







# Join us on ourjourney

We are tokenising innovative products through our new blockchain company, **CRB Token Health I** 

**JUNE 2024** 







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# **ASSET TOKENISATION**

Concept

# Digitalization of real assets (physical or abstract) using *blockchain*, registering and transferring ownership rights securely and fractionally online.

A digital token is created by means of a Smart Contract that represents the economic value of the asset, which facilitates its transaction in the digital world with full legal security.

This technology can be applied to a wide range of assets, making the investment and transaction of some personal resources more accessible:

- Shares in companies and partnerships
- Land and buildings, and real estate
- Intellectual property
- Others



## Advantages

### **Process Automation**

Under the conditions agreed by both parties, a *Smart Contract* or Intelligent Contract is established, guaranteeing its execution and immutable registration via Blockchain.

### Accessibility

Democratising access to certain investments and increasing their liquidity.

### **Efficacy and Liquidity**

Increased user efficiency allowing for the settlement of financial operations online.

### Security

Registration and traceability advantages and immediate transmission of countable tokens, allowing immediacy and technical security of operations.



# **TOKEN TRADING**

# Process

- To buy and sell tokens, investors must go through a KYC identification process, validated by an external entity, to be included in the White List.
- The technology platform ensures compliance with legal regulations, such as anti-money laundering (AML) and data protection.
- When there is sufficient demand, the issuer (CRB Token Health S.L.), will issue the tokens which can be purchased:
  > On-chain Payment Buyers send stablecoins to a smart contract address.
  > Off-chain Payment Euros accepted in the issuer's bank account.
- The sale of tokens can be public or private, including a pre-emptive phase.
- Investors acquire economic rights proportional to the tokens purchased.
- The sale of tokens between investors (P2P) is allowed with a commitment to comply with the terms of tokenisation and applicable laws.



# **Dividend Distribution**

Profit distribution will be carried out via the tokenisation platform. In one transaction, the money will be deposited in an Escrow account, and investors will be notified that they may withdraw their returns.

## **Benefits of Tokenisation**

### Liquidity

Token holders can sell their tokens on a P2P marketplace, without waiting for the investment deadline, obtaining immediate liquidity.

### Agility

Quick access to liquidity by project holders is facilitated, with less bureaucracy than traditional sales and purchases.

# Legal Security

- The tokens have smart contracts which protect the investors' rights and establish the issuer's obligations.
- The whole process is supported by Blockchain technology, ensuring a transparent and immutable record of transactions.
- Identity verification is certified by Sumsub, a leader in online verification, guaranteeing AML compliance and the suitability of the source of funds.

# **TOKENISATION TO INVEST IN BIOCROSS**

# Via CRB Token Health

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Creation of the Limited Company (SPV)

The entity "CRB Token Health S.L." is established to issue tokens, regulating the company management with by-laws through Blockchain.

# **Increase of Capital**

The management body of CRB Token Health S.L. will decide on a capital increase, subscribed and paid-up by investors interested in acquiring the tokens at a minimum price of  $\leq 500$ /token.

#### **Participations** 3

CRB Token Health S.L. may offer its participations to third party investors, since these are not considered to be marketable securities requiring supervisory approval under the Securities Market Act. In addition, the Capital Companies Act states that participations are not securities.

### **Investor Recruitment**

Investor recruitments is facilitated through the technology platform provided by BRICKKEN.



### Public Register. Capital Increase

A clear procedure is followed for the assignment of participations to third parties, updating the Membership Ledger and the issuance by the company's administrator of a certificate. Form 600 must be filed with AEAT (Spanish Tax Office) for each assignment, even if the assignee is exempt.

#### **Foreign Investors** 6

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Foreign investors must have a NIE, or NIF if they are a company.

# **Participations on Offer**

Potential investors analyse the investment opportunity, and undergo a KYC process. If they comply with the verification, they sign the corresponding contracts and purchase their participation, receiving a new token in representation of their participations.

