

IGA NEFROPATHIE: OP ZOEK NAAR ANTWOORDEN EN BIOMARKERS

NILS ROTHER (Radboudumc)

DEZE DAG IS MEDE MOGELIJK GEMAAKT DOOR:

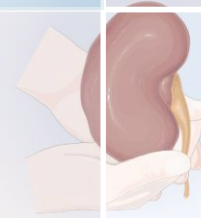


 **NOVARTIS** | Reimagining Medicine

NIER
VERENIGING



Beat IgA Nefropathy

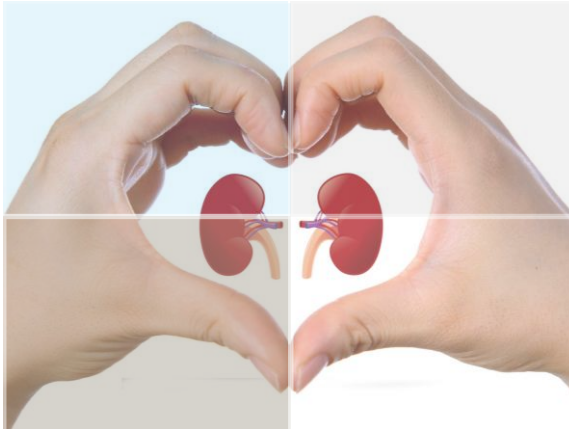


Beat IgA Nephropathy

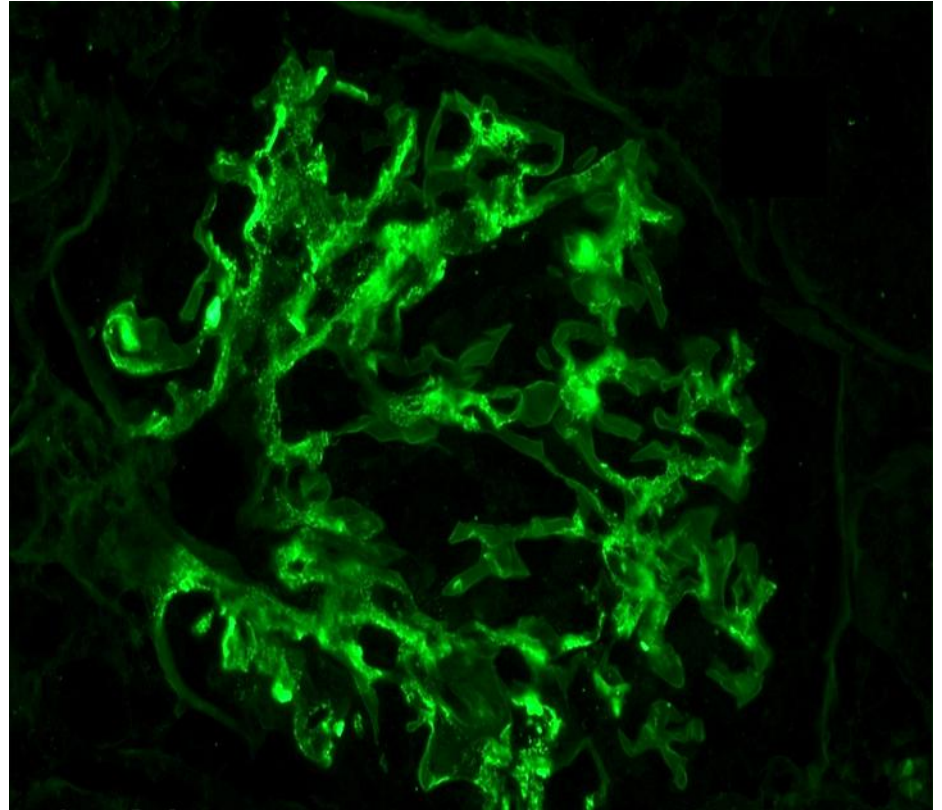
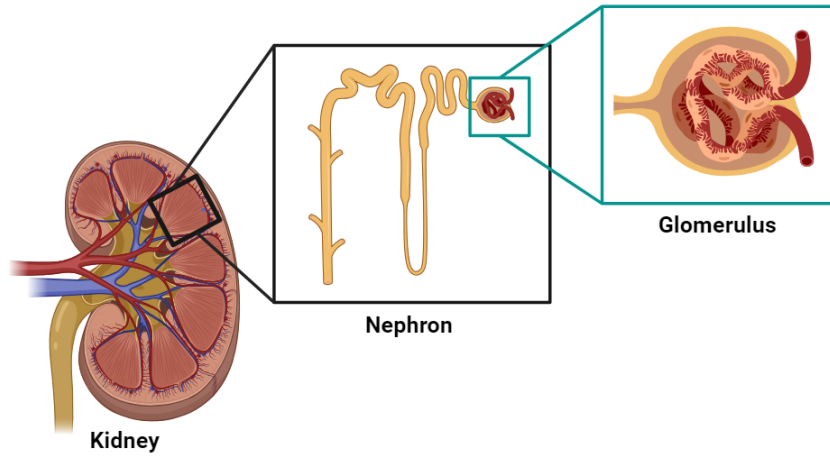
04-04-2025

Radboudumc

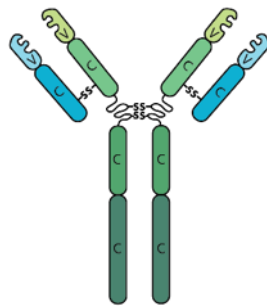
Nils Rother PhD, Afdeling Nierziekten



IgA nefropathie – ziekte van Berger

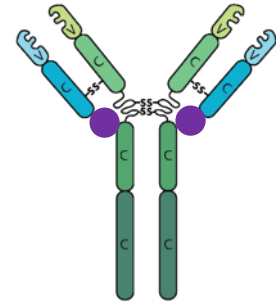
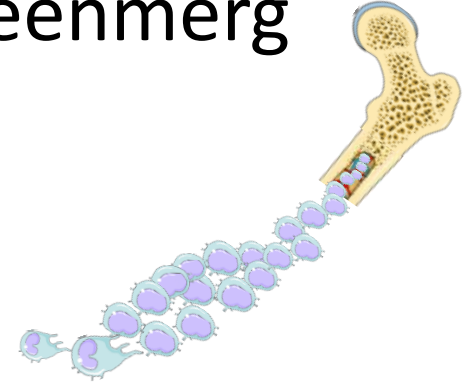
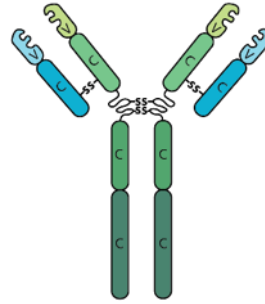


