Attralus Announces Presentation of Clinical Data for ^{124}I-Evuzamitide (AT-01), a Novel Amyloid-Specific PET Imaging Agent, at the 28th Annual Scientific Session of the American Society of Nuclear Cardiology

- *AT-01 is a first-in-class pan-amyloid imaging agent capable of detecting diverse types of systemic amyloidosis in multiple organs.*
- *AT-01 demonstrated to be highly accurate, with 100% sensitivity for detection of cardiac amyloid, across three independent investigator-initiated studies.*
- *Attralus-Sponsored Test-Retest repeatability study demonstrates excellent repeatability and supports the potential use of AT-01 imaging to monitor disease progression in patients with cardiac amyloidosis.*
- *AT-01 may be more sensitive than 99m-Tc pyrophosphate bone scintigraphy (Tc99-PYP) for detecting transthyretin cardiac amyloidosis in patients with hereditary ATTR-CA.*
- *AT-01 uptake in cardiac amyloidosis shows moderate and statistically significant correlations with traditional measures of cardiac structure and function.*
- *AT-01 has the potential to play a valuable role for diagnosing cardiac amyloidosis and for monitoring changes in organ-specific amyloid load.*

SAN FRANCISCO, Calif. – October 2, 2023 – Attralus, Inc., a clinical stage biopharmaceutical company developing transformative medicines to improve the lives of patients with systemic amyloidosis, announced eight data presentations (from an Attralus sponsored trial and from four investigator-initiated trials) related to the use of ^{124}I-evuzamitide (AT-01), the company's pan-amyloid binding imaging agent in development for the diagnosis and management of all types of systemic amyloidosis. These data were included in oral and poster presentations at the 28th Annual Scientific Session of the American Society of Nuclear Cardiology (ASNC) taking place September 29-October 1, 2023, in Toronto, Canada.

"AT-01 has the potential to become an essential tool not only to streamline diagnosis, but also to provide a comprehensive assessment of disease burden and a means to monitor disease progression," said Gregory Bell, M.D., Chief Medical Officer at Attralus. "We are impressed by the consistency of results across multiple studies and institutions. AT-01 has the potential to be the first and only non-invasive, pan-amyloid, whole body imaging diagnostic agent designed to detect all types of systemic amyloidosis across key organs."

"Diagnosis is a challenging and time-consuming process for systemic amyloidosis patients, with many going years without an accurate diagnosis, and losing critical time in the process," said Ahmad Masri, M.D., Assistant Professor of Medicine and the Director of Cardiac Amyloidosis and Hypertrophic Cardiomyopathy Centers at Oregon Healthy & Science University. "In our study, we were able to learn important disease characteristics about our patients that we cannot learn from any currently available imaging agent. The AT-01 data we generated provide an impressive road map to detecting and quantifying amyloid deposits in multiple organs across different types of amyloidosis, with the potential to detect amyloid earlier in the disease process and the ability to monitor organ specific disease progression or response."

"Despite recent progress in diagnosis, ATTR patients continue to go undiagnosed or are diagnosed late in their disease. A delayed diagnosis leads directly to poorer outcomes for patients. Bone Scintigraphy with Tc99-PYP imaging is the current standard for a non-biopsy diagnosis for cardiac ATTR, but in the seminal study, its utility was only '70% sensitive'", said Mat Maurer, M.D., Arnold and Arlene Goldstein Professor of Cardiology at Columbia University Irving Medical Center. "In our study, we were able to demonstrate cardiac uptake with AT-01 in hereditary ATTR patients who were negative with the standard imaging, Tc99-PYP, for non-biopsy diagnosis of cardiac ATTR, implying that I124 Evuzamitide is a more sensitive diagnostic. The data from AT-01 are encouraging as an imaging agent that could directly detect amyloid deposits and diagnose patients earlier in their disease. This could be invaluable for patients and would be a welcome addition to our practice for more prompt and accurate diagnosis."

