

Zentek Reports Improvements and Expansion of its Aptamer-Based Platform Technology

written by Raj Shah | November 15, 2023

November 15, 2023 ([Source](#)) – **Zentek Ltd.** (“Zentek” or the “Company”) (Nasdaq:ZTEK)(TSX-V:ZEN), an intellectual property technology development and commercialization company announces the development of a significant upgrade to its aptamer platform improving the binding affinity of the universal Covid-19 aptamer from 300 to over 500 times, compared to the base aptamer. The improved platform has also solved key challenges for manufacturing and these High-Binding Affinity (HBA) aptamers are now produced with approximately a 95% yield. A key roadblock of translating a promising lead candidate (lab-scale therapeutic) into a commercial product is cost-effective and high-purity manufacturing. Solving production at this early stage of the development program is essential for successful clinical trials and the lower manufacturing costs and high yields should translate into a competitive advantage over many existing therapies. The Company has filed a new provisional patent to protect this latest innovation.

As Zentek has been engaged with industry experts regarding the platform innovation, there has been consistent feedback that the greatest potential for the aptamer platform is towards precision therapy which is currently dominated by monoclonal antibodies. Zentek and their partners at McMaster University will be exploring oncology and immunology research.

A pharmaceutical industry study by Dr. Wouters from the London School of Economics and Political Science calculated that between 2009-2018, the cost for a new potential therapeutic to

complete pre-clinical trials was \$237M USD without factoring any costs resulting from drug failure.[1] The Zentek HBA aptamer for SARS-CoV-2 has demonstrated strong therapeutic potential through four different animal tests and is at the current stage of development for a total cost of less than \$2,000,000. Zentek estimates that an additional \$1.0 million will be required to complete the pre-clinical program for the SARS-CoV-2 therapeutic and enter clinical trials. Zentek believes these significant cost and timeline advantages are inherent to the Aptamer Platform technology and will be transferable to other aptamer-based medicines. In addition, increased binding affinity, greater bioavailability without the need for polyethylene glycol (PEG) and high-yield manufacturing of HBA aptamers may lead to therapeutics with performances that are comparable to or outperforming their monoclonal antibody counterparts. There are already many aptamer-based therapies in development globally and Zentek's platform technology could potentially be a plug and play addition to these that could improve their performance.

Zentek CEO Greg Fenton commented: "The power of Dr. Li's aptamer innovation could provide for a rapid, robust, and economic pathway for new drug discovery across numerous areas of interest, including infectious disease, oncology, immune and neurological disorders. We continue to be surprised at the results generated by the Li Lab and look forward to capitalizing on their success as we transition into a new commercialization and partnership strategy".

Zentek has added significant experience from the pharmaceutical industry to its Board of Directors by adding Mr. John Snisarenko. Mr. Snisarenko brings 35 years of specialty pharmaceutical, medical device and commercialization experience spanning from start-up to large pharmaceutical and biotech companies, including 15 years in the United States in executive positions with Genentech and Shire. Mr. Snisarenko was also a

key member of the Genentech/Novartis Global Alliance Partnership for Lucentis in ophthalmology. Mr. Snisarenko will be instrumental as Zentek is building its strategy for the Aptamer Platform to resonate with the pharmaceutical industry. His deep knowledge of the industry and the relationships he has built over 35 years will be a strategic resource as Zentek implements this next phase of outreach and partnership engagement.

Zentek Independent Director, John Snisarenko added: “I am excited to join Zentek’s Board at this important juncture in the company’s evolution. The applicability of the new HBA aptamer platform holds great promise in future drug development in many therapeutic areas.”

For those interested in a summary of the SARS-CoV-2 therapeutic results to date, we direct your attention to the presentation of Dr. Matthew Miller at Zentek’s 2023 Annual General Meeting at the following: https://www.youtube.com/watch?v=hqDvcMK6_BQ or you can find it on the landing page at www.zentek.com.

The Company is not making any express or implied claims that its aptamer technology has the ability to eliminate, cure or contain the Covid-19 (or SARS-2 Coronavirus) at this time.

About Zentek Ltd.

Zentek is an ISO 13485:2016 certified intellectual property technology company focused on the research, development and commercialization of novel products seeking to give the company’s commercial partners a competitive advantage by making their products better, safer, and greener.

Zentek’s patented technology platform ZenGUARD™, is shown to have 99-per-cent anti-microbial activity and to significantly increase the bacterial and viral filtration efficiency of both surgical masks and HVAC (heating, ventilation, and air

conditioning) systems. Zentek's ZenGUARD™ production facility is located in Guelph, Ontario. Zentek's patent pending ZenARMOR™ technology platform is focused on corrosion protection applications.

Zentek has a global exclusive license to the Aptamer-based platform technology developed by McMaster University which is being jointly developed by Zentek and McMaster for both the diagnostic and therapeutic markets.

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To find out more about Zentek, please visit our website at www.Zentek.com. A copy of this news release and all material documents in respect of the Company may be obtained on Zentek's SEDAR+ profile at <http://www.sedarplus.ca/>.

Forward-Looking Statements

This news release contains forward-looking statements. Since forward-looking statements address future events and conditions, by their very nature they involve inherent risks and uncertainties. Although Zentek believes that the assumptions and factors used in preparing the forward-looking information in this news release are reasonable, undue reliance should not be placed on such information, which only applies as of the date of this news release, and no assurance can be given that such events will occur in the disclosed time frames or at all. Zentek disclaims any intention or obligation to update or revise any forward-looking information, whether as a result of new

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[1] <https://jamanetwork.com/journals/jama/fullarticle/2762311>

SOURCE: Zentek Ltd.