

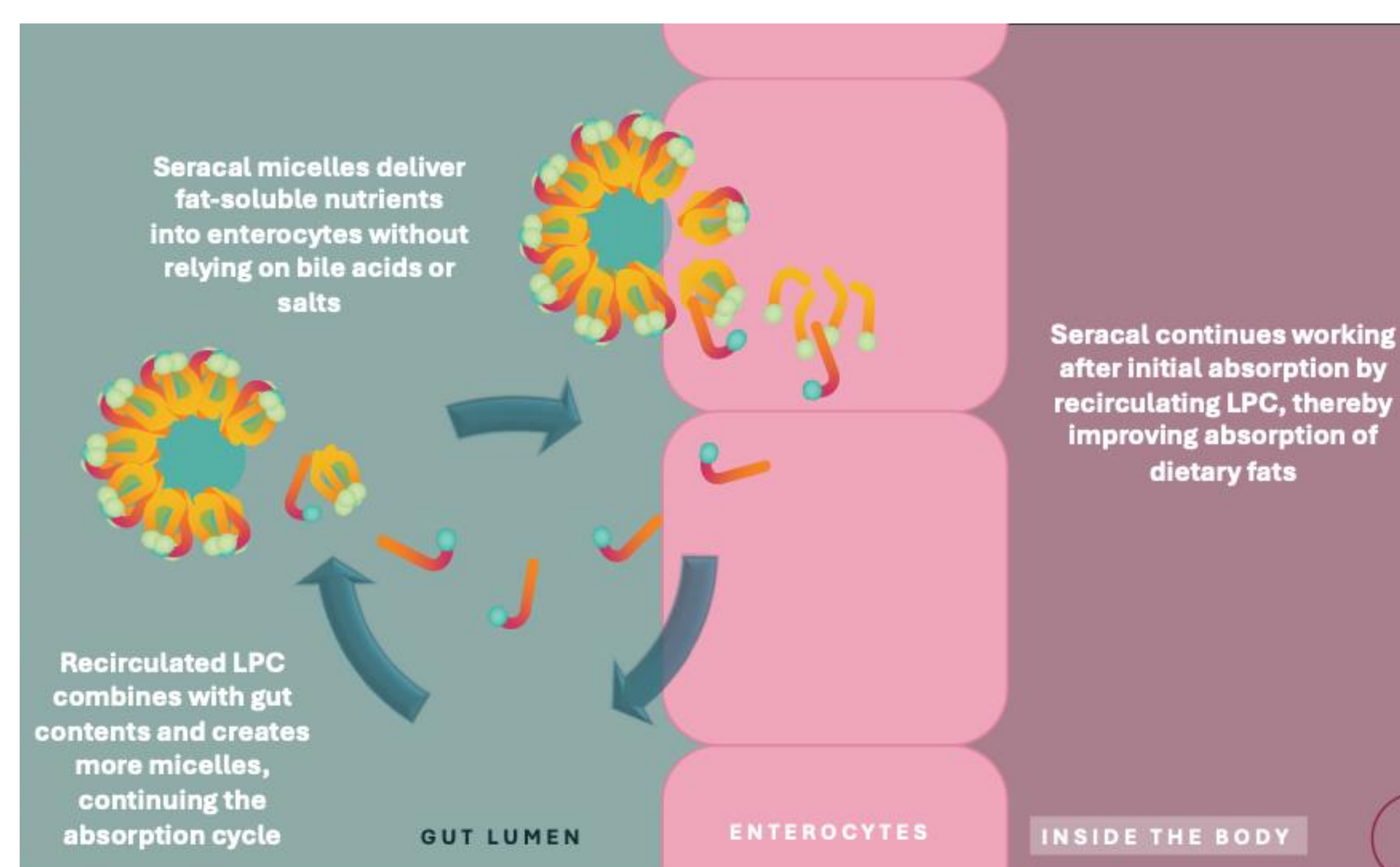
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Background

- **Short bowel syndrome (SBS)** can cause significant **fat malabsorption** due to reduced intestinal surface area, rapid transit, bile acid deficiency, and postcibal asynchrony
- Patients often experience feeding intolerance, failure to thrive (FTT), and dependence on parenteral nutrition (PN)
- **Limited options** exist to target fat malabsorption in SBS
- **Seracal is a novel medical food powder** for children and adults to enhance fat absorption
 - Composed of Lym-X-Sorb, a structured lipid matrix that facilitates absorption of fatty acids, calories, and fat-soluble nutrients without requiring bile acids or pancreatic enzymes
 - Easily mixed into food, snacks or given via feeding tube
- **Case presented:** Pediatric patient with SBS who weaned off PN but developed severe FTT that improved after Seracal powder was added to oral feeds

