



Leonhardt's Launchpads Provides Update on 2019 Portfolio Class of Organ Regeneration and Recovery Startups and Innovations

November 15th, 2019 - Los Angeles, CA and Salt Lake City, Utah - Leonhardt's Launchpads by Cal-X Stars Business Accelerator, Inc. is an innovation and startup accelerator focused on organ regeneration and recovery technologies primarily based on a core IP of bioelectrics, biologics and catheter based delivery systems.

Howard J. Leonhardt, Executive Chairman and Chief Executive Officer of Leonhardt's Launchpads "We are proud of our dedicated team that works very hard every day to meet our goals. Our board and shareholders are grateful for their steadfastness and focus in overcoming obstacles and getting things done."

Leonhardt's Launchpads is **highly focused** on **leveraging our core IP** of over 30 proprietary bioelectric signaling sequences, mixed biologics based compositions and our combination bioelectric stimulators + re-fillable micro infusion pumps **for organ regeneration and recovery.**

General Progress Overview

- **Over 800 patients enrolled in clinical studies.**
- **Data published or presented on over 300 patients.**
- **Running about 83% treatment success across all products. No adverse events reported to date.**
- **Over 600 patent claims issued, pending, optioned or exclusively licensed.**
- **Recent letter of allowance from USPTO for bioelectric controlled expression of RANKL for accelerated tooth movement, .**
- **Recent letter of allowance from USPTO for bioelectric controlled expression of SDF1 and PDGF for stem cell homing.**
- **Pioneering patent secured for bioelectric blood pressure management.**
- **Pioneering patent secured for wireless power of circulatory assist devices.**
- **Pioneering patents filed for klotho, follistatin and tropoelastin protein expressin control.**

- 7 issued patents for bioelectric cancer tumor treatment and dozens of new claims pending.
- 16 products at clinical stage of development and 14 in pre-clinical stage.
- \$6.3 million in capital raised across portfolio of startups in most recent financings.
- Working with research collaborators and partners have secured nearly \$3 million in grant funding and research subsidizations.
- 28 startups in current 2019 portfolio class with 2 more on deck to join.
- 5 startups have reached stage to initiate process to secure strategic partnerships.
- Over 140 mentors, consultants advisors and contract service providers are working to launch our startups and bring our innovations through first in human studies.
- We have 2 active staffed and equipped R&D labs in Utah and 2 in Los Angeles.
- We have branch R&D offices with access to local labs and service providers in Minneapolis, Santa Rosa, Pittsburgh, Brazil and Australia.
- Working with two OEM manufacturers our bench top bioelectric stimulators have FDA 510K market clearance for improving blood circulation, pain relief and improving range of motion of treated tissues.
- Our micro implantable stimulators have a master file with the FDA for entering clinical trials.

Progress in the **Heart & Cardiovascular** Group (8 startups and innovations)

- **BioLeonhardt** www.bioleonhardt.com - Completed small animal studies at U of Utah with \$150K of grant support and now is moving to large animal studies at the Texas Heart Institute for total heart regeneration.
- **Second Heart Assist** www.secondheartinc.com - After completing 5 rounds of animals studies, 4 mock loop studies, 2 computational fluid dynamics and other testing Second Heart Assist successfully completed their first in human study the summer of 2019.
- **Vascustim** www.vascustim.com - Is currently preparing to enroll patients in a clinical study in Mexico with updated signaling sequences. The research team previously completed prior successful clinical studies in Mexico and Czech Republic with a earlier generation product for leg ischemia and wound healing.
- **Valvublator** www.valvublator.com - Unveiled its second generation Valvublator II design this fall and has partnered with Rev1 Engineering for product development. The team has engaged collaboration with an independent team in Italy that has already completed a surgical clinical case with a similar technology with success.
- **VibroCell** <https://leonhardtventures.com/vibrocell/> - Is preparing for large animals studies at Texas Heart Institute in combination with the Second Heart Assist wireless chronic implant.
- **PressureStim** www.pressurestim.com - Has 1 pioneering patent issued and dozens of other patent claims pending. The team is in collaboration discussions with teams in China, Brazil, USA and Korea that together have already completed over 100 successful clinical patients utilizing bioelectric energy to reduce high blood pressure. Brazil positive study is published and were are in line for full rights to this data to be ours. Meeting soon with UC Irvine as well.
- **BioPace** www.bio-pace.com - Just got a letter of allowance from the USPTO for a new patent and his filed a number of grant funding applications.

- **AortaCell** - Has arranged an exclusive option to license to an infusible nano-particle solution that has demonstrated in animal studies an ability to shrink aortic aneurysms and is moving into large animal studies combining this product with bioelectric stimulation.

Progress in **Brain Group (1 startup)**

- **CerebraCell** www.cerebracell.com - Is preparing to launch clinical studies in Brazil for stroke recovery and is working to launch a collaboration with UCLA spin out BrainSonix for a combination focused ultrasound and bioelectric therapy for brain recovery for treating various ailments. The team has filed IP for treating Alzheimer's, Parkinson's, addiction, depression, migraine headaches, memory loss, anxiety and for brain enhancement.

