



Jinfiniti



Company Profile

Jinfiniti was founded in 2018 by renowned scientist Dr Jin-Xiong She who revolutionised the fields of diabetes and cancer therapy by applying a strategy of predictive, preventative and personalised medicine. Jinfiniti is laser focused on solving “the aging problem” by helping individuals make informed health decisions by tracking changes in an array of the most impactful and modifiable biomarkers of aging within their body. Jinfiniti understands that every individual ages differently and believes that by taking a holistic and quantitative approach, each individual can make sense of the unique factors accelerating or slowing down their unique aging process. It is Jinfiniti’s mission to empower individuals to use their tests within a “test-intervention-retest” paradigm in order to construct a personalised longevity strategy that transforms their healthspan. This focus on improving healthspan places Jinfiniti outside of the disease diagnosis domain, a well established and competitive environment and firmly in the health and wellness space where their company can truly thrive.

“I have worked in the disease therapeutics space for several decades and it is well occupied by several remarkable companies developing impactful technologies. Jinfiniti is not in the business of addressing disease, we are in the business of promoting wellness and preventing disease. We seek to marry rigorous science with actionable insights to empower individuals to make a real impact on their health and quality of life.”



The idea for Jinfiniti had been incubating in Dr She’s mind for several years and has an origin story that very much aligns with the company’s philosophy today. Dr She has had a long history of interest in the nutraceuticals space, especially the prospects of improving the efficacy of nutraceuticals by bringing evidence-based science to a realm that is currently poorly regulated and chock-full of “snake-oil” salesmen. In 2010, Dr She challenged his nephew, who had a supplement company in China, to break out of this paradigm and prove his supplements work by testing what people need and measuring how his supplements were working for customers. A strategy that even today remains largely ignored by supplement companies. Dr She decided to apply his extensive scientific expertise to revolutionise the way the supplement field operated by making this rigorous strategy “the norm” within the field. Dr She discovered that the longevity field was the ideal space to implement these principles when he met a functional medicine doctor that requested he design a test that could be used to validate the efficacy of longevity interventions by measuring how patients were aging on a cellular/molecular level. It was this serendipitous meeting that led to the birth of Jinfiniti and their powerful health paradigm: “Age related diseases have a common set of root causes that, before manifesting as disease, result in sub-optimal health that can be measured, tracked and remedied”. With this single paradigm Jinfiniti addresses both the core of preventative medicine and the ultimate goal of geroscience.

Nearly 20 years ago, Dr She started the first research program that united bioinformatics and scientific benchwork under the same roof at the Medical College of Georgia of Augusta University. Since then Dr She has been on the leading-edge of applying multi-factorial analysis and expertise in integrating different data types to understand and therapeutically address complex disease processes. There is no process that is as multi-faceted and deserving of a holistic approach than the process of aging, the rate of which is influenced by nearly everything we are exposed to in our environment (collectively called our “exposome”). Jinfiniti is applying this quantitative approach to make sense of how each individual is aging (within the context of their unique exposome) by developing novel technologies and assays that help their customers measure classically immeasurable biomarkers of aging and use this information to help them make the right decisions to preserve their health. Highlighting the unique value that Jinfiniti provides within the BioAge diagnostic space is the fact that they are the first – and only – provider of NAD and cellular senescence testing for consumers. Two of the most powerful biomarkers (and drivers) of aging, both of which can be influenced by various supplements, lifestyle changes and drugs.

“Aging is an extremely complex process. Hence within the longevity field, no single company alone is going to succeed at solving the aging problem.” Dr She is steadfast in his intent for Jinfiniti not to compete with any other company. This is exemplified by the astounding number of collaborations Jinfiniti has established within the field. “I feel a sense of urgency to “solve the aging problem”, both for selfish and altruistic reasons, in which collaboration is going to be key. There is plenty of space for innovation within the longevity field and Jinfiniti will continue developing and producing things that are unique. I believe rapid progress within the longevity field will be made through mutually beneficial collaboration and not cut-throat competition. This is one of the reasons why we don’t operate in secrecy or have extensive IP protection. This being said, if anyone wants to compete – I welcome it”.



