Taysha Gene Therapies Reports Third Quarter 2023 Financial Results and Provides Corporate and Clinical Updates

Data from first adult patient in REVEAL Phase 1/2 trial showed TSHA-102 was well-tolerated with no treatment-emergent SAEs as of 20-week assessment with sustained improvement across key efficacy measures and new improvement in R-MBA, PGI-I and hand function, a hallmark characteristic of Rett syndrome at week 12

Data from second adult patient showed TSHA-102 was well-tolerated with no treatment-emergent SAEs as of six-week assessment with improvement across key efficacy measures, including CGI-I, R-MBA, PGI-I and RSBQ at week four

Notable differences in genetic mutation and phenotypic expression reported between patient one and two; Principal Investigator (PI) observed improvements in both patients across multiple domains, including autonomic function, socialization, and gross and fine motor skills, including further improvement in ability to sit unassisted at week 12 in patient one and improved posture, gait and stability at week four in patient two

IDMC provided clearance to dose third adult patient based on available data; dosing of third adult patient and completion of cohort one (low dose) expected in the fourth quarter of 2023/first quarter of 2024; dosing of first pediatric patient in the U.S. expected in the first quarter of 2024

Entered into loan and security agreement with Trinity Capital that extends cash runway into 2026 and includes no financial covenants or warrants

Conference call and live webcast today at 4:30 PM Eastern Time

DALLAS, Nov. 14, 2023 (GLOBE NEWSWIRE) -- Taysha Gene Therapies, Inc. (Nasdaq: TSHA) ("Taysha" or "the Company"), a clinical-stage gene therapy company focused on developing and commercializing AAV-based gene therapies for the treatment of monogenic diseases of the central nervous system (CNS), today reported financial results for the third quarter ended September 30, 2023, and provided corporate and clinical updates.

"Prior to initiating the REVEAL trial, the expectation of seeing a clinical benefit in adults with stage four Rett syndrome was low due to the advanced and relentless progression of the disease. We are highly encouraged by the positive 12-week data from the first adult patient and initial four-week data from the second adult patient in the low dose TSHA-102 cohort," said Sean P. Nolan, Chairman and Chief Executive Officer of Taysha. "Importantly, response was seen across multiple clinical domains in both stage four patients with different genetic mutation severity and phenotypic expression, including autonomic function, socialization, and gross and fine motor skills. These early improvements in both patients, coupled with the sustained response through week 12 in the first patient, support the transformative potential of TSHA-102 across multiple genotypes of Rett syndrome."

Dr. Elsa Rossignol, M.D., FRCP, FAAP, Associate Professor in Neuroscience and Pediatrics at the Université de Montréal, and Principal Investigator of the REVEAL trial at the CHU Sainte-Justine added, "The two adult patients dosed with TSHA-102 have different mutations in their *MECP2* gene that manifest in different phenotypes and clinical severity. Following treatment, both patients experienced improvement in key clinical domains impacting activities of daily living, including breathing dysrhythmia, autonomic function, socialization, and gross and fine motor skills. Both patients display significantly reduced breathing dysrhythmia, with less breath holding spells and infrequent hyperventilation, improved limb perfusion and vastly improved interest in social communication and activities. In addition, the first patient experienced sustained and new improvements, with restored movement in her legs and the gained ability to sit unassisted for up to 15 minutes for the first time in over a decade. Further, her hand function improved with the gained ability to grasp objects with her non-dominant hand and transfer them to her dominant hand for the first time since infancy. Following treatment, the second patient's posture, gait and stability improved, resulting in straighter posture and smoother movements when walking. Her hand stereotypies also improved for the first time since regression at age three: she now displays less forceful hand wringing and her hands are often open and relaxed, providing new opportunities for fine motor skill learning. In addition, her seizures are much less frequent. I'm encouraged by the early positive signals and consistent improvement seen in both patients following treatment."

