

# **VIRTUAL REHAB LIGHT PAPER**

Dr. Raji Wahidy

**Virtual Rehab**

Dr. Raji Wahidy <https://www.virtualrehab.co>

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*Virtual Rehab's evidence-based solution uses Virtual Reality, Artificial Intelligence, & Blockchain technology for Pain Management, Prevention of Substance Use Disorders, and Rehabilitation of Repeat Offenders.*

## Background

Every person in life seeks a second chance. Inmates and substance addicts are no exception. In fact, they are the ones that are in most dire need for help, support, and development to become improved citizens upon their release from prisons or rehabilitation ("rehab") centers. This is realized through correctional and rehabilitation programs that will prepare them to lead their future lives in a positive manner to avoid the possibility of repeated offenses and substance addictions.

According to the International Centre for Prison Studies, the global prison population total is currently set at 10.5 million. Prison budgets are also currently set at roughly \$35.2 billion worldwide. From a rehabilitation perspective, there are approximately 255 million suffering from substance abuse and roughly \$100 billion are being spent on addiction treatment worldwide. These numbers are enormous and costly to governments, tax payers, and society. Thus, there is a need for an effective rehabilitation technique that could increase persons treated and reduce costs.

Current techniques for rehabilitating persons are burdensome and typically ineffective. For example, rehab programs require counseling, medication, and/or constant monitoring that is cost-prohibitive. As such, many persons who could be successfully rehabilitated are never treated because of a lack of resources. Moreover, existing techniques for rehabilitating a person fail to provide any insights into whether those techniques are effective in real-time while the persons are being rehabilitated. Instead, a rehabilitation treatment is only deemed successful if a patient can stop being treated without relapsing. Accordingly, a need exists for a personal and a cost-effective rehabilitation system that can also be used to assess and treat persons in real-time.

## Research Results

- Among 244 children (2-16 yrs old) receiving vaccination, using VR resulted in 45% to 74% decrease in pain
- Burn patients reported a 35% to 50% decrease in perceived pain when using VR with standard pharmacologic treatment

- Researchers at Duke University are showing that when recovering people develop strategies to avoid relapse in a virtual world, they are able to take those strategies and use them in real-world situations
- VR significantly reduced the amount of opioid medication administered during painful wound care procedures
- VR can be used as a treatment tool for enhancing behavior modification goals to support healthy eating habits by reinforcing these goals in life-like situations

## Solution

Virtual Rehab's all-encompassing solution is based on four pillars:

1. Virtual Reality – A virtual simulation of the real world using cognitive behavior and exposure therapy to trigger and to cope with temptations.
2. Artificial Intelligence – A unique expert system to identify areas of risk, to make treatment recommendations, and to predict post-therapy behavior.
3. Blockchain – A secure network to ensure privacy and decentralization of all data and all information relevant to vulnerable populations.
4. VRH Token – An ERC-20 utility token that empowers users to purchase services and to be rewarded for seeking help through Virtual Rehab's online portal.

## VRH Token

The Virtual Rehab Token (VRH) has been created as a centralized currency to be used within the Virtual Rehab network. Users will be able to purchase and sell VRH tokens in exchanges. The token follows the standards of Ethereum ERC-20 Standard token. Its design follows the widely adopted token implementation standards. This allows token holders to easily store and manage their VRH tokens using existing solutions including ERC20-compatible Ethereum wallets.

The VRH Token is a utility token and is core to Virtual Rehab's end-to-end operations. The following section explains some of the use cases where the VRH token will be used for within the Virtual Rehab network.

## VRH Utility

When dealing with the most vulnerable populations out there, privacy and security of information/data shared, become extremely important. Fortunately, this all can be made possible when integrating blockchain technology as part of the Virtual Rehab solution.

Below are some of the use cases for the VRH Token:

1. User pays using VRH Token to have access to pain management programs
2. User pays using VRH Token to have access to addiction prevention programs
3. User pays using VRH Token to have access to cognitive behavior therapy programs
4. User pays using VRH Token to receive further analysis of the executed programs
5. User gets rewarded in VRH Token for seeking help and counseling

## Roadmap

Time Period	Activities
Q3 2018	Completing & Releasing Virtual Rehab White Paper Continuing Marketing and Promotion Activities Adding New Blockchain Advisors Completing registration of Virtual Rehab in Estonia Continue B2B customer acquisition
Q4 2018	Starting & Completing VRH Token Pre-Sale Starting & Completing VRH Token Main Sale Distributing VRH Token to Contributors Listing on Decentralized Exchanges Discussions with Top 10 Exchanges Hiring New Employees across different Functions Addition of New Advisors Continuing Product Development Continuing Marketing and Promotion Activities
Q1 2019	GitHub Release New Listing on Top 10 Exchange Opening of New Virtual Rehab Office in the Americas Continuing Product Development Updating Virtual Rehab White Paper Updating Virtual Rehab Website Announcement of New Partnerships within the Americas market Continuing Marketing and Promotion Activities