Flagship Product Deep Dive

Jinfiniti

Jinfiniti's mission is to help individuals make wise healthcare decisions by measuring the molecular and cellular "health biomarkers" that are the root cause of aging and using this information to engage with the world in a way that maximises their healthy longevity. This is one of the key characteristics of Jinfiniti that makes them stand out from other companies developing BioAge diagnostic devices. Jinfiniti is not focused on addressing disease, they are focused on promoting health.

"Life isn't about your lifespan, it's about your healthspan. It's about being able to outrun your grandkids. It's about playing tennis until you're 94 or beyond. It's about feeling alive for as long as you live."

This is no minor distinction as their philosophy influences every aspect of how Jinfiniti operates including: the types of biomarkers they measure, the metrics and thresholds they use to define "healthy" vs "unhealthy", product user interface, as well as the strategic collaborations they establish. Through their every action Jinfiniti exemplifies the idea that "how we frame our strategy for addressing healthy longevity, our mindset, is just as important as the product or solution itself".

Jinfiniti's assays are rooted in a data driven approach as Dr She comes from a background of collecting and analysing data from 20-30 year long studies and has unprecedented access to biobank data which includes biochemistry, demographics, genetic information, etc. Due to the dozens of collaborations and extensive experience Dr She has garnered through his decades of academic experience working with biobank data, Jinfiniti is constantly iterating and evolving their platform technology and products.

Jinfiniti uses AI technology to analyse biomarker data in its own database as well as data available in the public domain to define different reference ranges: optimum, suboptimal, moderately and severely deficient. The "optimum range" is derived from data for a youthful population. This is a key characteristic of Jinfiniti's approach to biomarker reference ranges as diagnostic biomarkers are usually derived from comparison of disease versus "healthy" individuals. Such cut-offs completely ignore early signs of sub health and risk for developing clinical symptoms in the future.

"Jinfiniti's role is to track health biomarkers rather than age biomarkers. If a biomarker is correlated with age, it may not be measuring health very well as it could be measuring natural, progressive changes with age. Further, if you are looking for changes that are correlated with disease, you're intentionally focusing on a specific demographic, a very small portion of the population, and you're excluding a lot of relevant data in the process."

Jinfiniti's two main products is its intracellular NAD test and AgingSOS panel which measures myriad longevity biomarkers. NAD is one of the most important molecules for maintaining cellular health and the most powerful, single biomarker of aging. NAD levels characteristically decline with age, likely driving several pathological aspects of the aging process. This is supported by the fact that research has shown that boosting NAD levels has been shown to improve healthy longevity, but there has never been a way



for consumers to measure NAD levels until the development of Jinfiniti’s novel assay. Users can use Jinfiniti’s intracellular NAD test to measure the amount of NAD within their blood cells with a simple “finger-prick” blood test which is collected on a filter paper and sent back to the lab for analysis. To date, no other company has been able to capture this information because NAD is extremely unstable and degrades rapidly when exposed to the environment. A key aspect of Jinfiniti’s intracellular NAD assay is the use of a stabilizing/fixing buffer which preserves the NAD until it reaches the lab for analysis. This reflects a key strength of Jinfiniti’s team as they combine the finest minds in biology, chemistry and bioinformatics to deliver a never before seen product and service. “Jinfiniti’s intracellular NAD™ test is the critical starting point to help you create an effective program for boosting NAD levels and improving your healthy longevity”.