Recent Corporate Highlights

- Presented two posters at the European Society of Gene & Cell Therapy (ESGCT) 30th Annual Congress on new preclinical *in vitro* data supporting the miRARE technology, and initial clinical data from the first adult patient dosed in the REVEAL Phase 1/2 trial
- United States (U.S.) Food and Drug Administration (FDA) granted Fast Track Designation to TSHA-102 for Rett syndrome
- Entered into a loan and security agreement with Trinity Capital and terminated existing loan and security agreement with Silicon Valley Bank, extending cash runway into 2026; no financial covenants or warrants associated with the loan and security agreement with Trinity Capital

Recent Clinical Highlights

TSHA-102 in Rett syndrome: a self-complementary intrathecally delivered AAV9 gene transfer therapy in clinical evaluation for Rett syndrome, a rare genetic neurodevelopmental disorder caused by mutations in the X-linked *MECP2* gene. TSHA-102 utilizes a novel miRARE technology designed to

mediate levels of *MECP2* in the CNS on a cell-by-cell basis without risk of overexpression.

TSHA-102 is being evaluated in the REVEAL Phase 1/2 adult trial, a first-in-human, open-label, randomized, dose-escalation and dose-expansion study in Canada evaluating the safety and preliminary efficacy of TSHA-102 in adult females with Rett syndrome due to *MECP2* loss-of-function mutation.

Results from the first patient (large *MECP2* deletion; associated with severe phenotype) and second patient (missense *MECP2* mutation; associated with milder phenotype) with late motor deterioration stage four Rett syndrome dosed with TSHA-102 in the low dose cohort:

- Generally well-tolerated with no treatment-emergent serious adverse events (SAEs) as of 20-week assessment post-treatment for patient one and six-week assessment for patient two
- Based on clinical observations by the Principal Investigator (PI), both patients demonstrated improvement in multiple clinical domains, with sustained and new improvements in patient one 12-weeks post-treatment and initial improvements in patient two four-weeks post-treatment, including:
  - Autonomic function: improved breathing patterns and sleep quality/duration (patient one) reduced seizures and improved breathing patterns (patient two)
  - Socialization: improved social interest and vocalization (patient one) improved social interest (patient two)
  - Gross motor skills: gained ability to sit unassisted and move legs (patient one) improved posture, gait and stability (patient two)
  - Fine motor skills: improved hand function (patient one) improved hand stereotypies (patient two)
- Seizure Diary demonstrated comparable seizure events relative to baseline through 20-weeks post-treatment in patient one and reduced seizure events relative to baseline through day 33 post-treatment for patient two, based on caregiver-reported medical history
- Clinical improvements demonstrated in both patients across key efficacy measures include:
  - Patient one: sustained improvement through 12-weeks in Clinical Global Impression–Improvement (CGI-I), Clinical Global Impression–Severity (CGI-S) and Rett Syndrome Behavior Questionnaire (RSBQ), with new improvements in Revised Motor Behavior Assessment (R-MBA), Parental Global Impressions–Improvement (PGI-I) and Rett Syndrome Hand Function Scale (RSHFS)
  - Patient two: improvement four-weeks post-treatment in CGI-I, PGI-I, RSBQ and R-MBA
- **Figure accompanying this announcement is available at: https://www.globenewswire.com/NewsRoom/AttachmentNg/9b39103b-685c-4849-9072-97f32658320c. Additional information on available clinical data is available in the Company's quarterly report on Form 10-Q for the quarter ended September 30, 2023, to be filed with the SEC.**
- Independent Data Monitoring Committee (IDMC) provided clearance to dose third adult patient based on available data

Upcoming Milestones

- Dosing of third adult patient and completion of dosing in cohort one (low dose) in the adult trial in Canada anticipated in the fourth quarter of 2023/first quarter of 2024
- Further updates on available clinical data from the low dose cohort expected in the first quarter of 2024
- Dosing of first pediatric Rett syndrome patient in the U.S. anticipated in the first quarter of 2024
- U.K. Medicines and Healthcare products Regulatory Agency (MHRA) response to Clinical Trial Application (CTA) for TSHA-102 in pediatric patients with Rett syndrome expected by year-end 2023

Third Quarter 2023 Financial Highlights

Research and Development Expenses: Research and development expenses were $11.8 million for the three months ended September 30, 2023, compared to $16.8 million for the three months ended September 30, 2022. The net change was due to a $9.3 million decrease due to lower compensation expense as a result of reduced headcount, lower licensing milestone fees, fewer manufacturing batches and fewer raw material purchases. This was partially offset by a $4.3 million increase in activity surrounding ongoing clinical trial efforts in the Rett syndrome REVEAL adult and pediatric studies.

