

# DANSKE KRÆFTFORSKNINGSDAGE 2023

Kunstig intelligens udpeger de raske områder  
forud for strålebehandling – på tværs af  
sygdomme og i hele landet

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Lektor og hospitalsfysiker,  
Odense Universitetshospital  
Syddansk Universitet  
Dansk Center for Partikel Terapi

#DKD2023

#SamarbejdeOmKræft



@christian\_roenn

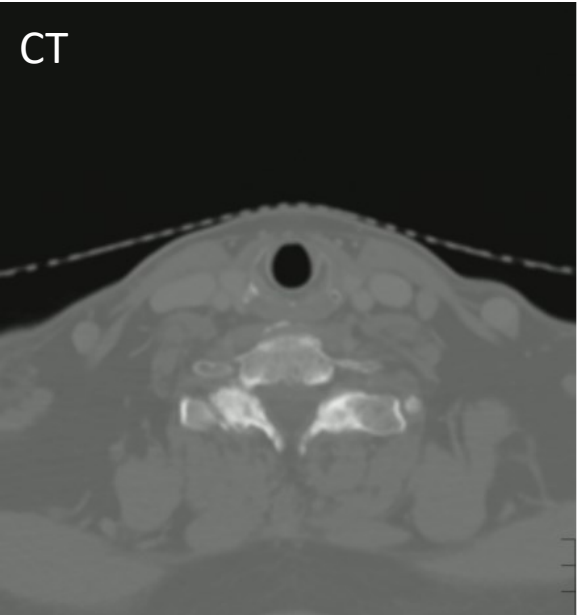
Sli.do

#131525

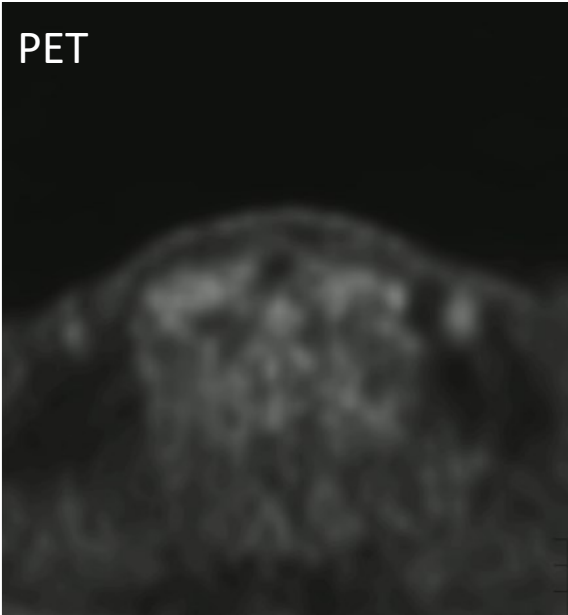
# Patient med hoved og hals-kræft skannes



CT



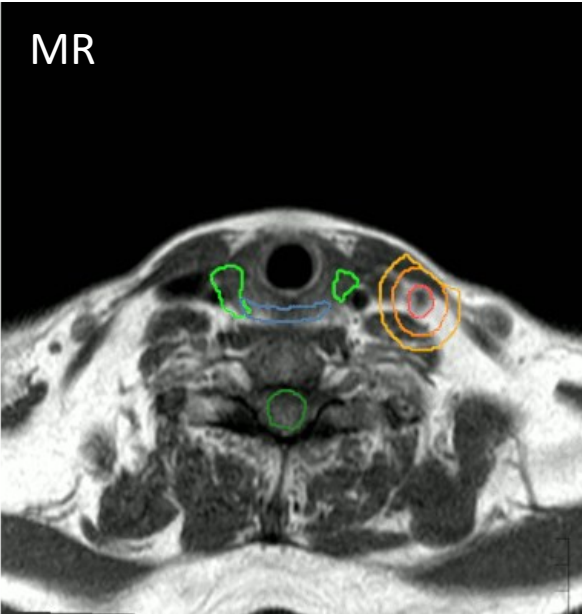
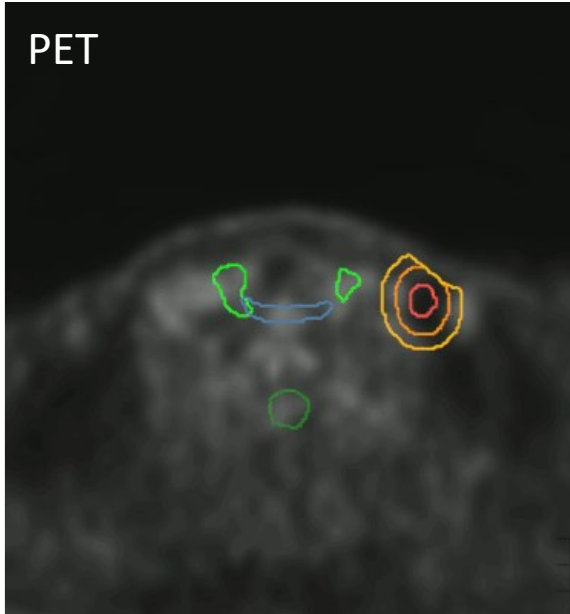
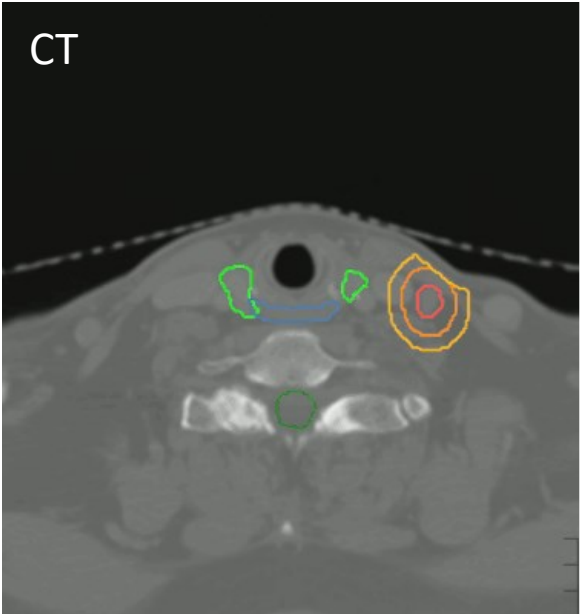
PET



