

August/September 2022 Report

CDC Recommends Novavax COVID-19 Vaccine for Adolescents - Aug 22, 2022

<https://www.cdc.gov/media/releases/2022/s0822-novax-vaccine.html>

- CDC signed a decision memo stating that Novavax's COVID-19 vaccine can be used as another primary series option for adolescents ages 12 through 17
- This recommendation follows FDA's authorization to authorize the vaccine for this age group under emergency use
- This vaccine provides a more familiar type of COVID-19 vaccine technology - it packages proteins of the COVID-19 virus alongside an adjuvant that helps the immune system respond to the virus in the future

Novavax Vaccine offers better immunity against new variants - August 23, 2022

<https://economictimes.indiatimes.com/news/india/novavaxs-protein-based-jab-offers-better-immunity-against-new-variants-ceo-stanley-erck/articleshow/93718017.cms>

- The CEO of Novavax has stated that they have some evidence that their vaccine shows effectiveness of up to a year
- They are working on getting data on this for the next three of four months
- Novavax vaccine was the only one that went through efficacy trials when the new Omicron variants were circulating and data shows that it works with 90% plus effectiveness against the variants
- When looking at variants like BA4 and BA5, the vaccine seems to stimulate broadly neutralizing antibodies

EIT Health

- EIT Health was established in 2015, as a 'knowledge and innovation community' of the European Institute of Innovation and Technology (EIT)
 - It is a network of best-in-class health innovators based by the EU
- From 2016-2021, they have supported 1680+ start-ups and launched over 70 products and services
- The network consists of approximately 280 organizations from around the world
- EIT Health is a non-profit organization that is funded by the European Union, their partners and their contributors
- List of partners: <https://eithealth.eu/our-network/our-partners/>
- Examples of products and services developed by EIT: <https://eithealth.eu/what-we-do/product-and-service-development/>

What they do

- Create an environment where innovators can explore new ideas and find practical resources to create products and services rooted in innovation
- Help to initiate projects to find solutions to problems

- This might be a new type of diagnostics, a device or therapy that can help to better manage a disease or infrastructure to improve the organization of care
- The network works to bring the right people together to turn ideas into commercially viable products and services

Focus Areas

- EIT Health focuses on finding solutions to 6 urgent healthcare challenges
- 1) Reforming Care Pathways - focus on extending care pathways to provide end-to-end care before the onset of disease through to end-of-life support. EIT is working on optimizing long-term care to enable people with chronic conditions to live as well as possible
 - 2) Healthcare Transformation - EIT works on bringing together innovators and create a sustainable healthcare system that can support an ageing society
 - 3) Harnessing Real-World Data - EIT's goal is to exhaust the wealth of healthcare data available across Europe to improve the lives of patients and citizens
 - 4) Bringing Care Home - EIT tackles the health challenges of an ageing population by prioritizing innovative solutions that support healthcare delivery in the home and way from the hospital, improving health outcomes
 - 5) Health in the Workplace - Seeing that work-related stress affects one in four employees in Europe, EIT is working to improve workplace health at every level through better education, improved personal awareness and helping to make healthy choices easier
 - 6) Fostering Healthier Lives - Their goal is to encourage changes in lifestyle behaviours by creating tools and incentives for patients that help protect their health

<https://eithealth.eu/news-article/eit-to-support-eit-health-for-a-further-seven-years/> - August 25, 2022

- Following a comprehensive assessment, EIT confirmed the partnership agreement between EIT and EIT Health will continue for a further 7 years

<https://eithealth.eu/news-article/incephalo-ag-receives-eit-health-gold-track-grant/> - August 22, 2022

- InCephalo AG is a Switzerland-based preclinical biotechnology company founded in 2021 by leading experts in the field of brain cancer
- The company leverages its proprietary technology platform to develop compartment-locked (C-Locked) therapies that are tailor-made for local application for brain cancer
- InCephalo's platform aims to deliver therapies to offer better response rates, more prolonged survival and improved quality of life to patients with brain cancer
- InCephalo AG has received the competitive EIT Health Gold Track grant to expand its compartment-locked technology to novel targets to fight brain cancers
- The grant is financed by the Swiss State Secretariat for Education, Research and Innovation (SERI)

<https://eithealth.eu/news-article/estonian-healthtech-start-up-antegenes-raises-e2-3m/> - August 8, 2022