General and Administrative (G&A) Expenses: General and administrative expenses were $8.6 million for the three months ended September 30, 2023, compared to $8.7 million for the three months ended September 30, 2022. The decrease of $0.1 million was due to reduced compensation expense due to lower headcount of $2.0 million and reduced consulting and professional fees of $0.7 million, partially offset by $2.6 million issuance costs allocated to the liability-classified pre-funded warrants issued in connection with the private placement financing completed in August 2023.

Net loss: Net loss for the three months ended September 30, 2023, was $117.1 million, or $0.93 per share, as compared to a net loss of $26.5 million, or $0.65 per share, for the three months ended September 30, 2022, due to a non-cash expense of $100.5 million recorded in Q3 2023 from a change in the fair value of warrant liability from pre-funded warrants in connection with the private placement financing completed in August 2023.

Cash and cash equivalents: As of September 30, 2023, the Company had cash and cash equivalents of $164.3 million. The Company expects that its existing cash and cash equivalents will fund operating expenses and capital requirements into 2026.

Conference Call and Webcast Information

Taysha management will hold a conference call and webcast today at 4:30 pm ET to review its financial and operating results and to provide corporate and clinical updates. The dial-in number for the conference call is 877-407-0792 (U.S./Canada) or 201-689-8263 (international). The conference ID for all callers is 13741244. The live webcast and replay may be accessed by visiting Taysha's website at https://ir.tayshagtx.com/news-events/events-presentations. An archived version of the webcast will be available on the website for 30 days.

About Taysha Gene Therapies

Taysha Gene Therapies (Nasdaq: TSHA) is on a mission to eradicate monogenic CNS disease. With a singular focus on developing curative medicines, we aim to rapidly translate our treatments from bench to bedside. We have combined our team's proven experience in gene therapy drug development and commercialization with the world-class UT Southwestern Gene Therapy Program. Together, we leverage our fully integrated platform with a goal of dramatically improving patients' lives. More information is available at www.tayshagtx.com.

Forward-Looking Statements

This press release contains forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. Words such as "anticipates," "believes," "expects," "intends," "projects," "plans," and "future" or similar expressions are intended to identify forward-looking statements. Forward-looking statements include statements concerning the potential of our product candidates, including the reproducibility and durability of any favorable results initially seen in our first and second patients dosed in the REVEAL trial and including our preclinical product candidates, to positively impact quality of life and alter the course of disease in the patients we seek to treat, our research, development and regulatory plans for our product candidates, the timing of our clinical trials, including reporting data therefrom, the forecast of our cash runway and the Company's expectations regarding funding, operating and working capital expenditures. Forward-looking statements are based on management's current expectations and are subject to various risks and uncertainties that could cause actual results to differ materially and adversely from those expressed or implied by such forward-looking statements. Accordingly, these forward-looking statements do not constitute guarantees of future performance, and you are cautioned not to place undue reliance on these forward-looking statements. Risks regarding our business are described in detail in our Securities and Exchange Commission ("SEC") filings, including in our Annual Report on Form 10-K for the full-year ended December 31, 2022, and our Quarterly Report on Form 10-Q for the quarter ended September 30, 2023, both of which are available on the SEC's website at www.sec.gov. Additional information will be made available in other filings that we make from time to time with the SEC. These forward-looking statements speak only as of the date hereof, and we disclaim any obligation to update these statements except as may be required by law.

