

Category

Best Incubator, Accelerator, Equity

Program/Fund Name

AION Labs

Corporate Name

AION Labs

Date Of Creation

2020-10-12

Indications (if applicable)

NA

Therapeutic Categories (if applicable)

Drug discovery

History of the development of the fund / Incubators

AION Labs has emerged as a disruptive force in the biotech world, driven by a focused mission to revolutionize drug discovery and development through AI and computational biology. The consortium's inception goes back to December 2020 when it won an Israeli government tender to establish a unique innovation lab. The successful bid was made possible through the collaboration of renowned pharmaceutical leaders including AstraZeneca, Merck, Pfizer, and Teva, as well as influential players in the hi-tech and biotech investment sphere, Amazon Web Services Inc. (AWS), and Israel Biotech Fund (IBF).

The establishment of AION Labs came in response to the identification by the Israel Innovation Authority of life sciences as a pivotal area for growth potential and investment. Recognizing the immense value that AI and computational biology bring to the field, the consortium was formed with a clear purpose – to create and invest in early-stage start-up teams that are dedicated to leveraging these technologies in the pursuit of innovative drug discovery and development solutions.

With its emphasis on AI and computational biology, the consortium is focused on spearheading a transformative shift in drug discovery practices. By harnessing the power of artificial intelligence and leveraging the scale and security of the cloud, AION Labs' start-ups are reimagining the drug discovery process, enabling faster and more efficient identification of potential treatments.

In just a short period, AION Labs has already made significant strides in fulfilling its mission. The consortium successfully established its first two start-ups in 2022 – OMEC.AI and DENOVAI. OMEC.AI is building a next-generation computational platform that can both identify hidden safety liabilities and lack of efficacy for drug candidates, and suggest experiments to close the identified gaps. DenovAI focused on de novo design of strongly binding antibodies directed towards epitopes of choice. These pioneering ventures serve as testament to the efficacy of AION Labs' approach and the transformative potential of AI and computational biology in drug discovery and development.

AION Labs' commitment to advancing healthcare towards patient-centric precision medicine has set it

apart from traditional approaches. By harnessing AI and computational biology, the consortium's start-ups are paving the way for personalized treatments tailored to individual patients' unique characteristics and needs. This shift towards precision medicine promises to revolutionize healthcare outcomes, enabling more effective and targeted therapies.

Focus

AION Labs stands at the forefront of a biotechnological revolution, harnessing the transformative potential of gateway AI and computational technologies to revolutionize the landscape of drug discovery and development. The consortium is dedicated to investing in and nurturing early-stage start-up teams that specialize in AI and computational biology, empowering them to develop novel technologies that confront the pressing challenges faced by the pharmaceutical industry.

In an era marked by exponential growth in data and the ever-increasing complexity of diseases, traditional drug discovery methods struggle to keep pace. AION Labs recognizes this critical need for innovation and offers a disruptive solution: the convergence of artificial intelligence and computational power. By leveraging the remarkable capabilities of AI and harnessing the scalability of cloud technology, its start-ups are uniquely positioned to accelerate the identification and development of new treatments with unrivaled speed and efficiency.

AION Labs believes that patient-centric precision medicine represents the future of healthcare. Its focus on integrating AI into drug discovery enables it to delve into vast amounts of complex data, unlocking hidden patterns, and revealing novel therapeutic targets that were previously obscured. By exploiting cutting-edge algorithms and machine learning techniques, its start-ups aim to rapidly analyze genetic, proteomic, and clinical data, unraveling the intricacies of diseases and identifying personalized treatment approaches that offer superior efficacy and minimized side effects.

The impact of AION Labs' approach on the biotech world is far-reaching. By nurturing and supporting early-stage start-ups, it empowers visionary entrepreneurs and brilliant scientists to pursue their groundbreaking ideas and turn them into tangible advancements. Through strategic investments and comprehensive support system, it fosters an environment that encourages risk-taking and innovation, enabling its start-ups to push the boundaries of what is possible.

The achievements of AION Labs extend beyond the theoretical realm. By collaborating with academic institutions, healthcare providers, and industry leaders, its start-ups are translating their AI-powered discoveries into tangible therapeutic interventions. From identifying promising drug candidates to optimizing clinical trial design and prediction of drug responses, their technologies have the potential to revolutionize the entire drug development pipeline, reducing costs, and shortening the time required to bring life-saving treatments to patients in need.

Moreover, the impact of AION Labs extends beyond individual start-ups and reverberates throughout the biotech community. It actively fosters collaboration and knowledge-sharing among its portfolio companies, encouraging the exchange of ideas and the formation of synergistic partnerships. By nurturing a vibrant ecosystem of innovation, it facilitates the collective advancement of the entire biotech industry, fostering a culture of excellence, and driving transformative change.

How do you address your portfolio needs

AION Labs is disrupting the biotech world with its unique approach, addressing portfolio needs through a comprehensive and impactful innovation model. By implementing three key pillars, AION Labs ensures that it not only identifies unmet needs in the pharmaceutical industry but also nurtures and supports the brightest scientific and tech talent to address these challenges.

First and foremost, AION Labs proactively identifies significant unmet needs within the pharmaceutical industry that can be effectively addressed through computational technology. This

approach allows the consortium to pinpoint areas where innovation can have a transformative impact on patients worldwide. The AION Labs Investment Committee, comprising R&D leaders from both pharmaceutical and computational cloud-tech partners, plays a pivotal role in this process. Working in collaboration, they evaluate proposed challenges put forth by the partners' R&D teams and select the most promising ones.

