



MINA SOOCH GREW UP IN SUBURBAN DETROIT AND HOLDS AN MBA FROM HARVARD UNIVERSITY AND A B.S. IN CHEMICAL ENGINEERING FROM WAYNE STATE UNIVERSITY. SHE TALKS TO MBR ABOUT THE COMPANIES SHE'S HELPED TO FOUND AND FUND.

Venture capitalist MINA SOOCH is on a mission. As founding general partner at **APJOHN VENTURES FUND**, she is dedicated to helping life science companies succeed in Michigan and the Midwest. The venture capital fund, which invests exclusively in early stage life science companies, was launched by Apjohn Group in Kalamazoo, of which Sooch is also a founding principal. She possesses an extensive background in pharmaceuticals and health care through careers as an entrepreneur, strategy and finance advisor and venture capitalist.

**MINA SOOCH:** Apjohn Group was started in 2001 and has seven partners including myself. It was formed with the purpose to partner with biotech entrepreneurs and start new companies, where we would provide our scientific and business talent in exchange for equity in the companies. We covered all the aspects of commercialization amongst our team to help these entrepreneurs with the idea to get from where they were to something that could be venture funded. We launched three biotech companies that are based here in Michigan.”

**MBR:** Those companies are Afmedica, a medical device company in Kalamazoo focused on preventing adhesions and scarring after surgeries; Nephros Therapeutics in Ann Arbor and Rhode Island, a clinical stage cellular therapy company dedicated to the design, development and commercialization of human cell replacement systems; and SenseGene Therapeutics, a pre-clinical stage cancer therapeutic company located in Kalamazoo. Apjohn Group stepped in to help the businesses get off the ground for the first couple of years. Sooch took on temporary roles as CFO at Afmedica and CEO at SenseGene.

The group takes on all of the management roles of launching the company, and within one year to 18 months... sometimes it's taken us two years to extract ourselves collectively from the entity...we replace our talents with people who want to be with the company full time. And that's how we create jobs for other people, because we want to go on and do the next job.”

Last year Apjohn Group started a new venture: Apjohn Ventures Fund. Sooch and general partner Don Parfet manage the fund, which began with financial assistance from the Michigan Economic Development Corporation.

We applied for the MEDC's Michigan Life Sciences Corridor (MLSC) funding...(now part of the Technology Tri-Corridor) The Apjohn Group won \$1.5 million from that award process and through that we created and launched the new venture fund which I now work for full-time.

Sooch honed her venture capital skills working at North Coast Technology Investors, a \$100 million venture fund in Ann Arbor. Today, under Sooch and Parfet's leadership, Apjohn Ventures Fund has secured deals for Afmedica, Nephros Therapeutics and Asterand, a revenue-generating life science company in Detroit that provides human tissue for drug researchers. Apjohn Ventures worked with other venture funds, including Arboretum Ventures and T-Gap Ventures in Michigan to raise money for the companies.

The way that we can help entrepreneurs and build life science companies is by partnering with other VCs when we do rounds of financing. That is fundamental to our strategy, to always invest with other VCs and to take on the active role...especially if it's here in our local market of Michigan...in nurturing the deal, leading the deal, spending time with the senior management of the company and being the active hands-on venture capital that's here next to the company to help them prosper.”

Sooch predicts Michigan and the Midwest will ultimately be viewed as the place to do business for life sciences, especially considering the large amount of R&D spending at the academic or research level from grant funding at places like the University of Michigan, Van Andel Research Institute and Karmanos Cancer Institute.

I think that the raw material, the innovation, exists here...you have the best scientists and the best research going

on. The challenge historically for our markets is how do you get that out of the university and into a company that can move its way from an early stage company into a company with a product that's approved into a company with revenues. I think that's where you bring in all these folks that are business-minded, like myself and these other venture funds and even consultants that are now in the market here in Michigan that come from backgrounds where they're focused on commercializing. And that didn't exist 15 years ago in our market or even a decade ago.

Sooch expects Apjohn Ventures to make eight to 10 investments over the life of the first fund. She thinks they already have three companies that will be successful and looks forward to selecting additional winners in the biotech field. We're patient. We're committed. We think the things that are here are world class, and we're excited about having more entrepreneurs and scientists that have done it before be part of this market because that's part of the key to success. You can have all the money in the world, but if you don't have the right people running the companies, making the right decisions with your money and knowing the right contacts and connections they need to make to grow their company, it's hard to build winners here. We're very proud of entrepreneurs with one good idea and the risk tolerance to start something that is a pharmaceutical that can help save lives. That's the whole focus on therapeutics. We like to work on products that ultimately help people live longer and live better. You get to go to work every morning knowing that you are at least contributing to that, as well as making your investors money and building life sciences in Michigan.

