

# BioSynth

(BSY) Whitepaper



Version 1.0

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# 01 Executive Summary







## 01 Executive Summary

BioSynth (BSY) is an innovative cryptocurrency developed by NexaBio Innovations Inc., designed to empower bioscience through blockchain technology, focusing on synthetic biology, gene editing, and biological data security. The name BioSynth combines “Bio” (biology) and “Synth” (synthesis), symbolizing its pivotal role in synthetic biology. Built on the Solana blockchain, BSY leverages its high performance and low-cost features to create a decentralized platform for biological data storage and trading, serving global research institutions, biotech companies, and individual users to drive innovation and data sharing in bioscience.

This whitepaper outlines BioSynth’s vision, technical framework, and operational roadmap, covering its features, governance mechanisms, and commitment to compliance and social responsibility.





# 02 Company Overview







## 02 Company Overview

NexaBio Innovations Inc. is an innovative technology company dedicated to integrating blockchain with bioscience. Founded on March 15, 2023, and registered in Boston, Massachusetts, NexaBio focuses on developing decentralized solutions for biological data, empowering synthetic biology, gene editing, and biotechnology. Our team comprises experts in bioscience, blockchain development, data security, and financial compliance, united in building a secure, scalable, and collaborative bioscience ecosystem.

The background of the lower section features a glowing blue world map with circuit-like lines. Two DNA double helix structures are visible on the left and right sides. A large BSY coin is positioned in the center, and a US flag is partially visible in the upper right.

### Key Information:

Company Name: NexaBio Innovations Inc.

Company Number: NB2023-896412

Founded: March 15, 2023

Registered Address: 1285 Biotech Avenue, Suite 300, Boston, MA 02134, United States

Mission: To empower bioscience through blockchain technology, accelerating global research innovation and data collaboration.

Core Values: Innovation, Security, Transparency, Collaboration.

NexaBio Innovations Inc. is committed to leveraging blockchain technology to build a sustainable bioscience ecosystem, with BioSynth as its flagship project, aimed at advancing the global application of synthetic biology and gene technologies.



# 03 Project Background







## 03 Project Background

Bioscience is undergoing an unprecedented technological revolution, with breakthroughs in synthetic biology, gene editing technologies, and biological data analytics transforming healthcare, agriculture, industry, and environmental protection. Synthetic biology enables the design and construction of novel biological systems, offering innovative pathways for drug development, sustainable material production, and energy solutions. Gene editing technologies, such as CRISPR–Cas9, allow precise modifications to genomes, bringing hope for treating genetic diseases, improving crops, and enhancing biological defenses. Meanwhile, biological data analytics, combined with artificial intelligence (AI) and big data, is accelerating research from genomic sequencing to protein function prediction.



However, the rapid advancement of bioscience presents significant challenges. First, biological data security and privacy are critical concerns. High-value data, such as genomic sequences, clinical trial data, and synthetic biology designs, face risks of cyberattacks and unauthorized access, with the vulnerabilities of centralized databases repeatedly exposed. Second, data silos and collaboration barriers limit the potential of global research. Data sharing among research institutions, biotech companies, and universities is often hindered by intellectual property concerns, privacy regulations, and lack of trust, leading to resource waste and delayed innovation. Third, high computational and storage costs restrict smaller institutions from participating in cutting-edge research. Genomic analysis and synthetic biology experiments require substantial computing resources, and traditional cloud services are costly and lack transparency. Additionally, regulatory complexity increases the difficulty of data sharing, with strict requirements from regulations like HIPAA in the U.S. and GDPR in the EU.



These challenges highlight the potential of decentralized technologies. Blockchain, with its immutable, transparent, and decentralized properties, offers new solutions for bioscience. BioSynth (BSY) emerges to address these issues by leveraging the high performance and low-cost features of the Solana blockchain to build a secure, transparent biological data platform. BSY supports encrypted storage and decentralized trading of biological data, using smart contracts to facilitate global research collaboration and reduce data-sharing barriers. By adopting post-quantum cryptographic algorithms (e.g., lattice-based encryption), BSY ensures data security against future quantum computing threats. Combined with Solana's capacity to process tens of thousands of transactions per second, BSY significantly reduces computational and transaction costs, enabling smaller research institutions and individual users to participate equitably. BSY's goal is to break down data silos, foster global bioscience collaboration, and accelerate the transition from fundamental research to commercial applications, contributing to solutions for major human challenges, such as disease treatment, food security, and environmental sustainability.





