The fastest way to a diagnosis...
Anytime. Anywhere.
Telemedicine is poised for tremendous growth over the next decade. The ubiquity of smartphones now allows people to communicate both in writing and photographically with anyone in the world instantaneously. Telemedicine is beginning to find its place in medical fields heavily dependent on observational exam findings. Dermatology is one such field, whereby the diagnosis can often be confidently ascertained with photographs and a brief description. Despite the progress of telemedicine, it still faces many challenges associated with centralization, such as international payment, middlemen fees, patient anonymity, liability and regulation.

For the first time in history, digital currencies have been integrated with peer-to-peer (P2P) networks to create decentralized platforms. To date, we do not know of a medical application that uses a decentralized platform for health services. We believe that dermatology is the most readily accessible medical specialty to establish ourselves in blockchain-based teledermatology. Once established in teledermatology, we will strategically add medical specialties to build a thriving platform for patients and doctors. This will serve as the foundation of a decentralized global electronic health record system. The final product will be both a global electronic health records system and platform providing medical care instantaneously anywhere in the world—that is, true globalization of medicine.
2.1 Telemedicine: A $200 billion market by 2024

The global telemedicine market is currently valued somewhere between $18.2 billion and $51.3 billion, and is expected to grow around 25% per year to become greater than a $200 billion market by the year 2024.\textsuperscript{1,4-7}

The great promise of telemedicine lies in expanding access to care, optimizing physician productivity and reducing healthcare costs. In light of rising healthcare costs and the benefits of telemedicine, why is telemedicine just now beginning to boom? First, the traditional idea of a patient-physician encounter is changing. The patient’s requests for second and third opinions now supersede desire for an intimate patient-doctor relationship. The profusion of mobile technology in our daily lives has further reduced the desire for in-person encounters. The average person in the United States now interacts with his or her phone an average of 5 hours each day.\textsuperscript{8} Over 90% of this time is spent on apps, while less than 10% is spent on an Internet browser. The idea of obtaining a diagnosis or medical recommendation via a smartphone app is no longer foreign to more recent generations. This notion is confirmed in studies that demonstrate no significant difference in patient satisfaction when comparing in-person and telemedicine consultations.\textsuperscript{10}
Secondly, the ubiquity and technological capability of smartphones now make telemedicine possible. Over 2.6 billion people worldwide use smartphones. This means that about 1/3 of the global population can communicate in writing, photographically or via an app with anyone in the world instantaneously. With these powerful means of communication in so many hands, telemedicine is quickly finding its place in medical specialties heavily dependent on observational exam findings. Dermatology is one such field, whereby the diagnosis can often be ascertained with a single photograph and brief history.

2.2 Creating an Open Market in Medicine

The cost of healthcare varies greatly around the world. The reason is multifactorial, but includes the model of healthcare (single payer vs. private vs. other), insurance coverage (uninsured, public or private), availability/demand for providers, specialty type and setting of evaluation (hospital or clinic). In an outpatient setting though, the cost of the office visit is often directly related to the physician salary and overhead, especially in specialties such as dermatology, family practice and ophthalmology. These physician salaries vary drastically from one country to the next. As shown in the table below, a dermatologist in the USA earns on average 386,000 USD annually. Dermatologists in Canada, Europe and Australia earn considerably less, between 100,000 and 200,000 USD equivalent annually. Dermatologists in other countries have even marked lower annual salaries.

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Annual Dermatologist Salary by Country

<table>
<thead>
<tr>
<th>Country</th>
<th>Annual Salary (USD Equiv.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>USA</td>
<td>$386,000\textsuperscript{20}</td>
</tr>
<tr>
<td>Canada</td>
<td>$163,000 (210,000 Can. Dollar)\textsuperscript{21}</td>
</tr>
<tr>
<td>Australia</td>
<td>$156,000 (205,000 Aus. Dollar)\textsuperscript{21}</td>
</tr>
<tr>
<td>UK</td>
<td>$116,000 (90,600 British Pound)\textsuperscript{22}</td>
</tr>
<tr>
<td>S. Africa</td>
<td>$39,000 (535,000 S. African Rand)\textsuperscript{21}</td>
</tr>
<tr>
<td>India</td>
<td>$9,300 (600,000 Indian Rupee)\textsuperscript{23}</td>
</tr>
</tbody>
</table>

This cost disparity has given rise to an entire industry known as medical tourism. Patients are willing to travel overseas in order to take advantage of more competitive pricing for otherwise expensive medical care. Medical tourism is an example of efforts to create a freer market. By physically travelling to another location, patients are able to distribute demand more evenly. Connecting patients in one geographic location to physicians elsewhere can dramatically reduce cost, and create a competitive market for high quality medical services.