## HIGH-TECH WATER MONITORING

Crystal clear water is the symbol of purity. However, just because it LOOKS clean doesn't mean it IS clean. How can you be sure? The answer lies in a lab that can be carried in your pocket.

A Michigan company has developed technology to test and verify the quality of water flowing through distribution systems. Ann Arbor-based Sensicore has developed a "lab-on-a-chip," a tiny silicon wafer that can detect dissolved gases such as ammonia and carbon dioxide; heavy metals such as arsenic, lead, mercury or copper; and ions such as calcium, sodium and magnesium. The lab-on-a-chip also checks the pH level to detect the acidity or alkalinity of water.

Because no lab testing is required with lab-on-a-chip, analysis that previously required hours or days of testing can now be done in minutes. Using conventional methods, some of these tests can require a team of scientists in the field and in a lab, as well as complex machines. Now these tests can be completed by a single field worker thanks to a chip that is smaller than a penny. In the future, Sensicore's lab-on-a-chip will make round-the-clock remote monitoring possible.

### NEXT GENERATION GOES ONLINE

This summer, Sensicore will roll out a handheld device that makes full use of their breakthrough technology. "The sensor device, attached to the end of a probe, will couple to the handheld electronic

device. This device will capture data and perform computations necessary to provide key information on the water sample," said Christine Gibbons, CFO of Sensicore. "This would give field technicians, environmental engineers and other professionals the ability to go to a site and figure out what's going on with any given water source. The technology will eventually yield an online device for continuous or regular monitoring of water systems. The online device "is our next-gen product, derivative of our handheld device."

Dr. Richard Brown is the original inventor of the technology behind the multisensor. Dr. Brown's research at The University of Utah and later the University of Michigan, where he is currently professor of engineering and associate chair of the electrical engineering department, led to the initial invention of lab-on-a-chip. From there, Ardesta, an Ann Arbor venture firm, invested in the technology and Sensicore was born. Sensicore was the first start-up Ardesta funded. "The original idea was conceived when Rich, being at the University of Michigan, and Ardesta got together with small technology as their common starting point," said Gibbons.

Sensicore continues to work with The University of Michigan through the university's Wireless Integrated Microsystems Engineering Research Center (WIMS-ERC). "The university has been a continuing partner," said Gibbons. "The WIMS program gives us a view on other technologies as well—other supplemental technologies. It's definitely been a good long term win-win with the university."

### NEW CHALLENGES. NEW HOME?

The company's early days were spent researching and developing the technology and tweaking lab-on-a-chip to make it more attractive in the marketplace. Sensicore is now ready to take the next big step: commercialization.

Commercialization brings its own



challenges. With a new product a few short months from market and others in the pipeline, Sensicore needed the ability to expand. "We are expanding the business to meet the demands of the marketplace: scaling up manufacturing and production and marketing and preparing to get the product into the marketplace," said Gibbons.

So Sensicore began shopping for potential sites.

The company looked closely at New Jersey. With investors on both coasts, as well as Ardesta in Ann Arbor, the company felt considerable pressure throughout the site selection process. Michigan, in its effort to create and retain jobs, acted decisively to keep Sensicore from heading to the Garden State. The Michigan Economic Development Corporation (MEDC) offered a Single Business Tax (SBT) credit to convince Sensicore to grow in Ann Arbor.

Now Sensicore will expand into existing space on the Ardesta campus, investing \$4.7 million in the process. It is estimated that the company will create 156 jobs over the next eight years. "We are very happy with how the state pulled this together," said Gibbons. "They really did a good job in identifying what our needs were and how they could address those needs."

### GREAT LAKES, GREAT PLACE

The expertise offered by the University of Michigan and Ardesta was the original reason Sensicore came to Michigan, but Gibbons says the wonderful water resources are the reason they stay. "Detroit's water and sewer department, which serves roughly four million people in southeast Michigan, is one of the largest in the nation. What better place to test a product like lab-on-a-chip?" said Gibbons. "The city of Detroit calls upon those freshwater resources... which allow us to have a good base for beta testing."

The future of lab-on-a-chip seems bright. Homeland security teams could use the technology to monitor water quality at reservoirs, intakes or other critical infrastructure points. Public water and sewerage departments could improve their environmental stewardship by monitoring the status of treated sewage and runoff when it enters waterways. Industrial firms could fulfill their environmental responsibilities by monitoring effluents to ensure that toxic discharges do not exceed safe levels. "We definitely think the marketplace is ripe for this kind of device," said Gibbons.

If you would like to know more about Sensicore, visit them on the Web at [www.sensicore.com](http://www.sensicore.com).