

1. PROPOSAL NAME:

Healthcare Utility for holders of \$APE and BAYC/Otherside NFTs with \$APE liquidity sinks

1. PROPOSAL CATEGORY:

ECOSYSTEM FUND ALLOCATION

1. UPDATES FOLLOWING DISCUSSION IN APECOIN FORUM/APEFEST 23:

GM degens! This project proposal seeks to create Healthcare Utility for holders of \$APE and relevant Yuga ecosystem NFTs (BAYC/MAYC/BAKC, Kudas, and otherdeeds) as well as bootstrap a web 3 native digital health platform that will accept payments in \$APE.

First of all, we want to say what a privilege it has been to engage with all of you regarding this proposal online in the [apecoin forum post](#), on twitter, as well as in-person at [Apefest HK 2023](#). We responded with a thread on the eye issues that community members faced to help shed light on possible next steps for those affected and to help dispel some of the fear-mongering that was circulating such as individuals voicing unfounded suspicions about chemical exposure. We appreciate the gratitude from the community and all the requests for more of such content and support which we have included in this proposal.

Secondly, we have taken all the feedback received from in-person at Apefest, on twitter, and in our apecoin DAO forum post ([Creating Healthcare Utility for BAYC/MAYC/BAKC holders and bootstrapping a web 3 digital health platform paid for in \\$APE](#)) into consideration and revised this project proposal accordingly. Some of these changes have already been embedded into the original AIP idea post courtesy of the super efficient apecoin forum team, thank you [@Lost.Admin](#) !

Key feedback that we received is summarized below as follows;

1. Incorporate more measures that could potentially help reverse the trend of \$APE dilution with favorable “ponzinomics”

We have revised our plans accordingly to implement more extensive liquidity sinks including tiered benefits for \$APE holders/stakers as well as a platform commitment to stake 50% of all apecoin \$APE operating profit (staked for a minimum of 5-years) to keep project incentives aligned with that of the apecoin DAO long-term. We have provided more details as well regarding why this project proposal is well-positioned to succeed and drive adoption by leveraging the growing trend in adoption of digital health services through accepting payments for these services in \$APE. These considerations have been detailed in Sections 4 and 6 below.

1. Add-on even more benefits for core Otherside NFT holders as well as apecoin \$APE holders

based on amount of \$APE held.

We have revised our plans accordingly to increase the benefits accruing to these holders during this project proposal, and updated this in Sections 6-9 below.

1. Focus on healthcare benefits to the apecoin ecosystem first

, then expand to data DAO governance and financialisation at a later stage in a follow-on project after this initial proposal is successfully completed.

We have revised our plans accordingly, updated this in Sections 6-9 below.

1. Reduce expenditure

both through item 3 above as well as by reducing manpower costs given that this would be a novel form of utility for holders and adoption is likely to scale-up gradually over time. Incorporate baseline coverage from both general practitioners and specialists eventually to be designed based on platform utilization and needs of the community.

We have revised our cost structure accordingly and have secured a partnership with a clinic of family doctors (also known as “General Practitioners (GPs)” or “Primary Care Physicians (PCPs)” in different countries) based in Singapore for outsourcing of clinical coverage that will increase gradually over time and working with our marketing team for content generation (instead of hiring a full-time MD with marketing experience from the outset as originally planned) to support the supply-side of this proposal. This has been updated in Sections 6 and 8 below.

1. TEAM DESCRIPTION:

Dr. Dinesh Guna

Contributor to healthcare research in \$Ocean DAO and developer of various web3 applications that are currently being incubated in Singapore, such as a Metaverse-based digital health tool for scalable eye screening 1 to prevent blindness ([Journal of Medical Internet Research - Remote Perimetry in a Virtual Reality Metaverse Environment for Out-of-Hospital Functional Eye Screening Compared Against the Gold Standard Humphrey Visual Fields Perimeter: Proof-of-Concept Pilot Study](#)).

A medical doc (MD) with 2 previous digital health start-ups (in web 2) that were successfully acquired - Doctorbell ([acquired 2018](#)) and AskDr ([acquired 2023](#)). Dr. Dinesh has been working on software applications for the health sector for over 10 years, which is one of the most difficult industries due to complicated regulations that are constantly in flux, entrenched incumbents, and a heavy need for marketing to drive adoption given that potential users often do not fully appreciate the complexity of the problems they face. Dr. Dinesh believes that Web 3 in its current state is facing similar difficulties/barriers to scaling of consumer/enterprise applications, and hopes to contribute some experience in this regard.