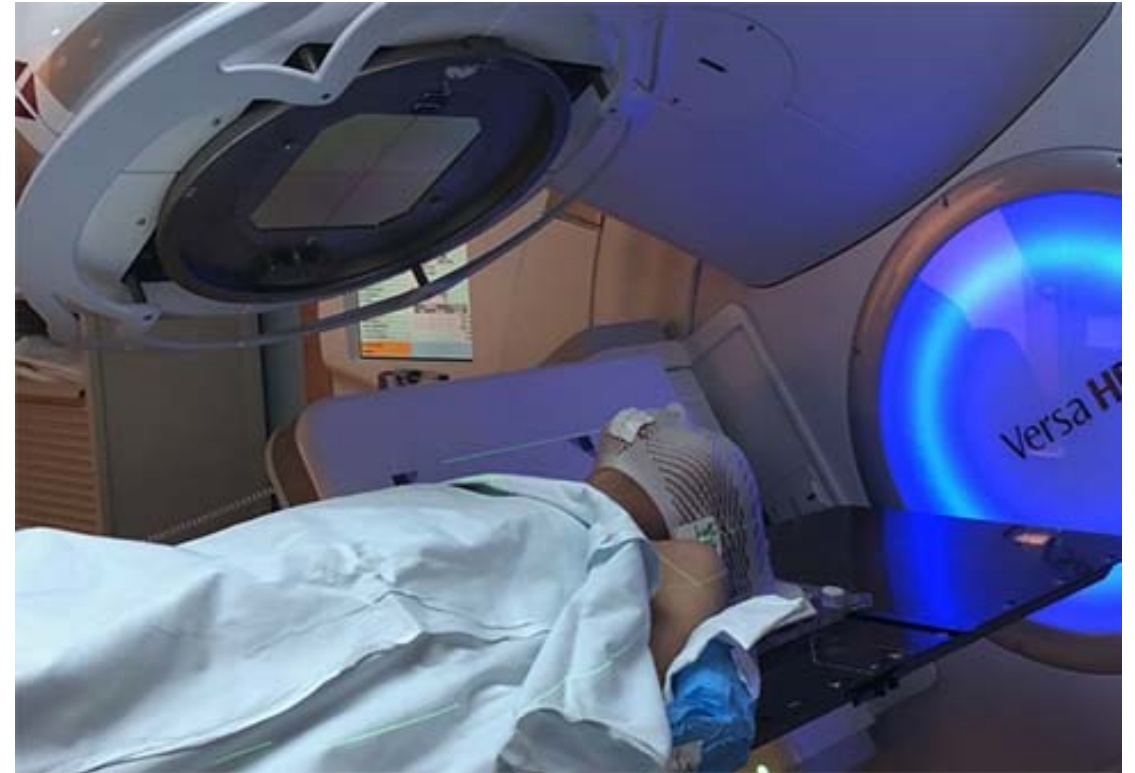
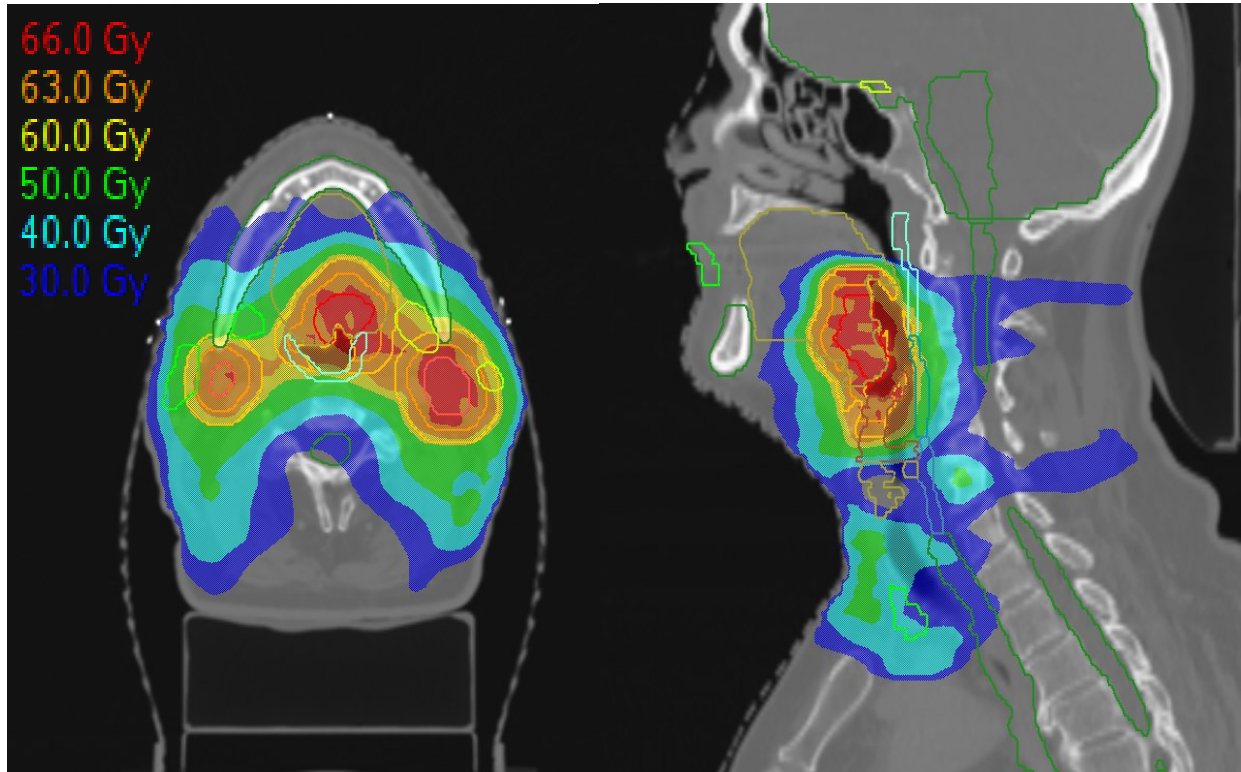
MR



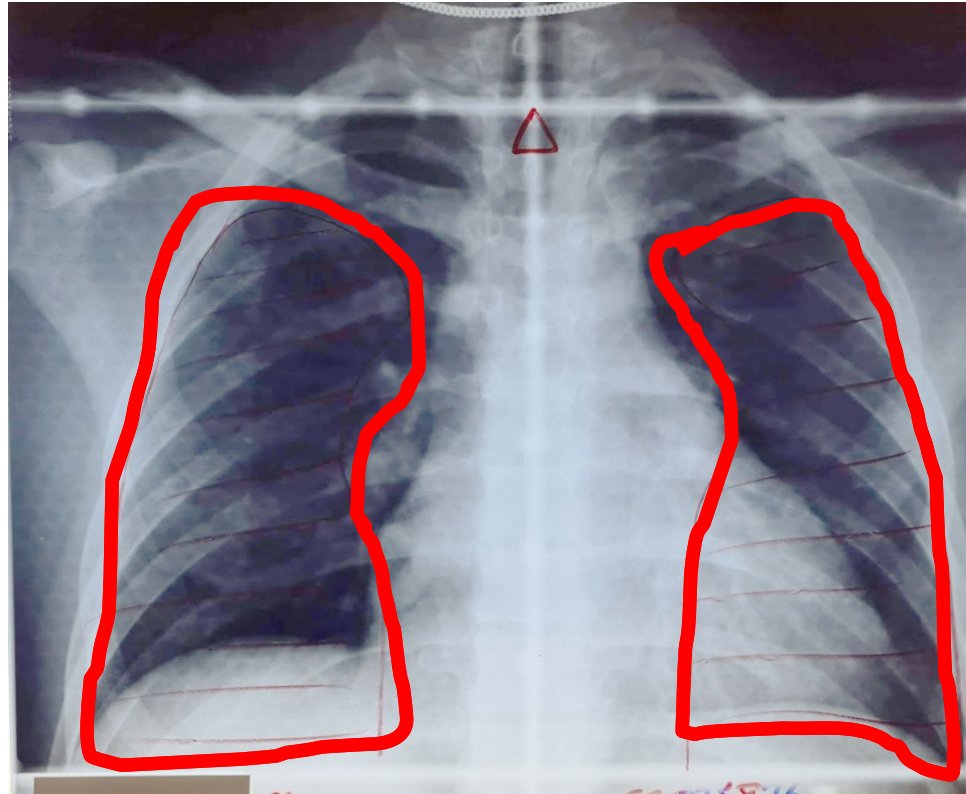
# Kræft og raske organer indtegnes manuelt