# **EXECUTIVE SUMMARY**

Proposal

# Investing in Biocross, a company with technologically mature products (TRL7 & 8)



Demonstrated ability to identify and quantify a biomarker [ApoE4], present in highly prevalent pathologies:

- Alzheimer's and other dementias.
- Cardiovascular diseases.
- Diabetes Mellitus Type II
- Others

Free from technological risk



## Biomarker

This **biomarker** can be determined using any system and is compatible with the automated analysers of any clinical laboratory.

Highly Compatible

[ApoE4] is implicated in the development of these pathologies and their poor evolution

**Risk Factor** 

### Offers an early diagnosis

| Cost-efficient  | High Demand   | No Ethics Commit   |
|---|---|--|
| It improves therapeutic<br>control and health<br>management of these<br>pathologies and is demanded<br>by Patient Associations. | Identification and monitoring<br>of patients at higher risk,<br>reduces the economic<br>and social burden on<br>health systems. | Diagnosis using biomai<br>is very well establishec<br>clinical practice. |



# d in

# **APOE4: THE BIOMARKER FOR THE RISK OF VASCULO-METABOLIC DISEASES**

# Apolipoprotein E4 (APOE4)

- Influences lipid function and accelerates the development of chronic metabolic diseases in its carriers.
- 20% of the population are carriers of ApoE4. ApoE4 carriers experience an earlier onset of metabolic diseases than the general population, with faster disease progression and worse evolution.
- They do not respond well to usual treatments, especially those based on monoclonal antibodies.

# Cardiovascular Diseases

Numerous trials have shown the association of ApoE4 with the risk and poor outcome of these pathologies.

\*Valentín Fusteretal. Apolipoprotein Ε-ε2 and Resistance to Atherosclerosis in Midlife — The PESA Observational Study

# Diabetes Mellitus Type II

Several meta-analyses have shown the risk of developing Diabetes Mellitus Type II in patients with Apolipoprotein E4.



# Alzheimer (AD) / Dementia

- 2023 FDA approval of the first treatments based on monoclonal antibodies that modify and delay the onset of AD symptoms (Leqembi).
- ApoE4 is one of the most established biomarkers for the diagnosis of AD.
- Clinical trials have shown that treatments are more effective with an earlier diagnosis of AD.
- ApoE4 carriers present serious risks to monoclonal antibody-based treatments.
- The first early diagnostics in plasma based on biomarkers (Aß, Tau, pTau y ApoE4) appeared in 2023.
- There is a worldwide consensus, ratified by the FDA, regarding the importance of determining the ApoE4 status, as a complementary diagnostic and companion diagnostic, essential for the administration of new treatments.

# THE COMPANY

# The Company

# Spanish biotech company, spin-off of the Spanish National Research Council (CSIC),

with Health Licence Number 7358-PS, granted by the Spanish Medicines Agency, owners of a patented method adaptable to turbidimetry for the identification of ApoE4.

Target

To position apolipoprotein E4 in plasma as a reference biomarker of risk/prognosis in Alzheimer's Disease and other dementias, atherosclerotic cardiovascular diseases, and metabolic syndrome.

Investment Made

# More than €6 Millions



# Products



CE marked and adaptable to any automatic analyser on the market. It identifies ApoE4 carriers in plasma (TRL8).



(RUO), marketable as a service. It quantifies ApoE4 in plasma (TRL7).

### Patentes

Both products (**in vitro diagnostics**) are used with a patented method adaptable to **turbidimetry**, the most cost-effective technique on the market. It can be used with any automatic analyser.