- LinkedIn: <https://sg.linkedin.com/in/dineshvg>

- Background:

- o Medical Doctor, graduated from the National University of Singapore (NUS) with a Bachelor of Medicine, Bachelor of Surgery (MBBS)

- o Concurrently served as Head (Health Informatics) in the Collaborative Ocular Tuberculosis (TB) Study group from 2011-2019, overseeing the collaboration of 25 hospitals across 10 countries. He served on the international steering committee for COTS-1, and was named a lead author for peer-reviewed manuscripts in COTS-1 including the COTS landmark paper published in Journal of the American Medical Association (JAMA). COTS used cloud computing and big data to develop international diagnostic and treatment consensus guidelines for ocular TB, that are being used daily by Uveitis experts, Ophthalmic surgeons and eye specialists worldwide today.

- o Awarded the Commonwealth Fellowship in Innovation from the British High Commission of Singapore in 2018, and received funding for research training at Oxford University while furthering COTS in Moorfields Hospital, London.

- o Co-founded telehealth company Doctorbell in 2017 with Patrick and colleagues (acquired 2018) overseeing product strategy and medical affairs

- o Subsequently appointed Physician leader (Telemedicine) at Raffles Medical Group (SGX:\$BSL) from 2019-2022, a Singapore-listed medical group with a regional footprint including over 50 clinics and 3 hospitals across the Southeast Asia region and China. Here, he actively promoted health education for patient empowerment and launched new initiatives that empowered patients with access to their own health information and greater ownership of their health outcomes.

- o Co-founded online health community (OHC) AskDr with his colleagues (acquired 2023) overseeing commercial strategy, business development, and enterprise sales engagements with paying B2B clients including Fortune 500 pharmaceutical companies such as Astra Zeneca, GSK and Roche. Established working relationships with key stakeholders, KOLs and medical communities, and identified strategic business opportunities for market penetration to develop new product verticals.

- o Published over 50 manuscripts in peer-reviewed journals including JAMA Ophthalmology, Lancet Diabetes & Endocrinology, Lancet Digital Health, and Nature Digital Medicine, and is an invited reviewer in several journals including the BMJ, JAMA Ophthalmology and Nature Digital Medicine.

Patrick Poh

- Role: Product manager/Chief Technology Officer

- LinkedIn: <http://linkedin.com/in/patrick-poh-huan-yu>

- Background:

- o Graduated from the National University of Singapore (NUS) with a Bachelors in Computer Engineering in 2016, and received the Institute of Electrical and Electronic Engineers (IEEE) Singapore book prize for his honors project applying NFC technology for medication reminders.

- o Co-founded a Telemedicine startup, Doctorbell, with Dr Guna that was acquired in 2018 by MaNaDr Mobile Health

- o Subsequently lead developer and director of business development at MaNaDr, where he spearheaded product development, multiple commercial initiatives and partnerships. He was later promoted to role of chief development officer where he managed a multinational team of developers in Singapore and Hanoi, Vietnam to accelerate the development of the health tech platform. He has since served in various technical project management roles including at Huobi and TikTok/Byte Dance.

Advisor : A/Prof Leong Choon Kit

Family Physician

MBBS, GDFM, M.Med (PH), MCFP(S), FCFCP(S), FAMS (Family Medicine)

A/Prof Leong had his training in Public Health and Family Medicine, has his interest pique in public policy and social issues. His experiences in medical mission put him in touch with health promotion and disease prevention locally and overseas. He contributes his time in the community, schools, social services on top of healthcare institutions, committees and advocacy groups.

Some of these interests he advocated strongly include but not limited to are healthcare systems and model of care, medical ethics, smoking control, issues related to teenage suicide, special needs children and their family and prevention of cancer via vaccine. He manages the Tampines Family Medicine Clinic and leads the Class Primary Care Network (PCN). He is also the founder and chairman of the GP+ Co-operative Limited representing over 60 clinics in Singapore.