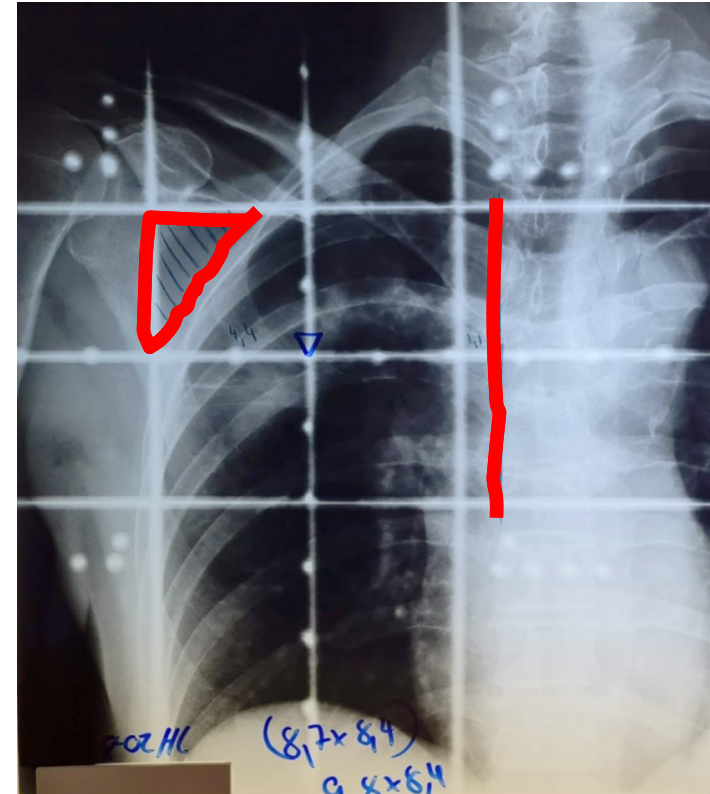
# Behandlingsplan udarbejdes



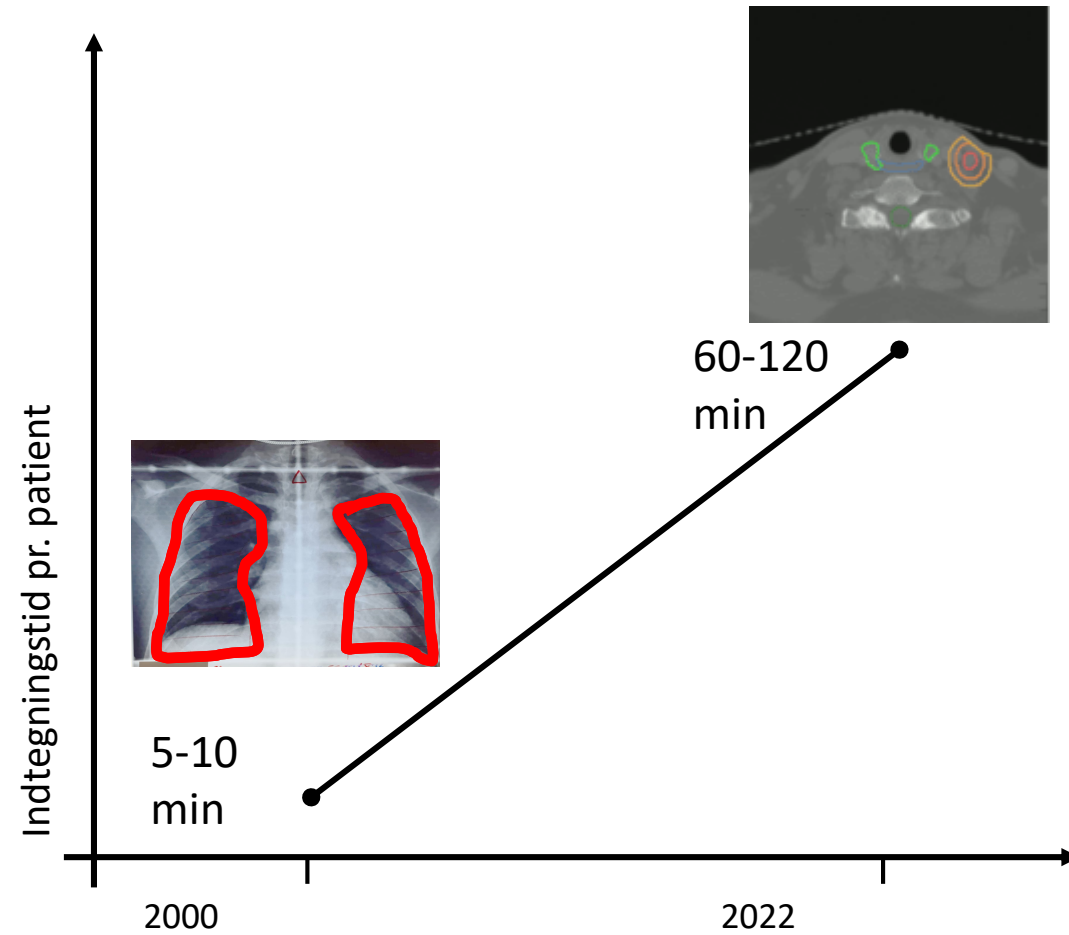
# Indtegning i et historisk perspektiv



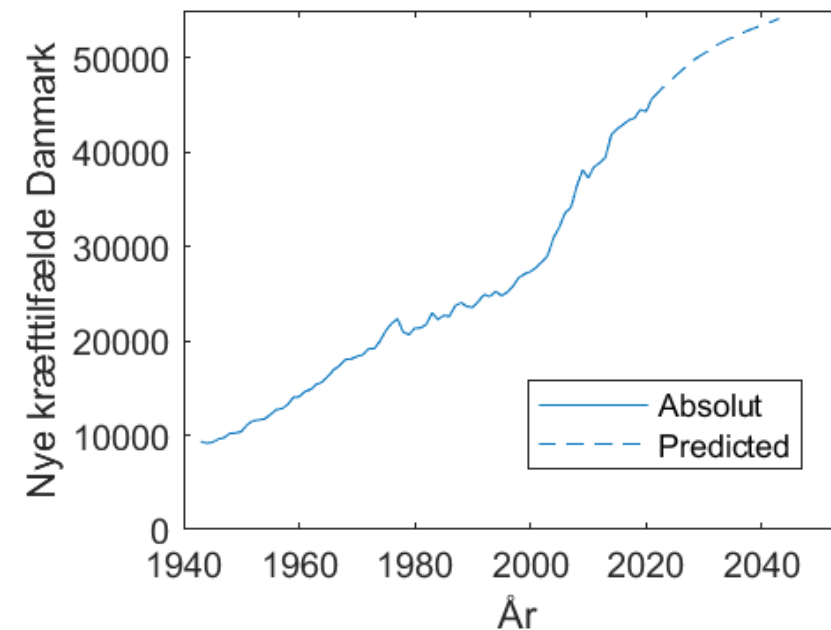
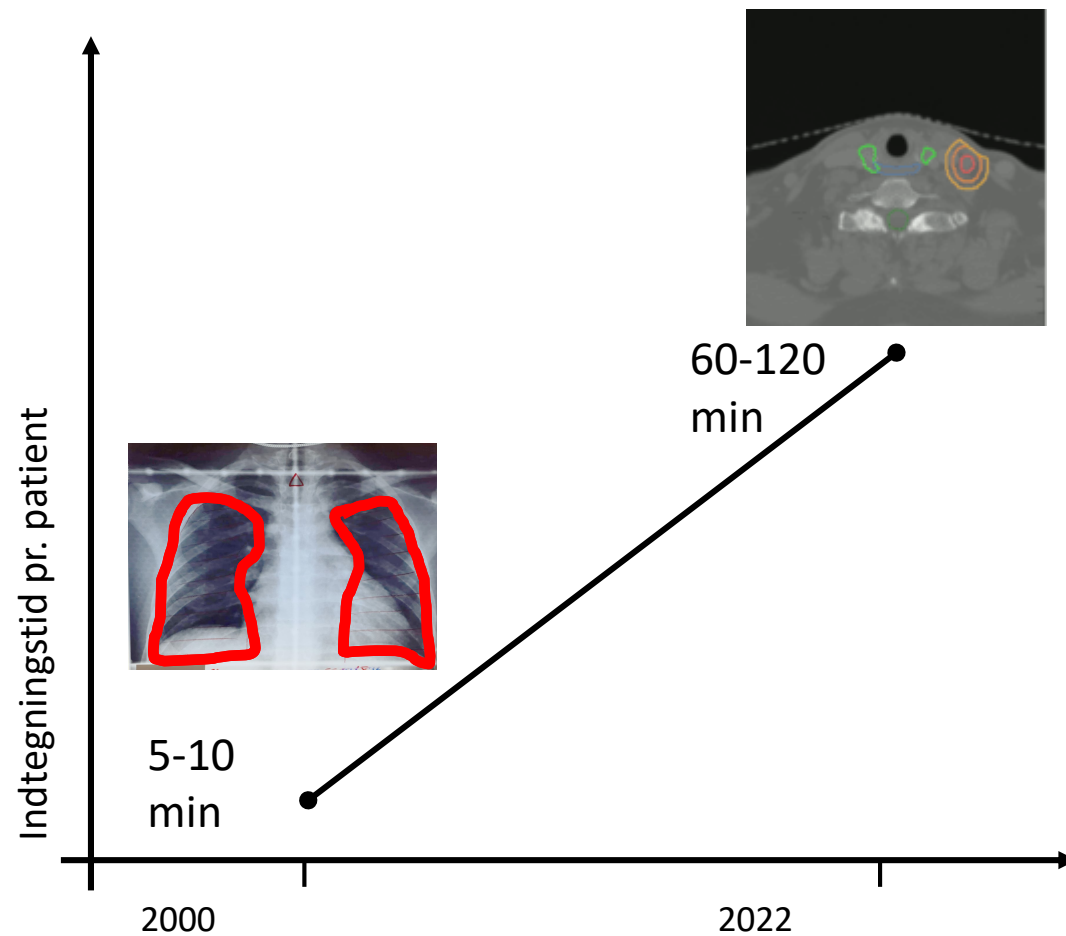
*Kappefelt og lunge-metastase fra ca. 2000*



# Indtegnning i et historisk perspektiv

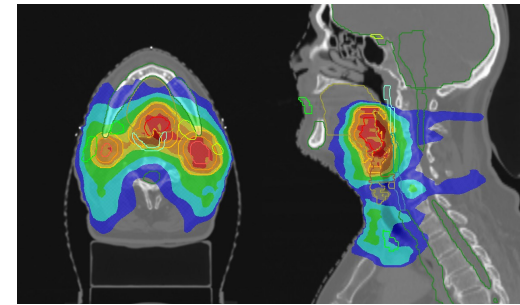
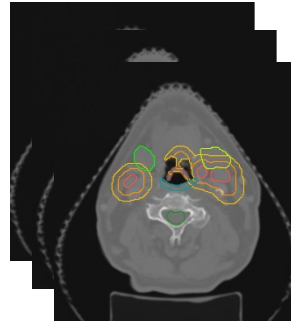
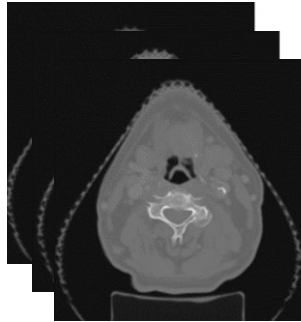


