Interview: Gou Jen Wang – Co-Founder & Bing Chen Gu – General Manager, Vida BioTechnology, Taiwan

> "***We believe in the power of nanotechnology.***"

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Tags: Taiwan, Vida BioTechnology, Biotech, Biosensing, R&D, Innovation

Gou Jen Wang, the co-founder of Vida BioTechnology, and Bing Chen Gu, General Manager elaborate on how Vida BioTechnology provides added value to its customers by focusing on simplified use, innovation, lower cost and quality in next generation biosensing.

Vida BioTechnology was founded in 2014. Can you introduce your company to our readers? What was your vision at the time you started the company and what was the market opportunity you identified?

We believe in the power of nanotechnology. The idea came while we worked on a National Program on Nano Technology for the Ministry of Health and Welfare from 2008 to 2014. We collaborated with a research group (medical doctor) from Taichung General Veterans Hospital with whom the research was conducted on the detection of the allergy gene. We used the Anodic Aluminum Oxide technical form and published several good papers on the mentioned topic- the results were convinced, encouraged and very successful. However, we realized it is not cost effective. Therefore, we thought of advancing the technology and developing more precise and reliable technology. We decided to develop the batch fabrication technology to duplicate nanostructures on the polymer- this led to lowering the cost and having a good reproducibility. Conclusions were very positive after initial research in the lab; in comparison to other biosensor companies in the nanostructure industry, results were better in terms of reproducibility and lower cost. Consequently, the company was founded in 2014 along with mass production technique. We

integrated medical collaboration into our business model while also collaborating with companies appreciating good feature we offer.

What are your main products and what sets your multidisciplinary technology apart?

Our main products are disposable nanostructured electrochemical printed (DEP) and portable potentiostat. We provide the entire solution; from research, fabrication, templates, while our products feature higher sensitivity and better reproducibility. We can reduce the cost of the process. In addition to high quality chip and high precision, we provide special design for DEP electrodes with inner wall and outer wall which enables samples spread uniform and prevents cross-contamination. Finally, our product is very simple to use.

You are in a market driven by constant technological advancement. What are some of the innovations that Vida BioTechnology is planning to introduce in the near future?

We want to introduce mobile technology; it will be possible to send all the data to the cloud. Using our technology on mobile device will not only reshape the whole concept of using our technology in terms of portability, but it will also be very simple to use requiring only the central lab. As we are not familiar with technical deadlines, our plan is to outsource the mobile device technology to the experts. In addition to modernising the use of our products and technology, we want to focus on providing companies with the entire solution. For example, we are collaborating with the German company to provide a chip for bacterial detection in water. To provide them with the proper solution, we are continuously asking their needs and specifications- this is our main focus; understanding customer’s needs and providing them with solutions they need.

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How would you describe your R&D strategy?

We have a know how in fabrication of biosensors and we are focused on developing 2nd generation products. In addition to the existing publication, we are investigating further applications products can be used for. Process research is conducted by many experts from different areas that ensure the highest quality of the entire procedure.

The biosensor market is expected to be valued USD 27.06 Billion by 2022. What is your commercial strategy to grab some of the market share?

Currently, we are focused on providing disposable nanostructured electrochemical printed (DEP) electrodes and portable potentiostat. Currently, we have several competitors on the market; from

Spain, Taiwan, Germany, and Japan. Products we develop are simplified and differentiated through higher sensitivity, reproducibility, advanced packaging technique, accuracy, portability and fast results provided in 35 minutes. Also, working together with the customer to understand their needs will enable us to provide them with the requested solution. Our products can be used for different applications. We collaborate with shrimp industry for bacteria detection in water to improve the survival rate of the shrimps, but our product is also used for early Alzheimer's disease, hepatitis B Virus (HBV), and Dengue virus detection.

Who are your main clients?

As our products are used for different applications, our clients are also from different industries. However, currently we are mostly working with hospitals and several companies from Germany and Thailand.

What kind of partner are you looking for?

VidaBio develops disposable electrochemical printed (DEP) electrodes and portable potentiostat which provide innovations in the fields of environmental, homeland security, food safety, process monitoring and clinical analysis. VidaBio incorporates our global partners with multidisciplinary technology to develop next-generation biosensing solutions. We have powerful R&D group to help our exotic partners replace thier costly and ineffective system.

Being a Taiwan based company, how would you assess Taiwan's innovative ecosystem, key strengths and room for improvement?

We are not globalised enough. Although we offer unique technique and advanced technology in optimal timing frame nobody else can achieve, we lack integration of multidisciplinary experts. Companies and government are already putting efforts into promoting globalisation. However, we should integrate multidisciplinary experts from biotech, semiconductor and engineering industry to work together towards building more advanced technology products to produce next generation of Taiwan innovation.

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How do you see Vida BioTechnology contributing to the local innovative ecosystem and healthcare system in Taiwan?

We provide high quality biosensors. As we are a small company in the developing stage, it is important to establish ourselves in the local market to raise funding and be able to grow further.

Semiconducting industry is our potential client and the market opportunity we have discovered. Hopefully, we will be able to provide our products and contribute in this field. As for the healthcare system- we need to put more effort into this area. We are still waiting for the FDA approval to completely activate our services in the healthcare industry.

What are your strategic objectives for the upcoming years?

Firstly, we want to attract more investors to further establish our technique, build our factory and hire more people. Currently, we are in the process of getting the medical approval. Once we finish this process, we will put our efforts on becoming the most successful company in the biosensor industry in Taiwan. After achieving local success, we want to expand internationally. Finally, our goal is to become the global leader in 10 years.

What do you want our international readers to think when they hear the name Vida Biotechnology?

VidaBio is an innovative R&D company specialized in design and batch-manufacturing of nanomaterials-modified environmental and bio sensors. VidaBio develops and manufactures disposable electrochemical printed electrodes, based on screen printing, assembly, nanoimprint and waterproof package technology, enable to be a key component to develop chemical, immune and biologic sensors based on electrochemistry. These sensors provide innovations in the fields of environmental, homeland security, process monitoring and clinical analysis. VidaBio incorporates our global partners with multidisciplinary technology to develop next-generation biosensing solutions.

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