Oral Presentation Details

Abstract Title: ^{124}I-evuzamitide PET/MR Unveils Hypertrophic Cardiomyopathy in a Patient with Renal AL Amyloidosis

- **Presented by:** Jessica Cardin, Ph.D. and Ahmad Masri, M.D., Assistant Professor of Medicine, Division of Cardiovascular Medicine, Knight Cardiovascular Institute at OHSU Oregon Health & Science University
- **Date/Time:** September 30, 2023, 9:55 a.m. – 9:59 a.m. EDT
- **Session**: 204 – Rapid-Fire Cases: Amyloidosis and Technology, Tracers, Instrumentation, Software

- **Highlights:**
    - AT-01 PET/MR case report

Abstract Title: I-124 Evuzamitide PET/CT is More Sensitive than Tc-99m Pyrophosphate for the Diagnosis of Hereditary Transthyretin Cardiac Amyloidosis

- **Presented by:** Dia A. Smiley, D.O. and Mathew S. Maurer, M.D., Arnold and Arlene Goldstein Professor of Cardiology at Columbia University Irving Medical Center
- **Date/Time:** October 1, 2023, 8:00 a.m. EDT
- **Session:** 301 – Controversies in Cardiac Amyloidosis
- **Highlights:**
    - Ten hereditary ATTR patients with negative Tc99-PYP scans were included in the analysis.
    - All subjects with known cardiac amyloidosis had positive AT-01 uptake.
    - Cardiac Uptake of AT-01 was observed in eight out of ten hereditary ATTR patients who had a negative Tc99-PYP scan, the current standard for non-biopsy diagnosis of cardiac ATTR, suggesting AT-01 is more sensitive than Tc99-PYP for detection of cardiac amyloid.
        - Of these eight, five patients were confirmed positive via a cardiac biopsy and three were diagnosed through other imaging and genetic testing.

Poster Presentation Details

Poster 216-04: Iodine-124-Evuzamitide PET/CT in Systemic Amyloidosis: Safety Evaluation & Reproducibility of Cardiac Uptake Quantitation

- **Presented by:** Gregory Bell, M.D., Attralus, Inc.
- **Date/Time:** September 30, 2023, 3:15 p.m. - 4:15 p.m. EDT
- **Highlights:**
    - 33 systemic amyloidosis patients were enrolled and received ≥1 dose of AT-01, and 27 received two doses of AT-01 (image-evaluable population).
    - There were no TEAEs related to AT-01 administration, and no TEAEs occurred on the day of dosing.
    - Semiquantitative assessments of AT-01 cardiac uptake demonstrated high levels of intra- and inter-rater consistency.
    - Interclass Coefficient Correlation (ICC) values in the heart were >0.95; Cardiac repeatability coefficients using SUV peak are consistent with other PET/CT tracers.
    - These findings support the potential use of this novel imaging agent to monitor disease progression in patients with cardiac amyloidosis.

Poster 216-13: First-in-Human Cardiac and Whole-Body ^{124}I-evuzamitide (AT-01) PET/MRI in Systemic Amyloidosis

- **Presented by:** Ahmad Masri, M.D., Assistant Professor of Medicine, Division of Cardiovascular Medicine, Knight Cardiovascular Institute at OHSU Oregon Health & Science University
- **Date/Time:** September 30, 2023, 3:15 p.m. – 4:15 p.m. EDT
- **Highlights:**
    - 50 subjects were enrolled in this study, including 36 cardiac amyloidosis patients and 14 controls. Controls included patients with high LVH, HCM and systemic amyloidosis patients without cardiac amyloid. Cardiac amyloidosis was ruled out in control population.
    - In this population of patients diagnosed with or suspected to have cardiac amyloidosis, AT-01 PET/MRI had a 100% sensitivity and specificity for the diagnosis of cardiac amyloidosis.
    - Mean myocardial to LV blood pool SUV ≥1.45 yielded a 100% sensitivity and specificity for the diagnosis of cardiac amyloidosis.
    - AT-01 PET/MRI is feasible and provides comprehensive diagnostic evaluation and organ survey of patients suspected to have or diagnosed with systemic amyloidosis.