2.3 Limitations of Centralized Health Systems

Due to the centralized nature of healthcare, true adoption of telemedicine has been slow and fraught with regulatory hurdles. Among the challenges faced are issues related to licensing, payment and liability.

In the US, physicians are mostly restricted to practicing medicine in states in which they are board certified. This is a barrier to adoption as one of the goals of telemedicine is to allow broader access to patient care that often necessitates crossing state and international lines. Regulatory changes are currently underway to adapt to this growing market and, in the US, there are now licensing exams allowing physicians to practice medicine across state lines. Nevertheless, adaptation is slow, and currently these extra hurdles still discourage many physicians from incorporating telemedicine into their own practices.

With the exception of one country, we are not aware of any laws prohibiting a physician in one
country from providing a medical recommendation to a patient in a different country, as long as it is done remotely. The one exception is the Telemedicine Act of 1997 in Malaysia prohibiting doctors outside Malaysia from providing medical recommendations to patients within Malaysia’s borders.

Payment for telemedicine services is also a barrier to large-scale adoption. In the US, private coverage by insurance companies of telemedicine services is required in only 19 states, and the scope of coverage is variable. Medicare (one of the largest payers of healthcare in the US) only covers a limited amount of services. Qualifying sites are limited to specific rural Health Professional Shortage Areas. Few physicians are willing to stay current and navigate this convoluted reimbursement structure. Additionally, payment methods for remunerating providers overseas are costly as well as limited.

Similarly, malpractice coverage for physicians who integrate telemedicine services is equally inconsistent. Despite studies which have shown that proper use of telemedicine can lead to reduced hospital days per patient, lower hospital readmission rates and improved outcomes in the management of chronic conditions, physicians are wary of integrating telemedicine services into practice as many malpractice plans do not cover these services, leaving physicians vulnerable to legal liability.

### 2.4 Overcoming Limitations through Decentralization

For the first time in history, advanced P2P networks with blockchain payments now exist paving the way for decentralized marketplaces connecting transacting parties worldwide with essentially zero middlemen. MedCredits is not the first platform to recognize the immense potential of these systems. *OpenBazaar*, released in 2016, is the first decentralized marketplace for goods. *Sia* and *Storj* strive to provide decentralized cloud storage. *Augur* is in the final stages of completing the beta version of a decentralized prediction market. *GameCredits* is transforming the payment system within the gaming sector. Nearly every sector of commerce is rapidly being revolutionized by blockchain technology.
This technology, however, has made very little inroads in medicine. To date, we do not know of a decentralized network connecting patients and doctors for medical services. Some have postulated that a blockchain based electronic medical record (EMR) system is one way that the blockchain can transform medicine. Indeed, there are a couple of startups attempting to create blockchain based EMRs. However, with collectively over 50 years in health care experience, the MedCredits team understands the challenges associated with switching EMR systems. Medical offices, hospitals and clinics spend millions of dollars purchasing their current EMR systems, training personnel, and transferring enormous quantities of data to the new systems. Unfortunately, this overhead makes swapping systems a monumental task—not to mention the regulatory compliance associated with handling medical records.

We believe that creating a decentralized EMR cannot be approached directly. Rather, a platform needs to be built that provides advantages to the people who actually use the system—the doctors and patients. This platform is MedCredits. By incentivizing patients and doctors with a more affordable and convenient system, we will be laying the foundation for a larger healthcare network. As the platform grows, we will release software upgrades that will organically transform MedCredits into both an EMR and medical services platform that is intuitively interconnected.