Secondly, AION Labs harnesses the power of crowdsourcing to assemble the best scientific and tech talent from around the globe. By reaching out to a diverse range of individuals, AION Labs ensures that it taps into a vast pool of knowledge and expertise. To support these emerging startups, the consortium leverages its extensive network of investors and industry experts. This mentorship program facilitates the growth and development of the selected teams by providing invaluable guidance and support. AION Labs nurtures these startups by creating an environment that fosters collaboration and innovation.

Finally, AION Labs takes a long-term and strategic approach to back the chosen teams in their journey towards success. By providing a period of up to four years of support, AION Labs allows the startups ample time to develop their technology and build their companies. The first two years are dedicated to the initial development phase, enabling the teams to refine their ideas and establish a strong foundation. During this time, they benefit from the resources and expertise offered by AION Labs and its pharma partners.

The next two years focus on validating the technology in collaboration with the pharma partners. This collaborative approach ensures that the startups' solutions align with industry requirements and have real-world applicability. AION Labs facilitates this validation process, leveraging its extensive network and industry connections to provide the startups with the necessary resources and opportunities to showcase their innovations.

AION Labs' rigorous bootcamp serves as a critical evaluation phase for the selected teams. This intensive program assesses various criteria, including the proposed technology and science, the team's approach to solving the challenge, their leadership capabilities, and their coachability. By placing a strong emphasis on these aspects, AION Labs ensures that the chosen startups have the potential to make a significant impact in the biotech world.

Impact / metrics to measure success

AION Labs is not just a typical incubator; it is a catalyst for revolutionizing the biotech industry. Its mission is to empower scientist-founders with the resources, guidance, and opportunities they need to create groundbreaking AI-based biotech technologies that have a profound impact on human health. It believes that the convergence of artificial intelligence and biotechnology has the potential to unlock unprecedented possibilities, and AION Labs is at the forefront of this transformative movement.

Its success is measured by two key performance indicators that reflect its commitment to excellence. Firstly, it strives to attract and onboard exceptional scientist-founders who possess the visionary mindset and technical expertise to tackle the most pressing challenges in the biotech field. It recognizes that these individuals are the driving force behind disruptive innovation, and by providing them with a supportive ecosystem, it enables them to realize their entrepreneurial dreams.

Secondly, AION Labs is dedicated to providing comprehensive mentoring and support to its startups throughout their journey. It understands that transforming groundbreaking ideas into successful companies requires more than just financial backing. That is why it offers a carefully curated network of industry-leading mentors, advisors, and investors who are deeply invested in the success of its startups. Its mentorship program is designed to guide scientist-founders through the intricate process of technology development, regulatory compliance, market validation, and commercialization strategies. By leveraging its extensive network, AION Labs connects its startups with key stakeholders

and potential strategic partners, accelerating their growth trajectory.

By the end of the AION Labs program, its startups are poised for independent success. They have not only developed a functional technology platform but also validated its effectiveness through rigorous scientific evaluation. Armed with this solid foundation, its scientist-founders are well-positioned to secure further funding and scale their operations independently.

Why your model is innovative, and/or how it will improve the human condition?

At the core of AION Labs' mission is the utilization of cutting-edge AI technologies to reshape the process of drug discovery and development, ultimately enhancing the health and well-being of all people worldwide. By harnessing the power of artificial intelligence, AION Labs aims to tackle the most pressing challenges in pharmaceutical research and development, ultimately revolutionizing the way new medicines are discovered, tested, and brought to market.

One of the key strengths of AION Labs lies in its unique multidisciplinary innovation model. By bringing together diverse expertise from both the pharmaceutical and tech industries, the lab creates an ecosystem that fosters collaboration, creativity, and problem-solving. Through this model, AION Labs provides early-stage start-ups with unparalleled resources, mentorship, and guidance, empowering them to tackle the most acute and significant challenges in the pharmaceutical industry. Additionally, AION Labs hosts a highly sought-after five-day intensive "boot camp" four times a year. During this boot camp, fifteen top scientists and computational biologists collaborate to solve a specific research and design challenge that is directly relevant to the current landscape of the pharma industry. From the pool of talented participants, AION Labs selects a founder and invests in their early-stage start-up team, further fueling the development of groundbreaking ventures.

The driving force behind AION Labs is the belief that true innovation flourishes through collaboration. By bringing together leading pharmaceutical and tech brands, AION Labs leverages the collective expertise, resources, and perspectives of its partners to build groundbreaking AI ventures. Through cloud-based solutions and advanced AI algorithms, AION Labs seeks to transform the drug discovery and development process, unlocking new possibilities for the creation of life-changing medicines. Partnership with AION Labs presents a powerful opportunity for top pharmaceutical and tech companies to accelerate the development of meaningful breakthroughs that have the potential to reshape the lives of patients. By pushing the boundaries of R&D, AION Labs is positioned to unravel the greatest challenges facing the industry, paving the way for innovative approaches to drug discovery, testing, and delivery.

The potential impact of AION Labs on the biotech world is vast and far-reaching. The lab's commitment to pushing the boundaries of innovation and collaboration has the potential to unlock a new era of intelligent, patient-centric healthcare. With each breakthrough, AION Labs brings us one step closer to a future where groundbreaking medicines are developed faster, more efficiently, and with a profound positive impact on humanity.

AION Labs is a catalyst for transformative change in the biotech industry. Through its innovative AI technologies, multidisciplinary approach, and collaborative partnerships, AION Labs is poised to redefine the drug discovery and development landscape, revolutionizing healthcare and improving the human condition on a global scale. The promise of AION Labs is immense, and its potential to reshape the future of biotech is unparalleled.

Please provide appropriate references (Examples / Case Study)

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