Molecular Mechanism of Action



Case Presentation

Case Summary

- 👤 **Patient:** 5-year-old ex-29 week F with SBS due to NEC
Anatomy: 25 cm jejunum–ascending colon, no ICV
- 🩺 **Course:** TPN with complications (IFALD, bacterial endocarditis), feeding difficulties
- 📋 **PN history:** Off TPN (15 mo) → GT dependent → oral autonomy (age 5)
- 🍽️ **Nutrition:** High-calorie (>120 kcal/kg/d) homemade blended meals by chef father; family declined formulas

Status Pre-Intervention

- ⚠️ **Severe malnutrition & fat malabsorption**
 - Weight Z-score –6.03, BMI Z-score –4.38, MUAC Z-score –5.98
 - NFPE: severe fat loss in temples, orbital region, extremities
 - Essential fatty acid deficiency (improved with flaxseed oil)
 - + Fecal fat, normal pancreatic elastase
- 😞 **GI symptoms**
 - Gassiness, distention, loose/pasty stools 2–6x/day
- 💊 **Multiple medications** → minimal improvement
 - Loperamide, proton pump inhibitor, metronidazole, oral pancreatic enzymes, multivitamin, probiotic, cholestyramine
- ⚖️ **Options considered:** admit, restart PN, scope, teduglutide, other?

Intervention

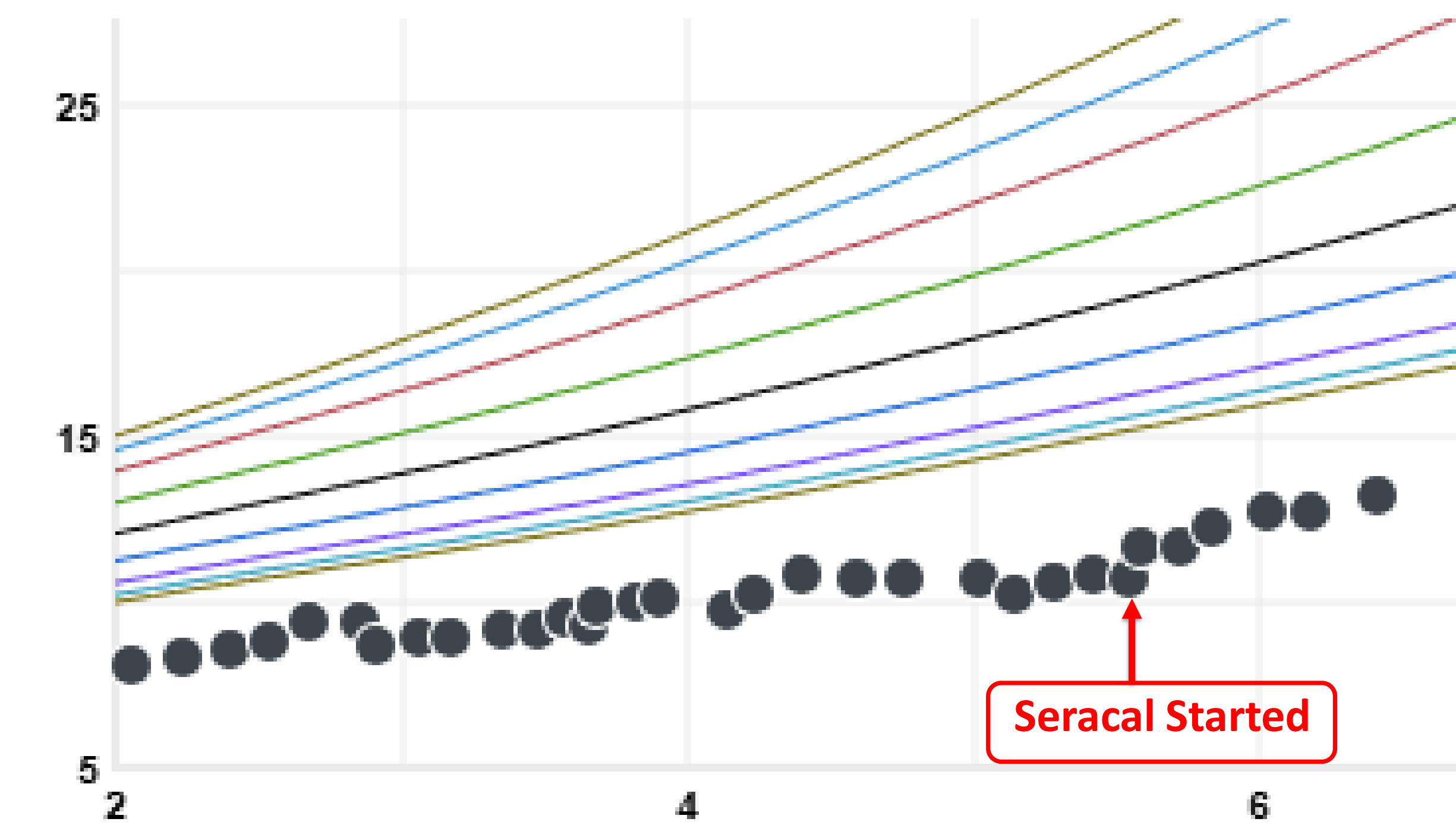
- ✚️ **Seracal introduced** (March 2025)
 - Titrated 1 tbsp/meal → 3.5 tbsp/meal x4 (14 tbsp, 245 kcal/day)
 - Example meal: pasta + turkey + cheese + flaxseed oil + Seracal
 - Example meal: chicken/vegetable soup + flaxseed oil + Seracal