<b>Q2 2019</b>	<ul style="list-style-type: none"> <li>Virtual Rehab Portal Launch</li> <li>New Listing on Top 10 Exchange</li> <li>Continue Product Development</li> <li>Announcement of New Partnerships within the APAC/MENA market</li> <li>Updating GitHub</li> <li>Continuing Marketing and Promotion Activities</li> </ul>
<b>Q3 2019</b>	<ul style="list-style-type: none"> <li>New Features Roll-out on Virtual Rehab Portal</li> <li>New Listing on Top 10 Exchange</li> <li>Announcement of New Partnerships within the European market</li> <li>Updating GitHub</li> <li>Opening of New Virtual Rehab Office in the European/MENA region</li> <li>Continue Marketing and Promotion Activities</li> </ul>
<b>Q4 2019</b>	<ul style="list-style-type: none"> <li>New Features Roll-out on Virtual Rehab Portal</li> <li>Opening of Virtual Rehab Therapy Center</li> <li>New Features Roll-out on Virtual Rehab Portal</li> <li>Announcement of New Partnerships</li> <li>Continuing Marketing and Promotion Activities</li> <li>Updating Virtual Rehab White Paper</li> <li>Updating Virtual Rehab Website</li> <li>Updating GitHub</li> <li>Releasing Roadmap for 2020 – 2022</li> </ul>

## Token Sale Information

In the following sections, we will be providing you with additional detail regarding the Virtual Rehab token sale of its VRH Token.

### Timing

Private Sale	August 1 2018 – October 31 2018
Pre-Sale	November 1 2018 – November 14 2018
Main Sale	November 15 2018 – December 14 2018

Private, Pre-Sale, and Main Sale will commence at 9:00 AM Eastern Standard Time (1:00 PM GMT) and end at 6:00 PM Eastern Standard Time (10:00 PM GMT).

Virtual Rehab Pre-sale and VRH Token creation will take place using Ethereum smart contracts.

Virtual Rehab will only accept Ethereum Coin (ETH) and Binance Coin (BNB) as a form of payment.

All ETH and BNB contributions will need to be sent to the Virtual Rehab Ethereum address provided by the Virtual Rehab administrator. The Virtual Rehab Ethereum address will be communicated on the following Virtual Rehab's social media platforms (Twitter, LinkedIn, Google+), Telegram channel, as well as the Virtual Rehab website.

**\*\*\* NO OTHER ETHEREUM ADDRESS SHOULD BE USED OTHER THAN THE ONE COMMUNICATED ON THE VIRTUAL REHAB PLATFORMS. PLEASE BE AWARE OF SCAMS. PLEASE ALSO NOTE THAT NO TELEGRAM ADMIN WILL BE REACHING OUT TO YOU DIRECTLY TO AVOID ANY POSSIBLE SCAMS.**