- EIT Health-supported start-up, Antegenes, has raised 2.3 million euros in funding to bring its innovative genetic tests for personalized cancer prevention into broader use in healthcare, scale the team and expand to new foreign markets
- Funding was received from investors, Enterprise Estonia and EIT Health
- Antegenes' novel genetic tests assess a patient's cancer risks and include clinical recommendations for further personalized cancer prevention
- Trials are based on innovative polygenic risk score technology, which helps to clarify an individual's genetic predispositions to cancer
- This allows for more accurate prevention and early detection measures, which is crucial in fighting cancer
- The tests are currently used to determine the genetic risk of four cancers, in breast cancer, prostate cancer, colon cancer, and skin melanoma
- Antegenes raised 1.6 million euros from investors in a seed round led by Pipedrive co-founder Timo Rein, Pipedrive's first investor Peep Vain and entrepreneurs Care Kurist and Andreas Henn Otsmaa
- The investments make it possible to bring personalized cancer prevention into wider use in healthcare including in new markets
- In addition, Antegenes has received 2 grants to bring research-intensive innovation to international healthcare
 - BRIGHT project, financed with 2.28 million euros by EIT Health, of which 500,000 euros is a grant to Antegenes
 - The project centers around Antegenes and the breast cancer genetic risk test AnteBC
 - The project aims to implement the AnteBC test in breast cancer precision prevention in Estonia, Portugal and Sweden, with further developments in Europe more broadly
 - The second grant is through the Norway Grants Green ICT programme, which supports business cooperation between Estonia and Norway
 - The goal of the 200,000 euro funding is to implement the breast cancer genetic risk test AnteBC as part of a breast cancer screening routine in Norway

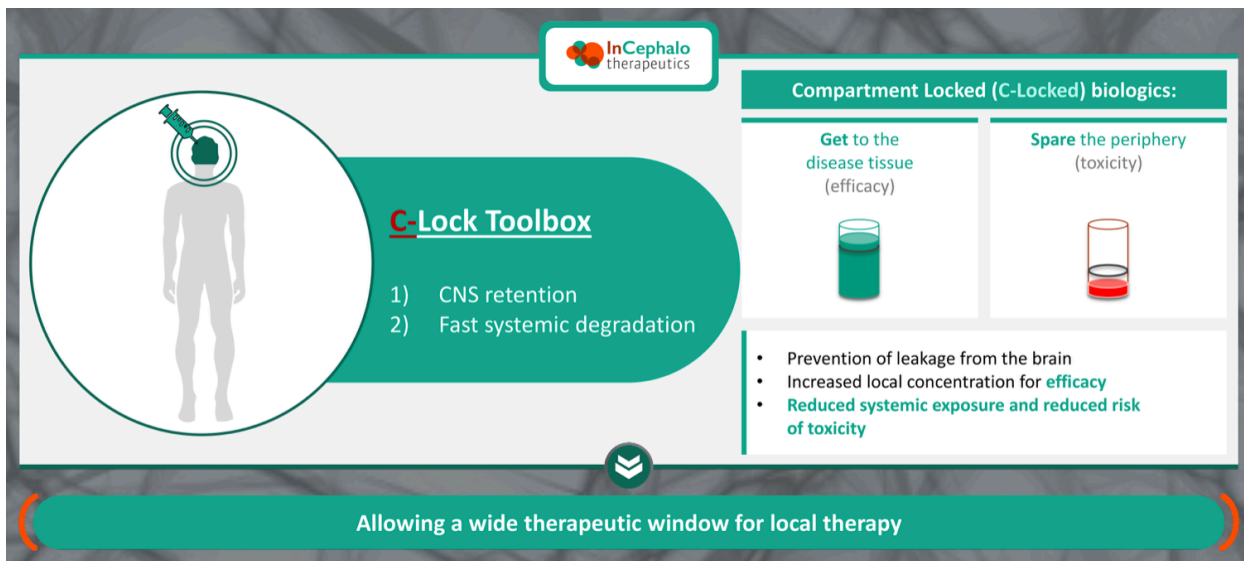
InCephalo Therapeutics - <https://incephalo.com/>

- InCephalo has positioned themselves as a CLocked Fc-Fusion Cytokine and antibody company
- The company develops exclusively local treatments for neurological diseases, with a focus on cancers in the brain
- The proprietary Compartment Lock technology, also called C-Lock, retains biologics, that are applied locally behind the blood brain barrier, in the central nervous system (CNS) and once they leave the CNS, degrades them rapidly in the systemic compartment

