

**Using Novel Nano-Materials for the Repair and Regeneration of Diseased, Traumatized and Aging Tissues, Eqalix, Inc. is Developing Revolutionary Therapies from Natural Sources for Neurology, Cardiology, Hemodialysis, Wound Healing and Organ Repair**

**Biotechnology  
Regenerative Medicine  
(Private)**

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**Joseph P. Connell  
President and CEO**

**BIO:**

Joseph has more than 28 years of Pharmaceutical and Biotechnology, Sales and Marketing experience. He has advanced knowledge in product development, launch and commercialization strategies for Dermatology, Wound Healing, Cardiology, Infectious Diseases, Gastroenterology, Oncology, Diabetes, Pain Management and Anesthesiology.

His career has been a continuous development of progressive responsibilities including executive positions with major pharmaceutical companies as well as startups. He has had global responsibilities for nasal, pulmonary and aerosol drug delivery, clinical development and manufacturing.

Joseph has supplied the expertise for over eleven years to startup clients to commercialize various technologies for the launch of 25 major pharmaceutical products. He recently served as co-founder and President in a publicly traded regenerative medicine company before turning his commitment to building Eqalix.

**Company Profile:**

Eqalix, Inc. is an emerging biotechnology development company with a goal of enhancing the quality of life of consumers and patients by providing novel nano-materials for the repair and regeneration of diseased, traumatized, and aging tissues. Their innovative technologies are intended to revolutionize the unmet needs in multiple commercial and therapeutic applications in the Regenerative Medicine space.

Eqalix has received exclusive commercial licensing from three prominent institutions (University of Pennsylvania, Drexel University and Children's Hospital of Philadelphia) for several groundbreaking technologies to be developed in the fields of aesthetic dermatology, the consumer market for wound treatments, acute and chronic wounds requiring skin replacement, vascular replacements, and to repair traumatic damage to peripheral nerves. Another area of potential application is the creation of tissue replacement to augment or support internal organs.

Using these technologies, Eqalix plans to develop and commercialize (a) plant-protein based nano-fiber scaffold for use in consumer markets, wound healing and therapeutic dermatology as medical devices; (b) small-diameter hybrid vessels that foster the creation of a functional endothelium after implantations for blood vessel and nerve ending regeneration and (c) 3-Dimensional tissue scaffolds with adjustable properties for organ and tissue replacement and repair.

Eqalix plans to further develop and introduce these advancements in a three-staged approach focusing initially on early revenue generation from consumer products, moving onto wound healing and therapeutic dermatology and later advancing through the full FDA approval process for cardiovascular and neurological repair segments over a five-year period. The technologies show promise of significant advancements and could offer a paradigm shift in the treatment of various injuries and medical conditions.

**Interview conducted by:  
Lynn Fosse, Senior Editor  
CEOCFO Magazine**

**CEOCFO:** Mr. Connell, you have history and expertise in biotech, what attracted you specifically to Eqalix?

**Mr. Connell:** Eqalix has three novel technologies that the world has not really seen before. I have been in the industry for nearly thirty years and recently took a company public in regenerative medicine for human skin. However, upon introduction to the licensed technologies, I knew this science was going to make enormous inroads in the fields of tissue engineering and regenerative medicine as well as in the lives of patients and their families.

**CEOCFO:** Would you explain the technologies?

**Mr. Connell:** The pipeline is very rich for a virtual company, because we have three distinct technologies. With the first one, we have the ability to strip soy protein isolate from soybeans at the nano-fiber level and electro spin it into sheets of human

skin substitutes. This novel device has the ability to revolutionize wound healing as we know it. Instead of a bandage or gauze, we create an extra cellular matrix (ECM) that becomes a part of the wound and gives the body a scaffolding from which to rebuild and repair itself. In recent data, we have shown that the scaffolding we are commercializing has the ability to grow back real skin instead of scarred healed wounding. Although these results are early and further studies are required for validation, we are very excited about the possibilities. The other important component about our soy protein scaffolding is the fact that there is no contamination. Every other commercialized product is either synthetically grown in bovine (cow) collagen or other media, donated cadaver skin, stem cells possibly from foreshins or from pigs. There are companies who have very successfully commercialized the use of using porcine skin for humans. Therefore, when we saw this technology of merely stripping protein from soybean and making skin with a low cost of goods, an unlimited shelf life, no handling issues and no refrigeration issues, we just knew that this is going to vastly improve wound healing. However, it goes far beyond that.

**CEOCFO:** Where did the concept start?

**Mr. Connell:** Many in academia are working with electro spinning and many are working on scaffolding. Our technologies came from our inventor, Pete Lelkes who has recently transferred from Drexel University to Temple University, where he is building a regenerative medicine department. Through his research at Drexel University, we were introduced to all three of our technologies, the first one being the soy scaffolding for skin replacement. We can make it into a patch that adheres to the faces and bodies of patients and, while sleeping, we will attempt to treat, fine line wrinkles, acne, rosacea, and other dermatological maladies. Our second technology, I will just call a small diameter hybrid vessel with the ability to re-grow blood vessels and nerve end-

ings. This science is spectacular. We will have the ability to show the body ways to re-grow blood vessels and nerve endings and we will try to treat spinal cord injuries, peripheral artery disease, coronary artery bypass grafts and renal shunts for hemodialysis patients. This patented technology has the ability to 'splice' a blood vessel. If we put this biomaterial between two severed blood vessels or nerve endings and suture it in, the body will indeed grow that blood vessel back naturally.