IgA

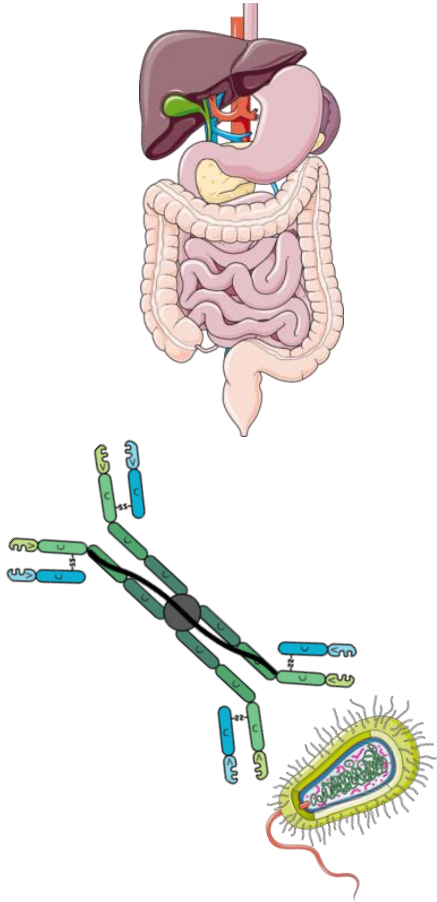


Beenmerg

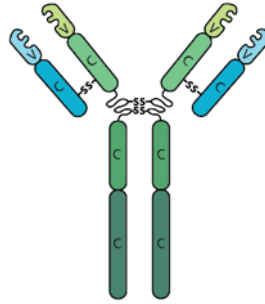
IgA



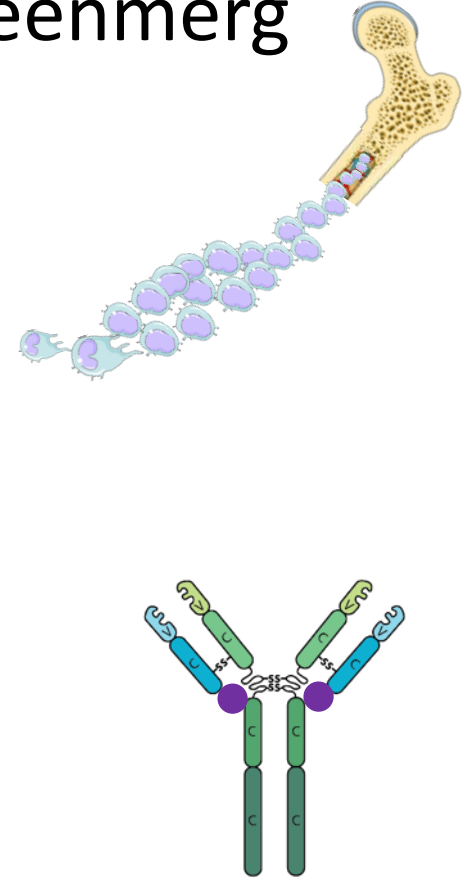
Maagdarm stelsel



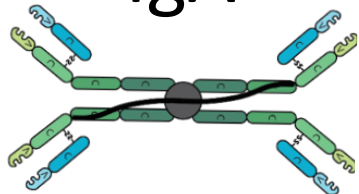
IgA

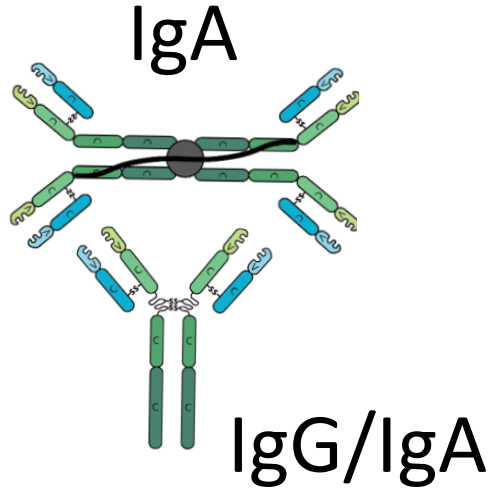


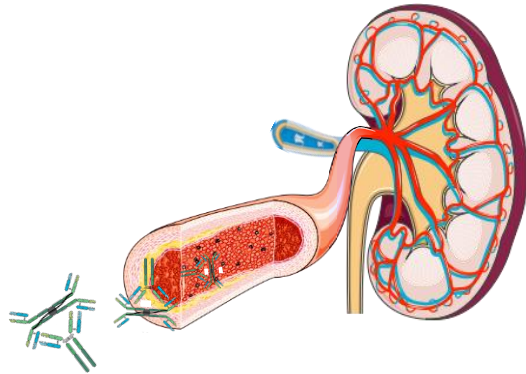
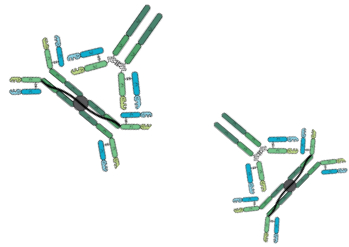
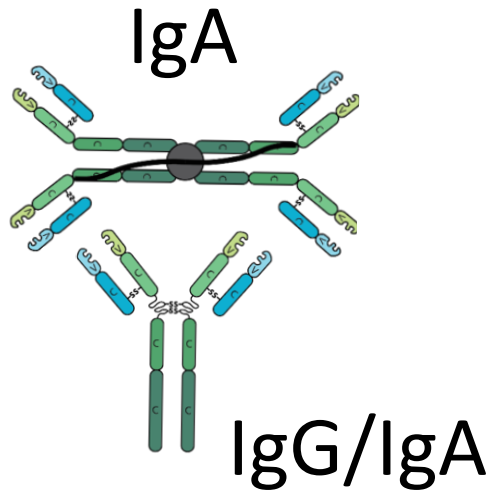
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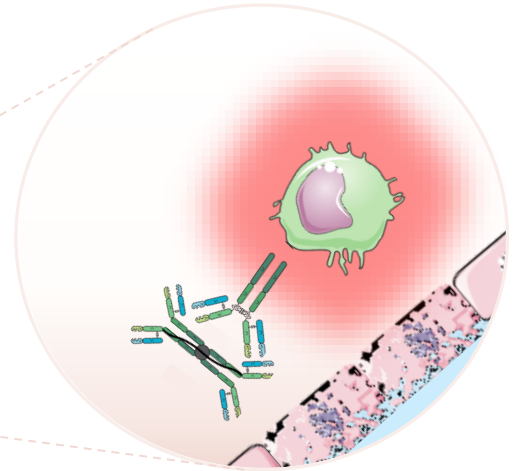
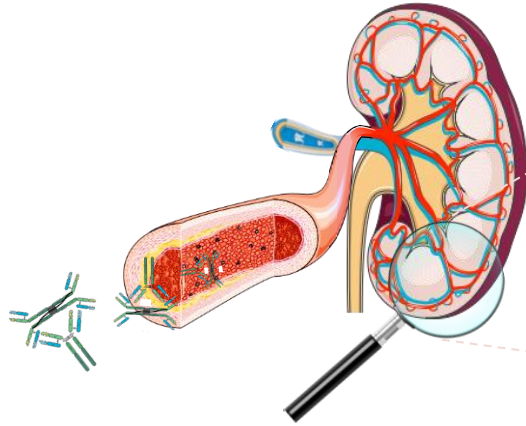
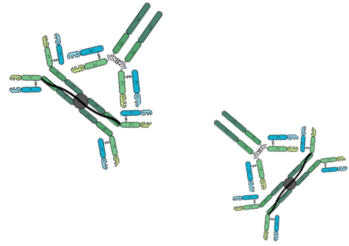
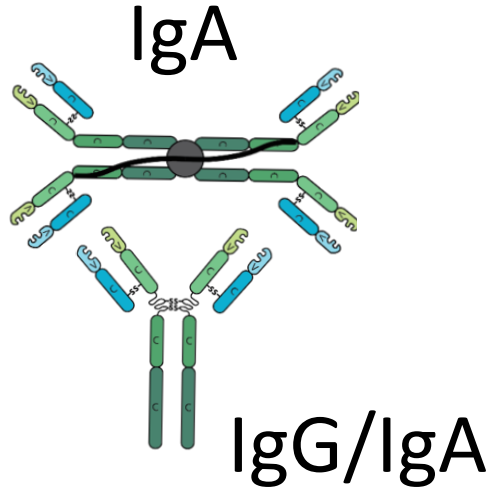


