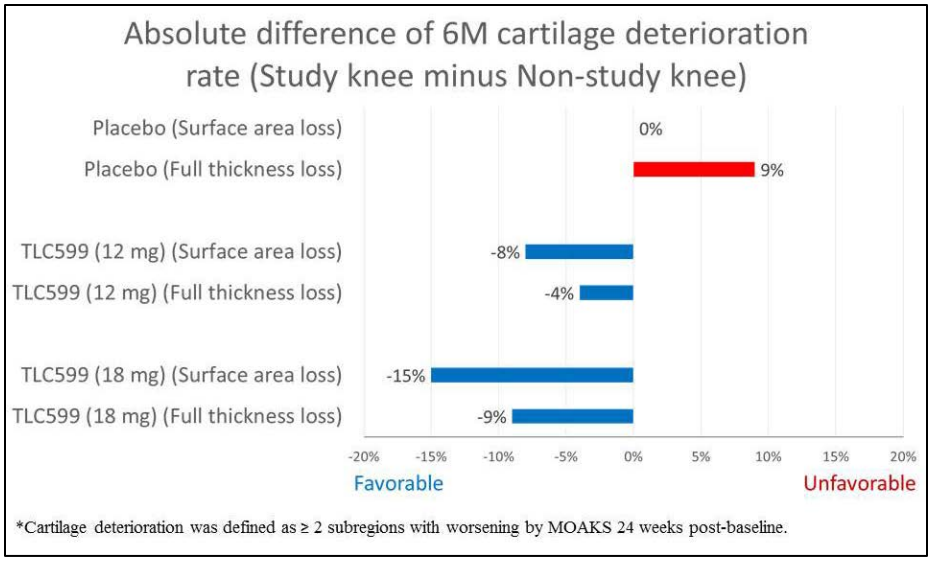
TLC to Present Potential Cartilage-Protecting Effects of TLC599 on the Knee at 2019 ACR Annual Meeting

MRI evaluation suggests slowing of cartilage damage and potential chondroprotection in osteoarthritis of the knee

SOUTH SAN FRANCISCO, CA and TAIPEI, Taiwan – October 7, 2019 – TLC (Nasdaq: TLC, TWO: 4152), a clinical-stage specialty pharmaceutical company dedicated to the development and commercialization of novel nanomedicines designed to target areas of unmet medical need in pain management, ophthalmology and oncology, will be presenting magnetic resonance imaging (MRI) results of the potential protective effects of TLC599 on knee cartilage at the American College of Rheumatology 2019 ACR/ARP Annual Meeting in Atlanta, Georgia. TLC599 is a BioSeizer® sustained release formulation of dexamethasone sodium phosphate (DSP) which demonstrated durable pain relief and improved function over 24 weeks in patients with knee osteoarthritis pain in a Phase II clinical trial. Results from the MRI evaluation suggested that TLC599 may reduce the cartilage damage associated with osteoarthritis.

"Physicians as well as regulatory bodies have been reluctant to recommend repeated intraarticular injections of steroids into the knee in osteoarthritis due to the possibility of cartilage damage, or chondrotoxicity," said Dr. George Spencer-Green, Chief Medical Officer of TLC. "As TLC599 incorporates DSP in a BioSeizer® sustained release formulation different from what is currently available for osteoarthritis, we believe TLC599 has the potential to minimize chondrotoxicity. Therefore, we evaluated the effect of TLC599 on knee cartilage utilizing MRI, and were pleased to find evidence that TLC599 was associated with less cartilage loss than control knees, suggesting the potential for an ameliorative effect on osteoarthritis progression."



In the completed Phase II multi-center, randomized, double-blind, placebo-controlled clinical trial, MRI was conducted on both knees of all 75 patients before dosing with TLC599 or saline placebo and at Week 24, and cartilage was evaluated by a blinded radiologist at each center using the MRI Osteoarthritis Knee Score (MOAKS) instrument. Comparing index to non-index knees, fewer patients treated with TLC599 displayed cartilage loss than with placebo treatment, suggesting a lack of cartilage damage or potentially a chondroprotective effect.