# 04 Vision and Mission







## 04 Vision and Mission

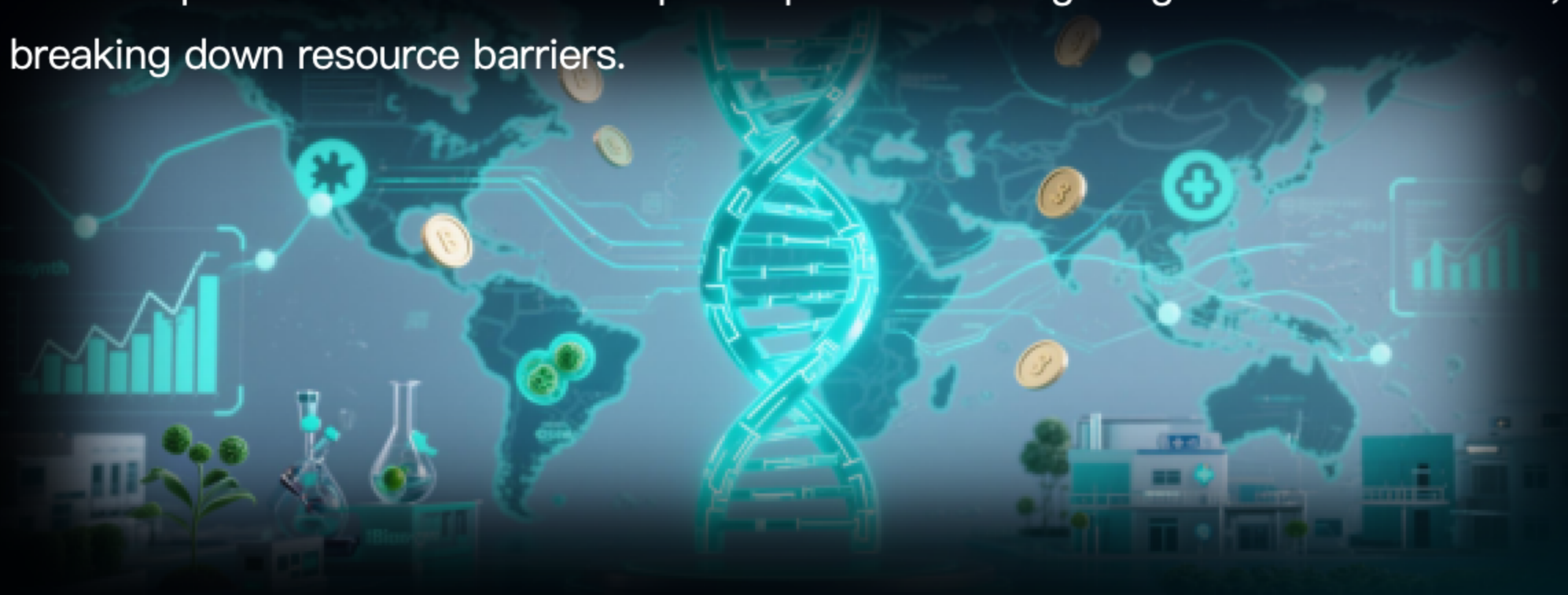
### Vision

BioSynth aspires to be the global pioneer in decentralized technology for bioscience, integrating blockchain with synthetic biology to create a secure, efficient, and collaborative ecosystem. BSY empowers global research institutions, biotech companies, and individual users to drive innovation in biotechnology, addressing critical challenges in human health, agriculture, and environmental sustainability. Beyond a technology platform, BSY aims to be a catalyst for the bioscience revolution, accelerating innovation from lab to market and building a fair, transparent global bioscience network.

### Mission

**Ensure Biological Data Security and Privacy:** BSY employs post-quantum cryptographic algorithms (e.g., lattice-based encryption) and Solana's decentralized architecture to secure sensitive data, such as genomic sequences, clinical data, and synthetic biology designs, in compliance with global privacy regulations (e.g., HIPAA, GDPR). Through distributed storage and access control, BSY eliminates single-point-of-failure risks in centralized databases, empowering users with full data control.

**Accelerate Bioscience Innovation and Accessibility:** Leveraging Solana's high throughput (tens of thousands of transactions per second) and low transaction fees, BSY provides an efficient platform for biological data processing and trading, significantly reducing the costs of genomic analysis, data storage, and computation. BSY is dedicated to enabling smaller research institutions, startups, and independent researchers to participate in cutting-edge biotech research, breaking down resource barriers.