Poster 216-14. Relationship Between Myocardial ^{124}I-evuzamitide Uptake and Cardiac Structure and Function: A Cardiac PET/MRI Study

- **Presented by:** Ahmad Masri, M.D., Assistant Professor of Medicine, Division of Cardiovascular Medicine, Knight Cardiovascular Institute at OHSU Oregon Health & Science University
- **Date/Time:** September 30, 2023, 3:15 p.m. – 4:15 p.m. EDT
- **Highlights:**
    - 50 subjects were enrolled in this study, including 36 cardiac amyloidosis patients and 14 controls.
    - AT-01 was safe without any serious adverse events and no tracer-related adverse events.
    - There were moderate and significant correlations of AT-01 uptake with measures of cardiac structure and function on CMR.
    - In this high-risk group of suspected cardiac amyloidosis, an ECV cut-off of 39% yielded a higher diagnostic performance than a cut-off of 30%.
    - ECV and AT-01 mean myocardial SUVR had a moderate and statistically significant correlation coefficient of 0.6.
    - AT-01 cardiac PET/MRI provides comprehensive diagnostic evaluation of cardiac structure, function, and surrogates for amyloid load.

Poster 216-16. Quantitative Assessment of Changes in Cardiac and Extracardiac Amyloid Load in Patients with AL and ATTR Amyloidosis, Measured By PET/CT Imaging Using the Pan-Amyloid Reactive Radiotracer Iodine (^{124}I) Evuzamitide

- **Presented by:** Alan Stuckey, C.N.M.T., University of Tennessee Graduate School of Medicine
- **Date/Time:** September 30, 2023, 3:15 p.m. – 4:15 p.m. EDT
- **Highlights:**
    - The study has enrolled 19 patients (AL (*n*=9) and ATTR (*n*=10)) who had positive cardiac uptake of AT-01 in a previous phase 1 for the purpose of evaluating longitudinal change in uptake over time.
    - The mean time between imaging sessions was 3.0±0.9 years.
    - In patients with ATTR amyloidosis (*n*=10) on silencers or stabilizer therapy, cardiac amyloid assessed by AT-01 uptake changed by -2.4%±21.4% (range –24.7% to +49.5%). Despite therapy, only 1 out of 10 cardiac ATTR patients had a decrease of ≥25% after a mean of 3 years.
    - In patients with AL (*n*=9) who were in hematologic remission, cardiac amyloid changed by 1.5%±37.6% (range -24.7% to +92.7%). Despite being in heme remission, only 1 out of 10 cardiac AL patients had a decrease of ≥25%.
    - In contrast, in AL patients the liver and splenic decreased dramatically, -25.5%±25.3% and -16.6%±49.9%, respectively.
    - Significant correlations were observed between echocardiography parameters, serum NTproBNP and cardiac SUVR mean measurements.
    - Changes in cardiac amyloid load, based on differential uptake of radiotracer, can be quantified using AT-01 PET/CT imaging and may be useful for monitoring changes in organ-specific amyloid load.

Poster 216-23. Comparing Novel Quantitative ^{124}I-Evuzamitide PET/CT Metrics to Diagnose Cardiac Amyloidosis

- **Presented by:** Olivier F. Clerc, M.D., MPH, Researcher, Brigham and Women's Hospital
- **Date/Time:** September 30, 2023, 3:15 p.m. – 4:15 p.m. EDT
- **Highlights:**
    - This study included 43 participants: 12 with light-chain (AL) cardiomyopathy (CMP),12 with wild-type transthyretin (ATTRwt) CMP and 20 controls.
    - CMP participants underwent PET/CT with both radiotracers AT-01 and ^{18}F-florbetapir.
    - In CMP participants, median age was 74 years (IQR 69 – 78) and 92% were male.
    - Median AT-01 left ventricular percentage of injected dose (LV %ID) was 0.17 (IQR 0.07 – 0.45) in AL-CMP, 0.44 (0.35 – 0.75) in ATTRwt-CMP, and 0.00 (0.00 – 0.01) in controls ($p<0.001$).