Jinfiniti’s AgingSOS™ is a first-of-its-kind biomarker panel, a comprehensive tool to maximise healthy longevity. This assay addresses several layers of physiology and hallmarks of aging to holistically address the complexity that encompasses the aging process. Recent research has revealed that aging occurs on several different levels and at different rates within the various tissues of our body. This further emphasised the idea that we’re only as strong as our weakest link, hence the importance of assays that reflect the health of the “several different layers” of the aging process. “If you try to understand one piece of the longevity puzzle in isolation, the solution will prove elusive. We need network thinking to address the root cause of aging”

AgingSOS™ analyses innovative longevity biomarkers – with a simple “finger-prick” – including intracellular NAD, circulating NAD, cellular senescence, chronic inflammation, oxidative stress and antioxidant capacity, tissue stress and damage, among other important biomarkers of health. Of particular note is Jinfiniti’s novel cellular senescence assay, the first of its kind to be available commercially. Cellular senescence is widely recognised as a primary driver of the aging process as it drives chronic inflammation and the process known as “Inflammaging”. Reducing cellular senescence (with specific supplements, exercise regimens, etc) can help reduce chronic inflammation and the chances of developing many age-related diseases. Jinfiniti provides an added component of “gamification” and helps their users make sense of their biomarker data by providing them with a “wellness index” (ranging from 0–100) which gives them a sense of their health status compared with “youthful” levels of the various biomarkers. The wellness index helps individuals make sense of what could otherwise be an overwhelming amount of data and provides an easy metric to track their progress and help figure out what factors are influencing their score. “I don’t believe in assigning individuals a biological age, as most other companies in this space do, because the age clocks do not provide precision actionable guidance, at least not with currently available age clocks. The wellness index is a reflection of your health or sub health and is one number to keep at the front of your mind to guide you in your health journey, if nothing else.”

Jinfiniti’s AgingSOS™ biomarker panel allows individuals to understand what is going on within the “black box” of their body. Most importantly, each and every biomarker in the panel is actionable and points to mechanisms for healthy lifestyle change, making it an extremely powerful tool for cultivating healthy longevity. Dr She takes the relationship he forms with his customers extremely seriously. “For Jinfiniti, our customers are more than just customers. They are our friends and they are our family”. This is more than just talk as Dr She goes out of his way to personally research and respond to questions from his customers that helps them make sense of their data and engage with healthy lifestyle change, all at his own time and cost.



Efficacy of product

Jinfiniti's NAD test has been used in several clinical trials to assess how individuals respond to different therapeutics. Jinfiniti recently conducted two studies using its NAD test but the results have not yet been published. They also have two more studies underway.

Through the formation of various strategic collaborations, Jinfiniti's major focus for the next year is to take their tests through FDA approval. This will expand the amount of data supporting the efficacy of their tests as well as its scope of application within the longevity field.

Product Development

Jinfiniti has been evolving at a rapid pace since it officially began operations in 2019. It has established early proof of concept of its tests within the lab, defined and tested its assays within human subjects and established viable commercial products that have been used to collect health data that can be used to further iterate on and improve their product. Jinfiniti's R&D team is extremely strong and have developed several assays (that are yet to be commercially released) that measure other longevity biomarkers. This includes assays that measure the activity of NAD degrading enzymes, another extremely valuable insight that can be used to optimise an individual's NAD regimen. Further, Jinfiniti is currently developing a subscriber based platform in which they can establish long term relationships with their end-consumer and help them create actionable longevity strategies based on their data by providing personalised lifestyle recommendations and longevity coaching within a "test-retest" paradigm. This relationship would help consumers derive more value from their health data and allow Jinfiniti to further evolve their machine learning platform by building on their reference datasets. Dr She also has a strong drug development background and plans to apply his skill sets and experience to develop and improve the efficacy of various nutraceutical formulations. Jinfiniti is currently laser focused on increasing revenue, manpower and infrastructure in order to accomplish all of these product development milestones.

Ultimately, Jinfiniti strives to become the "one stop shop" that provides critical tools for individuals seeking to optimise their longevity strategy through tracking longevity biomarkers, developing longevity supplements and providing longevity education.

