

## Final Data Analysis of Phase 2 PBC Trial Shows that Genkyotex's Anti-fibrotic Candidate GKT831 Demonstrated Statistically Significant Improvements in GGT and ALP Over Full Treatment Period

- **Statistically significant reductions in GGT and ALP in 400mg BID dose over 24-week treatment period ( $p < 0.002$  and  $p < 0.001$ , respectively)**
- **GKT831 400mg BID significantly improved multiple quality of life metrics important to PBC patients, including fatigue ( $p = 0.027$ )**
- **Clean safety profile of GKT831 at all doses, with no safety signal identified over 24-week treatment period**
- **Previously reported data showed a 22% reduction in liver stiffness in PBC patients with liver fibrosis compared to a 4% increase for placebo ( $p = 0.038$ ), supports anti-fibrotic mechanism**

ARCHAMPS, France, June 24, 2019 (GLOBE NEWSWIRE) -- **Genkyotex (Euronext Paris & Brussels: FR0013399474 – GKTX)** announced today the final results of its Phase 2 trial of GKT831 in primary biliary cholangitis (PBC). These data include pre-determined secondary efficacy analyses that were not previously available, as well as full safety data.

The efficacy results demonstrate that GKT831 at the 400mg twice a day (BID) dose achieved statistically significant reductions in gamma glutamyl transpeptidase (GGT) ( $p < 0.002$ ) and alkaline phosphatase (ALP) ( $p < 0.001$ ) compared to placebo over the 24-week treatment period.

GKT831 at 400mg BID achieved a 22% reduction in liver stiffness as compared to a 4% increase for placebo ( $p = 0.038$ ) in a pre-defined patient population with an estimated liver fibrosis stage of F3 or higher. This anti-fibrotic effect of GKT831 was previously reported in the top-line results.

The final Quality of Life (QoL) metrics as measured by the PBC-40 questionnaire show improvements in all QoL domain scores at weeks 12 and 24 for the 400mg BID dose. Importantly, improving QoL, in particular fatigue, is a significant unmet need in PBC.

PBC-40 QoL domains	Placebo	GKT831 400mg OD	GKT831 400mg BID	<i>p</i> value (400mg BID vs placebo at week 24)
General symptoms	1.1	1.1	-3.7	0.156
Itch (Pruritus)	-6.8	-11.4	-9.5	0.443
Emotional	8.7	4.9	-16.9	0.031
Fatigue	2.4	0.3	-9.9	0.027
Social	9.3	8.1	-7.7	0.003
Cognitive	5.2	16	-1.9	0.332

Mean percent changes from Baseline to Week 24 in Quality of Life domains included in the PBC-40 questionnaire. P Values for comparison of changes in the 400mg BID dose against placebo are shown.

GKT831 was well tolerated at all doses, with 119 adverse events (AEs) in the 400mg once a day (OD) and 100 AEs in the 400mg BID compared to 120 AEs in the placebo group. Two serious adverse events (SAEs) were reported, both deemed unrelated to study, one case of urinary tract infection requiring hospitalization in the placebo group, and the other multiple bone fractures related to a traffic accident in the 400mg BID group.

A review of safety laboratory results, vital signs, physical examination, and ECG did not identify any safety signals associated with GKT831 at 400mg OD or 400mg BID.

	Placebo	GKT831 400mg OD	GKT831 400mg BID
<b>SAEs</b>	1	0	1
<b>AEs</b>	121	119	100
<b>AEs leading to patient discontinuation</b>	0	2	2
<b>AEs leading to drug interruption</b>	1	1	2
<b>Gastrointestinal</b>	22	25	25
<b>Infections</b>	24	12	11
<b>Skin and subcutaneous tissue</b>	12	15	14
<b>Nervous system</b>	12	17	9
<b>General disorders</b>	14	6	12
<b>Musculoskeletal and connective tissue</b>	10	12	6
<b>Investigations</b>	3	7	7
<b>Injury, poisoning, procedural complications</b>	4	4	5
<b>Respiratory, thoracic, and mediastinal</b>	4	5	4
<b>Psychiatric disorders</b>	7	1	0

*Incidence of Treatment-Emergent Adverse Events by System Organ Class (top 10 system organ classes ranked according to AE incidence)*

Philippe Wiesel, Chief Medical Officer of Genkyotex, said: “The full efficacy and safety data from our Phase 2 PBC trial highlight the potential of GKT831 as a possible treatment for multiple complex and difficult to treat fibrotic disorders, including NASH and PSC. We look forward to complete the evaluation of GKT831 in late-stage clinical trials.”

