

Complement

Complement use cases: Clinical



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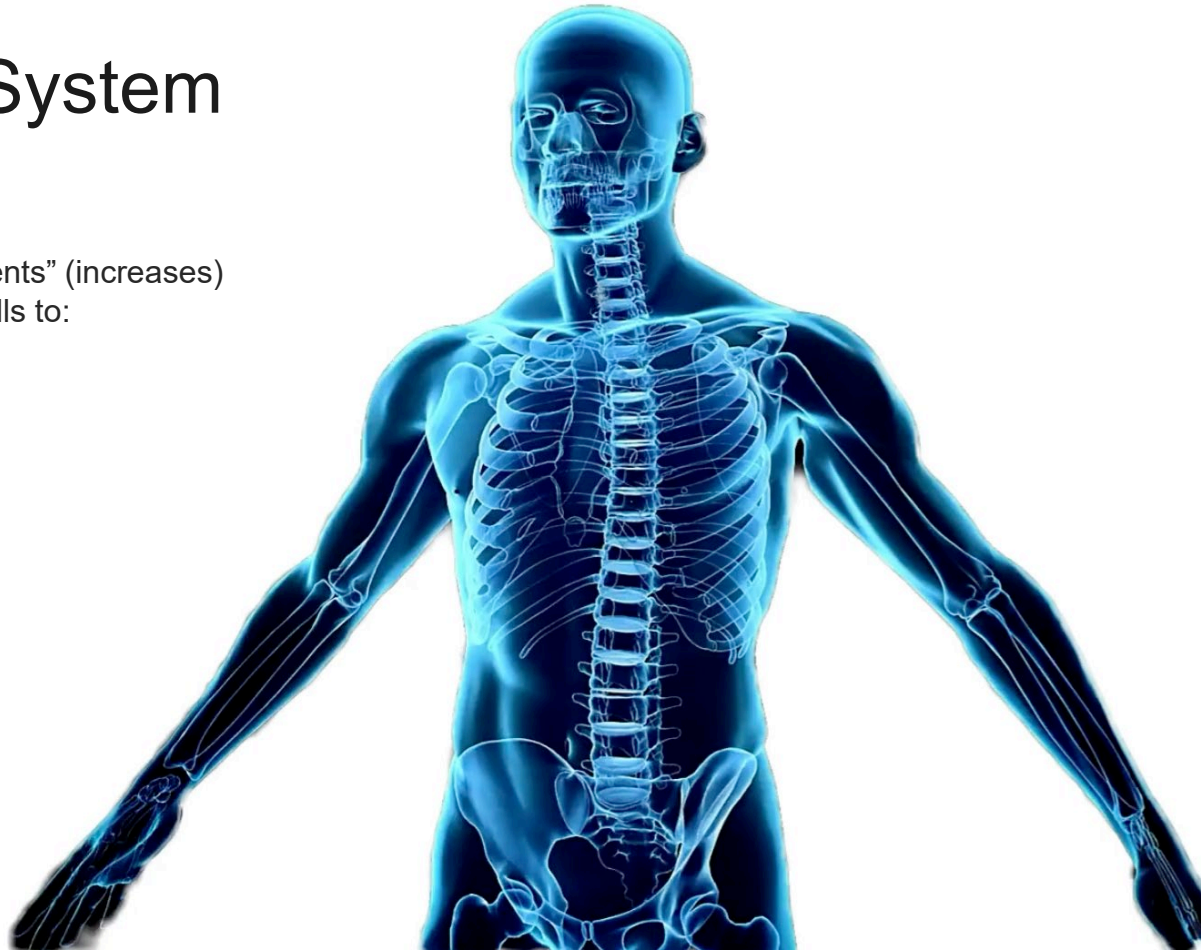
Commercial Product Manager

The Complement System

Part of the immune system that “complements” (increases) the ability of antibodies and phagocytic* cells to:

- Clear microbes and damaged cells
- Promote inflammation
- Attack pathogen’s cell membrane

*Phagocyte = “cell that eats”

