Fibronectin (FN) is a novel substrate for the secreted metalloprotease ADAMTS17

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Weill-Marchesani Syndrome (WMS):

- Caused by mutations in ***ADAMTS17***, *ADAMTS10*, *LTBP2*, or *FBN1*
- WMS is a musculoskeletal / eye disorder:

  - short stature, short digits, joint contractures, stiff skin, lens dislocation

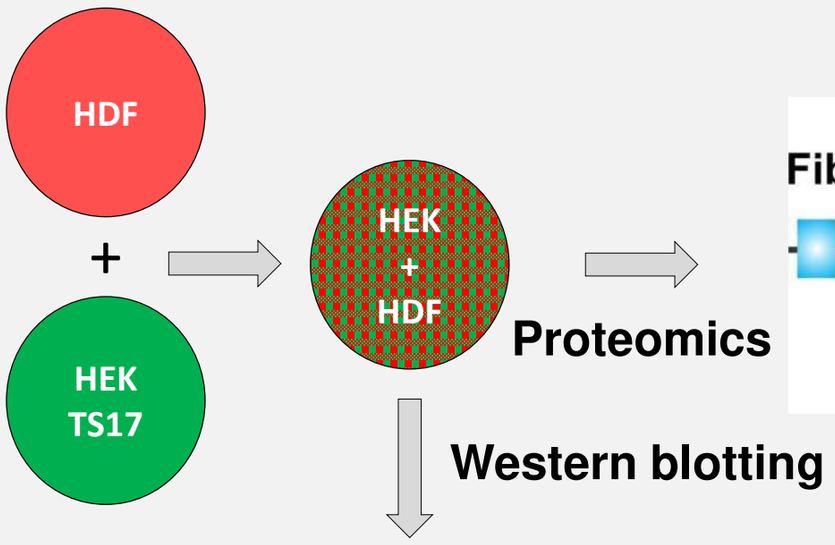
Gap in Knowledge:

- No substrates for ADAMTS17 are known (other then itself).

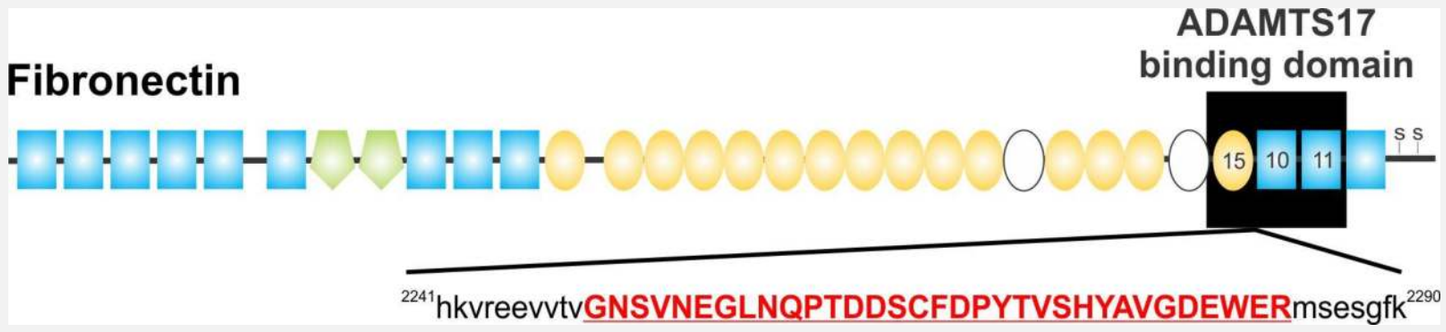
Main Findings:

- **Fibronectin (FN) is a ADAMTS17 substrate**. ADAMTS17 did not cleave FN directly.
- FN processing may be required for FN assembly in the ECM