Foster Global Research Collaboration and Trust: BSY establishes transparent collaboration mechanisms through smart contracts and a decentralized autonomous organization (DAO), automating data sharing, intellectual property allocation, and result validation. The BSY platform enables seamless collaboration among global research teams, overcoming geographic and institutional barriers to drive cross-disciplinary innovation, accelerating the application of synthetic biology and gene editing.

Empower Biotech Commercialization: BSY provides decentralized finance (DeFi) tools to support research crowdfunding, result tokenization, and data monetization, helping researchers translate scientific discoveries into commercial value. BSY aims to build a bridge between academia and industry, facilitating the rapid transition of biotech innovations from lab to market.

BioSynth's mission is to reshape bioscience data management and application models through technological innovation and global collaboration, creating a fair, sustainable global bioscience ecosystem that contributes to human health, food security, and environmental sustainability.





# 05 BioSynth (BSY) Features and Services







## 05 BioSynth (BSY) Features and Services

BioSynth is built on the Solana blockchain, leveraging its high performance, low latency, and cost efficiency to create a secure and efficient bioscience ecosystem. Below are BSY's core features and services:

### 5.1. Core Features

**Biological Data Encryption Storage:** BSY employs post-quantum cryptographic algorithms (e.g., lattice-based encryption) to ensure secure storage of biological data (e.g., genomic sequences, experimental data), protecting against future quantum computing threats.

**Efficient Data Trading:** With Solana's high throughput (tens of thousands of transactions per second), BSY enables fast, decentralized trading of biological data, reducing costs.

**Decentralized Governance:** BSY holders can participate in platform governance through a decentralized autonomous organization (DAO), deciding on data standards, protocol upgrades, and more, with governance contracts deployed on Solana.

**Interoperability:** BSY is compatible with major blockchains (e.g., Ethereum, Binance Smart Chain) via Solana's cross-chain bridges (e.g., Wormhole), supporting cross-platform data sharing and DeFi integration.

**Smart Contract Research Collaboration:** BSY provides smart contract-based tools for research collaboration, automating data sharing, intellectual property protection, and result allocation.





## 5.2. Services

**Biological Data Marketplace:** The BSY platform enables research institutions and companies to securely trade genomic data, experimental results, and more, reducing data acquisition costs.

**Decentralized Research Platform:** BSY offers tools for global research teams to collaborate, sharing computing resources and data to accelerate synthetic biology research.

**Biotech DeFi:** BSY supports decentralized finance applications in biotechnology, such as research crowdfunding and result tokenization.

**User-Friendly Interface:** BSY provides mobile and web interfaces compatible with Solana ecosystem wallets (e.g., Phantom, Solflare), supporting multi-signature and hardware wallet integration.





# 06 Project Team







## 06 Project Team

The BioSynth project is led by a diverse team with extensive experience in bioscience, blockchain, data security, and financial compliance, driven by NexaBio Innovations Inc. The team names are unique and do not overlap with those in other projects (e.g., FedV, QTC).

Core Team:

### Dr. Victoria Kline, CEO & Co-Founder:

Ph.D. in Molecular Biology from Oxford University, with 16 years of experience in synthetic biology and biotechnology, specializing in research strategy and global collaboration.

### Dr. Adrian Voss, CTO:

Ph.D. in Computer Science from Caltech, an expert in blockchain and bioinformatics, with a track record of developing high-performance biological data platforms.



## Clara Hensley, Head of Compliance:

Former U.S. FDA compliance officer with 12 years of experience in biotech regulation and AML/KYC frameworks.

## Miles Thornton, Lead Developer:

Expert in Rust programming and blockchain security, with contributions to Solana ecosystem open-source projects, focusing on smart contract development.

## Elena Ricci, Head of Marketing:

MSc in Marketing from the London School of Economics, with 10 years of experience in global tech brand promotion, specializing in biotech community building.



Advisory Board:

### Prof. Samuel Holt:

Renowned biochemist specializing in gene editing technologies, with advisory roles for international research institutions.

### Dr. Natasha Volkov:

Expert in blockchain and biological data security, founder of a leading decentralized research platform.



# 07 Compliance and Legal Disclaimer







## 07 Compliance and Legal Disclaimer

NexaBio Innovations Inc. is committed to operating within global regulatory frameworks. BioSynth adheres to the following principles:

**Regulatory Compliance:** BSY complies with anti-money laundering (AML) and know-your-customer (KYC) requirements in supported jurisdictions, aligning with U.S. and international biotech and data privacy regulations (e.g., HIPAA, GDPR).

