



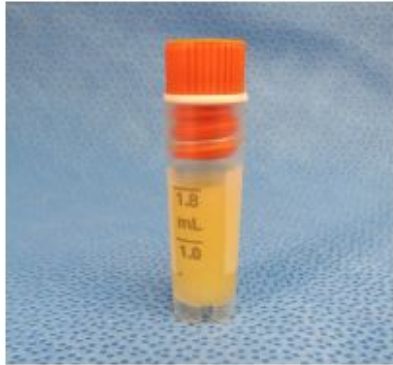
Fat Grafting with Liposana

Jodi Schoenhaus, DPM, RPhs, FACFAS

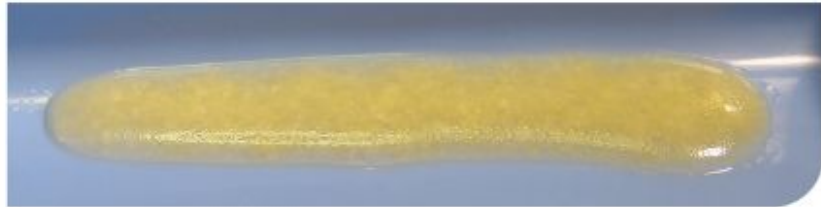
Liposana[®]

Redefining Fat Pad Restoration

Ready-to-use, free from synthetic agents, native adipose allograft



- Immediate Cushioning
- Native Fat Structure Retained
- Long Term Outcomes



Confidential – do not duplicate or distribute without permission from Jodi R. Schoenhaus,
DPM

The results are in....Initial DATA!

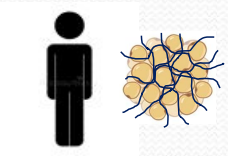


Pilot Study: Fat Pad Restoration With Adipose Allograft in Metatarsalgia Patients Shows Structural, Functional Improvement [Vol. 13, No. 12, December 2025.](#)

Retrospective evaluation of 10 patients Results: At 12 weeks, 9 of 10 treated feet showed increased fat pad thickness (mean gain 0.21cm, 65% improvement). FADI scores improved in 8 of 9 patients, with a mean increase from 66.0 to 84.2 (18.1 points); 56% of patients exceeded the minimum clinically important difference (MCID) of 10 points. No statistically significant correlation was observed between tissue thickness gain and functional improvement (Pearson's $r = -0.31$). Conclusion: hATA appears to be a safe, non-surgical option with potential to restore cushioning and reduce symptoms in patients with metatarsalgia.

Tissue Handling

HUMAN ADIPOSE TISSUE ALLOGRAFT (HATA)



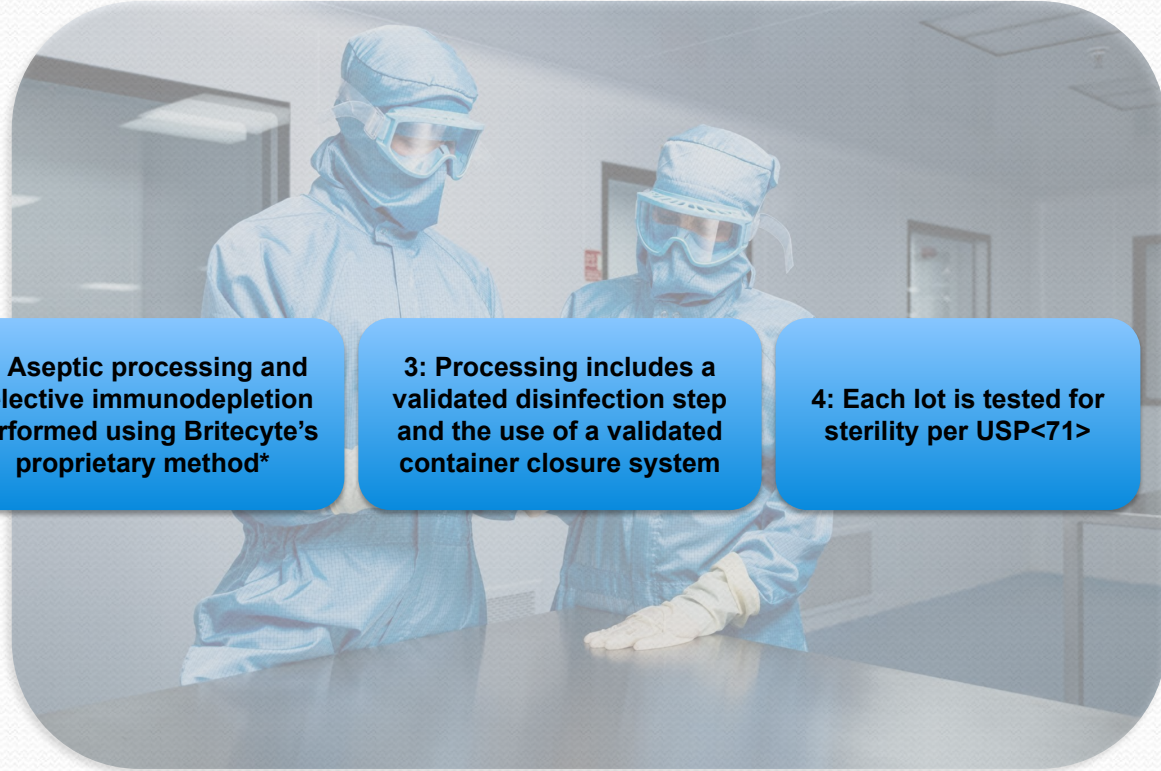
Adipose
tissue is
recovered
from
eligible
donors

