

MECANISMOS Y FACTORES RELACIONADOS CON LA ENFERMEDAD EROSIVA Y LA PÉRDIDA ÓSEA EN LA ARTRITIS REUMATOIDE

II Jornada de Osteoinmunología SEIOM – SER



Dr. Isidoro González Álvaro
Servicio de Reumatología



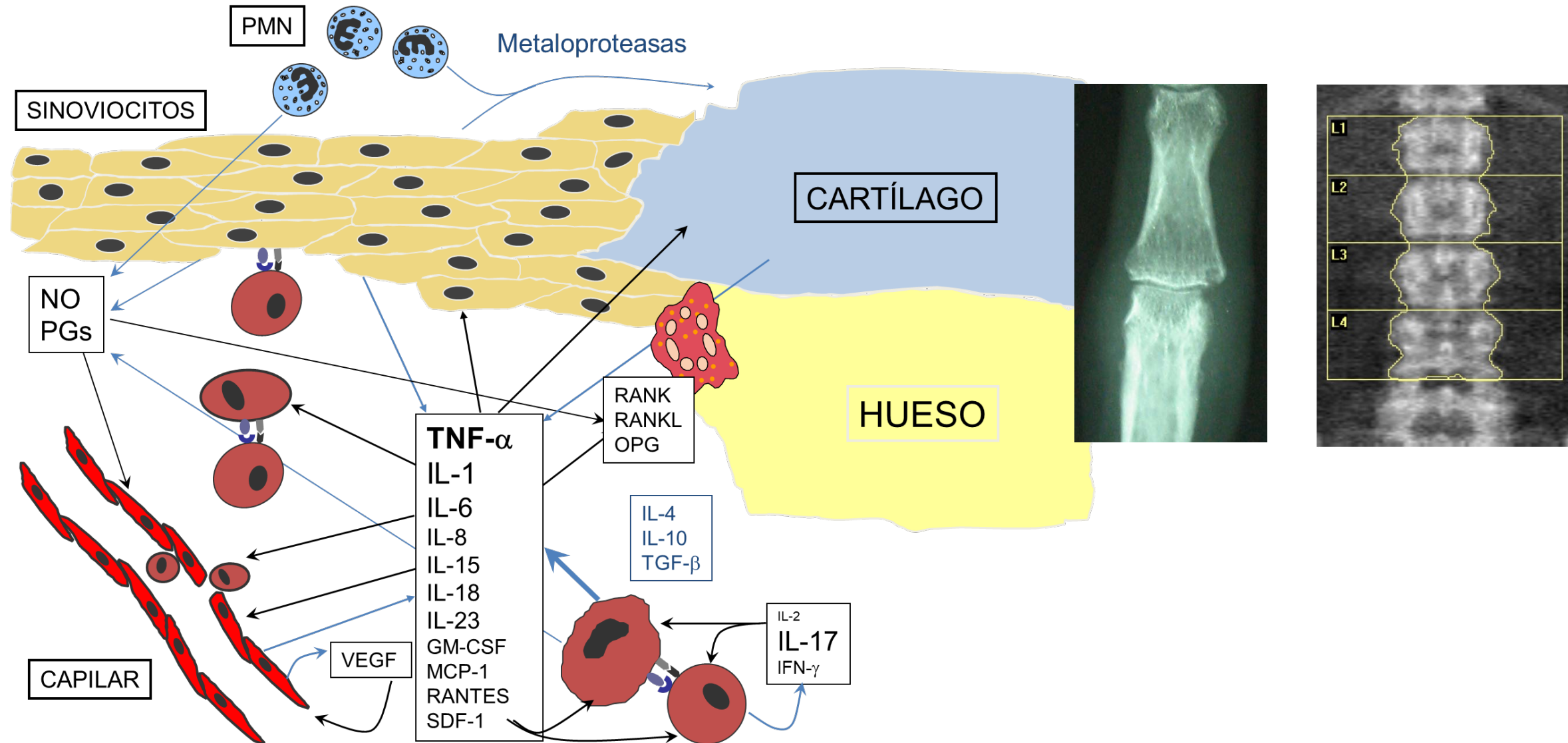
Conflictos de interés últimos 3 años

- Activos financieros:
 - PharmaMar
- Asesoría a empresas, pacientes u organismos oficiales:
 - Lilly, Sanofi, Biohope, ISCIII
- Conferencias patrocinadas por empresas:
 - AbbVie, Roche, Sanofi,
- Empleado en empresas: NO
- Financiación de proyectos de investigación:
 - Privados: Roche, Gebro Pharma, Biohope.
 - Públicos: ISCIII, UE

Esquema cinematográfico

- Introducción
- Dangerous liaisons
- The usual suspects
- Minority reports
- Ideas para reflexionar