IgA

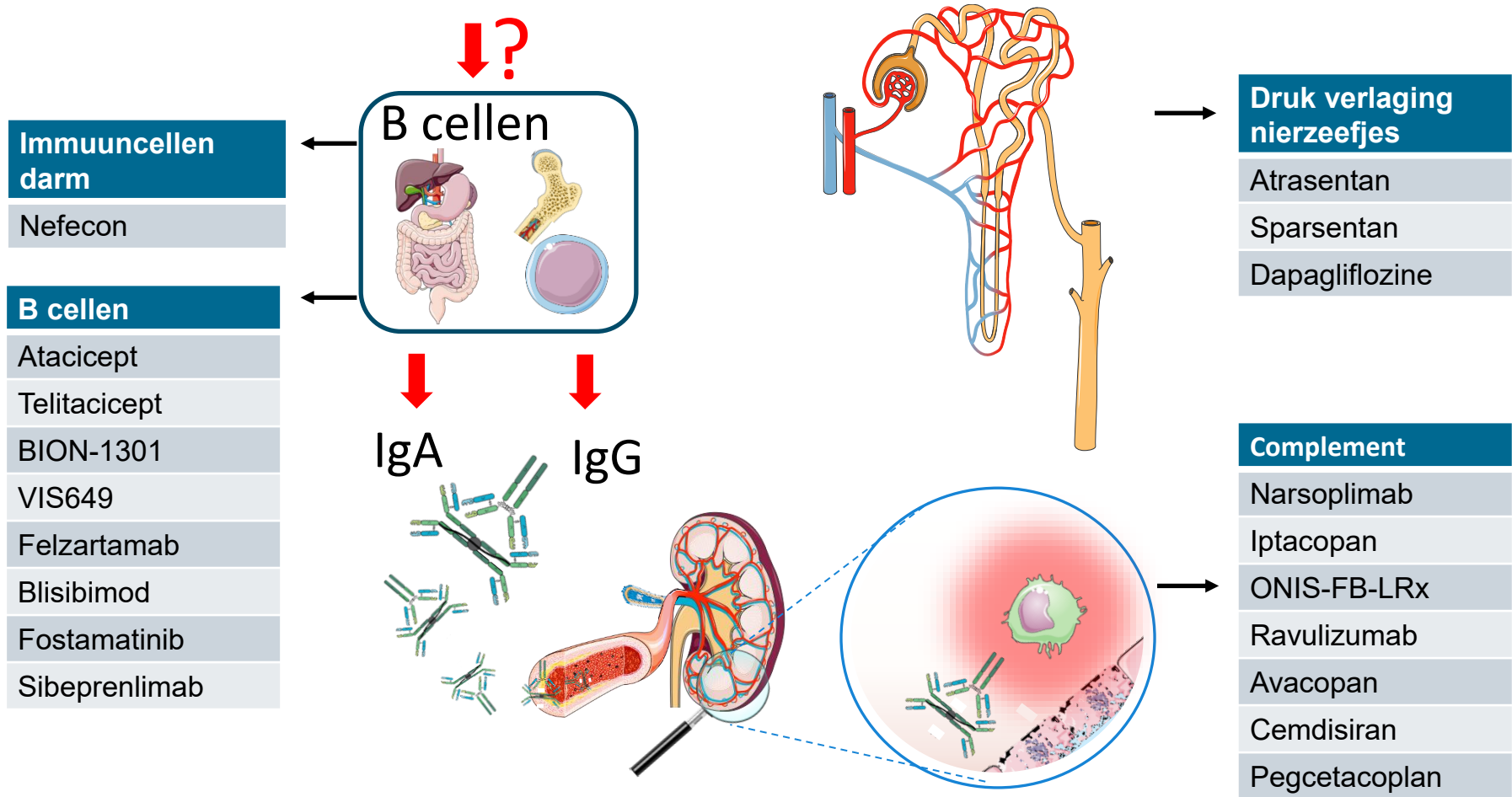




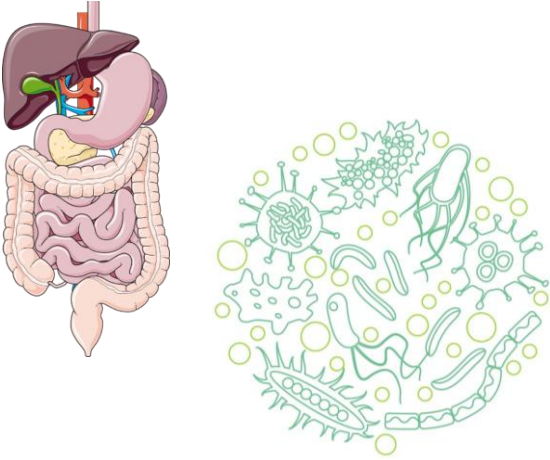




Nieuwe behandelingen voor IgA nefropathie die onderzocht worden



“Onze missie is om de oorzaak van IgA-Nefropathie te achterhalen.”



“Wat is de rol van het microbioom van het speeksel en de ontlasting in het ontstaan van IgA-Nefropathie?”

“Wat gaat er mis in het immuunsysteem bij het ontstaan van IgA-nefropathie.”

“Waarom verloopt IgA-nefropathie bij sommige patiënten ernstig en bij andere mild?”

“Hoe kunnen patiënten met IgA-nefropathie het best behandeld worden?”



BlgAN - team



Raphaël
Duivenvoorden

Nils
Rother

Ilse
Rood

Elmar
Pieterse

Tomas
Post

IgA-nefropathie: Beter diagnosticeren en nieuwe behandeling vinden



€ 381.597
Opgehaald

Doneer nu

Start actie

€ 382.500

Doelbedrag

99% Bereikt

123 donateurs

0 acties

0 teams

Laatste donaties • Bekijk alle

€ 100

Jasper

12-09-2025 | 20:17

Ik heb zelf de diagnose IgA-Nefropathie gekregen, ik wil graag bijdragen zodat er meer onderzoek gedaan kan worden.

€ 15

Ineke

01-09-2025 | 19:55

Ik heb zelf IgA nefropathie en onderzoek is dringend nodig voor een betere behandeling van deze ziekte.

€ 25

Patricia

13-08-2025 | 17:39

Vastgesteld bij vrouwelijk familielid.

€ 100

Marco

05-08-2025 | 03:10

Mijn vrouw heeft het.

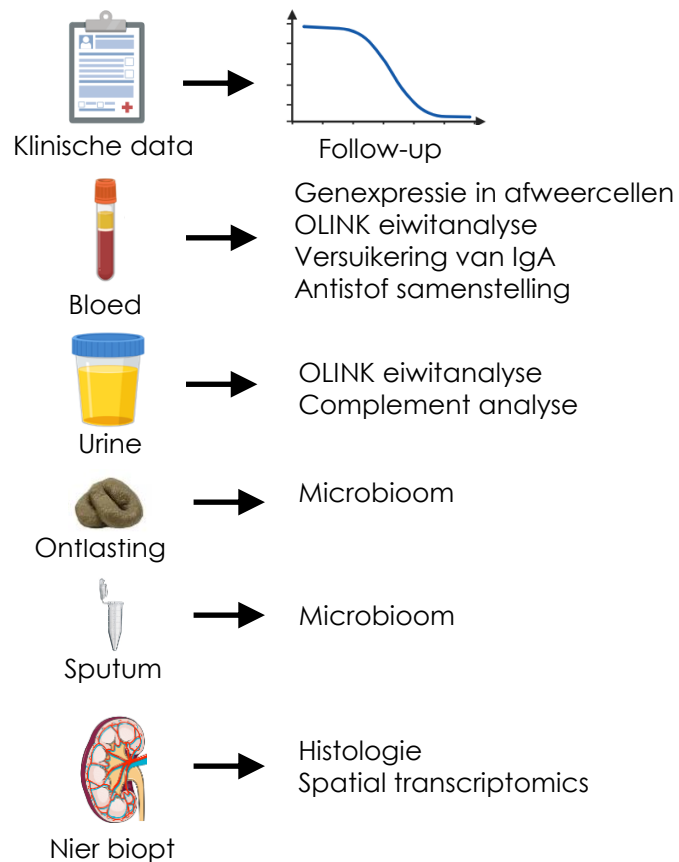
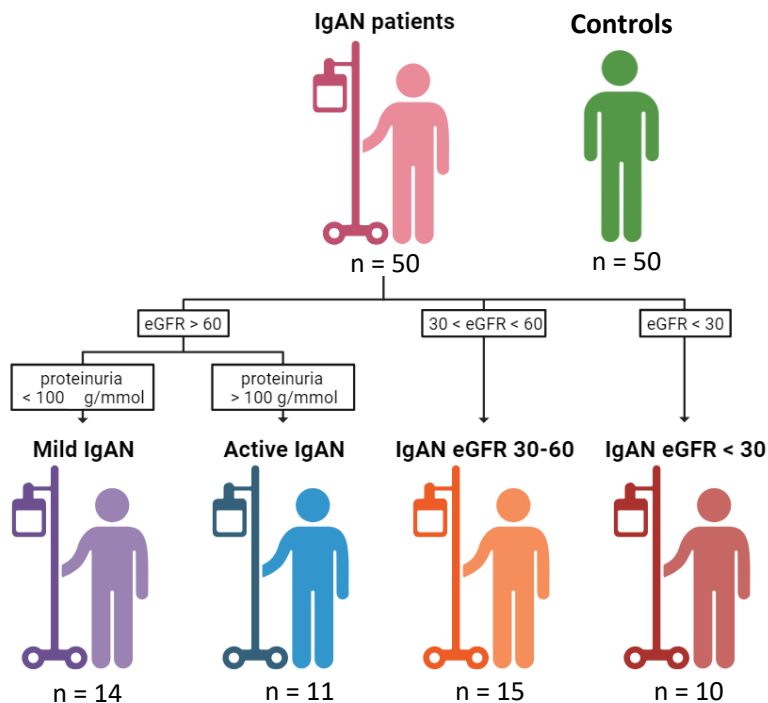
€ 10

Annette

11-05-2025 | 15:37

Wij maken net kennis met slechter werkende nieren, diagnose nog onbekend, via inlezen kwam ik bij deze actie terecht, die ik graag ondersteun.

BlgAN Discovery cohort



BIgAN

- Wat verzamelen we?
 - Vragenlijst
 - Eetscore
 - Bloeddruk
 - Bloed/urine uitslagen: nierfunctie en proteïnurie
- Samples voor in de vriezer:
 - Speeksel
 - Urine
 - Bloed
 - Ontlasting



BIgAN Discovery cohort

Project 1. Biomarkers voor IgAN ziekte activiteit en chroniciteit.

Project 2. IgA1 glycosylatie en antilichaam productie.

Project 3. Veranderingen in circulerende immuun cellen in IgAN.

Project 4. Microbioom in het speeksel en de ontlasting in IgAN.

Project 5. Nierweefsel in IgAN.

Project 6. Samenbrengen van alle verschillende data-sets.

