Extracellular Eosinophil DNA Traps: How to Assess and Their Role in Diseases

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Take-home message 1:

Extracellular eosinophil traps contain DNA and granule proteins.
Take-home message 2:

- DNA can be stained by fluorescent dyes;
- analysis by *confocal microscopy*, *live microscopy* provides additional information;
- source of DNA can be confirmed by *molecular biology techniques*
- additional components can be demonstrated by *immunofluorescence*
- DNA measurements in the supernatant are not sufficient to demonstrate DNA traps
Take-home message 3:

Scanning electron microscopy and high-resolution fluorescence microscopy may provide additional information regarding mechanisms of DNA release.
Take-home message 4

1. Infectious diseases:
   - Spirochetosis (gut)
   - Schistosoma (liver)
   - Larva migrans (skin)

2. Autoimmune disease:
   - Crohn’s disease (gut)
   - Bullous pemphigoid (skin)

3. Allergic diseases:
   - Bronchial asthma (lungs)
   - Atopic dermatitis (skin)

Yousefi S et al., Nat. Med. 2008
Morshed M et al., Allergy 2012