DLFT
et
médecine nucléaire

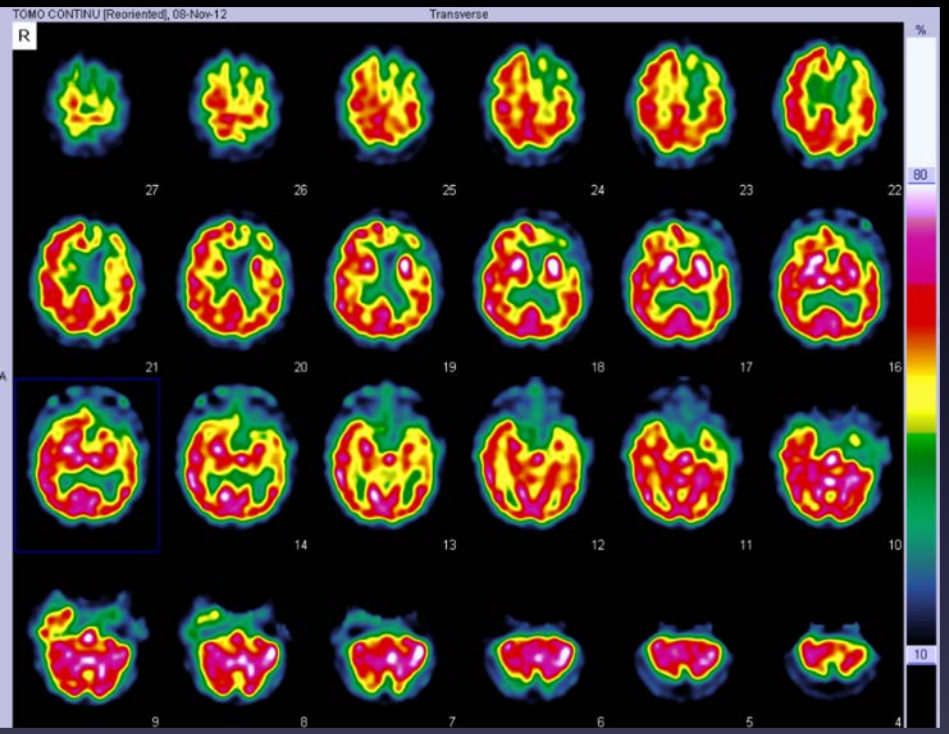
Grégory Petyt

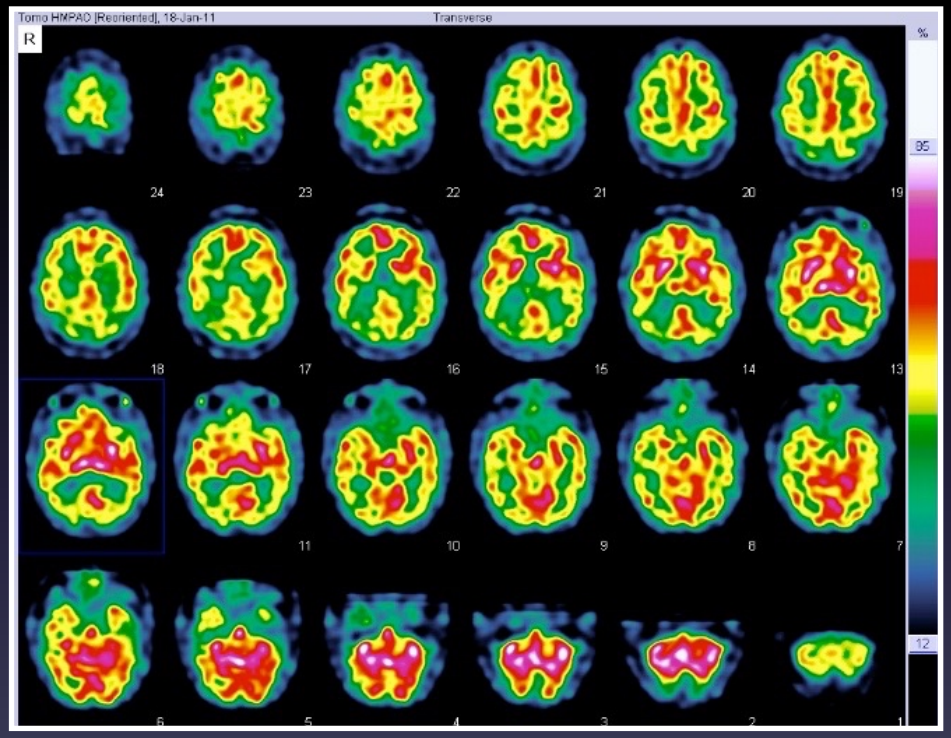
Médecine Nucléaire, Hôpital R.Salengro, CHRU Lille

