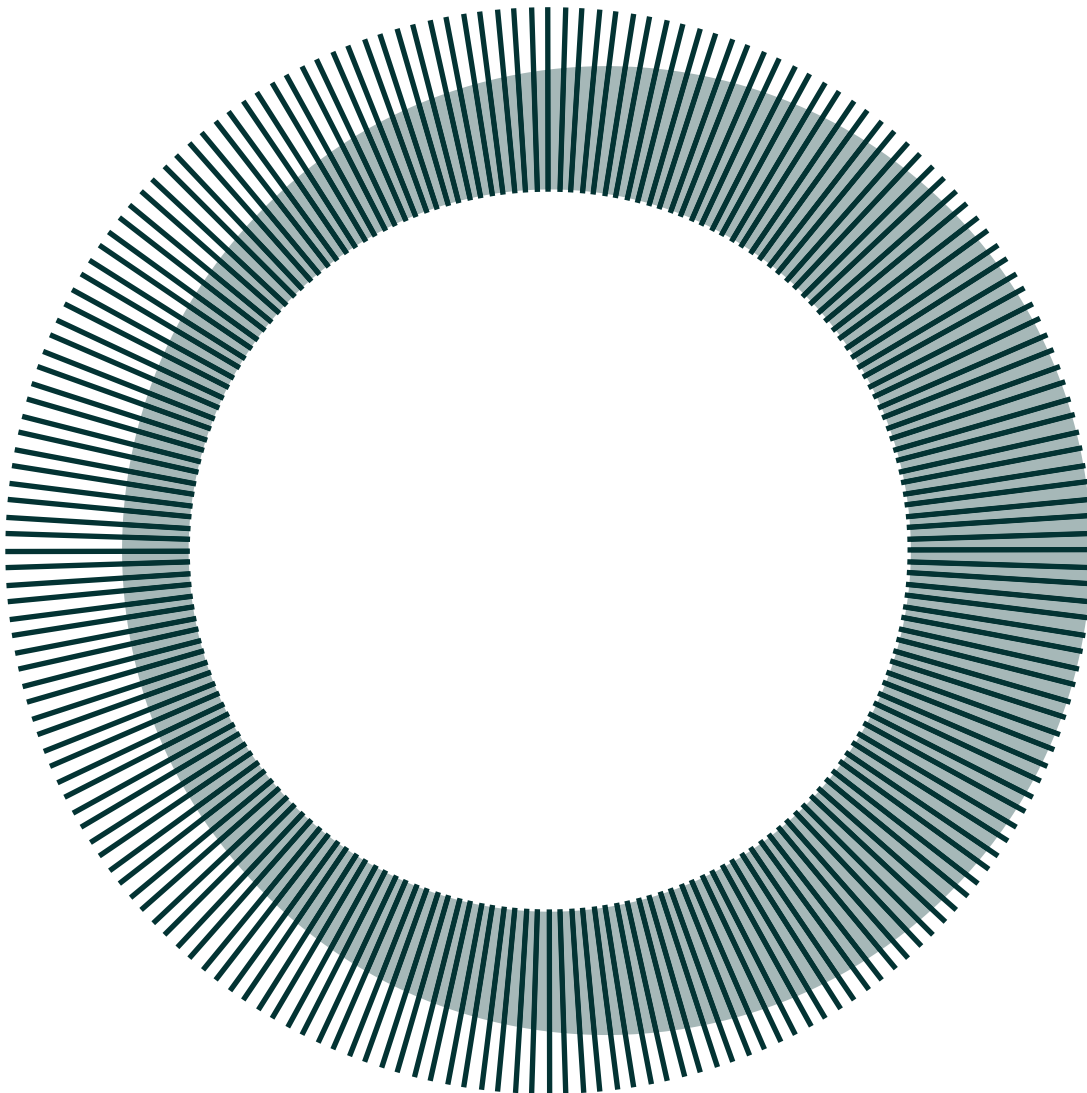


Canurta NFTs: The Healing Project Whitepaper

Presented by: Canurta Inc.

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Canurta

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About Canurta

Canurta designs all-natural and innovative ingredients from hemp polyphenols to effectively support inflammation prevention and recovery.

Our mission is to solve the world's biggest health challenge: preventing and managing chronic disease safely. We target inflammation because it is the root cause of disease. And we build natural solutions backed by science to rival synthetic anti-inflammatory ingredients that aren't safe for daily or long-term support.

Canurta's pipeline and key partnerships include the most influential thought leaders in hemp and leverage proprietary technology to maximize the production of cannflavin-rich polyphenols.

Apart from cannabinoids like CBD, the hemp plant contains over 400 bioactive compounds, including unique polyphenols that only Canurta can identify, optimize and capture. While different polyphenols are found across the plant world, cannflavins A and B are valuable due to their ability to eliminate inflammation at the source through dual inhibition of pro-inflammatory pathways.

Problem Statement

Chronic inflammation presents some of the most pervasive health challenges facing the world today. Ischemic heart disease, stroke, cancer, diabetes, arthritis, fatty liver disease and both auto-immune and neurodegenerative conditions are only a few examples of common illnesses linked to inflammation. Chronic inflammation is also recognized as the primary cause of death in the world, with more than 50% of all deaths attributable to inflammation-related diseases.

