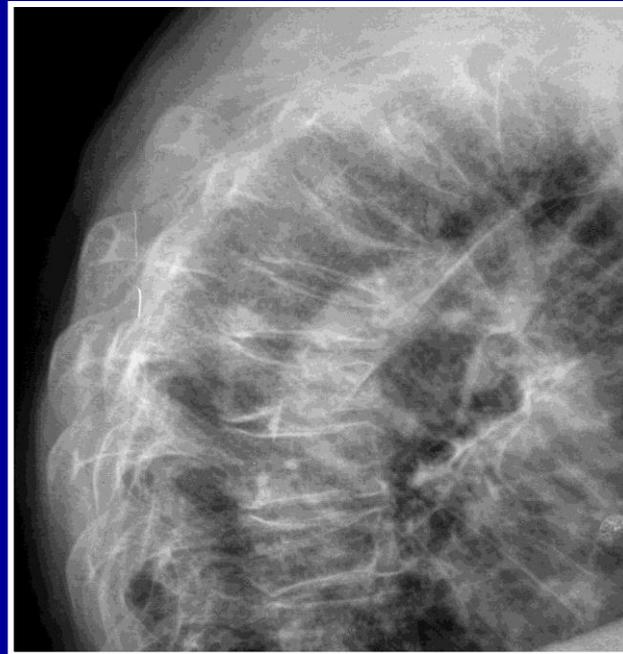


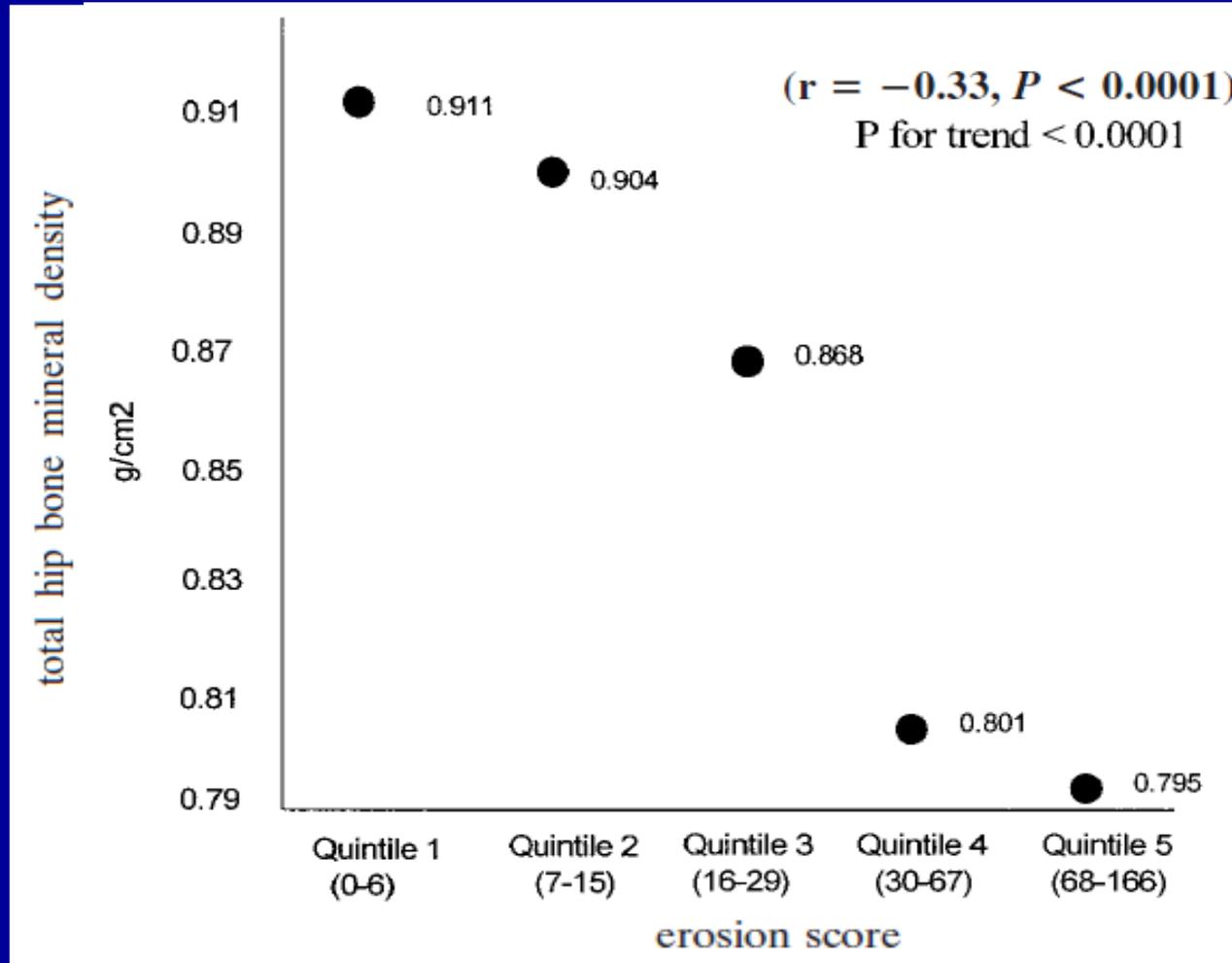
OSTEOPOROSE ET RHUMATISMES INFLAMMATOIRES



Christian ROUX
INSERM U1153

Université Paris Descartes
Fédération de Rhumatologie
Hôpital Cochin - Paris

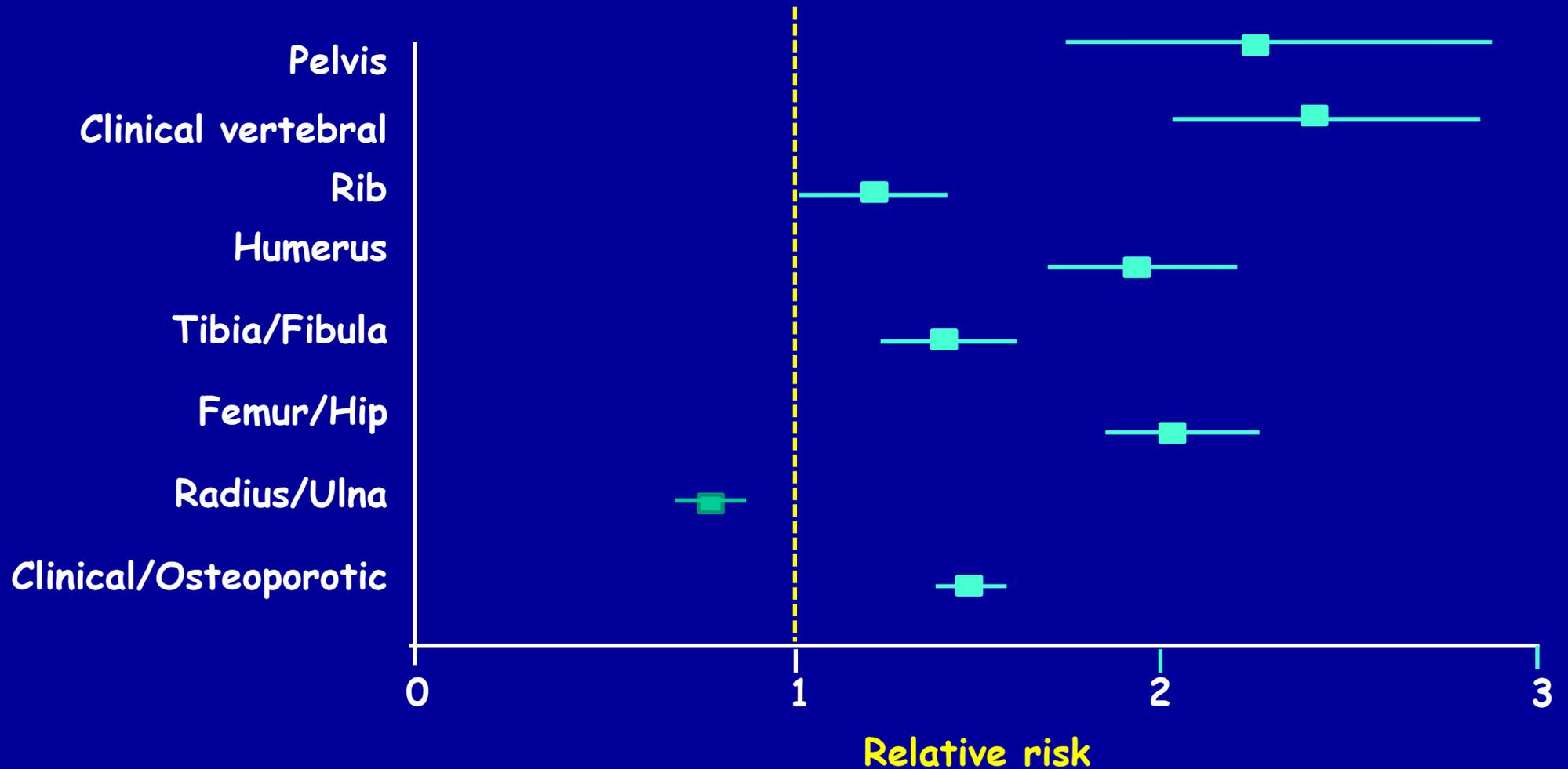
POLYARTHRITE RHUMATOÏDE : Erosions et osteoporose



