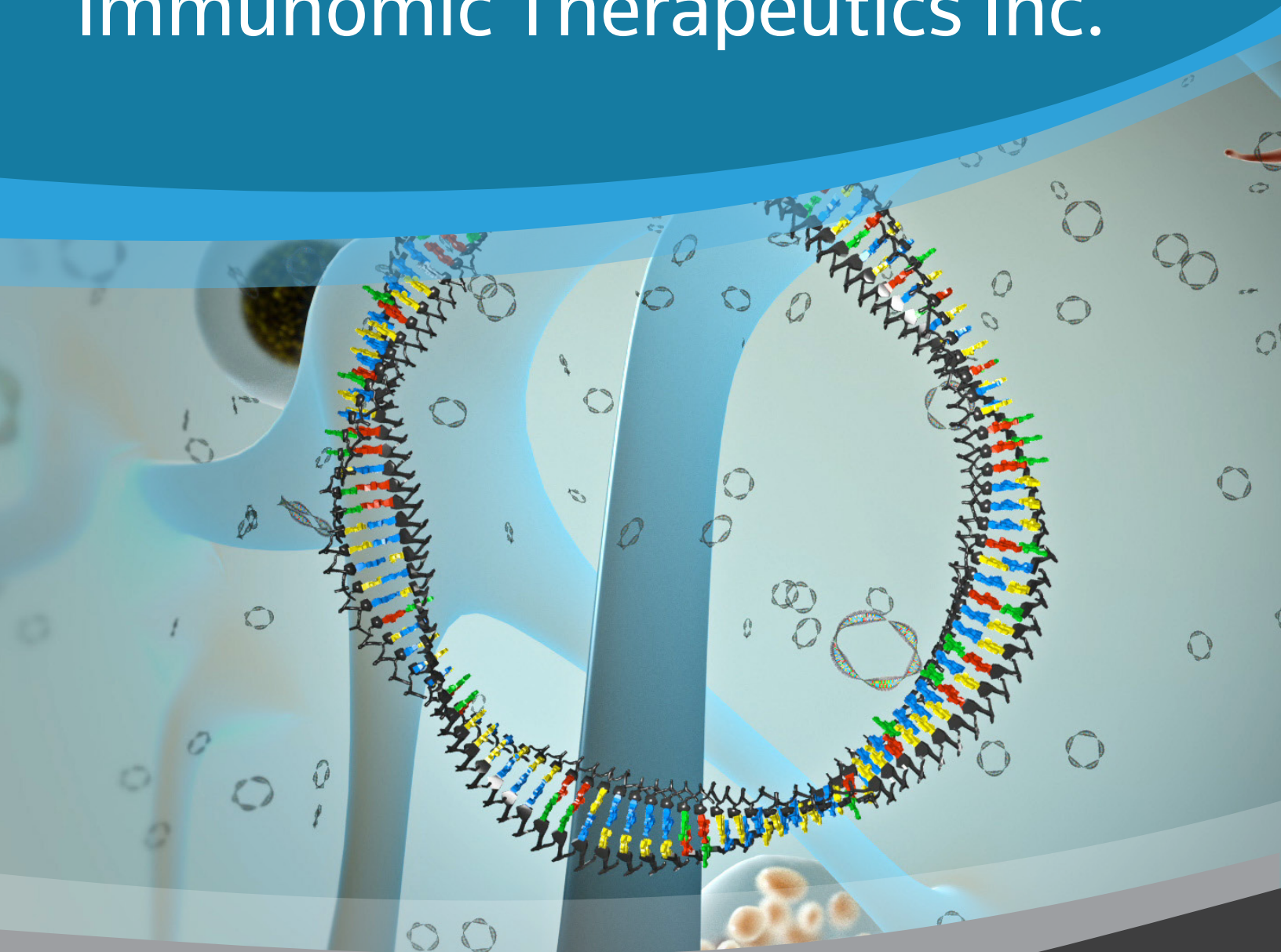
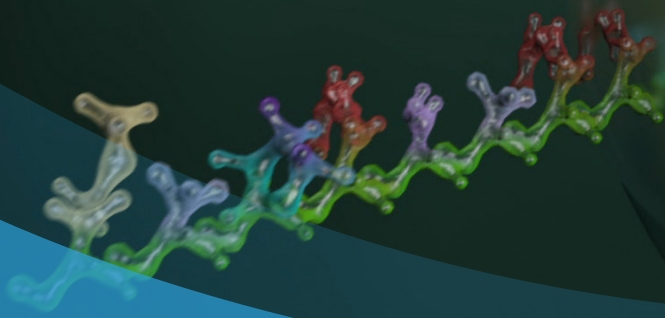