Current conventional treatments typically involve the administration of nonsteroidal anti-inflammatory drugs (NSAIDs), opioids, glucocorticoids and immunosuppressant drugs, which are not ideal for everyone, have triggered addictions and include a range of side effects. Moreover, conventional treatments do not eliminate the source of inflammation and can be responsible for other ailments during or after treatment.

Advancements in research and development are pivotal in addressing the increasing interest and urgent need for natural, alternative treatments to alleviate inflammation-related diseases. Healthcare research, however, has often grappled with the challenges of acquiring adequate funding which is usually subsidized in two ways: through government funds and private investments.

While the former requires extensive time and resources coupled with high-failure rates and competition rather than collaboration, the latter is often cited as being a means of bias and personal gain. Combined, these barriers have compromised progress towards a real solution.

With botanicals growing in popularity as an inflammation treatment, non-fungible tokens (NFTs) are also being embraced as a new method of democratically funding critical healthcare research and development. By pairing NFTs and healthcare research, there is an exciting opportunity to explore novel, promising alternatives in a modern, culturally relevant way that eliminates accessibility obstacles while remaining autonomous, transparent and accountable.

Introducing The Healing Project

The Healing Project merges art, technology, science and intellectual property through a collection of NFTs to achieve research findings and product development that benefits those inflicted with inflammation-related diseases.

In collaboration with emerging local artists, Canurta will release a unique Healing Project Package containing several NFTs every three years. The Package will be made available for sale on OpenSea, an Ethereum-based NFT marketplace, through a decentralized, secure and transparent auction process. While the initial bid will be set, the process will allow participants to determine the fair market value and the final cost of the Package, with the highest bidder being awarded as the Package Owner.

A portion of the proceeds will go towards supporting further understanding and commercialization of novel, patented¹, hemp-specific polyphenols, including Cannflavins A and B. These rare polyphenols are scientifically proven to be powerful anti-inflammatory ingredients that can rival synthetic anti-inflammatories shown to carry dangerous risk profiles that an overwhelming number of patients prefer not to take long-term.

This will improve treatment options² for those affected by inflammatory disease(s) and accelerate new research methodologies and innovation in botanical drug development for the health and science sector as a whole.

The Healing Project will incentivize contributions and collective action from organizations and individuals with a pain and inflammation management mandate -- e.g. research, prevention, harm reduction, treatment/recovery, policy reforms -- by facilitating community ownership and engagement in research development and product innovation as well as offering revenue-to-donation generation opportunities that can be applied towards programs that aim to offer new treatment opportunities for those living with chronic disease.

The use of blockchain technology to host the project will permit transparent monitoring of project outcomes thereby serving as a measure and immutable record of the Package Owner's contributions.

To learn more about NFTs, please see [Appendix 2](#).

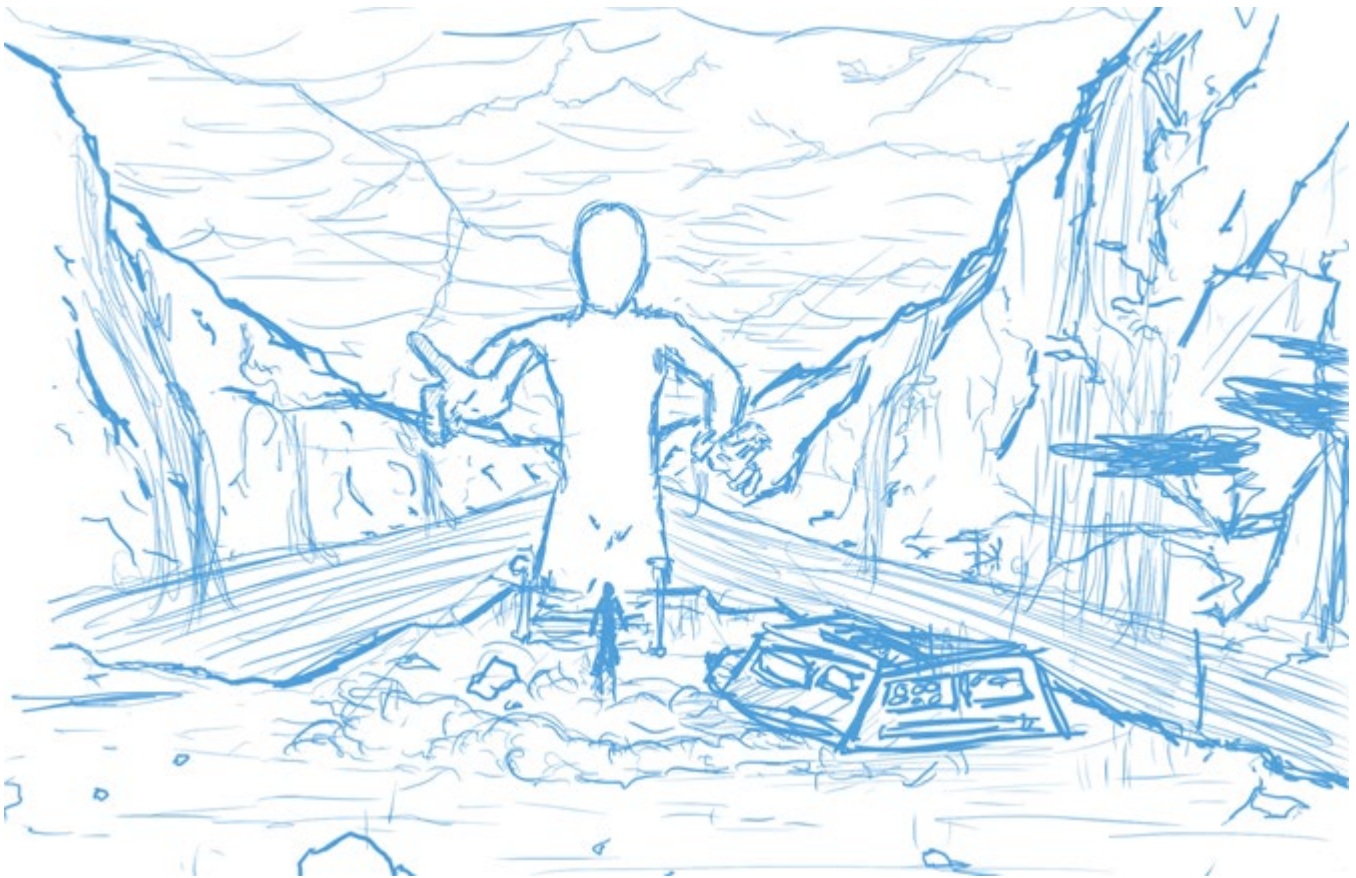
¹See [Appendix 1](#)

