



KaliVir Immunotherapeutics Strengthens Intellectual Property Position Through Issuance of Two U.S. Patents

--Two patents significantly bolster KaliVir's IP position around lead platform technology--

Pittsburgh, PA – November 4, 2021 – KaliVir Immunotherapeutics, Inc., a privately held biotechnology company focused on the discovery and development of next generation oncolytic vaccinia virus immunotherapies, today announced the issuance of two U.S. patents relating to two separate licensed technologies. Both patents support the company's VET™ platform, KaliVir's potent, novel oncolytic platform called the Vaccinia Enhanced Template (VET™)

One of the issued patents relates to modified viruses, specifically oncolytic vaccinia viruses that express a protein that modulates STAT3 activity. STAT3 is an important immune regulator involved in tumor growth and metastases. Expression of STAT3 inhibitors in KaliVir's proprietary VET platform can overcome immune suppression within tumors. This STAT3 technology is exclusively licensed to KaliVir from the University of Pittsburgh via inventors Dan Byrd, Ph.D. and Stephen Thorne, Ph.D.

The other patent relates to a modification that enhances tumor killing by oncolytic vaccinia viruses. Modified HMGB1 protein increases autophagy in infected cells releasing building blocks for viral replication. Therefore, when HMGB1 is expressed in KaliVir's proprietary VET platform, it increases tumor selective viral replication resulting in enhanced tumor killing. This patent is licensed from KaliVir's founder, and inventor on the technology, Stephen H. Thorne, Ph.D.

"The issuance of these patents represents important progress in our global intellectual property strategy as we endeavor to protect these cutting-edge technologies," stated Helena H. Chaye, Ph.D., J.D., chief executive officer of KaliVir. "We are pleased with the progress we are making across the board—both on the business side and on the product development side—and are more optimistic than ever about the potential that our multi-mechanistic cancer therapies hold for impacting the treatment of cancer."

"As an inventor on our technologies at KaliVir, it is gratifying to observe the continued effectiveness of our oncolytic platform as it evolves through the development process," said Stephen H. Thorne, Ph.D., KaliVir's founder and chief scientific officer. "With the competitive landscape and brilliant work being done in the development of cancer treatments, it is more important than ever to protect our technologies that we believe will soon help cancer patients who are in need of more effective treatments."

KaliVir's Vaccinia Enhanced Template (VET™) Platform

KaliVir has developed a potent, novel oncolytic platform called the VET Platform. This platform includes multiple proprietary genetic modifications that can be combined to generate a unique oncolytic virus that has been optimized for systemic delivery and expression of therapeutic transgenes in the tumor. VET Platform mechanisms can include immune modulations to specifically enhance anti-tumoral immunity. It is designed to enhance systemic (IV) delivery capabilities, tumor-targeted replication, viral spread to metastatic tumors and viral spread within tumor microenvironment. VET Platform serves as a best-in-class and versatile viral backbone on which tailored transgene programs are being developed. It is also highly synergistic with other immunotherapeutic modalities such as immune checkpoint blockade, and is well-positioned to be quickly moved forward in clinical development.

About KaliVir Immunotherapeutics

KaliVir Immunotherapeutics is an early-stage biotech company developing cutting-edge, next-generation oncolytic viral immunotherapy programs. The company has developed a unique vaccinia virus-based platform that can generate potent novel oncolytic vaccinia viruses with modifications to maximize viral replication and to enhance intravenous delivery and spread (Vaccinia Enhanced Template “VET” Platform). VET Platform utilizes the large transgene capacity of the vaccinia virus to deliver therapeutics matched to tumor immunophenotypes to stimulate patients’ immune systems and modify the tumor microenvironment. KaliVir’s oncolytic product candidates are designed to be safe, potent and systemically deliverable to treat cancer patients across multiple tumor types. KaliVir is now advancing multiple therapeutic candidates toward the clinic. For more information, please visit www.kalivir.com.

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