## Building Biotechs: How MAKO Medical Laboratories Is Turning the Tide of Lab Diagnostics

A chance meeting in 2013 of two friends in Raleigh, NC, leads to the founding of MAKO Medical Laboratories, named a 2021 Comprehensive Partner by the U.S. Centers for Disease Control and Prevention to provide testing for variants of the COVID-19 virus.

## INTRODUCTION

Think back to what life was like when you were in your early 20s. Maybe you're finishing college, kicking back with a friend, and talking about life and the road ahead. Then, it hits you. You two are like yin and yang. His strengths are your weaknesses, and vice versa. You'd make a great team in business together, especially if it was your own business, one that could really help people.

At least that's the way it worked for Josh Arant and his business partner and friend Chad Price, both founders of MAKO, a lab diagnostics company founded to disrupt the status quo in this industry by serving clients differently, with attention to timely results, accuracy, innovation, and integrity.

## THINK BIG

The pair had met in a Bible study group in Raleigh, North Carolina, and started MAKO just a year later. "Over the course of that year, we developed a friendship and decided to go into business together. We didn't really know what specific business, but we felt that with the combination of our skills—Chad's entrepreneurial experience and my chemistry and policy background—we could be successful," says Arant, MAKO's chief operating officer.

Arant and Price did their homework to identify which industries and businesses to zero in on. It became obvious that starting out small was not in the forecast.



**Josh Arant** Co-Founder and Chief Operating Officer MAKO Medical Laboratories, LLC

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"We focused on industries where there was a massive amount of revenue consolidation at the top, with one or two companies controlling the majority of the share," Arant explains. "Additionally, we wanted a space with a relatively high barrier to entry that could be flooded with other players in the marketplace and dilute the available share of the market. And last, we wanted an industry where we could make a tangible impact every single day, locally and globally."

The lab diagnostics space fit all those criteria: It was dominated by two big players, had high regulatory compliance requirements, and has a very large impact on healthcare. About 70% of all clinical decisions in the U.S. are made based upon laboratory results, yet most people do not think about the clinical laboratory very much.

States Arant, "When the doctor orders a test, a patient might have blood drawn and then just wait for the doctor to determine the appropriate treatment plan based on those results. What happens in between generally is not of concern to most people."

In fact, what most people do know of lab diagnostics is the wait for results. They can take several days to come in, which can be an agonizing wait for patients awaiting major news about their health. This was a reality faced by Price and his family, who were all too familiar with the scenario of waiting for lab diagnostics results. "Chad takes care of his sister, who has some disabilities," Arant explains. "He does it on a daily basis, so he has experienced firsthand many of the pain points in our healthcare system, including those in the laboratory diagnostics space. We both felt a calling to help improve the healthcare system so that people do not have to endure the many inefficiencies and hardships that Chad and his sister have gone through."

So, in 2014, MAKO Medical Laboratories was founded with the goal of addressing the pain points of a typical diagnostic lab for patients through speed, accuracy, innovation, and cost savings. MAKO's success followed quickly thereafter. Nowhere was the firm's upward trajectory more apparent than during the COVID-19 pandemic when the company grew from 350 employees to more than 1,000 employees, moving from a small start-up laboratory to a national reference laboratory and leader in COVID-19 testing.

#### **PRIORITY 1: CLIENTS**

For Price and Arant, part of the problem with the lab diagnostics industry was that the biggest players were just too big to move nimbly and react to change. "We decided to begin with a smaller company that was radically client-focused. We went to each client (hospitals and doctors) and asked what their needs were, and then did everything necessary to fulfill them. Cutting down wait times for patients was a huge part of that," Arant recalls. "We did that account by account."

Being able to pivot quickly was advantageous for MAKO during the COVID-19 pandemic, a period that, like many companies, was filled with lows and highs, according to Arant. For instance, at the start of nation-wide shutdowns in March 2020, patients stopped going to doctors' offices.