²See [Project Roadmap](#) for Scientific Outcomes

Project Benefits

- New and transparent solution for crowdfunding research and product innovation
- Incentivizes cross-sector collaboration via ownership and stake
- Educates the broader community on the need for new research-based solutions and the growing global crisis of inflammatory diseases
- Facilitates dissemination of research findings and knowledge

Welcome to The Healing Project



"The idea that we can tap into the earth's resources and access another level of natural healing is really exciting to me. I think that the future of human healing lies in the ability to maximize the potential of the Earth while using today's technology. And the opportunity to tell that story creatively is one I'm extremely excited for."

- Jordan Sook, Creative Director

Project Package and Owner Rights

NFTs available through The Healing Project are representative of the health journey towards empowerment that embodies the essence of our mission, our stakeholders and societal experiences.

The Healing Project Package will contain one Main-NFT and five Sub-NFTs. Package Owners will unlock a personalized 270° panoramic artwork visualizer experience (i.e. [ScreenX](#)) directly related to their mandate as part of the Main NFT to immerse viewers directly into the story. This can be used to showcase project ownership, and through compelling storytelling with artwork, foster notoriety and compassion for the Package Owner's impact area.

The Package Owner holding the Main and/or Sub-NFTs will retain respective rights that are valid for a total of three years from the project release date. If the NFTs are sold, they will forfeit said rights and have them transferred to the new Package Owner for the duration of the ownership period.

The project will launch with the sale of a Sub-NFT that will award the entire Package and rights to the Package Owner.

	1 Main NFT	5 Sub-NFTs
Package	<ol style="list-style-type: none"> 1. Original Artwork Visualizer including Unique Visual (3-6 minutes total) 2. Certificate of Ownership 3. Main Package Owner Rights - non-transferable 	<ol style="list-style-type: none"> 1. Unique Still Physical Artwork Pieces 2. Certificate of Ownership 3. Sub Package Owner Rights
Rights	<ol style="list-style-type: none"> 1. Immutable record-of-support towards project outcomes for Project Owner 2. Participation as an observer³ to the Medical Advisory Board of Canurta Inc. to provide insights while having transparency into R&D activities 3. 1% of revenue generated from the sale of Powered by Canurta products donated semi-annually to the Package Owner's Cause-of-Choice 4. 30% of net sales generated from the subsequent Healing Project sale 	<ol style="list-style-type: none"> 1. The ability to hold or resell the Sub-NFTs to stakeholders or the public⁴

³Voting and decision-making rights withheld. Observer holds accountable board and is vehicle for transparency to the public.

⁴10% royalty payable to Canurta; 5% royalty payable to Project Artist

How it Works

**1. Art Created**

Artist creates new Healing Project Package. Canurta Inc. retains copyright.

**2. Minted**

Digital artworks are minted and assigned unique digital tokens (NFTs). NFTs are made available on OpenSea (Ethereum-based marketplace).

**8. New Art**

Progress reflected in subsequent Healing Projects through addition of new stories. 30% profit from sale distributed to previous Package Owner for Cause-of-Choice.

**3. Auction Begins**

Canurta Inc. opens auction process to organizations and individuals. Initial bid is set.

**7. Data on Blockchain**

Accumulation of research and data made visible on blockchain and minted as immutable record of Package Owner's contributions to work.

**4. Auction Completes**

Highest bidder awarded as Package Owner. Ownership and rights transferred to digital wallet via smart contracts. Transaction recorded. Public and private keys serve as proof of ownership and authenticity.

**6. Funds Allocated**

Use of funds allocated to advancing pain and inflammation R&D and solution scale-up. 1% of eligible sales revenue donated to Package Owner's Cause-of-Choice bi-annually.

**5. Owner Receives Visual**

Package Owner unlocks new visual experience related to their pain and inflammation management mandate.

Platform Details

The Healing Project platform is built on various blockchain-related technologies. The NFTs are hosted on OpenSea and connected to Canurta's private permission blockchain through the Ethereum blockchain, allowing for the recording of a complete history of data.

