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UNITED STATES DISTRICT COURT  
FOR THE WESTERN DISTRICT OF WASHINGTON  
SEATTLE DIVISION

HDT Bio Corp.,  
  
Plaintiff,  
  
v.  
  
Emcure Pharmaceuticals, Ltd.,  
  
Defendant.

Case No.: \_\_\_\_\_

COMPLAINT

**JURY TRIAL DEMANDED**

**INTRODUCTION**

1. This action arises from Defendant Emcure Pharmaceutical Ltd.’s blatant theft of trade secrets concerning the most advanced vaccine technology in the world.

2. Emcure is one of India’s largest manufacturers and distributors of generic drugs. Emcure recently announced that it intends to go public on the strength of its so-called “proprietary mRNA platform,” which includes a COVID-19 vaccine. But that mRNA platform and vaccine belong to Plaintiff HDT Bio Corp.

3. Emcure claims that the vaccine and platform were developed by its minor subsidiary Genova Biopharmaceuticals Ltd. Were that true, it would be stunning. Emcure and Genova have no track record of developing original products. They also have no prior experience

1 with RNA vaccines. Yet Emcure claims to have succeeded where many leading multinational  
2 developers have failed: in inventing a safe and effective mRNA vaccine against COVID-19.

3 4. Emcure’s Cinderella story is a fairy tale spun to lure investors to a generics maker  
4 whose prior attempt to go public failed for lack of interest. The truth is mundane: Emcure stole  
5 HDT’s technology, which HDT had licensed to its subsidiary Gennova for manufacture and  
6 distribution in India.

7 5. HDT is a cutting-edge biotechnology company based in Seattle. Its scientists have  
8 spent decades finding new ways to prevent, detect, and treat infectious diseases and cancers. They  
9 invented the first modern vaccines against tuberculosis, leprosy, and leishmaniasis; the technology  
10 behind today’s leading vaccines against shingles and cervical cancer; and the very concept of RNA  
11 vaccination itself. Although HDT scientists have diverse backgrounds, they share one mission: to  
12 bring state-of-the-art care to all, regardless of nationality or income.

13 6. HDT’s COVID-19 vaccine (called “HDT-301”) is the culmination of the life’s  
14 work of its scientists. Like some commercially available COVID vaccines, HDT-301 uses mRNA  
15 to teach the immune system how to fight the virus. But HDT-301 dramatically improves upon  
16 existing vaccines in two ways. First, it uses a special form of mRNA called “self-amplifying RNA”  
17 or “saRNA,” which is effective at a much smaller dose than regular mRNA. Lower dosages mean  
18 fewer adverse reactions and lower costs. Despite these advantages, saRNA vaccines are rare  
19 because they are hard to get right: to date, no saRNA vaccine has ever been approved for human  
20 use.

21 7. Second, to deliver saRNA into human cells, HDT-301 uses a proprietary delivery  
22 platform called LION™. LION™ is a cationic nano-emulsion—i.e., a positively charged (cationic)  
23 mixture (emulsion) of very small (nano) particles. Unlike some other vaccines, which must be  
24 stored and transported at extremely cold temperatures (i.e., the infamous “cold chain”), a vaccine

1 with LION™ can be stored in standard refrigerators or even freeze-dried and stored at temperatures  
2 exceeding 100 degrees Fahrenheit. LION™ thus solves a major barrier to distributing vaccines in  
3 developing countries. LION™ also makes saRNA safe in humans.

4 8. In short, Plaintiff HDT developed a saRNA vaccine against COVID-19 that is safer,  
5 cheaper, more portable, and likely more effective than the mRNA vaccines on the market, which  
6 are themselves extraordinary feats built on decades of research. This was possible because HDT  
7 scientists have dedicated their careers to harnessing the body's immune system to fight diseases  
8 against which it is otherwise ineffective.

9 9. Emcure got its hands on a saRNA vaccine in a faster way: by stealing it from HDT.  
10 Emcure posed as a good-faith partner and fellow crusader in HDT's global health mission. In  
11 reality, however, Emcure viewed HDT's philanthropic orientation as an opportunity to seize  
12 HDT's secrets and the fruit of decades of its scientists' labor.

13 10. As set forth below, Emcure Director (and Gennova Chief Executive Officer) Dr.  
14 Sanjay Singh visited HDT's headquarters in Seattle in January 2020. There, Dr. Singh met with  
15 HDT Chief Executive Officer Dr. Steven Reed, whom he had befriended over a decade earlier. Dr.  
16 Singh proposed a partnership to bring HDT's then-incipient COVID-19 vaccine to market in India:  
17 HDT would provide the technology, and Dr. Singh and his team would manufacture the product  
18 at scale and shepherd it through the regulatory approval process. Dr. Reed agreed.

19 11. HDT and Emcure subsidiary Gennova then entered into various contracts,  
20 culminating in the Exclusive License Agreement ("License Agreement" or "LA"). The License  
21 Agreement gave Gennova a limited license to use HDT's technology to develop and sell a COVID-  
22 19 vaccine in India. In exchange, HDT would receive payments and royalties along with an  
23 unrestricted license to use Gennova's data to develop and sell the vaccine everywhere else. The  
24

1 Agreement also specified that HDT retained all rights in the transferred technology, and that HDT  
2 would jointly own any improvements that Gennova might make to HDT’s inventions.

3 12. HDT shared its secrets liberally with its new partner. And at first, Emcure and its  
4 subsidiary acted like a partner. Emcure publicly acknowledged that its vaccine was developed “in  
5 collaboration with” HDT. Dr. Singh coined a name for the vaccine—“HGCO19”—in which “H”  
6 stood for “HDT.” And when Emcure and Gennova—together—sought regulatory approval to  
7 conduct clinical trials in India, they promised that the characteristics, specifications, dosage, and  
8 storage temperature would be “the same as that of HDT 301 vaccine developed by M/S HDT,  
9 Seattle, USA.”

10 13. By late 2021, however, Emcure was proclaiming HDT-301 and the LION™  
11 technology behind it as its own. On information and belief, Emcure and/or Gennova sought two  
12 Indian patents on HDT’s technology over the summer. In August, Emcure published a draft red  
13 herring prospectus (“DHRP”), a preliminary regulatory filing registering for a public stock offering  
14 in India, that describes the COVID-19 vaccine as “indigenously developed,” touts *Emcure’s*  
15 “proprietary mRNA platform,” and does not mention HDT. By fall of 2021, Emcure and Gennova  
16 were refusing to share clinical data on the vaccine’s safety and efficacy with HDT.

17 14. HDT demanded an explanation during Dr. Singh’s next visit to Seattle in November  
18 2021. Caught red-handed, Dr. Singh denied that Emcure and Gennova’s vaccine was based on  
19 HDT’s technology at all. He falsely claimed that Gennova had independently developed the  
20 vaccine that Emcure and Gennova are testing in phase III clinical trials, which on information and  
21 belief is the same as HDT-301 except that it removes one immunologically inactive component.  
22 He also falsely claimed to have developed the inventions in the Indian patent applications, which  
23 he refused to show to HDT. Finally, Dr. Singh asserted that Emcure and Gennova could sell their  
24 vaccine without paying HDT royalties. Gennova then terminated the License Agreement.



