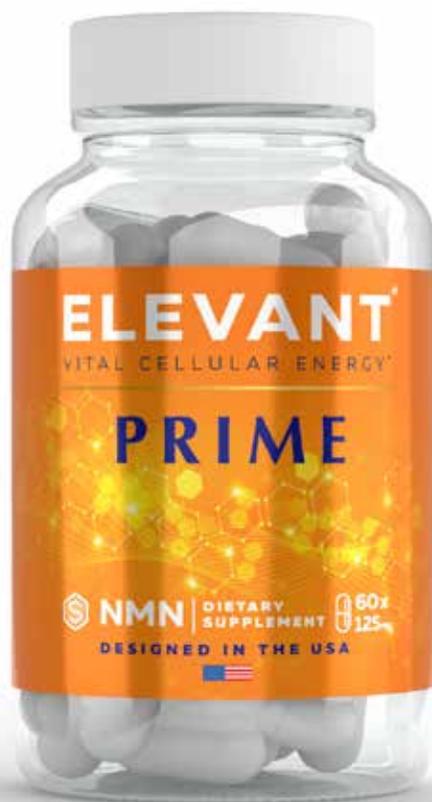


www.seneque.com



Company profile

Seneque



Seneque was founded in 2018 to address the fact that healthspan is no longer increasing in developed countries, despite longevity research highlighting the potential of natural molecules to extend both healthspan and lifespan. The name Seneque comes from Seneca the Younger, a Roman philosopher who encouraged people to discover vitality using their inner sources. This is exactly what Seneque has set out to do, by gathering a team of international biochemists and cellular metabolism scientists to pioneer research into cellular longevity.

Based in Switzerland and the US, Seneque brings the rigorous scientific approach and standards of research used in the pharmaceutical industry to the supplement market. The company believes in undertaking cutting-edge research to create next generation products that help people live in better health, for longer, with additional clarity on provenance, purity and clinical data to gain consumer trust.

Seneque's founder, French entrepreneur Guillaume Bermond, was inspired to champion the development of natural molecules as health and longevity interventions after seeing NMN mitigate severe age-associated health problems that were afflicting his father. Mr Bermond has since expanded Seneque's research focus to encompass cellular NAD⁺ metabolism more broadly, to discover health solutions that support not only longevity, but also vitality at any age.

"Seneque's scientifically rigorous approach is grounded in the most extensive clinical research program to analyse the health benefits of NMN in humans to date. This first-of-kind research will propel further development of NMN to support

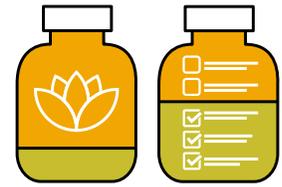
cardiovascular, cognitive, muscular, skin and immune health."

One of Seneque's key research partners is the Buck Institute for Research on Aging, a collective of the world's top scientists in the field of aging, located in California. Seneque collaborates with the Buck Institute on a range of research programs to enhance the scientific body of knowledge around the efficacy of NMN on longevity. Seneque's Scientific Advisory Board is headed by two recognised NAD⁺ experts. Its Chair is President of the Buck Institute, Dr Eric Verdin, and its Chief Scientist is Dr Alessia Grozio, a biologist who helped discover an NMN transporter that delivers the nucleotide directly into cells.

In early 2021, Seneque launched its first health and longevity supplement brand, Elevant. Elevant's flagship product is Prime, a range of clinically tested NMN supplements that work directly within cells to deliver daily energy, power immunity and fight aging. Prime has received compelling safety endorsements in the form of Self-GRAS affirmation, and highly favourable results from a world-first OECD 408 toxicology study undertaken on Seneque's proprietary form of NMN, called NMN-C[®], which Prime contains.

Prime is currently available for purchase from Elevant's website, elevant.co.

Seneque maintains strict control over every element of its production and manufacturing process, to ensure that all its products deliver what it believes to be the highest levels of quality available in NAD⁺ boosters today. The manufacturing process for Prime was developed over two years in Europe and was designed to be



applied at a large enough scale to make high purity NMN affordable for consumers. Elevant products are made in Europe in cGMP-certified facilities, are gluten-free and suitable for vegans.

Prime for Longevity: Target Hallmarks of Aging

NMN enhances levels of NAD+, which has a potential link to all hallmarks of aging

NMN is an important intermediate in the biosynthesis of NAD+ which is a redox coenzyme and a key cofactor for NAD+ dependent enzymes including sirtuins, poly-ADP-ribose polymerases (PARPs), and CD38/157 ectoenzymes, involved in cellular metabolism, stress resistance, DNA repair and longevity. Prime contains NMN-C®, a proprietary synthetic β-nicotinamide mononucleotide, to augment NAD+ levels and counteract a wide range of age-associated conditions.