Progress in **Cosmetic, Personal Care and Reproductive Health Group (7 startups)**

- **OrthodontiCell** www.orthodonticell.com - After completing numerous pre-clinical studies completed its first 40 patient clinical study. The study demonstrated up to 80% improvement in teeth straightening acceleration. The company is seeking a strategic partnership.
- **MyoStim ED** www.erecstim.com - Completed its third successful clinical study and is now enrolling in a registry study. 152 patients have been treated as of Oct. 31, 2019. The company is seeking a strategic partnership.
- **HairCell** www.haircellstim.com - Completed a successful pilot study in South Africa demonstrating up to 30% hair density improvement. The company is seeking a strategic partnership.
- **SkinStim** www.skin-stim.com - Completed a successful pilot study demonstrating noticeable improvement in wrinkle reduction in a number of patients and is preparing to enroll more patients.
- **TestiStim** www.testistim.com - Completed a successful pilot case and now is working to launch a pilot clinical study in Brazil.
- **DentaCell** www.dentacellaccelerator.com - Is enrolling patients in clinical evaluations now for a number of applications and use and is working to publish a book with results from its participating research collaborators.
- **Stem Cell Bra** www.stemcellbra.com - After completing 15 large animals moved to a low dose safety study in 10 humans in South Africa and Brazil with successful results. The company is now preparing to gain regulatory clearances for its first full dose and full signaling sequence efficacy study. Pre-clinical studies demonstrated up to 20 to 30% breast tissue volume growth after only 1 hour treatment every other day for 4 weeks with only a signal signal applied.

Major Organ Regeneration Group (11 startups)

- **EyeCell** www.eye-cell.com - Has published data on over 176 patients and is preparing to enroll in 2 new clinical studies with additional signals added. The company is seeking a strategic partnership now.
- **KidneyCell** www.kidney-cell.com - Has completed and published one successful clinical study in Brazil and is preparing to enroll in another.
- **BladderCell** www.bladder-cell.com - Has completed and published one successful clinical study in Brazil and is enrolling now in a second.
- **InStim** www.instimcell.com - Has completed a successful inflammation control pilot case in Brazil and is preparing to enrolling more patients now in a full pilot clinical study.
- **OrthoStim** www.ortho-stim.com - Is preparing to enroll patients now in a pilot clinical study for knee osteoarthritis. The late Dr. King Liu a founding member of OrthoStim had already completed successfully over a dozen patients before his passing.
- **RegenaLung** <https://leonhardtventures.com/regenalung/> - Is seeking out pre-clinical research partners.
- **EarCell** www.ear-cell.com - Is seeking out pre-clinical research partners.
- **PolypStim** www.polypstim.com - Is seeking out pre-clinical research partners
- **LiverCell** <https://livercellstim.com> - Is engaging a number of institutions active in liver regeneration research for collaboration.
- **PancreaCell** <https://leonhardtventures.com/pancreacell/> - Is engaging a number of institutions active in pancreas regeneration research.
- **BioLeonhardt Whole Body** <https://leonhardtventures.com/bioleonhardt-whole-body/> - Is preparing to launch clinical studies for BodStim its bioelectric body suit in collaboration with partner firms.

Cancer Group (1 startup)

- **CancerCell** www.cancercellinc.com - Has **7 issued U.S. patents** for reading cancer tumors and custom delivering bioelectric treatment sequences and dozens of new patent claims pending including bioelectric controlled immunotherapy and striving a tumor of blood supply with anti-angiogenic protein expression. The company completed a feasibility animal study with very low dosing (1 hour treatment per week for 4 weeks) at UCLA and is now preparing for a high dose animal study (24 hours a day treatment for 16 weeks).

These innovations, concepts or startups have qualified to enter soon the **CalXelerator** www.calxelerator.com 108 day "create to great" program and the top best two (2) of them will be selected to join Leonhardt's Launchpads longer term accelerator (through first in human studies) - AddictiStim, MemoryStim, Brain N Hance, MigraineStim, NerveStim, CraveStop, LymphStim, BoneStim, ImplantStim and SnoreStim. Some of them are potential spin outs of our existing startups DentaCell Accelerator, OrthoStim Accelerator or CerebraCell.

Estimated Startup Ripe to Exit Schedule Leonhardt's Launchpads

2019/20 Portfolio Class

Current as of Nov. 1, 2019 CEO Ranking
Expected Startup Ripe for Exits Schedule **(Highly Subject to Change)**

2019/20

1. Second Heart Assist, Inc. www.secondheartinc.com
2. OrthodontiCell www.orthodonticell.com
3. MyoStim ED www.erectistim.com
4. HairCell www.haircellstim.com
5. EyeCell www.eye-cell.com

2020/21

1. CancerCell www.cancercellinc.com
2. PressureStim www.pressurestim.com
3. BladderCell www.bladdercell.com
4. Stem Cell Bra www.stemcellbra.com
5. SkinStim www.skin-stim.com
6. TestiStim www.testistim.com

2021/22

1. BioLeonhardt www.bioleonhardt.com
2. LiverCell www.livercellstim.com
3. KidneyCell www.kidney-cell.com
4. Valvublator www.valvublator.com
5. CerebraCell www.cerebracell.com

2022/23

1. PancreaCell – <https://leonhardtventures.com/pancreacell/>
2. DentaCell www.dentacellaccelerator.com
3. OrthoStim www.ortho-stim.com
4. Instim www.instimcell.com
5. AortaCell <https://leonhardtventures.com/aortacell/>

2023/24

1. EarCell www.ear-cell.com
2. Vascustim www.vascustim.com
3. Biopace <https://leonhardtventures.com/bio-pace/> + www.bio-pace.com
4. VibroCell <https://leonhardtventures.com/vibrocell/>
5. BioLeonhardt Whole Body and BodStim <https://leonhardtventures.com/bioleonhardt-whole-body/>
6. RegenaLung <https://leonhardtventures.com/regenalung/>

On deck circle working through the CalXelerator www.calxelerator.com 108 day create to great program to be considered to be added to portfolio once an opening is available includes: PolypStim www.polypstim.com, AddictiStim, MemoryStim, MigraineStim, NerveStim, CraveStop, PainStim, LymphStim, BoneStim, SnoreStim, AirwayStim, GingavaStim, InfectiStim, DetoxStim.

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