By creating a platform that decentralizes healthcare, we will give patients worldwide access to quality healthcare at reduced costs. Just as we are seeing the modification of financial laws to accommodate digital currencies, healthcare laws will also have to be modified to keep up with the technological progress. Given the presently enormous expense of healthcare in most countries, we believe that governments will see the advantage in drastically reducing healthcare costs. The United States spends 17.2% of its GDP on healthcare, and the average country in the European Union spends about 10%. By demonstrating the power of our platform to serve more patients for reduced costs, governments will be incentivized to accommodate this progressive model of healthcare.
2.5 From Dermatology App to EMR

We believe in success through simplicity. Dermatology (the medical field relating to diagnosing and treating skin diseases) is the most readily accessible medical specialty for telemedicine and will be our starting point. We intend to establish the MedCredits platform in telemedicine by creating a user-friendly application allowing the fastest and most affordable dermatological care. Once established, we will expand to other specialties, such as psychiatry/psychology, family medicine and radiology. After building a robust platform for mobile medical care, we will be able to take the next step and transform MedCredits into a global electronic health record system. MedCredits will become a decentralized platform where every patient has his or her health record encrypted on the P2P network, and can use this single platform to access medical care across an array of medical specialties. Payments will be in digital currency and automated through smart contracts. The outcome will be a truly decentralized health care system allowing instant access to high quality healthcare anywhere in the world and at a fraction of the cost.

MedCredits (MEDX) will be the token for transmitting payment on the platform. It is secured on both the Ethereum and Waves platforms, with a smart contract gateway to allow interchange of MEDX between platforms. The total supply of MEDX is 100,000,000 tokens. This will be a locked supply whereby no additional tokens can be generated. Additional information on MEDX is outlined in the “Token Sale” section.
4.1 The Patient Experience

The MedCredits platform will have both a desktop client and mobile app available for free in both the Apple App Store and Google Play Store.

- Upon downloading the app, the first screen will ask the user whether she is a "Physician" or "Patient."

- When the patient initiates a case, the app accesses the smartphone camera to allow the patient to snap 2 images of the lesion(s), a close-up and overview photo.

- The next screen asks the patient a series of brief questions in clickable format.

- In the final screen, the patient submits payment in MEDX via a deposit address.

- Once a dermatologist has reviewed the patient’s case, the patient will receive a notification stating, “Your results are ready for review.” The results screen will
have the physician’s diagnosis, as well as the recommendations.

4.2 The Physician Experience
By selecting “Physician,” the doctor will be given the option to login with a username and password, or “Create a new account.” To create an account and register on the platform, the doctor will be guided down the path of the following flowchart.
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Flow Diagram for Physician Registration with MedCredits

Are you a licensed doctor?

Yes

Would you like to be verified as a board certified dermatologist?

Yes

Full Name? Board certified in which country? Name of medical school?

Thank you for applying! Your application will be reviewed promptly.

No

You have completed registration!

No

Go back

Wrong answer. Please try again.

No

Exit app

Sorry, the app is only currently available to licensed doctors

Would you like to go back or exit the app?

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Once registered, the physician can begin evaluating patient cases.

- Upon selecting a patient case, a screen will appear showing the image(s) of the lesion with the description.
- The physician will then submit a diagnosis (or differential diagnosis if multiple possibilities) with recommendations.
- Upon submission, the physician will receive payment in MEDX via a smart contract

4.3 Technical Framework

Arguably one of the most underappreciated projects currently in the blockchain development space is OpenBazaar, a decentralized peer-to-peer marketplace. P2P networks have existed and thrived for years. However, until recently, P2P networks have been mostly limited to file sharing applications. Now, with the advent of blockchain technology, people are able to exchange goods or services for money on P2P networks.
With over 3 years of active development by a well-funded team, the OpenBazaar platform is strides ahead of many other blockchain integrated P2P networks. We are using this robust platform as the basic framework for the MedCredits platform.

The MedCredits code repository will be open source and free for use just as is OpenBazaar’s under the MIT license. We hope this will further enrich the development of decentralized marketplaces.

4.3.1 Ethereum Integration with P2P Networks
Each patient and provider on the MedCredits network has a distinct alias, which is known as a GUID (global unique identifier). This makes each peer uniquely identifiable and distinguishable from another peer. The GUID is derived from a randomly generated private key, which in turn derives a public key using public-key cryptography. The public key is hashed using a secure hash algorithm (SHA256) and then hashed again using RIPEDMD-160.