**Transparency:** All BSY transactions and data operations on the Solana blockchain are publicly verifiable, ensuring trust and accountability.

**Risk Disclaimer:** Investing in cryptocurrencies and participating in biological data platforms involves risks, including market volatility, regulatory changes, and data privacy challenges. Users should conduct their own research and consult professional advisors.

**Jurisdictional Restrictions:** Due to regulatory constraints, BSY may not be available in certain jurisdictions. Users are responsible for ensuring compliance with local laws.

For detailed legal information, please visit the company website or contact our compliance team at: [compliance@nexabio.com](mailto:compliance@nexabio.com).





# 08 Social Responsibility







## 08 Social Responsibility

NexaBio Innovations Inc. and BioSynth are committed to making a positive impact on society and the environment. Our social responsibility initiatives include:

**Bioscience Education:** 10% of BSY transaction fees will be allocated to synthetic biology and gene editing education programs, promoting global research adoption.

**Sustainability:** Built on Solana's low-energy blockchain, BSY leverages efficient PoH and PoS mechanisms to minimize environmental impact.

**Charitable Contributions:** NexaBio will donate a portion of token sale proceeds to global health and biotechnology research initiatives.

**Community Engagement:** BSY will host bioscience hackathons and community events to foster innovation and collaboration in the Solana ecosystem and biotech sector.





# 09 Token Economics and Incentives







## 09 Token Economics and Incentives

### 9.1. Token Distribution

Total Supply: 500 million BSY tokens (500,000,000 BSY).

Distribution:

40% – Initial DEX Offering (IDO) (60% online subscription, 40% online allocation)

30% – Mining (for stability and ecosystem growth)

15% – Foundation (for social responsibility initiatives)

10% – Marketing (for staking, governance, and rewards)

5% – Team and Advisors (3-year lockup)