OpenSea is an Ethereum based blockchain solution service that allows us to curate multiple NTFs with a variety of purposes. Ethereum Request for Comments (ERC) standards are the facilitators of the sale. The standard facilitates different types of sales such as NFTs in one sale offering.

Canurta uses a custom built private blockchain built using Hyperledger Iroha to manage the supply chain. Together with Ethereum's blockchain technology, they create a historian for chained data to foster trust and integrity for its network participants and the general public.

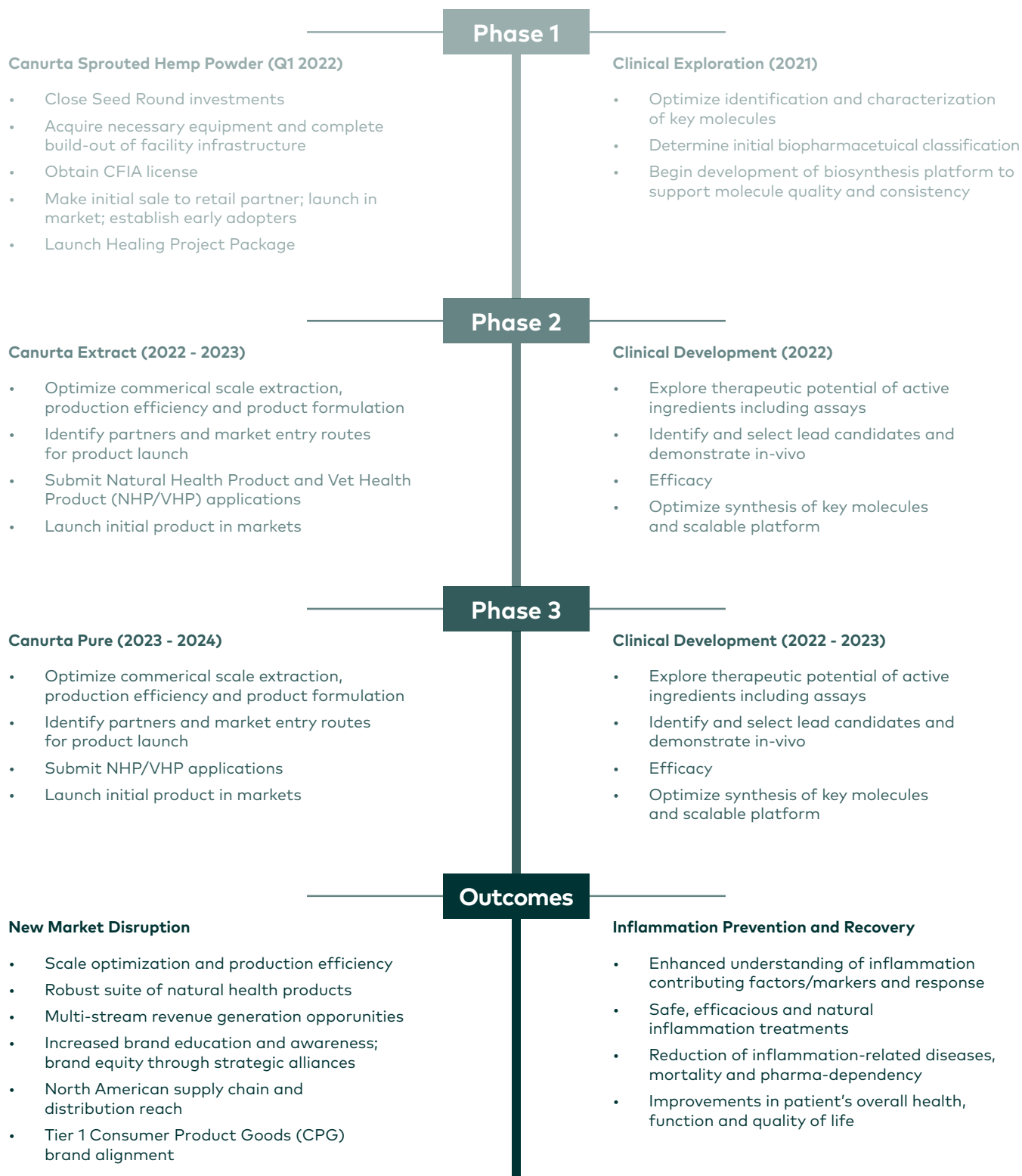
From sourcing biomass to formulation development, production, research, product launches and the revenue-to-donation outcomes that follow, Canurta sets the tone for social, environmental and economic responsibility to our communities with a reliable and trusted supply chain with the following features:

- **Immutability:** Past records of transaction details (Canurta assets being earned, purchased, or created) cannot be changed or altered on the shared ledger.
- **Consensus:** A decentralized approach provides the community with an equal vote in the validity of transactions across the network. Hyperledger Iroha uses Yet Another Consensus (YAC) following principles of 'Byzantine Fault Tolerance'.
- **Provenance:** Provides consumers with a complete history of data in order to maintain consistency throughout the Iroha network. Hyperledger Iroha has a built-in component called the Synchronizer to ensure all peers in the network are replicas. It implements the Synchronizer through its YAC ordering protocol.
- **Transparency:** Every transaction that has occurred on Hyperledger Iroha will be added to a replica permissioned ledger making it completely transparent and available for the network members to query and make transactions. This significantly reduces the chances of fraud. By leveraging Iroha's innate permissioned protocols, transactions and queries are made by users with appropriate access through public and private keys associated with their accounts. In addition, keys allow for user accounts to remain confidential to others in the network.