gregory.petyt@chru-lille.fr

Historiquement une question simple…

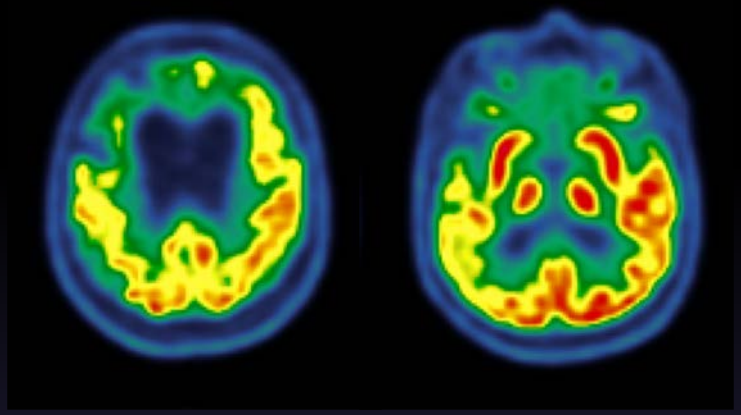
- Perfusion cérébrale: SPECT HMPAO



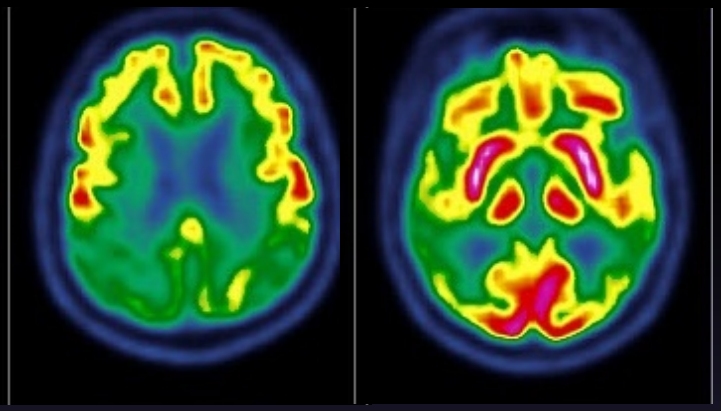


- Hypoperfusions antérieures: DFLT
- Hypoperfusions postérieures: MA

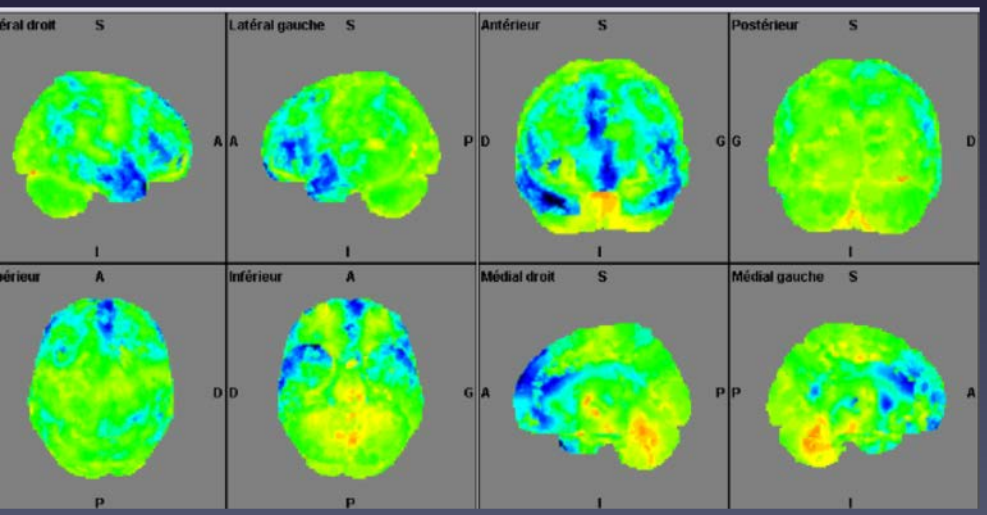
Encore plus facile en TEP : ^{18}FDG

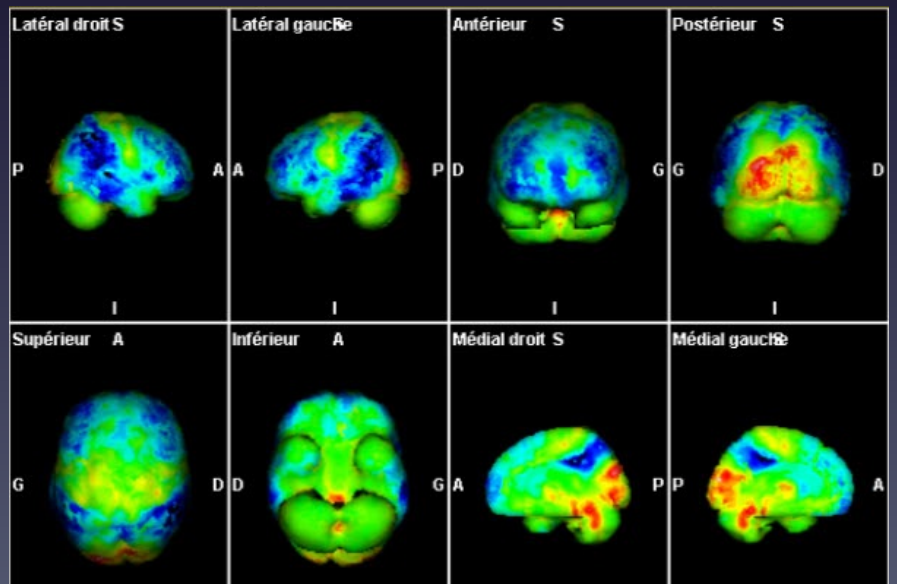


- Métabolisme
  - Contraste
  - résolution

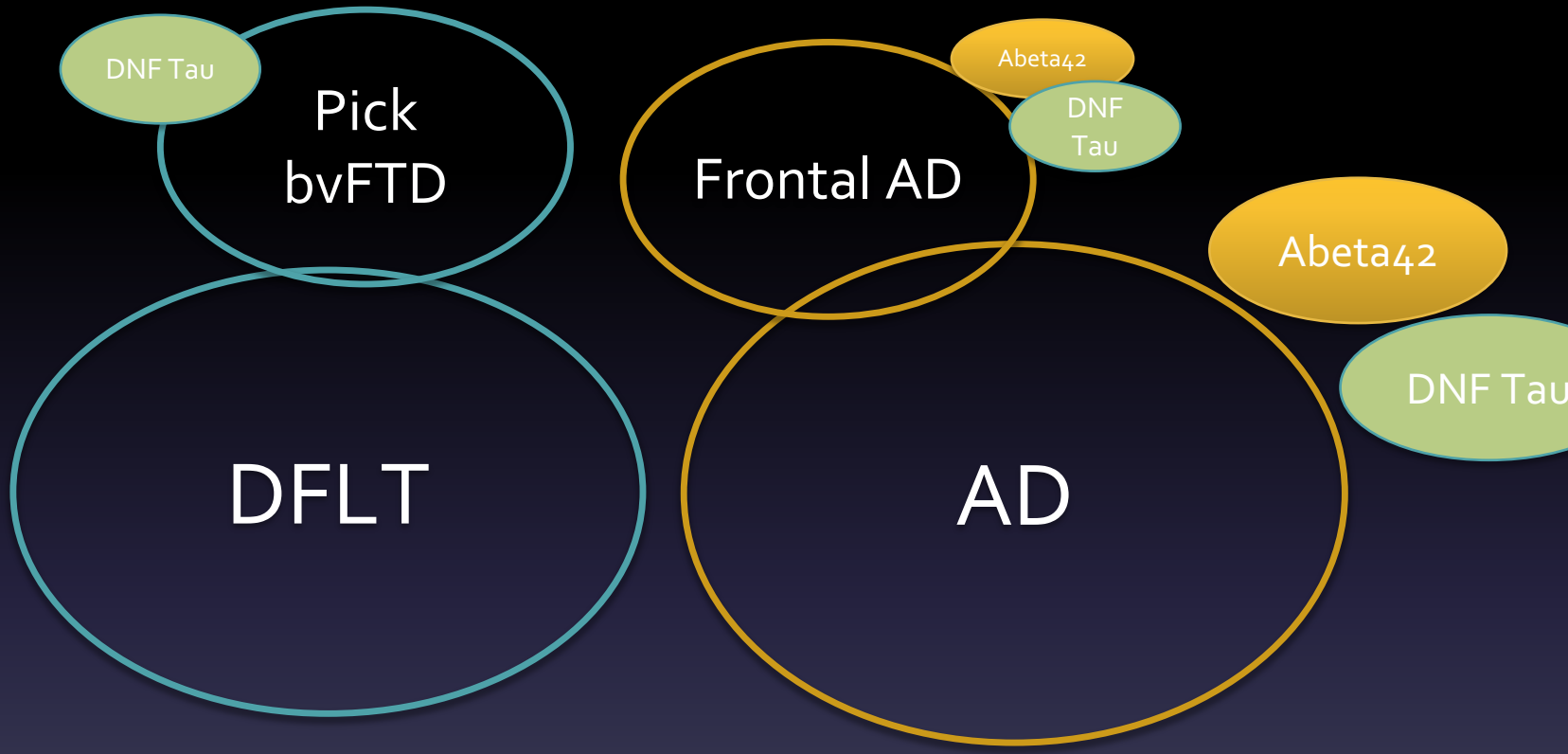


- Comparaison aux bases de données





Mais des questions bien plus complexes…



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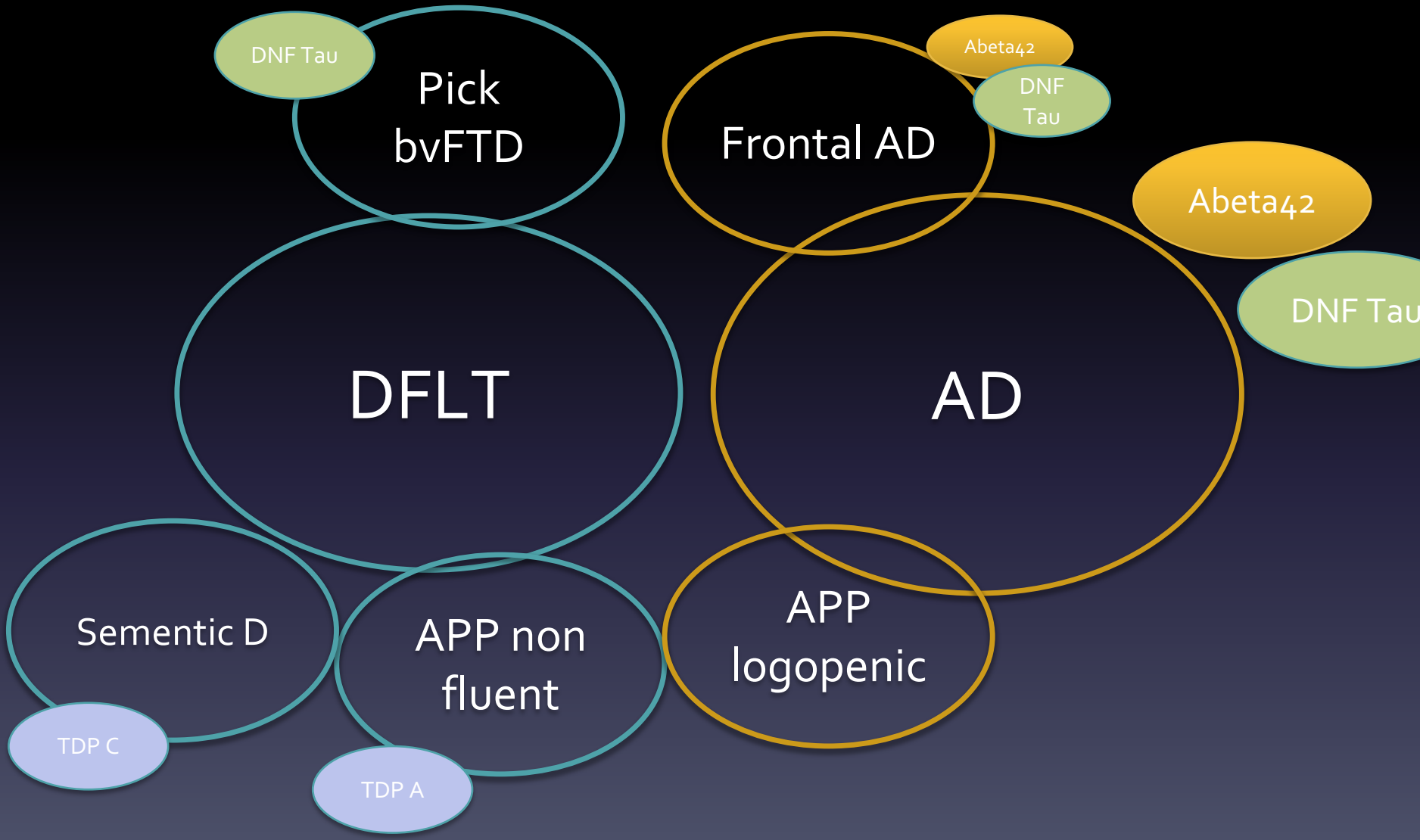

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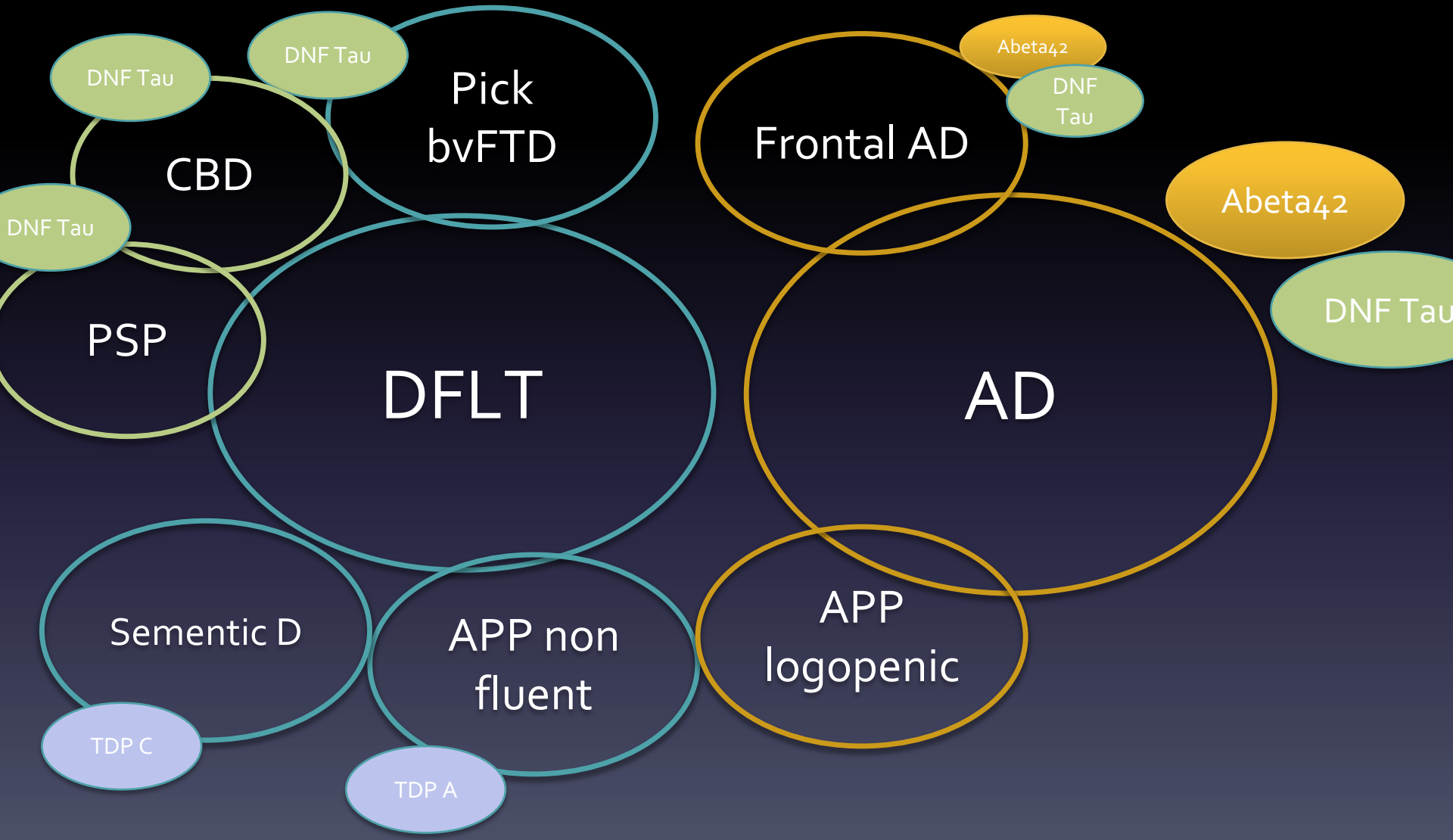
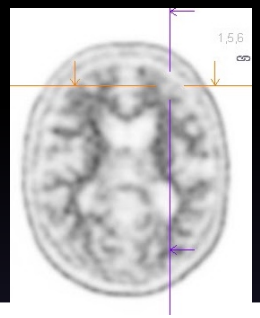
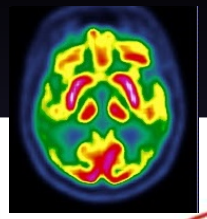


Quels outils en médecine nucléaire ?

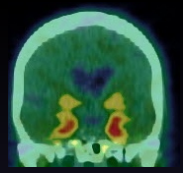


Depôts amyloïdes:
AV1
AV19
AV45

Dysfonction synaptique:
FDG
~~perfusion~~

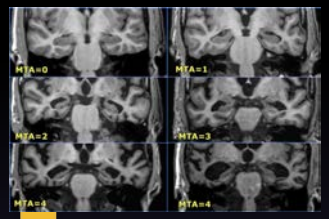


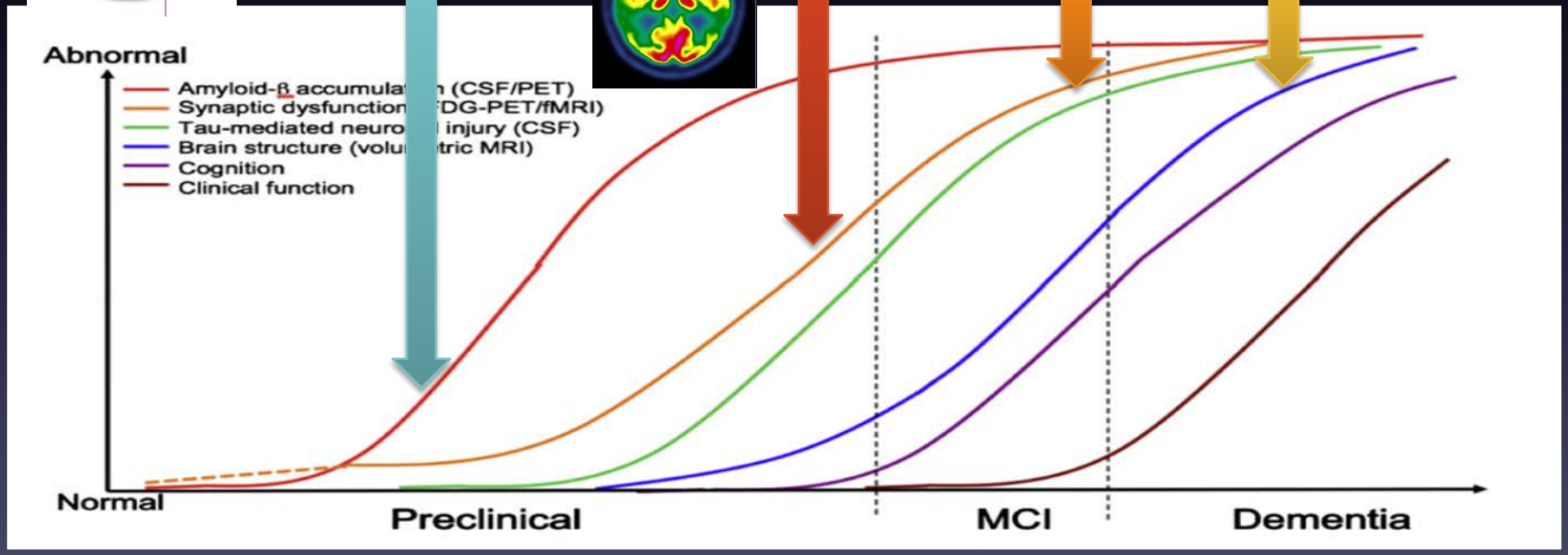
DNF mort neuronale



AV1451
THK 5351

Structure





-10Y

-2Y

Dysfonctions synaptiques régionales: TEP 18F-Fluorodesoxyglucose (FDG)