Outcomes

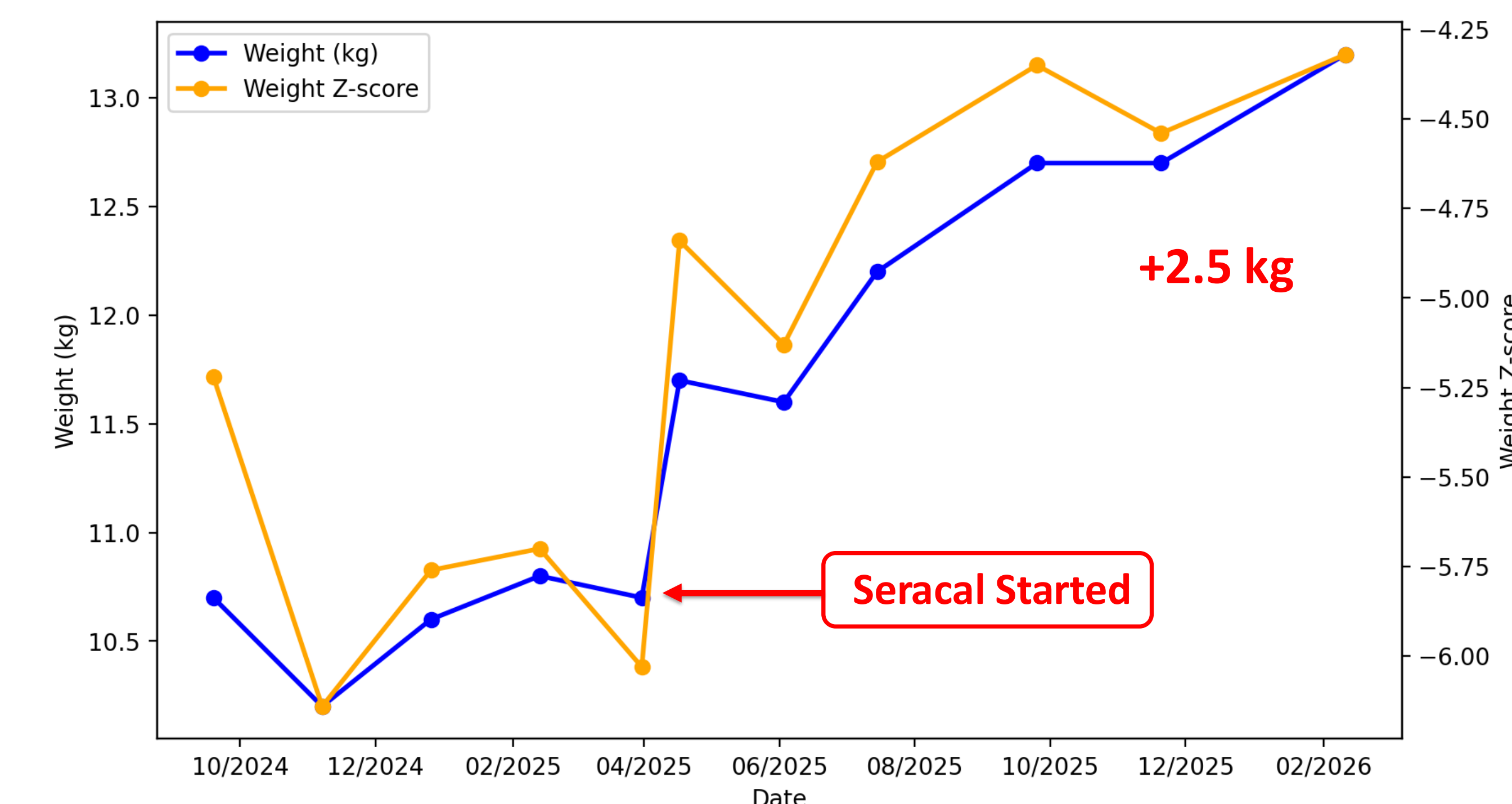
- ✅ **Less gassiness & distention**
- ✅ **Stool improvement** (2–3x/day, pastier)
- ✅ **No adverse effects**
- 📈 **First consistent weight gain in 3 years** (coinciding with Seracal start)

Weight After Intervention

Weight for Age Growth Chart



Weight + Z-score Progression Over Time



Key Takeaways

- **Lym-X-Sorb–based medical food Seracal** shows promise in addressing **SBS-associated fat malabsorption and malnutrition**
- In our patient, Seracal was:
 - Well tolerated
 - Associated with **improved weight gain**
 - Led to **reduced GI symptoms**
- **Further studies** needed to assess **efficacy, safety, and tolerability** in pediatric SBS

Contact information

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