

PEPTICOM



Intelligent peptide design

SPRING NEWSLETTER

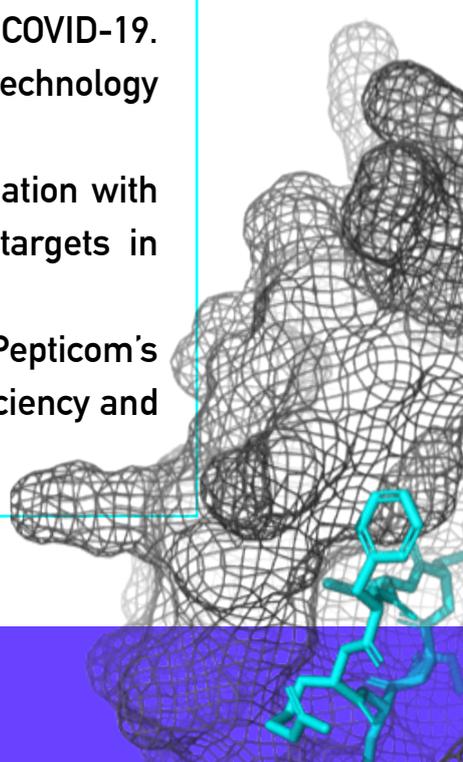
**WISHING ALL OUR
PARTNERS AND FAMILIES
A HAPPY PASSOVER.**

INTRO

WELCOME TO OUR SPRING NEWSLETTER. This year so far has been a whirlwind of good and even better news from Pepticom with the raise of \$2.6 million to establish a subsidiary company, PeptiCov, that will focus on designing new and innovative treatments of the SARS-Cov-2 virus. We also held a successful webinar, attended by over 100 industry leaders, to discuss how Pepticom is harnessing AI to accelerate drug discovery for COVID-19. On our major internal project we were able to pass a critical technology benchmark and identify promising candidates.

We are also happy to update you that we are in advanced negotiation with a multinational company for a collaboration involving several targets in agriculture.

Another exciting piece of news surrounds the deployment of Pepticom's technology on Amazon Web Services for better computational efficiency and to accelerate the run time and reach superior solutions.



PEPTICOV

ON MARCH 9, we announced that Pepticom raised \$2.6 million to establish a company to focus on treatments for the SARS-Cov-2 virus, responsible for the COVID-19 outbreak. The company, PeptiCov, will implement Pepticom's AI technology to design, discover and develop novel peptide molecules for effective treatment of the SARS-Cov-2 virus. The funding round was led by the Chartered Group and several of Pepticom's shareholders participated in the round.

Our CEO, Immanuel Lerner said, "Unfortunately, Covid-19 and the various viral mutations will likely be with us for a long time and thus effective treatment is key. PeptiCov is focused on discovering and developing an effective treatment for SARS-Cov-2, which would allow the world to live alongside the virus rather than remain in lockdowns and other drastic measures."

It was exciting to see this news distributed across the globe with mentions in the following publications:

Tech.Eu	Yahoo Finance
CTECH	FinanceNachrichten
BioWorld	(Germany)
AFP Japan	PR Newswire
MarketWatch	Minyu Net (Japanese)
ZDNET Japan	Israel21C
CNET Japan	NoCamels
Street Insider	Globes
Asahi Shimboun	San Diego
Benzinga	Jewish World

We established a lab of biological safety hazard level 2, in order to support Pepticov's research and to be able to validate the peptides in advanced setting of viruses. this lab is being operated by Pepticom's biological team.

WEBINAR

In light of our PeptiCov announcements, we recently hosted a webinar with researchers, doctors and policy-makers from The Hebrew University of Jerusalem and Shaarei Zedek Medical Center on "Beyond Vaccines- Harnessing AI to Accelerate Undiscovered Treatment for COVID19".

The webinar was attended by over 100 key industry scientists, researchers, analysts and investors. The topics and speakers included:

[CORONAVIRUS CELL ENTRY: SEEKING THE ACHILLES HEEL](#)

Michal Linial, PhD | Prof. of Neuroscience & Computational Biology, at the Hebrew University of Jerusalem

[COVID19 IS ONE YEAR-OLD - WHAT HAVE WE LEARNED?](#)

Dr. Ariel Rokach | Senior Physician, Pulmonary Institute Shaare Zedek Medical Center

[IMPLEMENTATION OF PEPTICOM TECHNOLOGY IN THE COVID19 PANDEMIC](#)

Amit Michaeli, PhD | CTO - Pepticom

[HARNESSING PEPTICOM'S AI TECHNOLOGY FOR DRUG DISCOVERY DURING PANDEMICS](#)

Immanuel Lerner, PhD | CEO - Pepticom

WATCH
HERE



BEHIND THE SCIENCE

WHO? Meet Guila Assayag, our top notch lab manager who's in charge of everything to do with experiments, schedules, inventory, vendors, mentoring new employees and lab safety.