Flagship Product Deep-Dive

Prime: Product Description

NAD+ is one of the most important molecules in all living cells. It plays key roles in the regulation of almost all fundamental biological processes. Mounting evidence suggests that NAD+ levels

decline with age and associates its depletion to all the hallmarks of aging and age-related diseases. Countering this NAD+ depletion with supplementation of NMN-C®, a direct biosynthetic precursor of NAD+, is Seneque’s chosen strategy for fighting the hallmarks of aging. Evidence accumulating from an array of studies has demonstrated that NMN administration effectively enhances NAD+ biosynthesis in various tissues.

Prime: Pre-Clinical and Clinical Studies

Seneque recently conducted and published a pre-clinical toxicology study based on 90-day sub-chronic oral administration in rats to determine a no-observed-adverse-effect level (NOAEL) for its main ingredient in Prime, NMN-C®.

Seneque currently has a human clinical trial with Prime NMN-C® in progress to evaluate the effect of its compound on physical capacity and muscle recovery of volunteers under physical activity.

Seneque believe that scientific rigour should be at the heart of everything it does and has several more human clinical trials under preparation. Two of these trials have already been approved and are about to start: a first-in-human pharmacokinetic clinical trial to evaluate the NAD+ increase in blood using Elevant Prime oral NMN capsules in Canada, and a Tolerance study in France.

Prime: Ingredients and Dosage

Ingredient	Description
NMN-C® (125g)	Serving size: 1 capsule of 125mg Serving per container: 60 Nicotinamide Mononucleotide 125mg. Other ingredients: Isomalt, hydroxypropyl-methylcellulose, microcrystalline cellulose, magnesium stearate. Recommended dosage: 2 caps per day (250mg).



Prime: Safety and Risks

Seneque's high-purity form of NMN, called NMN-C[®], acquired Self-GRAS (Generally Recognised as Safe) status in accordance with stringent US FDA regulatory guidelines in November 2020.

The Self-GRAS review was performed by an independent panel of toxicology and nutrition experts, which rigorously evaluated research studies and toxicology data on Seneque NMN-C[®] and concluded that it is not harmful under its intended conditions of use (UL of 2.2mg/pound for humans, i.e., 300mg for a 135 pounds adult).

The company delivered further transparency in early 2021, with the publication of the results of a recent OECD 408 toxicology study on its NMN-C[®] undertaken in rats. The study – which Seneque believes is the first of its kind to be undertaken on NMN – analysed the No Observable Adverse Effect Level (NOAEL), with results showing NMN-C[®] to be an extremely well-tolerated option. The upper intake level, for a 60kg individual, was calculated to be higher for NMN than other NAD+ boosters on market.

Prime: Target Market

Seneque's science-based consumer products are designed to be effective for people of all ages, and the company hopes its products will deliver benefits to anyone seeking a healthier, more productive life.

To achieve game-changing solutions, Seneque integrates its proprietary NMN-C[®] into every one of its products. This high-purity biosynthetic form of NMN has been developed by the company for over two years to deliver a pharmaceutical-grade form of NMN to consumers.

Throughout 2021, Seneque's recently-launched brand, Elevant, will expand its range of clinically

tested NMN dietary supplements that recharge cells' energy and strengthen immunity. Seneque will also launch Inostyx, to provide a spectrum of targeted NMN sports supplements that activate cell metabolism to power and repair muscles, and Ladière, to deliver breakthrough cellular skincare by fusing its powerful NAD+ booster with luxurious natural Swiss ingredients to rejuvenate skin from within.

The company states that its aim is to continue to expand its range of brands to support the health and longevity needs of diverse populations. Through its clinical research programme, it seeks to develop knowledge and solutions that will relieve people, communities, and economies of the burden of age-related disease and illness.

