



Genprex

GENPREX CORPORATE UPDATE

April 2020

Dear Shareholders:

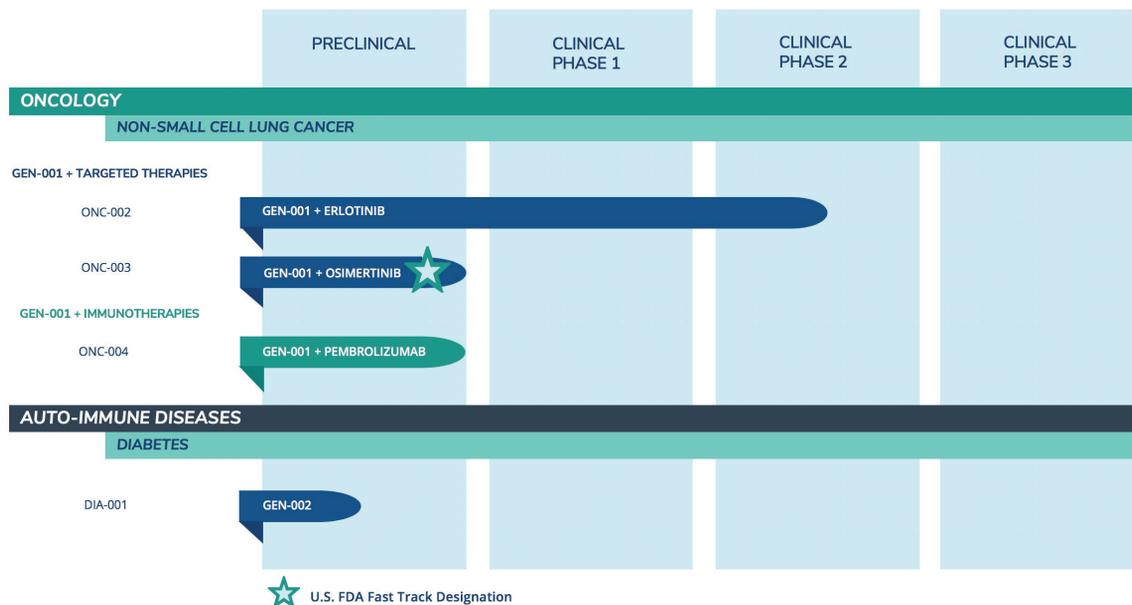
As co-founder, Chief Executive Officer, and Chairman of the Board of Genprex, Inc. (Nasdaq: GNPX), I am honored to lead a company in an industry that is fundamentally changing the course of medicine and, in many cases, curing some of the world's most devastating illnesses. In January 2020, a *Scientific American* article entitled "Gene Therapy Arrives" proclaimed, "After nearly half a century, the concept of genetic medicine has become a reality."

We believe our near-term future could be transformational in many respects, particularly because in recent months we have:

- Received Fast Track Designation (FTD) from the Food and Drug Administration (FDA) for our immunogene therapy for cancer, Oncoprex™, in combination with osimertinib for the treatment of patients with non-small cell lung cancer (NSCLC). Osimertinib is better known as Tagrisso® (marketed by AstraZeneca), a first-line treatment for patients with NSCLC and AstraZeneca's best-selling drug with more than \$3 billion in 2019 worldwide sales.
- Signed an exclusive license agreement with the University of Pittsburgh for a preclinical diabetes gene therapy candidate that has the potential to cure Type 1 and Type 2 diabetes.
- Obtained encouraging preclinical data from our collaborators and independent third parties for the TUSC2 gene, the active agent in Oncoprex, in lung cancer and triple-negative breast cancer.
- Raised more than \$26 million in gross proceeds from institutional investors, predominantly at market and without attached warrants. This accomplishment has significantly strengthened our balance sheet and provides us with an operational runway through at least the next 24 months.

Our planned initiatives ahead include:

- Initiating a Phase I/II clinical trial in late 2020 or early 2021 evaluating Oncoprex in combination with Tagrisso in NSCLC patients with epidermal growth factor receptor (EGFR) mutations whose disease progressed after treatment with Tagrisso alone.
- Preparing to file an Investigational New Drug application to initiate a clinical trial of Oncoprex in combination with pembrolizumab (marketed by Merck as Keytruda®) in NSCLC.
- Completing scale-up of our manufacturing process for Oncoprex.
- Exploring new cancer indications with Oncoprex outside of NSCLC.
- Continuing to collaborate with The University of Texas MD Anderson Cancer Center (MD Anderson).
- Exploring opportunities to partner our existing programs and in-license other technologies to further expand our pipeline.
- Optimizing our diabetes gene therapy program with additional preclinical development.