Guila came to us with bachelors and masters degrees in biology, and more than eight years of experience as the head of the lab for pediatric gastro clinical research. She joined us to fulfill her ambition to take part in establishment of a brand new lab from the very beginning.

WHY PEPTICOM? There's nothing better than the combination of AI, computational chemistry and biology when looking to speed-up drug discovery.

FUN FACT: Guila can't ride a bicycle, is a huge fan of Real Madrid FC and never misses a game!

A NOTE FROM GUILA: I have complete faith in pepticom's success and have no doubt that we'll soon be seeing the results of our efforts as a company. I'm happy and proud to say I'm part of the Pepticom family!



AWS ANNOUNCEMENT

FROM ABOUT A YEAR, to less than 6 months. This is the story of how deploying Pepticom's technology across Amazon Web Services will allow for better efficiency and reduce the run-time to reach superior solutions for drug discovery.

Current laboratory-based discovery techniques are complex and expensive, taking 2-3 years on average:

Lengthy "brute force" and serial laboratory techniques are very limiting. For example, each library enables a search for only a fixed peptide's length or chemistry, and a change in length or incorporation of other building blocks requires an entirely new test.

Pepticom's legacy code took two months to run and was a heavy strain on hardware capacities, but even then, we were able to reduce discovery times to about a year.

In the last year, we performed extensive software engineering to enable the adjustments of legacy source codes to enable deployment on Amazon Web Services - resulting in the optimization and parallelization of Pepticom's in-house platform. First, we made the application run faster, while laying the foundations for an incremental effort to optimize the code base. We recognize that the most cost-effective strategy to hasten computation is to parallelize the algorithm where possible (Parallelizing). The sheer volume of computation dictates dividing the load onto multiple computers (Clusters).

AWS ANNOUNCEMENT

This work maximized the computational capabilities available today by using breakthrough AI and ML algorithms and parallelizing the discovery search process. This enables it to use unlimited computer power and to expedite the discovery process, thereby reducing the timeline to less than 6 months.

We estimate that in less than a month we will be ready to launch our first production grade cloud run.

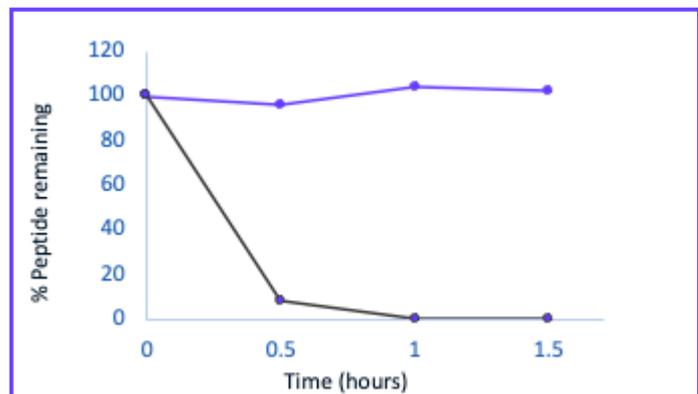
PROTEOLYTIC STABILITY ASSAYS

One of peptides' most crucial disadvantages is their low stability in the body. This low stability translates to ineffective treatment, as the drug will not be able to reach the target and generate an effect since it will be degraded beforehand. Our recent study with a UK based company exhibits Pepticom's technology capabilities in designing peptides with superior drug like properties.

Purple line - advance design of pepticom's peptide measurement over time.

Black line- regular peptide measurement overtime

Pepticom is able to overcome the stability problem by controlling the chemistry and properties of the design peptides.



SUMMARY

SO WHAT'S NEXT FOR PEPTICOM? We are sure there will be new results to share as we ramp-up activities for our internal projects and for PeptiCov and with our new accelerated and enhanced AWS capabilities.

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You can also follow us on LinkedIn or follow our CEO Immanuel Lerner for more Pepticom news.