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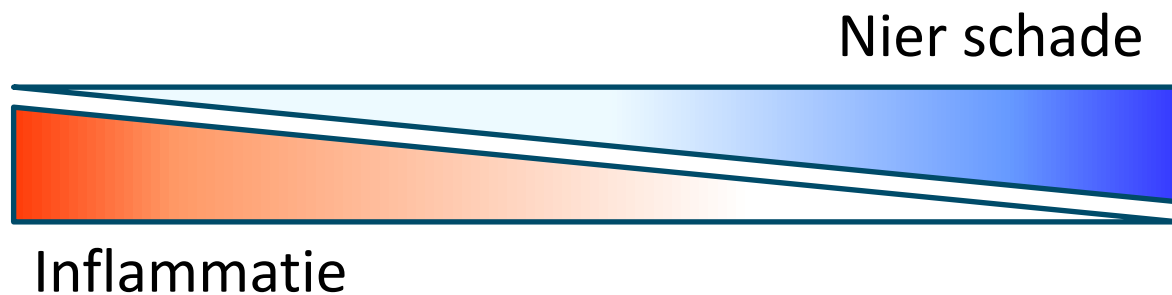
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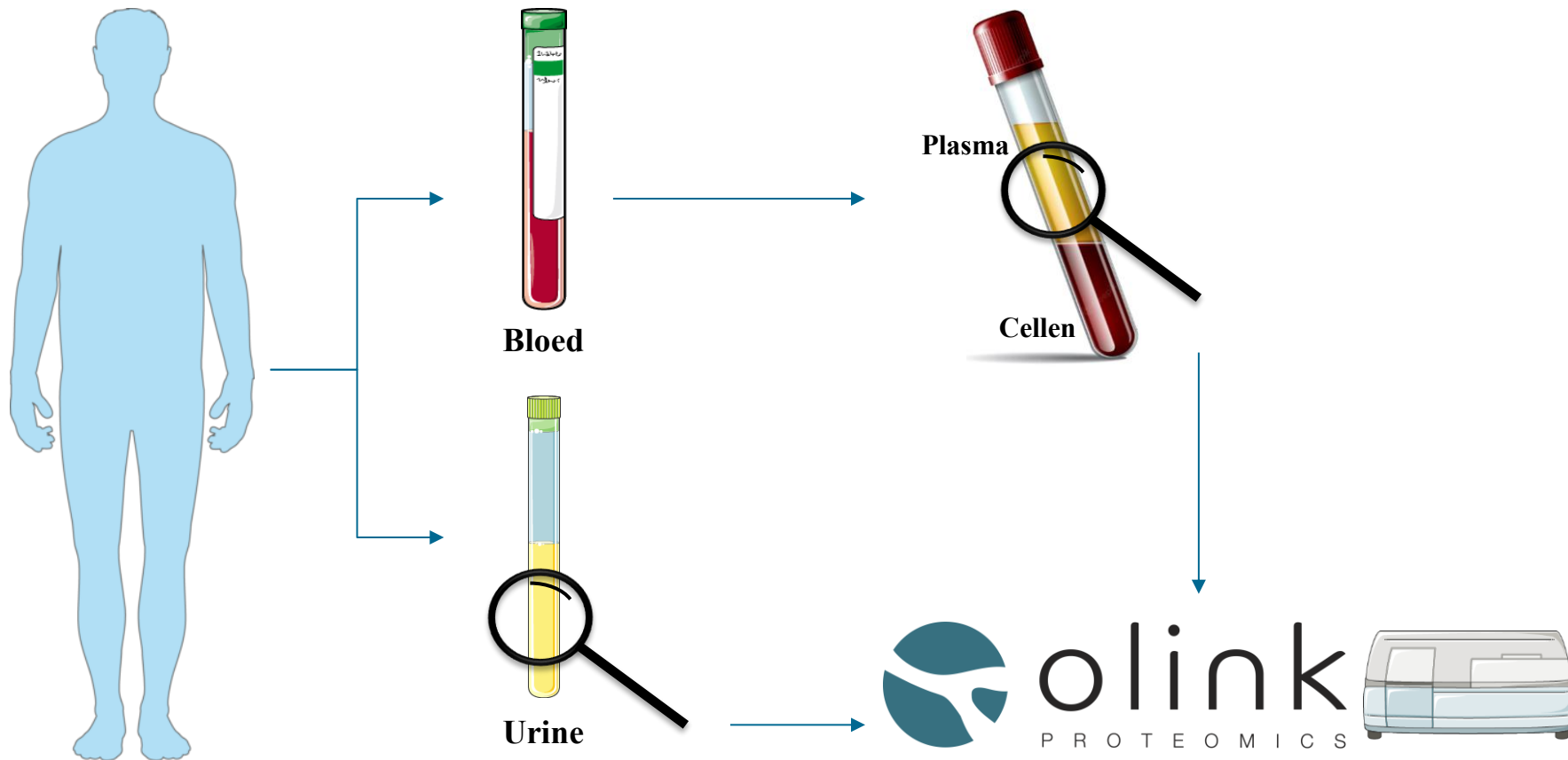
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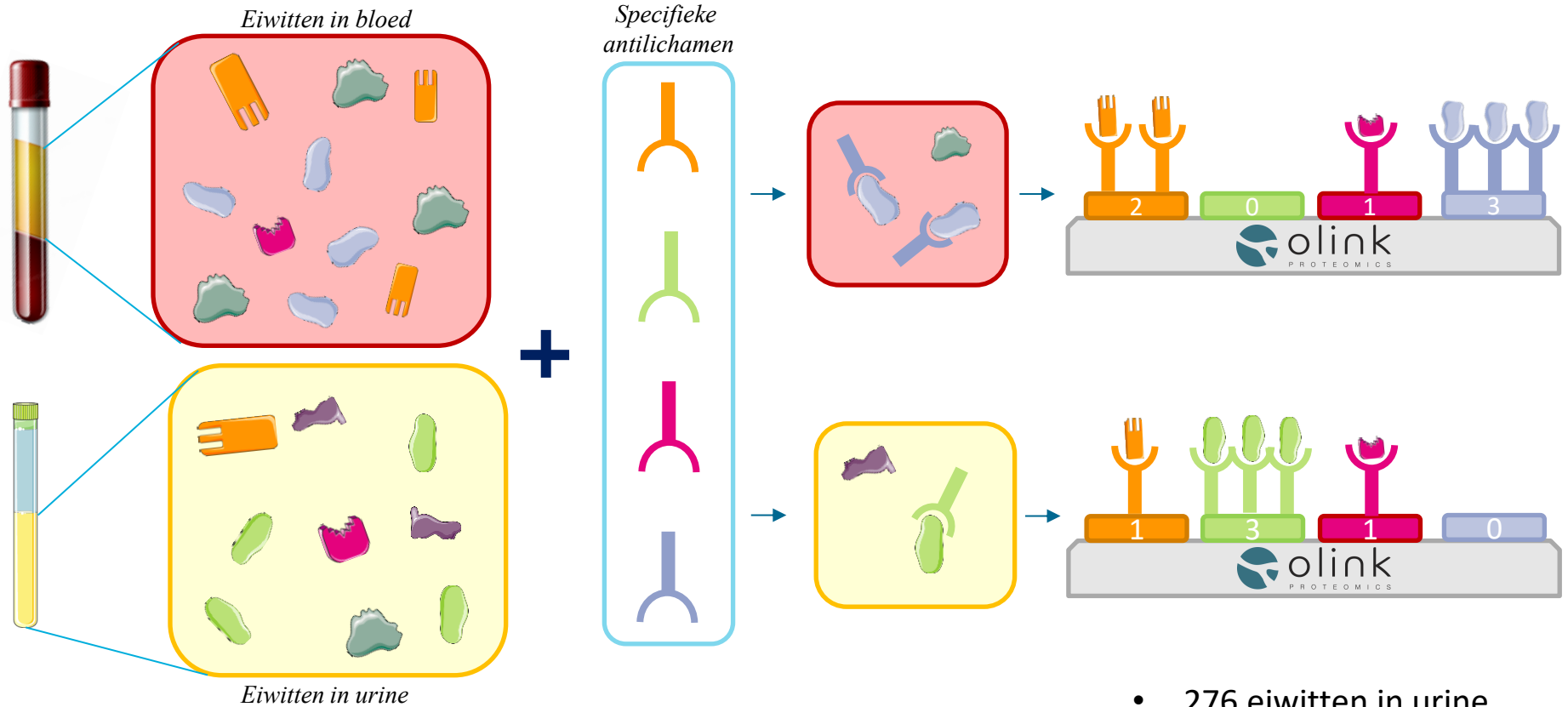
Biomarkers voor IgAN ziekte activiteit en chroniciteit