**JURISDICTION AND VENUE**

1  
2           19.     This action arises under the Defend Trade Secrets Act (“DTSA”), 18 U.S.C. § 1836,  
3 *et seq.* There are also supplemental claims under the Washington Uniform Trade Secrets Act  
4 (“WUTSA”), R.C.W. § 19.108.010 *et seq.*, arising from the same nucleus of operative facts and  
5 thus forming part of the same case or controversy.

6           20.     **Subject Matter Jurisdiction and Legislative Jurisdiction.** This Court has  
7 original federal question jurisdiction of this action pursuant to the Defend Trade Secrets Act, 18  
8 U.S.C. § 1836(c) and 28 U.S.C. § 1331. The Court has legislative jurisdiction over this action  
9 because at least one act in furtherance of the offense was committed in the United States. 18 U.S.C.  
10 § 1837. Additionally, this Court has supplemental subject matter jurisdiction over the state law  
11 claims asserted herein pursuant to 28 U.S.C. § 1367. Further, the parties to this action maintain  
12 completely diverse citizenships, and the amount in controversy exceeds the jurisdictional amount.  
13 Thus, this Court also has subject matter jurisdiction pursuant to 28 U.S.C. § 1332.

14           21.     **Personal Jurisdiction.** This Court has personal jurisdiction over defendant Emcure  
15 because it transacted business from which this action arises within this district, committed tortious  
16 acts from which this action arises in this district, and has significant contacts with this district  
17 related to this action, including but not limited to physical visits to this district by one of its  
18 Independent Directors, Dr. Singh, participation in videoconference meetings with HDT personnel  
19 in this district, electronic communications directed at HDT personnel in this district, and at least  
20 one telephone call to this district; and because, at a minimum, Emcure has sufficient contacts with  
21 the United States related to this action to satisfy Fed. R. Civ. P. 4(k)(2).

22           22.     **Venue.** Venue is proper in this district for at least the following reasons:  
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- 1 a. Plaintiff is headquartered in this district;
- 2 b. Domestic transactions and occurrences giving rise to this action occurred in
- 3 this district; and
- 4 c. Defendants' contacts with the United States relevant to this action were
- 5 overwhelmingly with this district.

6 **FACTUAL ALLEGATIONS**

7 **A. HDT BIO**

8 23. HDT Bio (formerly known as ONC Bio), launched in Seattle in 2019. The company

9 was formed to converge a team of founders, who have been engaged in innovating therapeutic

10 solutions for decades, with a mission: to invent new vaccines and therapies to combat the world's

11 deadliest diseases, while focusing on treatments that can be scaled affordably and distributed in

12 low- and middle-income countries.

13 24. HDT's co-founder, President and CEO, Dr. Steven Reed, has spent over four

14 decades researching the immunology of intracellular infections and developing vaccines and

15 diagnostics for cancer and infectious disease. He is a Research Professor of Pathobiology at the

16 University of Washington and an Adjunct Professor of Medicine at Cornell University Medical

17 College. Dr. Reed has received over \$140 million in grants from the National Institutes of Health,

18 the Biomedical Advanced Research and Development Authority (BARDA, part of the U.S.

19 Department of Health and Human Services), the Defense Advanced Research Projects Agency

20 (DARPA, part of the United States Department of Defense), and the Gates Foundation.

21 25. In partnership with GlaxoSmithKline, Dr. Reed led the team that developed the first

22 defined tuberculosis vaccine, now in advanced clinical development. Dr. Reed also developed the

23 first defined vaccines for leishmaniasis (a disfiguring disease transmitted by a parasite) and

24 leprosy, as well as the K39-based diagnostic tests currently licensed for leishmaniasis. Dr. Reed

1 founded the Infectious Disease Research Institute in Seattle in 1993 (where he served in various  
2 capacities until 2019) and has founded or co-founded several immunotherapy and vaccine science  
3 companies, including Corixa Corporation, which was acquired by GSK. Dr. Reed has more than  
4 400 original publications, 36 book chapters and reviews, and 109 issued patents on diagnostics,  
5 vaccines, and therapeutics of adjuvants, cancer, and infectious diseases.

6 26. HDT's co-founder and Chief Scientific Officer, Dr. Darrick Carter, is a biochemist  
7 and biophysicist with over 20 years of biotechnology research experience, over 100 publications,  
8 and dozens of issued U.S. patents relating to cancer diagnostics and therapies, vaccine  
9 compositions, adjuvants and delivery systems, treatments for disease, and biochemical  
10 compositions. Dr. Carter has founded biotech companies in the fields of vaccines, drug delivery,  
11 bioinformatics, and cancer treatment, including PAI Life Sciences Inc., which develops and sells  
12 adjuvants and other reagents used for COVID-19 recombinant vaccine development.

13 27. HDT's Chief Technology Officer, Dr. Peter Berglund, is one of the earliest pioneers  
14 of RNA vaccination, including saRNA vaccination. He has over 25 years' experience in evaluating  
15 and developing novel vaccine technologies, and researching immune response, immune memory,  
16 and protection against viral infections. Dr. Berglund has headed research and vaccine divisions at  
17 multiple companies, leading teams of scientists in advancing products into clinical trials.

18 28. HDT innovates across a range of different immunotherapy modalities and  
19 mechanisms of action against cancers and transmissible diseases, harnessing the body's immune  
20 system to fight diseases against which it otherwise is ineffective. For example, HDT has developed  
21 technologies that improve penetration of tumors by antibodies and drugs. HDT also has devised  
22 techniques that optimize immunotherapies by preventing or minimizing resistance in pathogens.  
23 In addition to medicines to treat and prevent a broad range of infectious diseases, HDT is  
24 developing treatments for ovarian cancer, cancers of the head and neck, and other cancers. The

1 company's main research partners include the Centers for Disease Control ("CDC"), the National  
2 Institutes of Health ("NIH"), the Department of Defense, and the University of Washington, and  
3 its team of scientists publish prolifically and consistently attract prestigious grant funding.

4 **B. mRNA Vaccines**

5 29. Since the onset of the global pandemic of the SARS-CoV-2 virus and the disease it  
6 causes, Coronavirus disease 2019 ("COVID-19" or "COVID"), the formerly experimental field of  
7 mRNA vaccines has boomed. Regulators approved the first-ever mRNA vaccines for human use,  
8 which were made possible by some four decades of research by scientists at academic institutions  
9 and businesses around the world.

10 30. In general, vaccines work by priming the human immune system to "remember" a  
11 specific pathogen it has never seen before, but mRNA vaccines use a new technique to engender  
12 immune memory. Traditional vaccines use either a weakened form of the actual pathogen or  
13 modified genetic code from the pathogen placed inside a harmless virus, such as an adenovirus. In  
14 the latter approach, the adenovirus functions as the delivery system, while the genetic code snippet  
15 of the target pathogen is the payload. The immune system responds to the modified virus by  
16 making antibodies that are designed to attach to the distinctive molecular structure (the antigen)  
17 on the surface of the pathogen. Additionally, the immune system trains a subset of cells, called T  
18 cells, to recognize pathogen antigens. If a vaccinated person is later exposed to the pathogen, their  
19 immune system already has antibodies and other defensive immune cells against the pathogen  
20 and/or instructions to make antibodies, stored in memory B cells and the helper T cells that activate  
21 them. This enables the immune system to attack and kill the invading pathogen before it can infect  
22 the host, or at least before it can cause disease.