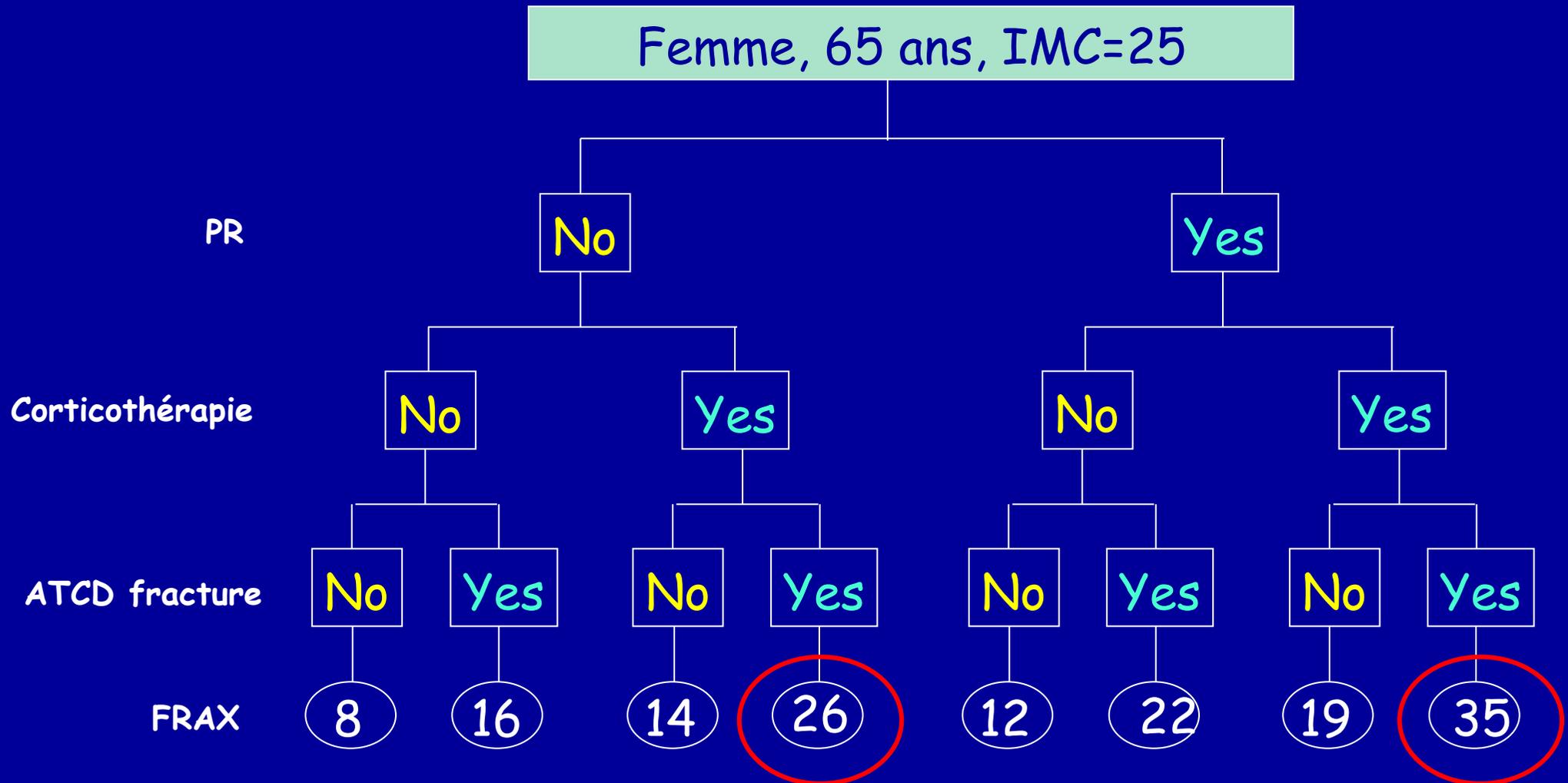
PR : Risque de fracture

30 262 patients

2 460 patients avec fracture incidente



PR: Augmentation du risque de fracture



Calculation Tool

Please answer the questions below to calculate the ten year probability of fracture with BMD.



Country : **France**

Name / ID :

[About the risk factors](#)



Questionnaire:

1. Age (between 40-90 years) or Date of birth

Age:

Date of birth:

Y:

M:

D:

2. Sex

Male

Female

3. Weight (kg)

4. Height (cm)

5. Previous fracture

No

Yes

6. Parent fractured hip

No

Yes

7. Current smoking

No

Yes

8. Glucocorticoids

No

Yes

9. Rheumatoid arthritis

No

Yes

10. Secondary osteoporosis

No

Yes

11. Alcohol 3 more units per day

No

Yes

12. Femoral neck BMD

T-score



Weight Conversion:

pound:

Height Conversion:

inch:

PR : Déterminants du risque de fracture

- Principaux

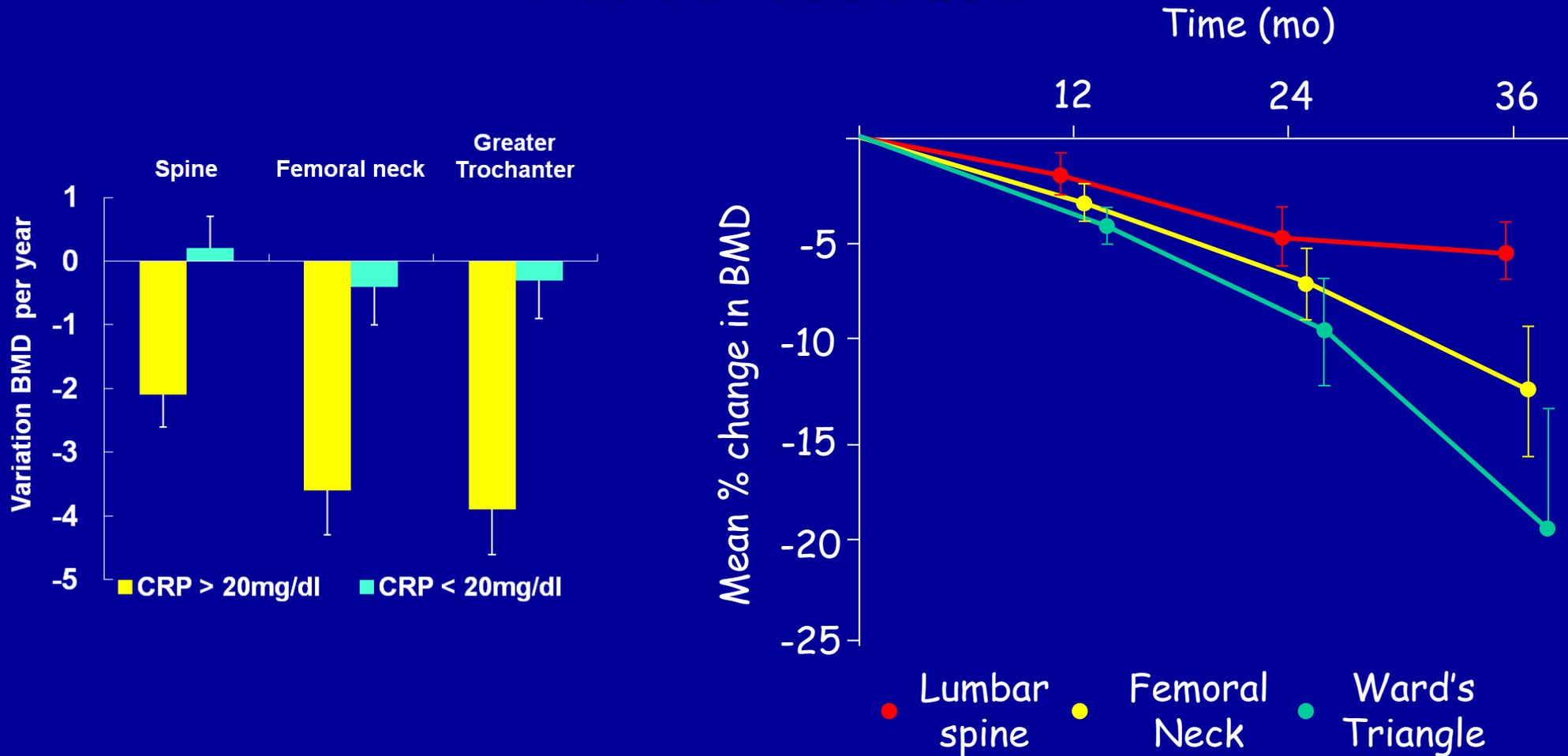
- > 10 ans d'évolution: 3.4 (3.0-3.9)
- faible IMC: 3.9 (3.1-4.9)
- Corticothérapie : 3.4 (3.0-4.0)

- Après exclusion CS

- Fracture : 1.3 (1.2-1.4)
- Fracture ESF : 1.7 (1.5-2.0)

