Meet Asad Zaidi CEO of Epinex Diagnostics, Inc.



Asad Zaidi, after finishing his B.Sc. in Biochemistry from University of Karachi at the age of seventeen landed in California with few dollars in his pocket and a dream to become a Biomedical Engineer, at a time when this term was too novel to understand. Torn between his mother wanting him to be a doctor and his father's dream of him becoming an engineer, Asad did as any good South Asian son would do and pursued a career in both fields. He envisioned to work on paradigm shifting biomedical technology and devices. He started out to learn engineering and biology at the University of California, Irvine, where he graduated with honors.

Situated in Irvine, California in early seventies a city that had become a Mecca of medical devices spawning great companies like Shiley (Pfizer), Bentley Laboratories, Edwards Life Sciences, CR Bard, Medtronic, and others too many to name. While in school Asad found himself in this fertile field and worked three jobs while supporting himself. Throughout Asad's career as a biomedical engineer and biochemist he has continuously worked on paradigm shifting technology and products in the biomedical industry.

"Around the world there are efforts to advance medical products with electronics and artificial based intelligence, but we have large population who do not have access to proper diet, vitamins, antibiotics, self-diagnostics tests, or even potable water. We have to eliminate these disparities by utilizing the current technologies to make simple products on a large scale."

– Asad Zaidi

Breaking a bone is never good, however, in those days what was even worse was having a plaster of Paris cast that sometimes weighed 20-50 pounds. One of Asad's early job at Solar Laboratories (later acquired by Merk) was to refine and test a polymer that can be laced on a simple bandage and cured by ultraviolet light. This was the advent of ' light cast' that eventually replaced plaster of Paris. When you see people walking around with neon color casts which is so light and porous that people can shower with it. Think about it, this is the technology that Asad once worked on.

Soon after he found himself working on artificial heart valves, he designed testing mechanism to evaluate mechanical and biological artificial heart valves. If you remember or have heard of that one of the first artificial heart recipient Dr. Barney Clark in 1982 was implanted with Jarvis -7 artificial heart, and this heart used the valves that Asad worked on.

An old medical practice was to use a vein from the leg to replace a coronary artery, but, what if the leg had no good veins for this type of procedure? Patients with failing hearts had limited and potentially unsuccessful options before Asad's contribution to one of the first artificial coronary arteries made of polymers. Asad's contributions include writing the first clinical protocols for implanting artificial coronary arteries. While working on artificial heart valves Asad transitioned to work on artificial lungs or oxygenators.

Before 1974 "Blue Babies" lack the ability to properly oxygenate their blood. These babies were certainly DOA or dead-on arrival. They could not survive because of undeveloped lungs. Asad helped develop one of the most successful artificial lungs or oxygenators used to keep the babies alive during surgery. Today, similar technology is in use to save the lives of COVID-19 patients.

Asad spent years of his career collaborating with doctors creating devices that would help those in critical conditions due to chronic illnesses. Over time, he grew a heavy heart for these patients, and this is where his career pivoted.

What if there was a way to detect and treat these chronic illnesses and diseases before requiring gory surgeries?

In the late nineties, Asad was the one of the early scientists given permission to perform clinical trial for a rapid test for HIV in five different Canadian provinces. Asad single handedly evaluated over 4,000 patients and his research produced extremely valuable information for HIV care and diagnostics. A leading scientific journal published the data.

His passion to diagnose chronic diseases early in the game, led to the creation of Epinex Diagnostic Inc. founded in 2003. As the founder and CEO, Asad and his team are trying to change the paradigm of diabetes testing to aid in preventing critical conditions such as blindness and kidney failure by discovering that glycated albumin can be used as a monthly test to screen, diagnose and monitor Type 2 diabetes. Hence, came the idea for G1A, a rapid test for Glycated Albumin. Later, his team discovered that same marker can be used for early testing of arthritis.

Asad has spent his career finding areas within the standard healthcare and change it with better, simple, and improved technology and products.

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