Patiënten materiaal



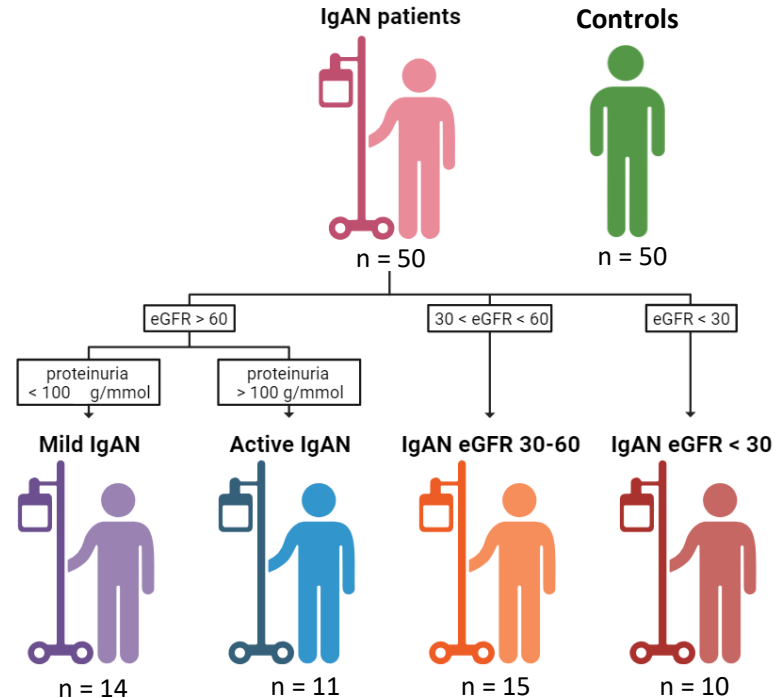
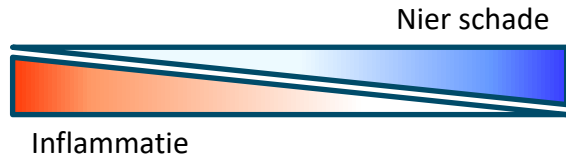
OLINK techniek



- 276 eiwitten in urine
- 276 eiwitten in bloed

Biomarker mogelijkheden

- Kunnen we eiwitten vinden, specifiek voor **IgAN**?
- Kunnen we eiwitten vinden, specifiek voor **actief inflammatoir IgAN**?
- Kunnen we eiwitten vinden, specifiek voor **nier schade**?



Inflammatie markers



Plasma eiwitten



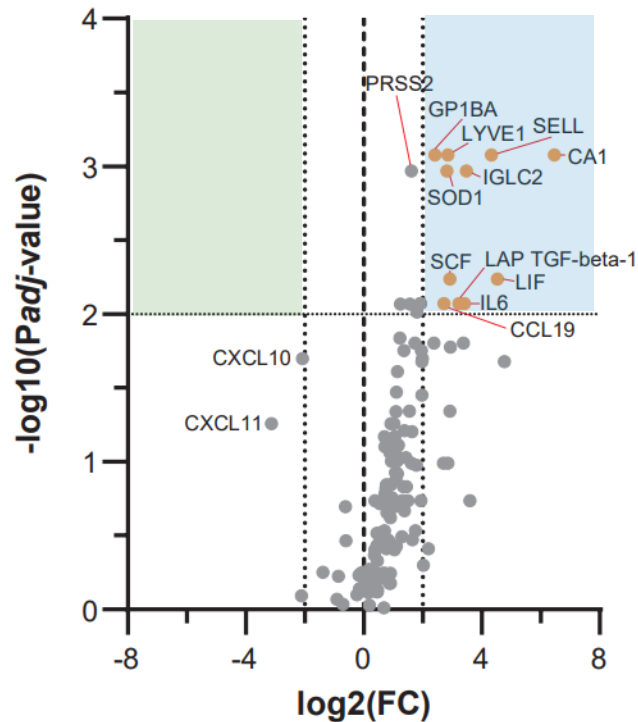
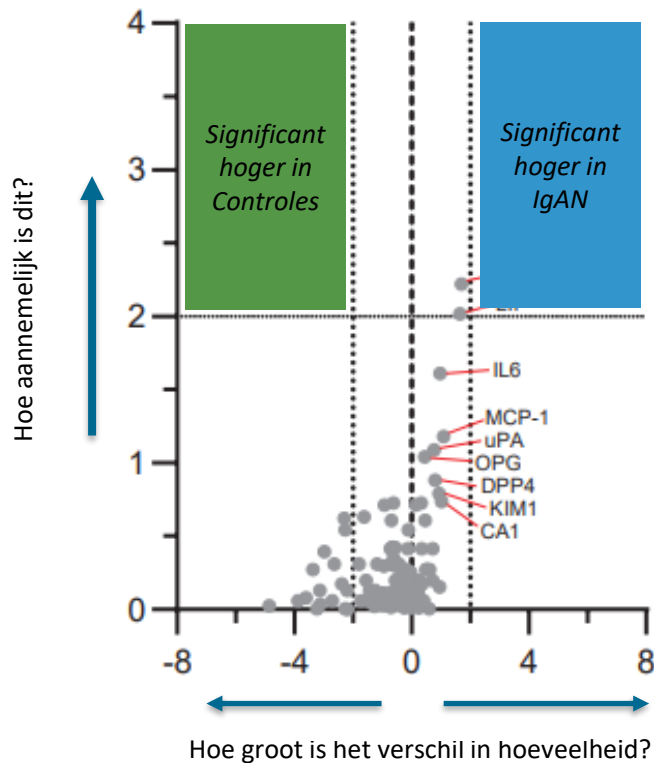
Controls



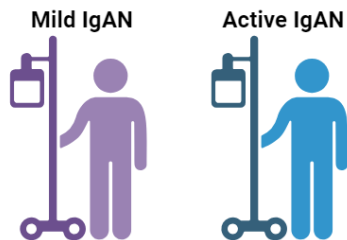
Active IgAN



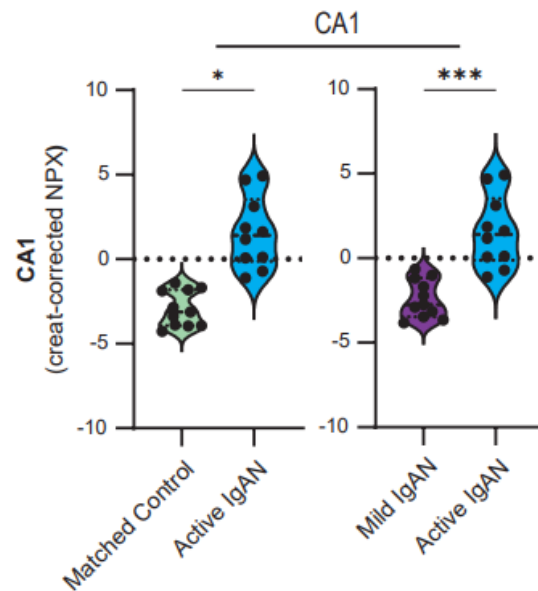
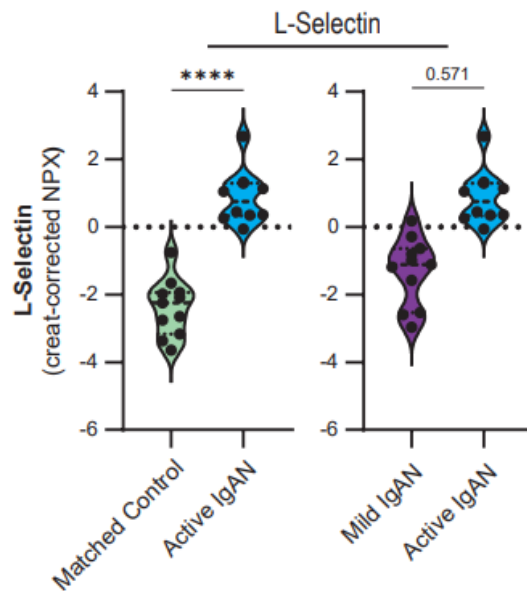
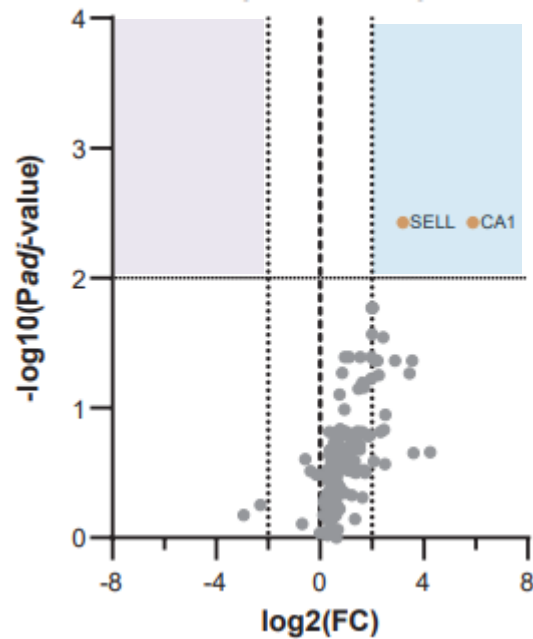
Urine eiwitten



