

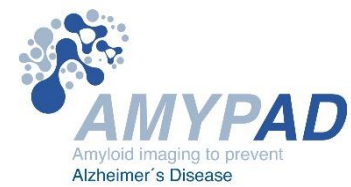
# Quantitative PET Imaging; from Research to Clinical Use

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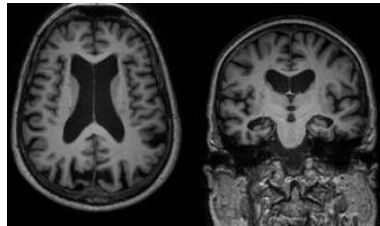
22 & 23 October 2018 • IMI Scientific Symposium • Brussels, Belgium

# AMYPAD

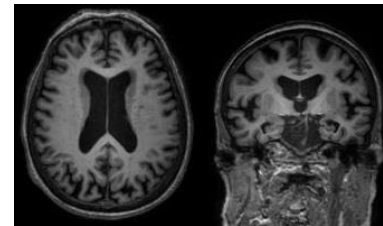
*Amyloid Imaging to prevent Alzheimer's Disease*



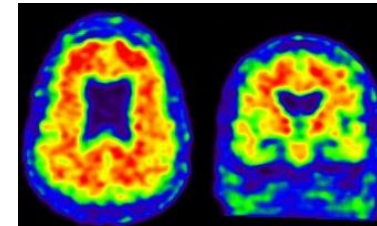
Patient A



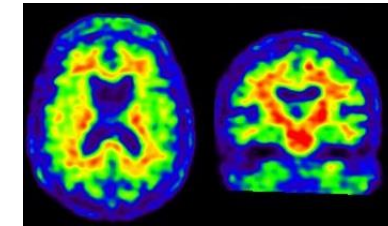
Patient B



Patient A



Patient B



Diagnostic study	Prognostic study
8 centers	Up to 20 centers
1200 scans	3000 scans
Assess diagnostic value A $\beta$	Risk stratification
Usefulness A $\beta$ imaging in patient management	Secondary prevention studies

# Rationale

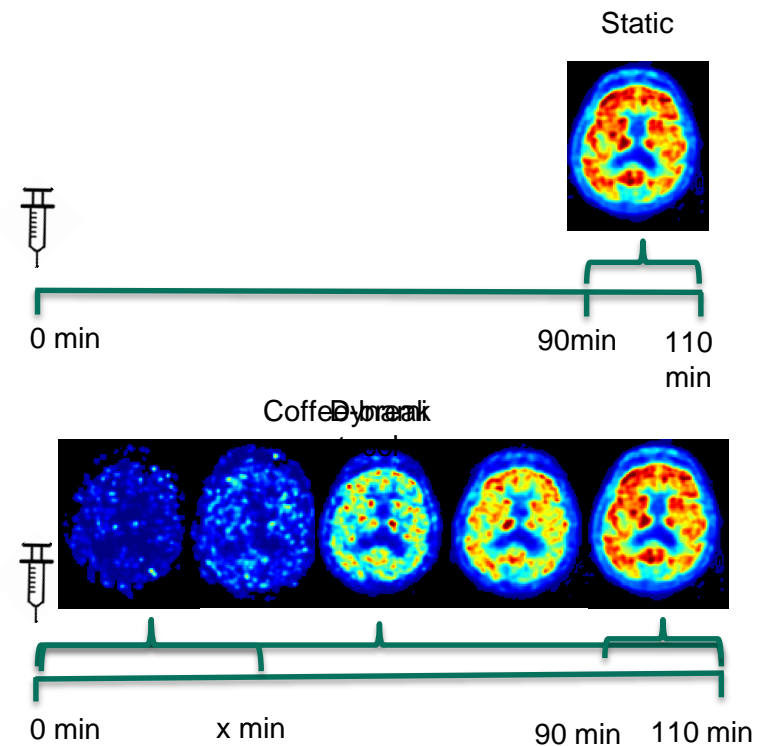
*PET allows for visualization & quantification of amyloid- $\beta$  in the brain*

## Diagnostic use

- Positive/negative amyloid scan
- Indirect measure of amyloid load

## Longitudinal measurements

- Treatment response/ disease progression
- Direct measure of amyloid load

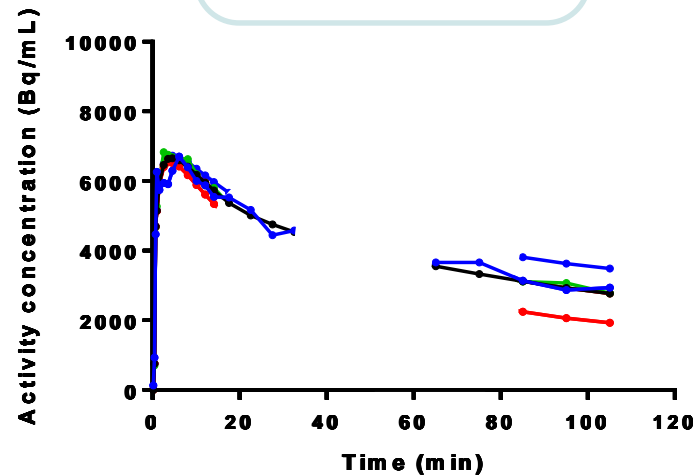


# Data & Methods

Clinical data: AD & control subjects for both amyloid PET tracers

Tracer kinetics simulated based upon clinical data

Simulated data covered the whole disease spectrum



Assessment of the bias in amyloid load quantification

Different scanning protocols were deleted

Represented various noise levels

# Conclusion

Optimal coffee-break scanning protocol: 0-30 minutes & 90-110 minutes