Taysha Gene Therapies, Inc.
Condensed Consolidated Balance Sheet Data
(in thousands, except share and per share data)
(Unaudited)

	September 30, 2023	December 31, 2022
ASSETS		
Current assets:		
Cash and cash equivalents	$ 164,278	$ 87,880
Prepaid expenses and other current assets	5,529	8,537
Assets held for sale	2,000	—
Total current assets	171,807	96,417
Restricted cash	2,637	2,637
Property, plant and equipment, net	11,169	14,963
Operating lease right-of-use assets	9,852	10,943
Other non-current assets	304	1,316
Total assets	**$ 195,769**	**$ 126,276**
LIABILITIES AND STOCKHOLDERS' (DEFICIT) EQUITY		
Current liabilities:		
Accounts payable	$ 7,520	$ 10,946
Accrued expenses and other current liabilities	13,638	18,287
Deferred revenue	18,759	33,557
Warrant liability	140,534	—
Total current liabilities	180,451	62,790
Deferred revenue, net of current portion	2,951	—
Term loan, net	38,548	37,967
Operating lease liability, net of current portion	19,101	20,440
Other non-current liabilities	3,832	4,130
Total liabilities	244,883	125,327
Stockholders' (deficit) equity		

Preferred stock, $0.00001 par value per share; 10,000,000 shares authorized and no shares issued and outstanding as of September 30, 2023 and December 31, 2022	—	—
Common stock, $0.00001 par value per share; 200,000,000 shares authorized and 186,960,193 and 63,207,507 issued and outstanding as of September 30, 2023 and December 31, 2022, respectively	2	1
Additional paid-in capital	511,632	402,389
Accumulated deficit	(560,748)	(401,441)
Total stockholders' (deficit) equity	(49,114)	949
Total liabilities and stockholders' (deficit) equity	**$ 195,769**	**$ 126,276**

Taysha Gene Therapies, Inc.
Condensed Consolidated Statement of Operations
(in thousands, except share and per share data)
(Unaudited)

	For the Three Months Ended September 30,		For the Nine Months Ended September 30,	
	2023	**2022**	**2023**	**2022**
Revenue	$ 4,746	$ —	$ 11,847	$ —
Operating expenses:				
Research and development	11,791	16,774	44,096	78,462
General and administrative	8,589	8,683	23,328	30,019
Impairment of long-lived assets	616	—	616	—
Total operating expenses	20,996	25,457	68,040	108,481
Loss from operations	(16,250)	(25,457)	(56,193)	(108,481)
Other income (expense):				
Change in fair value of warrant liability	(100,456)	—	(100,456)	—
Interest income	1,109	9	1,651	50
Interest expense	(1,471)	(1,078)	(4,285)	(2,493)
Other expense	(19)	(1)	(24)	(12)
Total other expense, net	(100,837)	(1,070)	(103,114)	(2,455)
Net loss	**$ (117,087)**	**$ (26,527)**	**$ (159,307)**	**$ (110,936)**
Net loss per common share, basic and diluted	$ (0.93)	$ (0.65)	$ (1.88)	$ (2.79)
Weighted average common shares outstanding, basic and diluted	125,700,799	40,937,808	84,630,796	39,761,764

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Source: Taysha Gene Therapies, Inc.

REVEAL Phase 1/2 adult trial data in first two patients treated with TSHA-102
based on available 12-week data for patient one and four-week data for patient two

	[illegible]		[illegible]		[illegible]		[illegible]		[illegible]		[illegible]	
Scale Description	[illegible]		[illegible]		[illegible]		[illegible]		[illegible]		[illegible]	
	P1	P2	P1	P2	P1	P2	P1	P2	P1	P2	P1	P2
Screening Baseline	[illegible]	[illegible]	–	–	–	–	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Week 4	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Week 8	[illegible]	–	[illegible]	–	[illegible]	–	[illegible]	–	[illegible]	–	[illegible]	–
Week 12	[illegible]	–	[illegible]	–	[illegible]	–	[illegible]	–	[illegible]	–	[illegible]	–
Overall Change	+	=	+	+	+	+	+	+	+	+	+	=

[illegible]

REVEAL Phase 1/2