properties, bioactivity, interaction data
Landing Page	✓ Live	Professional website with investor page and contact form
Basic RDKit	In Progress	Molecular property computation from SMILES strings
Sarvam AI Voice	Planned	Hindi, Telugu, Tamil voice input and output

**VERSION 2 — POST FUNDING (NEXT 6–12 MONTHS)**

Version 2 transforms Orin from a smart chatbot into a full AI research platform. These features require engineering resources, paid APIs, and server infrastructure — exactly what funding enables.

Feature	What It Does	Requires
Full RAG Pipeline	Upload any research paper → Orin reads, chunks, stores, retrieves and reasons over it	Vector DB + embedding model
AutoDock Vina Integration	Protein-ligand docking — binding affinity prediction for drug candidates	Server infrastructure + ML engineer
3Dmol.js Viewer	Interactive 3D molecular visualization inside the chat interface	Frontend developer
User Intent Detection	Orin automatically identifies if user is student, PhD, or lab researcher and adapts	Fine-tuned classifier
Personalised Profiles	Each user gets a memory layer — Orin remembers your research focus and preferences	Supabase Pro + session management
Multi-language Voice	Full Sarvam AI + Whisper integration — speak in any Indian language	Sarvam API credits + TTS/STT
AlphaFold DB Integration	200M+ protein structures from DeepMind — query directly in Orin	API integration
ClinicalTrials.gov Search	Search all registered human clinical trials by drug, condition, or phase	API integration
Mobile App	Native iOS and Android app — Orin in your pocket	Frontend developer + App Store
Institutional Dashboard	Admin panel for colleges — usage analytics, student management, LMS integration	Full-stack developer

# Built fast. Built right.

## From concept to deployment. Built to scale.

### TRACTION

- ✓ **FastAPI Backend Live** Smart routing architecture operational across Groq and Gemini APIs. Claude Sonnet integration ready and staged for deployment.
- ✓ **Orin AI Brain Active** Domain-specific system prompt with 4-layer scientific reasoning — Mechanism, Evidence, Clinical, Limitations.
- ✓ **Multi-Model Architecture** Engineered for 80%+ gross margins through intelligent model routing. Each query assigned to the optimal model — maximising quality while minimising infrastructure cost.
- ✓ **Scientific DBs Connected** PubMed, PubChem, ChEMBL, KEGG, Semantic Scholar — all integrated and live.
- ✓ **Landing Page + Investor Page** Professional web presence live with product overview and direct investor contact form operational.

### FOUNDING TEAM

Name	Role	Equity	Background & Authority
Rahul Kota	Founder & CEO	52%	Pharm D, QIS College of Pharmacy. Visionary builder and researcher. 40+ hrs/week. Full business and product authority.
Arkoparno Das	Co-Founder & CSO	15%	Scientific veto authority over all knowledge claims, prompts, and domain accuracy. Research-grade standards enforcer.
Rushi Chaganti	Chief Technology Officer	15%	Leads FastAPI backend, database design, deployment, CI/CD, and all technical architecture decisions.
Rihan Kota	Co-Founder & Board Advisor	4%	Strategic advisor. Integrated Masters in Physics & Mathematics, NIT Warangal. Supports business development.
Ajay	Social Media & Marketing	4%	Social media strategy, content creation, brand positioning and go-to-market execution.
Future Pool	Investors / Employees	10%	Reserved for strategic investors and key future hires. ESOP pool for talent acquisition.

# Join us at the ground floor.

We are raising our first round to accelerate product development, expand our team, and acquire our first 1,000 paying users.

## SEED INVESTORS

# Rs.5L – Rs.50L

Angel / Seed Round

- Early equity stake in RO Ecosystem
- Investor name & logo on Orin website
- Monthly founder updates + calls
- Strategic advisory role option
- First right of refusal on next round
- Access to all internal metrics and MRR

## STRATEGIC PARTNERS

### Universities & Research Institutes

Colleges, Labs, Institutions

- Free Institutional plan for your students
- Co-branding on Orin platform
- Logo on Orin partner wall
- Early access to all new features
- Revenue share on student referrals
- Direct line to founding team

## USE OF FUNDS

Allocation	Percentage	Estimated Spend	What It Buys
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User Acquisition & Marketing	20%	TBD	College outreach, social media, student ambassadors
Legal, Compliance & Operations	10%	TBD	Pvt. Ltd., GST, IP filing, domain and tools

# Let's build this together.

Orin is India's answer to a gap that has existed for too long. 7 lakh+ researchers deserve world-class AI. Built in India. For India.

## CONTACT

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### \$11B

Domain-Specific AI Proven Market Leader

### TBA

Orin Pricing Bioscience AI — our mission

### 3rd Largest

India's Bioscience Researcher Base Globally

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