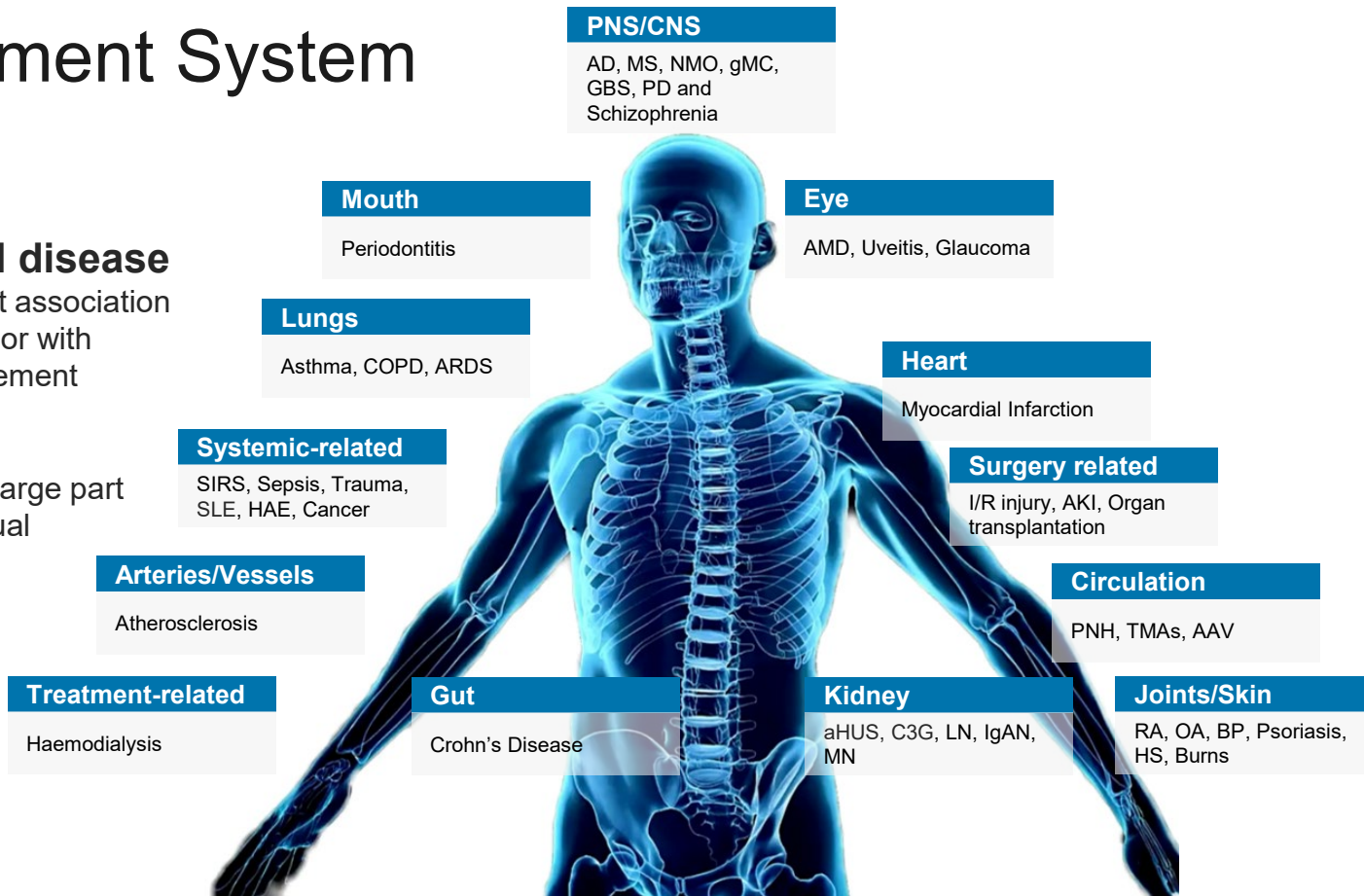


The Complement System

Complement related disease

A growing field - complement association since driven by complement or with symptoms caused by complement activation.

