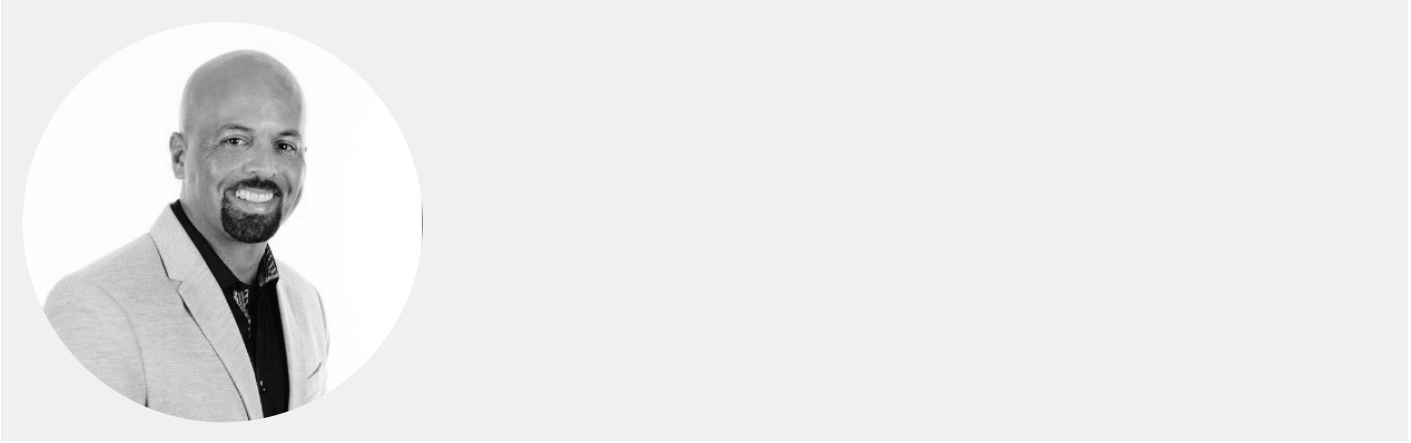
Interview: Dr. Edgar Torres, Ph.D – President, Escalate Sciences & Escalate Labs, Puerto Rico



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Escalate Sciences is a Puerto Rican specialized science-based consulting firm focused on R&D, tech transfer, process design & improvement, analytical development and characterization. The company also serves different aspects of the life-sciences industry including project management, validation, qualification, statistical analysis, facility start-up, regulatory & compliance, reformulation and testing services. Its founder and president, Dr. Edgar Torres, who is also a professor at Graduate Level at the Polytechnic University of Puerto Rico explains how Puerto Rico has the tools to become an R&D powerhouse in addition to its traditional strength in manufacturing.

You founded Escalate Sciences in 2010, following a number of different positions at J&J. Can you introduce the company to our readers?

I noticed that there was a need for specific science-based consulting services beyond standard validation and qualification, process improvements and tests for R&D. Today we have employed more than 43 consultants in Puerto Rico and we are also exporting our expertise out of Puerto Rican shores. In 2014 I made a strategic plan based on the fact that clients kept asking me for several special tests related to characterization. This year we founded Escalate Laboratories Corp.

and completed construction of a laboratory in Caguas. We are taking steps to do testing for major companies that are currently our clients as part of the consulting work that we do through Escalate Sciences. We have helped and contributed with consent decree and late stage R&D work in the island, that has given us the ability to export our services in the US.

Despite the challenging atmosphere surrounding economic growth in Puerto Rico, as an entrepreneur I want to create innovation and provide different services. Going beyond validation and qualification services and doing science-based consulting has provided many possibilities, and the government is willing to help if you have the right business ideas. Now that we are exporting services to the US, that gives us another level of range of services and opportunities. We have grown steadily since. I am always promoting Puerto Rico; I came back to the island when all you see in the media is that everyone was leaving. Having studied in the US, I wanted to come and give back to the country in the industry and academic sectors. While many of the tax structures and incentives have changed since the inception of the pharmaceutical industry in Puerto Rico, companies are still operating here with capital investments because of the critical expertise of our people and resources.

What were you able to bring from your previous experiences?

J&J hired me in Puerto Rico, at that time I had completed a BS in Chemical Engineering and MS in Manufacturing Engineering. After working for four years in Puerto Rico the company offered me a position based in New Jersey and I accepted and was relocated to the US Mainland. That relocation opportunity allowed me to pursue and earn a PhD in Pharmaceutics at the University of the Sciences in Philadelphia, Pennsylvania. At that time I was mostly working on technology transfer, research and process development projects. I had the opportunity to come back to Puerto Rico at a time of challenges with a technology transfer project. Since then, I have worked to bring science-based consulting, related to helping companies with investigations, process improvements, manufacturing and R&D issues. As I had global experiences with J&J, I helped them in these areas. I also joined the Polytechnic University of Puerto Rico as a professor for PhD and Master’s courses of pharmaceutical manufacturing and engineering management. In 2010 I left J&J to found Escalate Sciences, starting alone as a consultant.

Manufacturing has been the main focus of Puerto Rico over the decades. To what extent is the island engaging in R&D?