# PARTNERS AND PARTICIPATIONS





13,63%

/ F.O.\* / = Family Office

# **MARKET (I): APOE4 DETERMINATION METHODS**

|                                   | Genetic        |  |
|-----------------------------------|----------------|--|
| Level of Lab Expertise            | HIGH (Genetic) |  |
| Complexity                        | HIGH           |  |
| Analysis Time                     | MEDIUM         |  |
| Ргісе                             | MEDIUM         |  |
| Informed Consent                  | YES            |  |
| Identification                    | YES            |  |
| Quantification                    | ΝΟ             |  |
| Allows for Massive Clinical Trial | ΝΟ             |  |
| Allows for a Large Sample         | ΝΟ             |  |







# MARKET (II): COMPETITORS

| 👹 biocross   | Roche                          |                                    |
|--|--------------------------------|------------------------------------|
| Method   |                                |                                    |
| Turbidimetry<br>(Protein) Expected<br>Certifications: IVDR<br>Samples x Time | Electrochemi<br>Luminescence   | Inmunoassay<br>ApoE4 (Protein) RUO |
| Plasma   | Plasma                         | Plasma                             |
| 1.600 samples / 1h<br>Equipment  | 88 samples / 1h                | 181 samples / 35min                |
| Any biochemistry<br>analyzer   | Specific equipment:<br>ELECSYS | Specific equiment:<br>Lumipulse    |
| Sensitivity / Specificity  |                                |                                    |
| 100% / 97%   | 100% / 100%                    | 100% / 100%                        |
| Distinguishes 3/4 – 4/4  |                                |                                    |
| Yes  | No (Only presence of ApoE4)    | Yes                                |
| Quantify ApoE4   |                                |                                    |
| Yes  | No                             | Yes                                |
| Analysis Site  |                                |                                    |
| Hospital laboratory  | External Laboratory            | External Laboratory                |



<u>Spartan</u>

RANDOX



| qPCR<br>(Gene) RUO                    | Biochip Array<br>(Protein) RUO                                    | Microarrays<br>(Gene) FDA approved* |
|---------------------------------------|---|-------------------------------------|
| Saliva Direct PCR<br>1 sample / 30min | Plasma<br>262 samples / 3h  | Saliva<br>6 samples / 1h            |
| Specific equipment:<br>Cube Spartan   | Specific equipment:<br>Evidence Investigator®<br>(semi-automated) | Specific equipment<br>required      |
| 100% / 100%                           | 100% / 100%   | 100% / 100%                         |
| Yes                                   | Yes   | No (Only presence<br>of ApoE4)      |
| No                                    | No  | No                                  |
| Physician Office Lab                  | External Laboratory   | Direct to Consumer                  |

# **BUSINESS MODEL: 2024 – 2028**

| 024                                      | 2                                       | 025   |                                  |
|--|---|---|----------------------------------|
| Local distr                              | ibutor network                          | AsoE4   | Heterozygote                     |
| Screening                                | e4Risk<br>e4Risk                        | Screening e4Quant e4                                | Quantifies Ap                    |
| Screening to<br>in the genera            | ol for ApoE4 carriers<br>al population. | Cuantificación de ApoE                              | 4 en Plasma.                     |
| Patients rece<br>target patho<br>Test    | ntly diagnosed with<br>logies.          | Imprescindible para la a<br>monitorización de los r | adminis-tración<br>uevos fármaco |
| Price                                    | Non-inva                                | sive / Blood test                                   |                                  |
| €30 / test<br>Result                     |   | €100 / test   |                                  |
| Qualitative                              |   | Quantification                                      |                                  |
| identification<br>of ApoE4.<br>Equipment | n of carriers and non-carriers          | Quantification of ApoE<br>the administration and    | 4 in plasma. Es<br>monitoring of |

Turbidimetric analyzer available in any health centre or clinic.



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# 2026

2027











пy os.

# New pathologies

Positioning of e4Risk / e4Quant as an IVDR biomarker for:

- Alzheimer
- Other dementias
- Cardiovascular pathologies
- Metabolic syndrome

# New applications

Companion diagnostic of the different monoclonal antibodybased monoclonal antibody-based AD treatments that will be introduced in the market.

ssential for new drugs.