Project Roadmap

Canurta Supply Chain

Canurta R&D



Environmental, Social and Governance

Canurta is firmly anchored in our values including our commitment to ESG principles as guided by our Sustainability Policy. These principles will be intrinsic to The Healing Project.



Environmental

- Sequester carbon and remediate soils via hemp agriculture
- Cultivate biomass following Sustainable Farming Framework guidelines e.g. soil, water and energy conservation; biodiversity and pollinator protection
- Manufacture products using energy-efficient and waste reduction (upcycling) practices; package and ship sustainably
- Evaluate product partners based on Sustainable Partnership Standards
- Reduction, replacement and refinement in R&D to promote animal welfare
- Product carbon-negative NFTs through collaboration with Nori



Social

- Work with local, rural farmers to contribute to local economy enhancement
- Increase investments in R&D to eradicate chronic diseases
- Offer safe, natural and affordable products for applicability and accessibility to patients suffering from inflammation-related diseases
- Contribute to overall reduction in mortality rates
- Potential to reduce impacts of substance abuse i.e. "Opioid Crisis" through alternatives
- Create numerous job opportunities in manufacturing and R&D, particularly for students, women and others who are underrepresented
- Employ ethical and fair employment practices



Governance

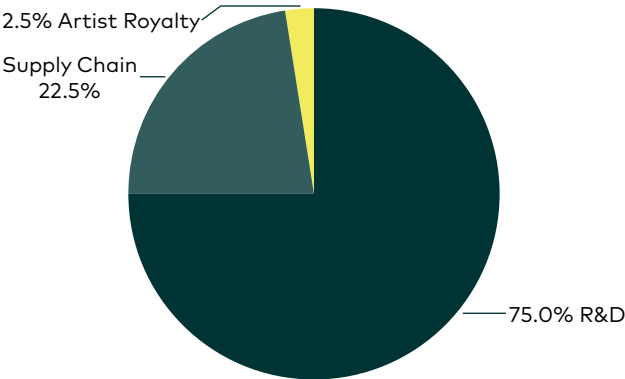
- Data ownership and transparency
- Shareholder engagement and rights protection
- Law and regulation compliance in countries of operation and other international mandates
- Prohibition of corruption and bribery
- Risk identification, reduction and management
- Productivity management through regular monitoring and reporting of internal processes
- Annual executive and directorial evaluation

Project Financials

Use of Funds

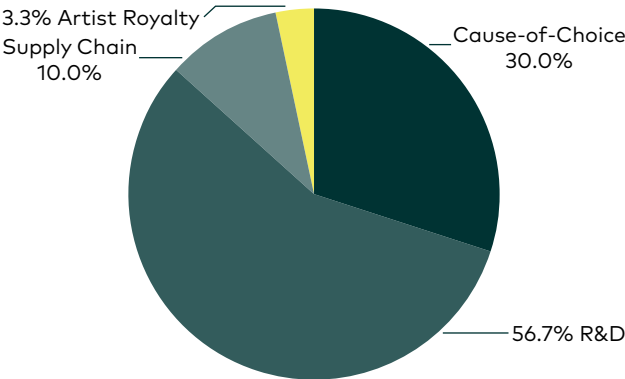
Funds acquired through the sale of NFTs will be allocated as follows:

Initial Project



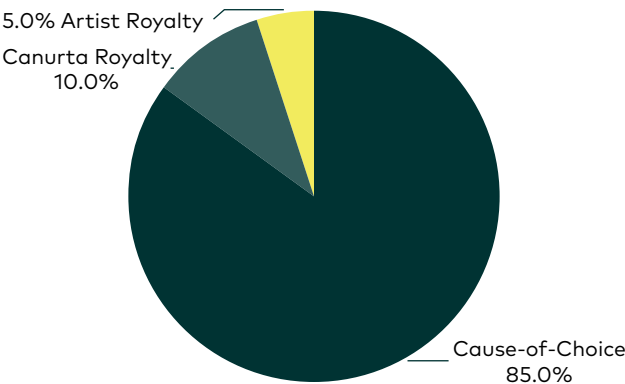
- 75% distributed towards clinical study of cannflavins for indications aimed at pain and inflammation
- 22.5% distributed towards scaling of the Canurta supply chain to ensure those who need our products can get them affordably
- 2.5% distributed towards Project Artist royalties

Subsequent Projects



- 56.7% distributed towards Canurta R&D & new-Project Owner's Cause
- 30% distributed towards previous Package Owner's Cause-of-Choice
- 10% distributed towards Canurta supply chain
- 3.3% distributed towards Project Artist royalties

Sub-NFTs



- 85% distributed towards Package Owner's Cause-of-Choice
- 10% distributed towards Canurta royalty for R&D and supply chain
- 5% distributed towards Project Artist royalties

Start-Up Costs

Project start-up costs will be covered by Canurta Inc. as part of their marketing, research and operating budget. Funds will be acquired through the company's Seed Round of investments. These include the cost of the Artwork.