# Indtegning i et historisk perspektiv



NORDCAN <https://nordcan.iarc.fr/>

# Hvor passer AI ind i vores kliniske arbejdsgang?



Scanning



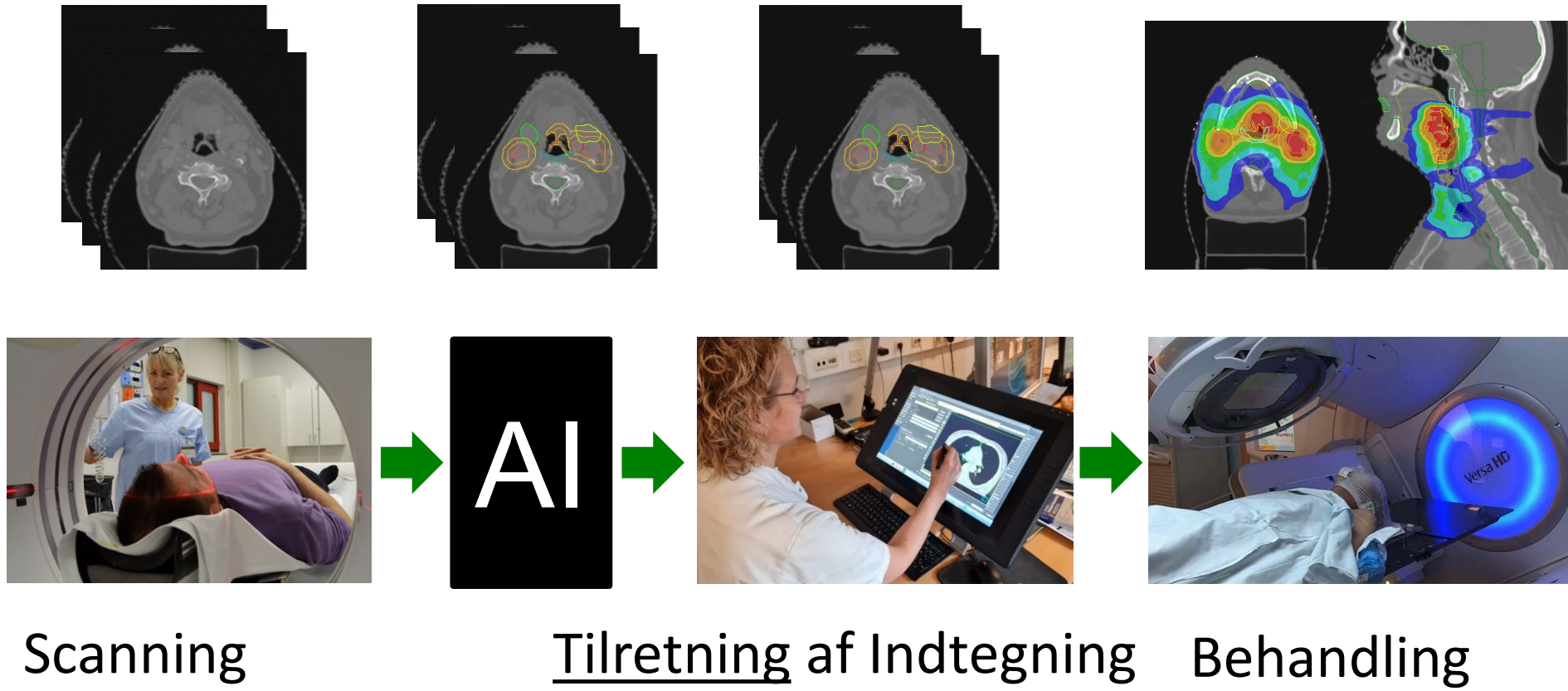
Indtegning



Behandling



# Hvor passer AI ind i vores kliniske arbejdsgang?



Scanning

Tilretning af Indtegning

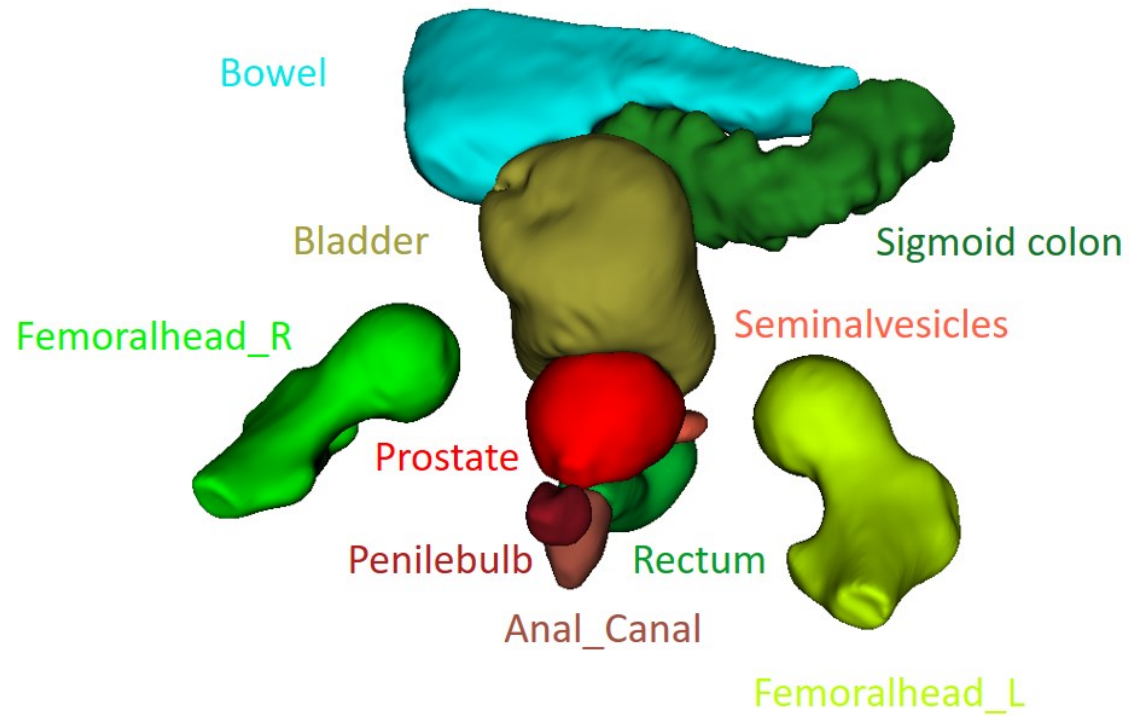
Behandling

# DCCC Workshops

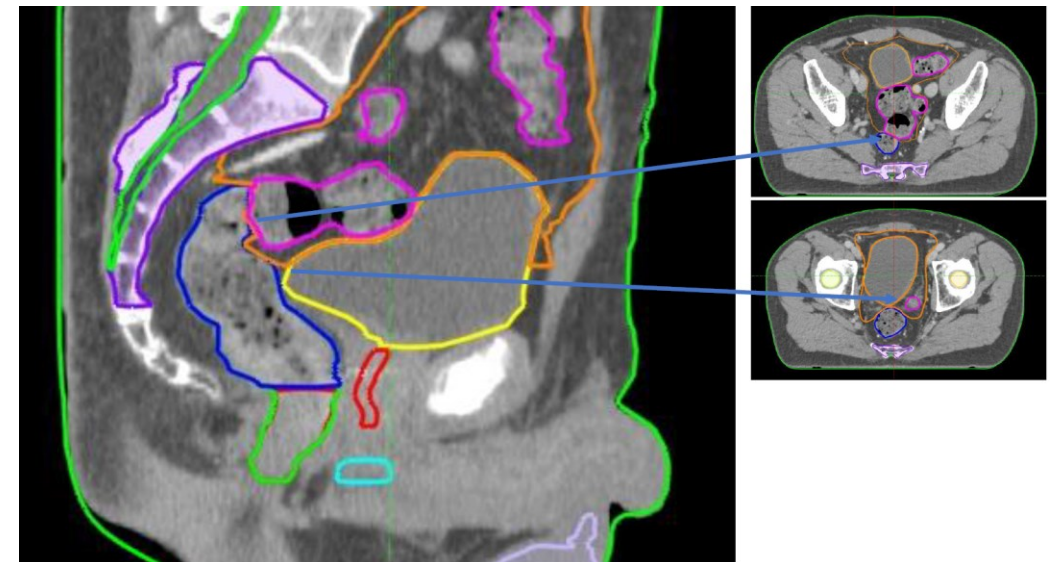
- Definitioner og retningslinjer
- Forskellige DMCG'er
  - Hjernen og hoved & hals
    - DNOG og DAHANCA
  - Hjertestrukturer
    - DLCG, DBCG og DEGC
  - Bækkenorganer
    - DACG, DABLACA, DCCG, DAPROCA, DATECA
  - Thoraxorganer
    - DLCG, DBCG og DEGC