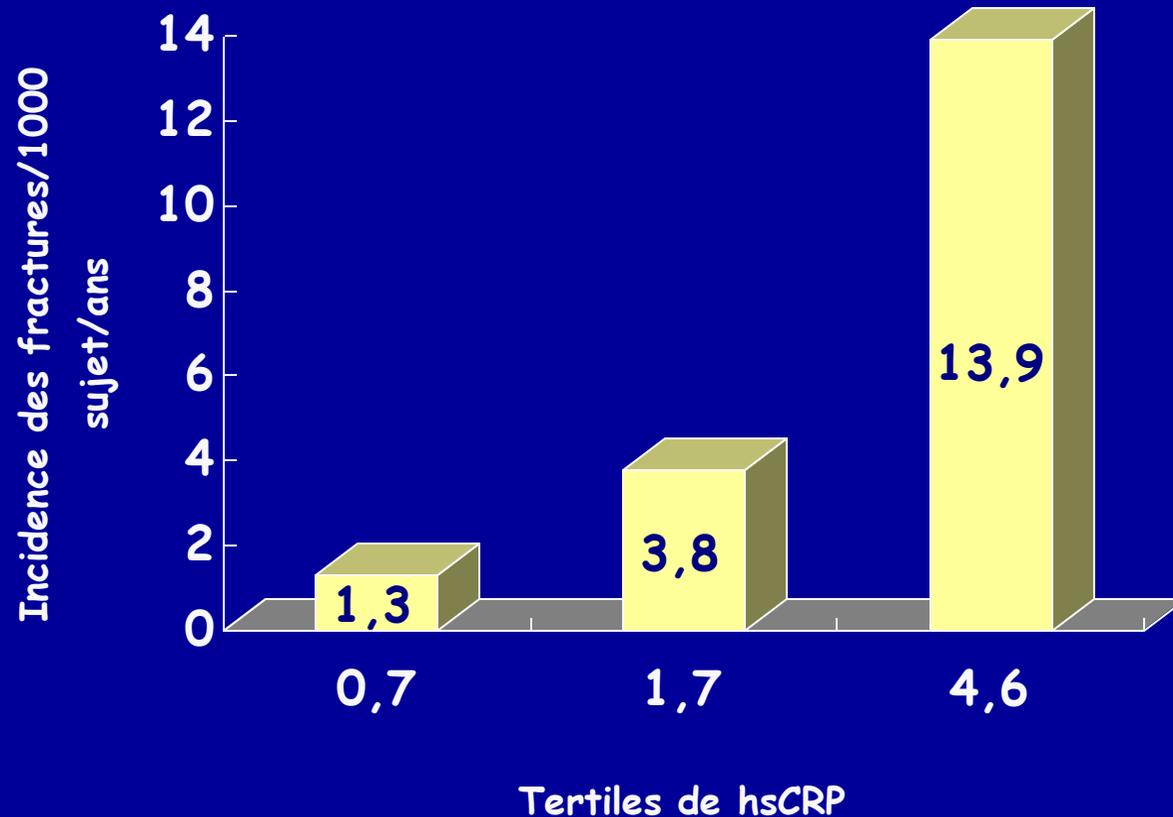
PR RECENTES :

Perte osseuse

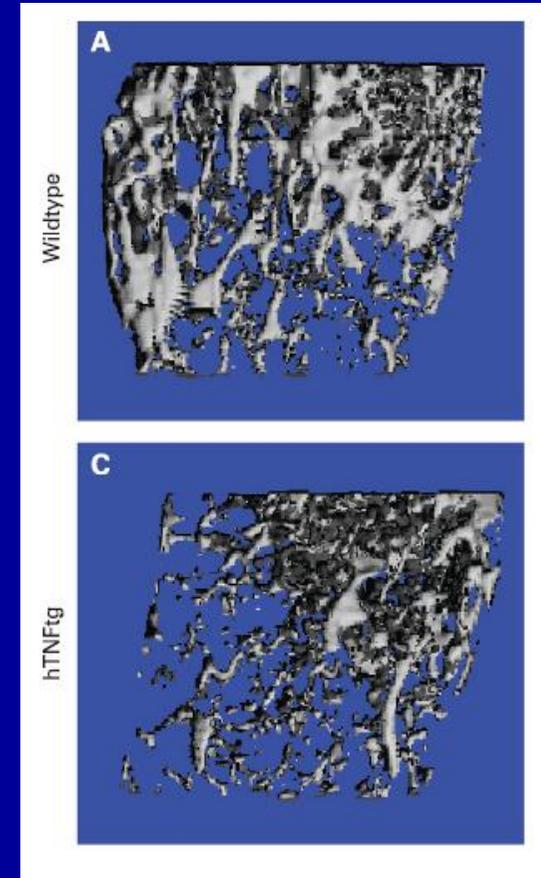
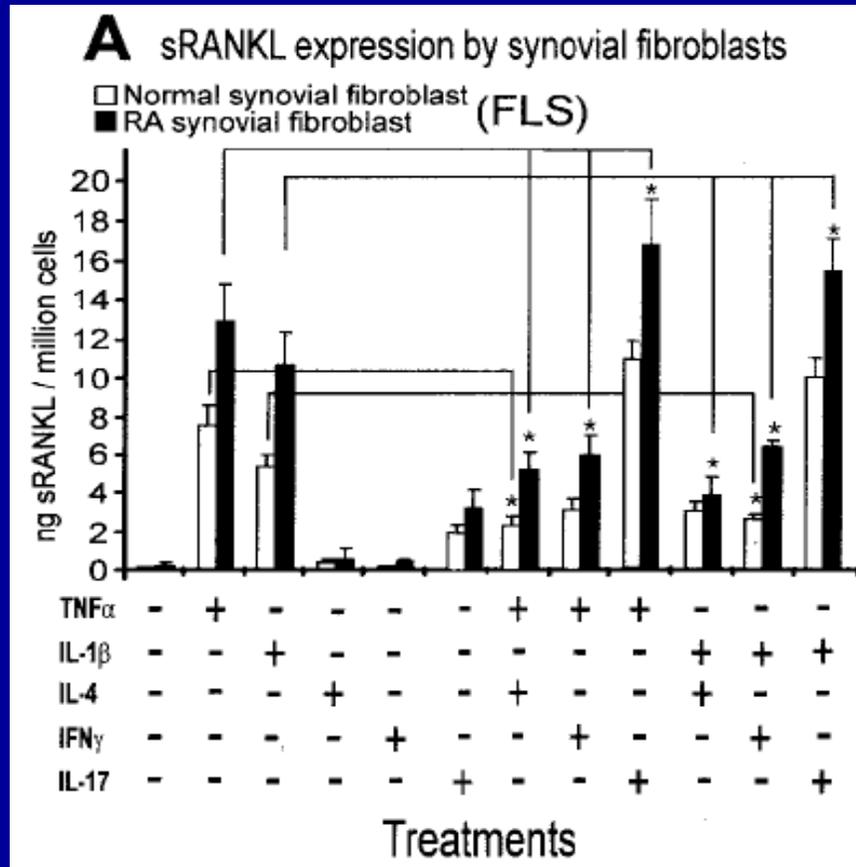


INFLAMMATION :