Initial draft surveys suggest large part of population may have annual incidence relevant for complement testing



Svar offer - communication

Svar functional IVD ELISA assays

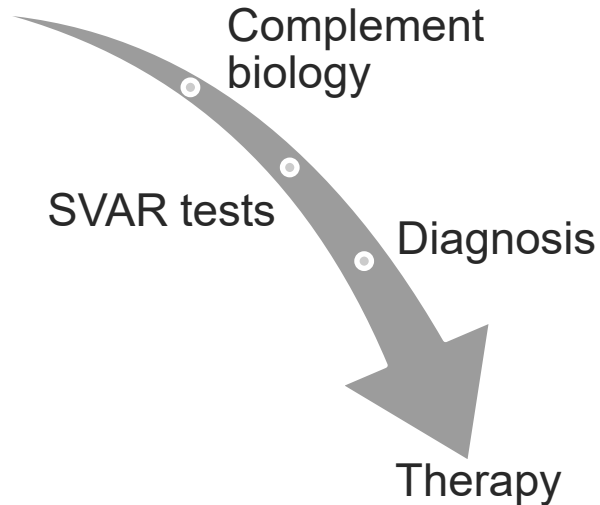
- Can aid in diagnosing patients with suspected complement deficiency or complement dysfunction.
- In conjunction with other laboratory and clinical findings.

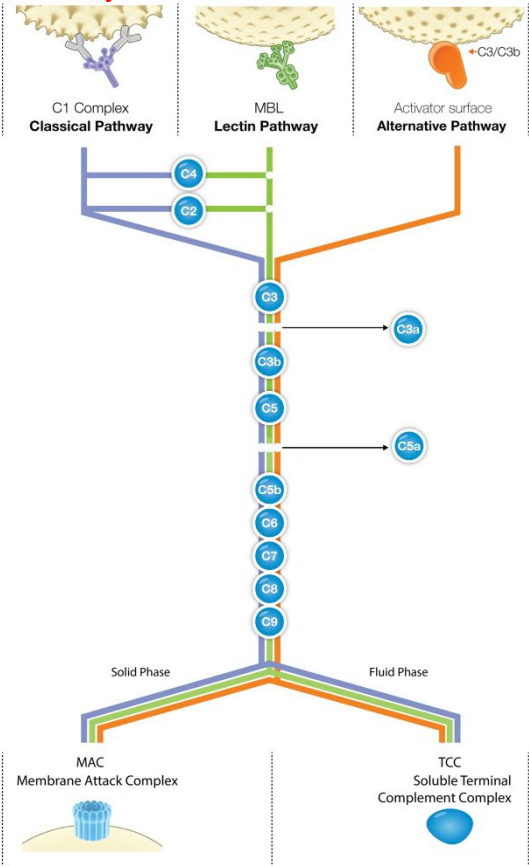
Relevant information to gather

- For what clinical indications does the customer perform complement testing as part of the clinical process → which complement tests
- What works well for the customer regarding the complement tests they perform today
- What would the customer need to make the complement testing even better than today