métabolisme glucidique aérobie
transport actif vers les cellules

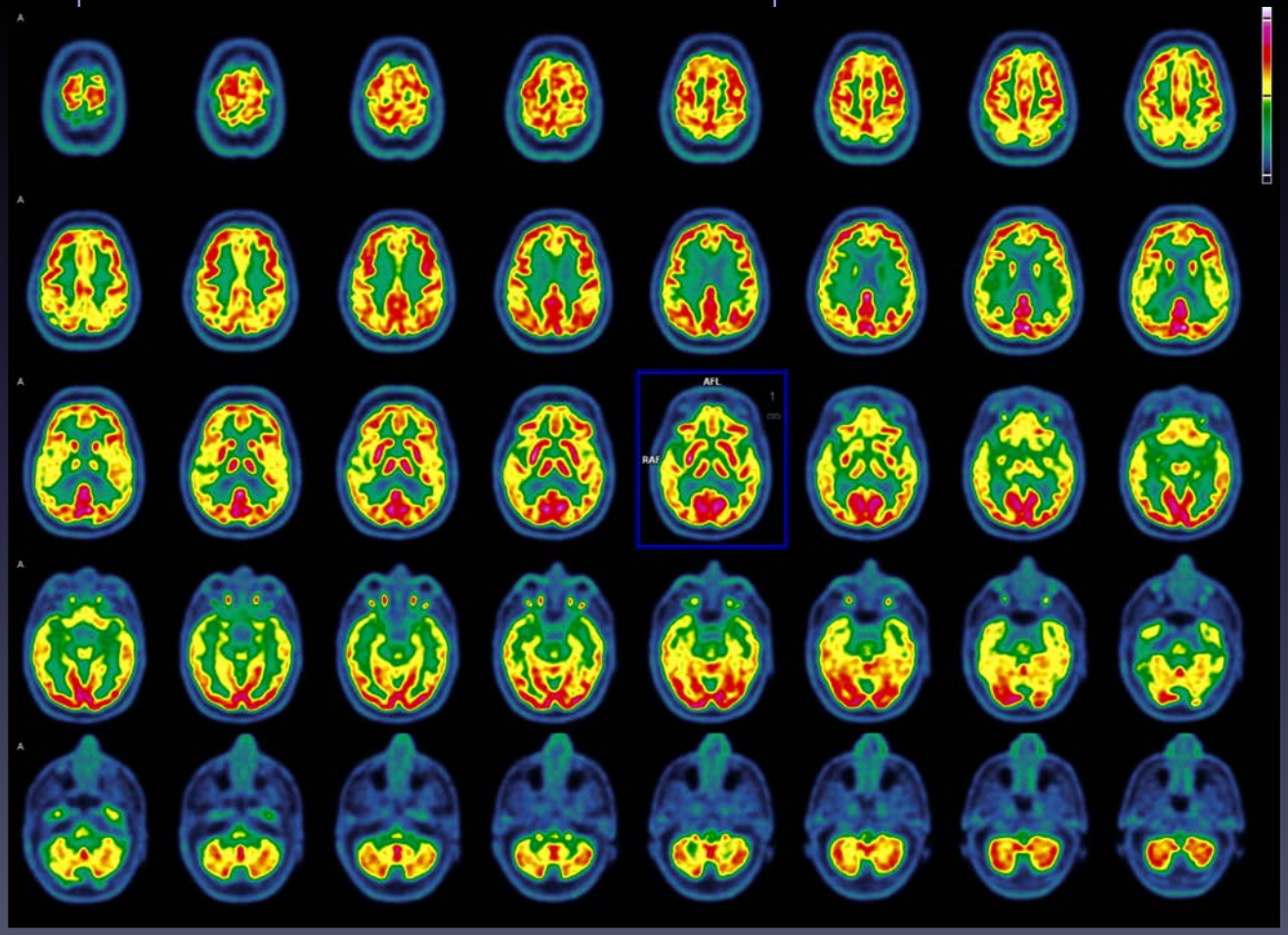
18F-FDG

185 MBq

30 min

10 min

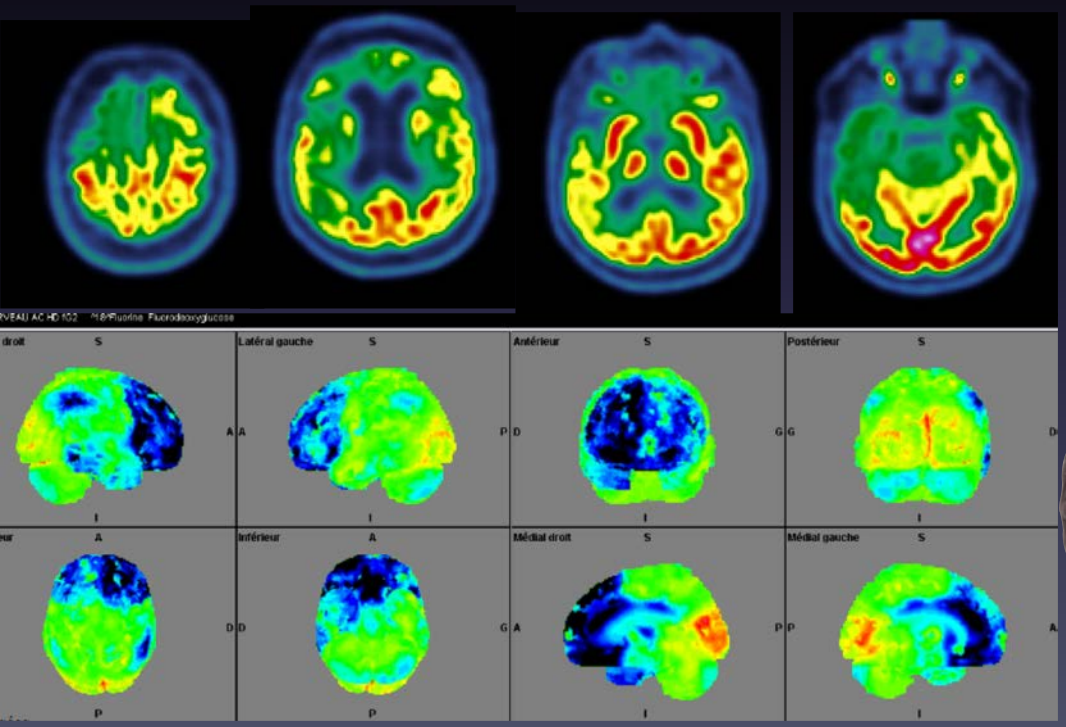
3 mSv

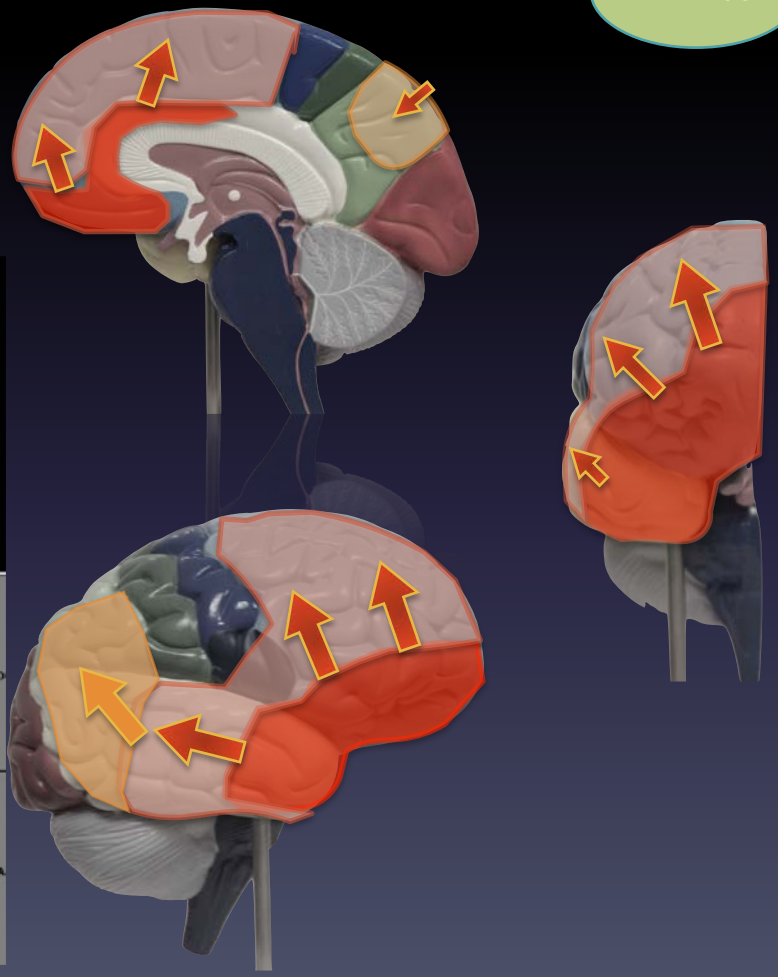


Maladie de Pick (bvFTD)

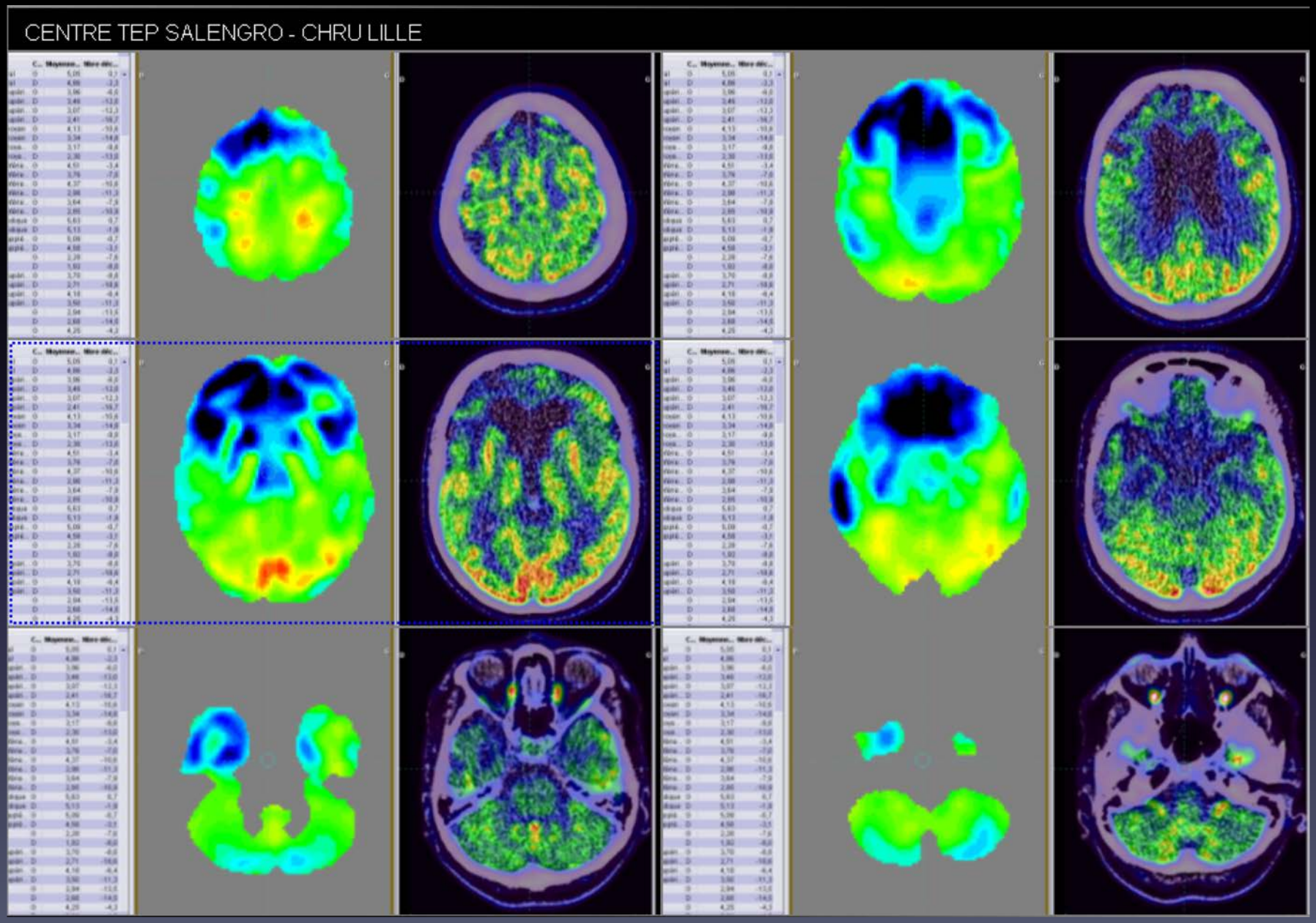
Débutante, plutôt symétrique:

- orbitofrontal
- Frontal mésial: cingulaire antérieur
- temporo-polaire





DFT comportementale évoluée



APP non fluente

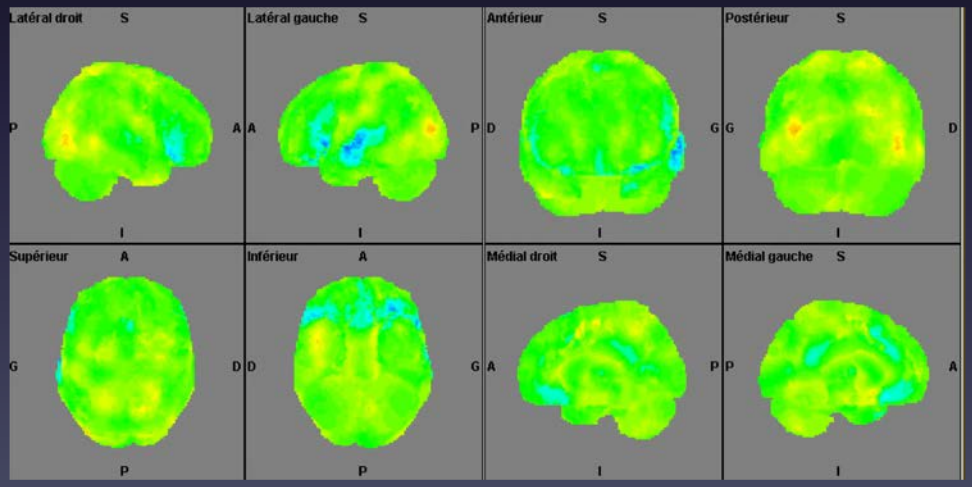
DNF Tau

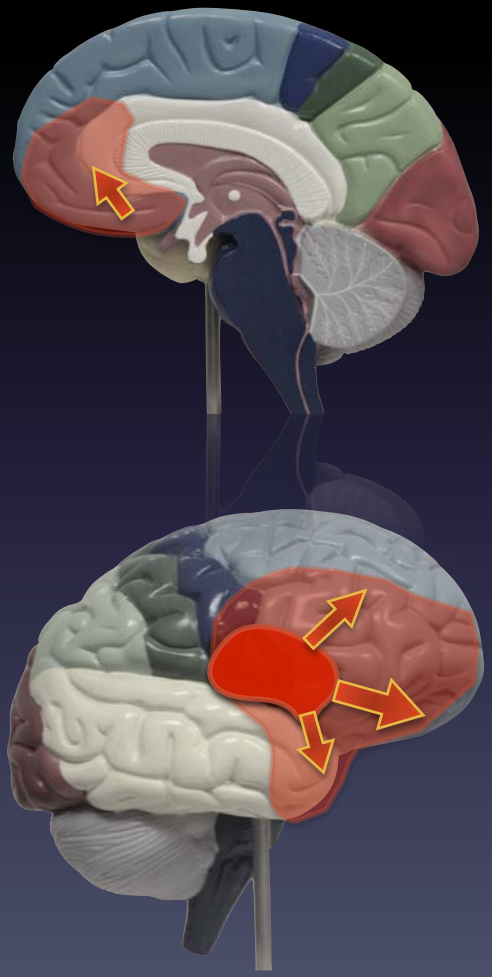
50% TDP A

zone de broca

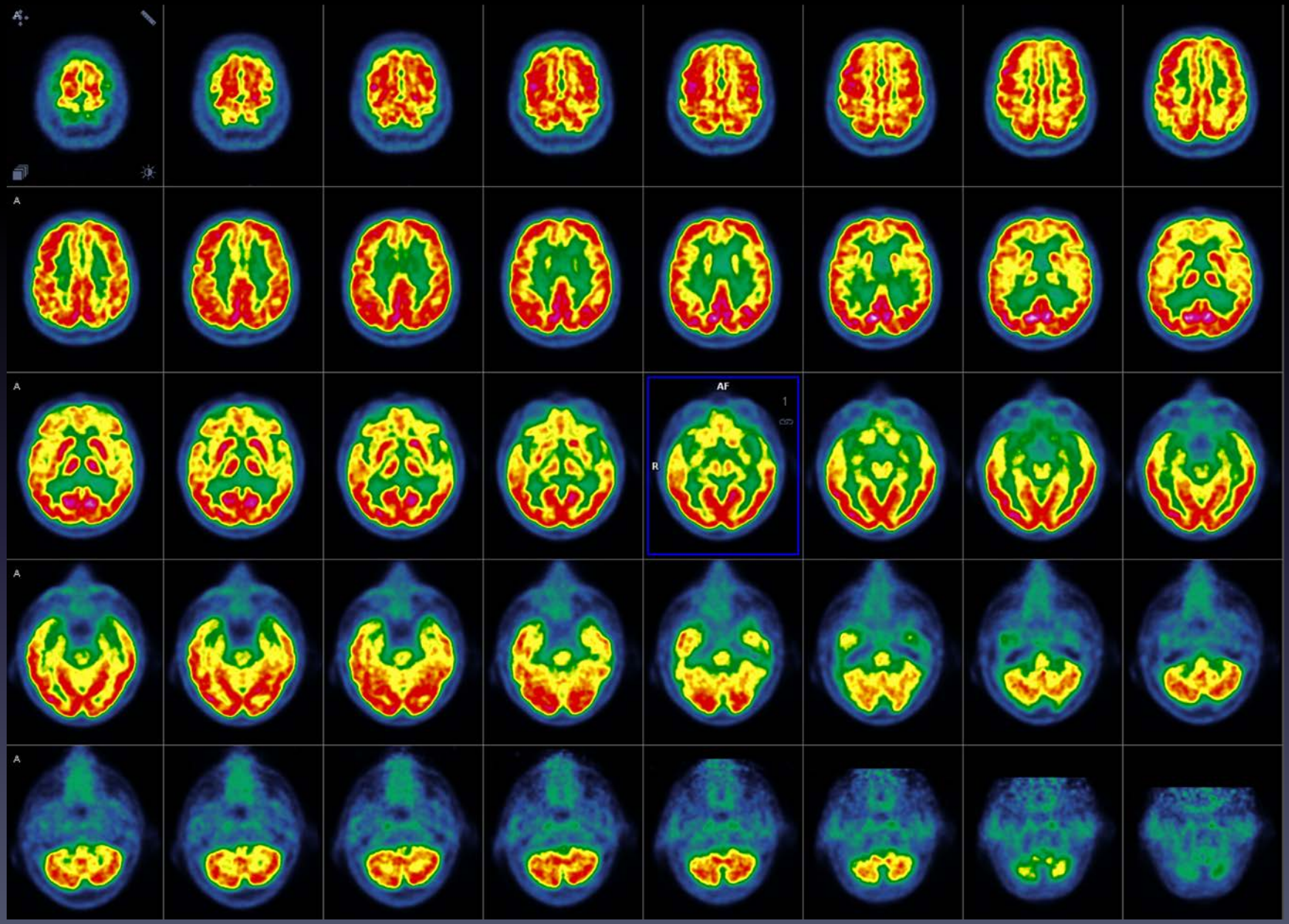
atteinte frontale externe et insulaire

Évolution: vers aspect de « DFT »

