

## Sugar Spikes & Killer Strikes

### EXHIBIT-1

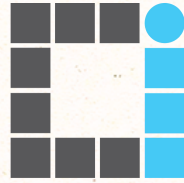
[Extract of a newspaper article, as printed in 'The Mexico News', edition 17th November, 2006]

#### *Diabetes Epidemic Linked to Coca-Cola Consumption Hits Mexico*

*Mexico is currently grappling with a staggering surge in type-2 diabetes cases, with alarming rates linked to excessive Coca-Cola consumption and unhealthy dietary habits. According to a Survey it reveals that the average Mexican consumes over 700 servings of Coca-Cola annually, alongside a shift towards processed foods high in fat. These concerning trends have created an environment conducive to the rapid spread of diabetes across the nation.*

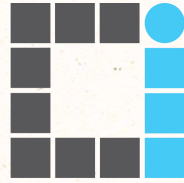
*According to reports, Mexico recorded approximately 7 million diabetes diagnoses in 2006 alone, marking a significant health crisis that continues to worsen. Contributing to the severity of the situation is the exorbitant cost of insulin, a vital medication necessary for managing diabetes. Pharmaceutical companies' relentless price hikes on insulin have placed a substantial financial burden on patients, hindering their access to essential treatment and care.*

*The intersection of rising diabetes rates and soaring insulin costs has prompted urgent calls for action from various stakeholders. Health experts emphasize the need for initiatives promoting healthier lifestyles, including campaigns to reduce sugary beverage consumption and encourage balanced diets. Additionally, efforts to enhance the affordability and accessibility of healthcare services, particularly insulin and diabetes management programs, are deemed crucial in addressing the escalating crisis. There are ongoing discussions within regulatory agencies about potential changes in insulin production standards, reflecting evolving healthcare practices and considerations regarding allergenicity and supply sustainability.*



*The looming threat of the diabetes epidemic extends beyond public health concerns, with potential implications for Mexico's economic well-being. Without decisive intervention, the strain on healthcare systems and the workforce could be substantial, impacting productivity and overall societal health.*

*Amid these challenges, stakeholders across government, healthcare, and the private sector are urged to collaborate on comprehensive strategies aimed at curbing the spread of diabetes and ensuring equitable access to care for all individuals. Immediate action is imperative to mitigate the impact of this growing health crisis and safeguard the well-being of Mexico's population.*



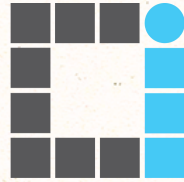
## EXHIBIT-2

[Extract of a research report as found in the Archivo General de la Nación, Mexico City, Mexico-2000]

“Comparative Analysis of Regular Human Insulin (RHI) and Analogous Insulins: Mechanisms of Action, Formulations, and Clinical Implications in Diabetes Management”

Regular Human Insulin (RHI) was initially derived from the pancreases of pigs and cows, marking the early stage of insulin therapy before the development of human insulin analogues. The manufacturing process involves cultivating insulin proteins within *E. coli* bacteria using recombinant DNA technology. RHI is available in two primary forms: short-acting (regular) insulin and intermediate-acting (NPH) insulin. Short-acting RHI, such as Humulin S, Actrapid, and Insuman Rapid, starts to act within about 30 minutes post-injection, peaking between 2 and 3 hours, and remains effective for up to 10 hours. In contrast, intermediate-acting RHI, including Humulin I, Insuman basal, and Insulatard, begins working within 2 to 4 hours, reaches peak activity between 4 and 10 hours, and provides coverage for up to 18 hours.

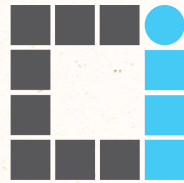
Additionally, premixed RHI formulations blend short-acting and intermediate-acting insulin in various ratios. Examples like Humulin M2, M3, and M5, as well as Insuman Comb 15, 25, and 50, offer different proportions of short-acting to intermediate-acting insulin for customized treatment regimens. The introduction of RHI in the 1980s represented a significant milestone in insulin therapy, facilitating cost-effective mass production. However, reports suggest potential side effects such as hypoglycemia unawareness, fatigue, and weight gain, although further research is needed for definitive conclusions. Nevertheless, ongoing advancements in insulin therapy have spurred the adoption of newer premixed analogue insulins, aiming for enhanced glycemic control and reduced adverse effects in diabetes management.



An analogue insulin is a synthetic form of human insulin that has been modified in the laboratory to either act more rapidly or provide a more uniform duration of action, offering significant advantages for managing blood sugar levels in individuals with diabetes. These analogues have been available since the late 1990s and are produced using recombinant DNA technology, a process that involves inserting the gene responsible for insulin production into host organisms such as *Escherichia coli* (*E. coli*) bacteria. This genetic modification allows for the production of insulin proteins with altered amino acid sequences, resulting in analogues like Humalog and NovoRapid for rapid-acting insulin and Lantus, Levemir, and Tresiba for long-acting insulin.

Rapid-acting analogues, exemplified by Humalog and NovoRapid, have an onset of action within 15 minutes of injection, peak in about 1-2 hours, and provide blood sugar-lowering effects for up to 4 hours. These properties make them particularly useful for controlling postprandial (after-meal) glucose spikes, thereby reducing the risk of hyperglycemia. On the other hand, long-acting analogues like Lantus, Levemir, and Tresiba start working within 1-2 hours after injection and maintain a steady level of insulin activity over a prolonged period, typically up to 24 hours. This uniform action profile helps in providing basal insulin coverage throughout the day and night, minimizing the risk of both hyperglycemia and hypoglycemia.

