

Blockchain project

Develop blockchain-based ownership and exchange system
for chemical compound



Company

Bio & AI Team

| Calici Co., Ltd.

| Christine Le

“Empowering
Discovery
for Life”

Project Overview



Project overview

This project aims to develop a blockchain-inspired system that registers and manages the ownership and exchange history of newly discovered chemical compounds which are screened or designed for specific protein targets. By implementing an immutable transaction ledger, the system ensures transparent ownership tracking and facilitates secure compound trading or licensing among researchers, biotech companies, and CRO partners.



Project Overview

Project Name

- Blockchain-based ownership and exchange system for chemical compound

Overall Objective

- Build a blockchain-inspired infrastructure to manage the registration, ownership, and transfer of new compounds
- Ensure traceability, protect intellectual contributions and facilitate transparent exchange

Context

- In early-stage drug discovery, novel lead compounds are generated for specific protein targets
- This project will be added as a function in Pharmaco-Net drug discovery platform to provide standardized system to track ownership and exchange of molecular assets

Requested by

- Calici Co.,

“Empowering
Discovery
for Life”

Scope of work



Scope of work

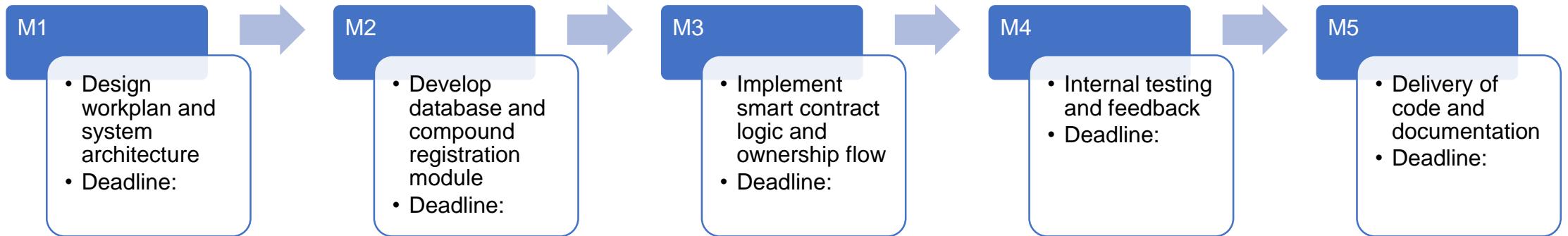
- System Design:
 - Define architecture of a blockchain-like ledger for compound registration and transaction tracking.
 - Design ownership structure and compound metadata (e.g., SMILES, target protein, discoverer, timestamp).
- Smart contract logic:
 - Implement ownership transfer logic (buy/sell).
 - Record full transaction history (from original discoverer to current holder).

“Empowering
Discovery
for Life”

Timeline & Milestones



Timeline & Milestones



“Empowering
Discovery
for Life”

Deliverables



Deliverables

- Functional prototype of compound registration and ownership system
- Smart contract module for transaction recording

“Empowering
Discovery
for Life”

Budget & Payment



Budget & Payment

Estimated Budget:

Payment plan:

Payment method:

“Empowering
Discovery
for Life”



Communication & Contact



Communication & Contact

- Zoom meeting to report on progress at the end of each milestone/ Zoom meeting to report on progress every month
- Any issues during work, contact with ... via ...

“Empowering
Discovery
for Life”

References

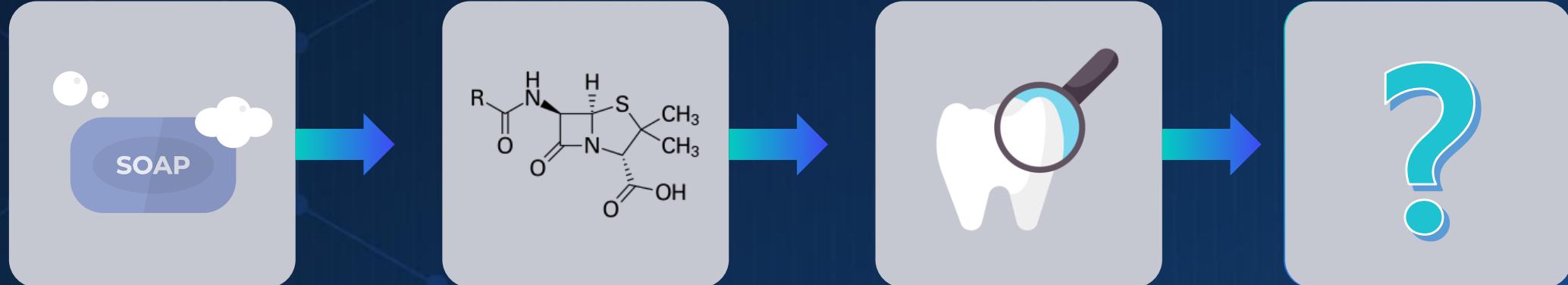


Similar works for references

BigChainDB: <https://www.bigchaindb.com/features/>

HyperLedgerFabric: <https://hyperledger-fabric.readthedocs.io/en/release-2.5/index.html>

Molecule: <https://www.molecule.to/>



감사합니다

T H A N K Y O U

한국 | · 대전광역시 유성구 대학로 99(궁동), 대전 TIP스타운 1.5층 디5 (34134)
 · 042 – 719 – 4319 | 070 – 8664 – 1859
 · info@calici.co

기업부설연구소 | · 대전광역시 유성구 테크노4로 17(관평동), 대덕비즈센터 A415호
 · 070 – 4659 - 5510

미국 | · 3003 N First St, San Jose, CA 95134
 · 2450 Holcombe Blvd, Suit j Houston TX 77024

파마코-넷 | <https://pharmaco-net.org/>