We are excited to execute on our business plan to navigate Oncoprex through the clinical and regulatory channels with the goal of bringing it to market for the benefit of lung cancer patients who are desperately in need of new treatment options. Lung cancer is the world’s leading cause of cancer death. Each year, there are 1.7 million deaths from lung cancer worldwide. Importantly, NSCLC accounts for 84% of all lung cancers. We believe the execution of our clinical strategy will maximize shareholder value and move Genprex closer to commercialization.

During this period of economic and global uncertainty due to COVID-19, it’s more apparent than ever how crucial medical science is to societies across the world. Despite the challenges this pandemic has presented, we will stick firmly to our corporate mission to develop potentially life-changing gene therapies for patients with both cancer and diabetes, which collectively affect hundreds of millions of people today. At Genprex, we believe our therapies offer a strong value proposition to the market to address unmet medical needs and save lives.



1.7 million deaths from lung cancer worldwide

84%

NSCLC accounts for 84% of lung cancers

2019 - A LOOK BACK

Much of our 2019 operational focus was devoted to scaling up our manufacturing process to support planned clinical trials, shifting away from the small-scale academic setting at MD Anderson.

As we announced last fall, we successfully completed the manufacture of an additional batch of TUSC2 plasmid DNA, the tumor suppressor gene missing or reduced in more than 80 percent of lung cancers. TUSC2 is the active ingredient in Oncoprex. We also initiated programs with additional contract manufacturing organizations to manufacture our lipid nanoparticle, the small sphere that acts as a delivery vessel for the plasmid containing the TUSC2 gene. We expect to manufacture Oncoprex using commercial contractors to support our future clinical trials.

Meanwhile, our ongoing preclinical research collaboration with MD Anderson produced important new data that was reported in 2019:

- In April 2019, our collaborators at MD Anderson presented preclinical data for the combination of TUSC2, the active agent in Oncoprex, with pembrolizumab (Merck's Keytruda®), demonstrating that TUSC2 combined with checkpoint blockade was more effective than checkpoint blockade alone in increasing the survival of mice with human immune cells (humanized mice) that had metastatic lung cancer.
- In November 2019, our collaborators at MD Anderson presented preclinical data for the combination of TUSC2, pembrolizumab and chemotherapy for the treatment of some of the most resistant metastatic lung cancers. This study showed that the addition of TUSC2 increases the effectiveness of pembrolizumab and chemotherapy and, thus, may improve on first-line standard of care for lung cancer.
- In September 2019, an article by independent researchers published in *Nature* reported that the TUSC2 gene may prevent tumor growth in triple-negative breast cancer (TNBC), a cancer with very limited therapeutic options, poor prognosis, and high mortality rates. Roughly 12% of women in the U.S. will develop invasive breast cancer over the course of their lifetimes, and TNBC accounts for approximately 10-20% of all breast cancer cases.

Moving beyond 2019, in January 2020, independent researchers reported preclinical data showing that TUSC2 may be a potential target and biomarker for thyroid cancer. Approximately 50,000 patients in the U.S. were diagnosed with thyroid cancer in 2019. Preclinical data suggest that TUSC2 may also be effective against glioblastoma, head and neck cancer, kidney cancer and soft tissue sarcomas.

While our current focus with Oncoprex is in NSCLC, we believe the opportunities to address many other cancer indications could be significant. Our work in 2019 laid the groundwork and infrastructure to support our plans for 2020. I am very proud of all that we have accomplished in 2019 and believe that our achievements will help make an impact on those affected by cancer.

2020 IS OFF TO A “FAST” START WITH ONCOPREX

In January 2020, we announced that the FDA granted Fast Track Designation for Oncoprex in combination with epidermal growth factor receptor (EGFR) inhibitor Tagrisso (osimertinib) for the treatment of NSCLC patients with EGFR mutations whose disease progressed after treatment with Tagrisso alone. Tagrisso is Astra-Zeneca's highest grossing product with more than \$3 billion in worldwide sales in 2019.

Generally, FTD is awarded by the FDA to drug candidates that demonstrate the potential to address an unmet medical need for a serious or life-threatening disease in order to facilitate the development and regulatory review of such drug candidates. Given the FTD designation and Ta-



Global market for lung cancer therapeutics is projected to grow from \$17.9 billion in 2018 to \$26.3 billion by 2023

grisso's status as the current standard of care in EGFR-mutated NSCLC, we have prioritized the clinical development of Oncoprex in combination with Tagrisso, and we plan to initiate a Phase I/II trial for this combination in late 2020 or early 2021. We believe this regulatory pathway positions us best in the approximately \$17.9 billion global lung cancer market, especially given the advantages from the FTD status.