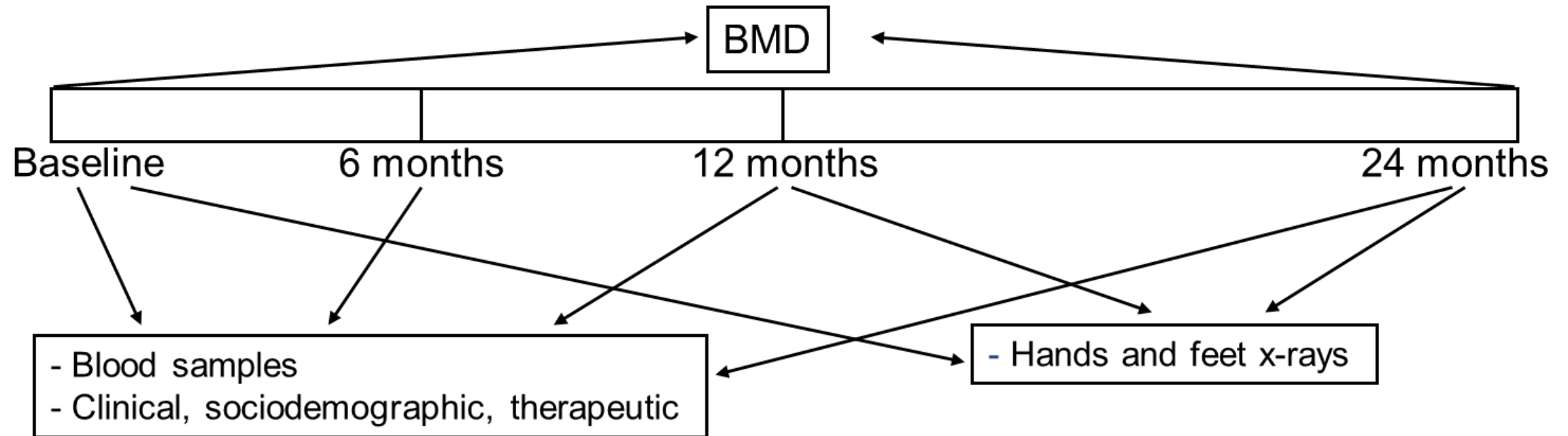
Introducción

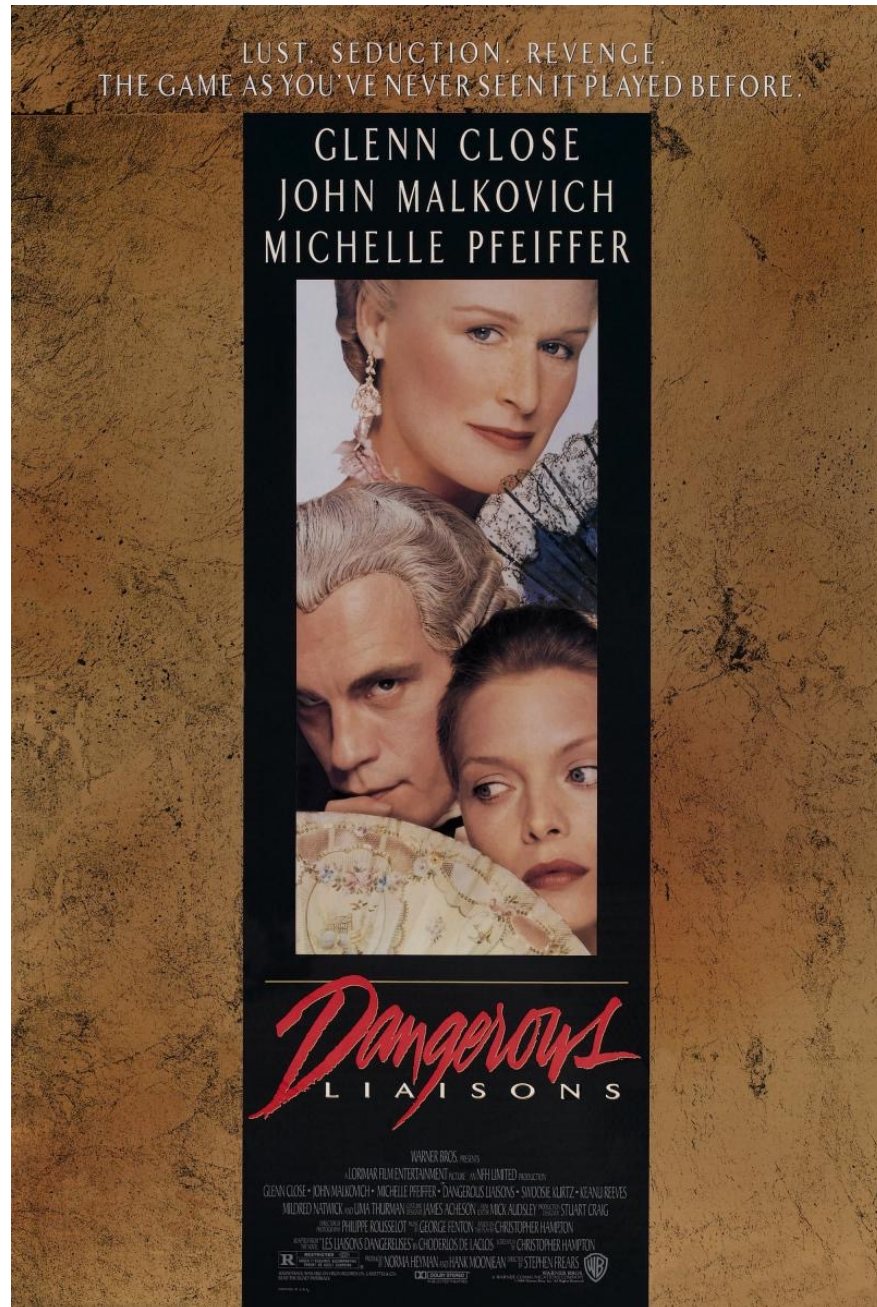


Introducción