23 31. mRNA, in general, is a molecule encoding a set of instructions to a cell for  
24 producing a protein. In contrast to many traditional vaccines, mRNA vaccines do not contain any

1 actual pathogen. Instead, they use an mRNA strand that is coded as an instruction for producing  
2 an antigen. The mRNA vaccines cause the vaccinated host's own cells to "express" (that is,  
3 produce) the antigen within the cell and then present it to the immune system. In the case of the  
4 pathogen SARS-CoV-2, this antigen is famously the "spike protein" that the virus uses to bind to  
5 and enter human cells. The immune system responds to the altered, spike-harboring cells as if they  
6 were an invading virus—it identifies them as other, rather than self—and produces antibodies and  
7 immune memory B and T cells to the antigen. Then, if and when the real SARS-CoV-2 virus shows  
8 up, the immune system is ready for it.

9       32. mRNA vaccines have several advantages over traditional vaccines. These include  
10 that (i) they can be more rapidly formulated because only information—the genetic sequence of  
11 the virus—is needed to design them for new pathogens rather than physical virus samples; (ii)  
12 mRNA molecules are easier, cheaper, and faster to produce than the larger, more complex proteins  
13 in traditional vaccines, which must be cultured in cells; (iii) mRNA vaccines can produce a  
14 stronger T-cell response, which makes them more effective in elderly and immunocompromised  
15 people, (iv) mRNA vaccines are more effective against mutated pathogenic variants, and (v)  
16 mRNA vaccines may have a lower side effects profile than traditional vaccines.

17       33. mRNA vaccines also use a different delivery system from traditional vaccines. For  
18 the first-generation mRNA COVID-19 vaccines, the delivery system is a lipid nanoparticle  
19 ("LNP"). The precise method of manufacturing the LNP is a complex and assiduously guarded  
20 trade secret. Generally speaking, the LNP formulation consists of mRNA molecules encapsulated  
21 in lipids. mRNA is susceptible to a variety of forms of degradation, even when encapsulated in  
22 lipids. To avoid degradation, the entire vaccine must be frozen to a very cold temperature (typically  
23 -80° C) immediately after manufacture. For that reason, these vaccines require cold storage and  
24 transport.

1           34.     Although the first mRNA COVID-19 vaccines are an extraordinary achievement of  
2 biochemical and vaccine research, they are imperfect. The cold storage they require is expensive  
3 and makes distribution cost-prohibitive in much of the developing world. Moreover, broad  
4 stimulation of the innate immune response causes sometimes-severe side-effects such as  
5 headaches, myalgia, fever, and chills. And the stimulation of the immune response can lead to an  
6 attack on heart-muscle cells that sometimes causes a rare but serious side-effect: myocarditis. This  
7 results from the unintentional transportation of the vaccine from the injection site through the body,  
8 where it can reach cardiac muscle cells. In a small but measurable number of patients, the vaccine  
9 causes heart cells to express a COVID spike protein, which the immune system attacks, resulting  
10 in inflammation of the heart muscle.<sup>2</sup>

11           **C.     HDT’s Innovations in the mRNA Vaccine Field**

12           35.     In lieu of the ordinary mRNA and LNP used by existing mRNA vaccines, HDT has  
13 developed a vaccine using self-amplifying RNA (“saRNA”) delivered with its own proprietary  
14 delivery system under the trade name “LION”™.

15           36.     saRNA is a special type of messenger RNA in which the first part of the sequence  
16 is a “replicon,” an instruction to the cell to repeat whatever comes in the second part of the  
17 sequence. The second part of the sequence is the same kind of instruction to the cell to manufacture  
18 the spike protein found in ordinary mRNA.

19           37.     LION™ is a cationic nano-emulsion, which means it contains very small (“nano”)  
20 lipid particles mixed into water (oil-in-water “emulsion”). The particles possess a cationic  
21 (positively charged) surface to which the negatively-charged mRNA molecules adhere. Instead of  
22 the lipids encapsulating the RNA (like in the commercial mRNA vaccines with LNPs), the RNA

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24 <sup>2</sup> The vaccine may also reach highly inflammatory organs that reside upstream of the heart in the circulatory system, causing a release of inflammatory proteins that drain to the heart.

1 sits on the surface of the LION™ nanoparticle, while the inner core has an oil (liquid lipid) core.  
2 Although “LION™” originated as an acronym for “Lipid InOrganic Nanoparticle,” many versions  
3 of LION™ do not contain inorganic components, and in those that do, only a small percentage of  
4 the formulated particles contain an inorganic component.

5 38. HDT’s COVID vaccine using LION™, HDT-301, improves upon existing vaccine  
6 technology in several critical respects. First, the self-replicating feature of saRNA means that a far  
7 smaller dose of the vaccine is needed to achieve the same immunological benefit. Where another  
8 COVID vaccine uses 100 micrograms, for example, HDT’s vaccine has been shown effective with  
9 as little as 5 micrograms. This lower dosage naturally uses less material and therefore costs less to  
10 produce. It also makes possible the creation of vaccines that prevent multiple SARS-CoV-2 strains  
11 at once because multiple low-dose vaccines may be combined into a tolerable multivalent dose.

12 39. Second, the surface chemistry of LION™ that enables RNA to bind to the  
13 nanoparticles leads to increased stability and safety. HDT-301 undergoes less transport within the  
14 body than existing vaccines, reducing the risk of side effects like myocarditis. Moreover, on  
15 information and belief, the properties of LION™ are necessary to make an saRNA vaccine safe  
16 for human use. On information and belief, pairing saRNA with delivery systems other than  
17 LION™ causes excessive stimulation of the innate immune system and often generates toxic  
18 results, or leads to underdosing for safety with the result of suboptimal clinical outcomes.

19 40. Further, the LION™ formulation in HDT-301 does not need to be kept in ultra-cold  
20 storage. In addition, HDT-301 can be lyophilized (freeze-dried), permitting it to be stored  
21 temporarily at temperatures above 100 degrees Fahrenheit, or for weeks or months at standard  
22 refrigerator temperature. Through studies it designed, HDT was able to identify formulations that  
23 enabled lyophilization and reconstitution without loss of the vaccine’s molecular structure. This  
24 facilitates, and reduces the cost of, distributing the vaccine in the developing world.

1           41.     The development of LION™ and the successful pairing of LION™ with saRNA  
2 was arrived at by HDT scientists through creativity benefitting from decades decades of knowledge  
3 in these technology fields. So far, no one else has successfully incorporated saRNA into a licensed  
4 vaccine for human use. Just making saRNA is difficult—it requires not only a working replicon  
5 sequence, but also knowledge of how that sequence can be modified. This know-how is limited to  
6 a tiny community of highly specialized, experienced alphavirologists and is not evident even to  
7 those skilled in the art of making RNA. Moreover, on information and belief, HDT’s proprietary  
8 LION™ (or something very like it) is necessary to make saRNA work safely. To HDT’s  
9 knowledge, no other academic or commercial enterprise has made a safe saRNA-based vaccine or  
10 immunotherapy for human use.<sup>3</sup>

11           42.     Just as the making of saRNA and LION™ are trade secrets, so is how to combine  
12 the two. The mixing ratio of LION™ and saRNA, order of mixing, and procedures for mixing  
13 have an impact on manufacturing and clinical use. This knowledge developed by HDT scientists  
14 is another of HDT’s crown jewels.