1: Adipose tissue is tested per 21 CFR 1271 at a CLIA-certified lab

2: Aseptic processing and selective immunodepletion performed using Britecyte's proprietary method*

3: Processing includes a validated disinfection step and the use of a validated container closure system

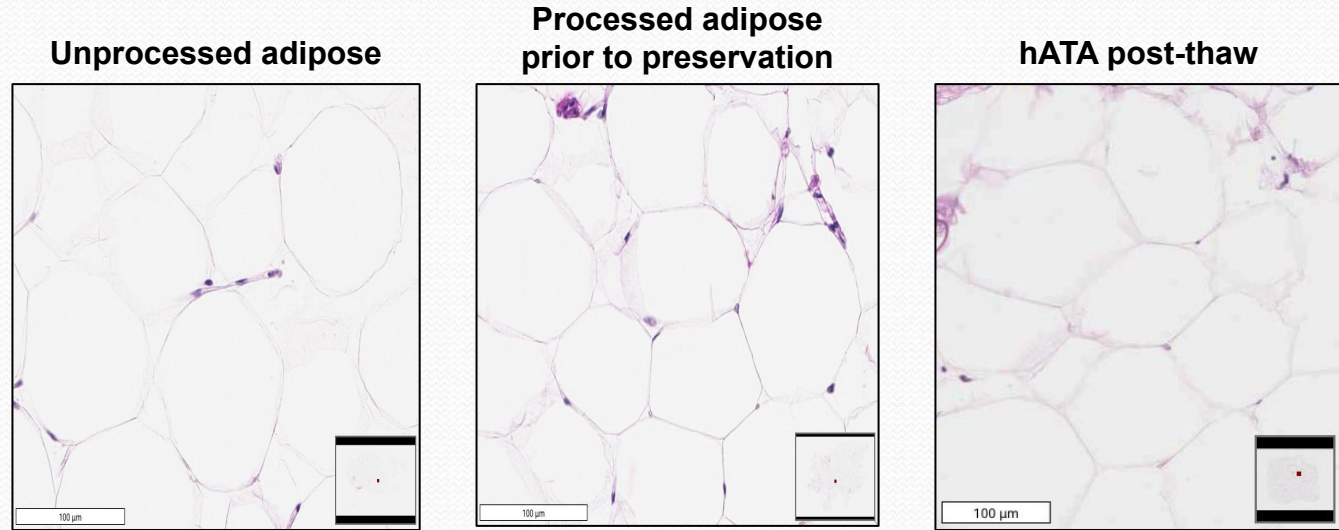
4: Each lot is tested for sterility per USP<71>