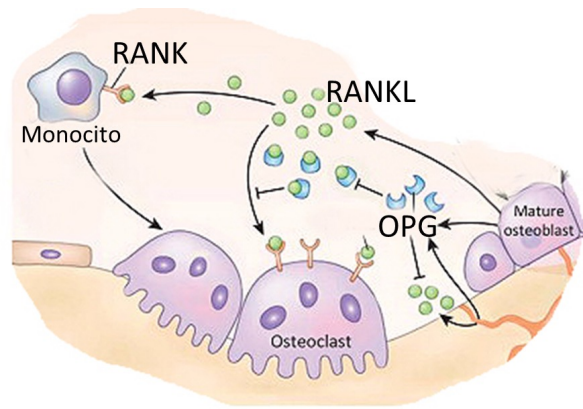


The PEARL study



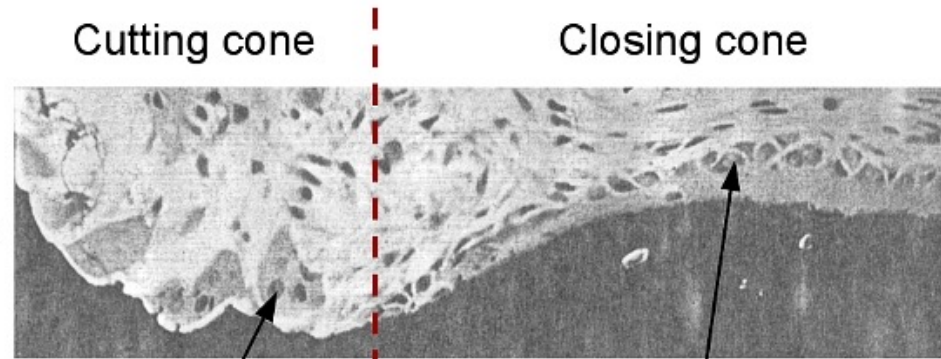