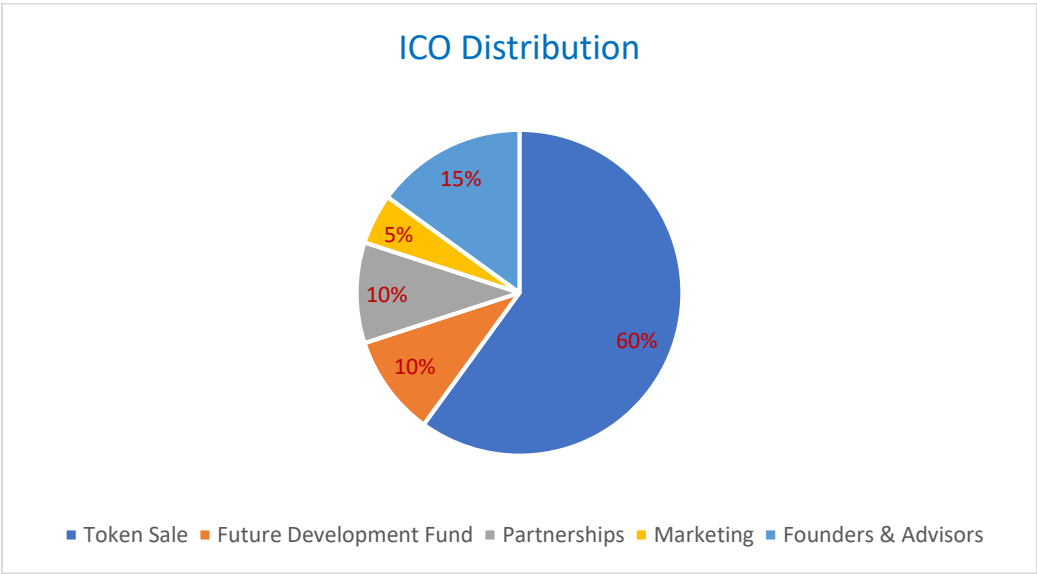
## Tokenomics

<b>TOKEN INFO</b>	
Type of Token	Standard ERC-20 Ethereum Token
Ticker	VRH
Decimals	18
<b>PRE-SALE INFO</b>	
Start Date	November 1 2018 @ 9:00 AM EST (1:00 PM GMT)
End Date	November 14 2018 @ 6:00 PM EST (10:00 PM GMT)
Total VRH for Sale	60,000,000
Price per VRH	\$0.10 USD
Bonus	First 24 Hours = 30%
	Following First 24 Hours and BEFORE 11:59 PM EST September 8 = 20%
	Following 11:59 PM EST September 8 = 15%
Min Contribution	\$1,000 USD
<b>MAIN SALE INFO</b>	
Start Date	November 15 2018 @ 9:00 AM EST (1:00 PM GMT)
End Date	December 14 2018 @ 6:00 PM EST (10:00 PM GMT)
Total VRH for Sale	180,000,000
Price per VRH	\$0.10 USD
Bonus	First 24 Hours = 10%
	Following First 24 Hours and BEFORE 11:59 PM EST October 1 = 5%
	Following 11:59 PM EST October 1 = 0%
Min Contribution	\$100 USD
<b>ADDITIONAL INFO</b>	
Soft Cap	\$5,000,000 USD
Hard Cap	\$20,000,000 USD
Total Supply	400,000,000
Max Supply	400,000,000
Circulating Supply	Will be calculated post ICO sale completion
Accepted Contribution	ETH, BNB
Whitelist/KYC	Yes
Lock-Up Period	No
Virtual Rehab Team	All Tokens allocated to Virtual Rehab Team vest 12 months post ICO sale completion
Countries Excluded	United States of America (Unless Accredited Investor), New Zealand, People's Republic of China, and the Republic of Korea

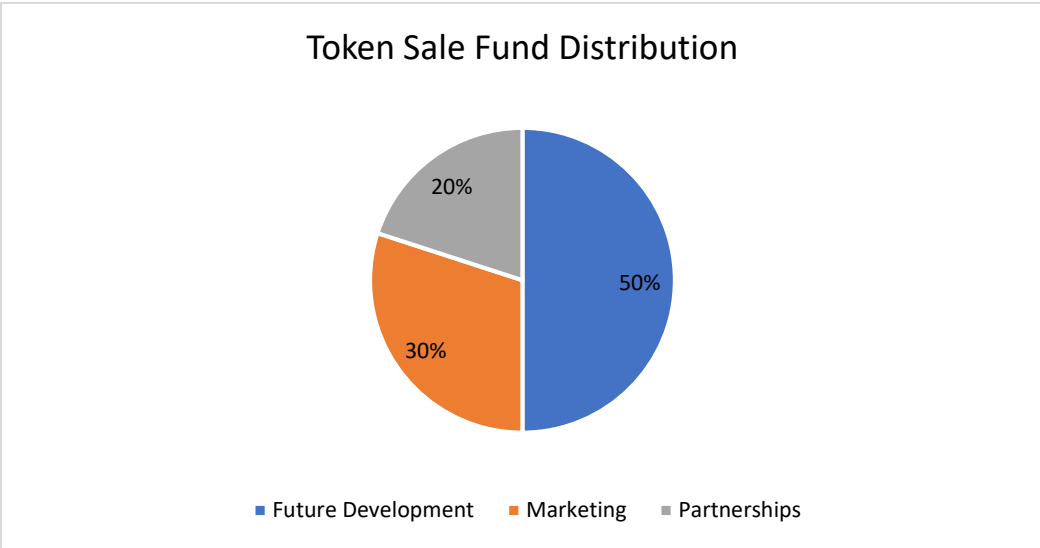
Token sale will continue until Hard Cap is reached or until all VRH tokens are sold out as part of the token sale.

VRH Tokens which are not sold as part of the token sale will be burned.