Pharmaceutical companies transfer products in later developmental stages to the manufacturing sites, when they are ready to do pilot work, registration lots and file processes at the

manufacturing facilities in the island. The formulations are typically done in R&D centers outside. Companies will do the small scale lots, registration stability studies, scale up to register and transfer the products to their manufacturing sites. Escalate Sciences is trying to pursue more late stage R&D work on the island. For example, a company might to work in small scale characterization batches, scale-up, basis of design to adapt and fit their R&D formulations to the actual manufacturing environment or also make process improvements and material characterization. We can help them with those evaluations and we provide the experimental design and data analysis to show alternatives at the manufacturing level. We need to do more work to try to bring the later stages of development to Puerto Rico, mainly in formulation. We have helped companies with formulation enhancement, characterization studies, develop the critical process parameters that will consistently produce their critical quality attributes. We are doing process engineering and characterization work to show that we can help with any investigation problem at the manufacturing level. We work with the R&D centers of each of our clients, who know they can count on us for that expertise. Having stages of R&D outsourced to this island would be my main focus in the future, as well as exporting our expertise and resources to provide R&D and science-based consulting services.

For example, I was invited as a speaker recently at one of our clients' Quality and Validation Annual forums. I spoke about ion mobility spectrometry and how different quality measurement techniques could help with increased level of detection closer to the manufacturing floor and alternatives to help with anti-counterfeiting, testing outlined with cleaning and validation and also testing related to environmental health and safety. We try to bring solutions to manufacturing sites that are a crossover between R&D and manufacturing.

Is it in Puerto Rico's best interest to invest in R&D?

It should be part of our strategic goals in Puerto Rico. We should improve upon it, and this is my aim. Our consulting has grown in recent years because we offer those types of customized science-based consulting services that are between R&D and manufacturing. Puerto Rico is a manufacturing powerhouse, we have high caliber, educated and experienced professionals and in my opinion we need to create a long term structure for R&D to capitalize on our highly educated and experienced resources.

Where do your clients need the most help?

We have historically helped significantly in process improvements, training, analytical and process development, experimental designs, quality engineering, characterization, investigations, project

management, remediation work, validation, compliance, computer system validation and qualification projects. There are some companies for whom we do late stage R&D work using experiment design to perform technology transfer, scale up and registration work. We have done tech transfer and characterization work to support conceptual designs, as well as quality engineering work.

What is your internationalization scope?

We are already exporting our expertise outside of Puerto Rican shores in the US and Latin America. Within the next three years, we will have some major projects in the East Cost of the US. We will take good care of those projects and clients, excel in performance and customer service and we will continue to use the network of clients in the island that also have a network of facilities worldwide as part of our continued internationalization strategy. We also use knowledge and training as part of our reach-out strategy by being speakers in conferences at an international level. All this will leverage our export of knowledge.

Is Latin America on the horizon?

Providing our consulting, training and testing services to Latin America is definitely on our horizon and strategic plans. We have started to do some training work in the Dominican Republic. We have also collaborated in projects in Panama. As a professor I provide training at different conferences, and companies here that are also in Latin America and this provides an additional level to our reach-out and network strategies. We can build-up from the good services that we are providing in Puerto Rico and US, to serve as a reference to export to the Latin America region. Education is part of the reach-out strategy.

What potential do all Puerto Rican service providers collectively have to have a strong presence worldwide?

At Escalate Sciences we are working to export our expertise world-wide and other service providers and consulting companies are also exporting their services. We have the expertise to export science-based consulting services worldwide. Every company has its own strategic plan but we in Puerto Rico should be seen as a world-class exporter of these services. Most people know that consulting companies export qualification and validation, but with resources specialized in packaging, R&D, and many other areas in Puerto Rico, there is and will continue to be room for this collective international growth. We have adapted to many needs in R&D; tech ops to get involved with the right talent, resources and sense of urgency required by our clients. We can bring the right consulting resources with the right expertise to different regions that will have specific needs.

How would you rate Puerto Rico's ability to compete as a hub for life sciences?

Puerto Rico has always being a reference and manufacturing powerhouse in life sciences. We have many years of manufacturing experience, expertise and knowledgeable resources. Many people in PR are also involved in clinical, formulation and R&D work. It is about how we continue to come together as a country to do it. Individually, companies have done well to export; if we continue to foster structures that will bring/align us together with the right export approach, we can be much more successful. If we continue to foster collaboration between industry, academia and government we will continue in the right path to sustain Puerto Rico as a hub for life sciences.

What are your growth plans in the next few years?

In the material characterization center and pilot plant, we have been doing investigation work and will continue to become the first option for our clients. I would also like to establish an office in the US to provide closer services to our clients there. After being able to market the characterization center and pilot plant in Puerto Rico and US, we will continue in parallel to create bonds and collaboration to provide our services with Latin America.

What would you like to achieve on a personal level?

I started this business because I believed there was a need for science-based consulting services on the island, I wanted to create innovation and jobs to our talented resources. When I relocated from the US to Puerto Rico, I wanted to give back to the country and pass my knowledge onto new scientists for the long-term. We should continue to provide excellent services in our island and create innovative centers and solutions as presently done and we shall continue to export our services worldwide. I want to be able to retire and see Escalate with the same core values then as we have today. I would also like to continue living a happy family life and see my wife Tanya and kids Eydan, Tayra and Dylan walk happy and healthy throughout our life stages.

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