When a patient creates an account, she is assigned a directory. Upon submission of a case, she is adding data, which includes an image file.
and a text file—these will be referred to as “casefiles.” The physician must then download these files from the network and view them on the MedCredits interface. The size of data in the teledermatology use-case is small enough to avoid issues related to download bandwidth but P2P networks do not generally suffer from bandwidth limitations.

To view a patient’s casefiles, the physician needs to first find the location where the casefiles are stored on the network. For scaling purposes, the physician is actually looking for a hash of the actual data. This hash is used to route the physician to the nodes that actually store the casefiles data. In a large P2P network, it is not possible for each peer to have an immediate reference to every other peer. Rather, peers need to be grouped into subsets to facilitate references to other peers. This is known as a distributed hash table (DHT). When one peer wishes to look-up a hash of another peer’s casefiles, she references the peer closest to that hash and whose distance is a value of 2^i. Each peer then returns a value for another peer, which is closest to the desired peer. This ensures that references operate on the order of log(i). This mechanism also functions as an overlay network, which allows for anonymity of each node.

We are using Ethereum smart contracts to secure transactions by users on the MedCredits P2P network. There are essentially two kinds of Ethereum accounts: externally owned accounts (EOAs) and contract accounts. EOAs do not contain code but can store/send Ether along with transactions. Contract accounts contain code that can be executed when transactions are received. In the case of teledermatology, the patient posts items for “sale” and provides payment for the service. The physician merely views the items and returns an appropriate evaluation. Therefore, when a patient posts her case, she is sending Ether from her EOA to the contract account, which acts as an escrow account.

In the first software release, there will be only 2 contracts (a two-tier pricing structure). MedCredits will predetermine the value, startgas and start prices for the transaction. MedCredits will initially use a 2-of-3 multi-signature escrow smart contract to prevent abuse of the system. Multisig escrow smart contracts are a well-known and highly effective
use-case of the ethereum virtual machine (EVM). Physician EOAs differ in that they simply need to access casefiles and respond with a secure message that contains a diagnosis. The physician’s GUID contains data on board certification and reputation on the network. Physician EOAs send transactions to the contract account in the form of Ether by broadcasting the board certification status. The contract account then requests the 3rd party signature. Contracts will transfer the escrow payment once 2 of the 3 signatures are obtained.

4.3.2 Incentivizing “good actors” and penalizing “bad actors”

With any system involving the exchange of value, mechanisms have to be in place to protect users from malicious activity. MedCredits will use a reputation-based system to incentivize honest behavior.

In our reputation system, each patient will rate the doctor after receiving a diagnosis and recommendation. It will be a 1 to 5 star rating system. Third party agencies that verify doctors’ board certification status can then use this reputation system for quality assurance. In turn, these agencies will prosper by charging doctors subscription or one-time certification fees. Over time, these independent agencies will develop reputations for certifying high quality physicians. These agencies will receive their own ratings on the platform, which will be a weighted average of their doctors’ ratings. This weighted average will be based on a variation of the Bayesian Estimator, outlined below.

**BAYESIAN ESTIMATOR**

\[
\text{Weighted Rating (WR)} = \left(\frac{d + (d+m)}{R} + \left(\frac{m + (d+m)}{C}\right)\right)
\]

* \( R = \text{average doctor rating for that agency} \)
* \( d = \text{cumulative number of doctor ratings for each agency} \)
* \( m = \text{minimum number of doctor ratings (d) required to be a rated agency} \)
* \( C = \text{the mean doctor rating on the network (only doctors with a minimum of 10 completed cases are included)} \)
In later product releases, patients will be able to elect to only be evaluated by doctors verified by specific agencies. Doctors will be incentivized to have this stamp of certification, as it will include them in the highest paid pool of doctors.

To maintain a good reputation, agencies will decertify any “bad actors” within their doctor network. For example, if a doctor’s average rating falls to 3 stars, the agency may give the doctor a warning. If the doctor continues to receive poor ratings and falls to 2 stars, the agency may decertify the doctor. Once decertified, the doctor will no longer be included in the pool of certified doctors and would therefore be limited to lower evaluation payments.

