Pacylex is developing a first-in-class, oral drug, PCLX-001, to selectively kill various types of cancer cells, while leaving normal cells unharmed. Animal tests show PCLX-001 completely eliminates tumors in xenograft models of leukemias and lymphomas (Acute Myelogenous Leukemia; AML, Burkitt Lymphoma; BL, and Diffuse Large B Cell Lymphoma; DLBCL). PCLX-001 also kills many solid tumor cancer cell lines and slows tumor growth in models of human lung and breast cancer. **Pacylex keys are:**

- New target in cancer enables a breakthrough therapy;
- Team with experience to deliver clinical results;
- Rapid development path; 4 years to market;
- Value already created by clearing risks for clinical start.

**New target in cancer enables a breakthrough therapy:**

- First in class therapy – PCLX-001 is an NMT inhibitor that tightly binds both human NMT enzymes (IC50 <9nM).
- New mechanism of action – PCLX-001 inhibits B-cell receptor (BCR) signaling by disrupting several SFKs (Src family kinases) and inducing cancer cell death by apoptosis.
- Proof of concept in blood cancers – PCLX-001 kills most leukemia and lymphoma cell lines at 10nM concentrations or less and eliminates tumors in mouse xenografts of AML, BL and DLBCL including drug resistant tumors from a patient (Figure 1).
- Proof of concept in solid tumors – PCLX-001 inhibits growth of solid tumor cell lines and mouse xenografts, working through a different NMT mechanism.

**Figure 1.** PCLX-001 causes complete tumor regression of drug resistant patient Xenograft.

**Management team with experience to deliver clinical results:**

**CEO:** Michael J. Weickert, PhD. Former CEO at illumiSonics, Sonescence, SEA Medical Systems (also co-founder), CBO at Ohm Oncology, Corium, Stratagent Life Sciences, VP Development Auspex, ran oncology and oncology-related clinical development programs at Nektar and Ligand, NCI/NIH.

**CSO:** Luc Berthiaume, PhD. World leader in protein fatty acylation; Professor, U. Alberta, Founder of Eusera and Pacylex; global distribution experience; 3 patents; commercialized antibody design and production.

**CMO:** John Mackey, MD, FRCPC. Director of clinical trials at the Cross Cancer Institute; former Director of TRIO (clinical trial organization, 200 people); ran >50 clinical trials in oncology, founder of 3 companies including Pacylex.
Pacylex Pharmaceuticals, Inc.

Rapid development path; 4 years to market
- Pre-Investigational New Drug (IND) meeting completed – clear path to IND.
- IND filing in 6-9 months, after 28-day GLP tox studies in late 2019.
- Orphan and Fast Track eligible for initial indications in DLBCL (~18,000 patients/yr), AML (~21,500 pts/yr), and BL (~1,200 pts/yr).
- Phase 1 program, protocol, principal investigator and 3 clinical sites are ready in Canada to dose DLBCL and solid tumor patients.
- Rapid development (3-4yrs IND to New Drug Application [NDA] and European approval); precedence in Orphan oncology indications includes Tagrisso for NSCLC (basis for Figure 2)

Value already created by clearing risks for clinical start:
- Pharmaceutical validation – one of the biggest risks of new discoveries is the ability to independently replicate results. PCLX-001 activity has been confirmed in multiple independent labs including by big Pharma in their own cell and animal models.
- Risks cleared for path to the clinic – the completion of acute and 14-day toxicology studies in 2 species and the FDA feedback received from the pre-IND meeting, provides a clear path to filing an IND and starting clinical trials in early 2020.
- In vitro cell-based testing showed PCLX-001 was 10x more potent than top cancer drugs including ibrutinib and dasatinib at inhibiting cell growth and proliferation in lymphoma, selectively sparing normal cells.

PCLX-001 has genuine blockbuster drug characteristics:
- Oral availability ~100%
- Activity against many blood and solid tumors
- New mechanism – not redundant with other products – potential for therapeutic synergy
- Tumor killing not tumor inhibiting

Patents:
- Exclusive license on issued patents for a family of over 50 NMT inhibitors including PCLX-001: EP 2323987 A1, US 9,156,811, US 9,828,346
- Pacylex owns global patents on diagnostic, mechanism, and treatment. Patents issued so far in JP, RU, IS, NZ, SA, allowed in MX, others pending.

Key Take-Aways:
- PCLX-001 is a potential blockbuster drug
  ✓ Potent, oral, once-a-day drug with broad tumoricidal anti-cancer activity.
  ✓ New mechanism of action suggests PCLX-001 can be added to other cancer therapies and potential synergy rather than competition.
- Rapid development
  ✓ On path to IND filing in 6-9 months
- Potential for early partnering or exit
  ✓ 10x as potent as ibrutinib (Imbruvica; $4.4B 2017) and Dasatinib (Sprycel; $2.3B 2017) in lymphoma cell studies

Figure 2. Clinical development plan for PCLX-001

Additional Company Milestones:
- Oral administration equivalent to drug injection in mouse xenograft leukemia tumor model (Pharma experiment).
- No off-target effects seen in kinase binding screen of 468 normal and mutant kinases.
- PCLX-001 has broad activity when profiled against ~300 cancer cell lines.
- Pacylex selected for first class of 4 companies in Merck-sponsored incubator.
- Closed >$1.8M US initial seed note.
- Acute & 14-day toxicology completed in rats & dogs.
- ADME studies completed.
- Secured rights to additional indications for PCLX-001 & analogs.
- MD Anderson Cancer Center to host parallel US AML Phase 1 program.
- Pre-IND meeting completed with US FDA.
- >$500k CAN raised for PCLX-001 program in “World’s Longest Baseball Game” – August 2019.

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