Impact Economics⁵

	Year 1	Year 2	Year 3	Year 4	Year 5
Starting Bid - Revenue	\$100,000 ⁶			\$1,000,000 ⁷	
Revenue-to-Donation⁸	\$73,974	\$248,855	\$762,243	\$2,334,750	\$3,178,372
Use of Funds					
Donation to Cause-of-Choice				\$300,000	
Artist Royalties	\$2,500			\$33,000	
R&D	\$75,000			\$567,000	
Supply Chain	\$22,500			\$100,000	

⁵Pricing will be converted to ETH at point of auction

⁶Price justified based on average research grant opportunities: \$50,000 CAD/ two years

⁷Price justified based on value of art, royalty for impact and Canurta supply chain success

⁸Payable at year-end (Dec 31st) of Year 1 and semi-annually in Year 2 thereafter

Creative Director

Jordan Sook is a mixed media contemporary artist from Toronto, Ontario. His art is inspired by acts of imposition and alteration, recontextualizing elements within pop culture to create new narratives. Jordan looks to change the landscape of Canadian art and broaden the framework and understanding of Black art as a whole.

Jordan's work ranges from acrylic paintings to sculptures and installations. His work invites us to view the world from a subjective innocence while exploring the relationship to the modern human complex relating to consumerism, economics and the social environment.

Sook's latest installation titled Harvest (2021) was held at the Toronto Media Arts Centre. The work explores sustainable placemaking, representation, and the future of media arts and technology among the creative space.



Learn more about [Jordan Sook](#)

Research Team

Tariq Akhtar, Ph.D., Principal Investigator - Dr. Akhtar is a world-renowned plant biologist and has renowned expertise on polyphenolic molecules and their synthesis in the Cannabis Sativa plant. Dr. Akhtar is one of the inventors of Canurta's extraction and biosynthesis platform patent. The biosynthesis platform produces novel and rare polyphenols with potent, natural therapeutic properties. Dr. Akhtar has ample expertise in plant biochemistry and metabolic engineering. His research focuses on better understanding plant specialized metabolism of compounds that are of economic relevance. He also works closely with collaborators in various fields such as organic chemistry, food science, neurobiology, and ecology, with the overall goal to shed light on the processes that operate at the interface of plant primary and secondary metabolism.

Dr. Neal Davies, Ph.D., Principal Investigator - Dr. Neal M. Davies directs the analytical method development and identification and characterization of major components found in our products while developing analytical methodology and validation of assays for cannflavins. He also leads the preclinical discovery of the therapeutic potential of our active ingredients for initial biopharmaceutical classification. Dr. Davies received his undergraduate degree in Pharmacy from the University of Alberta in 1991. In 1996, he completed his Ph.D. in pharmaceutical sciences, specializing in pharmacokinetics, at the University of Alberta.

Throughout his career, Dr. Davies has strived to maintain the highest standard of teaching and research, and his achievements in both areas have been recognized through numerous awards and honours including several from the United States Pharmacopeia and the Canadian Society of Pharmaceutical Sciences. He is active in numerous professional organizations/associations, including the Canadian Society of Pharmaceutical Sciences and the American Association of Pharmaceutical Scientists, and serves as a reviewer and on the editorial board of several pharmaceutical and pharmacological science journals.

Dr. Ethan Russo, M.D., Senior Medical Advisor - Dr. Ethan Russo advises and provides essential formulation expertise to the company's natural product and drug development pipelines. Dr. Russo is a former president of the International Cannabinoid Research Society as well as a past chairman of the International Association for Cannabinoid Medicines. Dr. Russo is also a board-certified neurologist, a psychopharmacology researcher, and author of 50+ peer-reviewed journal articles and 7 books. Moreover, he is a preeminent global medical cannabis expert with over 24 years of clinical cannabis research experience, including his outstanding work at GW Pharmaceuticals as a study physician and medical monitor for Sativex® and Epidiolex® clinical trials.

To learn more about the rest of the Canurta team, please see [Appendix 3](#).

Key Partnerships



ATLAS 365

Holding Company

Focused on creating sustainable alternatives that benefit both people and the planet through industrial hemp and technology.



Research Partner

Dedicated to the commercialization of cannabis plant molecules that make them safer and better.



Academic Partner

Leading Canadian University known for their excellence in research and innovation including agri-food and veterinary medicine.



UNIVERSITY OF
ALBERTA

Academic Partner

Among the world's top public research-intensive universities, ranking top 5 in Canada for sponsored research funding.



Funding Opportunity

Bridge the gap between academic research and industry with highly experienced translational teams and capacity.



CRO Partner

Offer a robust suite of in vivo models and expertise in nutraceutical and pharmaceutical development while exceeding national and provincial standards for animal welfare.

**Retail Partner**

Distributor of certified organic, kosher and gluten-free health and wellness products with key brands including Organic Traditions and Natural Traditions.

**Strategic and Manufacturing Partner**

Owners of a unique patent-pending extraction technology to optimize output efficiencies.

**Funding Opportunity**

The Canadian Critical Drug Initiative is a reserve designed to bolster Canada's capacity to supply COVID-19 treatments.

Conclusion

Combining art with modern technology presents an exciting opportunity to stimulate engagement and cross-collaboration amongst pain and inflammation management stakeholders to benefit those who are impacted the most: the patients.

By tapping into the multi-billion-dollar NFT space, The Healing Project incentivizes a transparent, decentralized and ownership-based method to fund critical healthcare research and product innovation, simultaneously eliminating previous accessibility barriers.

