



## Talaris Therapeutics Provides FREEDOM-1 Phase 3 Clinical Update

June 30, 2022

- *All three FREEDOM-1 patients treated with FCR001 who are more than 12 months post-transplant have been successfully weaned off chronic anti-rejection drugs*
- *All FREEDOM-1 patients who received FCR001 at least three months prior to the data cutoff date have achieved and maintained >50% T-cell chimerism, a potential biomarker predictive of achieving tolerance*
- *Conference call scheduled for today at 8:00 a.m. ET*

BOSTON and LOUISVILLE, Ky., June 30, 2022 (GLOBE NEWSWIRE) -- [Talaris Therapeutics, Inc.](#) (Nasdaq: TALS), a late-clinical stage cell therapy company developing therapies with the potential to transform the standard of care in solid organ transplantation and severe immune and blood disorders, today provided a clinical update on its ongoing Phase 3 FREEDOM-1 study in living donor kidney transplant (LDKT) recipients.

To date, Talaris has enrolled 22 donor-recipient pairs in the Phase 3 FREEDOM-1 study (NCT# 03995901) of FCR001. Seven patients have been successfully dosed at five different trial sites. All three patients who were dosed more than 12 months prior to the data cutoff date have been successfully weaned off all chronic anti-rejection drugs without evidence of rejection and with stable kidney function. All of these patients, including the first patient who is now 24 months post-transplant, continue to remain off all anti-rejection drugs. Furthermore, all patients treated with FCR001 at least three months prior to the data cutoff date have achieved and maintained T-cell chimerism levels >50% at each of the 3-, 6- and 12-month timepoints post-transplant. The safety profile observed was generally consistent with that expected in patients receiving a kidney transplant and an allo-HSCT. Three cases of low-grade acute graft-versus-host disease (aGvHD) were reported, all of which were treatment-responsive and have since resolved. One of these patients is more than 12 months post-transplant and has been successfully weaned off all anti-rejection drugs. As a result of an internal review triggered by the GvHD cases, Talaris has modified its mobilization protocol and added a second post-transplant dose of cyclophosphamide for GvHD prophylaxis. Trial enrollment continues.

### Phase 3 FREEDOM-1 Highlights<sup>1</sup>

- **Enrollment, demographics and degree of HLA mismatching.** A total of 22 LDKT donor-recipient pairs have been enrolled to date in the FREEDOM-1 study at 10 different clinical sites. Of these, 13 were randomized to receive FCR001, 8 were randomized to the control arm and 1 failed final screening criteria. Currently, 7 of those randomized to FCR001 have received their kidney transplant and have been dosed with FCR001. The clinical trial continues to enroll donor/recipient pairs across all degrees of HLA mismatch. Figure 1 shows the distribution of all FCR001 recipients dosed to date, by the number of HLA mismatches between the donor and the recipient.
- **Efficacy data in FCR001-dosed patients.** As shown in Figure 2, a total of 7 patients have been dosed and all patients dosed at least three months prior to the cutoff date have achieved and maintained T-cell chimerism levels >50% at each of the 3-, 6- and 12-month timepoints post-transplant. All 3 of the patients dosed more than 12 months prior to the data cutoff date have been successfully weaned off all chronic anti-rejection drugs. The longest of these has been followed for 24 months post-transplant.

In the context of transplantation, chimerism refers to a state wherein both the donor's and the recipient's hematopoietic stem cells (HSCs) coexist in the recipient's bone marrow. Talaris believes chimerism to be an important potential study biomarker, predictive of inducing a state of allogeneic tolerance in the recipient, whereby the recipient tolerates the donated organ without the need for chronic anti-rejection drugs. Achieving high levels of durable donor T-cell chimerism in the LDKT recipient is one of the goals of the Company's Facilitated Allo-HSCT Therapy. In the Company's Phase 2 study, establishment and maintenance of >50% donor T-cell chimerism in an LDKT recipient at 3, 6 and 12 months after administration of FCR001 all correlated strongly with the patient's ability to durably discontinue chronic anti-rejection drugs approximately one year after transplant, without subsequent graft rejection.

- **Safety profile in FCR001-dosed patients.** Adverse events (AEs) and serious adverse events (SAEs) observed in FCR001-dosed patients are consistent with those generally expected in someone receiving both a kidney transplant and an allogeneic stem cell transplant involving non-myeloablative conditioning. Three cases of low-grade (grade II) aGvHD were reported, all of which responded to treatment and resolved. One of these patients is more than 12 months post-transplant

and, notwithstanding their treatment-responsive aGvHD, has been weaned off all anti-rejection drugs. One of the three aGvHD patients was subsequently diagnosed with moderate chronic GvHD and is also responding to treatment. No trial stopping rules were triggered by the GvHD cases, and trial screening and enrollment continued. However, to investigate these aGvHD cases, Talaris conducted an internal review of all GvHD cases in Phase 2 and 3. Through this review, a correlation was identified between these cases and the use of plerixafor as a donor mobilizing agent, the use of which has been higher to date under the Phase 3 mobilization protocol compared with the Phase 2.