Une cause majeure d'ostéoporose



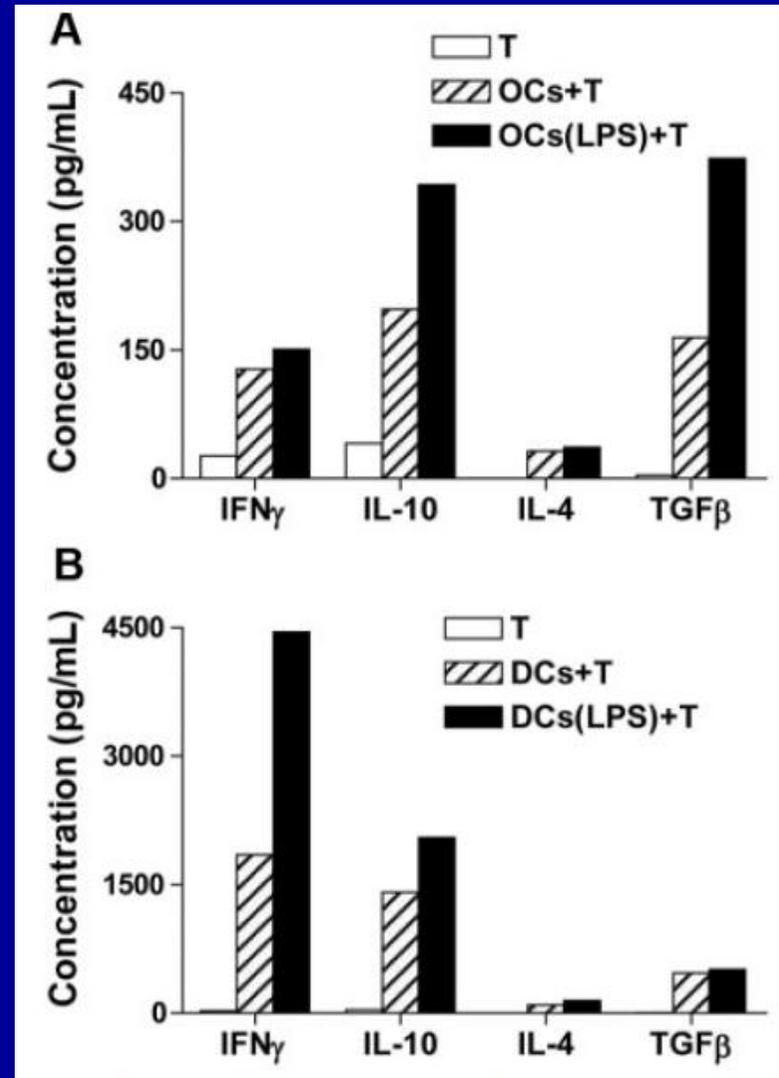
CYTOKINES ET PERTE OSSEUSE



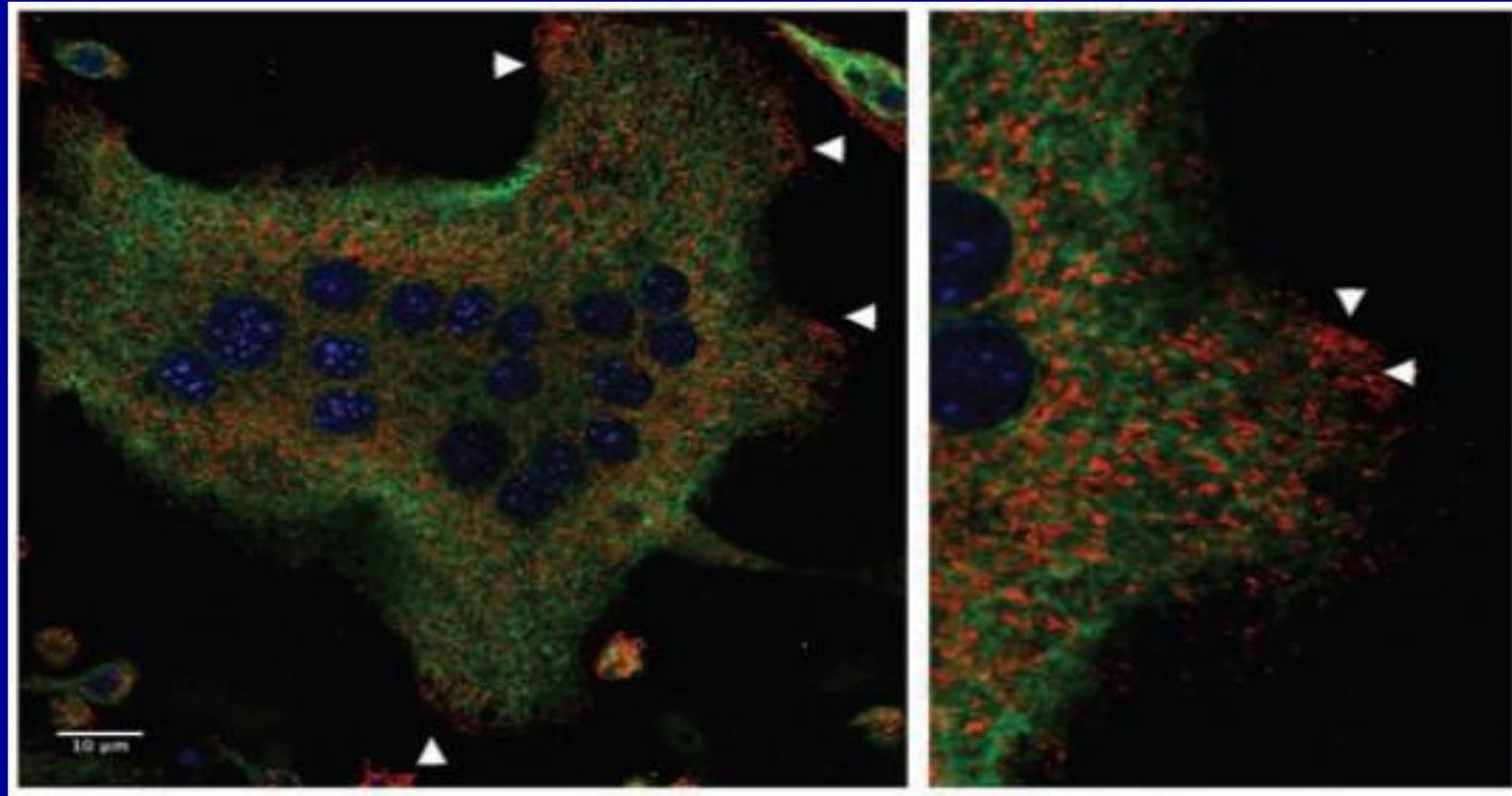
Tunyogi-Csapo M et al. Arthritis Rheum. 2008;58:2397-408.

Polzer K et al. Ann Rheum Dis. 2010;69:284-90.

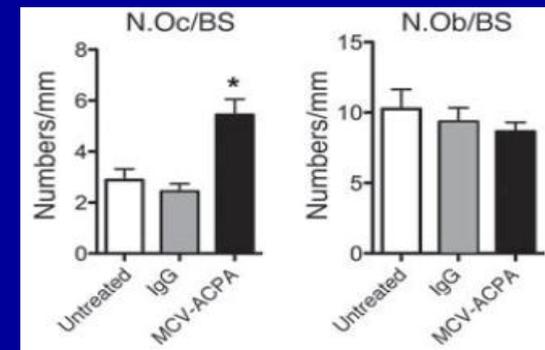
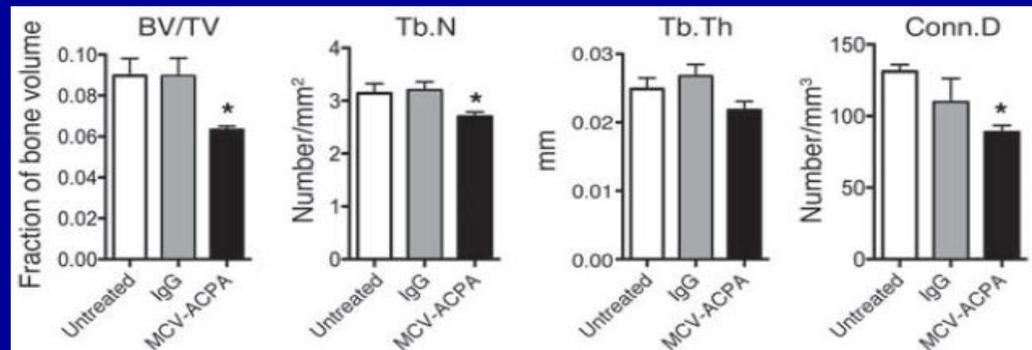
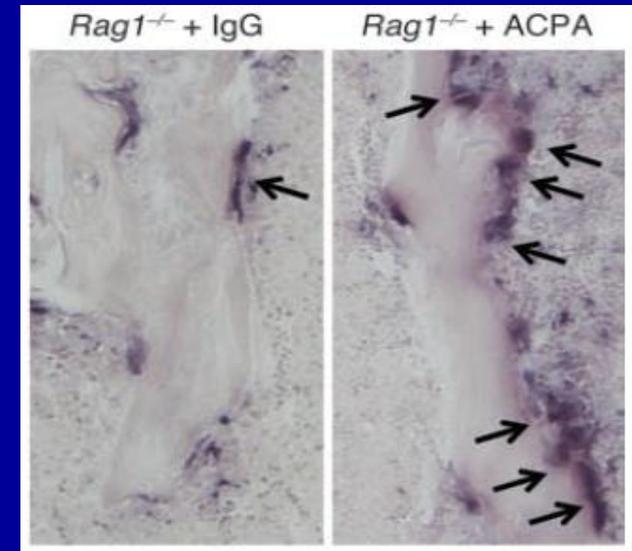
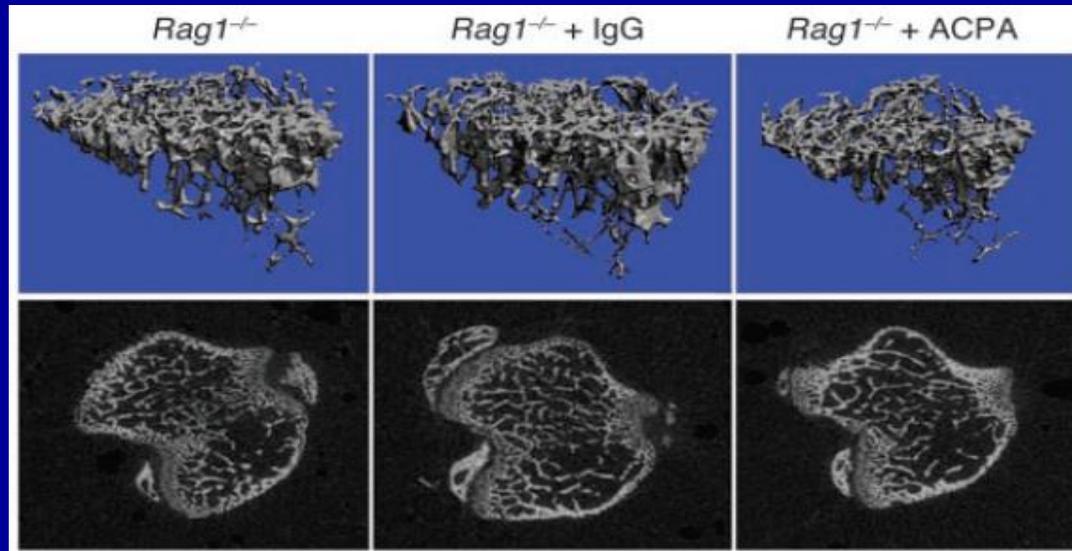
OSTEOCLASTES : acteurs de l'immunité