Besides clinical and consultancy work, A/Prof Leong is also an Adjunct Assistant Professor at Duke-NUS and Yong Loo Lin School of Medicine, NUS. and an adjunct clinical instructor at Lee Kong Chian School of Medicine. He is also involved in post graduate training with the College of Family Physician Singapore and Family Medicine Residency program with National Health Group Polyclinics and SingHealth Polyclinics. A/Prof. Leong believes in developing the future generation and he is involved in mentoring younger students and doctors in medicine, technology as well as developing their medical practice in the private sector.

1. ABSTRACT:

This proposal seeks to create Healthcare Utility for holders of \$APE as well as relevant Yuga ecosystem NFTs (BAYC/MAYC/BAKC, Kudas, and Otherdeeds) and bootstrap a web 3 digital health platform that will accept payments in \$Ape.

Utility will be in the form of dedicated asynchronous medical advice for all relevant holders using a platform that will take the form of a reddit-meets-medium for healthcare, using a mix of medical Q&A and long-form content articles moderated by verified doctors and health sciences academics for individuals to optimize their personal wellness or enhance their health. The supply-side of this platform (verified doctors and health sciences academics) will be populated at the outset in partnership with a medical clinic registered in Singapore, one of the world's top health systems. They will provide medical advice to relevant beneficiaries outlined in this proposal to pilot the initial front-end of the product with a gradual increase in their daily clinical hours (as a cost-saving measure proposed by the community during feedback, for the clinical hours to increase in tandem with projected adoption of healthcare utility).

This will be followed by invitation of the existing known clinician holders that are relevant Yuga ecosystem NFT holders, as well as existing partners in a [recently acquired Online Health Community start-up, AskDr](#) that was previously co-founded by a member of our team (Dr. DVG). The demand-side of this platform will be populated by initial free access to medical Q&A for all \$APE coin holders that have staked a minimum of 50 \$APE and holders of Yuga NFTs. This will be a de-centralised platform with additional built-in paid capabilities for telemedicine-based synchronous medical advice paid for in \$APE with time-based entitlements for holders/stakers of apecoin \$APE and relevant Yuga ecosystem NFTs. This platform is well-positioned to drive adoption by leveraging the growing trend in adoption of digital health services through accepting payments for these services in \$APE. Sure, there have been several high profile stock price collapses of digital health providers like Babylon, Amwell, Teladoc among others. However, these failures were multifactorial and do not make a dent in the exponential trend of digital health adoption that was kicked-off by the COVID-19 pandemic. Where's the proof? Well, we know how much you degens like a good parabolic chart. So here's [a chart from a peer-reviewed medical publication](#) that shows google search volumes of "telehealth" looked like in the united states (US) as the pandemic unfolded, as (an imperfect) proxy for potential new users searching for digital health services.

Yes yes, we know. You degens and on-chain checkoors may argue otherwise. "This is the US, where's the proof of adoption in other countries?" "The pandemic is over isn't it, who want's remote care now when lockdowns are already lifted?" Well guess what, we're checkoors too

Our team worked with researchers in Singapore [to conduct a follow-on study](#). We analysed population interest in Telehealth across 50 countries using multiple search engines including Google, Baidu, Inc. (China) and Yandex (Russia). We found that population interest in telehealth peaked across most regions in tandem with COVID-19 cases, and subsequently consolidated at a new baseline that was multiples higher than pre-pandemic levels. We also identified multiple regions in addition to the US with high potential for Telehealth growth. Particularly, stand-outs included #Argentina

, #Chile

, #Qatar

, and #Singapore

due to their combination of population interest (search volumes), literacy levels, and infocomm technology (ICT) infrastructure maturity.

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](<https://global.discourse-cdn.com/apecoin/original/2X/3/3c70144860f752b6c9025b24d1966ab698ae0935.png>)

In that case, why are web 2-based digital platforms struggling currently then? Well, essentially these platforms have become victims of their own success. Their solutions have proven so useful and convenient for patients, that traditional brick-and-mortar healthcare providers have been forced by market forces to develop and provide digital health services as well. How does that affect web 2-based digital health providers? Well, put it this way - if a boomer's trustworthy regular GP or primary care provider (PCP) provides a direct option for telemedicine, how many of them would use a transactional "uber for

healthcare"-type online platform? This trend has resulted in increasing churn and lower user LTV for web 2-based digital health platforms and providers, as their positioning is not as "sticky" for users/patients. Ultimately, they are struggling to retain their users/patients for follow-on care, as users/patients are instead converting back to their traditional providers that now offer digital health services for recurring future visits.