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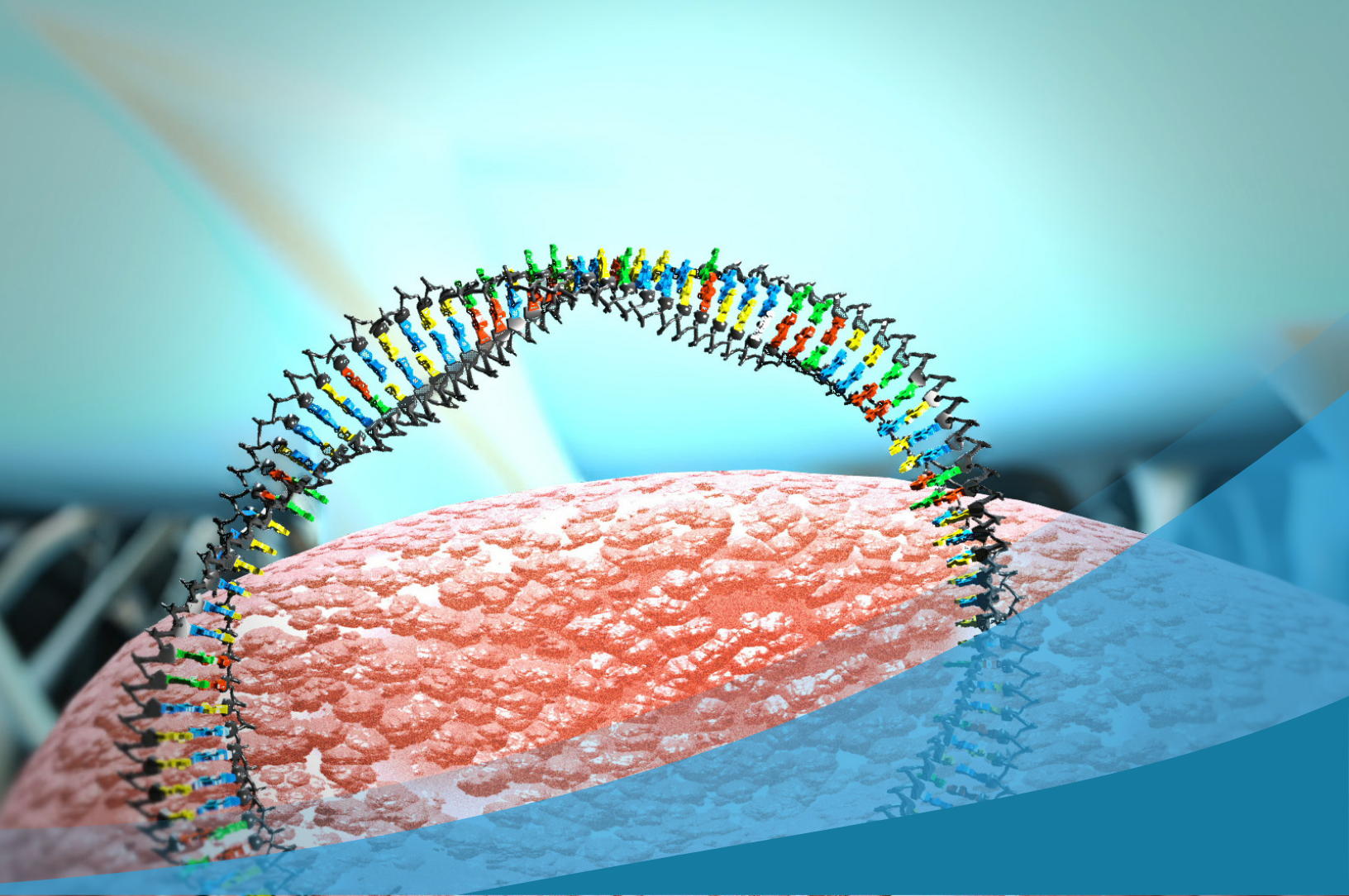
THE REMARKABLE SCIENCE BEHIND LAMP TECHNOLOGY – AND ITS POTENTIAL TO TREAT HUMAN DISEASE