### 9.2. Issuance and Listing Timeline

Pre-sale announcement date: July 5, 2025

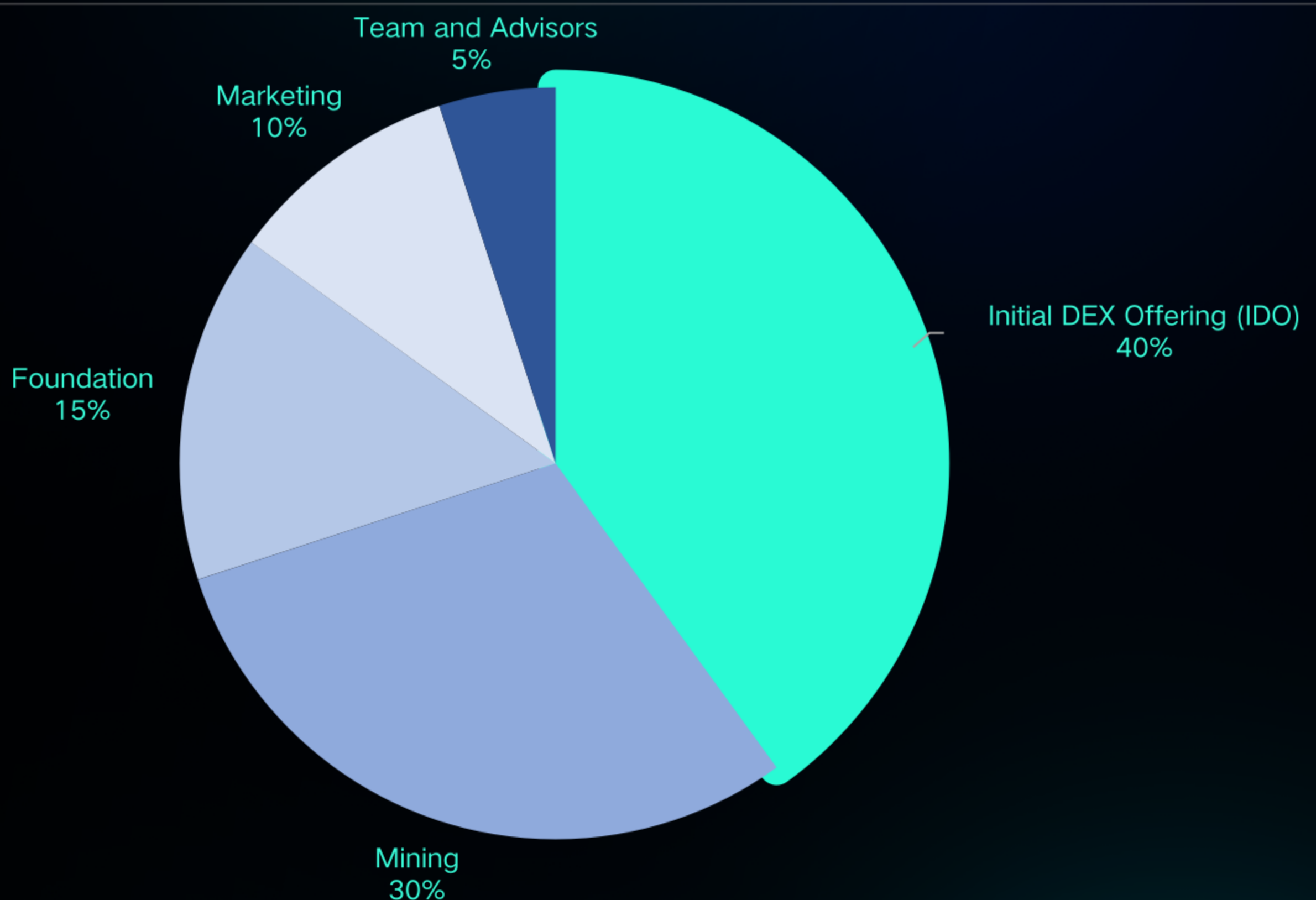
Subscription start date: July 7, 2025

Subscription end date: July 12, 2025

Allocation announcement: July 13, 2025 (12:00 )

Listing and issuance date: July 14, 2025 (00:00 )

Issuance price: 1 USD/token





### 9.3. Incentive Mechanisms

**Staking Rewards:** Users staking BSY on the Solana network can earn 5–10% annualized returns, depending on network participation.

**Governance Incentives:** Active participants in the BSY DAO (e.g., voting on proposals) will receive additional BSY rewards, with governance contracts deployed on Solana.

**Referral Program:** Users referring new participants to the BSY ecosystem will receive a 1% BSY token bonus per successful referral.

**Liquidity Provision:** Users providing liquidity to BSY pools on Solana-based DeFi platforms (e.g., Raydium, Orca) will receive additional rewards.

### 9.4. Lockup Schedule

Team and advisor tokens are subject to a 3-year lockup with a 12-month cliff to ensure long-term commitment.

Reserve fund tokens will be gradually released to maintain price stability.





# 10 Roadmap







## 10 Roadmap

Q2 2025: BioSynth launches on the Solana testnet, initiating community testing.

Q3 2025:

July 10, 2025: BioSynth project announcement.

July 12, 2025: Subscription begins (price: \$1.0/token).

July 15, 2025: Subscription ends.

July 16, 2025: Allocation announcement, users pay subscription fees.

July 18, 2025: Token officially issued and listed for trading (14:00).

Q1 2026: Integration with Solana-based DeFi protocols (e.g., Raydium, Orca), launch of BSY wallet and biological data platform.

Q2 2026: Expansion of partnerships with biotech companies and research institutions, deployment of data-sharing smart contracts.

Q3 2026: Global marketing campaign, activation of community governance.

2027 and Beyond: Continuous development of ecosystem features, including biotech DeFi products and cross-chain data solutions.





# 11 Risk Factors







## 11 Risk Factors

Investing in BioSynth involves inherent risks, including but not limited to:

**Market Volatility:** Cryptocurrency prices may experience significant fluctuations.

**Technical Risks:** The Solana blockchain or biological data platform may have unforeseen vulnerabilities, though Solana has proven its stability.

**Regulatory Uncertainty:** Changes in global biotech and data privacy regulations may impact BSY's operations.

**Adoption Risks:** BSY's success depends on widespread adoption by research institutions and users.

NexaBio Innovations Inc. is committed to mitigating these risks through advanced cryptographic techniques, regulatory compliance, and transparent communication.





# 12 Conclusion







## 12 Conclusion

BioSynth (BSY) represents the future of blockchain and bioscience integration. Leveraging Solana's high performance and advanced cryptographic techniques, BSY provides a secure, efficient biological data platform, empowering global research and biotech innovation. NexaBio Innovations Inc. invites all stakeholders to join us in building a decentralized bioscience ecosystem.

