

# ***Decoding The Neutrophil Urinary Biomarker Message to Identify Respiratory Infection***

*Diagnostic tests to detect infection by reading the innate host response*

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**Location: Thurleigh, Near Bedford “Where’s that?”**



## Microbial intrusion



The traditional approach

The Biomarker message to be de-ciphered

INSENSITIVE  
TOO SPECIFIC

Structural, metabolic & QS molecules

AMPLIFICATION  
GENERALISATION

Direct detection

Innate immune sensing

Ultrasensitive sensor?

microbial signature

Cells

Signal transduction?

High sensitivity Detection ?

pathogen recognition receptors

Phagocytes

Epithelial Cells

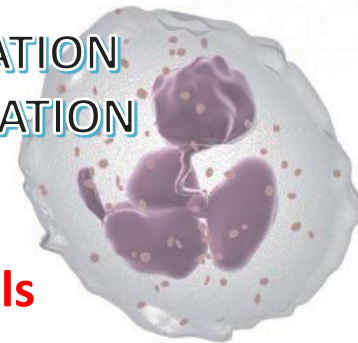
Signalling molecules

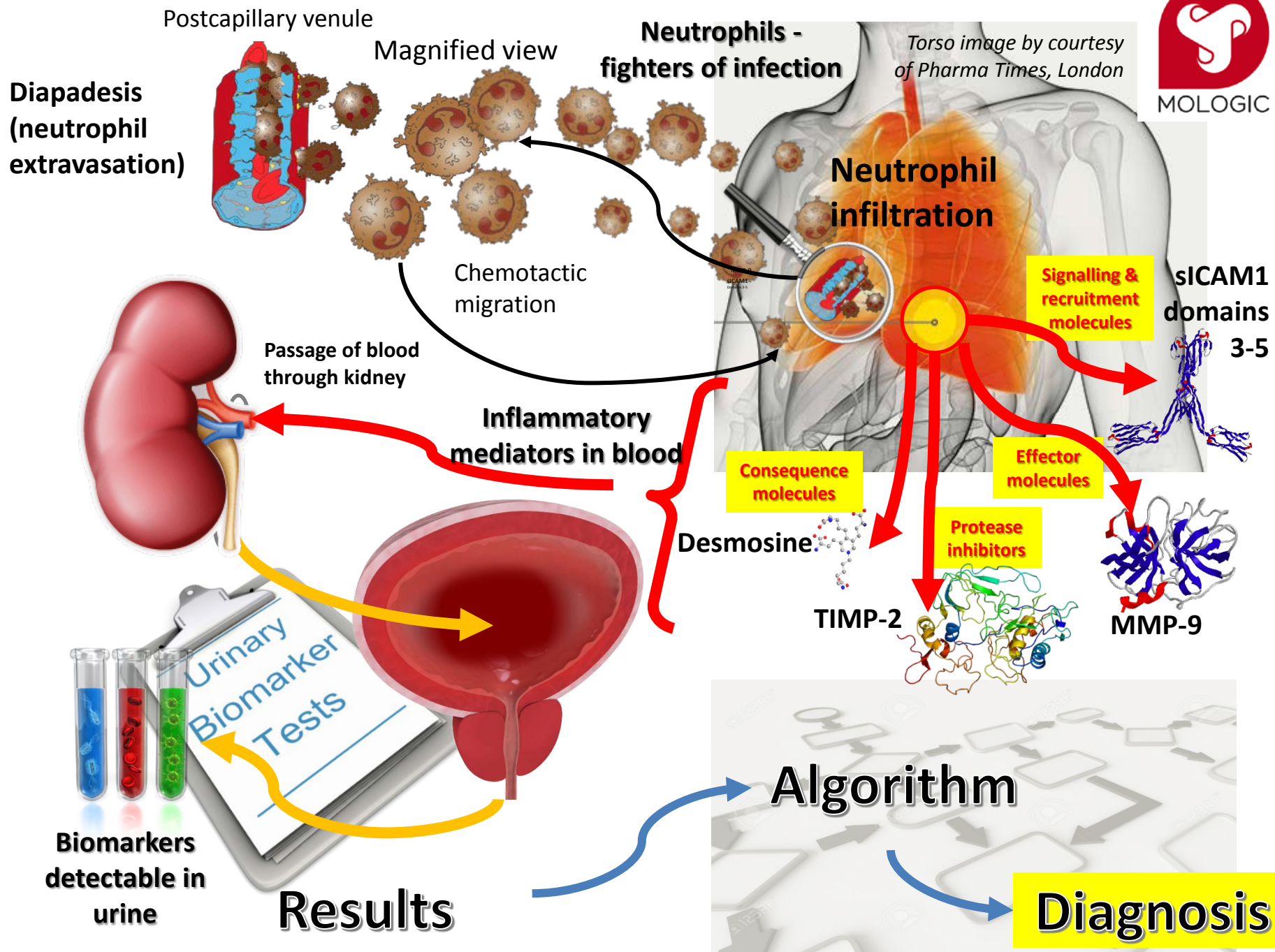
Effector molecules

Consequence molecules

Urinary Proteomics

Optimised Multiplex Assays







# ***Mologic infection tests in development***



UTI - triplex



Respiratory infection – COPD & CF



Infection in peritoneal  
dialysis fluid



Sepsis – post surgical  
and general



Bacterial  
vaginosis