Context of the IVD ELISA assays

Indication

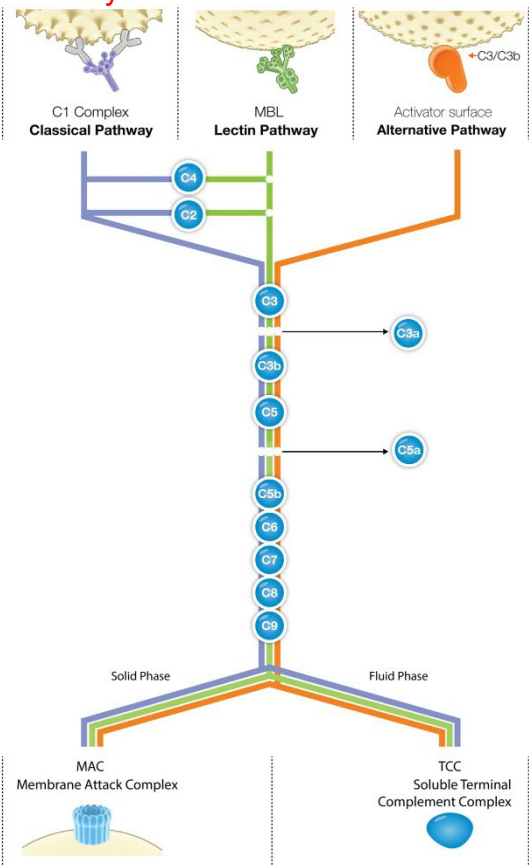




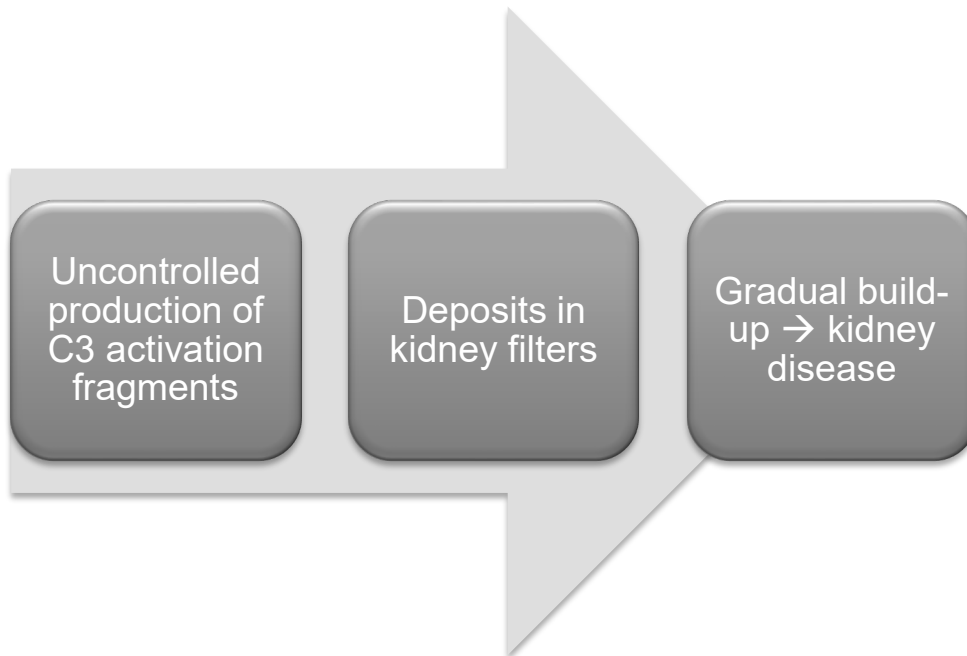
Wieslab functional IVD assays

Product	Usage	Resulting measurement	Key benefits / Why use it
Complement Screen	Evaluation of the functionality of all three complement pathway, separately, (Classical, Lectin, AP) in human serum.	After complement activation it evaluates the complement function of each pathway by detecting the resulting formation of TCC*.	Rapid complement system assessment. First-line evaluation to detect reduced or enhanced activity potential.
Classical Pathway	Evaluation of Classical Pathway function in human serum.	After triggering the classical pathway by antigen-antibody complexes, it evaluates the pathway's function by detecting the resulting formation of TCC*.	Identifies reduced or enhanced activity potential in antibody-driven complement activation.
MBL (Lectin) Pathway	Evaluation of Lectin Pathway function in human serum.	After starting the lectin pathway by triggering mannose recognition, it evaluates the pathway's function by detecting the resulting formation of TCC*.	Identifies reduced or enhanced activity potential in innate immune recognition mechanism.
Alternative Pathway	Evaluation of Alternative Pathway function in human serum.	After triggering the alternative pathway by using lipopolysaccharide (LPS) as surface structure for AP activation, it evaluates the pathway's function by detecting the resulting formation of TCC*.	Identifies reduced or enhanced activity potential in complement amplification function and baseline complement readiness.