Based on this analysis, the Company has modified the FREEDOM-1 trial protocol to eliminate plerixafor from the donor mobilization regimen in all but exceptional cases, and has also added a second dose of post-transplant cyclophosphamide (PTCy) for the FCR001 recipient. The revised mobilization protocol better aligns with current customary donor mobilization practices and the additional dose of PTCy reflects the current standard of care for GvHD prophylaxis in HLA-mismatched allogeneic stem cell transplants. All findings and recommendations were reviewed and endorsed by a panel of external scientific advisors as well as the FREEDOM-1 data monitoring committee (DMC), which supported continuation of the trial with these modifications.

“Today, organ transplant recipients must take lifelong immunosuppression to avoid rejecting their transplanted organ. These immunosuppressive regimens have significant morbidities, risks and quality of life challenges,” said Scott Requadt, Chief Executive Officer of Talaris. “A treatment alternative for these patients is greatly needed. The interim update presented today from our FREEDOM-1 study continues to support our prior data and belief that patients who achieve >50% T cell chimerism at 3, 6 and 12 months after the administration of FCR001 may be durably weaned from chronic immunosuppression without rejecting their transplanted organ. Overall, we are pleased with the continued progress of our FREEDOM-1 trial, with seven study patients now successfully dosed and 100% engraftment across all dosed patients, at multiple trial sites. These interim results continue to give us confidence that FCR001 has the potential to transform the standard of care in solid organ transplantation.”

Figure 1:

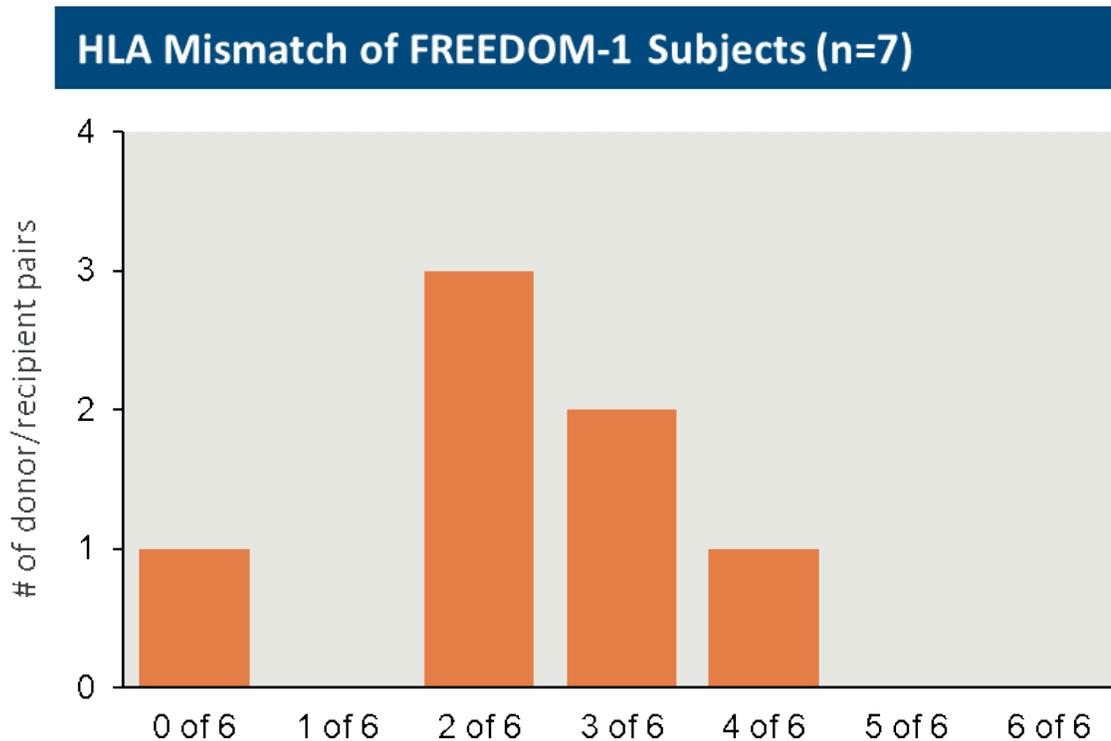


Figure 2:



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