### Token Distribution



### Use of Funds



## Bounty Program

Virtual Rehab has allocated \$300,000 to reward users who contribute to the success of the Virtual Rehab token sale through the following:

- Twitter Bounty Campaign
- Facebook Bounty Campaign
- YouTube Bounty Campaign
- Telegram Bounty Campaign
- LinkedIn Bounty Campaign
- Medium Bounty Campaign
- Video Bounty Campaign
- Content Creation Bounty Campaign
- Translation Bounty Campaign
- Reddit Bounty Campaign
- Signature Bounty Campaign
- Telegram Engagement Bounty Campaign
- ICO Listing Sites Bounty Campaign

Additional allocation may be added as the Virtual Rehab team deems necessary

## Founders & Advisors



Dr. Raji Wahidy

Founder & CEO

- 15+ years of experience with world's most renowned organizations (Ericsson & Vodafone)
- Global Multinational Awards
- Entrepreneur with 1 exit for Amalana – Global Networking Services



- Bachelor's degree in Electrical Engineering (Telecommunications), master's degree in Quality Systems Engineering and Business Administration (Procurement & Supply Chain Management), and doctorate degree in Management (Organizational Leadership).
- Registered UN and UNICEF volunteer
- Actively involved within the blockchain industry since 2013.



Mrs. Amal Azzeh  
Co-Founder & CFO

- 40+ years of experience in Finance Operations
- Strong financial and operational background
- Led global teams and delivered to organizational goals under budget
- Global Excellence Awards
- Co-Founder of MRT (tech-driven operational company). Was responsible for the introduction and operationalization of the first ever recruitment helpdesk



Mr. Jean Speville  
Chief Mind Technologist

- Nominated for Innovators Under 35 Europe Awards by MIT Technology Review (2017 & 2018)
- Impact entrepreneur, biohacker, and mindfulness practitioner
- Member of The Verizon Innovation Program in San Francisco
- Alumni of The Microsoft Accelerator Bootcamp Program

- Member of Sting accelerate — Stockholm's & Nordic's no. 1 accelerator and incubator



Mr. Paul Mears

Co-Founder @ Ammeris

- Founding board member and chair at Ammeris
- Experienced with the Middle Office at the Hedge Fund of Cambridge Strategy
- Co-founder of Modex Tech
- Business angel in over 20 companies



Mr. Donald Cox

VP & Chief Information Security Officer @ MEDNAX

- Currently the Vice President & Chief Information Security Officer at MEDNAX
- Was Chief Information Officer for Health and Human Services (HHS), Substance Abuse and Mental Health Services Administration (SAMHSA).
- IT strategy, operations, cyber security, human resources, and financial management experience
- Serves as a member of the Advisory Board for the 4th fastest growing Managed Security Services Provider, Netswitch.



Mrs. Karen Hurst

Futurist & Lead Arch @ Kaiser Permanente

- Currently assuming the role of the futurist & lead arch at Kaiser Permanente
- Technologist with over 20 years of experience (well-known for disrupting industries)
- Was part of Microsoft's leadership team reporting to Tony Scott (Microsoft CIO) and transformed Microsoft IT into Services, Devices, Cloud and Mobility 1<sup>st</sup>, "real-time" IT organization
- Won numerous awards including Innovation Excellence Award, Connect the Dots Award, User Experience Award, Security and Innovation Award, and others.



Mr. Philip Fasano

Healthcare Industry C-Level Executive

- Award-winning chief information officer with 30+ years' experience in the technology, healthcare, and financial services industries
- Created IT strategies, products, investments, and security methods that have developed into industry standards
- In 2017, was inducted into the CIO Hall of Fame, which includes the top 100 CIOs worldwide
- Served as CIO for AIG, Kaiser Permanente, Capital One, J.P. Morgan Chase, American Financial Group, and Deutsche Financial Services
- Founder of Capital Sourcing Group where he provided strategic consulting services to the Department of Homeland Security and Fortune 500 CEO's, focusing on emerging technology, cybersecurity, and financial oversight

- Recipient of numerous accolades for his forward-thinking and innovation, including the ACORD Case Study Award, CIO 100 Award, HIMSS Analytics Stage 7 Award & Davies Award, and the Uptime Institute's Continuous Availability Award. He has also received recognition from Computerworld for leading Kaiser Permanente to serve as one of the "Top 12 Green-IT Organizations" and one of the "100 Best Places to Work in IT"
- Served on Advisory Boards of Sierra Ventures, Cisco Systems, Hewlett-Packard Company, Oracle Corporation, and Sprint Corporation