In addition to a reputation-based system, good behavior will be financially incentivized through the use of escrow in a smart contract as follows.
4 Design Protocol

- The patient will submit the evaluation fee PLUS 50% to escrow. After a doctor evaluates the case and submits his report to the patient, the patient must confirm that the doctor’s response was either appropriate or inappropriate. A patient has 24 hours to respond before the smart contract automatically executes and transfers payment to the doctor.

- If the patient is content with the doctor’s evaluation, the additional 50% will be refunded back to the patient’s account.

- If the patient is dissatisfied and challenges the case, the case will go for validation. Of note, from the doctors’ perspective, an original case and validation case appear identical.

- If the diagnosis by the second doctor is the same as the diagnosis by the first doctor, the smart contract executes sending the initial fee to the first doctor and the additional 50% to the second doctor. From the patient’s point of view, this can be seen as a discounted second opinion. We understand that the second doctor is completing the same amount of work as the first doctor and getting paid less. This reduced fee is distributed among the doctors though. For example, assuming only 10% of cases go to validation, the overall average doctor fee is still 95% of the fee for an initial evaluation.

- If the second doctor’s report differs from the first, which can occur in multiple ways including a discrepancy in the diagnosis, insufficient information to make a diagnosis or poor picture quality, then the initial fee is returned to the patient and the additional 50% goes to the second doctor. Of note, the initial doctor receives no money in this encounter. Since doctors cannot know which cases are initial evaluations and which are validation cases, doctors will always be incentivized to perform quality evaluations.

4.4 Software Release 1, Hippocrates

Milestone 1 (M1) will focus on development of the intuitive and user-friendly dermatology
application as described in sections 4.1 - 4.3, and conclude in the software release Hippocrates. Hippocrates will be released in pre-alpha, alpha and beta phases. We are currently actively engaged in the pre-alpha phase of development, which consists of modifying the OpenBazaar protocol to establish a stable desktop platform that is customized for healthcare.

We are simultaneously developing the MedCredits mobile app, which will access the network. After thoroughly testing all app functions including case initiation, smartphone camera engagement, patient data input and payment on a test network with test tokens, we will then give access to the token sale participants for further testing. During this phase, physician responses will not reflect the submitted cases in any way, but will be standard responses used solely for testing the app and payment portals. Bounties will be offered for identified bugs. Once the majority of bugs are fixed, we will then launch the alpha version of the software on the main network. Access to the alpha version will be by invitation only, and rolled out to token sale participants.

Following the successful alpha release, we will enter beta phase, opening the platform to the general public. In order to incentivize both patients and physicians to use the platform, the first 6 months or 1000 cases will be free for patient use. The MedCredits team will use a portion of the allocated token sale marketing MEDX to pay participating physicians during this trial period. Patients will be limited to 1 active case at any given time to prevent spamming the network with multiple cases. Diagnoses and recommendations will be from licensed physicians. We recognize this will initially be a centralized payment system by necessity, but early patient and physician adoption is paramount for success.

After the trial period, a simple 2-tier payment structure will be instituted where patients can opt for their case to be reviewed by either a verified board certified dermatologist or a non-verified dermatologist. Payment will be in MedCredits and the exact physician fee will be determined by market research closer to the launch of the app. Our early market research indicates a fee equivalent to about $10 for the verified dermatologist and $2 for the non-verified dermatologist is reasonable. Despite
this seemingly low fee, the doctor is still well compensated. On our platform, we suspect a licensed doctor will be able to complete an evaluation in 5 minutes or less. For a $10 evaluation with no overhead, this translates into wages of $120 per hour for the physician.

4.5 Software Release 2, Galen
Following the stable release of Hippocrates, project development will focus on significantly expanding the scope of MedCredits’ clinical services in the release of Galen, or Milestone 2 (M2). Telemedicine is compatible with many medical specialties and we will work in parallel to expand MedCredits’ services to many of these fields shown in the table on the right. We will also be simultaneously upgrading MedCredits’ capability to include HIPAA-compliant video in order to service medical specialties requiring live video encounters. Galen will also introduce free-market pricing to replace Hippocrates’ two-tier price model.