The body's own immune system is its best defense against everything from allergies to cancer – especially when its awesome power is guided directly to the source of the disease. Lysosomal-associated membrane protein, better known as LAMP, plays a key role in providing that guidance and Immunomic Therapeutics Inc. (ITI) has unlocked the secret to making it work. Indeed, ITI is now using LAMP technology to focus the immune system to fight the crippling effects of multiple allergens. And it may someday be a powerful new tool in the fight against infectious diseases and several human cancers.

LAMP's function is both remarkably complex and staggeringly simple.

Here's the complex part: LAMP is a glycoprotein found on the lysosomal membrane of antigen-presenting cells. ITI uses LAMP as a nucleic acid coding sequence added to DNA- and RNA-based vaccines. Once added, LAMP essentially gives the immune system instructions on how to respond to the vaccines. It accomplishes that by diverting the vaccines' synthesized protein products directly to the lysosome in antigen-presenting dendritic cells, making them more available to form antigen-MHC-II complexes. Upon vaccination with LAMP, its DNA plasmid travels into the nuclei of targeted cells. There, the encoded DNA sequences are transcribed and translated into the antigenic protein. In effect, LAMP talks directly to helper T cells, which leads to the production of antibodies and Th1 cytokines, while also activating enhanced CD8+ cytotoxic T cells.

Now for the simple part: "We couldn't get nucleic acid-based immunotherapy to work properly in the past," explains William Hearl PhD, CEO at ITI, "because the DNA gets lost in the shuffle. LAMP points it in the right direction." That was hard to explain to the investor community early on, Hearl adds. "I like to look at it as though LAMP is like a traffic cop inside the cell," he says, "guiding the important part of the nucleic acid to the exact location where it does its best work. If you can't have an effective conversation with your immune system, you can't have success. LAMP enables a clear conversation." Teri Heiland PhD, Vice President, Research and Development, at ITI, adds that "what's remarkable is we don't have to create individualized vaccines. LAMP is a platform that should work for every individual, no matter what the antigen is."



NUCLEIC ACID-BASED IMMUNOTHERAPY OPENS THE DOOR TO NEW TREATMENT PATHWAYS

Nucleic acid-based immunotherapies are unfamiliar to many, even in the scientific community. But they're not that complicated to understand, says Teri Heiland PhD, Vice President, Research and Development, at Immunomic Therapeutics Inc. Basically, they're composed of DNA or RNA, and they're either injected into the skin intradermally or intramuscularly. Once inside the targeted cells, those cells essentially synthesize the protein the vaccines have coded. For its part, LAMP simply modulates the immune response to the nucleic acid.

Nucleic acid vaccines were discovered, like so many critical technologies, almost by accident. They use information in the targeted organism – whether a bacterium or virus or allergen – and let the patient make a vaccine inside his or her own cells, rather than purifying or killing bacteria or attenuating viruses. “It’s an intriguing mechanism,” Heiland points out. “We’re slowly building up to their use in humans. Now we have approved uses in animals, and we’re on the cusp of breaking through with humans.” Indeed, nucleic acid-based immunotherapies are being examined as options for better and safer treatments for allergies and less-toxic cancer therapies. As Heiland says, “They’re easier, more scalable, less expensive and logistically simple.”