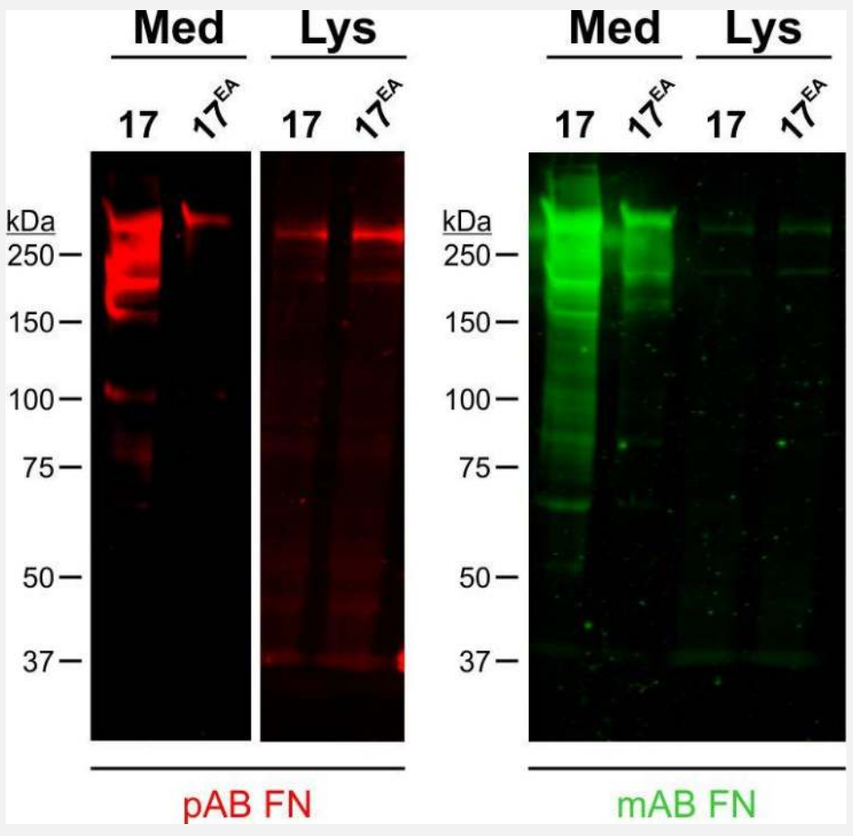
HDF/HEK co-culture system



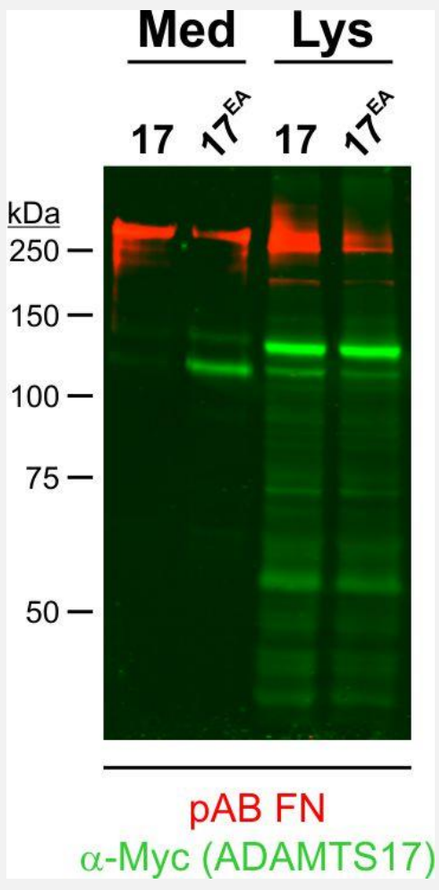
ADAMTS17 binding and cleavage site map to the same FN region



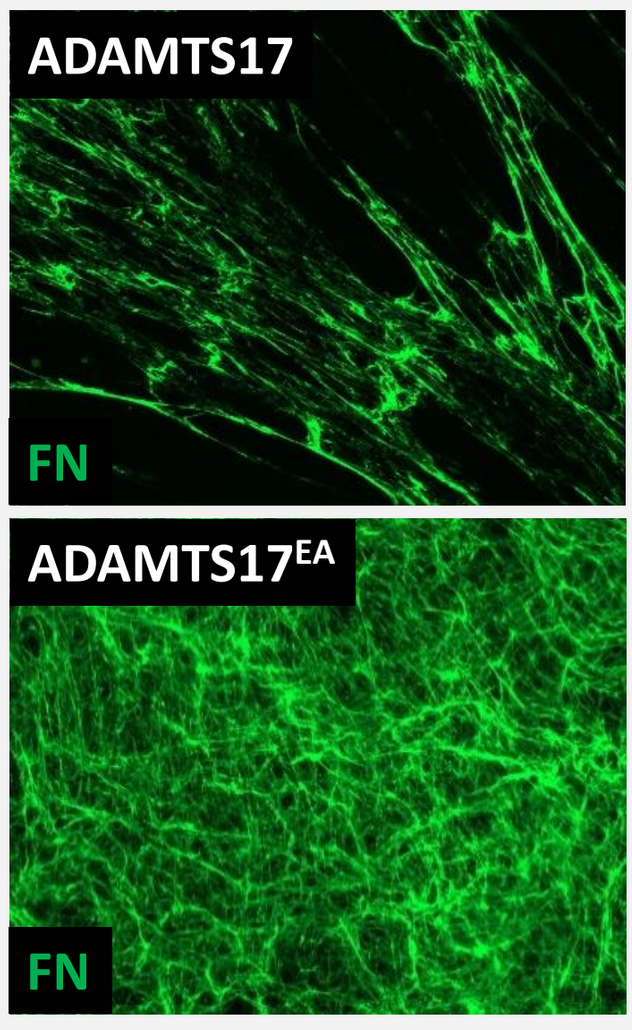
FN proteolysis is observed in medium, but not cell lysate



ADAMTS17 does not cleave FN directly



ADAMTS17 impairs FN deposition in HDF cells



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