Our strategy will be to capture market share early and to have immediate utility. After dermatology, mental health is perhaps the next most promising application of telemedicine. In addition to the known advantages of increased

TELEMEDICINE COMPATIBLE SPECIALTIES

- Allergy/Immunology
- Cardiology
- Dentistry
- Dermatology
- Otolaryngology (ENT)
- Emergency medicine
- Endocrinology
- Family/general practice
- Gastroenterology
- Infectious disease
- Internal medicine
- Neurology
- Oncology
- Ophthalmology/optometry
- Pain management
- Pathology
- Pediatrics
- Psychiatry/psychology
- Rheumatology
- Urology

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access, and reduced transportation barriers, there is the advantage of lowering the threshold to seek care. Many patients with mental illness have anxiety and fear related to leaving their homes. Patients with major depression often lack the mental energy to schedule an appointment and transport themselves to a therapist. Sadly, many suicide cases occur in patients who have never even seen a mental health professional. Telemedicine helps solve these problems and provides an enhanced feeling of safety and comfort.

The final addition to the Galen software will be the “Ask a Doctor” service in both store-and-forward and live video encounters. This will allow patients with general medical conditions to ask family medicine and internal medicine doctors about common problems such as sinusitis, respiratory tract infections, allergies, minor sports injuries, abdominal pain and urinary tract infections. This could dramatically reduce the number of unnecessary visits to the local emergency department.

4.6 Software Release 3, Herophilus
Once Galen is out of beta, we will add several key features to the platform: patient charts,
appointment scheduling, notifications of upcoming appointments and a “physician referral” feature. The patient chart will contain pertinent information including past medical history, past surgical history, medications, allergies, social history and family history. We will also create a pediatrics chart where families can bundle their children’s profiles into their accounts and send a pediatrics case on behalf of their child. This patient data will become available to the physician upon submission of a new patient case. The addition of these features is Milestone 3 (M3).

The goal of the physician referral feature will be to fuel the expansion of MedCredits from a decentralized telemedicine service to a decentralized healthcare ecosystem with a diverse array of specialists. As specialists around the globe are referred patients, our goal will be to retain patients and healthcare providers within the MedCredits ecosystem.

The patient chart feature will allow referrals to occur seamlessly without loss of patient information. As any provider can attest, the current healthcare system makes it extremely challenging to evaluate new patients, as previous health records are often inaccessible. If they are available, the chart often consists of 100s of pages of unsorted faxes. This necessitates the time-consuming use of resources devoted to repeat history taking, testing and scanning of documents. The time and cost saving benefits of Herophilus will optimize outpatient clinics, leaving patients more satisfied with their appointments and decreasing medical errors by keeping patient data organized and streamlined.

4.7 Beyond Herophilus
As MedCredits continues to develop, so too will blockchain technology and telemedicine. A major feature of the Ethereum Virtual Machine (EVM) is the formation of decentralized autonomous organizations (DAOs). Future software releases will allow patients and providers to form DAOs for their respective insurance needs including healthcare insurance and malpractice insurance. New credentialing agencies will form to license physicians in specific DAOs. These emerging companies will have the opportunity to integrate their services into MedCredits and interact directly with our patients and healthcare providers. We will see MedCredits transform into a full-feature
A decentralized electronic medical record system with the potential to combine payments with decentralized insurance and provider credentialing solutions.

5. PROJECT TIMELINE

5. Project Timeline

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The date of the token sale launch will be announced in September 2017. The token sale will last 1-2 months with a target of raising the equivalent of 30 million USD in Bitcoin, Ether and Waves. In the event that the target is reached before the deadline, the token sale link will be closed. Any purchases of MEDX that were submitted prior to the termination of the token sale, and are pending confirmation on the Ethereum, Waves or Bitcoin blockchain, will be included in the token sale. A minimum of the equivalent of 5 million USD is required by the deadline, or the contributions will be refunded to the participants.

A total of 100,000,000 MEDX will be generated between the Ethereum and Waves platforms. This number will be locked without the possibility of creating additional tokens. Seventy percent of the tokens will be distributed to token sale participants. Twenty percent will be allocated to the MedCredits team and the remaining ten percent will be held in escrow for marketing purposes and physician incentivization.

