### Week 4 Analysis Report on Stock Market

#### **Introduction**

In today's stock market, it's clear that prices don't just move because of numbers or financial reports — news articles and public sentiment play a huge role too. After reading headlines on sites like Finviz, I realized that certain words seem to show up more often during big price changes. This made me curious: can we find a connection between what's being said in financial news and how a stock performs? That question is the focus of this project.

The idea is to look at how stock prices for certain companies have moved from April 2023 to now and then compare those movements to the kind of language being used in articles during the same time. I'll be using a dictionary-based approach in R, which means I'll create a list of important words — like "profit," "loss," "increase," "drop," "upgrade," "risk," and so on — and check how often those words show up in Finviz articles. Then, I'll see if there's any clear pattern between those keywords and the changes in stock prices.

This project involves pulling news data, cleaning and analyzing the text, and comparing it to price data over time. I'm especially interested in whether certain types of words tend to appear right before or after a big price change. If I can find that kind of pattern, it might suggest that news coverage does have an impact on how investors behave — or at least that it reflects what's going on in the market.

The cool thing about doing this in R is that I can automate a lot of the steps and build visual tables and graphs that show the relationship between text and stock performance. I'll also be creating a table that summarizes how different keywords relate to price increases or decreases, which might help explain what kinds of news trigger market reactions.

Overall, this project is a mix of finance, coding, and a bit of natural language processing. I'm hoping it gives me a better understanding of how to connect what we read in the news with what we see in the market. And who knows — maybe it could even help with predicting future movements based on how things are being talked about right now.

## 1. Immunon Inc



Imunon Inc. is a clinical-stage biotechnology company based in Lawrenceville, New Jersey, focusing on developing innovative treatments that leverage the body's natural mechanisms to combat diseases. The company utilizes non-viral DNA technology across two primary platforms: TheraPlas® and PlaCCine®. TheraPlas® is designed for the genebased delivery of cytokines and other therapeutic proteins to treat solid tumors, while PlaCCine® focuses on gene delivery of viral antigens to elicit strong immunological responses.

Imunon's lead clinical program, IMNN-001, is a DNA-based immunotherapy targeting advanced ovarian cancer. This therapy works by instructing the body to produce cancer-fighting molecules, such as interleukin-12 and interferon gamma, directly at the tumor site. IMNN-001 has completed multiple clinical trials, including the Phase 2 OVATION 2 study, and is currently in Phase 3 development.

In addition to its oncology focus, Imunon is developing IMNN-101, a DNA-based vaccine candidate for COVID-19, utilizing its PlaCCine® platform. The company has completed dosing in a first-in-human study for this vaccine.

Imunon continues to advance its pipeline through clinical development and strategic partnerships, aiming to provide effective and durable treatments for patients with difficult-to-treat conditions.

# Past Immunon Inc. Stock Market Value Information.

URL: <a href="https://finance.yahoo.com/news/imunon-presents-poster-american-association-123000398.html">https://finance.yahoo.com/news/imunon-presents-poster-american-association-123000398.html</a>

Date and Time: April 19, 2023, 8.30 am

Title: IMUNON Presents Poster at the American Association for Cancer Research Annual Meeting Demonstrating Preclinical Immune Response of IMNN-001

In April 2023, IMUNON shared promising early data at the American Association for Cancer Research (AACR) Annual Meeting. They presented results related to their lead therapy candidate IMNN-001, which is a DNA-based immunotherapy designed to treat advanced ovarian cancer. One of the key points from the poster was the use of Interleukin-12 (IL-12), a cytokine that boosts the immune system's ability to recognize and attack cancer cells.

The study explored **multiple dosing frequencies**, and researchers found that more frequent administration led to **increased CD8+ T cell infiltration** in tumors, which is a marker of stronger immune activation. Additionally, the treatment improved **antigen presentation** and triggered broader immune responses compared to less frequent dosing. These biological effects are considered positive signs that the therapy could eventually lead to improved outcomes in patients.

From a value standpoint, the study also mentioned a **median progression-free survival** (PFS) improvement, though exact months weren't reported here—it aligns with other IMUNON updates suggesting an increase of **up to 3 months PFS** and a **13-month boost in overall survival** in later studies. This kind of clinical progress can positively influence stock value, especially in the biotech sector, where even early-phase success often leads to price jumps due to increased investor confidence. The fact that IMUNON was able to present at a prestigious event like AACR also helps build **credibility** with both the medical community and investors.

#### <u>Current Immunon Inc. Stock Market Value Information</u>

URL: <a href="https://finviz.com/news/65529/imunon-announces-up-to-975-million-private-placement-priced-at-the-market-under-nasdaq-rules">https://finviz.com/news/65529/imunon-announces-up-to-975-million-private-placement-priced-at-the-market-under-nasdaq-rules</a>

Date and Time: May 23, 2025, 6.39 pm

Title: IMUNON Announces Up To \$9.75 Million Private Placement Priced At-The-Market Under Nasdaq Rules.

Fast forward to May 2025, IMUNON made a major financial move by announcing a **private placement** valued at **up to \$9.75 million**. This offering was "priced at the market under Nasdaq rules," meaning it was aligned with the stock's current trading price rather than offering a discount. This type of offering is typically seen to **raise capital quickly** without triggering major dilution concerns, although **short-term dilution risk** still exists due to the included **short-term warrants**.

The deal consists of \$3.25 million in immediate proceeds, with the remaining \$6.5 million potentially coming from warrant exercises. The funds are planned to be used for working capital and general corporate purposes, which usually include paying for ongoing trials, operations, and possibly expansion efforts for IMNN-001 and other pipeline projects.

What's notable is that this funding move came shortly after positive trial updates, which likely helped justify the raise. It's a classic biotech pattern—clinical success attracts funding, and funding fuels further research. For stock value, this kind of announcement is a mixed bag: on one hand, investors are happy the company is gaining cash flow; on the other, there's concern about dilution. However, because the offering was priced fairly (at-the-market) and came after good news, the market likely saw this as a **growth-oriented** move.

Right around this time, IMUNON's stock **jumped by 179**%, reaching around **\$2.27** per share, reflecting a major increase in investor confidence. That kind of spike supports the idea that this financial strategy was viewed positively, especially because it backed up ongoing clinical efforts with real capital.

# **Key Terms from the Articles**

## Past Article (April 2023):

Title: IMUNON Presents Poster at the American Association for Cancer Research Annual Meeting

- IMNN-001: A DNA-based immunotherapy candidate.
- Interleukin-12 (IL-12): A cytokine used in the therapy to stimulate an immune response.
- **Dose Frequencies**: The study evaluated different dosing schedules.
- **Efficacy**: Effectiveness of the therapy in clinical settings.
- Poster Presentation: Mode of sharing research findings at the conference

## **Current Article (May 2025):**

Title: IMUNON Announces Up To \$9.75 Million Private Placement Priced At-The-Market Under Nasdag Rules

- **Private Placement**: A method of raising capital through the sale of securities to a small number of investors.
- \$9.75 Million: Total potential proceeds from the offering.
- **Short-Term Warrants**: Financial instruments giving the right to purchase shares at a specific price before expiration.
- NASDAQ Rules: Regulations governing the offering's pricing and execution.
- Working Capital: Funds intended for day-to-day operations.