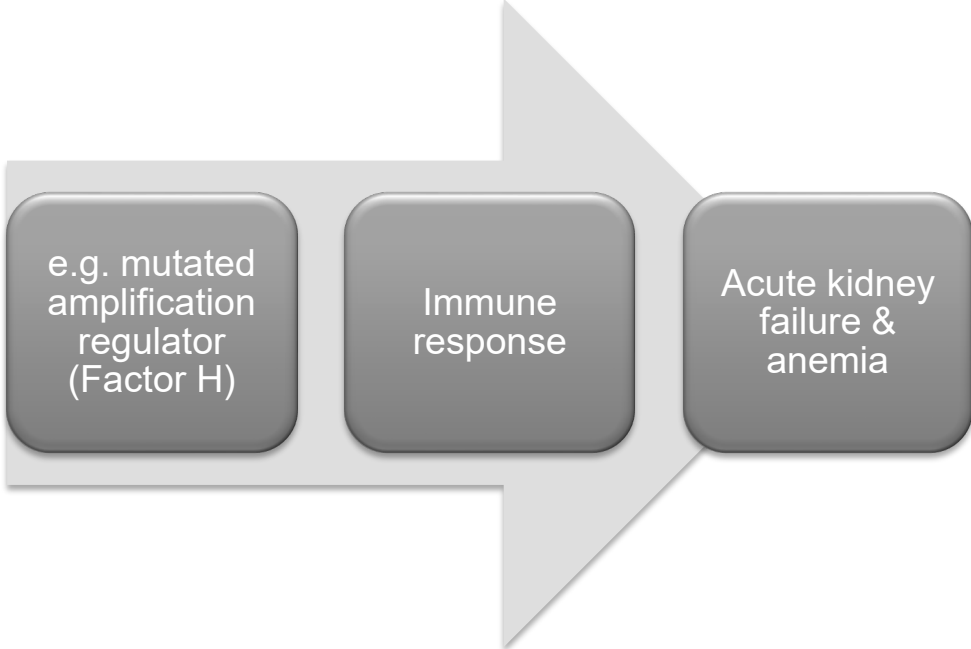
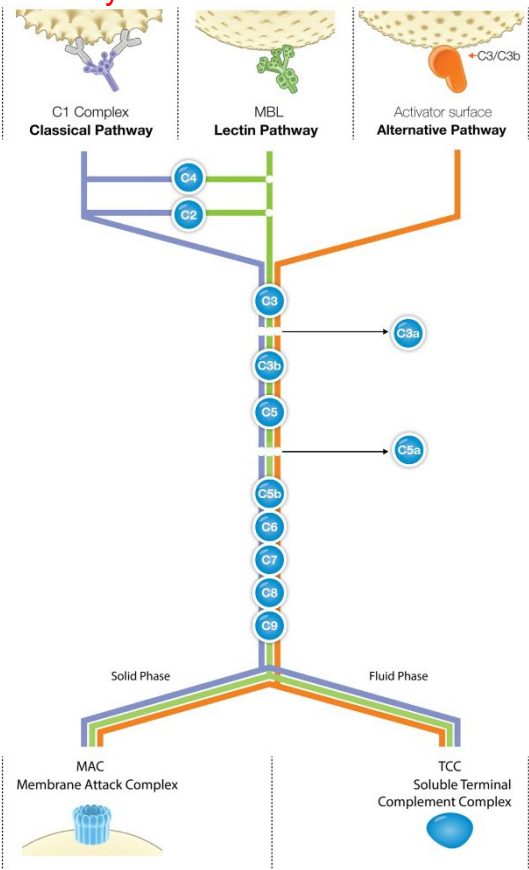
*Antibodies linked to alkaline phosphatase bind to C5b-9, after incubation with alkaline phosphatase substrate solution a resulting color is produced whose absorbance is measured (unit = OD)