Las amistades peligrosas

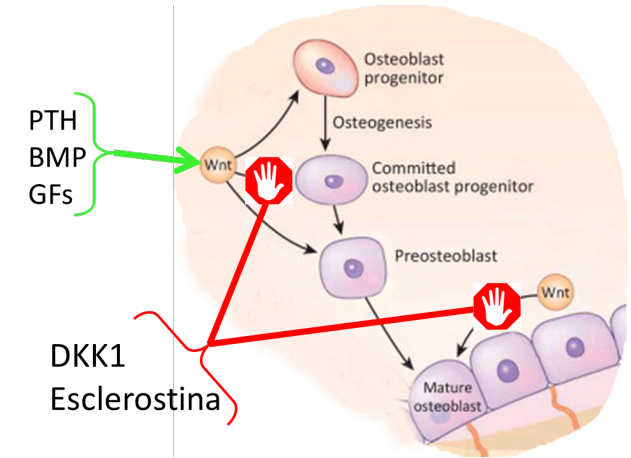
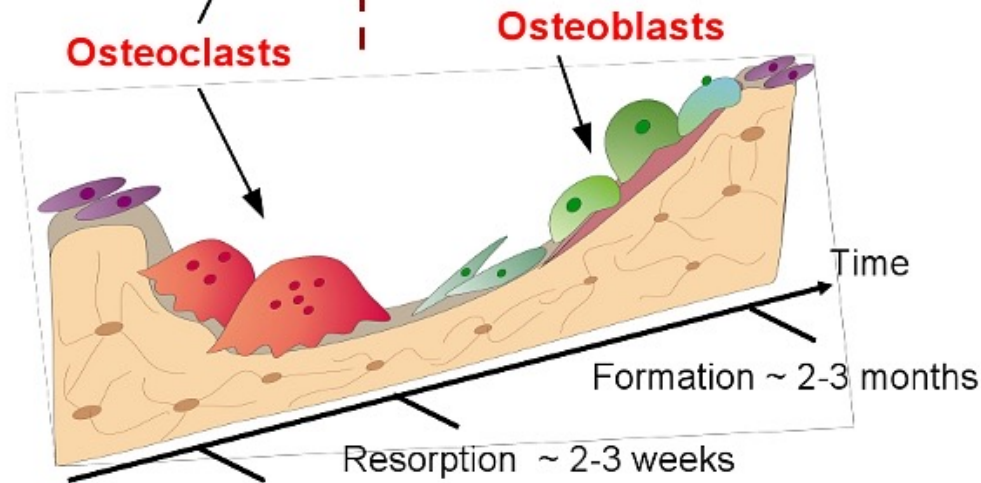