Dr. Larry Wray

Principal @ Wray Consulting

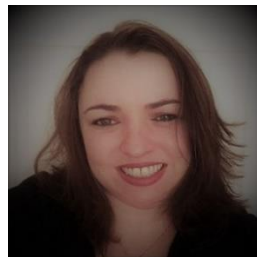
- 30 years of experience in healthcare
- Consulting early stage and established companies, universities and non-profit organizations on commercializing new technologies as clinical diagnostic products or research tools
- Was VP, Development at Nanomix, a nanotechnology-based point of care diagnostic company, VP, R&D for the diagnostics business at PerkinElmer
- Held leadership positions in R&D, program management, business development, and manufacturing at BayPoint Biosystems (an oncology diagnostic company), Celera (a molecular diagnostic company, now part of Quest), Ventana (a tissue diagnostics company, now part of Roche) and Abbott Diagnostics
- Responsible for the launch of products spanning a wide range of technologies and applications, including infectious diseases, oncology, metabolic diseases, prenatal testing and newborn screening



Dr. Jeffrey Pfeifer

Associate Professor of Forensic Psychology @ Swinburne University of Technology

- Associate Professor of Forensic Psychology at Swinburne University of Technology in Melbourne, Australia
- Published over 35 peer-reviewed and has testified in several trials as an expert witness in both Canada and the US. The Supreme Court of Canada have cited his research as well as the Appellate Courts in Ontario and British Columbia and he has had reports tabled by the State Parliament of Western Australia and the Provincial Parliament of Saskatchewan
- Recipient of the 2017 Global Corrections Research Award and the 2004 International Corrections and Prisons Association Research Award as well as a former member of the Canadian National Committee for Police Mental Health
- He has also conducted numerous program evaluations and training workshops for a variety of organizations including the Corrections Victoria, G4S Australasia, Royal Canadian Mounted Police, Ontario Provincial Police, Western Australia Department of Corrections, Russian Ministry of Corrections, Namibian Correctional Service, Anti-Corruption Commission of Zambia, Singapore Airport Security Service, *and the* Durban (South Africa) Police Service



Dr. Bobbie Ticknor

Associate Professor @ Valdosta State University & CEO of Correctional Training Solutions

- Assistant Professor at Valdosta State University in Georgia and CEO of Correctional Training Solutions
- Research interests include offender classification and assessment, correctional rehabilitation, technology in criminal justice, sex offender policy and practices, and biosocial criminology

- Certified trainer in cognitive behavior therapy, aggression replacement training, and motivational interviewing
- Over fifteen years of software development and consulting experience and over a decade's worth of experience working with various offender populations and criminal justice agencies across the United States and Canada
- Led the pilot for the first treatment group with offenders using a virtual environment at a residential juvenile treatment facility in Ohio

*\*\*\* Note that the extended Virtual Rehab team includes 1 operations manager, 1 project manager, 1 blockchain engineer, 1 front-end engineer, 1 back-end engineer, 2 virtual reality programmers, 1 artificial intelligence engineer, who work along with Virtual Rehab on a contractual basis. We look forward to onboard some of those engineers along with other highly qualified and professional team members across various functions upon completion of our token sale event.*

## Recognition & Awards

Since its establishment back in 2017, Virtual Rehab has been recognized as a market leader in leveraging virtual reality and artificial intelligence for the prevention of substance use addiction and the rehabilitation of repeat offenders.

Some of the notable successes include the below:

- Evidence-based solution with proven efficacy results approved by physicians, psychologists, and therapists
- 87% of participating patients have shown an overall improvement across various metrics
- Described by US Digital Government Head as a “capability that is very very promising for public services”
- Only VR/AI company included in the US Department of Justice, Institute of Corrections Environmental Scan report
- Partnership agreements in-place across the North America, Europe, Middle East, and APAC regions
- Only company to represent Canada as part of the Canadian Delegation to Arab Health
- Selected as one of Canada's most promising high-growth life sciences companies (Dose of the Valley, CA)
- Featured by Microsoft's leadership team at the Microsoft Inspire Innovation Session
- Nominated by The Wall Street Journal for the WSJ D.LIVE Startup Showcase (Laguna Beach, CA)

- Ranked by Spanish media as the first option for training correctional officers and rehabilitation of offenders using virtual reality
- Featured by the media across 28 countries

In addition, Virtual Rehab has successfully established seven different partnerships covering the Americas, APAC, MENA, and EU markets. We are also currently in negotiations to onboard additional partners.

## Media

Virtual Rehab has been featured by over 28 countries around the world. Below is a collage of some of the media coverage received by the Virtual Rehab team. You can read through the various articles by visiting the Virtual Rehab website at <https://www.virtualrehab.co>.