Processing performed in an ISO Class 5 clean room

Histological Analysis of Adipose Allograft

Structure of Native Adipose Tissue is Retained in hATA



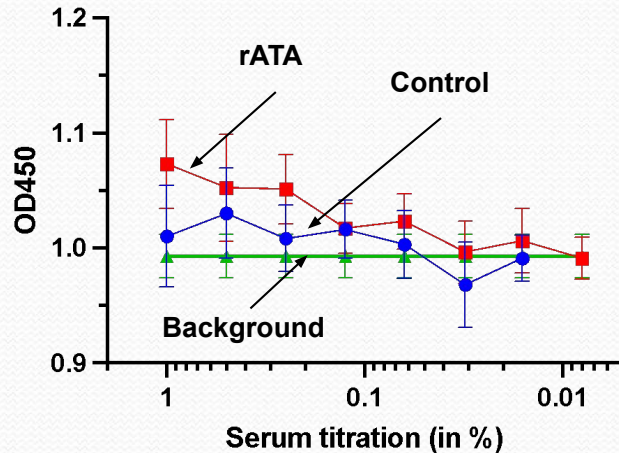
H&E Staining, 20X magnification

Graft Host Reaction...incorporation, not reaction

Anti-rATA Antibodies Were Not Detected After Subcutaneous Implantation in Rats

ADIPOSE TISSUE
ALLOGRAFT (ATA)
DOES NOT INDUCE
AN IMMUNE
RESPONSE

Detection of anti-rATA antibodies in blood serum



Experimental design:

- Sprague-Dawley (SD) rat Adipose Tissue Allograft (rATA) was implanted subcutaneously in Zucker rats, mimicking allogeneic clinical use of hATA (hATA donor and patient receiving hATA are two different individuals)
- Rat serum was collected 28 days after rATA implantation and tested for the presence of anti-rATA antibodies using ELISA (enzyme-linked immunosorbent assay)
- Control: Blood serum from Zucker rats received saline; Background: No serum
- Graph shows mean \pm SD for n=6 rats per each group

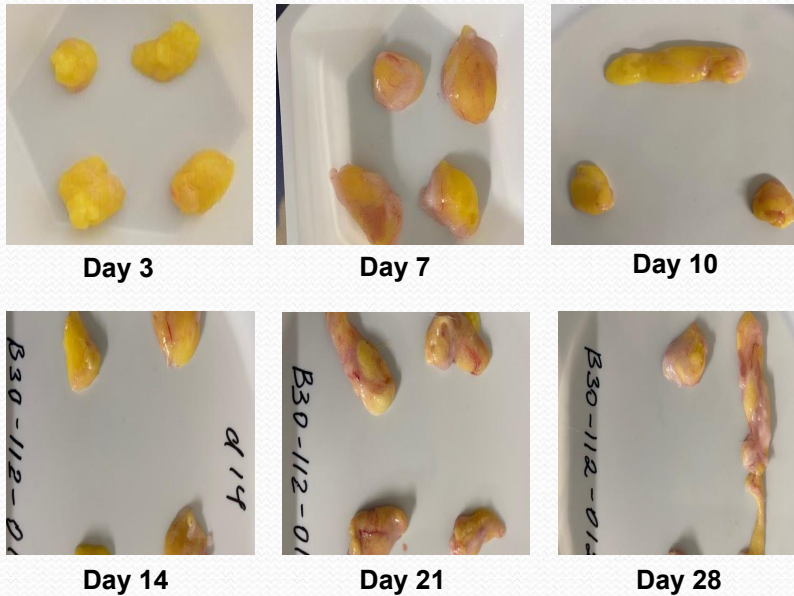
Confidential – do not duplicate or distribute without permission from Jodi R. Schoenhaus,



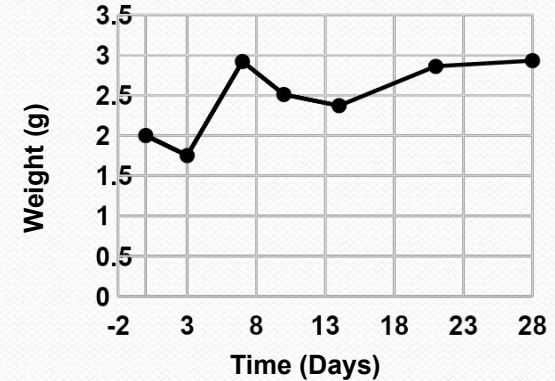
hATA- Human Adipose Tissue Allograft Remodeling- noted in