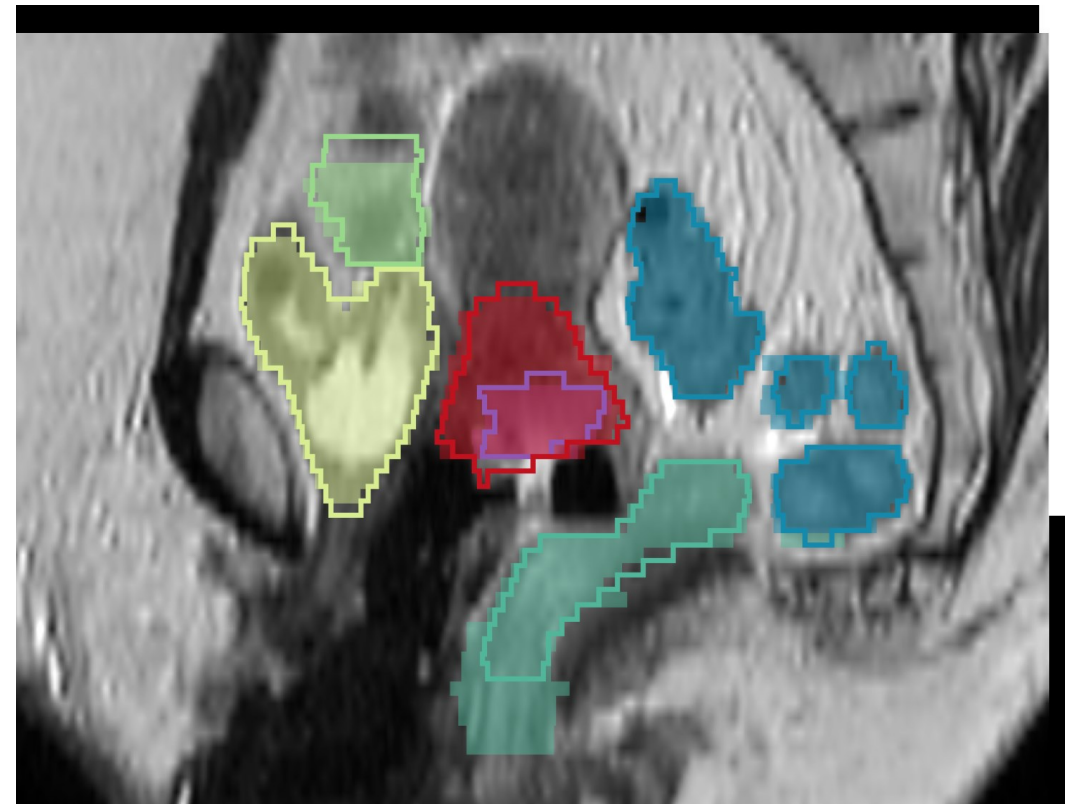
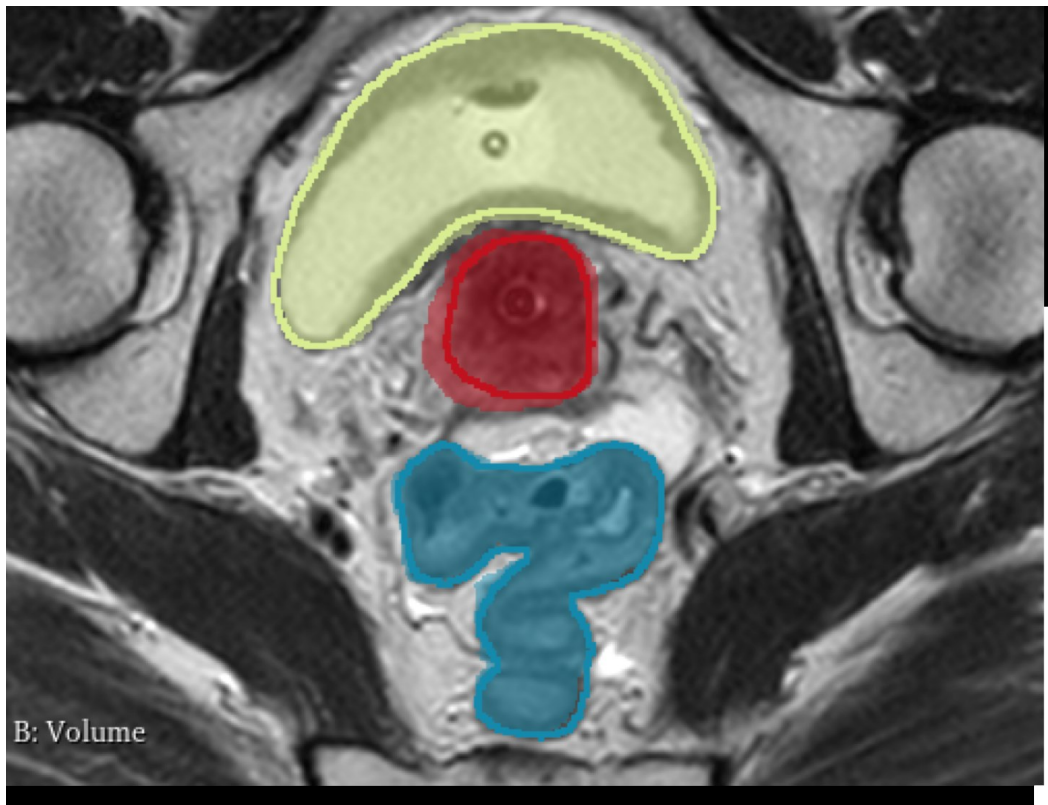
# Bækken organer på CT