### **About the PBC phase 2 trial of GKT831 in PBC**

The 24-week randomized, double-blind, placebo-controlled study was conducted in 62 centers in the USA, Canada, Belgium, Germany, Greece, Italy, Spain, UK and Israel. The

trial enrolled PBC patients with inadequate response to ursodeoxycholic acid (UDCA). This is a difficult to treat patient population likely to progress to cirrhosis, liver transplant or death. To be eligible for the trial, patients were required to have elevated alkaline phosphatase (ALP; >1.5XULN) and elevated gamma glutamyl transpeptidase (GGT; >1.5 XULN). A total of 111 patients were allocated according to a 1:1:1 randomization ratio to three groups: UDCA plus placebo, UDCA plus GKT831 400mg OD and UDCA plus 400mg BID.

The primary efficacy endpoint was percent change in GGT at week 24. Liver fibrosis was assessed non-invasively by measuring liver stiffness and circulating markers of fibrogenesis. Additional key secondary endpoints included additional markers of liver and bile duct injury, markers of inflammation. In addition, indicators of QoL, including pruritus and fatigue, were assessed. Markers of bile acid metabolism and immune activation were also investigated.

Liver stiffness was measured by Fibroscan® transient elastography. Liver stiffness is an indicator of liver inflammation (edema), cholestasis and fibrosis. In multiple liver diseases, including PBC, NASH and PSC, liver stiffness correlates with liver fibrosis stage (F0 to F4). In PSC, increases in liver stiffness are associated with adverse disease outcomes, including liver transplant, hepatic complication and death.

QoL was evaluated with the PBC-40 questionnaire, which assesses several important metrics.

This trial is one of the largest Phase 2 PBC studies conducted to date. Additional information about the trial design and eligibility criteria can be found at [ClinicalTrial.gov: NCT03226067](https://clinicaltrials.gov/ct2/show/study/NCT03226067).

## **About Genkyotex**

*Genkyotex is the leading biopharmaceutical company in NOX therapies, listed on the Euronext Paris and Euronext Brussels markets. Its unique platform enables the identification of orally available small-molecules which selectively inhibit specific NOX enzymes that amplify multiple disease processes such as fibrosis, inflammation, pain processing, cancer development, and neurodegeneration.*

*Genkyotex is developing a pipeline of first-in-class product candidates targeting one or multiple NOX enzymes. The lead product candidate, GKT831, a NOX1 and NOX4 inhibitor is evaluated in a phase II clinical trial in primary biliary cholangitis (PBC, a fibrotic orphan disease) and in an investigator-initiated Phase II clinical trial in Type 1 Diabetes and Kidney Disease (DKD). A grant from the United States National Institutes of Health (NIH) of \$8.9 million was awarded to Professor Victor Thannickal at the University of Alabama at Birmingham (UAB) to fund a multi-year research program evaluating the role of NOX enzymes in idiopathic pulmonary fibrosis (IPF), a chronic lung disease that results in fibrosis of the lungs, the core component of the program will be to conduct a Phase 2 trial with the GKT831 in patients with IPF. This product candidate may also be active in other fibrotic indications.*

Genkyotex also has a versatile platform well-suited to the development of various immunotherapies (Vaxiclase). A partnership covering the use of Vaxiclase as an antigen per se (GTL003) has been established with Serum Institute of India Private Ltd (Serum Institute), the world's largest producer of vaccine doses, for the development by Serum Institute of cellular multivalent combination vaccines against a variety of infectious diseases.

For further information, please go to [www.genkyotex.com](http://www.genkyotex.com).

### **Disclaimer**

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