Implanted hATA Retained Weight, Became Vascularized, and Was Replaced By Host Tissue Over Time

hATA Visual Appearance After *In Vivo* Implantation



hATA Weight After Implantation *In Vivo*



Blood Vessel Formation *In Vivo*

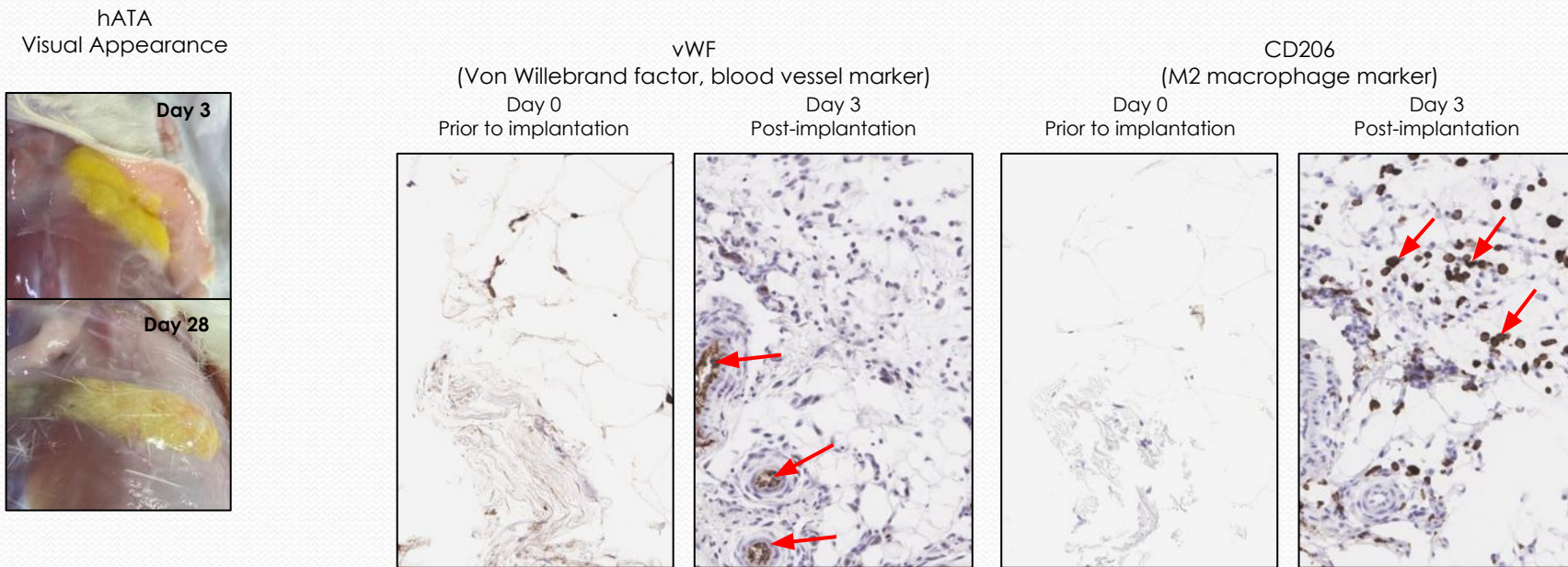


FOOT, ANKLE
& LEG VEIN
CENTER

hATA- Human Adipose Tissue Allograft Remodeling- in Vivo

Post Subcutaneous Implantation, *In Vivo* hATA:

- Persisted at the site of implantation for the duration of the studies (4-12 weeks)
- Became vascularized (new blood vessels were detectable 3 days post-implantation)
- Became populated and was remodeled by host cells (M2 macrophages and blood vessels are host origin)



Immunohistochemical images of vWF and CD206-stained hATA at 10x magnification. There were no blood vessels and M2 macrophages present in hATA prior to implantation. Brown staining and red arrows show M2 macrophages and blood vessels, which are rat (host) origin.