15           **D.     The Inception of HDT’s Collaboration with Emcure’s Subsidiary, Genova**

16           43.     HDT is an industry-leading research and development company, but not a  
17 manufacturer or distributor. For those tasks, it partners with manufacturers around the world to  
18 make its products at scale. And because of its global-health equity mission, HDT focuses on  
19 forming partnerships in the developing world. Knowing that its vaccine could save many lives in  
20 India, HDT chose to partner with Genova, a subsidiary of giant generics manufacturer Emcure.

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<sup>3</sup> In addition to the problem of making saRNA non-toxic, there are challenging quality and quality control issues involved in manufacturing an saRNA vaccine for human use. The academic scientists working in the field (who primarily work with mice, and for publication rather than manufacture) generally ignore these issues.

1           44.     HDT co-founders Dr. Reed and Dr. Carter had a longstanding relationship with  
2 Emcure Director and Gennova CEO Dr. Singh, whom they met in about 2008. Early on in their  
3 relationship, Drs. Reed and Carter collaborated with Dr. Singh (and the Gates Foundation, among  
4 others) to establish the groundbreaking Vaccine Formulation Center in Pune, India. Drs. Reed and  
5 Carter provided the technology: adjuvant systems to stimulate an optimal immune response,  
6 expertise in how to make a vaccine work, and a vaccine for visceral leishmaniasis (then in phase I  
7 trials in Washington). Dr. Singh and Gennova provided the manufacturing capability and a portion  
8 of the funding.

9           45.     On information and belief, Dr. Singh is a citizen of India, has lawful permanent  
10 resident status in the United States, and maintains a permanent residence with his wife in  
11 Maryland.

12           46.     In early 2020, Dr. Singh proposed a similar arrangement for scaling up and  
13 distributing HDT's COVID vaccine. Because Dr. Singh and his team had already learned how to  
14 make adjuvants from HDT's scientists, they were well-equipped to make LION™. Their  
15 inexperience with mRNA, and their lack of a track record in innovation, were no barrier: HDT  
16 would provide all the scientific and technical knowledge required. Gennova would supply the  
17 manufacturing know-how, along with the regional expertise necessary to conduct clinical trials in  
18 India and to secure regulatory approval there.

19           47.     In January 2020, Dr. Singh visited Seattle to make his proposal. Dr. Singh and Dr.  
20 Reed began the discussions that would lead to a formal agreement to collaborate in April of that  
21 year. Discussions continued by telephone, WhatsApp messaging, and Zoom teleconference. ~~In the~~  
22 ~~meantime, HDT scientists worked tirelessly to formulate, test, and refine their emerging COVID~~  
23 ~~vaccine and the underlying technology.~~

1 48. In their early discussions, Drs. Reed and Singh envisioned that Gennova would  
2 manufacture only the LION™ needed for the vaccine. But Dr. Singh pushed for Gennova to  
3 manufacture the mRNA component of the vaccine as well, insisting that Indian regulators would  
4 prefer that both components come from the same facility.

5 49. By the first quarter of 2020, HDT already had developed a working one-shot  
6 COVID vaccine, called HDT-301. HDT researchers first tested HDT-301 in monkeys in March  
7 2020, and by May 8, 2020 had results confirming that it was effective against COVID-19. HDT-  
8 301 uses the LION™ delivery system (which HDT has patented with a priority date of March 23,  
9 2020) and HDT's trade secret sequences of the saRNA backbone and optimization of the SARS-  
10 CoV-2 antigen, along with the trade secret process for making and combining each of them.

11 50. Time was of the essence, and the parties soon reached agreement. On April 17,  
12 2020, HDT and Gennova entered into a Memorandum of Understanding ("MOU") setting forth  
13 the terms on which their collaboration would proceed. On August 6, 2021, they entered into the  
14 License Agreement to "replace" and "supersede" the MOU.

15 **E. The Contracts Gennova Signed Make Clear that HDT Was Providing the**  
16 **Essential Technology, and the License Agreement Reserves HDT's**  
17 **Technology to HDT**

18 51. The essential bargain reflected in the License Agreement was this: HDT would  
19 provide its formulations and processes to Gennova to make an mRNA vaccine, and Gennova  
20 would (1) make LION™ and mRNA up to good manufacturing practice (GMP) standards, for its  
21 use and for HDT's use, and (2) make the mRNA vaccine and bring it to market in India. To that  
22 end, Gennova would prepare regulatory filings in India, including the required preclinical and  
23 toxicity studies, while HDT would carry out those same studies in the US using the LION™ made  
24 by Gennova. Gennova received exclusive rights to sell HDT's coronavirus vaccine in India, while

1 HDT retained rights to all vaccines and therapeutics made with LION™ (and HDT’s other  
2 technologies) everywhere else.<sup>4</sup>

3 52. All the contracts between the parties recognize that HDT contributed the key  
4 technology to the joint endeavor. For example, the MOU’s terms were not remotely symmetrical  
5 with regard to intellectual property. They made clear that HDT was contributing vastly more  
6 intellectual property than Genova. The MOU recites:

7 *[T]he Parties have identified ONC’s [i.e., HDT’s] intellectual property to include*  
8 *know-how and patent intellectual property relating to RNA based production*  
9 *technology for potential vaccines/therapeutics, the vaccines/therapeutics candidate*  
10 *against COVID-19, process of preparation and composition of lipid based iron-*  
11 *oxide nanoparticles (LION) to be used as accompanying carriers; and Genova’s*  
12 *intellectual property to know-how and patent intellectual property (if any, and*  
13 *jointly with ONC [i.e., HDT]) relating to further improvement and scale up of*  
14 *process of production of the vaccine and adjuvant. MOU § 1.1(f) (emphasis added).*

15 53. The MOU declared that HDT’s know-how and intellectual property consisted of all  
16 aspects of the formulation and production of the mRNA vaccine itself—both the COVID vaccine  
17 and the mRNA platform for making other vaccines—as well as the LION™ delivery system HDT  
18 had invented, and the processes for making them. *Id.* (“RNA based production technology for  
19 potential vaccines/therapeutics, the vaccines/therapeutics candidate against COVID-19, process of  
20 preparation and composition of lipid-based iron-oxide nanoparticles (LION) to be used as  
21 accompanying carriers”).

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24 <sup>4</sup> Genova had an option to purchase a non-exclusive license from HDT for certain territories in which HDT did not  
have a manufacturing partner, but never exercised that option.

1           54. In stark contrast, the MOU recited that Gennova did not necessarily contribute any  
2 intellectual property and to the extent it did, even that IP was jointly owned by HDT (“if any, and  
3 jointly with ONC”). Id. Moreover, to the extent Gennova had intellectual property, it related only  
4 to improvements in the production process (“further improvement and scale up of process of  
5 production of the vaccine and adjuvant”), Gennova’s sole relevant area of expertise prior to the  
6 collaboration. Id. This recitation of joint ownership reflected that even Gennova’s production and  
7 adjuvant technology rested in part on inventions that Drs. Reed and Carter had shared with  
8 Gennova in their previous, and ongoing, collaboration.