While analogue insulin offers numerous benefits, including improved glycemic control and flexibility in dosing regimens, it's essential to note potential drawbacks. Some individuals using analogue insulin may experience side effects such as weight gain, hypoglycemia unawareness, or injection site reactions. Therefore, healthcare professionals closely monitor patients using analogue insulin to optimize treatment outcomes and minimize adverse effects, ensuring effective diabetes management tailored to individual needs.



## EXHIBIT - 3

[Extract of a research paper titled '*Concluding the Fen-Phen Saga: Investigating Weight Loss Effects and Valvular Heart Disease, as published in the NIH, National Library of Medicine*]

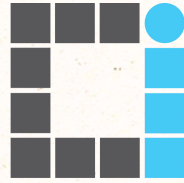
This study aimed to evaluate the weight loss outcomes and prevalence of valvular heart disease in 21 obese women who completed a 2-year treatment regimen of fenfluramine and phentermine (fen-phen) by June 1997.

### Research methods and procedures:

The study cohort consisted of 21 out of 22 women who had previously completed a 1-year open-label trial of fen-phen combined with lifestyle modifications. This report details the findings from the second year of treatment. Valvular heart disease was assessed using two-dimensional, color Doppler, and pulsed- and continuous-wave Doppler examinations, focusing on the presence of aortic regurgitation of mild or greater severity and/or mitral regurgitation of moderate or greater severity.

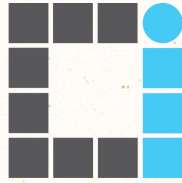
### Results:

Over the course of 2 years, the 21 patients experienced a mean reduction in initial weight of  $13.9\% \pm 10.0\%$ , which was significantly smaller ( $p < 0.001$ ) compared to their 1-year weight loss of  $17.1\% \pm 8.7\%$ . Among these patients, nine reported irregular fen-phen usage during the final 4 months of the study due to concerns about potential health complications. This subgroup demonstrated a 2-year weight loss of  $8.7\% \pm 7.5\%$ , significantly lower ( $p < 0.04$ ) than the  $17.6\% \pm 10.5\%$  reduction observed in participants who adhered to regular medication intake. Valvular heart disease met criteria in six out of 20 patients (30%), none of whom exhibited signs or symptoms of the condition.



## Discussion:

The withdrawal of fenfluramine from the market on September 15, 1997, due to concerns about its association with valvular heart disease prompted this examination. The findings are considered in light of the potential long-term benefits of combining lifestyle modifications with weight loss medications that are both safe and effective.



**EXHIBIT 4:**

[Email sent from Francesco Romano II to Lucia Lorenzo, dated 4th March 2007]

Date: 4th March, 2007, 4:33 p.m. IST

From: Francesco Romano

To: Lucia Lorenzo

Subject: Urgent Action Required

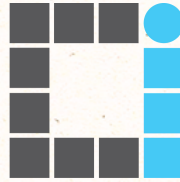
Dear Lucia Lorenzo,

I am reaching out to you with a matter of great importance that demands immediate attention and strategic planning. Time is of the essence, and I am fully committed to ensuring that this project reaches its deserving success.

I am spearheading the establishment of a synthetic insulin plant in Mexico, leveraging an opportune market shift prompted by the USA's prohibition on animal insulin. This regulatory action has precipitated a global insulin deficit, notably impacting regions such as Mexico.

Our focal point is the local manufacture of both analog and human insulin to redress Mexico's acute insulin shortage. This strategic directive not only assures a consistent insulin supply but also augments the economic vitality of the region. In essence, this initiative endeavors to reconcile insulin demand-supply disparities, advance healthcare accessibility, propel economic growth, and harness state-of-the-art technologies for a better penetration of our company in this market.

In combination with this, I also propose a unique market offering of introducing the Fenfluramine-Phentermine (Fen-Phen) drug into the Mexican market, so as to offer a complete diabetes-toolkit, albeit it was previously banned due to safety concerns in the States.



Diabetes has emerged as a significant health challenge in Mexico, and I am of the utmost opinion that we must do everything in our power to capitalize on this opportunity. I want us to offer a complete and comprehensive diabetes-targeted solution, and I want us to take the market by storm. Fen-Phen's potential revival aligns with our overarching objective of breaking into this unique market, that poses immense potential, but is a path that few have traversed. I hope you can envision the same profitable future in this domain that I do, and that you will join me in my mission to establish ourselves as a pharmaceutical mammoth.

Furthermore, integral to our endeavor is a comprehensive clinical trial proposal, meticulously designed to substantiate the safety and efficacy of the refined Fen-Phen formulation. These trials will uphold stringent adherence to regulatory standards and ethical imperatives, ensuring a robust evidential foundation delineating Fen-Phen's efficacy in managing obesity, all while upholding paramount considerations for patient safety and well-being.

Our commitment to addressing insulin shortages and obesity challenges, quite importantly, requires us to secure adequate funding. For this, we must develop a clearly defined financial plan that outlays that capital expenditure, the pricing of the drugs, cost sheets and the future revenue projections.

Critical to the success of this venture is also the development of targeted marketing strategies tailored to economically backward populations, aligning our pricing strategies with the goal of equitable access to healthcare. Furthermore, our strategic approach encompasses the establishment of a robust supply chain infrastructure to ensure the seamless production and distribution of insulin as well as fenfluramine. This includes an optimal procurement matrix, laying out the channels of distribution, development of a sound logistical framework, and implementing quality control measures throughout the supply chain.

I await your invaluable insights and expertise in formulating a comprehensive strategy to address these challenges and propel this initiative forward. We have laid the groundwork meticulously and are ready to execute, aiming to capitalize on the first-mover advantage. Your strategic guidance will be instrumental in navigating this pivotal phase and ensuring the seamless realization of our vision.

Warm Regards,  
Francesco Romano