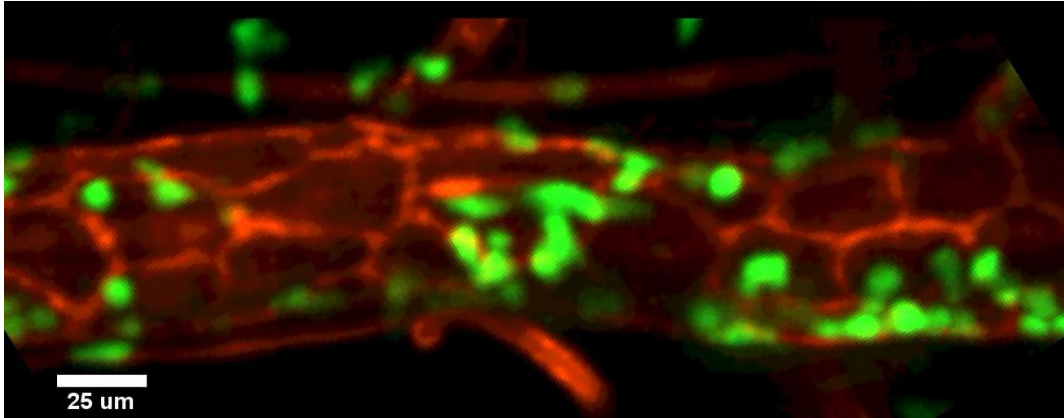
Inflammatie markers



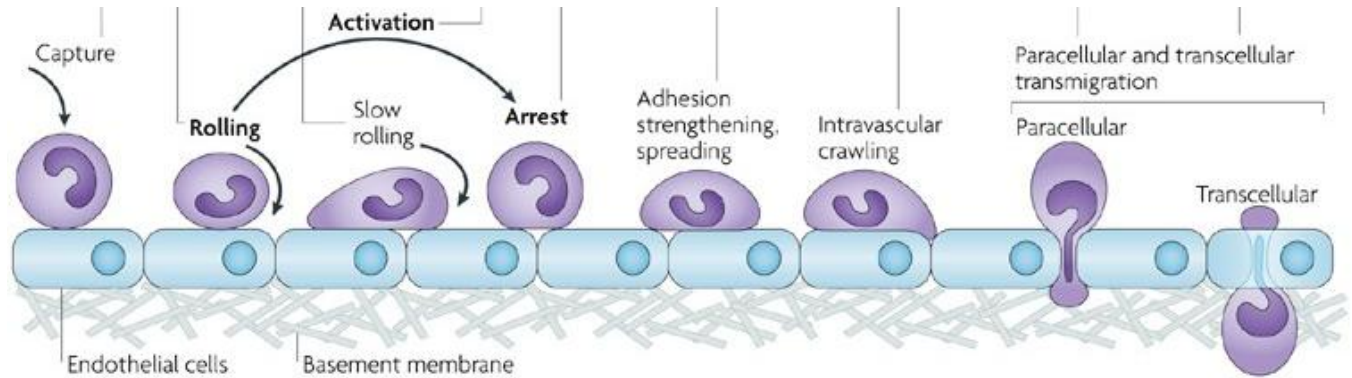
Urine eiwitten



L-selectin



J Exp Med (2019) 216 (11): 2582–2601.



Nat Rev Immunol **7**, 678–689 (2007)

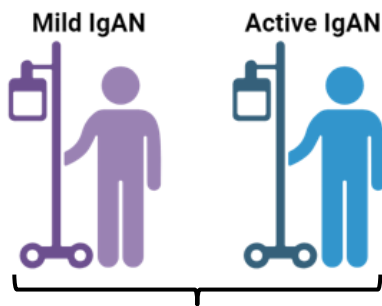
Carbonic anhydrase 1 (CA1)



Hematuria – bloed in de urine

- Hematuria is een teken van inflammatie in de nier
- CA1 is een belangrijk eiwit in rode bloedcellen

Chroniciteits markers

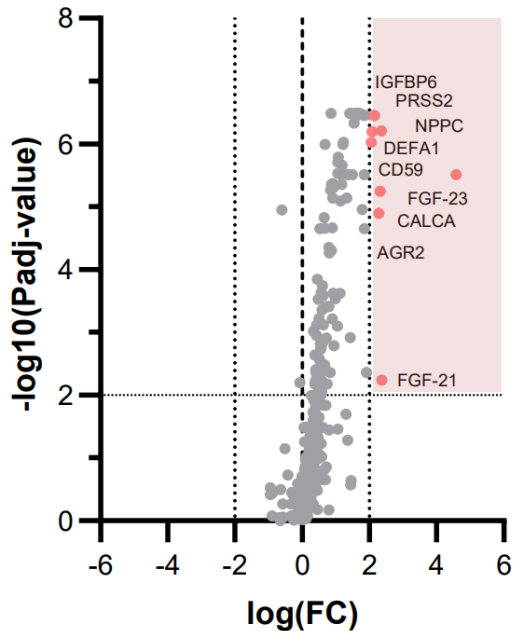


Goede nierfunctie (eGFR > 60)

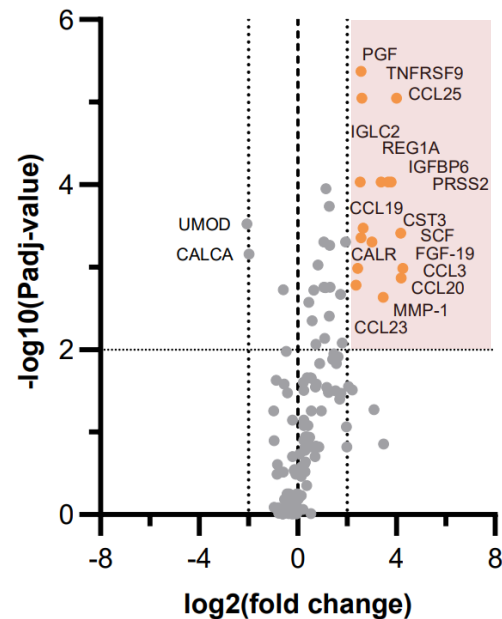


Slechte nierfunctie (eGFR < 30)

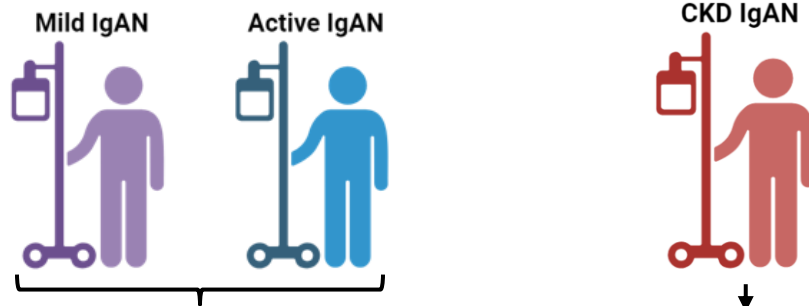
Plasma eiwitten



Urine eiwitten



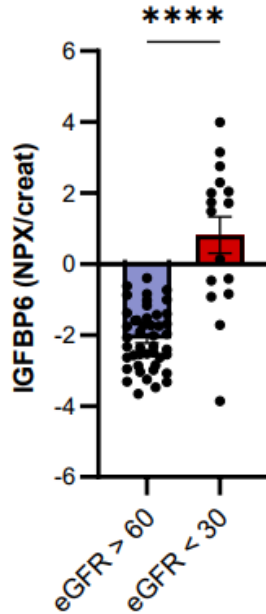
Chroniciteits markers



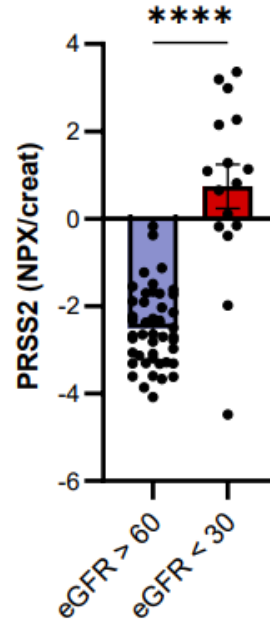
Goede nierfunctie (eGFR > 60)

Slechte nierfunctie (eGFR < 30)