9           55. Another contemporaneous agreement between HDT and Gennova further  
10 underlines the lopsidedness of the parties’ respective IP contributions. The Material Transfer  
11 Agreement (“MTA”), dated April 6, 2020, governed Gennova’s testing and evaluation of LION™  
12 shipped to it by HDT. The MTA provides that “all data, information, techniques and results of  
13 [Gennova’s] experimentation related to the” materials HDT provided will be HDT’s confidential  
14 information, and that in the event those results “include or embody any invention or discovery that  
15 is or may be patentable or otherwise protectable under” the patent laws, HDT owns any such  
16 invention(s) and Gennova agrees to assign them to HDT. MTA §§ 3, 4(a). The only IP that the  
17 MTA assigns to Gennova (as confidential information, not for patenting) is “data, information,  
18 techniques and results of experimentation generated in the course of the Permitted Research  
19 *without the use of ONC Bio [HDT] Material and which do not relate to ONC Bio [HDT]*  
20 *Material or any Derivative.*” MTA § 4(b).<sup>5</sup>

21           56. Like the MOU and MTA, the License Agreement specifies that HDT owns the  
22 LION™ Technology and all related know-how, including specifically (but not limited to) the

23 \_\_\_\_\_  
24 <sup>5</sup> The MTA, which was executed for Gennova by Dr. Singh, provides that it “shall be construed and enforced in  
accordance with the laws of the State of Washington.”

1 methods of preparation and uses of the LION™ carrier disclosed in PCT Patent Application No.  
2 PCT/US21/19103 and patent applications derived therefrom. In addition, each party owns  
3 Improvements & Data (“I&D”) that it generates, makes, conceives or reduces to practice without  
4 the contribution of the other party. The parties, however, jointly own any I&D that they jointly  
5 generate, make, conceive or reduce to practice, with inventorship “determined by application of  
6 US patent laws pertaining to inventorship.” LA §§ 5.4(a)-(b). Under US patent law, the principle  
7 is straightforward: a person is a joint inventor of any invention to whose conception she  
8 contributed.

9 57. As a result, Gennova does not solely own any I&D that are based on or incorporate  
10 LION™ or any other technology or concept that originated with HDT, or on anything that HDT  
11 contributed toward generating, making, or reducing to practice. LA § 5.4(b).

12 **F. HDT and Gennova Agreed to Protect Confidential Information Disclosed**  
13 **During Their Collaboration and Not to Share It With Their Affiliates—Such**  
14 **As Emcure—Except As Needed to Perform Under the Agreement**

15 58. In negotiating the License Agreement and other contracts with Gennova and Dr.  
16 Singh, HDT was careful to safeguard the confidentiality of the information it intended to share.  
17 Indeed, while HDT scientists are prolific researchers who frequently publish in order to share their  
18 discoveries with others in their field, HDT protects its critical technical and business information  
19 as confidential in the ordinary course.

20 59. HDT’s Confidentiality and Inventions Assignment Agreement (“CIAA”), which all  
21 employees must sign, defines “Confidential Information” to include “any non-public information  
22 that relates to the actual or anticipated business, research, or development of the Company and any  
23 proprietary information, technical data, trade secrets, and know-how of the Company,” including  
24 but not limited to “Company *research, product plans, products*, services, customers, customer

1 lists, markets, software, *developments, inventions, processes, formulas, technology*, designs,  
2 drawings, engineering, hardware configuration information, marketing, finances, and other  
3 business information.” CIAA § 2.1 (emphasis added). The CIAA binds HDT personnel to hold  
4 such information in strictest confidence, and not to use it “for any purpose except for the benefit  
5 of the Company to fulfill my obligations.” *Id.* § 2.2.

6         60. HDT’s employee handbook further reminds employees of this obligation by placing  
7 “unauthorized use or disclosure of confidential information” at the very top of its list of  
8 unacceptable conduct.

9         61. In order to ensure the parties could collaborate without destroying their valuable  
10 intellectual property, the License Agreement requires HDT and Genova to protect each other’s  
11 Confidential Information, which it defines in sweeping terms: “All proprietary technical  
12 information, marketing, business, and financial information, scientific data, information marked  
13 confidential, and all other information which a reasonable person would treat confidentially that  
14 relates to the Product, Know-How, Patent Rights or the business of a Party.” LA § 12.2.

15         62. Under this provision, which survives the Agreement’s termination, HDT and  
16 Genova were required to maintain each other’s Confidential Information in strict confidence, and  
17 could not share the other party’s confidential information with any third party, including their  
18 affiliates, except to the extent expressly permitted by the License Agreement, e.g., where necessary  
19 to achieve the purposes of the License Agreement.

20         63. Genova’s parent company Emcure was therefore not authorized to know HDT’s  
21 trade secrets except to the extent needed for Genova to perform under the License Agreement.  
22 And Emcure certainly was not authorized to use HDT’s trade secrets—let alone to claim ownership  
23 of them.

1 **G. HDT and Genova Collaborate on HDT’s COVID Vaccine**

2 64. When HDT agreed to work with Genova, it mistakenly viewed Dr. Singh as a  
3 trusted friend and missionary with a common cause. Dr. Reed and Dr. Carter in particular saw an  
4 opportunity to advance their long-standing dream to help “save the world” by making lifesaving  
5 vaccines more widely available to populations that lacked access. They believed that Dr. Singh  
6 shared their idealism.

7 65. In that spirit, HDT scientists were responsive, forthcoming, and generous with  
8 Genova. They acted as people do when they are committed to shared success with a partner. In  
9 addition to furnishing Genova with its know-how relating to the formulation and preparation of  
10 LION™, HDT provided materials and detailed information on the precise recipes for making the  
11 replicon and the backbone of the plasmid—all of which is top-secret. HDT also shared its critical  
12 know-how relating to ingredients and quality control for making both LION™ and saRNA.

13 66. HDT scientists also troubleshoot supply issues that would otherwise have prevented  
14 Genova from manufacturing LION™ or mRNA at all. Finding raw materials suppliers is hard for  
15 any new mRNA manufacturer, let alone one located outside the United States and Europe.<sup>6</sup> HDT  
16 bought for Genova GMP-grade DOTAP (dioleoyl-3-trimethylammonium propane), an ingredient  
17 in LION™. HDT also arranged for a critical enzyme supplier, which ultimately required an in-  
18 person visit by Drs. Singh, Reed, and Christopher Pirie (of HDT) to the headquarters of HDT RNA  
19 supplier Aldevron in Fargo, North Dakota. Even with such an introduction, however, HDT still  
20 had to buy the mRNA enzymes for Genova itself to avert months of delay in getting purchasing  
21 contracts set up between Aldevron and Genova.

22  
23 <sup>6</sup> The general dearth of mRNA-vaccine know-how and ingredients in India compounds the problem for aspiring Indian  
24 manufacturers. According to Emcure, no Indian company has developed an mRNA platform before. Emcure and  
Genova had no mRNA platform before their collaboration with HDT; indeed, before then, Emcure and Genova  
did not see mRNA as a particularly promising or attractive area of vaccine science.