Therefore, web 2-based digital health platforms desperately need new ways to form their own communities and engage with their users. They are all looking to develop better ways to engage more with millennials, who have a strong preference for virtual care or even in-person providers that offer a strong digital engagement layer for appointment booking, access to their health information, and other digital functionalities. This is where our project proposal has a unique long-term offering that can help web 2-based digital health providers fill a gap - by partnering with web 3 communities to scale-up their own digital-first communities, leveraging NFTs as a social layer for community building around their technology and digital products/offerings.

In future, the platform created in this project proposal can provide a foundation to enable more digital health tests and interventions to be provided as offerings to our Apecoin and Yuga communities. This will be enabled via API-driven integrations with other web 2 health technology entities, providing them access into our de-centralised platform to partner with our community for clinical pilots, product feedback, or initial product launches. This would present many benefits to the apecoin DAO. Firstly, it would allow us to piggyback on the exponential trend of digital health adoption globally, to onboard many new consumer and enterprise users into the Apecoin ecosystem. Secondly, this would provide additional avenues for revenue growth through the API on a pay-per-use basis. Tiered early access benefits can be provided to Apecoin stakers and relevant Yuga ecosystem NFT holders for digital health platforms/providers to bootstrap their communities with early users. Such existing/future solutions can range widely, including exercise form/function coaching, mental wellness exercises, virtual tests such as those for mental health conditions, and virtual interventions such as remote physiotherapy. The proposing team for this AIP project has considerable experience and network in this regard, including an in-house Metaverse-based digital health tool for scalable eye screening that they recently developed and piloted to improve early detection of vision-related disorders ([Journal of Medical Internet Research - Remote Perimetry in a Virtual Reality Metaverse Environment for Out-of-Hospital Functional Eye Screening Compared Against the Gold Standard Humphrey Visual Fields Perimeter: Proof-of-Concept Pilot Study](#)). This in itself is increasingly relevant in the visually-intensive nature of metaverse platforms, and will be a timely offering for our community.

1. BENEFIT TO APECOIN ECOSYSTEM:

This proposal will yield multiple benefits to the \$APE coin ecosystem over the course of this 2-year project;

1) Increased \$APE coin buy pressure

with options for discounted payments within the healthcare utility ecosystem in \$APE, whereby any individual can access teleconsultation or other virtual services in the platform by making payment in \$APE

2) Reduced circulating \$APE

through implementation of liquidity sinks including;

- benefits for \$APE holders/stakers to encourage long-term holding, as well as
- a commitment from our team to stake 50% of all our platform profit as apecoin \$APE for a minimum of 5-years to keep our platform incentives aligned with that of apecoin DAO.

3) Utility for \$APE holders/stakers

based on the 3-month average (3MA) amount of \$APE held/staked from their wallets - in the form of;

- Minimum 50 \$APE: Free asynchronous medical Q&A in a publicly visible digital forum with verified medical doctors and health sciences academics to optimize their personal wellness or enhance their health, medical advice, patient navigation, illness support, second opinions, and the like.
- Minimum 2,000 \$APE: FOC synchronous appointment-based private teleconsultations once a year for medical advice, patient navigation, illness support, second opinions, and the like based on jurisdictional approvals
- Minimum 5,000 \$APE: FOC teleconsultation appointment once a quarter as above
- Minimum 10,000 \$APE: FOC teleconsultation appointment once a month as above
- Minimum 40,000 \$APE: FOC teleconsultation appointment once a week as above

4) Utility token-gated for relevant Yuga NFT holders

from the product launch in the form of;

- Holder of any Yuga NFT: Free asynchronous medical Q&A in a publicly visible digital forum with verified medical doctors and health sciences academics to optimize their personal wellness or enhance their health, medical advice, patient navigation, illness support, second opinions, and the like.