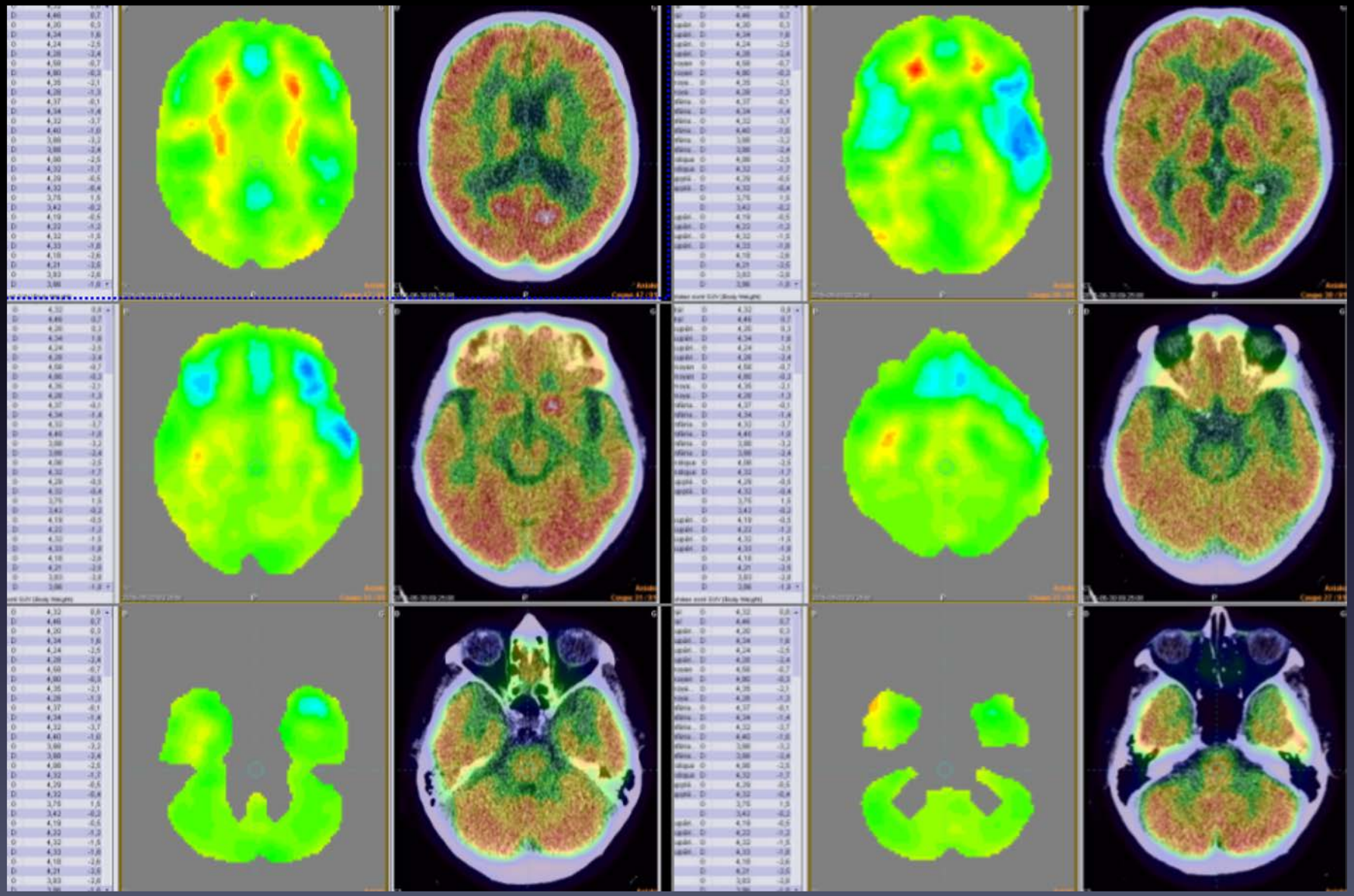




APP non fluente



APP non fluente



Démence Sémantique

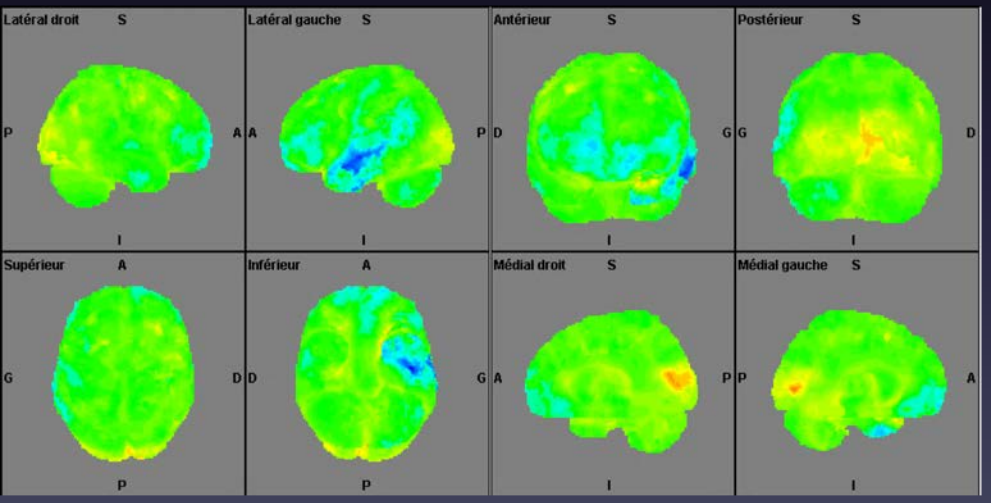
DNF Tau

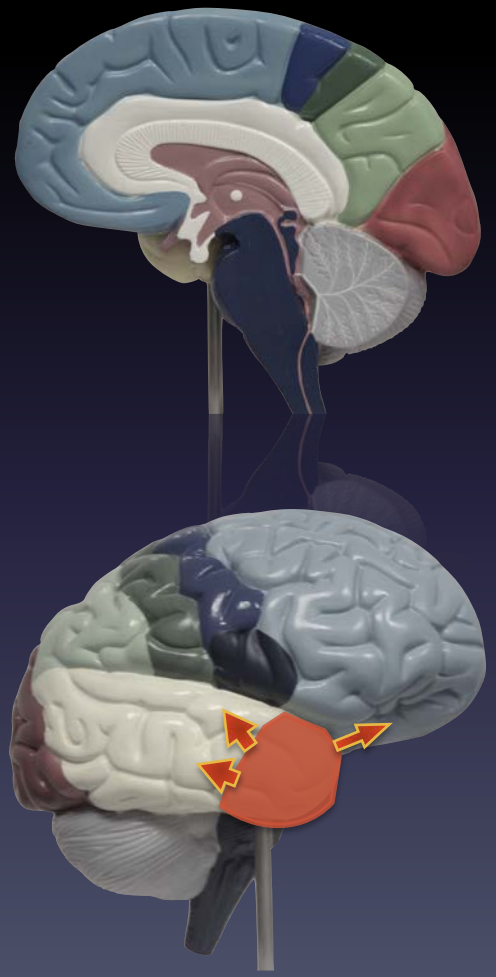
progranulin e

90% TDP-C

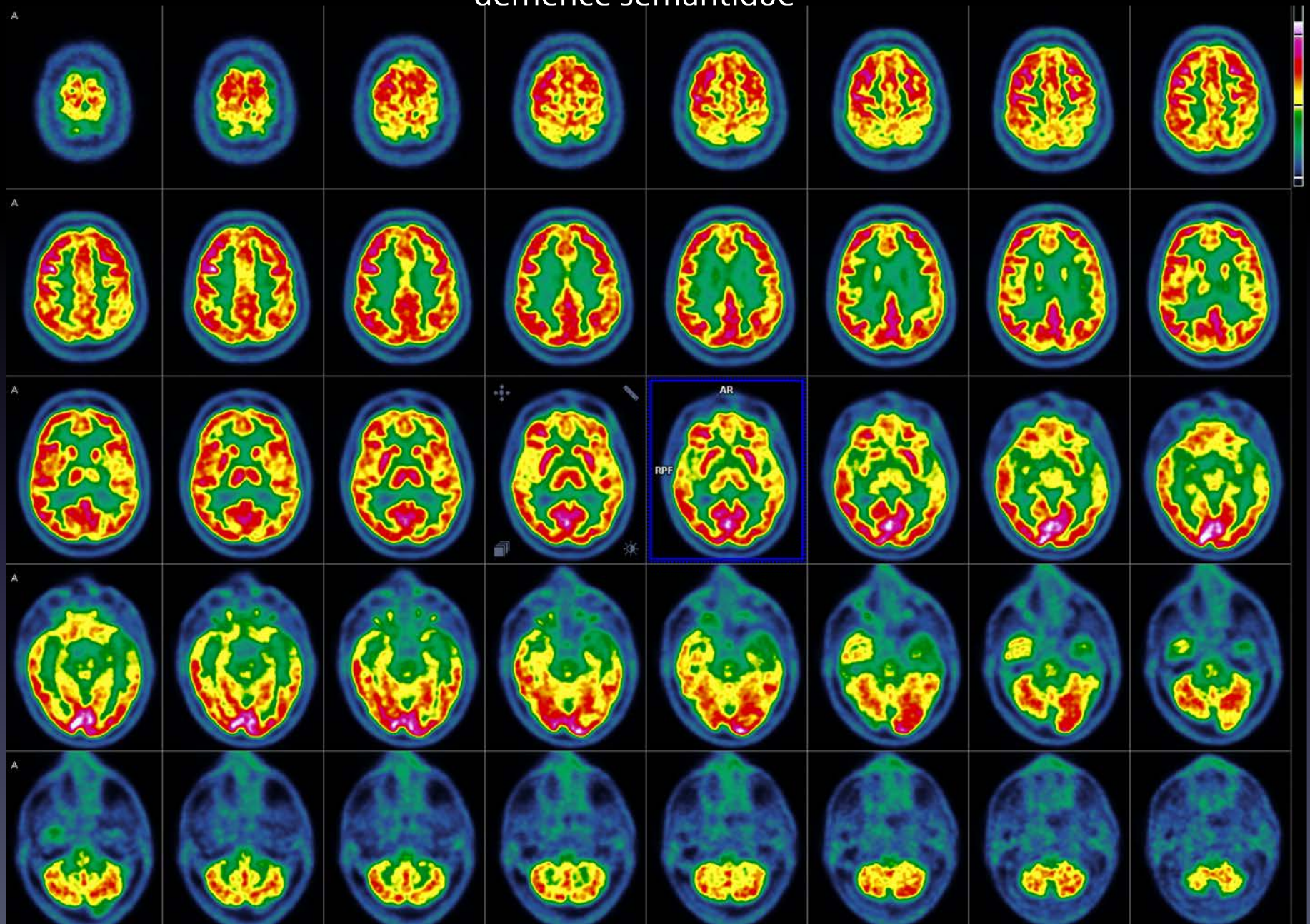
Débutante, très asymétrique:

temporopolaire

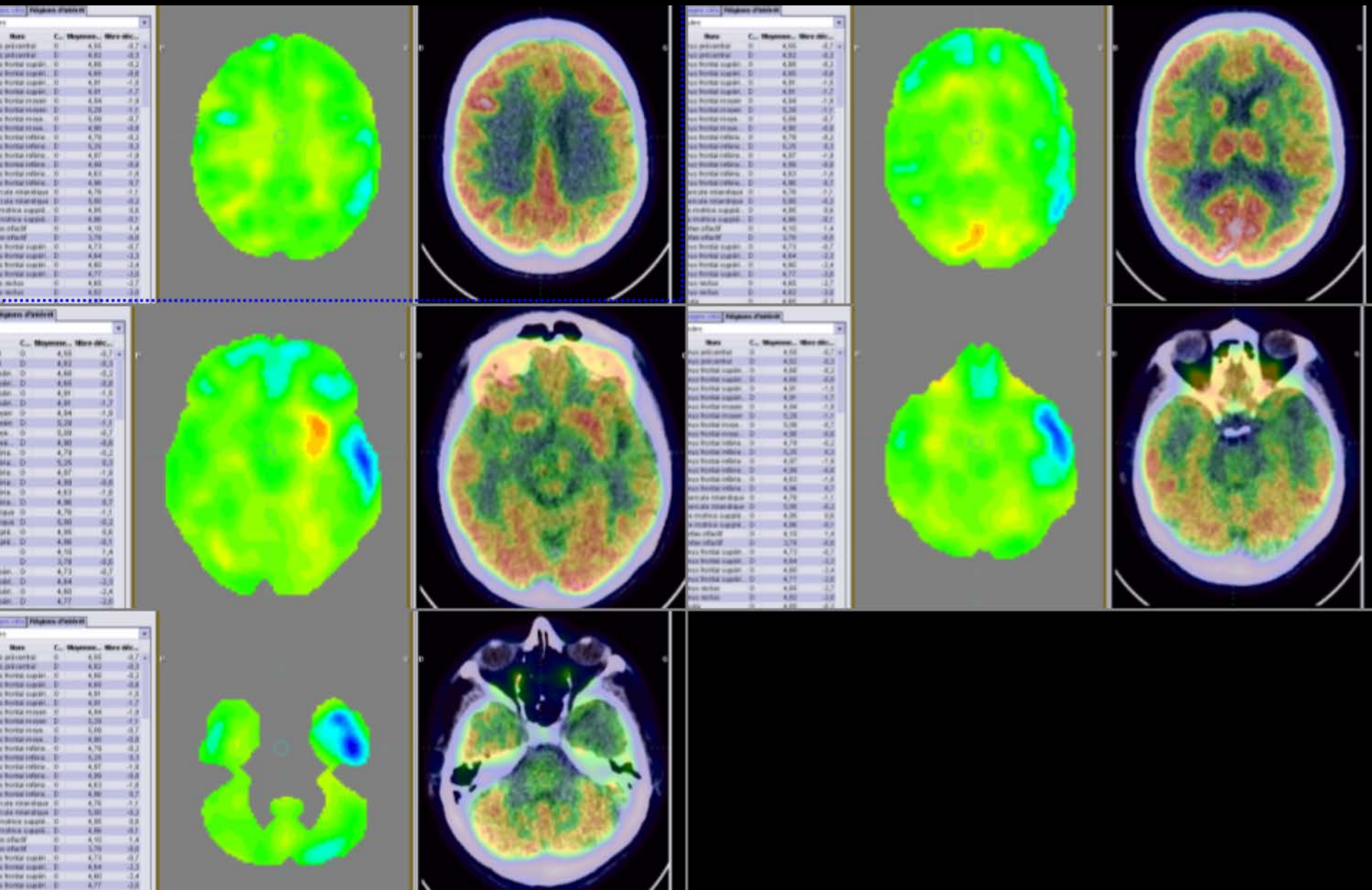




démence sémantique



démence sémantique

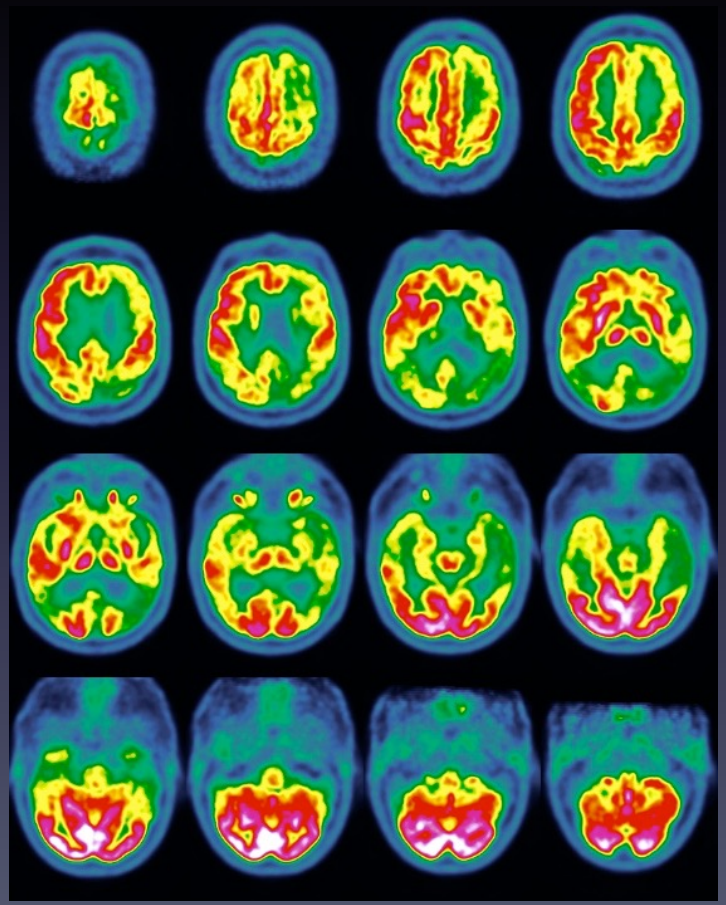


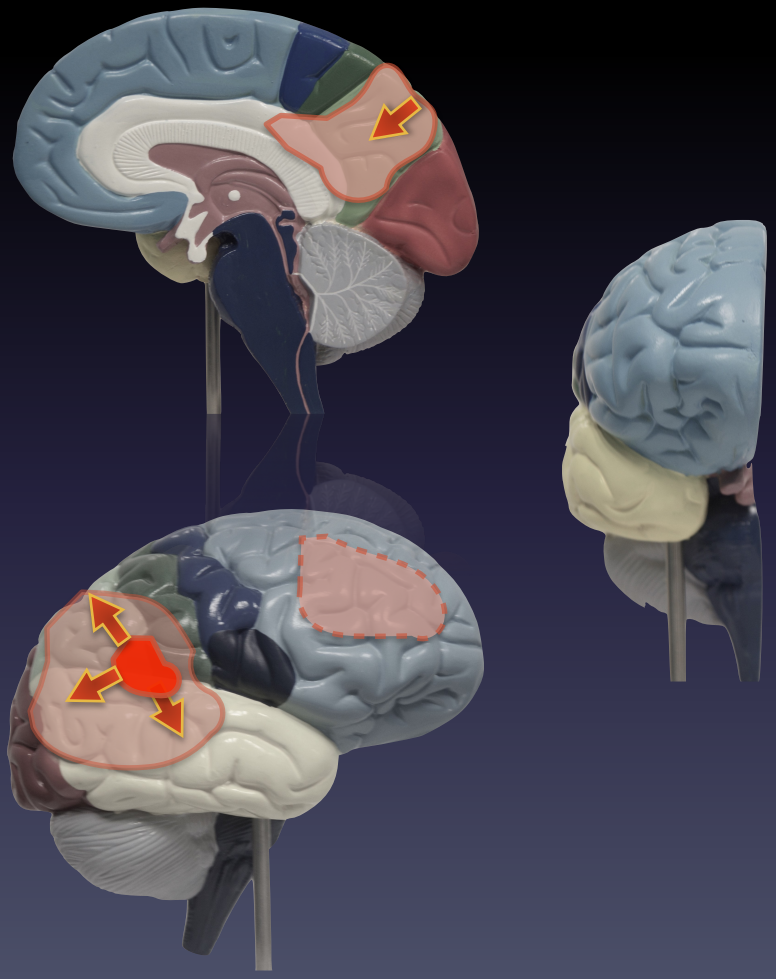
APP Logopénique

DNF Tau

Débutante, asymétrique: aire de wernike,

Évolution: identique Alzheimer,



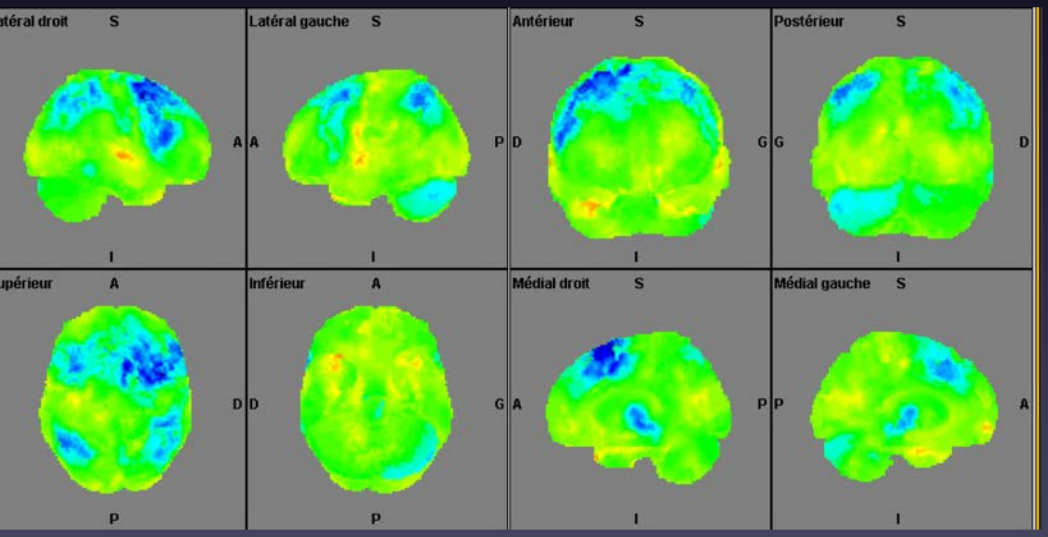


Anarthrie 1: Dégénerescence Corticobasale (CBD)