1           67.     HDT scientists also shared with Gennova all of their early preclinical work on the  
2 HDT-301 vaccine, provided ongoing technical advice on all manner of technical issues (such as  
3 clinical dosages), and supervised preparation of Gennova’s first batch of LION™. This additional  
4 know-how enabled Gennova to quickly obtain approval from the Central Drugs Standard Control  
5 Organisation (“CDSCO”), India’s equivalent of the FDA, to begin phase I clinical trials.

6           68.     Additionally, at Gennova’s request, Dr. Amit Khandhar of HDT provided Gennova  
7 with the experimental design needed to optimize the lyophilization process.

8           69.     In the course of their work, HDT and Gennova personnel communicated by  
9 multiple means, including email and text message, but also weekly or biweekly Zoom  
10 teleconferences attended by participants in both Seattle and India. Weekly or biweekly meetings  
11 between HDT and Gennova were conducted on Zoom. In addition, Dr. Singh accompanied Dr.  
12 Reed on a visit to the NIH in Maryland in December 2020 to support the application for a NIH  
13 contract (awarded to HDT with Dr. Reed as Principal Investigator) that helped HDT fund  
14 Gennova’s production of LION™.

15           70.     Throughout the two-year collaboration, Emcure and Gennova consistently credited  
16 HDT as (at minimum) the developer of their vaccine and characterized the vaccine as based on  
17 LION™. Dr. Singh wrote to Dr. Reed that he named the Gennova vaccine “HGCO19” to reflect  
18 the collaboration, with “H” standing for “HDT,” “G” for Gennova, and “CO19” for COVID-19.  
19 Press releases by Emcure, Gennova, and other entities relying on information they provided, such  
20 as the India Ministry of Science and Technology, have highlighted “the collaboration with HDT”  
21 and the role of “the LION™ delivery system” in Gennova’s vaccine, as well the “self-replicating  
22 mRNA platform.” Dr. Singh texted Reed in July 2020: “Success of this vaccine at Gennova is only  
23 because of you.”

1           71.     Emcure and Gennova’s approach to seeking regulatory approval further confirms  
2 that Emcure is using LION™ and other HDT intellectual property. On information and belief,  
3 Emcure and Gennova represented to CDSCO that their vaccine candidate for phase II and III  
4 clinical trials is the same vaccine candidate they submitted in phase I—which they described in  
5 their earlier submission to CDSCO as identical to HDT-301. Had they sought regulatory approval  
6 of a different, independently developed vaccine, they would have had to start over with phase I  
7 clinical trials.

8           72.     Even today, Emcure’s website touts the HGCO19 vaccine as based on LION™. It  
9 displays a drawing by HDT’s Dr. Khandhar that depicts the “mRNA-LION complex” in the  
10 vaccine.<sup>7</sup> The separate “Vaccines” page of the website asks, “How does the mRNA vaccine,  
11 HGCO19, work against the coronavirus?” Emcure answers, in relevant part, that HGCO19 is  
12 “supported by ‘lipid inorganic nanoparticle (LION™)’ as a delivery vehicle.” It even elaborates:  
13 “The mRNA is associated with the ‘lipid inorganic nanoparticle (LION™) and acts as mRNA  
14 vaccine delivery system’ which stabilizes the mRNA and acts as adjuvant till delivery into  
15 patients.”<sup>8</sup>

16           **H.     Dr. Singh Wrongfully Shares HDT’s Trade Secret with Emcure, Which Steals**  
17           **HDT’s Trade Secrets**

18           73.     While HDT and Gennova line-level scientists cooperated to the benefit of both  
19 parties, Gennova—on information and belief, on Emcure’s orders—dragged its feet or outright  
20 stiffed HDT on a number of important items.

21           74.     The License Agreement requires (and the MOU required) Gennova to keep HDT  
22 apprised of “research, documentation, manufacturing, [and] regulatory filings and approvals,” and

23 \_\_\_\_\_  
24 <sup>7</sup> <https://www.emcure.com/research-gennova/>, last accessed March 21, 2022.

<sup>8</sup> <https://www.emcure.com/our-business-vaccine/>, last accessed March 20, 2022.

1 to provide “any information and documentation related to the Products upon request.” LA § 7.5.  
2 It also entitles HDT to quarterly updates regarding the “status of applications for regulatory  
3 approvals for products,” “results of animal and other preclinical experiments and any clinical  
4 studies with respect to Products,” and any “Improvements and Data generated, made, conceived  
5 and/or reduced to practice during the applicable Quarter,” among other things. LA § 7.5. Under  
6 the License Agreement, HDT has a worldwide license even to I&D that belongs to Gennova. LA  
7 § 5.4(c).

8 75. Yet despite countless requests, generally made by Dr. Reed to Dr. Singh through  
9 daily telephone calls, Gennova kept this information from HDT. The documents and data it  
10 withheld includes, but are not limited to: (i) the investigational new drug (IND) application  
11 Gennova submitted to CDSCO to obtain authorization to conduct clinical trials, (ii) clinical data  
12 from Gennova’s phase I, II and III clinical trials of the HGCO19 vaccine in India,<sup>9</sup> (iii) data  
13 generated in connection with Gennova’s GMP certification, and (iv) lyophilization studies  
14 Gennova conducted.

15 76. Gennova’s delay in providing phase I data hampered HDT’s fundraising activity,  
16 causing HDT significant and quantifiable damages. It also delayed HDT’s IND application in the  
17 United States. Gennova’s delay in providing the GMP certification data delayed regulatory  
18 certifications needed by HDT’s other regional partners for regulatory approvals in Brazil and South  
19 Korea, slowing HDT’s efforts to launch vaccines in those countries. And Gennova’s ultimate  
20 refusal to provide either phase II or phase III clinical data killed a potential \$100,000,000 deal with  
21 an existing HDT partner. No adequate explanation was offered for these delays, only evasions.

22  
23  
24 <sup>9</sup> After months of long delays and many requests, Gennova finally provided some of the phase I clinical data in August 2021, but refused to share the trial reports it furnished to CDSCO.

1           77. On information and belief, Emcure was behind Gennova’s repeated delays in  
2 delivering information and materials required under the License Agreement (and earlier, the  
3 MOU). Gennova personnel repeatedly told Dr. Reed and HDT personnel that “their hands were  
4 tied” by Emcure regarding various important decisions, including the release of the clinical data  
5 to HDT. Viewing HDT as a future competitor with the platform Emcure sought to build with  
6 HDT’s stolen trade secrets, Emcure schemed to hinder and undermine HDT’s development of  
7 vaccines for markets other than India.

8           78. In the summer of 2021, in contemplation of Emcure’s anticipated IPO, Emcure and  
9 Gennova began to take aggressive steps to steal HDT’s intellectual property and to claim it as their  
10 own, as well as to avoid Gennova’s obligation to share the proceeds from IP that is (at minimum)  
11 the joint property of HDT. Having used its subsidiary’s collaboration with HDT to learn the ins  
12 and outs of HDT’s cutting-edge mRNA vaccine technology, Emcure moved to misappropriate it.

13           79. On information and belief, Emcure and Gennova clandestinely filed two Indian  
14 patent applications that claim HDT’s inventions. Though they filed the applications in July and  
15 August of 2021, they did not reveal the existence of these applications to HDT until November.<sup>10</sup>  
16 In fact, on September 23, 2021, in response to a direct inquiry from HDT, Tathagata Mukherjee of  
17 Gennova denied that Gennova had filed any patent applications on LION™ or the lyophilization  
18 of LION™.