We also are preparing for an additional combination therapy clinical trial in NSCLC evaluating Oncoprex with Keytruda (pembrolizumab), which generated \$11.1 billion in worldwide sales in 2019. Keytruda is the standard of care in non-EGFR mutated NSCLC. Put another way, Keytruda and Tagrisso are each first-line treatments in their respective subsets of the NSCLC patient population.

We look forward to generating data from these clinical trials investigating Oncoprex in combination with leading oncology agents and believe encouraging results could generate significant value for our shareholders.

A NEW DRUG CANDIDATE FOR A NEW INDICATION

In February 2020, we signed an exclusive license agreement with the University of Pittsburgh for a potentially curative gene therapy candidate for both Type 1 and Type 2 diabetes, which together affects approximately 10% of the U.S. population, or more than 34 million people. In preclinical studies of diabetic mice, our gene therapy approach reprogrammed pancreatic cells to restore normal blood glucose levels for approximately four months, which, according to the lead researcher, could translate to decades in humans. If successful, this gene therapy could also eliminate the need for insulin replacement therapy for diabetic patients.



One in ten Americans are affected by Type 1 or Type 2 diabetes

We plan to pursue strategic partnerships for the development of this gene therapy both domestically and internationally. A Phase I trial for this gene therapy could be the first-ever gene therapy tested in humans for diabetes. *Fortune Business Insights* projects the global diabetes drugs market will grow from \$48.8 billion in 2018 to \$78.2 billion by the end of 2026.

A STRENGTHENED CASH POSITION

Our progress over the past few months has enabled us to raise more than \$26 million in gross proceeds from institutional investors in three separate equity financings since November 2019, with over \$25 million of this capital raised in 2020 at market and with no warrants attached. We expect that our existing cash and marketable securities will be sufficient to fund our operations through at least the next 24 months.

REBRANDING ONCOPREX

We have developed a branding strategy for our lead drug candidate, Oncoprex, and in 2019 we initiated the first phase of rebranding Oncoprex with the development and submission of non-proprietary drug name selections to the American Medical Association's United States Adopted Names Council for approval. We plan to use the recognized name of Oncoprex to brand our proprietary oncology technology platform.

FINAL THOUGHTS

As our clinical programs progress, we look forward to keeping you updated with our developments and milestones. From time to time, we will provide shareholder letters like this one to help investors understand our strategy, actions, and accomplishments. Our company website (www.genprex.com) is also a great resource for investors and can provide company news and updates in real-time as well.

On behalf of the entire Genprex team, we thank you for your continued interest and support during this exciting time for our company and acknowledge the value you provide us, which fuels our mission of developing potentially life-changing gene technologies for patients with cancer and other serious diseases through unique, innovative science.

Sincerely,

Rodney Varner
Chairman and Chief Executive Officer, Genprex

Safe Harbor:

Statements contained in this shareholder letter regarding matters that are not historical facts are "forward-looking statements" within the meaning of the Private Securities Litigation Reform Act of 1995. Because such statements are subject to risks and uncertainties, actual results may differ materially from those expressed or implied by such forward-looking statements. Such statements include, but are not limited to, statements regarding the effects of Genprex's product candidates, alone and in combination with other therapies, on cancer and other serious diseases, as well as Genprex's ongoing and planned preclinical and clinical studies and potential partnerships. Risks that contribute to the uncertain nature of the forward-looking statements include risks relating to the effects of the safety and effectiveness of Genprex's product candidates, alone and in combination with other therapies, as well as the success of Genprex's ongoing and planned preclinical and clinical studies and the success of Genprex's efforts in concluding potential partnering arrangements for product development and commercialization. Other risks and uncertainties associated with Genprex and its product candidates can be found in Genprex's most recent Annual Report on Form 10-K under the caption "Risk Factors" and elsewhere in Genprex's filings and reports with the United States Securities and Exchange Commission. All forward-looking statements contained in this shareholder letter speak only as of the date on which they were made. Genprex disclaims any obligation to publicly update or release any revisions to these forward-looking statements, whether as a result of new information, future events, or otherwise, after the date of this shareholder letter or to reflect the occurrence of unanticipated events, except as required by law.