- This significantly improves local CNS therapy
- One of the biggest challenges for CNS (brain) therapies is getting the drug into the brain and for the drug to remain at high concentration at the disease site
 - There are currently 2 approaches by which biologics such as antibodies or Fc-Fusion molecules are being administered to the brain - either through (i) systemic application or (ii) local injection
 - The former's (i) most significant disadvantage is that over 99% of the drug does not enter the brain compartment and therefore possess a high risk of adverse effects in other places of the body
 - While (ii) locally applied drugs have a higher local concentration, they start to leak out of the brain compartment and, in particular biologics, can accumulate in the body
- InCephalo's approach



- InCephalo's Compartment Lock technology, also called C-Lock allows tailor-made molecules for local administration.
- These have two properties:
 - (i) they stay in the desired compartment for an extended period of time
 - (ii) if they leak, they are rapidly degraded.
- The combination of both properties will significantly reduce the drug's overall exposure to the body and allow for a higher local dosing window with considerably reduced chances for adverse events in other parts of the body
- The technology can be applied to antibodies, Fc-fusion proteins and similar biological drug formats



- C-Locked pipeline: InCephalo has an IP portfolio revolving around its Compartment Lock technology
 - This toolbox allows to create tailor-made molecules for local application of drugs behind the blood brain barrier
 - The drug discovery team is currently applying the C-Lock technology on a variety of established and promising new targets for novel therapies of cancers in the Brain
- First drug candidate - InC01: InCephalo's Compartment Locked IL-12 cytokine (InC01) is a locally applied biological drug candidate designed for the treatment of cancers in the brain
 - It was awarded Orphan Drug Designation by EMA
 - IL-12 is a potent proinflammatory cytokine and a master regulator of a robust anti-tumor immune response.
 - It can transform the "cold" immunosuppressive brain tumor microenvironment into an inflammatory "hotspot".
 - It has shown treatment efficacy in countless preclinical models alone or in various combination regimens and encouraging signs of efficacy in first-in-human trials.
 - In C01, InCephalo's C-Locked IL-12 cytokine is better retained at the tumor and if it leaks into the bloodstream, is rapidly degraded.
 - This expanded dosing window now allows physicians to use the optimal dose without the constraints of systemic toxicity.

Antegenes - <https://antegenes.com/>

- Antegenes is an innovative-oriented Estonian medical technology company founded in 2018
- They are a registered healthcare service provider of medical genetics, oncology and laboratory services in Estonia

- Antegenes uses high-tech polygenic risk score technology to assess one's genetic risk of developing common cancers
 - The polygenic risk score sums up information over hundreds to thousands of genetic variants in the human genome
 - By combining the polygenic risk score with a person's background, the task calculates a person's risk of developing cancer and provides medical advice on prevention and early detection
- All of their tests are registered with the Estonian Health Board on the basis of the *in vitro* Diagnostic Medical Devices Directive
- They also have a DNA upload service for cancer risk tests which accepts DNA data from 23andme, MyHeritage, Genes for Good, Ancestry DNA, Family Tree DNA or Estonian Genome Center

Types of test available

- 1) Genetic risk test of common cancers in women (includes risk assessment of breast cancer, colorectal cancer, and melanoma with medical recommendations)
- 2) Genetic risk test of common cancers in men (includes risk assessment of prostate cancer, colorectal cancer, melanoma with medical recommendations)
- 3) Genetic risk test for breast cancer (includes risk assessment of 2803 genetic breast cancer variants with medical recommendations)
- 4) Genetic risk test for prostate cancer (includes risk assessment of 121 genetic prostate cancer variants with medical recommendations)
- 5) Genetic risk test for colorectal cancer (includes risk assessment of 91 genetic colorectal cancer variants with medical recommendations)
- 6) Genetic risk test for melanoma (includes genetic consultation, risk assessment of 28 genetic melanoma variants with medical recommendations)

Services they offer

1) Post-genetic counselling

- After receiving the results, users have the opportunity to register for a post-test genetic counselling with Antegenes doctors
- During the consultation, the results of the analysis are explained on the basis of the test report and all questions are answered
- The consultation is conducted through Zoom - however, it is also possible to come to our clinic or get a telephone consultation

2) Pre-test genetic counselling

- Before ordering genet tests, users can register for a pre-test genetic counselling
- During the pre-test consultation, users can ask for more information about the tests
- Suitable tests are suggested and based on family history, the need to test for individual genes in hereditary tumours are also discussed



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3) Oncology consultation

- A consultation with an oncologist includes professional medical advice in the field of malignant tumors
- The consultation can include advice in the fields of prevention, genetic predisposition, diagnosis and treatment

Public Health Programs they Offer

- Breast cancer precision prevention program
- Prostate cancer precision prevention program
- Colorectal cancer precision prevention program
- Skin melanoma precision prevention program