

LIF REGULATES GDF15 EXPRESSION AND DRIVES CANCER CACHEXIA IN GASTRIC CANCER

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Poster

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Study in gastric cancer patients identifies Leukemia Inhibitory Factor as an upstream regulator of GDF15 and correlate of cachexia severity measured by muscle and fat loss on CT imaging.

KEY POINTS

- Transcriptomic analysis of 61 gastric cancer patients showed significant upregulation of both LIF and GDF15 in tumor tissue, with strong positive correlation between the two ($p < 0.05$).
- High LIF expression was inversely correlated with serum albumin ($p < 0.05$) and associated with significantly lower skeletal muscle index and subcutaneous adipose tissue index on CT scans.
- In vitro experiments demonstrated that LIF stimulation increased GDF15 expression in muscle cells via the LIF/JAK-STAT3 pathway, and this effect was blocked by LIF receptor antagonist LRI-305.
- The authors suggest LIF may serve as a biomarker of cachexia severity and that targeting LIF signaling could be a therapeutic strategy in gastric cancer cachexia.

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