



**FORSKNING I OVERSETE SYGDOMME**  
**ULLA MØLLER WEINREICH**



**REGION NORDJYLLAND**  
– i gode hænder



## BAGGRUND

- Overlæge i lungemedicin på AaUH
- Forskningsansvarlig – primære fokusområder er KOL og obstruktive lungesygdomme generelt
- Medlem af styregruppen for Lungemedicin, Trial Nation
- Formand for Dansk Lungemedicinsk Selskab
- *Disclosure:*
- *Laver kliniske studier i samarbejde med Astra Zeneca, Novartis, Sanofi, GSK, Boehringer Ingelheim, InsMed, Genetech*
- *Advisory Board Member: Astra Zeneca, Novartis, Teva, Chiesi, ResMed*
- *Modtaget Speaker's fees fra AZ, Novartis, GSK, Chiesi, Pfizer, ResMed, Fisher&Paykel, Orion Pharma*
- *Modtaget travel grants og støtte til lægemiddeliniteret forskning fra Fisher&Paykel*



## LAD OS SÆTTE SCENEN:





## KOL

- Er faktisk ikke noget at grine af!
- En progressiv sygdom med
  - Betydelig social slagside
  - Socioøkonomisk slagside
  - Høj grad af morbiditet
  - Høj grad af komorbiditet
  - Høj mortalitet
- En sygdom som primært behandles medicinsk
- En sygdom som endnu ikke er færdig-beskrevet phenotypisk og endotypisk

I`M NOT SURE  
I`M INTERESTED.

I`M SURE.

I`M NOT  
INTERESTED.



## EKSEMPLER:

### KOL

- ***KOL som paraply-diagnose***
  - Beskrivelse af endo- og phenotyper
  - Beskrivelse af genotyper
  - Komorbiditeter –eller er det i virkeligheden en del af phenotype-beskrivelsen?
  - Kønsforskelle?

### Astma

- ***Fat, female, asthma***
  - Opfører sig anderledes end anden astma
  - Betydende om astma opstår før eller efter adipositas
  - Skal disse patienter overhovedet behandles med steroid?

### Bronkiektasi

- ***Genesis***
  - Endotype-beskrivelse
  - Komorbiditeter
  - Inflammatorisk pathway



## FORMÅLET MED INHALATIONS- OG BIOLOGISK MEDICIN TIL KRONISK LUNGESYGE

...er at sikre en bedre og mere stabil hverdag, med så god sygdomskontrol som muligt og så få exacerbationer som muligt

**De fleste  
kroniske  
sygdomme**

*Jeg holder af hverdagen  
Mest af alt holder jeg af hverdagen*

*Dan Turéll*



## MEDICINSKE STUDIER INDEN FOR OBSTRUKTIV LUNGESYGDOM I DK

- Lungemedicinen arbejder inden for TrialNation samarbejdet og vi ved, vi har ry for at være kompetente.

*"Patienterne er der. Lægerne er der. Lysten er der. Alligevel får de kliniske forsøg ikke den position, de fortjener"*

*Anders Perner*

- Når vi når fase 4 mister industrien pusten og designer studier, hvor patienterne selv skal betale medicinen, og hvor det ikke er rentabelt for study sites at deltage





## KLINISKE STUDIER

exogenous hormonal treatment.

### Inclusion criteria at randomization:

4. Subjects must have demonstrated a minimum 70% compliance with diary completion during the run-in period with a minimum of 4 days of compliance during the last 7 days of the run-in period

A compliant day requires completion of evening diary and subsequent morning diary

- The run-in period for this criterion is defined as the period between diary assignment (evening assessment) of Visit 2 (V2) and the randomization visit (morning assessment).

5. Subjects must have demonstrated a minimum 70% compliance with background asthma medication during the run-in period.

6. For WOCBP only: have a negative urine pregnancy test prior to administration of the IP.

17. Subjects must have the ability to perform acceptable inhaler and spirometry techniques as judged by the Investigator.

18. Subjects must have a successful bronchial biopsy procedure at Visit 3b as judged by the Investigator. Successful BAL is not inclusionary.



