

# BIOWORLD™ TODAY

THE DAILY BIOPHARMACEUTICAL NEWS SOURCE  
BIOTECH'S MOST RESPECTED NEWS SOURCE FOR MORE THAN 20 YEARS

VOLUME 28, NO. 103  
SPECIAL REPRINT

MAY 30, 2017

## MIXIII BIOMED 2017

### An eye toward the clinic, Israel's Compugen works to transform itself

By Alfred Romann, Staff Writer

TEL AVIV, Israel – A presentation in early June to the American Society of Clinical Oncology (ASCO) will mark yet another small step in Israeli firm Compugen Ltd.'s ongoing effort to transform itself from a computational drug target discovery company into a preclinical or even clinical-stage drug company.

"The idea is to generate a sustainable revenue stream from early stage collaborations to support a late-stage pipeline, partner this into higher-stage collaborations and be able to take them to the market, not alone but in partnerships, and to generate first-in-class products," Compugen President and CEO Anat Cohen-Dayag told *BioWorld Today*. "We have an edge here, and the edge is that we discover stuff that we believe will give us the opportunity to be first in clinical trials. . . . Our starting material is completely different, and we think that it gives us a better shot."

Compugen (NASDAQ:CGEN; TLV:CGEN) is a drug target discovery company and developer of first-in-class biologics against those targets. The company uses predictive discovery to find drug targets, using a computational approach. Founded in 1993, it has evolved over the years from a hardware into a software company, Cohen-Dayag said. If it makes the transformation, which could even see a branded product on the market one day, Compugen could emerge as a rare Israeli company that moves beyond the early stages of development to build a long-term and sustainable global company.

Already a significant player, at least in the drug target discovery space, Compugen first grew through the 1990s on the back of service-type agreements with pharma companies like Abbott Laboratories, Pfizer Inc. and Novartis AG that used its technology in-house for a fee.

Around 2004, Compugen stopped with those service agreements, moving instead to expand and develop the technology for its own purposes.

Fast forward to 2010 and "we decided the time was ripe to discover novel drug targets and for us to build our own pipeline of product candidates," Cohen-Dayag said. "We would use the technology to discover therapeutics, and we would use agreements based on the

therapeutics that we identify and not service agreements."

The technology and approach had already proved itself in some ways. Compugen had spun out a subsidiary focused on agricultural biotechnology, Evogene Ltd., which put out products much faster than its parent, in large part due to the greater ease of conducting tests on plants rather than humans.

It was around that time, in 2010, that Cohen-Dayag became CEO of the company she had joined in 2002. By then, the company felt it had enough evidence that computer prediction worked enough of the time to generate viable targets. For example, the company started using its powerful algorithms to dig deeper into proteins to find new uses for known proteins not limited to any one therapeutic area. And then the company narrowed it down.

"We selected to focus on therapeutics. We selected to focus on biologics. And we selected to focus on oncology and immunology," said Cohen-Dayag.

In 2012, Compugen set up an operation in San Francisco to focus on drug discovery and in 2013 it reached an agreement with Bayer AG that could net it as much as \$540 million from the development of two therapeutics that target immune checkpoint regulators. One of the checkpoints is generating materials for products that can go into clinical trials. (See *BioWorld Today*, Aug. 6, 2013.)

"Computer prediction to preclinical models in immune-oncology is working," said Cohen-Dayag.

In the meantime, Compugen moved forward on its own internal pipeline. The most advanced is COM-701, a protein used in cancer immunotherapy that Compugen wants to take to the clinic itself. COM-701 targets an immune checkpoint called PVRIG, which Compugen identified using its discovery platform. PVRIG works as an inhibitory T-cell regulator in the TIGIT axis.

For Compugen, the findings suggest that there is a strong

©2017. REPRINTED WITH PERMISSION FROM CLARIVATE ANALYTICS  
FORMERLY THE IP & SCIENCE BUSINESS OF THOMSON REUTERS.



rationale to use COM-701 as a monotherapy or in combinations, perhaps with another anti-TIGIT antibody that Compugen is also developing under the internal name COM-902.

"We decided that we have an edge to start working on TIGIT," she said.

#### **'THE POTENTIAL IS HUGE'**

The presentation at ASCO in the first week of June will be yet another step in the long process toward taking drug discovery capabilities into preclinical and clinical stages.

"At ASCO, we are going to release more data for the merits of these two programs to go together," Cohen-Dayag said. "At ASCO, we are also going to have a clinical investigators' meeting to design a clinical trial for the COM-701 program.

"I see two transformation aspects for the company. Turning from a discovery infrastructure company . . . turning to be a product-oriented company, building our own pipeline, showing that it works in preclinical studies; and now we have the proof under one program under the Bayer collaboration, two programs in our own internal pipeline from computer prediction to preclinical trials."

Over 15 years, the company has produced more than 80 peer-reviewed papers that build its bona fides as a discovery company but also kept it in a sort of middle space of discovery and providing services.

"The first transition is from discovery infrastructure to product-oriented . . . and the second transformational stage, which is an extension of the first one, is to turn and be a clinical-stage company and to be able to execute on our business model," said Cohen-Dayag. "And the business model is to be able to partner the different product candidates that we have at various stages of the drug development process.

"If we are working on targets that are new, the opportunity at least to be in a position to get broader claims for our own therapeutics would be higher," Cohen-Dayag said. "Not to say that it is guaranteed; not to say that for sure we'll have broader claims, but we have a better shot because these are less known, less researched."

But she called generating first-in-class therapeutics "the real opportunity" for Compugen. "We took on ourselves a path that is challenging. It is not easy to work on. There are many roadblocks. But the potential is huge."