El Dorado Economic Development Advisory Committee



SUSTAINING QUALITY OF LIFE THROUGH RESEARCH™

October 23rd, 2012

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The Vision

Always fascinated with science and medicine, I began working at Santa Barbara Cottage Hospital at age 19 as a licensed EMT in the trauma center and as Surgical Technician in the Operating Room.

I worked extensively with human dissections and organ donations, as well comforted grieving families in times of loss. Witnessing the difficulties and limitations that western medicine faced, I decided make a meaningful contribution to medical research so that scientists could focus on discovering and refining disease treatments rather than band-aid the problem.

The Vision (Cont.)

At age 23, I concurrently worked for a prominent Bay Area human tissue provider, Advanced Biosciences Resources, as a procurement manager, and, to pay for my college education. I concurrently opened my first company, Executive Business Management, which managed corporate building contracts throughout California.

It wasn't until 2010 that I finally struck a balance between my natural business acumen and love of medicine by founding StemExpress.

The Vision (Cont.)

Growing at an ever-increasing rate in the last two years, it has become the new high standard in human tissue, blood and cell procurement and isolation for top research universities, labs and hospitals across the country.

My experiences prior to StemExpress inspires my passion to advance translational medicine through our ability to provide researchers with the critical specimens they need to make paradigm shifts in the practice. StemExpress provides hundreds of researchers with thousands of specimens each year.

About StemExpress

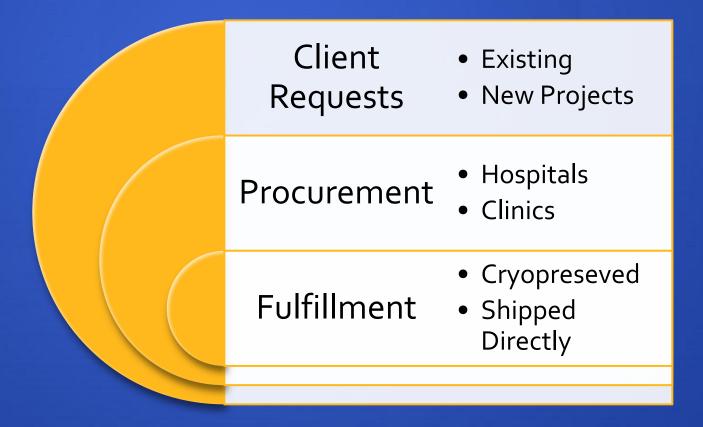
Founded in May 2010 **Privately held** Woman owned business **Dedicated to medical** advancements Supplies over 40 different universities, 17 private clients, and over 200 scientists with human blood, primary cells and/or tissue. Ships products within the U.S and Internationally Became a multimillion dollar a year company in 2011

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What do we do?

- We procure blood and tissue for medical research
- We also isolate cells from those specimens









Services We Offer

- Cell Extraction and Isolation
- Blood Procurement:
- Whole Blood
- Maternal Blood
- Umbilical Cord Blood
- Human Tissue Procurement:
- Non-diseased, healthy tissue
- Diseased tissue
- Laboratory Services:
- Infectious disease testing
- Blood processing

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Cell Types That We Isolate

Hematopoietic Stem Cells (CD34+) –

- Peripheral blood (PB), cord blood (CB), bone marrow (BM) and liver (Liv).
- Mesenchymal Stem Cells
 - PB, CB, BM, Wharton's Jelly (WJ), Adipose, Fallopian Tubes, Placental Tissue and Dental Pulp...
- Mononuclear Cells
 - Peripheral blood (PB), cord blood (CB), bone marrow (BM) and liver (Liv)
- Other Primary Cells
 - Somatic Cells (Skin, Liver), T-cells, B-cells, NK-cells, Dendritic Cells, and dozens of other cell types.

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Current Applications

- Hematopoietic Stem Cells (CD34+)
 - Humanized mice, iPSC generation
- Mesenchymal Stem Cells
 - Regenerative medicine, immunomodulation
- Mononuclear Cells
 - Inflammatory events, further cell isolation
- Endothelial Stem / Progenitor Cells
 - Heart diseases
- Other Primary Cell Types
 - T / B cells, parenchymal tissue, diabetes...

Current Market Challenges

Capitol Infusion-

 Huge up front costs in laboratory equipment, facility retrofitting, training personnel, and recruiting the appropriate talent.

Barriers to entry with clients—

 High barriers in the form of IRB (Independent Review Board) approval, laboratory equipment short falls, supply chain access, distribution and competition.

Supply Chain –

Developing and expanding further into hospitals and clinics.

Technical Capabilities –

Training personnel, cell culture experience, improving commercial market cell isolation protocols.

Impact To The County

- Seventy percent of our employees live in El Dorado County. Some have relocated here to work with us.
- StemExpress continually puts money back in to the county by using local businesses and local contractors.
- We have established a relationship with Marshall Hospital that will be mutually beneficial for many years to come.
- Access to the community to participate in medical research, through tissue, blood, and bone marrow donation.

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EXPANSION



Our Procurement Staff

Procurement Technicians

- -Strong knowledge of human anatomy
- -Science degrees
- -Energetic and self-motivated
- -Flexibility in schedule and worksite
- -Knowledge of sterile and aseptic techniques
- -Detail orientated
- -Strong desire to participate in a dynamic area of medical research



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Our Laboratory Staff

Laboratory Technicians

-Strong knowledge of cell and molecular biology -Science degrees -Self motivated with meticulous attention to detail -Knowledge of sterile and aseptic techniques -Experience with cell culture techniques -Strong desire to participate in a dynamic area of medical research



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