VIMENTINE CITRULLINEE A LA SURFACE DES PRECURSEURS OSTEOCLASTIQUES

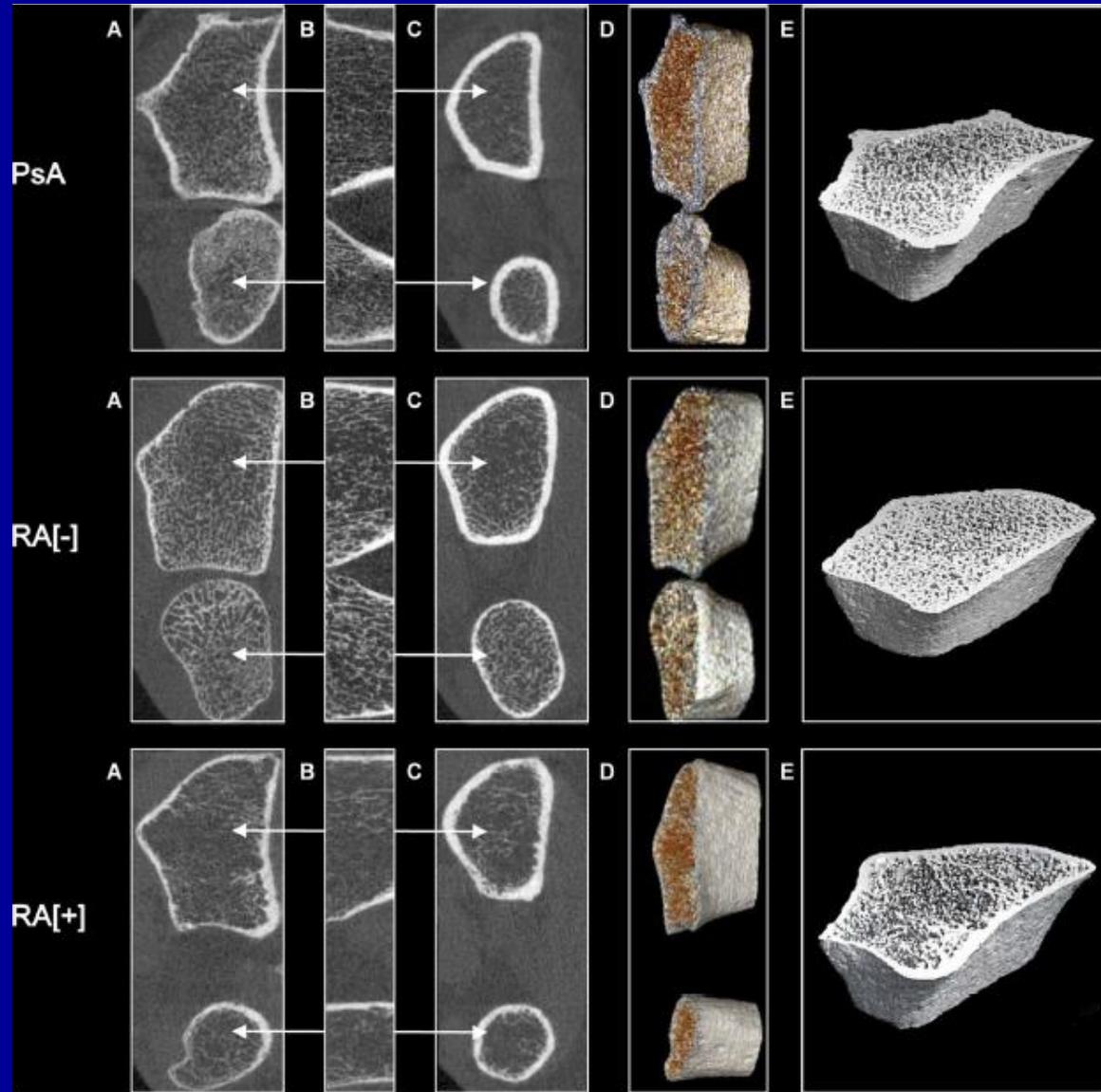


ACPAs ET OSTEOPOROSE

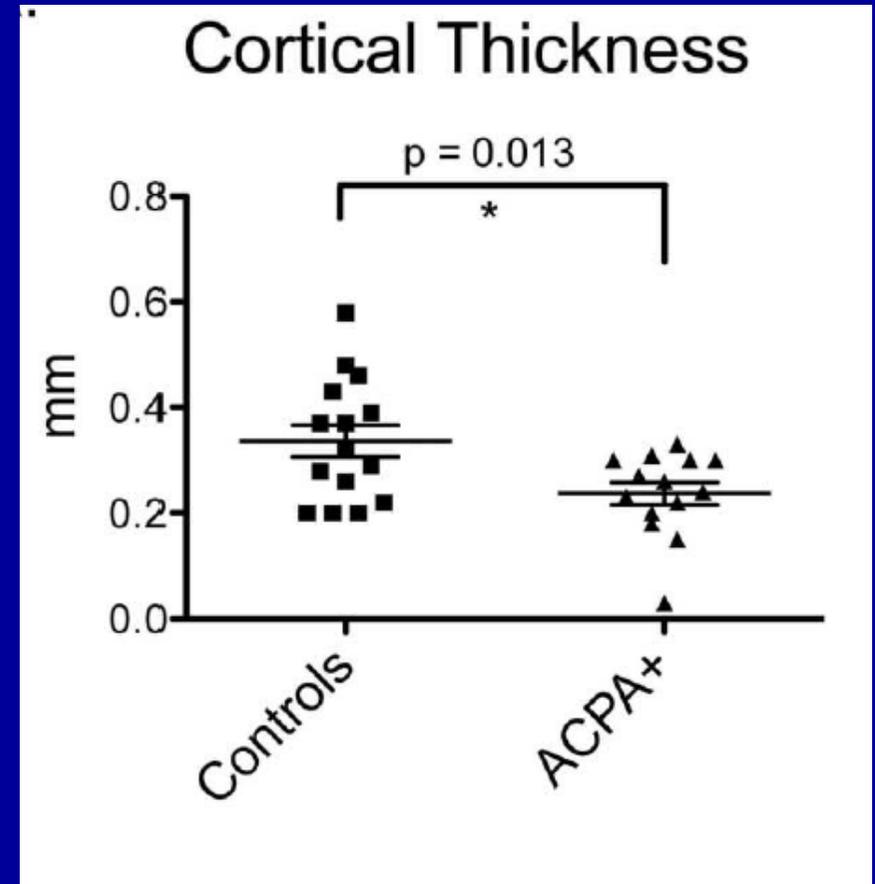
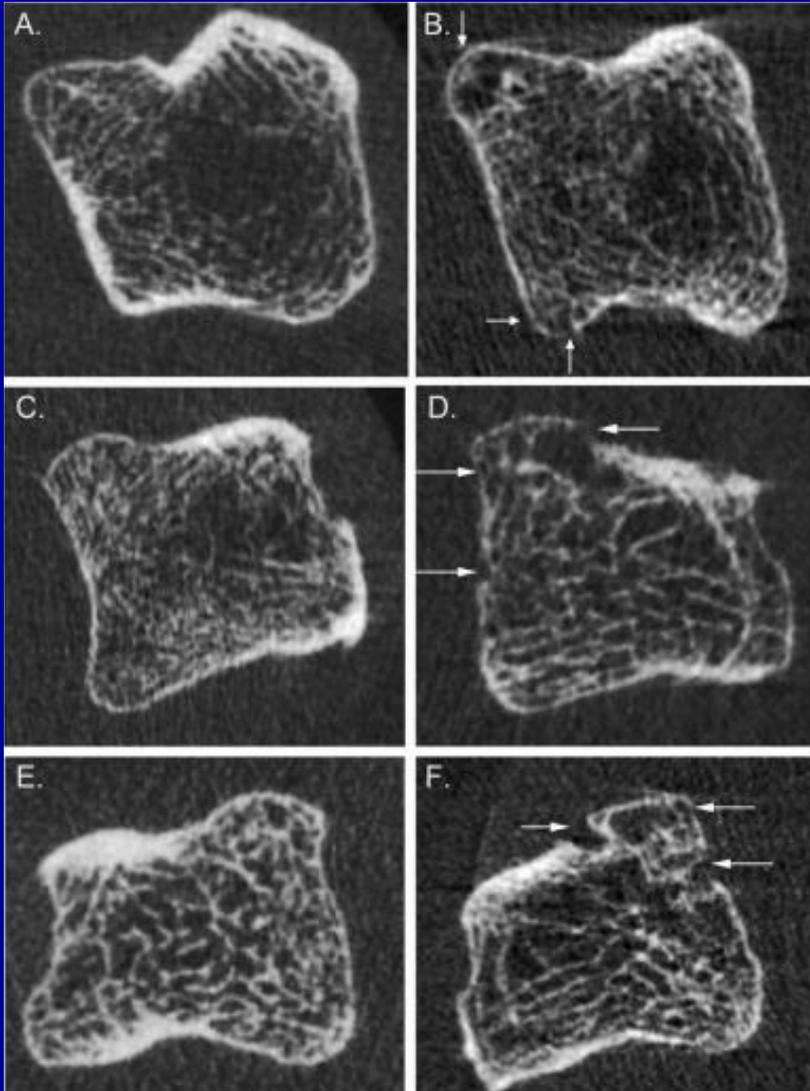


*P<0.05

COMPLICATIONS OSSEUSES DES ACPAs



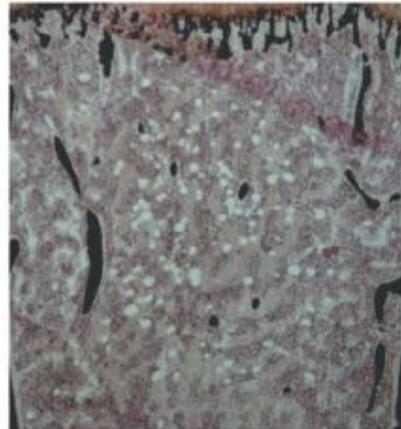
COMPLICATIONS OSSEUSES DES ACPAs



TNF ET SCLEROSTINE



Wild-type



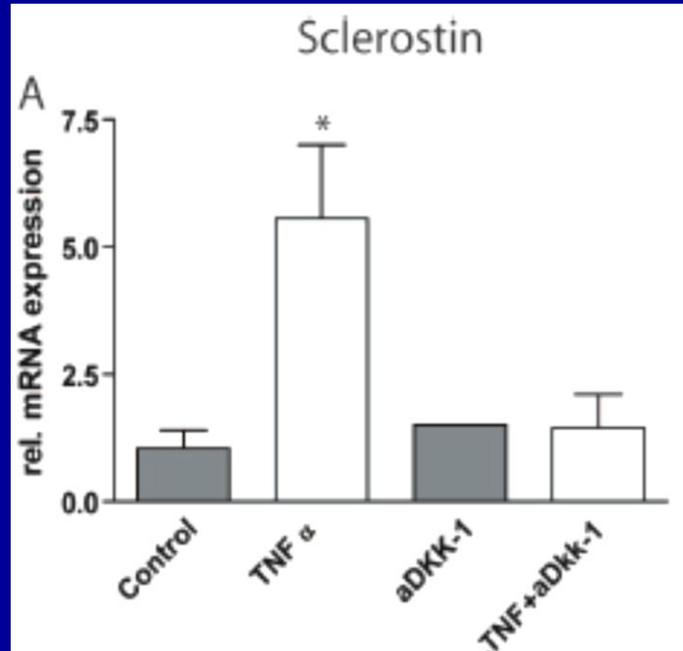
hTNFtg



aDkk-1 (30 mg/kg)