- Holder of Otherdeed NFT: FOC synchronous appointment-based private teleconsultations once a year for medical advice, patient navigation, illness support, second opinions, and the like based on jurisdictional approvals
- Holder of Bored Ape Kennel Club (BAKC) NFT: FOC teleconsultation appointment once a quarter as above
- Holder of Mutant Ape Yacht Club (MAYC) or Koda NFTs: FOC teleconsultation appointment once a month as above
- Holder of Bored Ape Yacht Club (BAYC) NFT: FOC teleconsultation appointment once a week as above
- PLATFORMS & TECHNOLOGIES:

A blockchain-based decentralised platform will be used incorporating

- (1) short-form asynchronous medical Q&A moderated by verified medical doctors/health sciences academics,
- (2) content publisher for long-form content to drive digital marketing and grow traffic,
- (3) virtual synchronous teleconsultation consultation module
- (4) token-gating capabilities for administration of benefits and free access to \$APE coin and relevant Yuga NFT ecosystem holders

1. STEPS TO IMPLEMENT & TIMELINE:

Months 1-6

: Initial web design, development and prototype launch with clinical coverage and content marketing.

- By end month 6

: Launch for community pilot with 21-hours-a-week (3 hours a day, every day) in in-house dedicated medical coverage to serve the needs of \$APE holders and relevant Yuga NFT ecosystem holders based on the benefits outlined above.

Months 6-12

: Expand platform supply-side as outlined above while growing traffic and utilisation through healthcare content generation (think reddit meets medium for healthcare, where the dedicated healthcare coverage generates content based on topics of interest raised by the community).

- By end month 12

: Increase in supply-side through avenues for holders that are verified healthcare providers to participate/contribute as well as increase in in-house dedicated medical coverage to 35-hours-a-week (5 hours a day, every day) as a fall-back option for platform supply-side shortages.

Months 13-18

: Gradual ramp-up of clinical coverage and expansion to incorporate in-house specialists/surgical healthcare provider coverage.

- By end month 18

: Increase in-house dedicated medical coverage to 45-hours-a-week (7 hours a day, every day) as a fall-back option for platform supply-side shortages along with 2-hours-a-day on weekdays in dedicated specialist/surgical healthcare provider coverage allocated to relevant specialities based on review of prior 12 months in service utilization by the community and any specialist referrals generated.

Months 19-24

: Development of architecture for platform de-centralisation in tandem with review of community-driven platform usage to design token economy, with continued use of \$APE for in-platform transactions and tiering of benefits.

- By end month 24

: Airdrop to early users of platform token to govern next phases of development and financialisation of in-platform health data.

1. OVERALL COST:

USD\$1800000 (1.8M, denominated in ApeCoin) to fund the initial 24 Months of the project, broken down in terms of expenses as follows:

Expenses (Total 1800000)

Software engineering team: \$820000

- Inclusive CTO/Full stack developer, designer, and software engineer 2 using scrum methodology

Marketing expenses: \$175000

- Digital Marketing lead/Community manager \$80000/year
- Social media marketing/content boosting: \$15000

Professional services (Business incorporation, accounting and legal): \$70,000

- Legal in particular will be costly to draft the T&Cs to provide coverage of international users, regulatory guidelines for telehealth, as well as data privacy guidelines for health data transactions on chain.

Outsourced clinical services (every day including PH/holiday or weekends): \$735000

- General practitioner coverage (\$150/hr): \$605250

Total hours by gradual increase: $3(180) + 5(185) + 7(365) = 4035$

- Specialists/surgical healthcare provider coverage (\$500/hr): \$130000

Total hours for weekday coverage: $2(130) = 260$

1. POTENTIAL FUTURE DIRECTIONS

These are extracted/ postponed from the earlier apecoin forum discussion post that we made in order to reduce cost, in accordance with feedback/requests from the community. These are to be reviewed in future discussion with the apecoin DAO as potential follow-on projects.

1) Establishment of a DAO to govern the use of medical data generated on-chain

through the utilisation of this platform to support medical research or development of new IP (e.g. through training of medical chatbots, diagnostic algorithms, or others).

2) Integration with platforms for financialisation of health data

generated through this proposal such as the Ocean Data Marketplace.

3) Development and launch of APIs for existing web 2-based digital health providers to drive up adoption of \$APE.

This would allow these web 2-based digital health providers to access our community of users, integrate and provide their digital health tests/interventions within our platform ecosystem that would be paid for in \$APE.