EXPANSION OF LAMP TECHNOLOGY TO OTHER CONDITIONS PRESENTS DON'T-MISS-OUT PARTNERING, INVESTMENT OPPORTUNITIES

Immunomic Therapeutics Inc. is poised to move in multiple financial directions as it continues to leverage its proprietary lysosomal-associated membrane protein (LAMP) technology into medical markets outside allergies – markets totaling billions of dollars. ITI commercialized research at Johns Hopkins University in 2006 and used it to develop LAMP-Vax. By 2015, allergy rights had already been purchased by Japan-based Astellas Pharma Inc. That company is working to develop an immunotherapy against Japanese red cedar allergy, a huge problem on the island, then will move into research on peanut allergies. The JRC allergy treatment was in the proof of concept phase when Astellas bought the rights – and the data looked good. The data looked so good, in fact, that a follow-up global marketing and development deal with Astellas captured \$300 million upfront plus 10% of future net sales.

“We’re in a good position to move forward with different platform applications, like cancer,” comments Teri Heiland PhD, ITI’s Vice President, Research and Development. “That’s what’s good about LAMP-based immunotherapy. It’s broadly applicable and works with infectious diseases and oncology.” ITI, she adds, “could opt to raise money based on that 9-figure deal with Astellas or move forward with our own product based on the financial rewards we already have. Right now, we’re developing a robust strategy to go into oncology that will get vaccines into clinics as quickly as possible. This may involve internally developing a product or collaborating with outside sources – or potentially a hybrid of both.”

Expansion beyond allergies became part of the plan, notes William Hearl PhD, CEO at ITI, when the proof of concept data for the JRC allergy turned out so well, showing LAMP’s potential to direct and focus the immune system against a particular antigen. “We realized when we started with the LAMP platform that we had something that could be applied broadly,” he explains. “We started with allergies and now we’re ready to move additional projects forward.” Indeed, he adds, ITI has maintained relationships with some academic partners in the background for the last couple of years. “Now we see oncology as something that, with the right strategic partners and investors, could play out like the Astellas deal,” he says. “Every company needs fuel. We’re in a good position to put more gas in the tank and go even faster than we have in the past.” Ultimately, he says, an initial public offering “or something like a high-level equity placement” later this year or early 2017 makes sense.