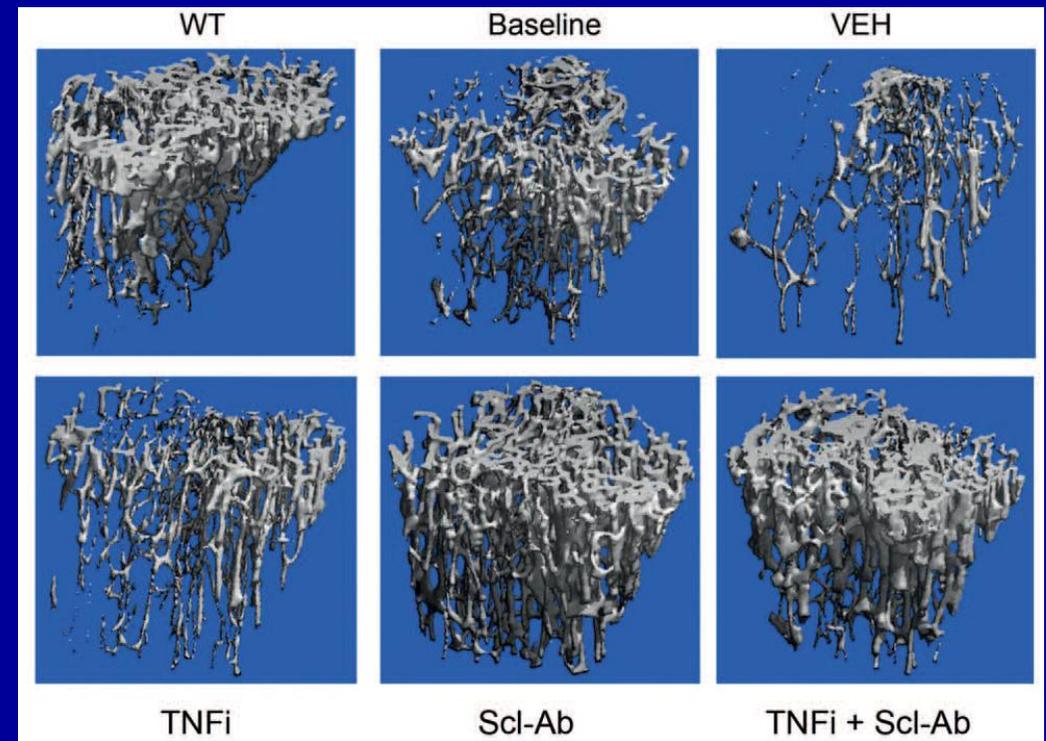
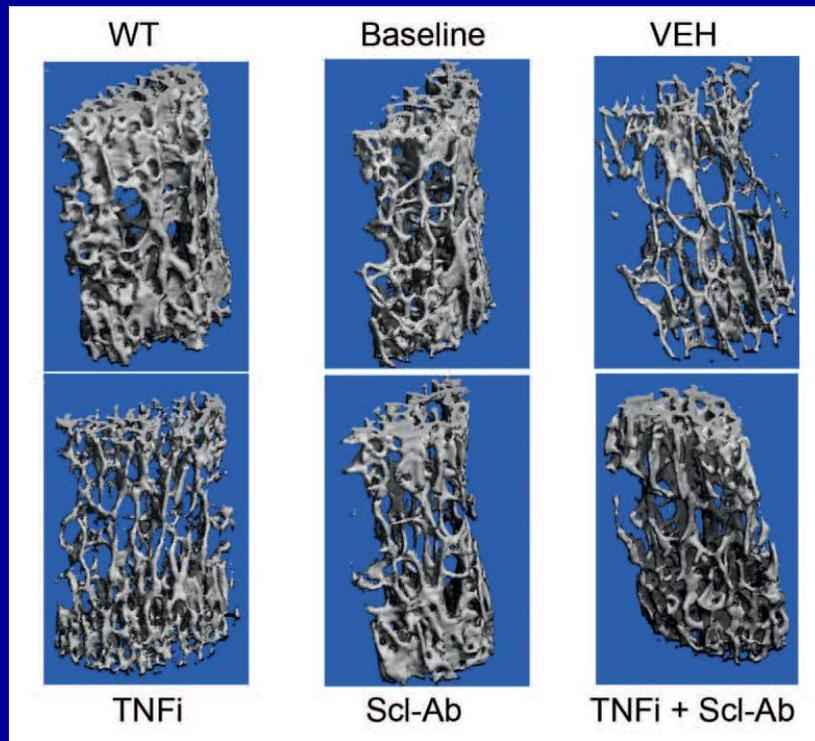


aTNF+aDkk-1 (30mg/kg)

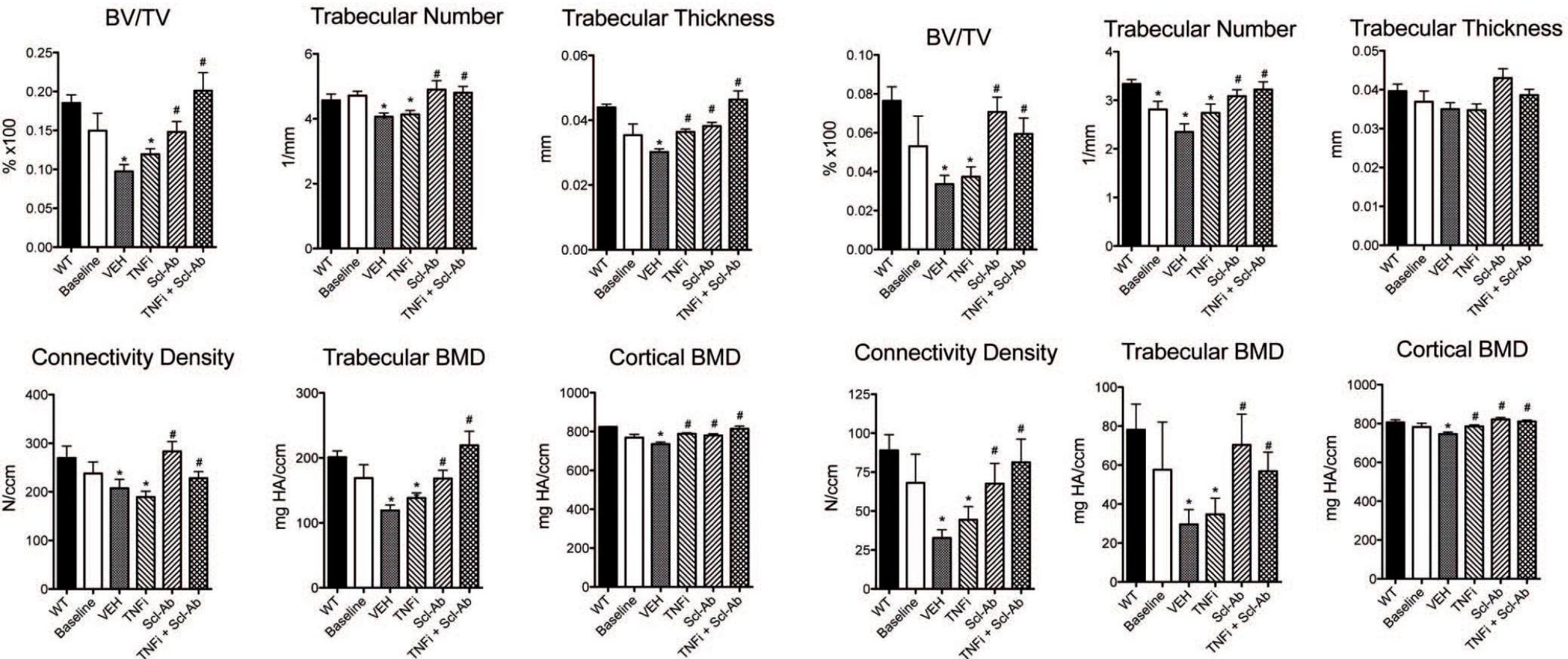


Heiland GR et al. *Ann Rheum Dis.* 2010;69:2152-9.

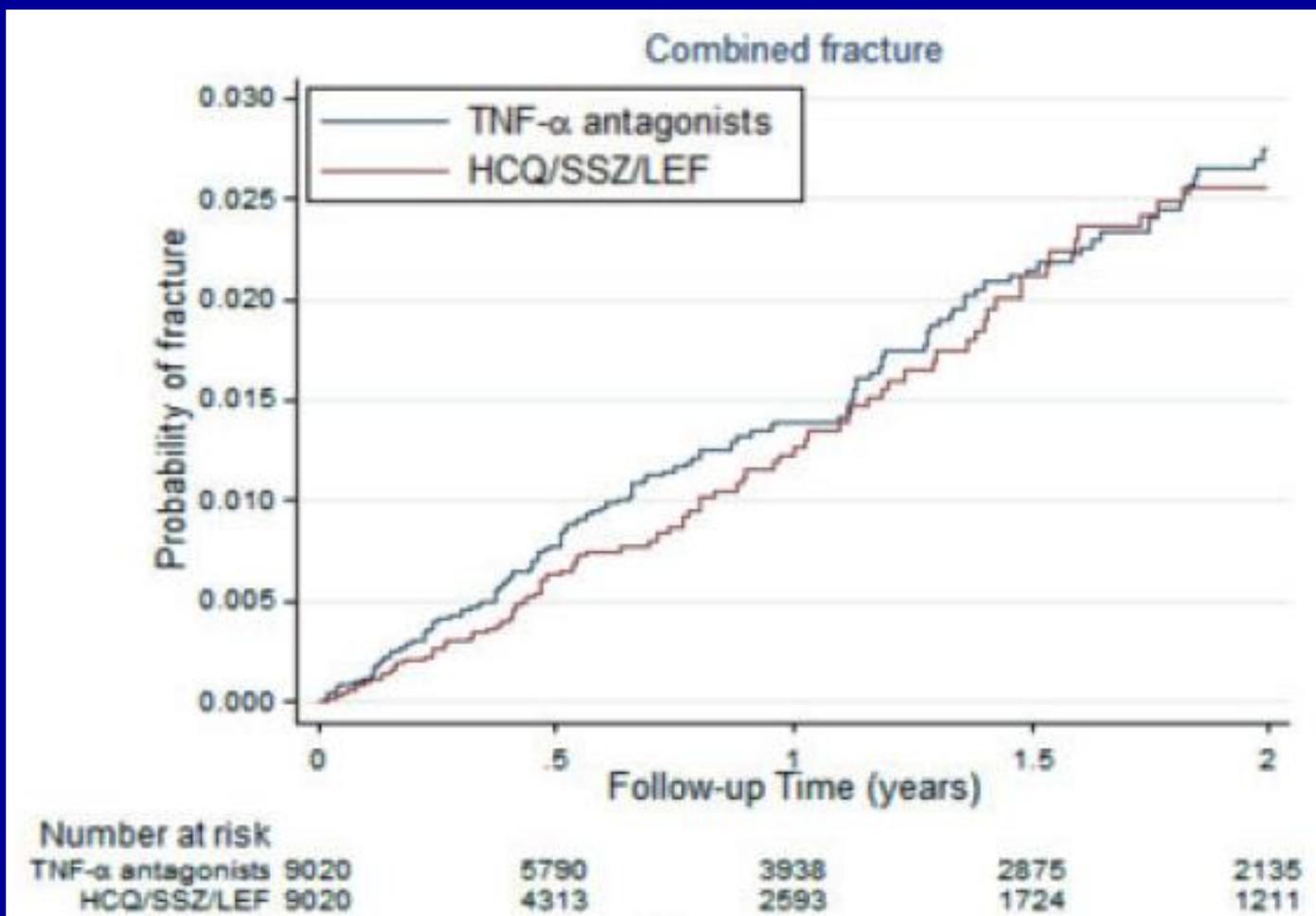
ANTI-SCLEROSTINE DANS L'ARTHRITE EXPERIMENTALE