19           80. The reality was otherwise. On information and belief, the first application filed by  
20 Emcure and Gennova has a title that describes LION™: RNA Adsorbed Onto Lipid Nano-  
21 emulsion Particles and Its Formulations. LION™ *is* “nano-emulsion particles” onto which RNA

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22 <sup>10</sup> To this day, HDT has incomplete information about these applications. HDT alleges the next few paragraphs “on  
23 information and belief” because it has received only abstracts of the patent applications filed by Emcure and  
24 Gennova. In response to Gennova’s representations that its patent applications do not relate to LION™, HDT  
requested complete copies of the applications due to the apparent similarity of subject matter. Gennova refused to  
provide such copies.

1 is “adsorbed.” Emcure and Gennova have asserted that their present formulation is “not LION™”  
2 because it does not contain an immunologically inactive inorganic component. But their work  
3 necessarily incorporates HDT’s conceptions, regardless of whether they left out the inorganic  
4 component that was present in a small portion (approximately 5% of each batch) of the LION™  
5 particles HDT taught Gennova to make. On information and belief, Emcure and Gennova’s patent  
6 application also falsely omits HDT scientists who are the true inventors of LION™.

7       81. On information and belief, the second patent application attempts to patent HDT’s  
8 lyophilization research, which HDT disclosed to Gennova pursuant to the Agreement. Its title and  
9 abstract indicate that it relates to lyophilized formulations of mRNA adsorbed onto lipid nano-  
10 emulsion particles—in other words, a lyophilized version of the alleged invention in the first  
11 application.

12       82. Even if the patents covered joint I&D instead of HDT’s sole property, they would  
13 violate Gennova’s obligation under the Agreement to refrain from pursuing any patent applications  
14 on joint inventions without first consulting with HDT. LA § 5.8.

15       83. Almost contemporaneous with the second secret patent application, Emcure filed a  
16 Draft Red Herring Prospectus with the Securities and Exchange Board of India in preparation for  
17 Emcure’s IPO. Emcure’s prospectus touts the mRNA platform as Emcure’s own, omitting all  
18 mention of HDT, and states that “We [Emcure] have developed a domestic mRNA vaccine  
19 platform. We [Emcure] are in the process of developing an mRNA COVID-19 vaccine, and have  
20 submitted the interim Phase I clinical trials data and the Phase II and Phase III protocol for the  
21 vaccine to the CDSCO. We [Emcure] are also in development stages for three other vaccines on  
22 our mRNA platform, for Zoster, Zika and Rabies.” But Emcure did not develop an mRNA vaccine  
23 platform, HDT did. Emcure’s prospectus states its intention to sell mRNA vaccines in markets  
24 beyond the licensed territory of India. But the Agreement does not permit Emcure or Gennova to

1 use HDT's technology to treat diseases other than COVID, nor to sell vaccines incorporating  
2 HDT's technology anywhere other than India.

3 84. To be clear: the License Agreement does not give Emcure any rights at all. Emcure  
4 is not a party to the License Agreement. And the Agreement provides that as an Affiliate, Emcure  
5 is not authorized to use HDT's inventions or know-how, including I&D that HDT jointly owns.  
6 Thus, Gennova was no more entitled to disclose HDT's trade secrets to Emcure for Emcure's use  
7 than to any other non-party to the License Agreement. Yet Emcure somehow knew HDT's secrets  
8 from the get-go. An *Emcure* email address is the main contact listed on the initial clinical trial  
9 application for HGCO19. Emcure's Red Herring Prospectus indicates that *Emcure* is building its  
10 mRNA platform on HDT's trade secrets, effectively offering HDT's stolen technology as an  
11 inducement to buy Emcure's stock. Emcure took these actions aware of Dr. Singh's and Gennova's  
12 contractual obligations not to disclose the trade secrets to Emcure or provide them to Emcure for  
13 its use.

14 85. The final nail in the coffin came in mid-November 2021, when Dr. Singh visited  
15 Seattle to deliver the message that Emcure and Gennova's vaccine for phase II and III clinical  
16 trials was not a "Product" under the License Agreement, and that they could and would sell it free  
17 and clear of HDT's intellectual property rights. With Dr. Reed's shock evident, Dr. Singh proposed  
18 a new contract whereby HDT would serve as a paid researcher for Gennova; if HDT did not agree,  
19 it would receive no further compensation. As if on cue, Satish Mehta, Emcure's Chief Executive  
20 Officer, then called Dr. Singh's mobile phone and asked to speak to Dr. Reed. Mehta sought  
21 reassurance from Dr. Reed that "everything was okay" between them—apparently concerned that  
22 a dispute with HDT could jeopardize Emcure's public offering.

23 86. Gennova terminated the License Agreement shortly thereafter. On information and  
24 belief, Emcure ordered the termination.

1           **I.       Emcure’s Theft is Willful and Malicious**

2           87.       This is not a case of mistake or confusion. Emcure carefully planned and executed  
3 its scheme to steal HDT’s secrets—secrets that now position Emcure at the vanguard of India’s  
4 campaign to become “a vaccine superpower.”

5           88.       In hindsight, it is clear that the treachery began early. In his January 2020  
6 discussions with Dr. Reed, Dr. Singh demanded to see HDT’s relevant patents and patent  
7 applications as a condition of entering into the contract. With such access, Dr. Singh and Emcure  
8 could begin to strategize about how to maneuver around *HDT*’s IP rights. The timing of Emcure  
9 and Gennova’s Indian patent filings last summer—shortly before executing the License  
10 Agreement—makes clear that they tried to do just that.

11           89.       Then, for almost two years, Emcure repeatedly and publicly acknowledged that its  
12 vaccine was developed in collaboration with HDT and that it uses LION™. These statements show  
13 that Emcure *knows* that its recent representations otherwise—including the DRHP’s  
14 representations to prospective investors—are false. Tellingly, just after the parties’ November  
15 2021 confrontation, Emcure and Gennova scrubbed their websites of many of these myriad  
16 statements. (They did a poor job, though; as set forth above, some remain.)

17           90.       Perhaps most revealingly, when Dr. Singh told HDT in November 2021 that he  
18 believed that Emcure and Gennova’s patent applications avoided HDT’s rights in LION™ and  
19 related technology, he declared: “We beat you, fair and square.”

20           91.       Dr. Singh’s malicious boast is the exact opposite of what Drs. Reed and Carter  
21 expected from the dear friend and colleague that Dr. Singh had pretended to be for more than a  
22 decade. HDT did not set out to “beat” Gennova; it sought a win-win. HDT and its scientists  
23 anticipated a mutually beneficial partnership that would further their lifelong goal to deliver the  
24

1 best care possible to the global poor. But it turns out that Gennova, or at least its parent Emcure,  
2 had something else in mind all along.