**CEOCFO:** How and why does the technology work?

**Mr. Connell:** We have the patented small Diameter Grafts with Micro-Grooved Internal Surface to Promote Intima Growth. The body would just populate the inside of this tube with

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the natural blood vessel cells and repair that damaged blood vessel. We just released data that we made a vessel that we used in a porcine model and it was functional. It did not leak, it took the pressure and after the experiment ended, the blood vessel was clear of thrombosis or clogging. Now why this is important is that there is no other company in the world that can make a small diameter vessel, although there are several that can make large diameter vessels. In the study I just referenced, we also did a side-by-side comparison with a Gortex valve, and when the experiment ended, the comparator valve was occluded. You cannot use any other material known to us to make a functional small diameter vessel, because the patients who receive these therapies need a lifetime of anti-coagulation therapy. We will be able to build a blood vessel that works and

functions and the patient will not need a lifetime of anti-coagulation therapy. We also think this is revolutionary for the cardiovascular market and it represents a multibillion-dollar industry for dialysis and bypass grafts and blood vessels, we are very excited about it. Again, even though we are excited, we know that these results will still require validation in further animal studies before we publish definitive results and claims.

The third technology is the three-dimensional tissue scaffold and I will use non-technical language here. We can infuse or inject our materials into a damaged, diseased or traumatized organ and have that organ remodel, repair and rebuild itself such as lungs, hearts and kidneys. We can also make three-dimensional models or rebuild lungs and hearts. While this science is more involved than the other two meaning it is a longer time to market, what we hope to do is take all three of the technologies through the development commercialization stage in parallel.

**CEOCFO:** That is quite ambitious!

**Mr. Connell:** Yes it is. The model is somewhat different too, because I am going to keep this company virtual as long as possible and for a good reason. I have been in the industry for thirty years and have helped many start-up companies commercialize and what I see is many companies that get financial backing burn through the money in three ways. First, they build elaborate laboratories, then they build office buildings and they pay themselves fantastic salaries and on other people's money. They are spending in these areas to the point of going out of existence. I am the only employee of our company. The inventor of the technologies is part of our team as a consultant, advisor and guiding light. We are working with many of Peter's original staff on our projects as well. We have regulatory and legal counsel all on retainer and on consulting contracts, but we do not have employees. Our laboratories will be virtual and have a

sponsored research agreement with Temple University to use their laboratories as ours. We are a virtual company inasmuch as our headquarters certainly looks like the kitchen table here. We are virtual and I am going to keep it that way as long as we can. However, there will come a time when we scale up and someone discovers what we have created. Then we will be pushed to commercialize faster, because it is so revolutionary.

**CEO CFO:** What is happening today at Equalix?

**Mr. Connell:** We are in the middle of a form-D registered round of funding. We are raising \$500,000. We are in the process of evaluating and writing grant proposals, so that we can keep this virtual model and keep the shareholders that we have "whole" and undiluted. Initially, we are progressing with development of the skin scaffolding for aesthetic dermatology and wound healing applications. I am in the middle of contract negotiations for that laboratory situation at Temple University under the sponsored research agreement. We have just named two of the world's most renowned dermatologists as our advisors, have named the scientific advisory board and are finalizing our contracts. We are in advanced level talks with several co-development partnership companies especially in the wound healing areas. We are growing and moving daily.

**CEO CFO:** It seems that science has always known it is possible to grow a new organ, but many people do not really believe. How do you jump over that skepticism; is it a challenge?

**Mr. Connell:** It is a huge challenge and there is only one way to make people believe; that is to prove what you have. We need to raise the money to do the clinical studies. We

need the money to perform the animal models and we will need to validate all the data I mentioned here. Then move into human trials and validate that our science and technology is here to change medicine and change lives.

**CEO CFO:** When you see that you have real game-changers here, how do you deal with the regulatory and funding frustrations?

**Mr. Connell:** I am a Type-A and I am very hard on delays and on myself. I am frustrated in as much as we have three game-changers, all in multibillion dollar markets and we do not have the immediate financial means to move them through in parallel. The biggest advantage we have is that all of these will be classified as devices, which takes less time, less clinical trials, and less money for approval than if anyone were trying to bring a pharmaceutical or a therapeutic to market. We can have our first cosmetic product on the market in twelve months and wound healing applications and dermatology applications within eighteen to twenty-four months. That is a very full pipeline and a schedule that most pharmaceutical companies would love. We are blessed in the fact that they are devices, so it will take less time.

I am sometimes frustrated in being virtual, not having the resources, that other people do. We are very happy to have a phenomenal Virtual Assistant (literally) to handle a great deal of work, social media editing, proofing and research. When you are trying to save lives, revolutionize therapies and build a company, sometimes you still have to go to Staples. There is a delay when we have to go out on the road and raise capital and it slows down the science. So far, with the bandwidth that we have with just one

employee and some consultants we are not getting on the circuit, so people really do not know what I have.

**CEO CFO:** Will you be going to BioForum of 2012?

**Mr. Connell:** Yes, I am fortunate for this opportunity. I will be presenting and I am hopeful that there will be a marriage of science and investors. However, we do need to generate a wider scope of interest within the industry and media. My team worked for over one year doing due diligence to prove that this was truly what we thought it was. Our website, [www.equalix.com](http://www.equalix.com) went live on June 1<sup>st</sup> of this year, we distributed our first press release June 4<sup>th</sup>, and are involved with social media too but Equalix is still a well-kept secret. We have several other scheduled conferences and forums coming up in the next few months and these events will help put us on the map with other biotech leaders, partners, investors and colleagues.

**CEO CFO:** Why should investors pay attention to Equalix?

**Mr. Connell:** We have the ability to transform therapies in neurology, cardiology, hemodialysis, dermatology, wound healing and organ repair, such as it has never been done before. We are passionate about the science of our technologies and their intended impact to change lives and make a difference in patient care and wellness. I hate to use the word too often, because it loses potency, but they are revolutionary therapies from natural sources that could be on the market in two years or less.



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