Target market

As biomarker testing is critically important for the success of many different longevity realms, Jinfiniti is a central node within the longevity space. This is especially the case as Jinfiniti has developed assays that have never before reached the market, including its NAD and cellular senescence tests. Therefore target markets for Jinfiniti include:

Nutraceutical and drug development companies for both the formulation and evaluating efficacy of their products



Biomarker companies that seek to use Jinfiniti's tests to expand their assays and provide end consumers with more information for health and wellness promotion

Functional medicine clinics for validating the efficacy of longevity interventions and health recommendations (dietary, supplement, exercise, stress reduction, sleep, etc).

Athletes that seek to optimise their performance with various training and dietary regimens

Most importantly, Jinfiniti's tests are for anyone and everyone seeking help in navigating the ocean of "snake oil supplements and health gurus" in order to take charge of their health and wellness with personalised, precise and actionable insights on the unique factors that slow down or speed up their aging process. Jinfiniti is intent on transforming the health and wellness space by helping individuals preserve their health before disease arises and prides itself in making its tests as simple as possible with cheap shipping and quick responses. In service of this mission, one of Jinfiniti's major goals is to continue working on ways to bring the price of its assays down to eventually make their tests available to everyone.

Channels to market

Jinfiniti has focused on B2B channels (such as supplement companies) to help businesses improve their products, B2C channels (individuals) to help consumers optimise their health and B2B2C channels (functional medicine doctors, for example) to provide clinicians tools to improve the health outcomes of their patients and make their job more energy efficient.

Dr She insists: "Jinfiniti is not just about the science or the business. It is about forming friendships and collaborations with others working towards a common goal."

Success Factors

Team and Reputation

Dr She was the founding director of the Center for Biotechnology and Genomic Medicine at the Medical College of Georgia. He is internationally recognised for his studies in a broad range of fields including diabetes, cancer, immunology, genomics, proteomics, bioinformatics, biomarker and drug development. Dr She is well known for providing the foundation for a 20 year long international consortium known as The Environmental Determinants of Diabetes in the Young (TEDDY), which aimed at identifying novel ways to prevent diabetes. He has also conducted extensive research to identify biomarkers and therapies for various types of cancer using a combination of big data, machine learning and deep learning. Dr She has secured more than \$100 million in research grants over the course of his career and authored 400 peer-reviewed papers with more than 15,000 citations. Dr She has also collaborated with over two dozen companies within his academic career and has carried this momentum forward with Jinfiniti as they have established numerous partnerships with companies such as Alive by Science, Quicksilver, Quicksilver Scientific, Donotage, TruDiagnostics, GlycanAge, Bioenergy Life Sciences, BioViva and a number of functional/integrative medicine clinics.



A critical member of the team is Dr Boying Dun, who received a BS degree in food science and a PhD degree in analytical chemistry. Dr Dun was instrumental to the development of the lab assays and the formulation of nutraceuticals. She serves as Jinfiniti's Chief Innovation Officer.

Two business veterans recently joined the Jinfiniti management team. Both were former Jinfiniti customers. Bob Thordarson is a serial entrepreneur and helped companies to scale up business; he serves as Jinfiniti's Chief Technology Officer, in charge of information technology and D2C marketing. Kurt Johnsen is also a serial entrepreneur including founder and CEO of Simplified Genetics; Kurt has extensive experience in marketing and serves as Jinfiniti's Chief Growth Officer.

Jinfiniti has just moved from a business incubator to their own independent facility and its team currently consists of eight employees as well as consultants. Jinfiniti was selected as a top 5 life extension blood test company in 2021 by Longevity Advice and a market leader in longevity biomarker testing by Longevity International and a 20 most innovative companies to watch 2021 by Business Worldwide Magazine.

Intellectual Property

Jinfiniti possesses a number of proprietary technologies, know-hows and information, but chose to not apply for patent protection for many reasons. Dr She wants to focus their time and resources on business operation and believes that Jinfiniti can maintain a competitive edge by continuing innovation of services and products.

Funding

Jinfiniti received start-up funding and is now cash positive. Jinfiniti plans to start raising more capital in the second half of 2022.

Jinfiniti's funding is undisclosed.