ANTI-SCLEROSTINE DANS L'ARTHRITE EXPERIMENTALE



FRACTURES ET ANTI TNF



SpA : Facteur de risque de fracture

- Etude cas-contrôles (N = 231,778)
- 758 patients

	OR
Fracture	
Vertébrale (clinique)	3,26 (1,51-7,02)
Poignet	1,21 (0,87-1,69)
Hanche	0,77 (0,43-1,37)
AINS	0,65 (0,50-0,84)

BMD ET RACHIALGIES INFLAMMATOIRES



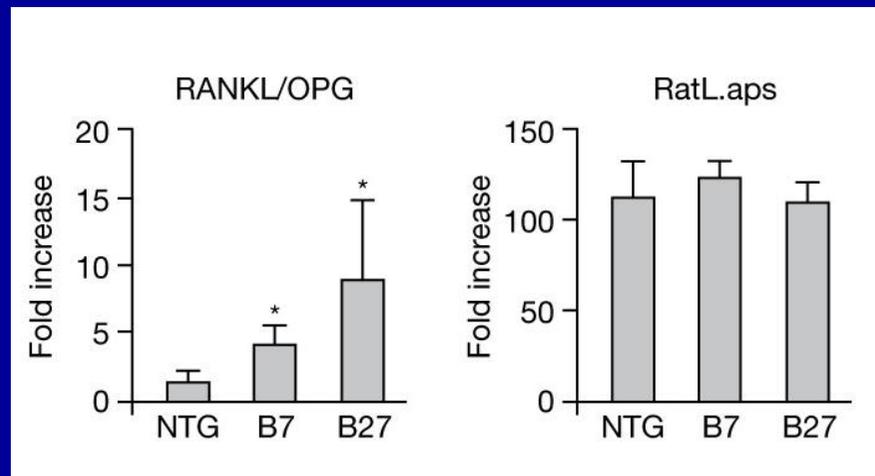
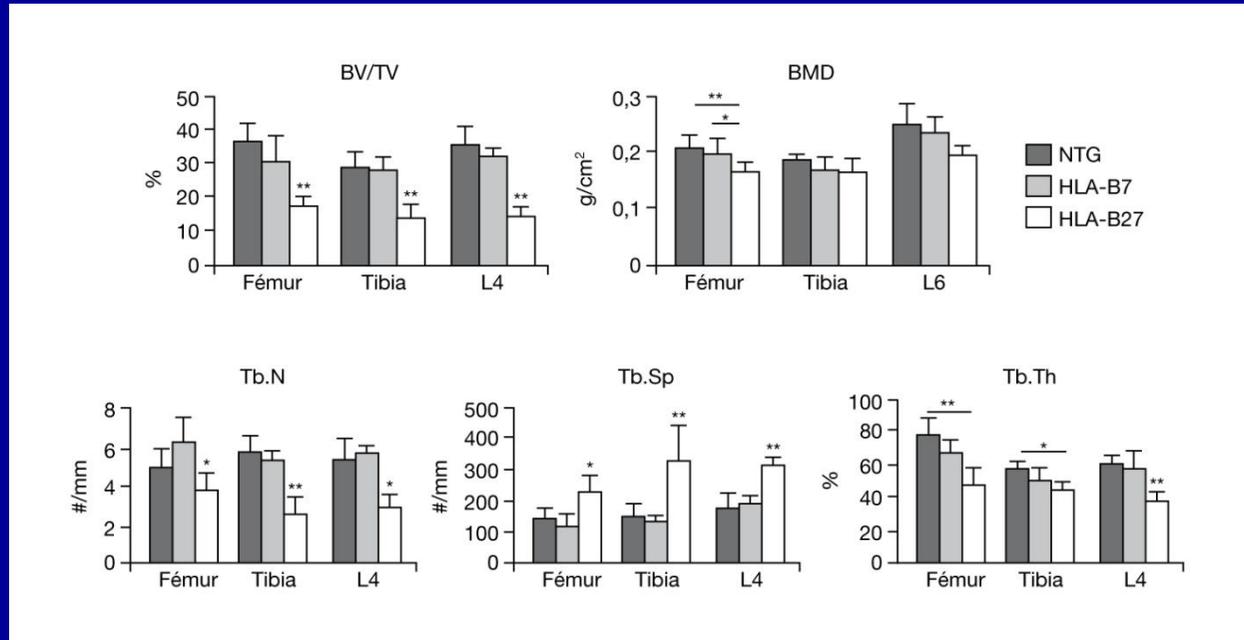
Z_≤-2 Rachis
 OR, 95% CI, aj, age, imc

Œdème osseux	3,02 (1,29-7,09)
VS	1,03 (1,01-1,05)
Sexe masculin	16,53 (4,46-61,24)

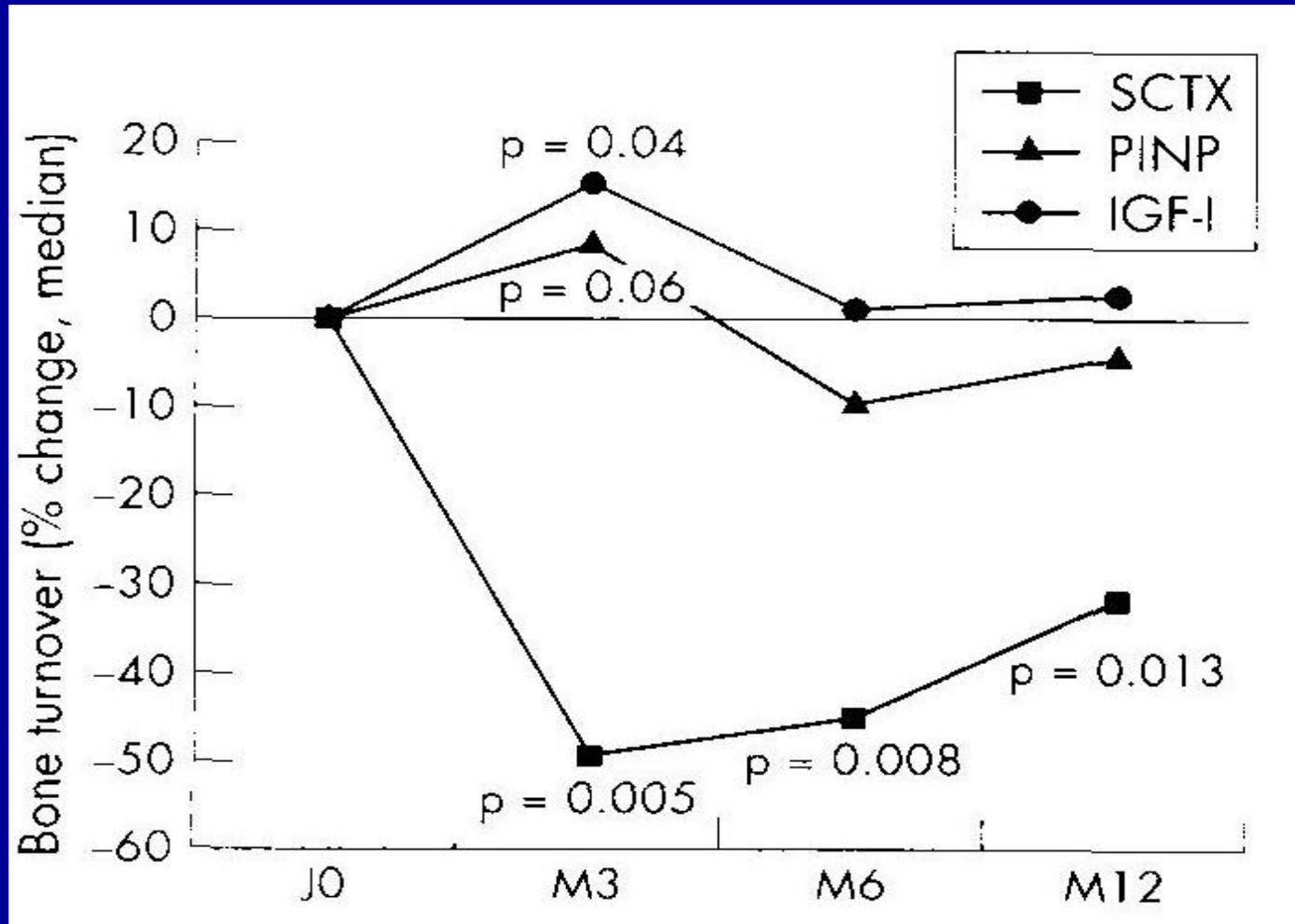
Z_≤-2 Hanche
 OR, 95% CI, aj, age, imc

Œdème osseux	7,92 (1,84-34,7)
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OSTEOPOROSE DU RAT TRANSGENIQUE B27