3 **TRADE SECRETS SPECIFICATIONS**

4 92. Defendant Emcure has misappropriated at least the following HDT trade secrets:

- 5 a. Antigen sequences used in the COVID-19 vaccine.
- 6 b. Replicon sequences for saRNA used in the COVID-19 vaccine and  
7 processes for making them.
- 8 c. Processes for making, and sequences of, the replicon and the backbone of  
9 the plasmid.
- 10 d. Methods for modifying the backbone plasmid for adapting to other SARS-  
11 CoV-2 variants and other pathogens.
- 12 e. Aspects of the processes for purifying mRNA.
- 13 f. Aspects of the surface chemistry of LION™.
- 14 g. Know-how relating to the formulation of LION™ and the process for  
15 making LION™.
- 16 h. Know-how relating to combining saRNA and LION™.

17 93. These trade secrets would have required, at a minimum, years for Emcure or its  
18 subsidiary to develop independently, and independent development would likely have been  
19 impossible for Emcure or its subsidiary absent collaboration with HDT. They are immensely  
20 valuable, commensurate with the market value of (i) the COVID vaccines that incorporate them  
21 or derive from their use, including the medical, technological and economic advantages of those  
22 vaccines over existing mRNA vaccines discussed herein, and (ii) other mRNA vaccines that have  
23 been or will in the future be developed through their use.

1 **CAUSES OF ACTION**

2 **Count I**  
3 **Trade Secret Misappropriation in Violation of**  
4 **Defense of trade Secrets Act, 18 U.S.C. § 1836**

5 94. Plaintiff incorporates the preceding paragraphs as though set forth herein.

6 95. The trade secrets described herein are business, scientific, technical, economic, or  
7 engineering information, consisting of formulas, methods, techniques, processes and or  
8 procedures, or other eligible categories of information as defined in 18 U.S.C. § 1839(3), and  
9 belong to Plaintiff HDT.

10 96. The trade secrets described herein relate to vaccines and other diagnostic and  
11 therapeutic products to be used, sold, shipped, and ordered in, or intended to be used, sold, shipped,  
12 and/or ordered in, interstate and or foreign commerce, including but not limited to in the United  
13 States, India, South Korea and Japan.

14 97. Plaintiff HDT has taken reasonable measures to keep its trade secrets secret,  
15 including by contractually requiring its own personnel and other parties, including Genova, to  
16 preserve their secrecy.

17 98. Plaintiff HDT's trade secret information derives independent economic value,  
18 actual or potential, from not being generally known to, and not being readily ascertainable through  
19 proper means by, another person who can obtain economic value from the disclosure or use of the  
20 information.

21 99. Defendant Emcure disclosed, acquired and or used the trade secrets without the  
22 consent of Plaintiff HDT while knowing or having reason to know that the knowledge of the trade  
23 secrets was acquired under circumstances giving rise to a duty to maintain the secrecy of the trade  
24 secrets or limit the use of the trade secrets (e.g., Genova's duty under the License Agreement),

1 and/or derived from or through a person (Gennova and its personnel) who owed a duty to Plaintiff  
2 HDT to maintain the secrecy of the trade secrets or limit the use of the trade secrets.

3 100. Defendant Emcure's misappropriation was willful and malicious for the reasons  
4 alleged herein.

5 101. On information and belief, if Defendant's conduct is not remedied, and if  
6 Defendant is not enjoined, Defendant will continue to misappropriate, disclose, and use Plaintiff's  
7 trade secrets for its own pecuniary and personal benefit and to Plaintiff HDT's detriment.

8 102. As the direct and proximate result of Defendant's conduct, Plaintiff HDT has  
9 suffered and, if Defendant's conduct is not stopped, will continue to suffer, irreparable injury and  
10 significant damages, in an amount to be proven at trial, but in any event substantially in excess of  
11 \$75,000, exclusive of interests and costs.

12 103. Because Plaintiff HDT's remedy at law is inadequate, Plaintiff seeks, in addition to  
13 damages, injunctive relief to protect its trade secrets. Plaintiff's business relies on its trade secret  
14 information for the core value of its vaccine and immunotherapy business and will continue  
15 suffering irreparable harm without injunctive relief. Plaintiff has been damaged by all of the  
16 foregoing, and is entitled to its damages, in an amount to be determined at trial, as well as an award  
17 of exemplary damages in an amount double its compensatory damages, and attorney's fees.

18 **Count II**  
19 **Trade Secret Misappropriation in Violation of Washington Uniform Trade Secrets Act,**  
20 **Rev. Code Wash. § 19.108.010 *et seq.***

21 104. Plaintiff incorporates the preceding paragraphs as though set forth herein.

22 105. The trade secrets described herein are information, including formulas,  
23 compilations, methods, techniques, and or processes that derive independent economic value,  
24 actual or potential, from not being generally known to, and not being readily ascertainable by

1 proper means by, other persons who can obtain economic value from their disclosure or use, and  
2 belong to Plaintiff HDT.

3 106. Plaintiff HDT has taken reasonable measures under the circumstances to maintain  
4 the secrecy of its trade secrets, including by contractually requiring its own personnel and other  
5 parties, including Genova, to preserve their secrecy.

6 107. Defendant disclosed, acquired and or used the trade secrets without the consent of  
7 Plaintiff HDT while knowing or having reason to know that its knowledge of the trade secrets was  
8 acquired under circumstances giving rise to a duty to maintain the secrecy of the trade secrets or  
9 limit the use of the trade secrets (e.g., Genova's duty under the License Agreement), and/or  
10 derived from or through a person (Genova and its personnel) who owed a duty to Plaintiff HDT  
11 to maintain the secrecy of the trade secrets or limit the use of the trade secrets.

12 108. Defendant's misappropriation was willful and malicious for the reasons alleged  
13 herein.

14 109. On information and belief, if Defendant's conduct is not remedied, and if  
15 Defendant is not enjoined, Defendant will continue to misappropriate, disclose, and use Plaintiff's  
16 trade secrets for its own pecuniary and personal benefit and to Plaintiff HDT's detriment.

17 110. Because Plaintiff HDT's remedy at law is inadequate, Plaintiff seeks, in addition to  
18 damages, injunctive relief to protect its trade secrets. Plaintiff's business relies on its trade secret  
19 information for the core value of its vaccine and immunotherapy business and will continue  
20 suffering irreparable harm without injunctive relief. Plaintiff has been damaged by all of the  
21 foregoing, and is entitled to its damages, in an amount to be determined at trial, as well as an award  
22 of exemplary damages in an amount double its compensatory damages, and attorney's fees.

**PRAYER FOR RELIEF**

Plaintiff prays that judgment be entered against Defendants on each Count and that it be awarded the following relief:

- A. Compensatory damages in excess of \$950,000,000;
- B. Exemplary damages for willful and malicious misappropriation in an amount double the compensatory damages award;
- C. Unjust enrichment caused by misappropriation that is not taken into account in computing damages for actual loss;
- D. An order permanently enjoining Defendant Emcure from using or disclosing Plaintiff HDT's trade secrets;
- E. Plaintiff HDT's pre-judgment and post-judgment interest, and its attorney's fees, costs, and other expenses incurred in this action;
- F. Such other and further relief as this Court deems just and proper.

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DATED this 21st day of March, 2022.

Respectfully submitted,

/s/ Peter K. Stris

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**STRIS & MAHER LLP**

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**DEMAND FOR JURY TRIAL**

Plaintiff hereby demands trial by jury on all issues so triable, pursuant to Rule 38 of the Federal Rules of Civil Procedure.

March 21, 2022

Respectfully submitted,

*/s/ Peter K. Stris*

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