- High LV %ID perfectly discriminated CMP from controls.
- In ATTRwt-CMP, LV %ID was higher with AT-01 (p=0.002) than with ^{18}F-florbetapir.
- AT-01 LV %ID had intermediate to strong correlations with interventricular septal thickness (ρ=0.80) and LV strain (ρ=0.55) on echocardiography, as well as with LV mass index (ρ=0.82) and extracellular volume (ρ=0.55, all p≤0.02) on MRI.
- AT-01 detects amyloid CMP and accurately discriminates it from controls, with higher uptake than ^{18}F-florbetapir in ATTRwt-CMP.
- Correlations with cardiac structural and functional metrics imply valid amyloid quantification.

Poster 216-25 - I-124 Evuzamitide PET/CT is More Sensitive than Tc-99m Pyrophosphate for the Diagnosis of Hereditary Transthyretin Cardiac Amyloidosis

- **Presented by:** Dia A. Smiley, D.O. and Mathew S. Maurer, M.D., Arnold and Arlene Goldstein Professor of Cardiology at Columbia University Irving Medical Center
- **Date/Time:** September 30, 2023, 3:15 p.m. - 4:15 p.m. EDT
- **Highlights:**
  - Same findings as oral presentation in **Session 301 - Controversies in Cardiac Amyloidosis.**

For additional information, please visit the ASNC 2023 https://www.asnc.org/asnc2023.

About ^{124}I-evuzamitide (AT-01) Pan-Amyloid Diagnostic

^{124}I-evuzamitide (AT-01) utilizes the company's pan-amyloid binding peptide as an amyloid-specific imaging agent to image all types of systemic amyloidosis by PET/CT imaging. In initial clinical trials, AT-01 has been shown to detect multiple types of amyloid deposits, including AL and ATTR, in major organs such as the heart, kidney, liver and spleen. Attralus obtained exclusive rights to commercialize AT-01 under a commercial license agreement with the University of Tennessee Research Foundation. Similar PAR-peptide technology is utilized in AT-02 and AT-04, two of the company's therapeutic candidates.

About Systemic Amyloidosis

Systemic amyloidosis encompasses a diverse group of rare diseases that occur due to accumulation of toxic amyloid deposits in tissues and organs, a consequence of aberrant protein misfolding events. Amyloid Light Chain (AL) is caused by a bone marrow disorder in which the light chain proteins become misfolded and accumulate as amyloid fibrils, in the heart, kidneys, liver, nerves and other organs. AL is progressive, debilitating, and often fatal. There is a significant unmet need for new therapies and diagnostics in systemic amyloidosis, especially AL.

About Attralus

Attralus is a clinical stage biopharmaceutical company focused on creating transformative medicines to improve the lives of patients with systemic amyloidosis. The company's proprietary pan-amyloid removal (PAR) therapeutics are designed to directly bind to and remove toxic amyloid in organs and tissues. By targeting the universal disease-causing pathology in systemic amyloidosis diseases, PAR therapeutics have the potential to treat and reverse disease in patients with all types and stages of systemic amyloidosis. Attralus was founded by scientific experts in the field of amyloidosis and the company is headquartered in San Francisco.

Forward-Looking Statements

This press release contains forward-looking statements, including statements related to the efficacy, continued development, and potential of AT-01. Words such as "developing," "potential," "shown" and similar expressions are intended to identify forward-looking statements. These forward-looking statements are based upon Attralus' current expectations. Forward-looking statements involve risks and uncertainties. Attralus' actual results and the timing of events could differ materially from those anticipated in such forward-looking statements as a result of these risks and uncertainties. Attralus expressly disclaims any obligation or undertaking to release publicly any updates or revisions to any forward-looking statements contained herein to reflect any change in Attralus' expectations with regard thereto or any change in events, conditions, or circumstances on which any such statements are based.

Contact:

Krishna Gorti, M.D. FRCS
Corporate Development
kgorti@attralus.com