NETs, NETosis and Nu.Q® NETs

How a simple blood test could protect patients and revolutionise diagnosis and disease monitoring

1 What are NETs?

Neutrophils make up 70% of the body's white blood cells. When they encounter a pathogen, they expel strings of DNA, which form a web around the invader to trap it. These webs are called Neutrophil ExtraCellular Traps (NETs).

2 What is NETosis?

The neutrophil cell dies while expelling its DNA, and this is called NETosis. This is normally a natural process, but some people over-produce NETs in response to infection – so the cells are actually attacking that person's own body.

3 What are the risks of NETosis?

Numerous studies show that people who over-produce NETs are also far more likely to develop sepsis, or to suffer from severe COVID-19. It's therefore important to identify these conditions at an early stage, and proactively anticipate their treatment needs.

4 What is Nu.Q® NETs?

Nu.Q® NETs is a groundbreaking diagnostic test that clinicians can use to aid the detection of diseases associated with NETosis. It could be used to predict if someone is more likely to have a severe case of sepsis.

5 What else may this test be able to predict?

Future studies are being planned to establish if Nu.Q® NETs life-altering technology could be used for:

- Detecting the spread of cancer and monitoring the success of treatment
- Earlier diagnosis of thrombosis and inflammatory conditions.

Neutrophil · Nucleosomes · Viruses · Bacteria

Find out more at volition.com

Volition

Ahead of the game

At Volition, we are dedicated to revolutionising the diagnosis and monitoring of life-altering diseases by advancing the science of epigenetics.

Our patented Nucleosomics™ technology isolates any abnormal circulating nucleosomes from the blood for quantification and analysis. It has a wide range of applications including Nu.Q® NETs – a simple blood test that has been CE marked to aid the detection and evaluation of diseases associated with NETosis.

"The Nu.Q® NETs assay is a simple, low cost and effective measure of NETs that may be used to identify patients with clinically relevant elevated circulating levels of NETs and enable physicians to rapidly treat these patients."

Dr Andrew Aswani, Consultant in Critical Care & Anaesthesia at Guys and St Thomas' NHS Foundation Trust, London