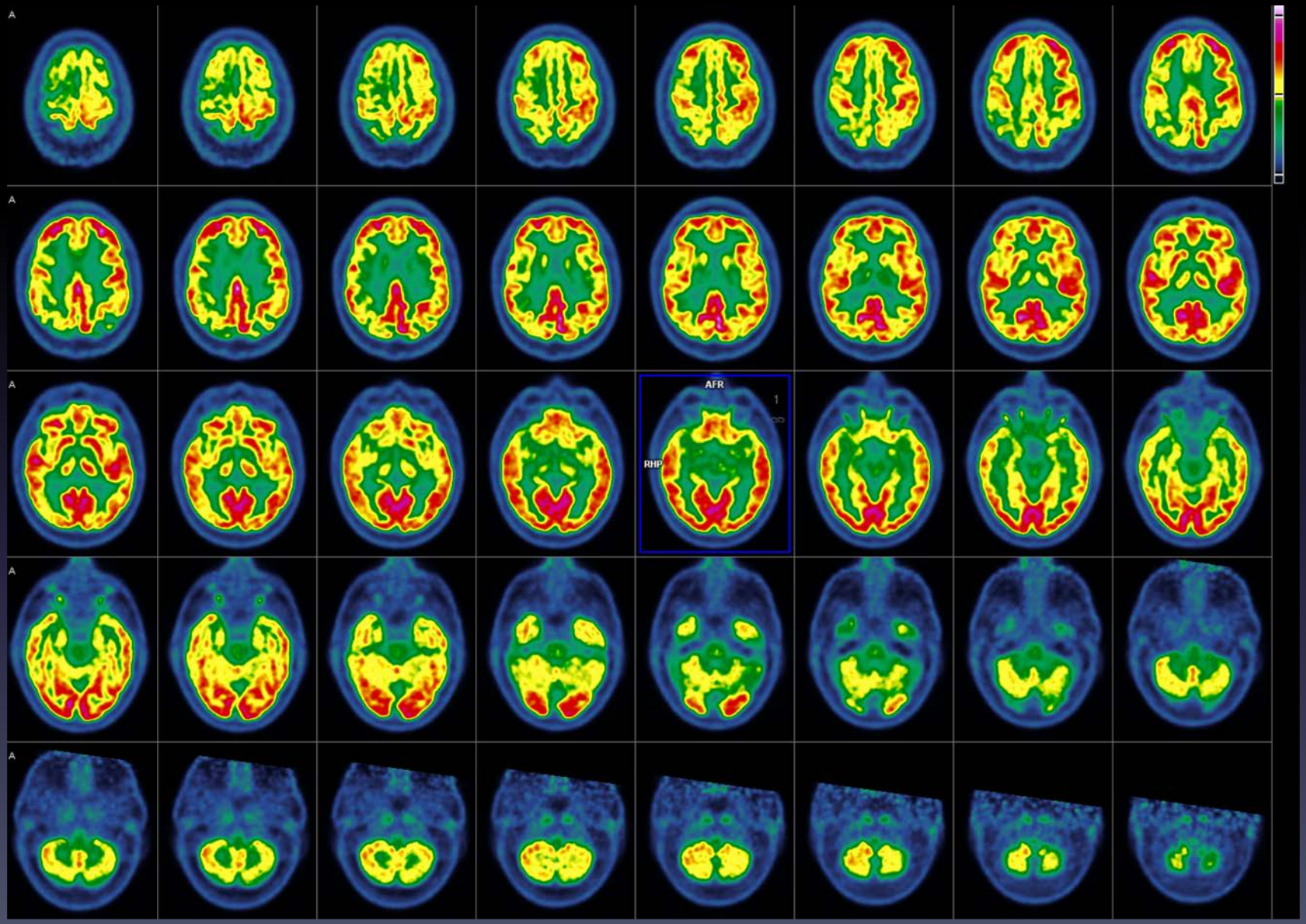
DNF Tau

Débutante, très asymétrique:

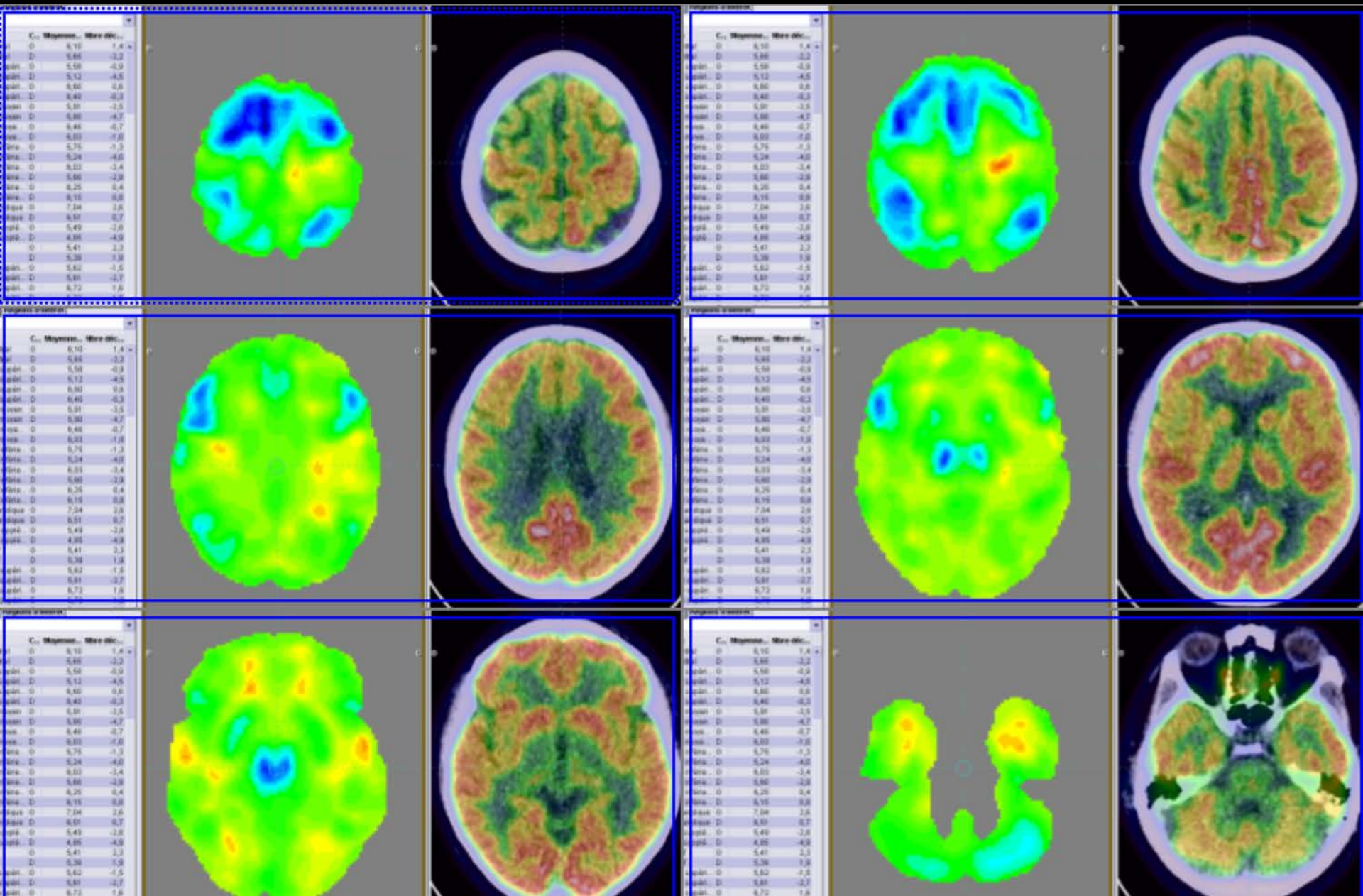
- région centrale, externe
- atteinte parietale asymétrique



DCB



DCB

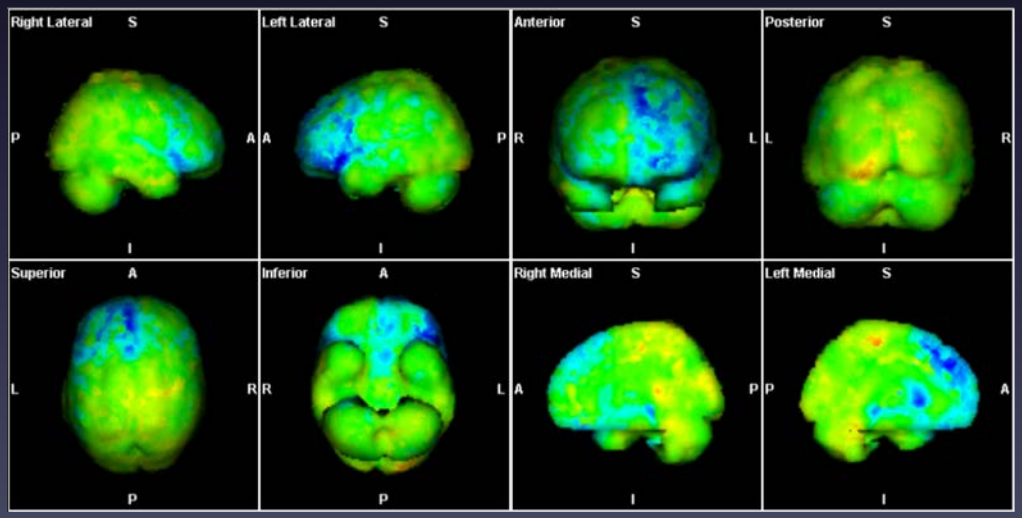


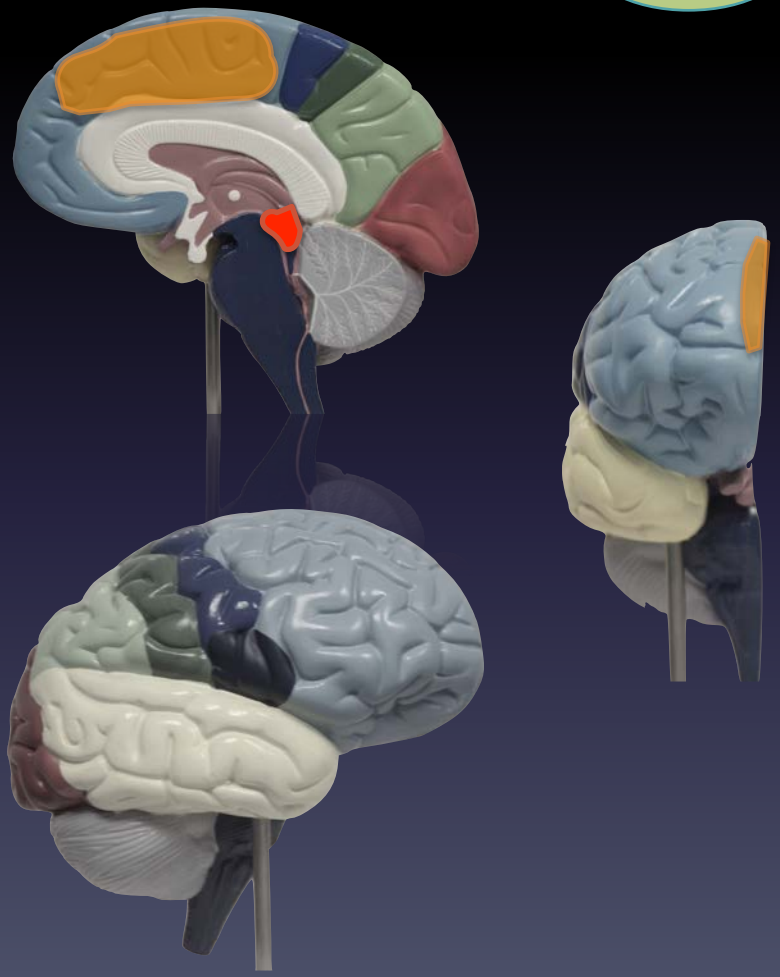
Anarthrie 2: Paralysie supranucléaire progressive (PSP /SNP /SRO)

