

**Q&A from 10/28 Virtual STEM Career Showcase
with Dr. Michael Johnson and Dr. Tom Villani of Visikol, Inc.**

Q: Does Visikol offer any positions or internships for individuals still pursuing an undergraduate degree?

Q: How may a motivated student without a professional degree become a part of and contribute to Visikol?

Visikol often has internship opportunities for high school and college students.

If your interests are in computer programming, especially learning Python or web application development, reach out to Dr. Tom Villani via email at tom.villani@visikol.com. If you would like to pursue engineering, marketing, or business contact Dr. Michael Johnson: Michael.johnson@visikol.com.

Q: Since the technology was developed at Rutgers, does the University own the patent or does the company?

The technology was developed while Dr. Tom Villani was an employee of Rutgers, and therefore, Rutgers owns patent. Dr. Michael Johnson and Dr. Villani are owners of Visikol, the company. Visikol has a licensing agreement covering the technology with Rutgers.

Q: How have angel investors/Venture Capitalists (VCs) responded to funding for biotech during COVID-19?

Visikol has not worked with VC firms. We are self-funded, via revenue, and received initial funding from Foundation Venture Capital Group. During COVID-19, VC firms have focused on supporting companies they are already invested in to keep them going, rather than taking on new companies. It has been a little harder for new companies to obtain VC funding.

Q: What the best advice that you have for middle school students or young scientists who may be interested in STEM careers? What should they focus on in school and outside of school? What classes should they focus on?

Curiosity, passion and determination are some of the most critical skills for being a scientist or an entrepreneur.

You also must be willing to fail. In science, when an experiment doesn't go the way you want, you have an opportunity to learn. If every experiment always worked, you would just prove you already knew everything! When you fail, you're given the opportunity to improve, to think outside of the box.

We had to refine our business model a few times before it became the successful model it is today. Our willingness to dive in and course correct allowed us to be where we are today. You also must be willing to accept that you are wrong. Then you can self-correct and reflect -- or you will keep making the same mistakes. Always be able to question your motives and pivot as you need. Doing science is about skepticism and doubt ... always wondering -- is there something we missed? As smart as you are, you must be willing to accept the fact that you're wrong.

In school, we took advanced science, computer and engineering classes. Mathematics is a critical foundation in most of science, but it's more important to understand how to apply the concepts to the real world.

We were both well-rounded with activities outside of school. (Dr. Villani is a musician, web designer, started the improv club in high school, and Dr. Johnson played football, ice hockey and did robotics.)

It's critical to explore and learn outside of STEM – creativity is an important skill to cultivate that is hard to craft if you take exclusively math and science classes.

Outside of school, in our free time, we did a lot of learning too. In school, we learned how to learn. There isn't enough time to learn everything at school, but you get the skills to learn to teach yourself how to do things. You need to be motivated to apply skills in free time. Boredom is a blessing in disguise, if you apply your boredom toward your passions. Our company was born out of motivated boredom during grad school – no one was paying us to do it for 2-3 years, but we spent our free time learning what we needed to learn, and building up the technology and the company bit by bit.

Q: Did any of your student workers help you develop a practical product?

Yes! All interns are involved in activities/products that either interact with customers or scientists use to help deliver our services. Almost all have contributed somewhat to a practical product. Visikol is too small of a company to assign busy work to interns.

For example, one of our interns from Somerville High School built a system to organize the research programs in lab. One created image serving software to help our customers interact with the bioimaging data we generate from our research. Other interns have directly contributed to formulation development, as well as assisting with procedures for how we do immunolabeling. Their contributions are embodied in the products that we sell. Another one of our Somerville High School summer interns helped develop a way to ship living plates of organoids across the country. Shipping living organisms across the country while maintaining their integrity is challenging. This intern figured out how to keep the organoids stable during transit using a 3-D printed widget. We filed a provisional patent on the widget. All of the projects interns engage in are really meaningful for the company and the interns.

Q: How did you start the company?

It's easy to start a company and register an LLC on the web. Google it, it's super simple and cost less than \$100. After you start the company, there are filing requirements on the state and federal levels to be aware of.

Q: Do you like your job?

Dr. Villani: I LOVE my job, it's the best job ever!

Dr. Johnson: Most of the time I love it! Like all jobs though there are certain parts I like less, but ultimately being in control of your own destiny and career is pretty cool.

Q: Had you not founded your own company; what type of career do you think you would have had?

Dr. Johnson: It's a hard question to answer for me as my life has been so filled with entrepreneurship. I would like to think I would not have followed the standard 9-5 corporate America job track and would be doing a combination of things I am passionate about, like teaching and coaching.

Q: Have you ever tried combining your interests for music with science?

Dr. Villani: I have never really found the need to try to combine them. What I get from music is much different than what I get from science, although both are intensely and deeply fulfilling in similar ways. It's important to have interests and passions outside of work, as they help ground you to the experiences of life.