In doing so, The Healing Project will enable a reality where science-backed, natural solutions can be used to empower those living with chronic diseases that are rooted in inflammation while disseminating information that benefits the broader health and science communities.

Appendix 1: IP Summary

	Intellectual Property	Owner	Priority Date	Jurisdiction	Claim Summary
1	PCT/CA2020/05174: Extracts enriched with polyphenolic compounds and related methods	Atlas365 owned with Exclusive license granted to Canurta Inc.	December 19, 2019	PCT - Global Priority Rights	A cannabis extract enriched with polyphenols, including cannflavin, substantially free of cannabinoids. Use of a binding agent in a method novel to cannabis to capture, concentrate and purify cannabis polyphenols.
2	PCT/US2021/37082 - Hemp Sprout Products and methods for producing same	CRDO Science (Dr. Ethan Russo) Exclusive license granted to Canurta Inc.	June 14, 2020	PCT - Global Priority Rights	Method of preparing powdered cannflavin and cannabis polyphenol products. Allows us to make powdered hemp products for human and animal use from powdered hemp sprouts. These methods can also be used with extraction technology for consistency of products.
3	PCT/CA2021/051682 - Polypeptides for use in the synthesis of bioactive phenolic compounds	Canurta Inc.	November 25, 2020	PCT - Global Priority Rights	Method to develop production systems for cannflavins, canniprene, and other biomedical compounds. The patent identifies enzymes that can be used to catalyze key steps in their synthesis allowing their production at a reasonable cost where the initial starting material is inexpensive.

Appendix 2: What are NFTs?

Stored on a blockchain, NFTs are units of data that represent the ownership of unique artifacts or digital assets. Comparatively speaking, unlike fungible tokens such as bitcoin which can be traded or exchanged for other identical ones and have multiple owners, NFTs are one-of-a-kind. They allow us to tokenize items like artworks, collectibles and intellectual property rights and permit only one official owner at a time which is verifiable by Ethereum's public blockchain.

Fungible Tokens

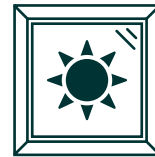


=



The \$1 you have can be directly exchanged for the same \$1 someone else has.

Non-Fungible Tokens



≠



The painting you have cannot be directly exchanged for the painting someone else has because it is unique.

Appendix 3: Canurta Team

Akeem Gardner, Chief Executive Officer and Founder - Akeem Gardner brings a unique creativity and passion in creating the Canurta vision. Akeem is a true entrepreneurial thinker that uses his keen legal intelligence, through obtaining his L.L.B. from the University of Canterbury, to solve complex problems. As an innovative community builder in niche markets, Akeem recognized the unlimited downstream potential hemp-based products. He has spent the last four years catalyzing himself as a leader in the cannabis/ hemp industry.

Pamela Kisun, Chief Operating Officer - Pamela Kisun oversees the company's day-to-day administrative and operational functions and ensures strategic alignment to long-term business objectives. She liaises with internal and external stakeholders and advises on corporate matters, including environmental, social and governance principles. Pamela completed her Master's Degree in Climate Change at the University of Waterloo with a focus on mitigation and adaptation measures. She has several years of experience in various positions, including research and analysis, policy advising, project management and administration.

Shega Youngson, Chief Brand Officer - Shega Youngson leads the company's brand development and is responsible for overseeing the planning, development and execution of our company's marketing and advertising initiatives including the Healing Project. Shega completed her degree in Public Policy, Media and Graphic Communications at Rochester Institute of Technology. She is a leader in advocacy marketing, consumer engagement and brand strategy, with over 7 years of experience in building marketing trends and launching new product experiences for leading cannabis brands and services, including Canopy Growth Corporation.

Cameron Parry, Production Quality Assurance Manager - Cameron Parry uses his knowledge and expertise to oversee the production of reliable products that consistently meet our standards and leads extraction optimization, purification and ingredient analysis. Cameron completed his Master's Degree in Biotechnology at the University of Guelph and trained in metabolite extraction and analysis.