DNF Tau

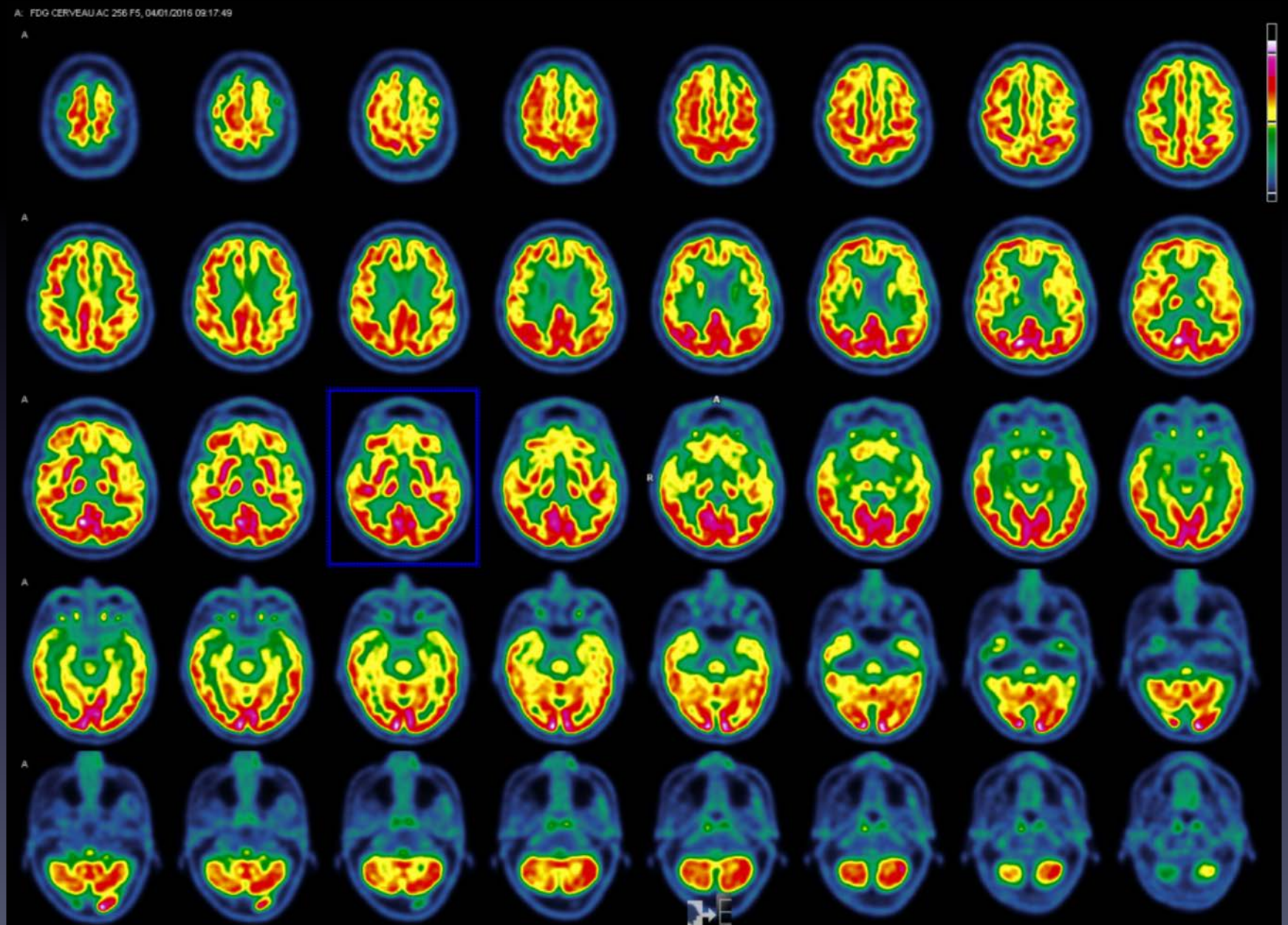
Débutante, plutôt symétrique:

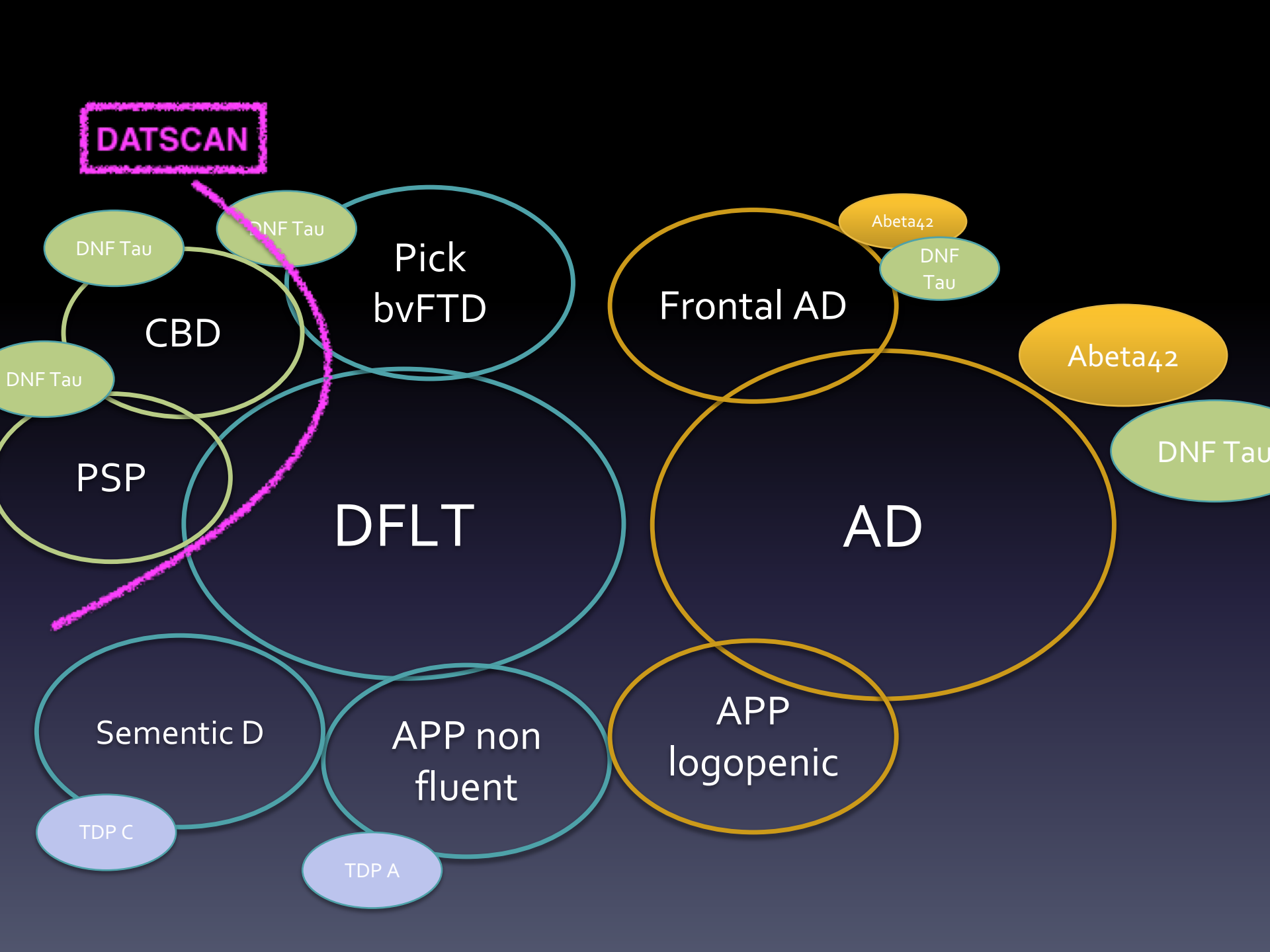
- très discret
- frontal mésial
- respecte orbitofrontal





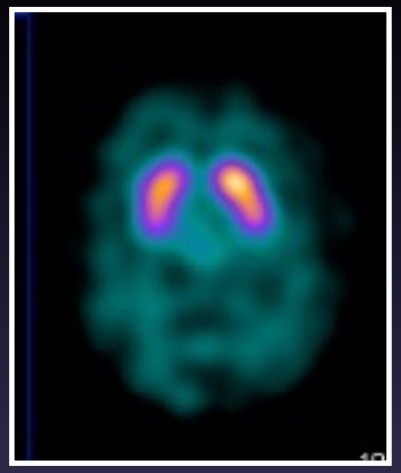
PSP



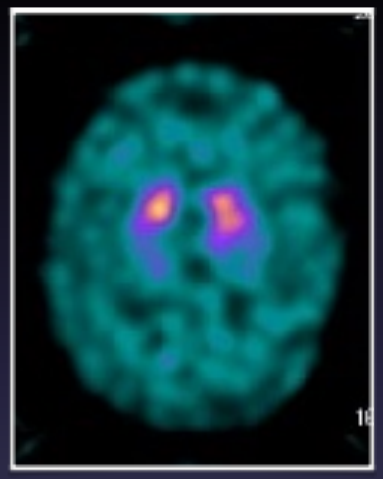

DATSCAN
DNF Tau
DNF Tau
CBD
DNF Tau
PSP
Pick
bvFTD
DFLT
Abeta42
DNF
Tau
Frontal AD
Abeta42
DNF Tau
AD
Sementic D
TDP C
APP non
fluent
TDP A
APP
logopenic

DATSCAN ^{123}I-FP-CIT
TEP ^{18}F-DOPA

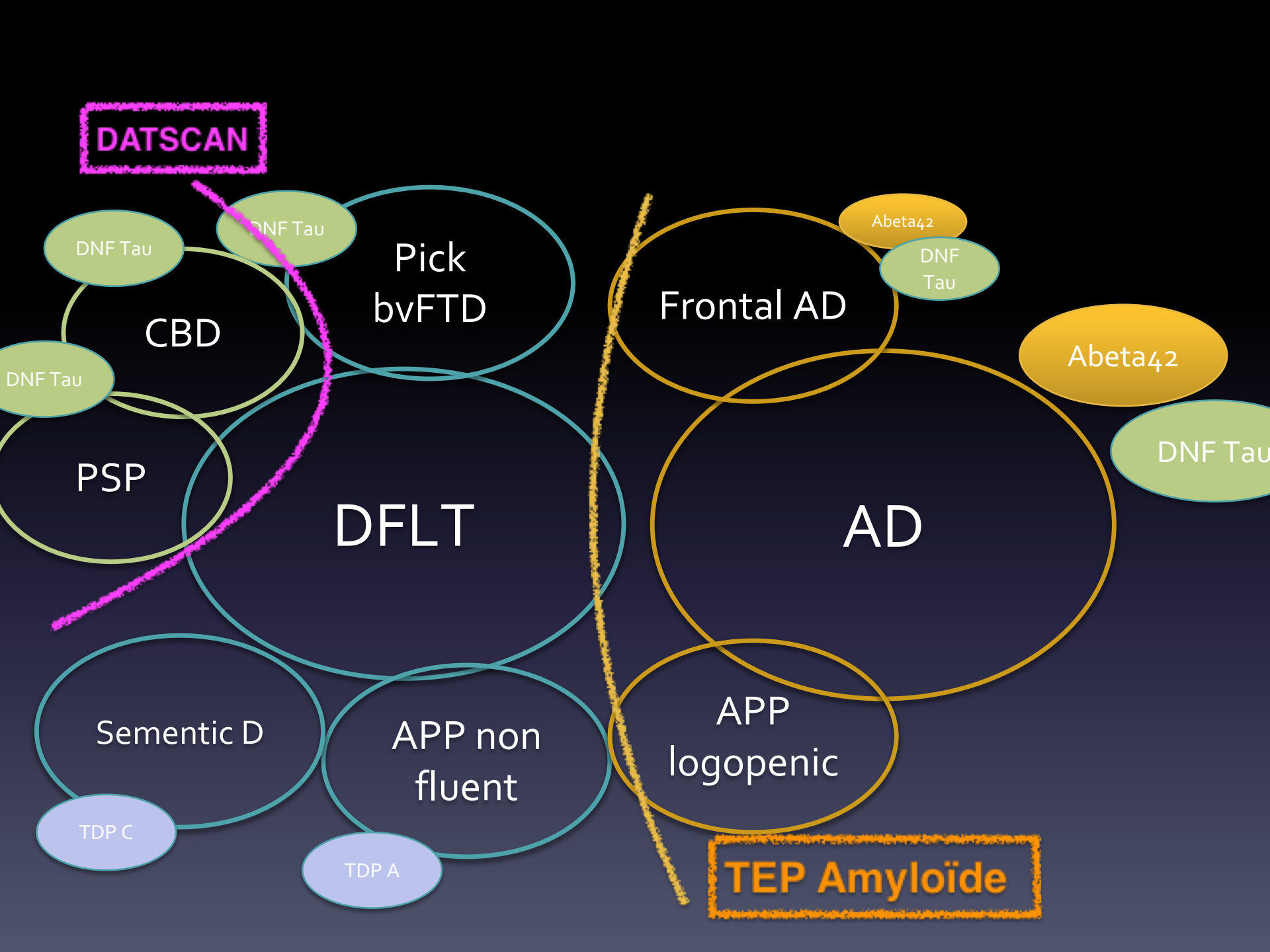
- étude des voies dopaminergiques nigrostriées
- altéré en cas de syndrome extrapyramidal
- PSP et DCB



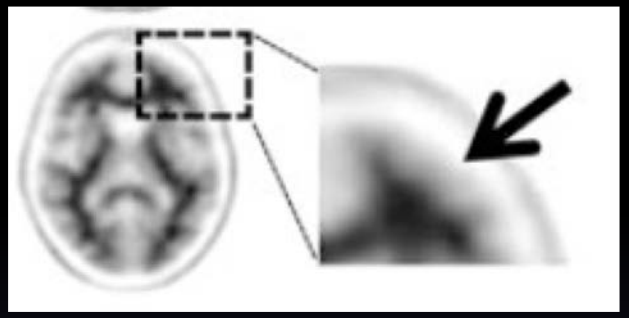
controle



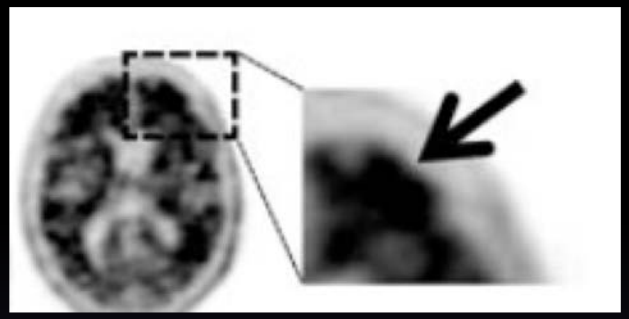
Parkinson +

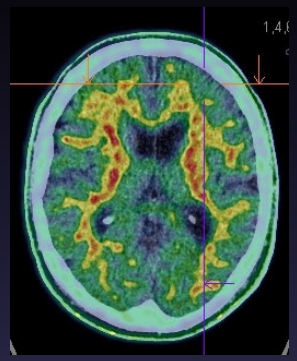

DATSCAN
DNF Tau
DNF Tau
CBD
DNF Tau
PSP
Pick
bvFTD
DFLT
Sementic D
TDP C
APP non
fluent
TDP A
Abeta42
DNF
Tau
Frontal AD
Abeta42
DNF Tau
AD
APP
logopenic
TEP Amyloïde