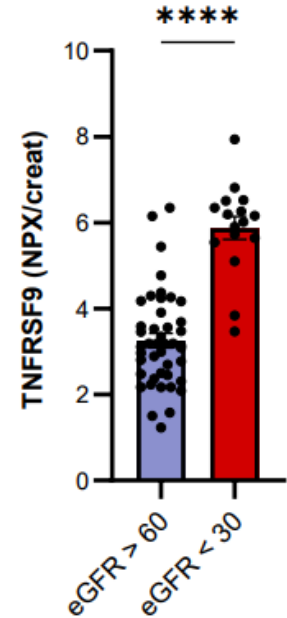
IGFBP6



PRSS2



TNFRSF9



Chroniciteits markers

IGFBP6 – Insulin-like growth factor binding protein 6

- Betrokken bij weefsel herstel na schade

PRSS2 – Trypsine 2

- Rol in nierschade niet bekend

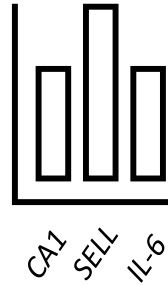
TNFRSF9 – Tumor necrosis factor receptor superfamily member 9

- Belangrijk voor de activatie van T cellen

Biomarker panel voor IgAN patiënten

Inflammatie

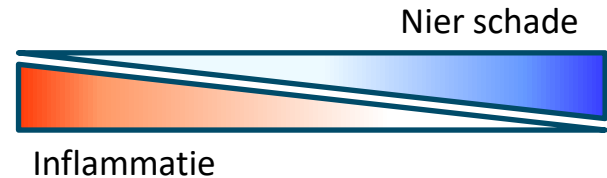
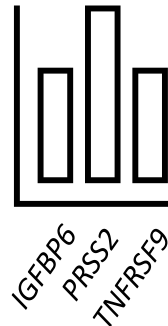
- L-Selectine
- CA1
- IL-6



Inflammatie score = x
Nier schade score = y

Nier schade

- IGFBP6
- TNFRSF9
- PRSS2



Validatie in andere data sets

Biomarker validatie in nierweefsel

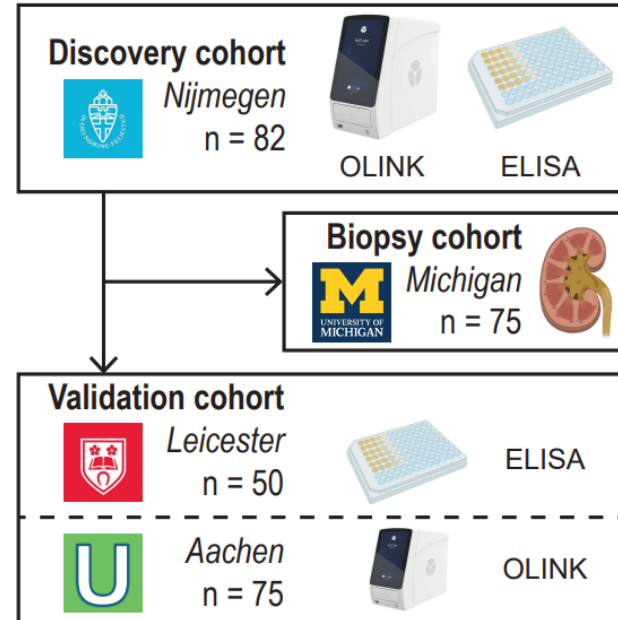
- M. Kretzler, University of Michigan
- Wenjun Ju, University of Michigan
- Celine Berthier, University of Michigan

Biomarker validatie in IgAN cohort Leicester

- J. Barratt, University of Leicester
- Roisin Thomas, University of Leicester

Biomarker validatie in IgAN cohort Aachen

- J. Floege, University of Aachen
- C. Seikrit, University of Aachen



BIgAN Discovery cohort

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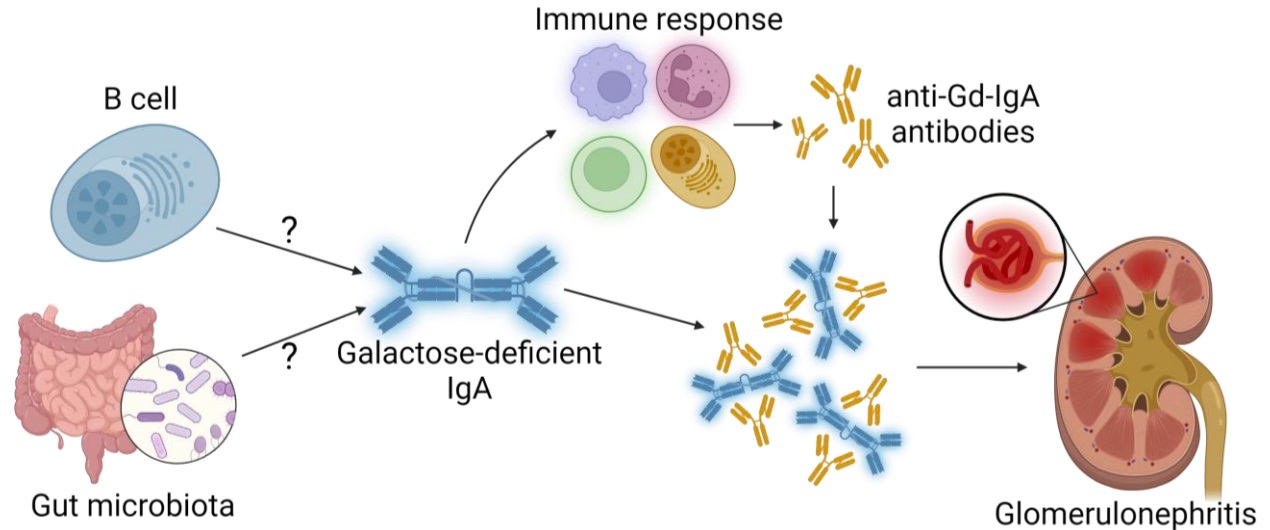
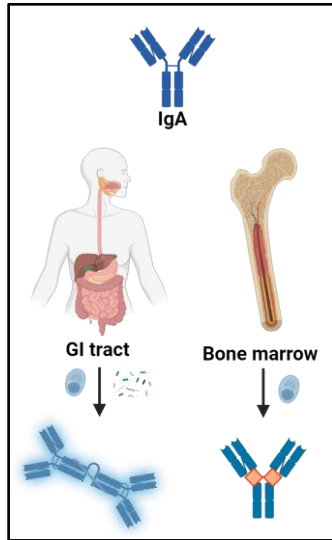
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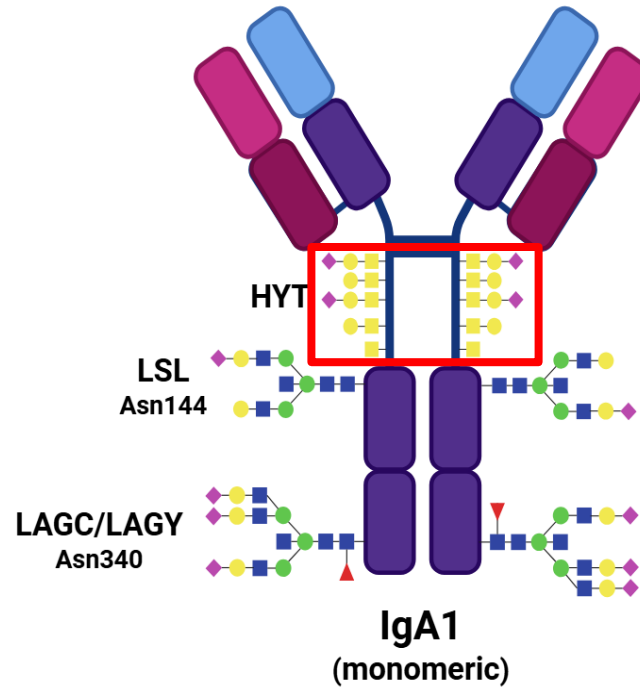
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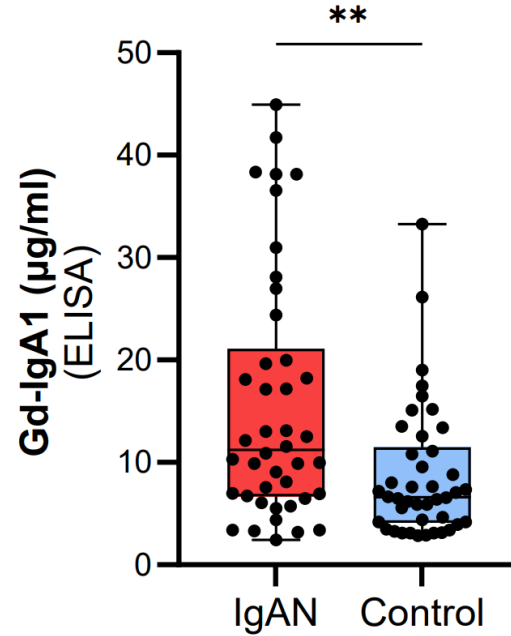
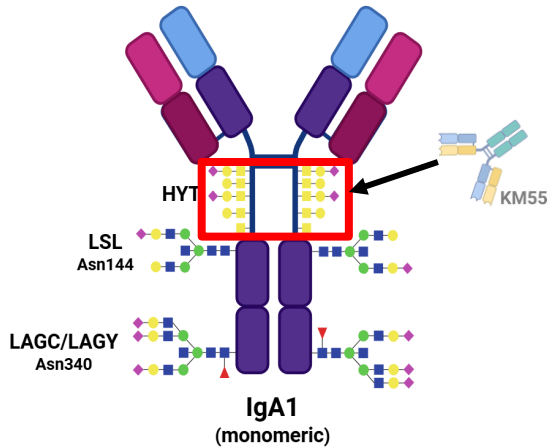
Antilichamen in IgA nephropathy