The capital raised in the token sale is expected to fund active development of the MedCredits platform for a minimum of 8-10 years. A breakdown of the expenditures is outlined in the table below.
<table>
<thead>
<tr>
<th></th>
<th><strong>$5-10 million</strong></th>
<th><strong>$10-20 million</strong></th>
<th><strong>$20+ million</strong></th>
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</tr>
<tr>
<td><strong>Annual Expenses</strong></td>
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<td>$1,000,000</td>
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<tr>
<td><strong>Headcount</strong></td>
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<td><strong>Fund Management</strong></td>
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<td>Hire seasoned fund management team to manage traditional investments.</td>
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<tr>
<td><strong>Annual Expenses</strong></td>
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<td>$200,000</td>
<td>$200,000</td>
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<td><strong>Legal</strong></td>
<td>Periodic consultation.</td>
<td>Retain counsel from seasoned legal experts in cryptocurrency and health law.</td>
<td>Lobby in medical associations. Form Political Action Committee (PAC) and recruit donors to influence and guide future telemedicine regulations.</td>
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<td><strong>Business Development</strong></td>
<td>Current management team.</td>
<td>Form relationships and partnerships with seasoned healthcare consultants.</td>
<td>Seasoned healthcare consultants to build referral network to our platform.</td>
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<td>$500,000</td>
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<td><strong>$2,000,000</strong></td>
<td><strong>$4,300,000</strong></td>
</tr>
</tbody>
</table>
7. TEAM

James M. Todaro, MD
Dr. Todaro graduated with honors from Columbia University, College of Physicians and Surgeons, and is a licensed medical doctor in the United States. He has cultivated technology and industry experience during his employment at the United States Patent and Trademark Office and as Director of Sales & Marketing for a medical device company. In addition to his clinical responsibilities, Dr. Todaro has been actively involved in blockchain technology since 2013.

Moshe Praver, MD
Dr. Praver graduated with honors from Columbia University, College of Physicians and Surgeons, and is a licensed medical doctor in the United States. He is highly published in peer-reviewed journals in the field of neurosurgery. In addition to his clinical accomplishments, he has actively explored blockchain applications to create borderless healthcare solutions since 2014.

John Todaro
John Todaro graduated summa cum laude from University of Pennsylvania with a degree in psychology and coursework in finance from the Wharton School of Business. He has developed financial expertise during his various trading positions for a New York investment bank. He has been involved in digital assets for several years, as he believes the technology and decentralized nature can revolutionize various industries.

Ryan Cody
Ryan Cody graduated from University of Michigan with a degree in engineering. He is proficient with Python/HTML/JavaScript/C#/PHP and MySQL. His passion for computer science and programming are what drew him to the blockchain scene.

Paul Horvath
Paul Horvath holds a degree in Computer Science from Western Michigan University and is currently an information security analyst for a major health insurance network. With numerous certifications in Reverse Engineering Malware, Operating Systems Forensics, Advanced Linux/Unix Hardening and Network Forensics from SANS, Paul is making valuable contributions to cybersecurity and cryptography.
Vimell Yuvarajah
Vimell Yuvarajah completed 4 years of study in physics and engineering at the University of Pennsylvania, which included Master’s coursework in computer science. He has held various positions in programming, most recently in algorithmic trading for a leading quantitative hedge fund. His passion for technology and computers is what drives his interest in blockchain applications.

William Jou, MD
Dr. Jou is both a board certified medical doctor and Chief Financial Officer for a medical device company for over 10 years. He brings a unique combination of clinical experience and business acumen to the MedCredits team.

Nikhil Murthy, MD
Dr. Murthy graduated from Georgetown University School of Medicine, and is a licensed medical doctor in the United States. He has designed clinical trials and research tools including software to assess motor dysfunction, eye tracking and time perception in patients with neurologic disorders. He is currently undergoing advanced training in the field of neurological surgery.