# TARGET MARKET

| T       |         | 1P        | i de       |           | •         |            |
|---------|---------|-----------|------------|-----------|-----------|------------|
| ES      | О РТ    | MX        | EU         | USA       | LATAM     | ASIA       |
| EA      |         |           |            |           |           |            |
| 40.000  | 6.000   | 300.000   | 1.788.000  | 1.554.000 | 1.172.250 | 9.327.600  |
| ECV     |         |           |            |           |           |            |
| 109.772 | 31.000  | 617.400   | 4.800.000  | 3.000.000 | 450.000   | 3.000.000  |
| DMT2    |         |           |            |           |           |            |
| 386.000 | 87.234  | 215.600   | 6.200.000  | 3.300.000 | 2.600.000 | 33.000.000 |
| TOTAL   |         |           |            |           |           |            |
| 535.772 | 124.234 | 1.133.000 | 12.788.000 | 7.854.000 | 4.222.250 | 45.327.600 |





# **BUSINESS CASE**



Months



| 4%<br>e4Quar | 3% e4Risk /<br>e4Quant (20%) | 2% e4Risk /<br>e4Quant (20%) | 1% e4Risk /<br>0,1% e4Quant | 0.1% e4Risk /<br>0,01% e4Quant |                 |
|--------------|------------------------------|------------------------------|-----------------------------|--------------------------------|-----------------|
|              | 48                           | 36                           | 24                          | 12                             |                 |
| ES           | ES, PT & MX<br>3%            | ES, PT & MX<br>2%            | ES, PT & MX<br>1%           | ES, PT & MX<br>0,1%            |                 |
| EU           | EU / LATAM<br>0,5%           | EU / LATAM<br>0,1%           |                             |                                |                 |
| A            | Asia / USA<br>0,1%           |                              |                             |                                |                 |
| €20.7        | €3.314.762                   | €1.555.685                   | €138.400                    | €13.840                        |                 |
| €16.18       | €2.584.189                   | €1.212.812                   | €106.399                    | €10.640                        | )               |
| €14.43       | €1.239.944                   | €248.567                     | €411.259                    | ing €286.603                   | )perating<br>A) |
| €1.74        | €1.344.245                   | €964.245                     | €517.658                    | €297.243                       |                 |
|              |                              | €600.000                     | €1.344.800                  | €1.267.400                     | )               |







# **MARKET ACCESS IN PROGRESS**



# Distributor

Under negotiation

# Authorised to sell to:

- Gregorio Marañón Hospital (Madrid)
- Ramón y Cajal Hospital (Madrid)
- Universitario Dr. Peset Hospital (Valencia)
- Virgen de las Nieves Hospital (Granada)

# ApoE4 Project Participants:

- Biobizkaia Health Research Institute (Basque Country)
- Bioaraba Health Research Institute (Basque Country)
- Osakidetza Research Institute (Basque Country)
- La Paz University Hospital (Madrid)
- IDIAP Foundation Jordi GOL (Catalonia)
- Juan Canalejo University Hospital (A Coruña)



- Santiago Clinical University Hospital (A Coruña)
- CREA State Reference Centre for the care of people with Alzheimer's Disease and other dementias in Salamanca (Castille and León)
- Diabetes Group of the Catalonian Health Institute

# **PT** Portugal

### Distributor

Under negotiation

## Collaborating Institutes

Public and private hospitals.

# MX Mexico

## Distributor

Under negotiation

# Collaborating Institutes

- Nutrition Institute (Cardiology Department).
- National Institute of Neurology and Neurosurgery.

# **PROPOSED OPERATION**

# Operation

# Requirements

Up to **1 million euros** in one or several instalments, to complete the CDTI funding (**2 million euros**).

# Modality and Closing Date:

Direct investment – 20<sup>th</sup> June 2024

Investment Objective (without technological risk)

## Position

e4Risk\* & e4Quant for new pathologies (cardiovascular and diabetes)

## Validate

e4Risk\* & e4Quant as IVDR

## Authorisation

by the FDA

### Development

of an E4 and E2 antibody of its own.

## Awareness

Awareness-raising actions to position the ApoE4 biomarker.

# Approach

New markets and New pathologies







# Thank you!

# **Biocross SL**

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