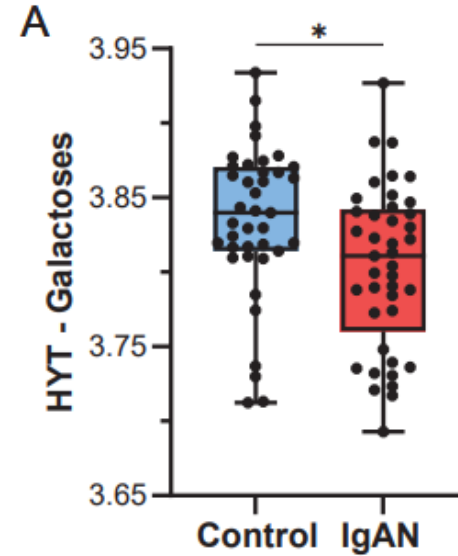
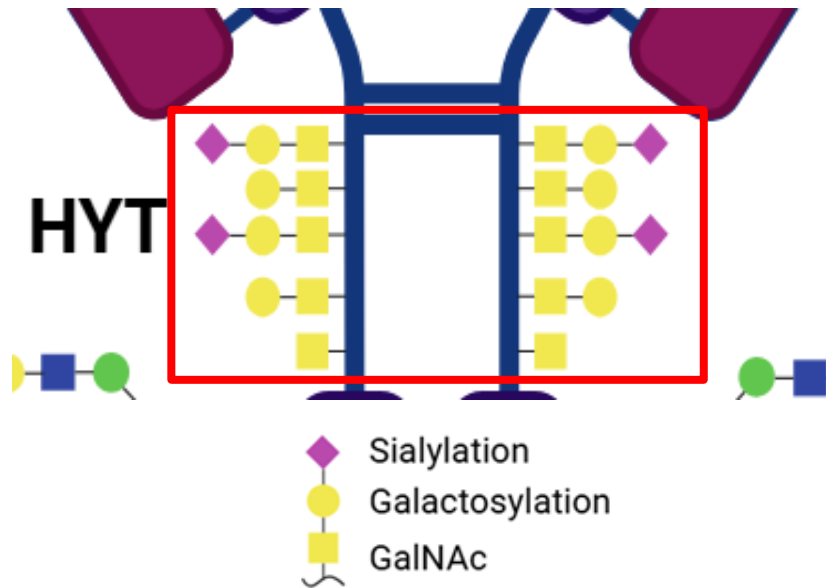
Versuikering van IgA



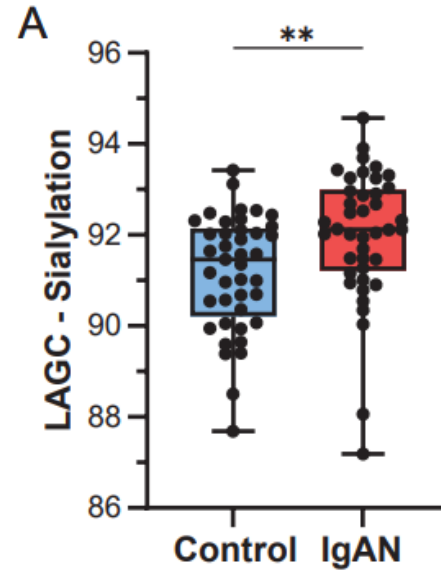
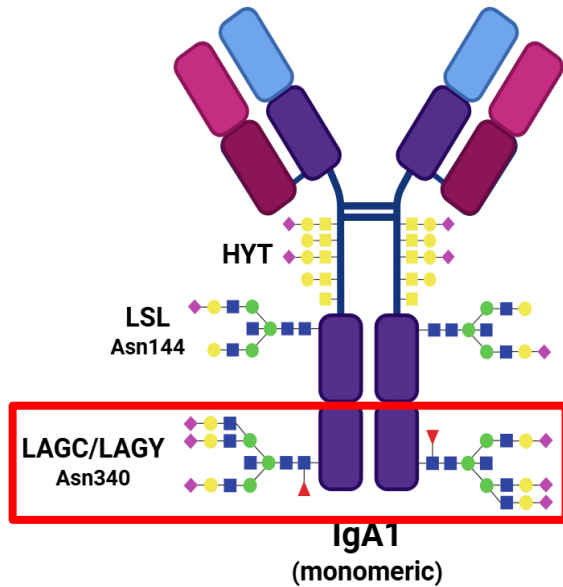
Versuikering van IgA



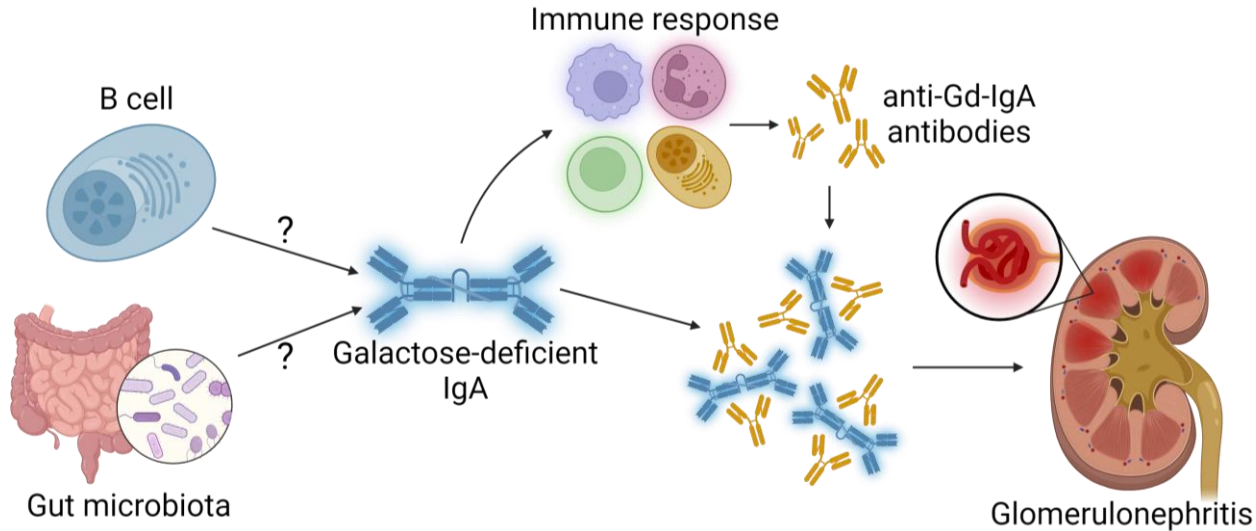
Versuikering van IgA



Versuikering van IgA



Antilichamen in IgA nephropathy



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- Project 6. Samenbrengen van alle verschillende data-sets.**

BigAN team and collaborations



Department of Nephrology

- Tomas Post
- Elmar Pieterse
- Ilse Rood
- Nils Rother
- Luuk Hilbrands
- Raphaël Duivenvoorden

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- Hans Jacobs

Department of Internal Medicine

- Liesbeth van Emst
- Leo Joosten

Department of Molecular Biology

- Laura Wingens
- Yutaka Negishi
- Klaas Mulder



Center for Proteomics and Metabolomics

- Anna Wasynczuk
- Steinar Gijze
- David Falck
- Manfred Wuhrer

Department of Internal Medicine

- Cees van Kooten
- Danielle van Gijlswijk-Janssen
- Georg Zeller



Department of internal Medicine, University of Michigan Medical School

- Celine Berthier
- Wenjun Ju
- Matthias Kretzler



Department of Cardiovascular Sciences, Leicester

- Jonathan Barratt
- Amal Jama
- Roisin Thomas



Faculty of Medicine of Heidelberg University

- Julio Saez-Rodriguez
- Miguel Hernandez



Clinic for Kidney and Hypertension Disease, Uniklinik Aachen

- Claudia Seikrit
- Rafael Kramann
- Jürgen Floege



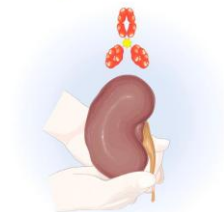
Vragen?



NIERSTICHTING

Je nieren zijn je leven.

Beat IgA Nefropathy



**UNIKLINIK
RWTH AACHEN**