"We saw almost 50% of our sample volume, and our revenue, disappear," Arant states. "We made the decision to pivot and develop COVID-19 assays with our key partner, Thermo Fisher Scientific."

## EXECUTIVE SUMMARY

MAKO quickly put in place the necessary safety protocols for its staff and by the end of March 2020, was already processing thousands of nasal-swab PCR COVID-19 tests daily. "We were able to achieve this thanks to the willingness of our team to go above and beyond every day. In addition, Thermo Fisher was there every step of the way to supply the necessary equipment, supplies, and reagents."

By May 2020, MAKO became one of the first labs to be able to screen for COVID-19 antibodies in blood. A month later, it opened a patient portal to allow individuals to get their COVID-19 test results in real time—a game changer for those relying on negative test results to return to work or to travel. That September, MAKO was making waves once again by launching a combination assay to test for influenza and COVID-19 with a single nasal swab. By January 2021, MAKO passed the mark of processing more than 4 million COVID-19 tests, and even launched a direct-from-saliva COVID-19 test and more cost-efficient antibody testing. MAKO is now partnering with schools in Georgia, Kentucky, and North Carolina to provide COVID-19 testing to educators and students throughout the 2021-2022 school year.

"We are also thrilled about our comprehensive partnership with the U.S. Centers for Disease Control and Prevention to provide next-generation sequencing of the COVID-19 virus. Since January 2021, we have analyzed more than 2,500 samples from 43 states,<sup>1</sup> and our efforts have identified the occurrence of multiple variants."

#### LESSONS LEARNED

MAKO Medical has had tremendous growth in just seven short years, and its leaders have learned several important lessons along the way.

"We initially underestimated the complexity of medical billing and revenue cycle management. We had the ignorant assumption that if you perform the work a doctor or hospital sends to you, you will get paid for that work," states Arant. "We had to learn about proper coding, medical necessity, timely filing, and in-network versus out-of-network limitations. This learning curve had serious cash flow consequences in the beginning."

Overcoming issues like these was a matter of building key partnerships, both in terms of hiring talented employees and aligning with vendors MAKO could rely on. Both Arant and Price also drew inspiration from mentors such as other CEOs in the Research Triangle Park area from diverse industries. That's why Arant recommends that other entrepreneurs "find a group of people both in and outside of your industry that you can learn from and who have nothing to gain or lose by giving you advice...Also, have accountability within and outside of your organization so that you are always being challenged to improve. As a business owner and entrepreneur, if you don't have people around you that are pushing you as well as supporting you, it becomes easy stagnate."

But what might make MAKO most special is its commitment to the community, which is based on three principles. States Arant, "First, we want to honor our military, so the vast majority of employees on our logistics, procurement, and supply chain teams are military veterans. Second, we want to support our local communities. Our team members continually give their time, talent, and resources to help fill local needs. Third, we support missionaries and prison ministries all across the world."

An example of the latter can be seen in MAKO's work with a prison ministry in the Philippines. In that country, when parents are imprisoned, their children are imprisoned right alongside them if there is no one else to care for them. "We partnered with a non-profit organization to provide food to the inmates and children and to launch a support group. This model has now been expanded to thousands of people," Arant states.

### THE FUTURE IS BRIGHT

As Arant thinks about where MAKO is heading in the next 5–10 years, he says that the focus will be on continuing to serve clients differently. He sees MAKO being proactive in the ongoing transformation of the laboratory diagnostics industry toward at-home and direct-to-consumer diagnostics. "We are now increasingly interacting with patients themselves daily as we continue to build out these types of consumer options," he states.

MAKO also has plans to launch a pharmacy division, another sector that Arant says is ripe for disruption. "There is a great deal of cost variation and lack of transparency around pricing. There is also an opportunity to blend laboratory services with pharmacy services...We know we can increase efficiency and decrease pain points for the patient as well as for physicians and hospitals," says Arant.

The Building Biotechs series, sponsored by Thermo Fisher Scientific, highlights the incredible and inspirational stories of biotech leaders who are making a lasting impact in the life sciences and healthcare space.