Details of the poster session are as follows:

Title:	Magnetic Resonance Imaging of Knee Joint Protection Following an Intra-Articular Injection of Lipid-Based Dexamethasone Sodium Phosphate Sustained Release Formulation on Subjects with Knee Osteoarthritis (Abstract #2200)
Session Title:	Osteoarthritis – Clinical Poster II
Session Date:	Tuesday, November 12, 2019
Session Time:	9:00am to 11:00am ET
Location:	Georgia World Congress Center

About TLC599

TLC599 is a BioSeizer sustained release formulation of dexamethasone sodium phosphate (DSP) intended for the treatment of osteoarthritis (OA) pain. Current intraarticular anti-inflammatory treatments for OA have potentially toxic side effects and may lead to the destruction of cartilage filler proteins. An *in vivo* toxicity study by staining of the cartilage showed TLC599 to be cartilage sparing compared to current treatments. In a Phase II clinical trial, a single injection of TLC599 resulted in statistically significant and clinically meaningful improvement in pain relief in both the Western Ontario and McMaster Universities Osteoarthritis Index (WOMAC) and Visual Analog Scale (VAS) scores compared to placebo from Day 3 all the way through the end of the study at 24 weeks. Over half of the patients in the TLC599 group had a durable response, maintaining at least 30% pain reduction in both WOMAC and VAS pain scores at all visits through the entire 24 weeks. EXCELLENCE, a multi-center, randomized, double-blind, placebo- and active comparator-controlled pivotal Phase III clinical trial to evaluate the efficacy and safety of both single and repeated doses of TLC599, is currently underway.

About TLC

TLC (NASDAQ: TLC, TWO: 4152) is a clinical-stage specialty pharmaceutical company dedicated to the research and development of novel nanomedicines that maximize the potential of its proprietary lipid-assembled drug delivery platform (LipAD™). TLC believes that its deep experience with liposome science allows a combination of onset speed and benefit duration, improving active drug concentrations while decreasing unwanted systemic exposures. TLC's BioSeizer®

technology is designed to enable local sustained release of therapeutic agents at the site of disease or injury; its NanoX™ active drug loading technology is designed to alter the systemic exposure of a drug, potentially reducing dosing frequency and enhancing distribution of liposome-encapsulated active agents to the desired site. These technologies are versatile in the choice of active pharmaceutical ingredients, and scalable with respect to manufacturing. TLC has a diverse, wholly owned portfolio of therapeutics that target areas of unmet medical need in pain management, ophthalmology, and oncology.

Cautionary Note on Forward-Looking Statements

This press release contains forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. Forward-looking statements contained in this press release include, without limitation, statements regarding TLC's expectations regarding the clinical development of TLC599, the clinical benefits of TLC599 for knee osteoarthritis, the timing, scope, progress and outcome of the clinical trials, and the anticipated timelines for the release of clinical data. Words such as "may," "believe," "will," "expect," "plan," "anticipate," "estimate," "intend" and similar expressions (as well as other words or expressions referencing future events, conditions or circumstances) are intended to identify forward-looking statements. These forward-looking statements are not guarantees of future performance and involve a number of risks, assumptions, uncertainties and factors, including risks that the outcome of any clinical trial is inherently uncertain and TLC599 or any of our other product candidates may prove to be unsafe or ineffective, or may not achieve commercial approval. Other risks are described in the Risk Factors section of TLC's annual report on Form 20-F for the year ended December 31, 2018 filed with the U.S. Securities and Exchange Commission. All forward-looking statements are based on TLC's expectations and assumptions as of the date of this press release. Actual results may differ materially from these forward-looking statements. Except as required by law, TLC expressly disclaims any responsibility to update any forward-looking statement contained herein, whether as a result of new information, future events or otherwise.

TLC Contact:

Dawn Chi
Corporate Communications
+886 2 2655 7377 ext. 136
dawn@tlcbio.com