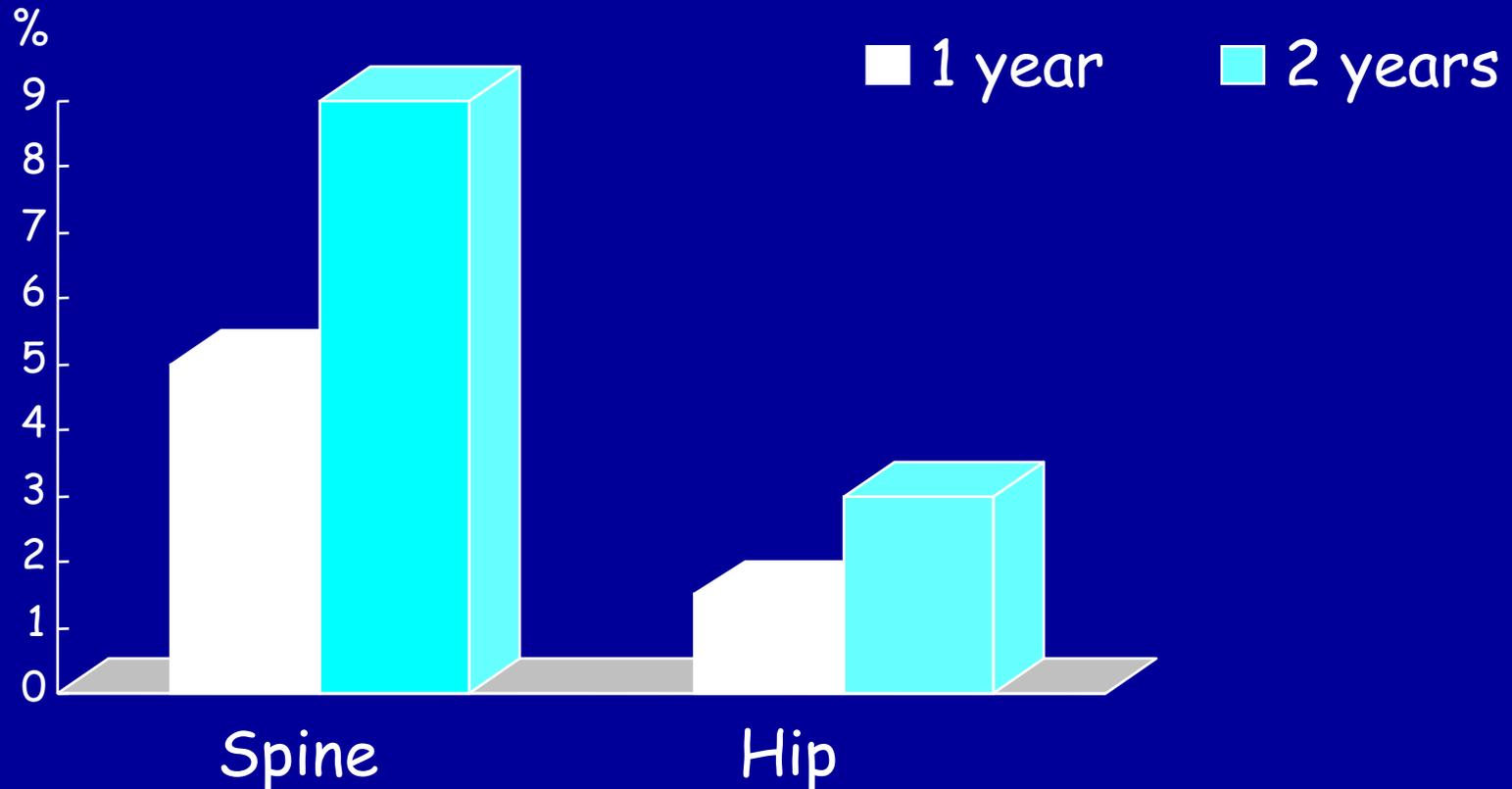


ANTI-TNF ET REMODELAGE OSSEUX

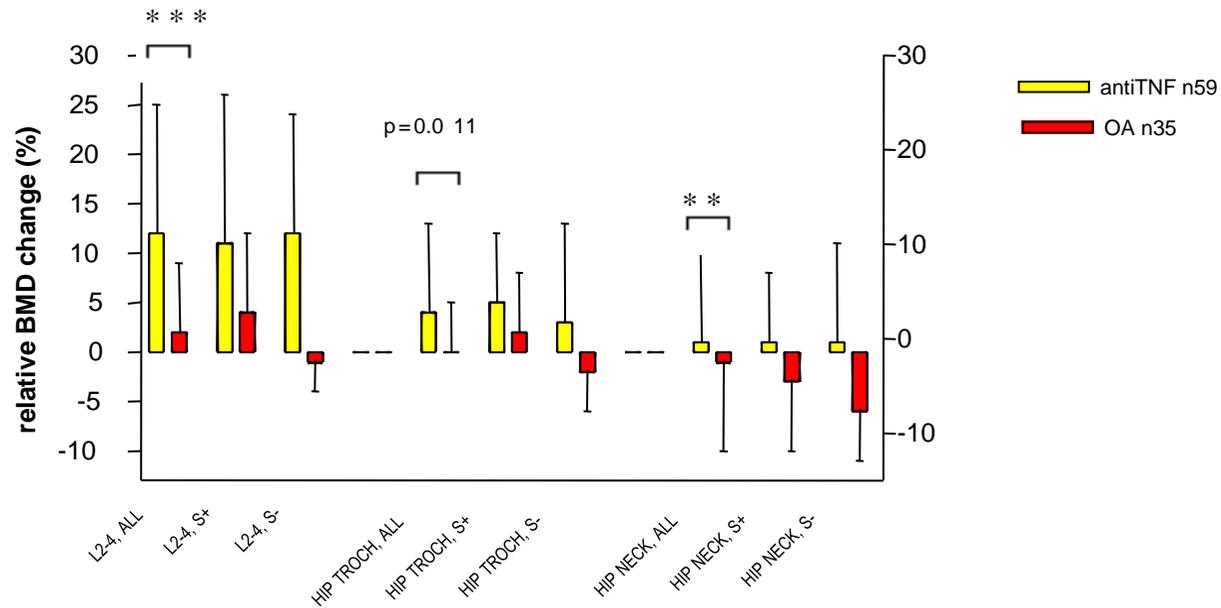


ANTI-TNF ET BMD

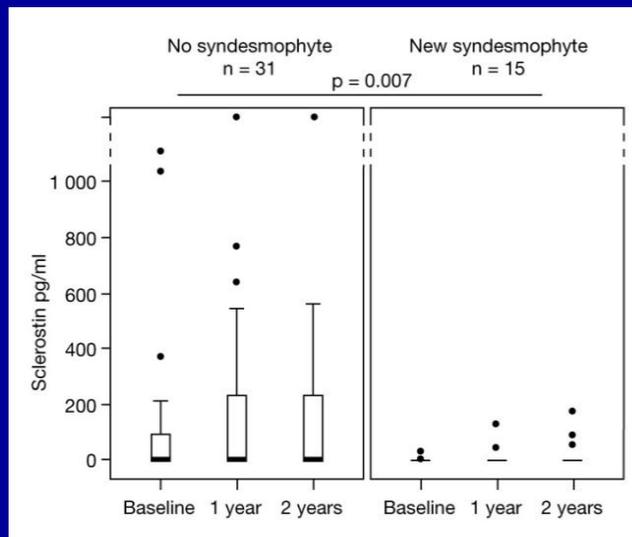
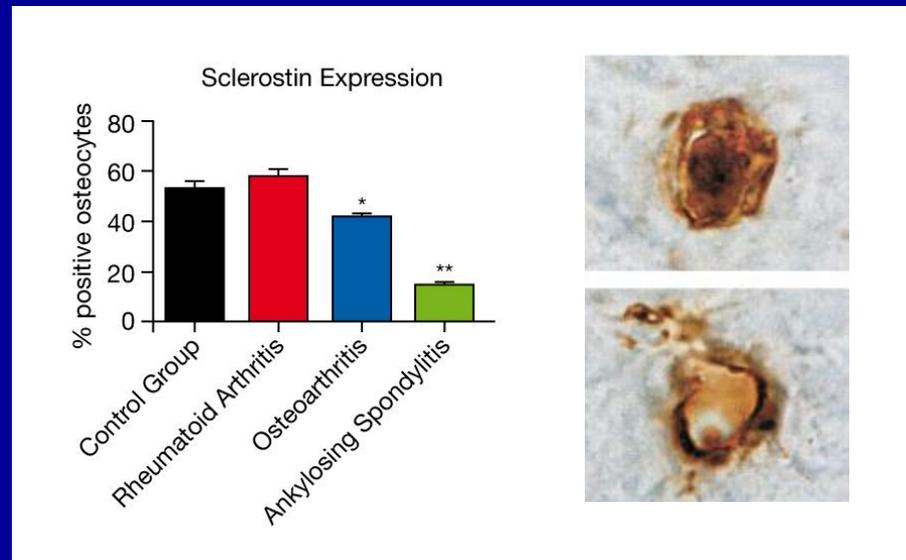
N= 106 (35 years)



ANTI-TNF ET BMD



ROLE DE LA SCLEROSTINE



CONCLUSION



- L'ostéoprose est la principale complication extra articulaire de la PR et de la SpA.
- Le contrôle de l'inflammation est indispensable à la prévention de la perte osseuse.