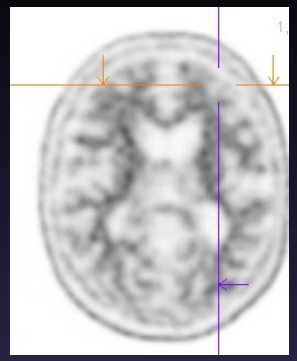
TEP Amyloïde

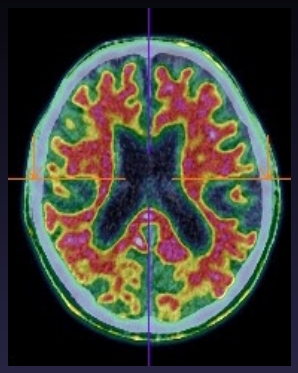


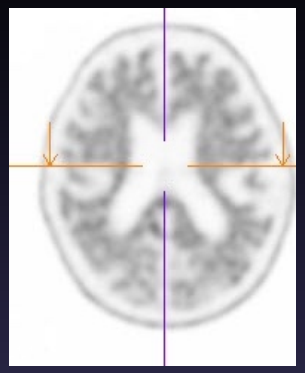
Florbetaben
Florbetapir
Flutemetamol

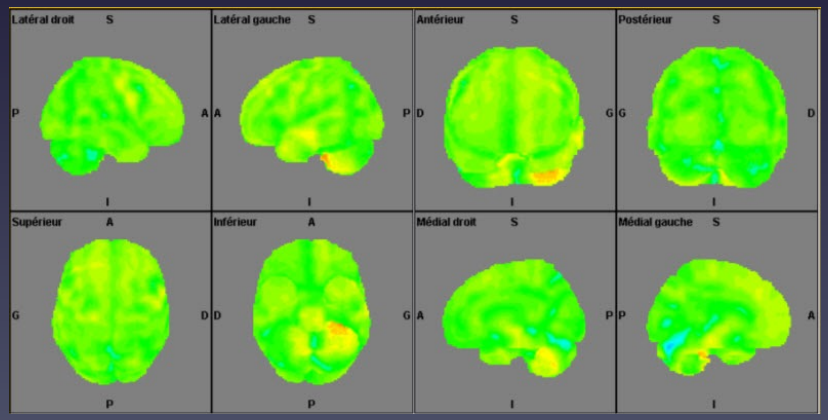


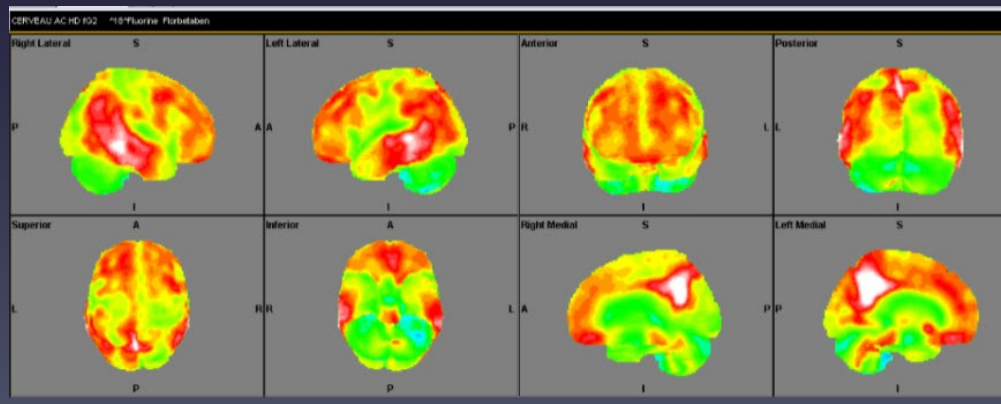






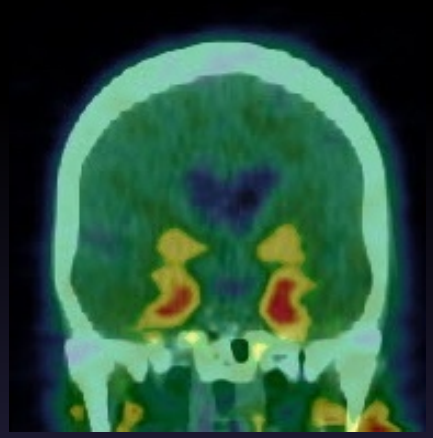


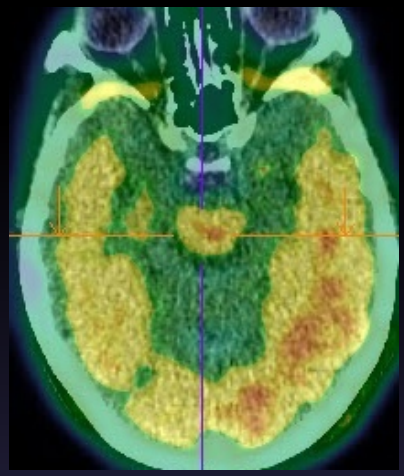




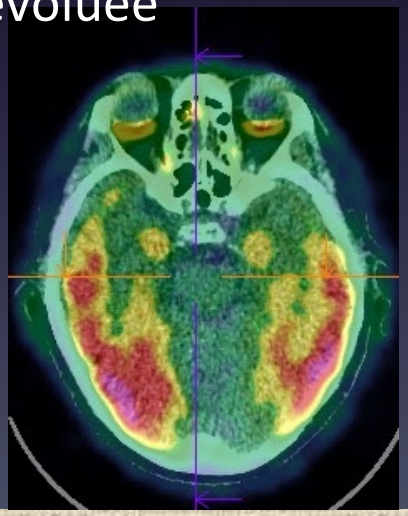
Perspective: Imagerie Tau?

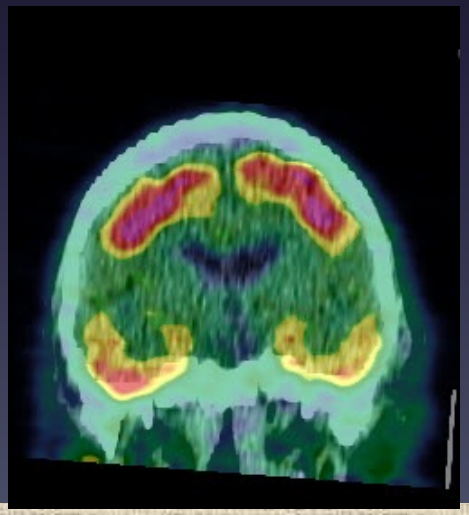
MA
débutante

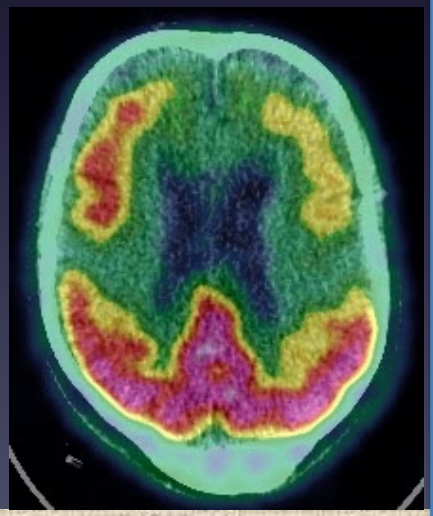


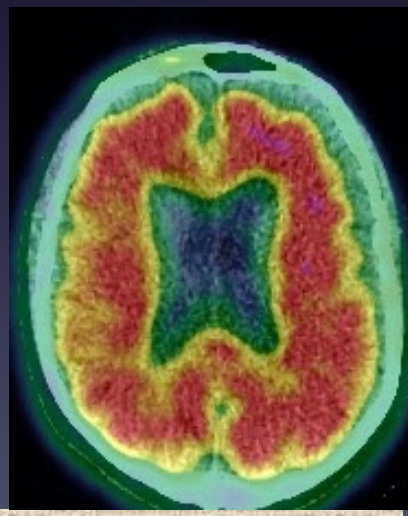


MA évoluée







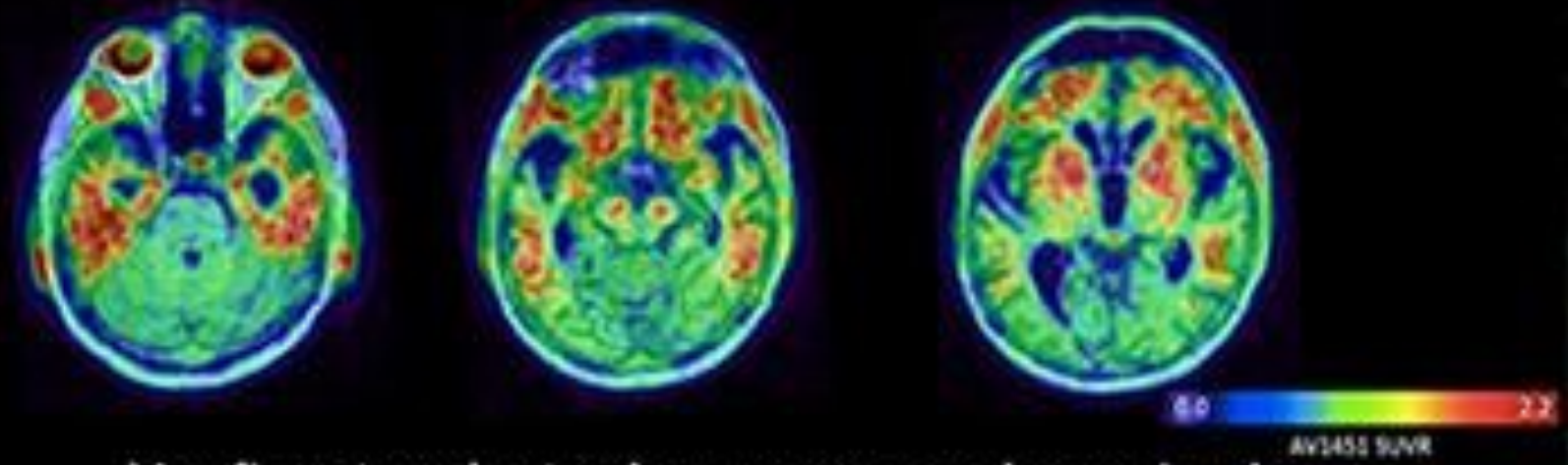


AV1451

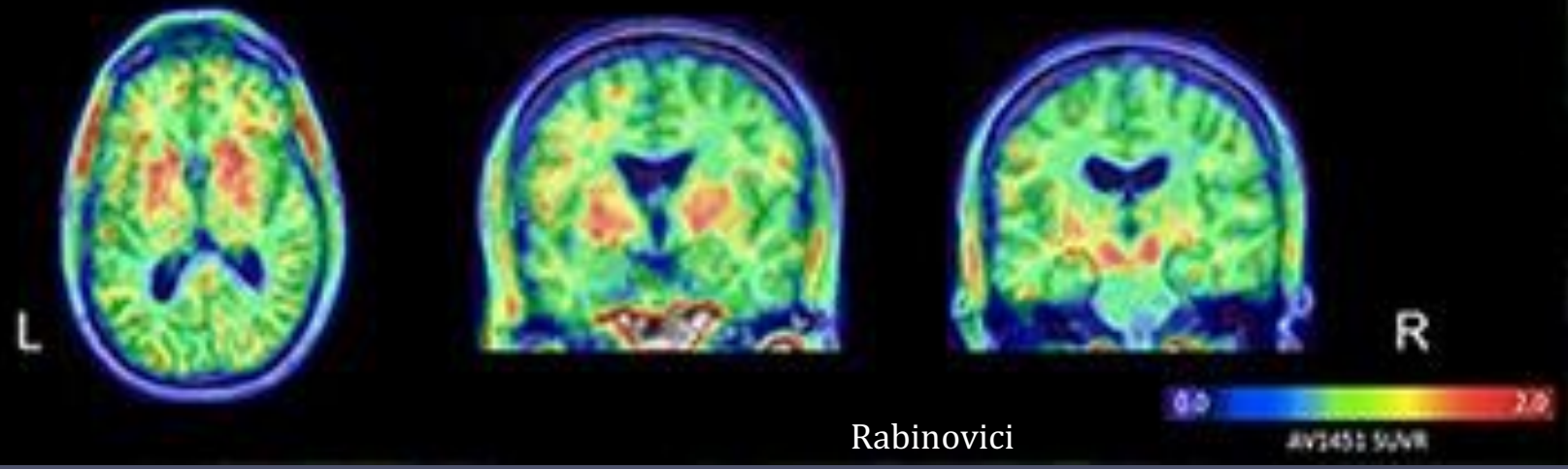
AV45

FTD-Tau

Familial FTD due to *MAPT* mutation



Nonfluent-variant primary progressive aphasia



Rabinovici

Conclusion

- Perfusion DLFT /MA
- FDG permet orientation syndromique plus précise
- penser au Datscan si PSP / DCB