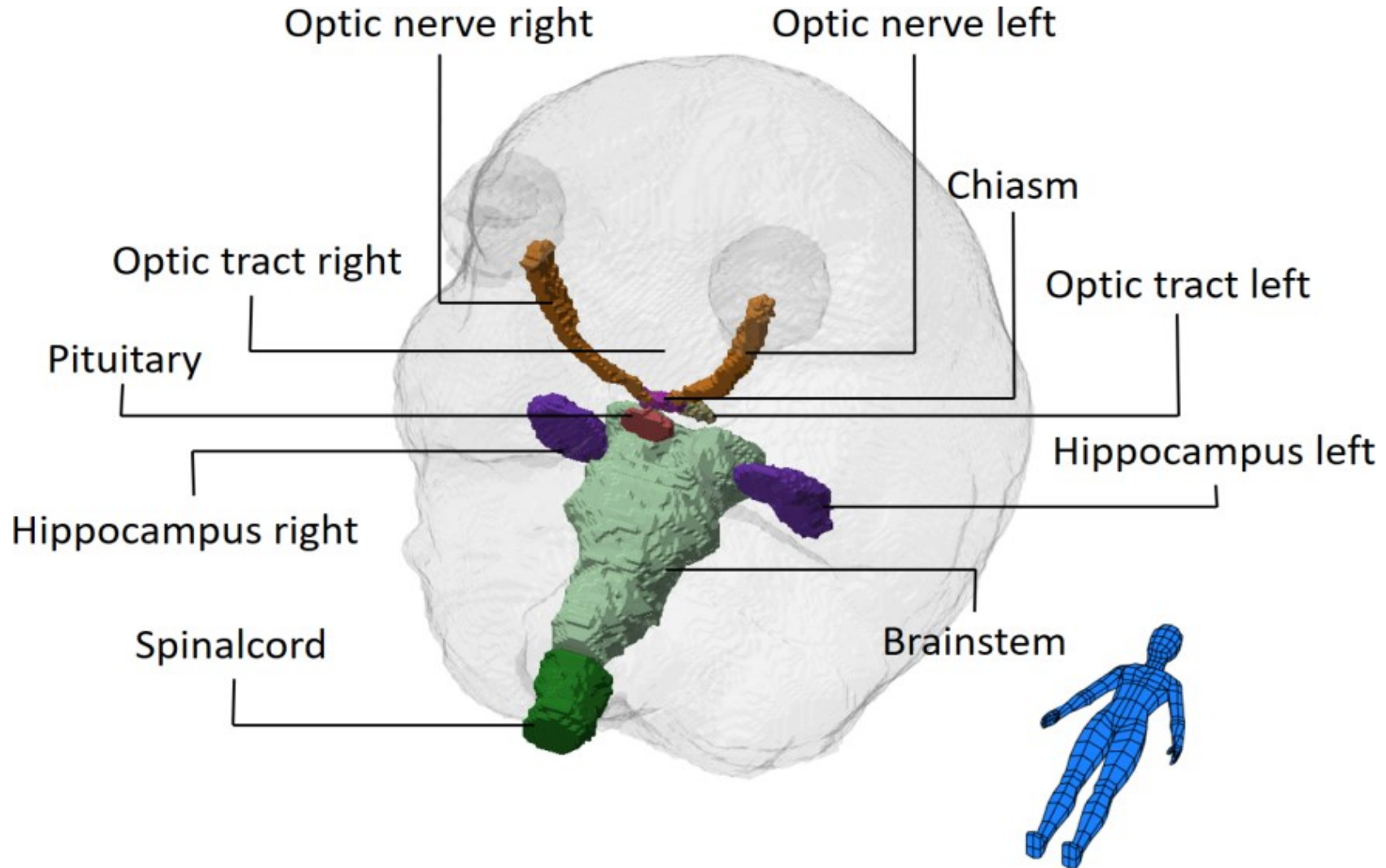
## Retningslinjer fra DMCG's



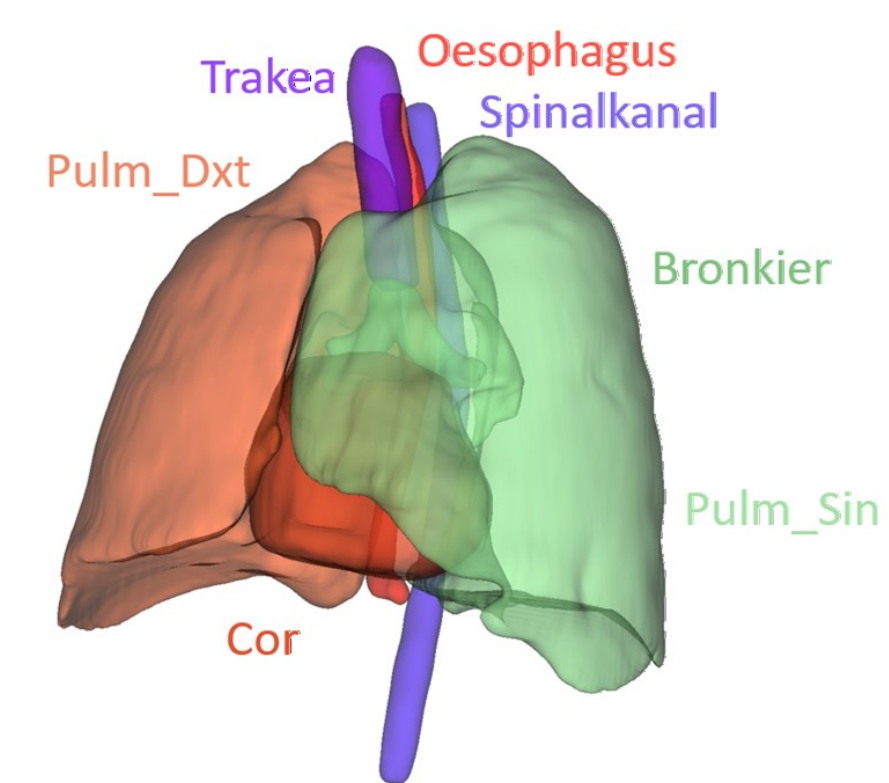
# Bækken organer på MR



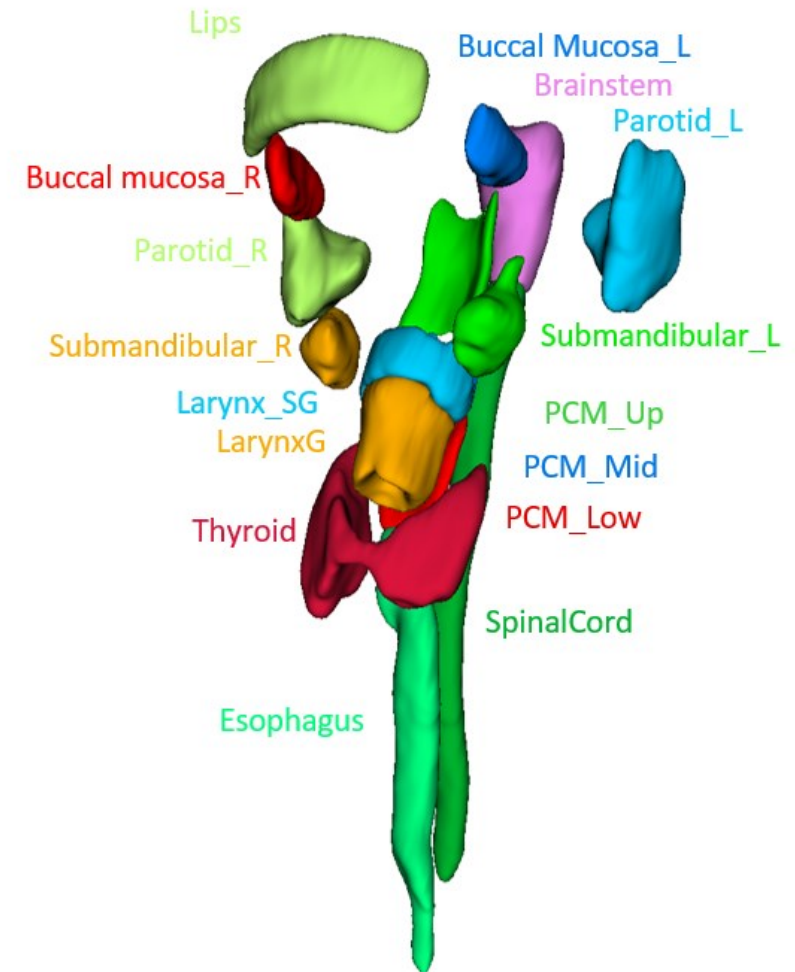
# Organer i hjernen



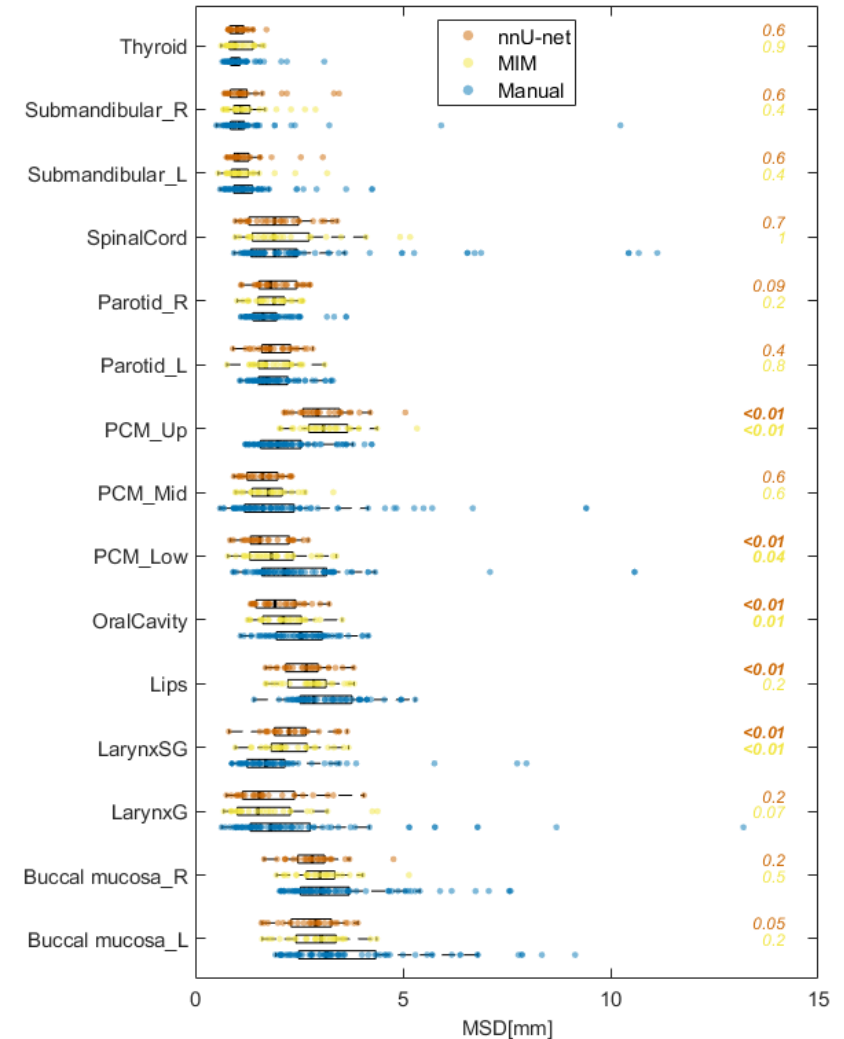
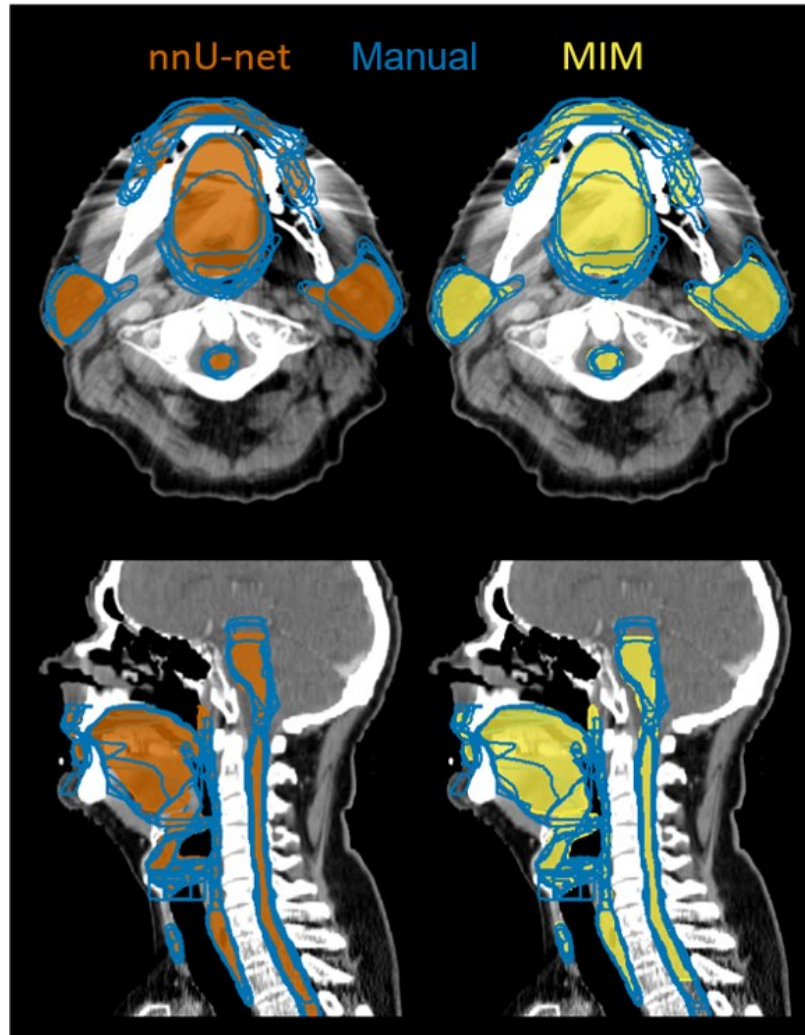
## Lunge- og spiserørskræft