Stewart Donnell
Mr. Donnell is president of Donnell Consultants Inc., a project cost management consultancy, which he founded in 1986. He has consulted on projects ranging from $10 million to $300 million both nationally and internationally. He has over 35 years of business management experience including strategic planning with world-class private corporations, as well as governments, universities and boards. He is a fellow of the Royal Institution of Chartered Surveyors. Mr. Donnell is excited to bring his vast experience in company operations and organizational leadership to the MedCredits project.

Daniel Saffo, DMD
Dr. Saffo graduated from Lake Erie College of Osteopathic Medicine and is a licensed dentist in the United States. He is currently practicing dentistry in Ohio, and recently became interested in blockchain solutions in the field of dentistry.
### 8. FAQ

**What is MEDX?**
MedCredits (MEDX) is a utility token on the Ethereum and Waves blockchains to be used within the MedCredits application as payment for services between patients and health care providers. It is not a security or commodity.

**Are MEDX equivalent to shares?**
No. Ownership of the token does not confer any rights to ownership, intellectual property, stake in or right to receive revenue from the MedCredits team. MEDX is a utility token to be used in payment for services within the platform. Once distributed to the public, MEDX are neither refundable nor controlled by the team.

**How do you go from a dermatology app to an entire health care system?**
At its core, healthcare is an interaction between a patient and a provider. A healthcare system is simply a collection of patients and providers operating in a designated setting such as a clinic, hospital or virtual setting. By gradually recruiting patients and providers we will organically grow from a single-specialty platform into a multi-specialty system. Please refer to sections 2.5 and 4.5 - 4.7.

**Why decentralize health care?**
Centralized systems are generally less efficient than their decentralized counterparts. This can be secondary to middlemen fees, unequal distribution of resources, regulatory compliance issues of home country, etc. Telemedicine suffers from these barriers as well and is unlikely to flourish under these restrictions. By decentralizing telemedicine, middlemen fees are eliminated, physician resources are distributed worldwide, and healthcare regulation will adapt to keep up with the technological progress. We are already currently seeing these changes take place in regards to digital currency and financial regulations.

**Why would patients want to use MedCredits?**
Our platform will lower the cost of medical care, increase convenience and give patients control over their health. Patients all over the world will have faster and easier access to the health care system, while avoiding unnecessary wait times and visits to the doctor. Patients will have access to and control their own medical records at all times. Finally, we expect an evaluation on the MedCredits platform to cost a fraction of the cost of a traditional office visit.
Why would health care providers want to use MedCredits?
Our platform will allow many physicians to live wherever they like and not depend entirely on the local population of patients. Physicians will be able to evaluate patients globally from the comfort of their own homes. Furthermore, with a unified electronic medical records system, communication with other specialists and evaluation of new patients will become more efficient, allowing physicians to provide quality care to a greater number of patients.

What if a doctor on MedCredits gives me the wrong diagnosis?
The MedCredits platform will have mechanisms in place to mitigate the likelihood of this happening. With both a physician rating system and discounted second opinions, we hope to minimize the occurrences of mistakes. Nevertheless, doctors make mistakes in the current healthcare system too. Telemedicine is a well-studied field and there are appropriate and inappropriate uses of the technology.

Additional questions?
Please inquire on one of our community channels listed on https://medcredits.io! Also, be sure to look out for and participate in our monthly AMAs to ask any additional questions.
These tokens are not an investment and give the buyers no ownership, rights or controlling interest over the MedCredits team. These tokens are only to be used as the exclusive form of payment in the MedCredits platform. Participants in the token sale will receive early access to the MedCredits platform prior to public release. The MedCredits team is not responsible for any loss, hack or theft of tokens. Further Terms and Conditions will be given at the time of the token sale announcement.


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Oximeter, Sleep Apnea Monitor, Neurological Monitor), Apps (Medical, Fitness)), Digital Health System (EHR, e-prescribing System)], Industry Analysis Report, Regional Outlook (U.S., Canada, Germany, UK, Spain, Italy, Russia, Poland, Japan, China, India, Australia, Brazil, Mexico, South Africa), Application Potential, Price Trends, Competitive Market Share & Forecast, 2016 – 2024. Full report retrieved from URL https://www.gminsights.com/industry-analysis/digital-health-market on July 1, 2017


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Contact Us
contact@medcredits.io