- 16. Subjects that have been treated with bronchial thermoplasty in the last 24 months prior to V1.
- 17. Known or suspected history of immunosuppression, immune dysfunction or immune dysregulation which may include but is not limited to conditions such as: Guillain-Barré syndrome, invasive opportunistic infections (eg. histoplasmosis, listeriosis, coccidioidomycosis, pneumocystosis, aspergillosis), or unusually frequent, recurrent, or prolonged infections, per Investigator judgment

**Prior/concurrent clinical study experience**

- 18. Known history of sensitivity to any component of the IP formulation or a history of drug or other allergy that, in the opinion of the Investigator or medical monitor, contraindicates their participation (see section 6.1.1)
- 19. History of anaphylaxis or documented immune complex disease (Type III hypersensitivity reactions) following any biologic therapy.
- 20. Concurrent enrolment in another clinical study involving an IP.
- 21. Subject randomization in previous tezepelumab studies.
- 22. Involvement in the planning and/or conduct of the study (applies to AstraZeneca staff and/or site staff), or subjects employed by or relatives of the employees of the site or sponsor.

**Diagnostic assessments**

- 23. Any clinically meaningful abnormal finding in physical examination, vital signs, ECG, hematology, clinical chemistry, or urinalysis during the run-in period, which in the opinion of the Investigator, may put the subject at risk because of his/her participation in the study, or may influence the results of the study, or the subject's ability to complete the entire duration of the study.
- 24. Evidence of active liver disease, including jaundice or aspartate transaminase, alanine transaminase, or alkaline phosphatase > 2 times the upper limit of normal (ULN) at V1.
- 25. Positive hepatitis B surface antigen, or hepatitis C virus antibody serology at screening, or a positive medical history for hepatitis B or C. Subjects with a history of hepatitis B vaccination without a history of hepatitis B and subjects with hepatitis C who have been cured are allowed to participate.

s/mycosis, Churg-Strauss syndrome,

l to, cardiovascular, gastrointestinal, hepatic, fectionous, endocrine, metabolic, ytical impairment that is not stable in the

ughout the study

or the interpretation

plete the entire duration of study

arcinoma, localized squamous cell reinoma of the cervix are eligible to hat curative therapy was completed at least 12

gnancies are eligible provided that curative ears prior to V1.

required OCS for an asthma exacerbation who had more than 3 asthma exacerbations e year prior to V1 or who had either been n asthma exacerbation in the year prior to udy, an asthma exacerbation is defined as a

urst of systemic corticosteroids for at least -injectable dose of corticosteroids will be 3-day burst of systemic corticosteroids

epartment visit (defined as evaluation and an ER or urgent care center) which required s per above)

due to asthma (defined as admission to an aluation and treatment in a healthcare facility

nce dose of OCS, a temporary increase e stable existing maintenance dose

cluding upper (URTI) or lower reatment with antibiotics or antiviral r during the run-in period.

in 6 months prior to V1 that has not standard of care therapy.

istory ≥ 10 pack-years. Former smokers st have stopped for at least 6 months

in 12 months prior to V1.

2 months prior to V1.

including a positive human he subject taking antiretroviral and/or subject's verbal report.

lanned surgical procedures requiring day during the conduct of the study.

biologic agent within 4 months or 5 half-ipt of any investigational non-biologic r is longest) prior to V1.

t are allowed to enter the study filled.

hin the last 12 weeks prior to immunomodulating drugs (eg. CS used in the treatment of T2 cytokine inhibitor suplatast

within 30 days prior to V1.

rior to the date of randomization

men.

: drawn for women of childbearing potential itive, the subject should be excluded. Since any in the first days after conception, istory, including methods of contraception, se menstrual and/or sexual history suggests d be excluded.

bject should not participate in the study if udy procedures, restrictions and

plant.

ansfusion within 120 days of genetic sample

asma from the time of informed consent, and

ast 2 hours prior to all lung function

iving FeNO assessment.

is restricted prior to V1 and throughout the

≥ 10 pack-years at V1 are not allowed. ack years must have stopped for at least 6 oughout the course of the study

the course of the study.



## HVERDAGEN

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## LIVING ON THE EDGE

- Forskning i medicinens effekt efter de kliniske forsøg på den generelle patientpopulation er yderst sparsom
- Forskning i medicinens effekt på multimorbide/multimedicerede er yderst sparsom
- Forskning i medicinens effekt i forbindelse med psykisk og fysisk stress er yderst sparsom



**”Pengene skal gå til forskningsidéer med potentiale for nybrud og langsigtet kapacitetsopbygning af dansk forskning”**

**-lad os overveje om hverdags-forskning ikke også kan være ny-tænkende forskning..**