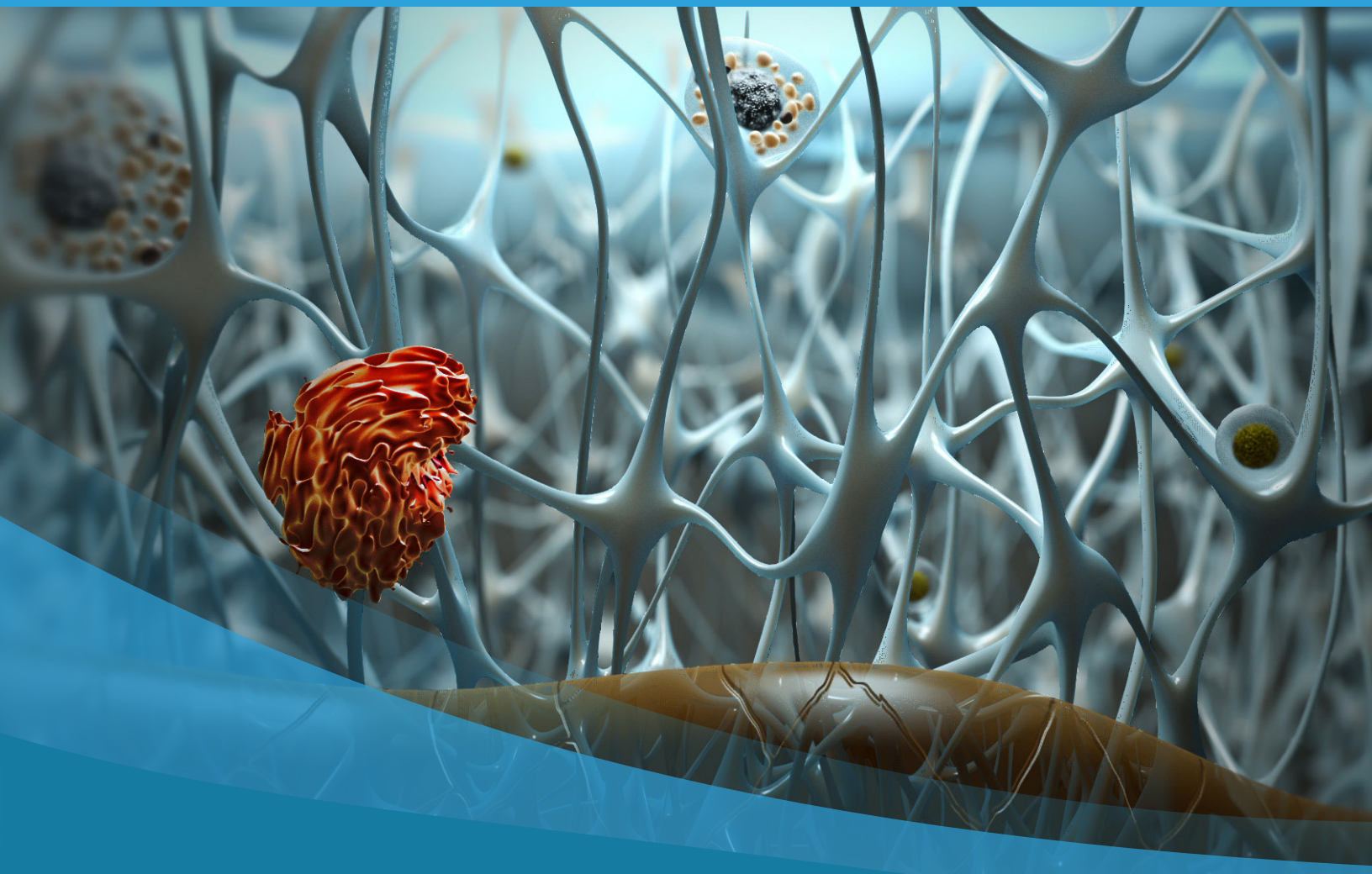
LAMP-Based Immunotherapy guides a specific antigen for presentation to the T-cell to modulate the immune response

REALITIES OF NUCLEIC ACID-BASED IMMUNOTHERAPY OVERCOME PAST MISCONCEPTIONS

Smart investors don't miss exciting opportunities because of outdated assumptions about technology. The fact is, evidence continues to mount that nucleic acid vaccines work like they're designed to. LAMP technology has been incorporated into the design of several DNA and RNA vaccines that have been tested in clinical trials with hundreds of patients and have been shown to enhance the human immune response. It's time to abandon long-held impressions about allegedly poor human immunogenicity and to put aside no-longer-relevant concerns among European and Asian regulators over safety issues related to integrating DNA vaccines into a host's genome.

There's always a learning curve, explains Teri Heiland PhD, Vice President, Research and Development, at Immunomic Therapeutics Inc. "We know a lot more about nucleic acid vaccines in general," she says. "We know they work very well in mice. And while we haven't seen that in humans yet, a number of companies are close. In fact, many companies are seeing success in clinical trials."

Part of the problem early on, adds William Hearl PhD, CEO at ITI, was when the power of nucleic acid vaccines was discovered, "people immediately went after the most difficult applications because they thought we had a straightforward route to success." At the time, about 85% of DNA vaccine work was in the field of HIV. "Now, 30 years after the discovery of HIV, we still don't have a vaccine," he adds. "It proved to be such a difficult challenge in HIV that we failed to pursue targets that were achievable." Today, companies are taking a more common sense approach and applying nucleic acid vaccines to areas where success is possible. Says Hearl: "The outlook for this platform is extraordinarily bright."



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