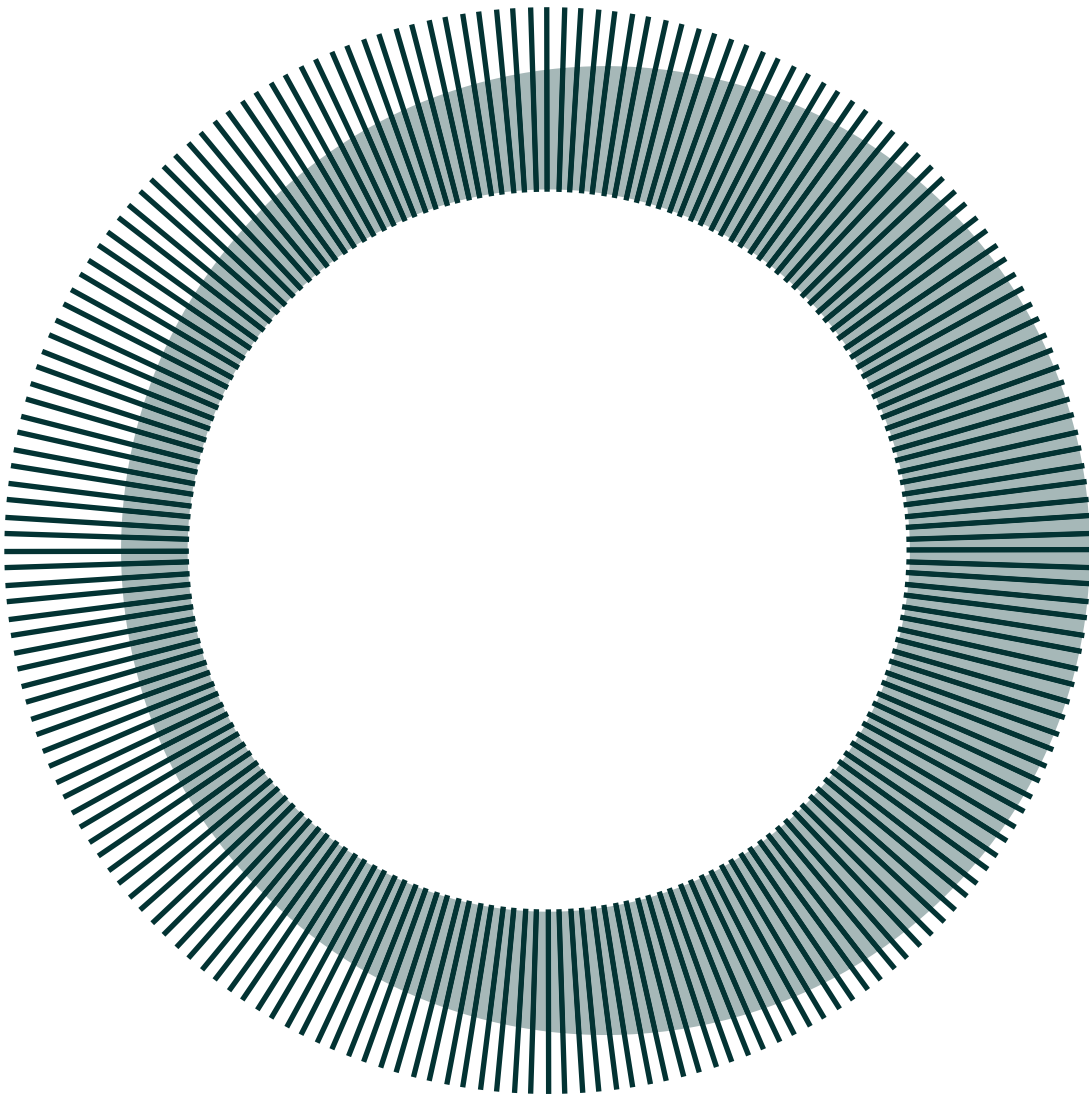
Ricardo Hewitt, Chief Technology Officer - Ricardo Hewitt assists in leading, developing and implementing Canurta's Ricardo Hewitt, Chief Technology Officer - Ricardo has been a pivotal asset in the development of Canurta's blockchain technology and NFT project. Ricardo obtained his Bachelor of Science and Honours in Computer Science from Ryerson University. He has over nine years of experience in software development with relevant positions, including B.S.A. at 4Pay and F.E.D. at Rogers Telecommunications. Having completed I.B.M. Blockchain Essential and I.B.M. Blockchain Foundation Developer courses, Ricardo has been essential in architecting, designing, and coding version 1.0 of Canurta's supply chain solution utilizing hyperledger fabric and I.B.M.'s resources.

Dominic Poku-Aidoo, Chief Information Officer - Dominic Poku-Aidoo assists in making all executive decisions regarding the technological interests of Canurta. Dominic obtained his Bachelor's in Science and Honours in Computer Science from Ryerson University and has 8+ years of experience in various aspects of software programming, including work as a Digital Developer at Rogers Telecommunications. He is a strong proponent of blockchain technology for impact magnification. He has been working diligently with Canurta to analyze code and software for proper integration of blockchain technology within the company's operations; he has completed both the I.B.M. Blockchain Essentials and I.B.M. Blockchain Foundation Developer courses.

Kelly Boddington, Research Associate - Kelly Boddington provides scientific and technical expertise on research and development of a scalable platform for the synthesis of hemp-derived polyphenols. Kelly obtained her Ph.D. Biochemistry and Bachelor of Science with a concentration in Molecular Biology and Genetics from the University of Guelph, provisioning expert insight into developing the company's biosynthesis platform. She has published several articles highlighting her areas of expertise including the "Characterization of the Synthesis Pathway of Bioactive Compounds in Cannabis Sativa for the Biosynthetic Production of Novel Pharmaceuticals" which is directly related to her work with the company.

Eric Soubeyrand, Research Associate - Eric Soubeyrand provides scientific and technical expertise on research and development of a scalable platform for the synthesis of hemp-derived polyphenols. Eric is currently a Postdoctoral Research Associate at the University of Guelph's Molecular and Cellular Biology Department having completed his M.Sc. in Plant Biology and Biotechnology and Ph.D. in Plant Biology from the University of Bordeaux (France). His skill set includes biochemistry, genetics and molecular biology, transcriptomics, cell biology and plant physiology and bio-imaging. His current research involves the quantification and identification of various metabolites found in Cannabis Sativa and molecular genetics, protein purification and metabolic chemistry to study and synthesize these molecules on behalf of the company.

Thank You!



Canurta