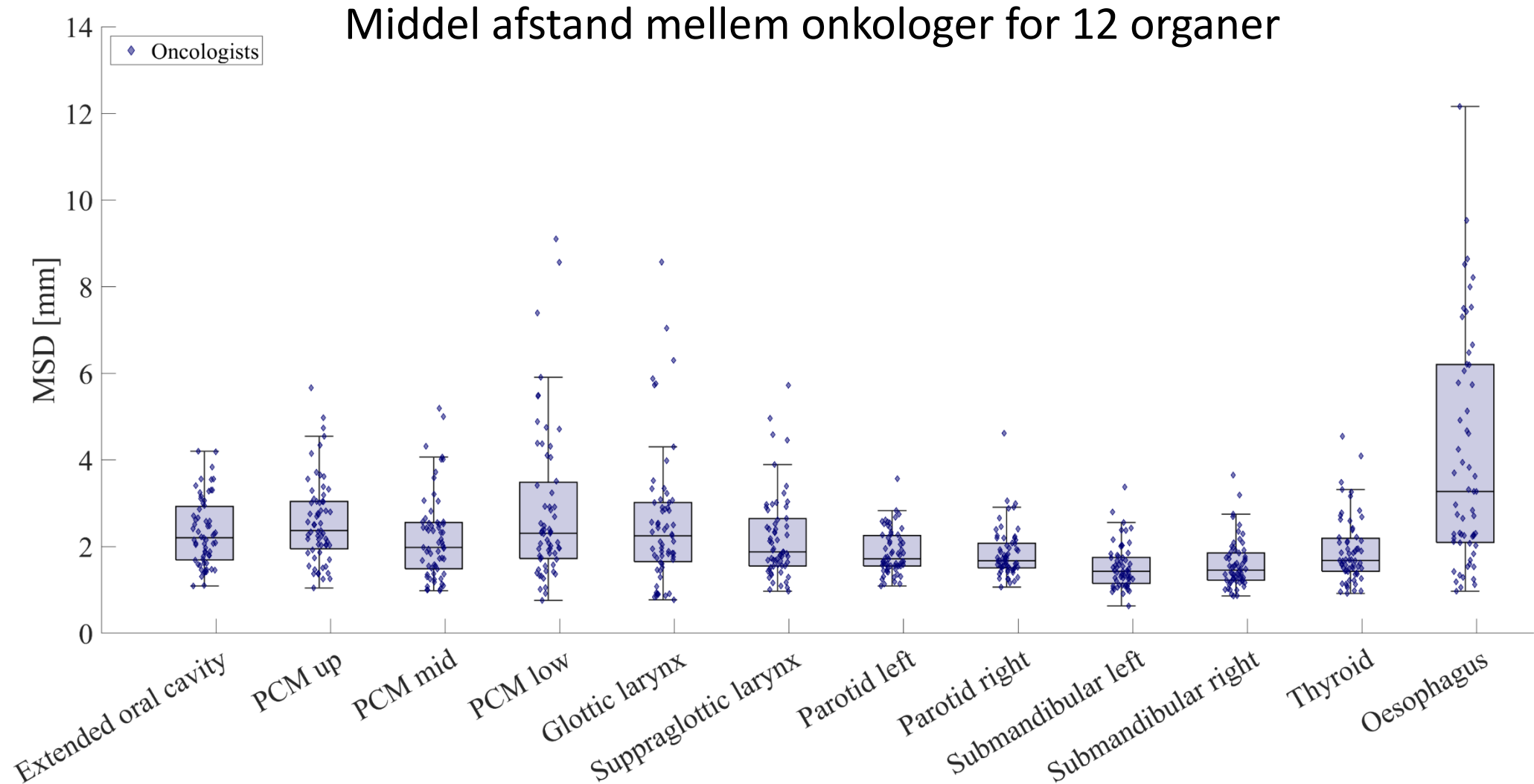
## Hoved og halskræft



# AI resultater for hoved og hals kræft

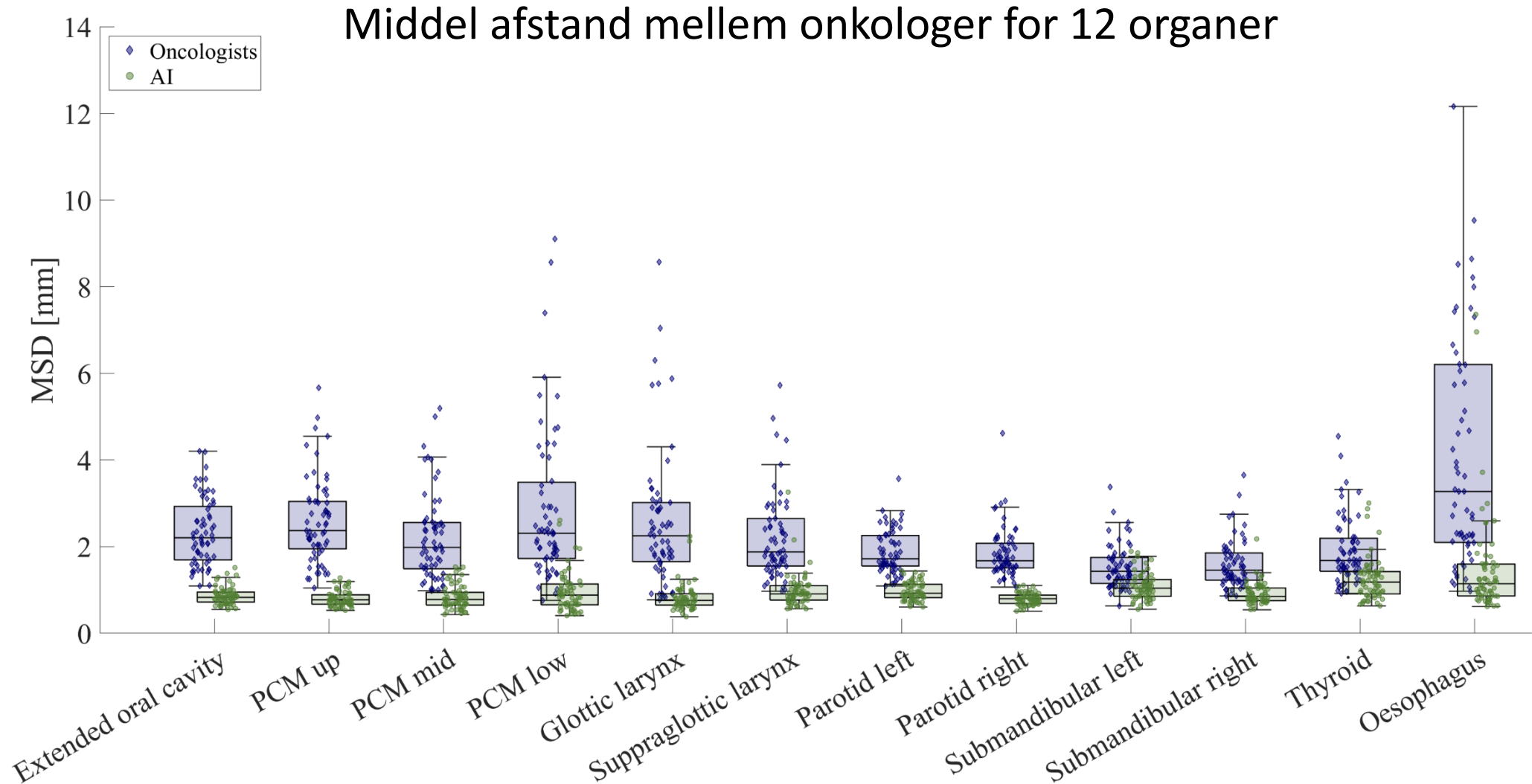


# AI resultater for hoved og hals kræft

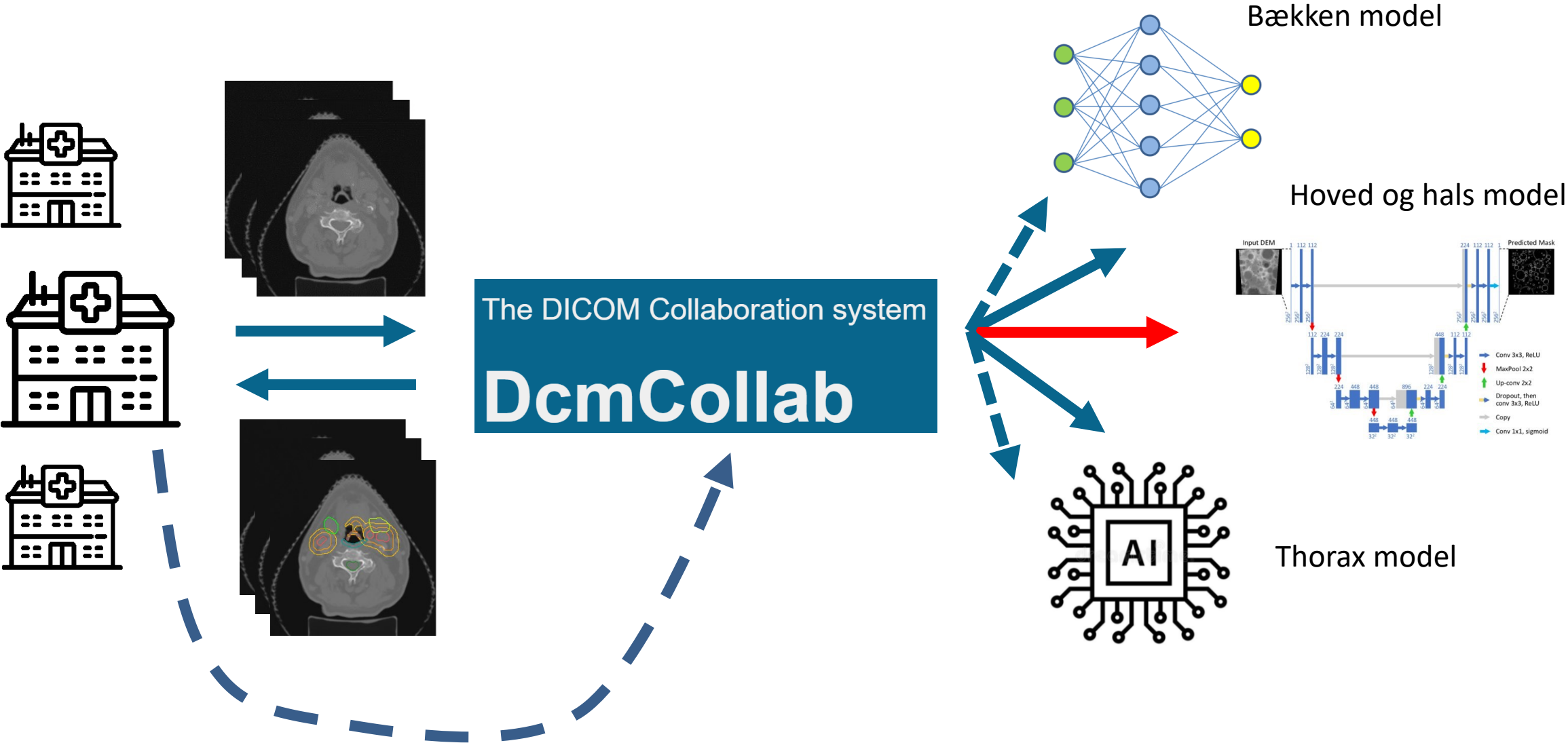




# AI resultater for hoved og hals kræft



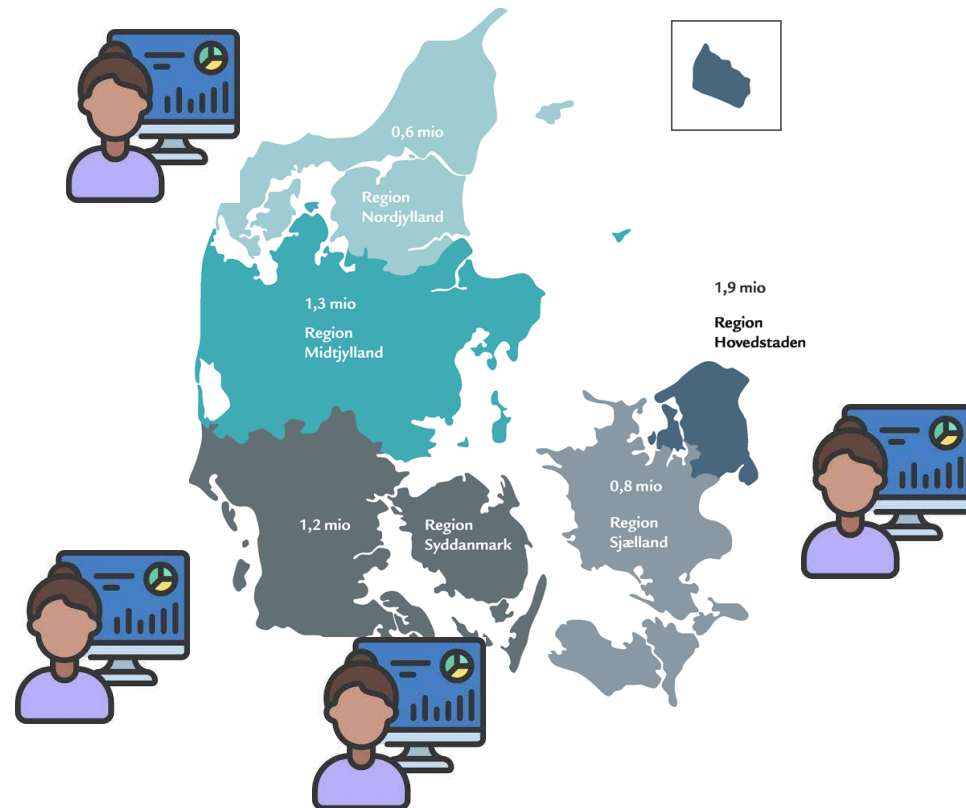
# Portal for national AI implementering



# Fremtiden

## DESIRE

### Data Science Research Infrastructure In Radiotherapy



ново  
nordisk  
fonden

#### Data Science Research Infrastructure 2022

Project title: DESIRE: Data Science Research Infrastructure In Radiotherapy  
Application number: 0077893  
Applicant name: Cai Grau  
Main Applicant position: Professor  
Administrating institution: Aarhus Universitet

Grant period in years:	5
Total requested budget:	kr 15.000.000
Received from administrating institution:	5.000.000
Received from other sources:	10.000.000
Applied from other sources:	0

# Budskab

- Kunstig intelligens er skræddersyet til strålebehandling
- Flere Danske modeller findes til risiko organer
- National plan-bank gør AI ekspertviden tilgængelig for alle kræftpatienter i hele landet
- Højner ensartetheden på tværs af landet
- DMCG eksperternes viden benyttes til alle patienter
- National data infrastruktur gennem DESIRE

