



MEMORANDUM

SAB BIO announces additional positive, confirmatory results from phase 1 trial of T1D-modifying treatment, SAB-142 – December 17, 2025

Confirms safety and tolerability profile of SAB-142; follows positive topline results announced in [January 2025](#) that included only people without T1D

Miami-based SAB BIO [announced](#) today additional positive confirmatory results from its phase 1 trial (n=68) evaluating the safety, immunogenicity, pharmacokinetic, and pharmacodynamic profile of SAB-142 – a human anti-thymocyte immunoglobulin (ATG) for T1D. Confirmatory results reported data on single- and multiple-ascending doses among individuals with (n=6) without T1D (n=62), including a re-dosed cohort in the latter group. These data confirm and reinforce results from [January 2025](#), which exclusively included individuals without T1D (n=54), in which SAB-142 demonstrated a favorable and safe profile.

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Additional positive phase 1 results include single- and multiple-ascending doses among individuals with T1D and those without T1D

Today's update on the phase 1 trial includes data on single- and multiple-ascending doses among individuals with (n=6) and without T1D (n=62), with the latter including a re-dosed cohort. The trial included one cohort of individuals with T1D and nine cohorts of individuals without T1D dosed with a single or multiple 0.03-4.5 mg/kg dose(s) of SAB-142.

Results showed that SAB-142 was well-tolerated in both people with and without T1D. SAB-142 did not cause serum sickness among any participants, and demonstrated a superior safety profile to [rabbit ATG](#) (Sanofi's [thymoglobulin](#)). Additionally, SAB-142 showed no adverse events associated with anti-drug antibodies at any dose across all cohorts, including those who were administered treatment redoses.

SAB-142 did not demonstrate any drug-related serious adverse events across all trial participants. Most adverse events were mild and associated with infusions on Days 1 and 2, with grade 1 flu-like symptoms and transient infusion-site reactions (e.g., itching and tenderness). The most common adverse event was headache, which the company explained as a "typical adverse event" for T-cell modifying therapies like SAB-142. All trial participants also showed transient lymphopenia after dosing, which resolved between Days 1 and 3, including those with a second administration in the redosed cohort.

SAB-142 across multiple stages of T1D, including potential for safe redosing

SAB BIO previously shared its goals to advance SAB-142 across multiple stages of T1D, including to: (i) delay the onset of T1D for stages 1 and 2; (ii) delay progression of stage 3; and (iii) prevent transplant rejection in those with

clinically diagnosed T1D who are receiving islet cell transplantation. SAB-142 has the potential for redosing in outpatient settings throughout patients' lifespans, especially given the lack of sustained lymphodepletion seen in the phase 1 trial. The company compared this profile to other immunomodulatory drugs that deplete lymphocytes for up to two years.

Comparison of SAB-142 against other immunomodulatory therapies

SAB BIO held a comprehensive webcast [earlier this year](#) to provide context for the initial positive phase 1 results of SAB-142. During Q&A, management contextualized the results by comparing SAB-142 with Sanofi's [Thymoglobulin](#) (rabbit ATG), an immunosuppressant drug used in organ transplants, and [Tzielid](#) (teplizumab), the first and only disease-modifying therapy for stage 2 T1D.

- On safety, management noted that SAB-142 did not show sustained depletion of T cells, B cells, red blood cells, neutrophils, or thrombocytes after seven days. These results were comparable to Thymoglobulin, which causes a decrease in CD4+ T-cells for up to two years.
- On immunogenicity, no participant receiving SAB-142 developed anti-drug antibodies, while 68% of patients receiving Thymoglobulin and 57% of those receiving Tzielid did. Additionally, SAB-142 did not cause serum sickness, which was observed in more than 70% of patients receiving Thymoglobulin.

Phase 2b SAFEGUARD trial evaluating SAB-142 in new onset stage 3 T1D, with first patient dosing expected by the end of this year

Following positive [phase 1 data](#) reported earlier this year, SAB BIO announced its plans to initiate the 52-week phase 2b [SAFEGUARD](#) trial (n=159) to investigate the safety and efficacy of SAB-142 among pediatric and adult populations (five to 40 years old) with new-onset (<100 days) stage 3 T1D. In [July 2025](#), the company announced a \$175 million oversubscribed placement to fund the study, expecting cash runway through mid-2028. Though the company previously stated plans to initiate the trial in mid-2025, [ClinicalTrial.gov](#) notes that the trial actually began in November 2025 and is expected to complete in November 2027. Among the 61 planned clinical trial sites worldwide, the [website](#) currently lists Seattle, Washington and Parkville, Australia, as the only two locations with active recruitment. Today's [press release](#) affirmed that the trial is on track to dose the first patient by the end of this year.

The trial will randomize participants 1:1:1 across high dose, low dose, and placebo groups, and will infuse 0.5 mg/kg of SAB-142 intravenously on Day 1, with the remainder administered on Day 2 or 3. The primary endpoint is the change in stimulated C-peptide levels following a two-hour mixed meal tolerance test compared to baseline. Secondary endpoints include Time in Range (TIR), Time in Tight Range (TITR), Time below Range (TBR), as well as total daily insulin use, A1c, hypoglycemia, and safety. In [January 2025](#), when the company shared initial phase 1 results, management said that SAB-142's lead indication would delay the onset of stage 3 T1D.

Close Concerns' Questions

1. Will the phase 2b SAFEGUARD trial also include a redosing cohort?
2. When will the phase 2b SAFEGUARD trial begin enrolling patients in the other 59 locations?
3. What criteria will the phase 2b SAFEGUARD trial use to define the tolerability profile?
4. How will SAB BIO prioritize SAB-142 across different stages of T1D?
5. How does SAB BIO plan to mitigate adverse events (e.g., flu-like symptoms and infusion-site reactions)?

--by *Esther Min, Elizabeth Rose, Jeremy Alkire, and Kelly Close*