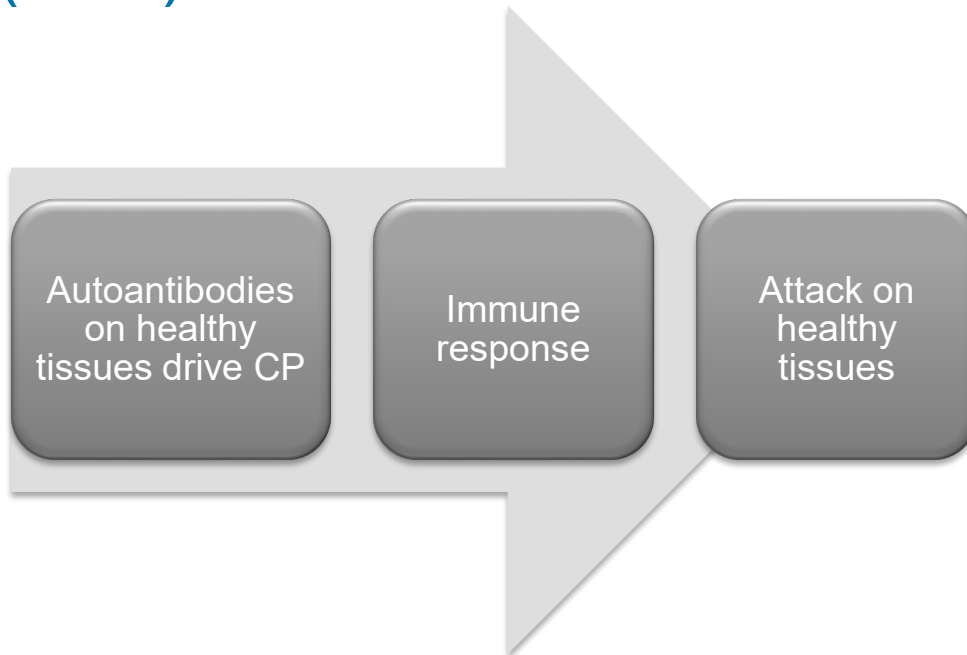
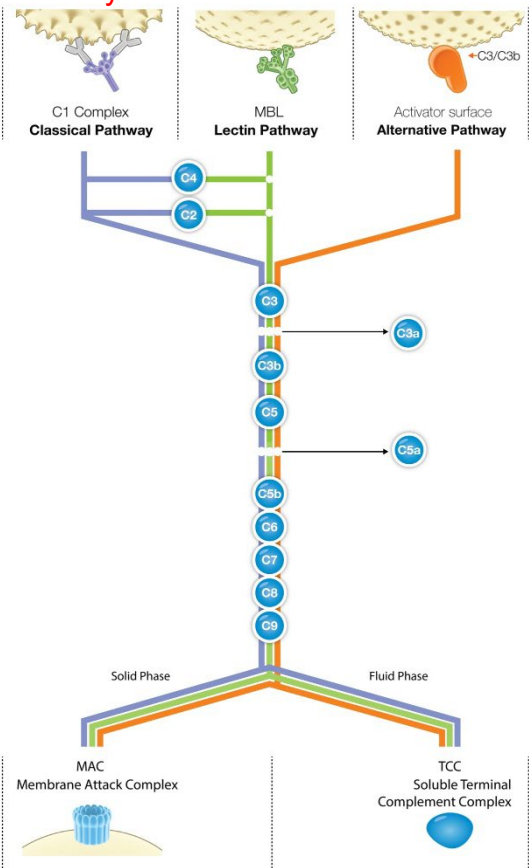
C3 glomerulopathy



Atypical Hemolytic Uremic Syndrome (aHUS)

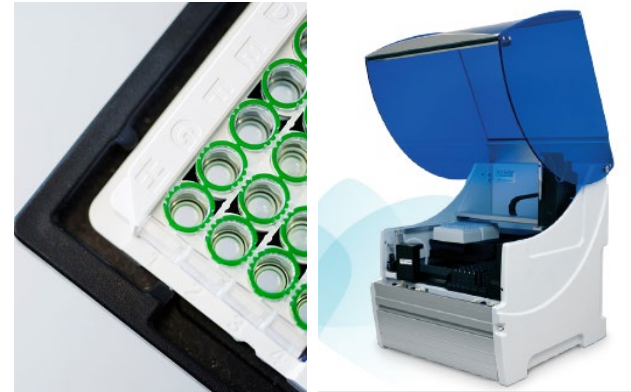


Systemic Lupus Erythematosus (SLE)



Automation - of ELISA functional kit

- Case in SE*, started to use ELISAAP kits with Dynex DS2 – aim to increase usage from 20 → 104 kits per annum
- The department already had the Dynex device in-house
- Asked Svar tech-support questions regarding when to measure
 - Recommend 30 min (Dynex cannot stop at certain OD, must set a time)
 - Recommend to stop method using 5mM EDTA - for easier process



*Center population coverage ca 2,5M

Thank you

SVAR

Answers in Life Science