Success Factors

Team and Reputation

- The founder of Seneque is Guillaume Bermond, a French entrepreneur who has a clear passion for the science behind NMN due to his personal circumstance and has a set plan on how to enable the population to benefit from NMN;
- The company has specified that the key metrics focused on by the management team are subscriptions, lifetime value through cross sales and the NAD+ market;
- The company has a productive relationship with the Buck Institute for Research on Aging, which will support Seneque's mandate of using scientific rigor to support its main ingredient NMN-C[®];
- The company has an impressive Scientific Advisory Board, which is led by its Chair, Eric Verdin, President of the Buck Institute for Research on Aging, and Chief Scientist Alessia Grozio, a biologist who co-discovered the groundbreaking SLC12A8 NMN transporter;



- The company has stated that its first product run has received great success and demand is increasing as awareness in both the biohacker community and general supplement market grows;
- The company is aiming to continue to expand its partnerships, and states that it is close to securing partnerships with leading research and educational institutes in Switzerland and Japan;
- Seneque is also aiming to grow its team and is currently recruiting doctors and pharmacists to launch and oversee its extensive pipeline of clinical trials;
- Interestingly, the company has suggested that to promote NMN-C® it intends to create a B-to-B function to provide clinics with a set of tools to optimise their patient's NAD+ metabolism.
- Further, the company is planning on providing extensive advertising and accessible digital education through its website and social media;
- For Seneque, 2021 will see the publication of several key clinical trials, contracts with networks, institutional and research partnerships and influencer engagement.

Intellectual Property

- Seneque and its brands place an emphasis on safety and transparency. The company claims that its approach is “grounded in the most extensive clinical research program to analyze the health benefits of NMN in humans to date;
- Indeed, Seneque have a list of ongoing human clinical trials using its proprietary NMN-C®. Publication of the outcomes of several of these trials is set to be the end of 2021 and has the potential to provide the company with a new portfolio of NMN-C® evidence for cardiovascular, cognitive, muscular, skin and immunity support;
- An OECD 408 toxicology study showed NMN-C® to be extremely well-tolerated in high doses. Publication of this study supports the use of biosynthetic NMN as a safe, reliable option as the main ingredient in Seneque products,

and will enhance consumer-confidence in a market where safety has been highlighted as one of the main consumer concerns. Safety of NMN-C® is further supported by a Self-GRAS review performed by an independent panel of toxicology and nutrition experts, which evaluated research studies and toxicology data on NMN-C® and concluded that it is not harmful under its intended conditions of use;

- Seneque states that it is already experiencing “extremely positive” feedback from both customers and testing results from using Prime;
- Seneque has stated that it is set to significantly expand its portfolio of science-based consumer health brands in the next two years, with 40 SKUs in development and several further patents in its pipeline;
- The biggest challenge for Seneque now is regulatory approval limiting faster growth. However, when efficacy and safety data is published from its clinical trials the product is more likely to gain regulatory approval in multiple countries which will support its global growth.

Funding

- Seneque has received a €40m equity commitment from family office investors and the company has projected €100m growth from revenue by the end of 2023;
- It has stated that no additional capital is to be raised at this time;
- The company is projected for Nasdaq mid-2022.

Seneque: success grid

Intellectual property: Information for this page is only available within the full report.	Team: Information for this page is only available within the full report.	Unique value proposition: Information for this page is only available within the full report.
Efficacy: Information for this page is only available within the full report.		
Target: Information for this page is only available within the full report.		Competitive advantage: NMN-C [®] has excellent safety data to support its use in humans. This will improve consumer-confidence in the product.
Customer segments: Information for this page is only available within the full report.	Channels: Information for this page is only available within the full report.	Runway: Information for this page is only available within the full report.
Inflection point: Information for this page is only available within the full report.		

 = Positive progress  = Work-in-progress  = Needs attention



About us

The report has been produced by the Market Intelligence Unit of LongevityTechnology – the number one online destination for daily news on the growing longevity market.

As a brand of First Longevity Limited, we bring together innovators and investors to commercialise the companies that will form the longevity economy.

There are already 100+ rejuvenation biotechs working on unique therapies and building R&D pipelines to increase healthspan and lifespan.

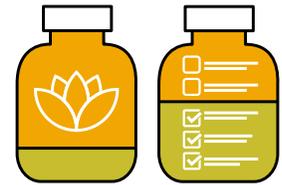
At the same time, all around the world, innovators are releasing nanobots, reprogramming nerve signals and applying AI to create exciting and scalable contributions to human longevity.

As a team we look beyond rejuvenation therapies to embrace other technologies that participate in the longevity investment category: agetech, xenotransplantation, biomarkers, AI, bioprinting, neuroceuticals, GRAS supplements ... over the coming period we will be publishing regular reports.

There are multiple technologies that contribute to the reduction of morbidity and the extension of lifespan: they will provide investors and innovators with both risks and returns. We're here to help analyse, report and educate.

You can find information about our next reports by visiting: <https://longevity.technology/product-category/analysis/>





**We bring together innovators
and investors to commercialise
the companies that will form
the longevity economy.**

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