Leading front

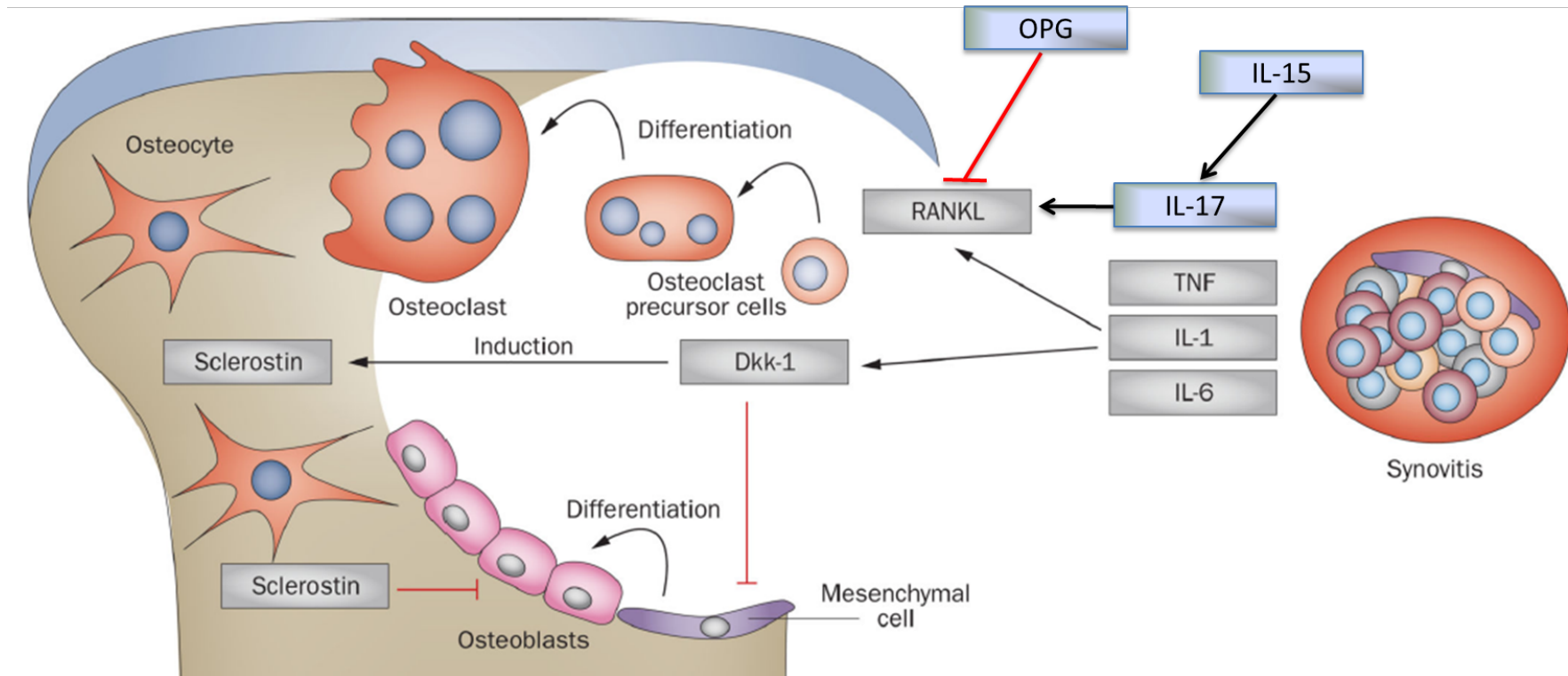
Leading front



Parfitt A.M. J Cell. Biochem., 1994



Las amistades peligrosas

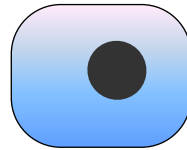
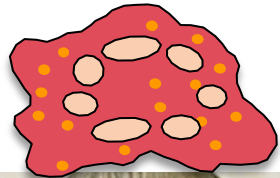


Bone erosion in rheumatoid arthritis: mechanisms, diagnosis and treatment

Nat Rev Rheumatol. 2012 November ; 8(11): 656–664.

Georg Schett and Ellen Gravallesse

Las amistades peligrosas

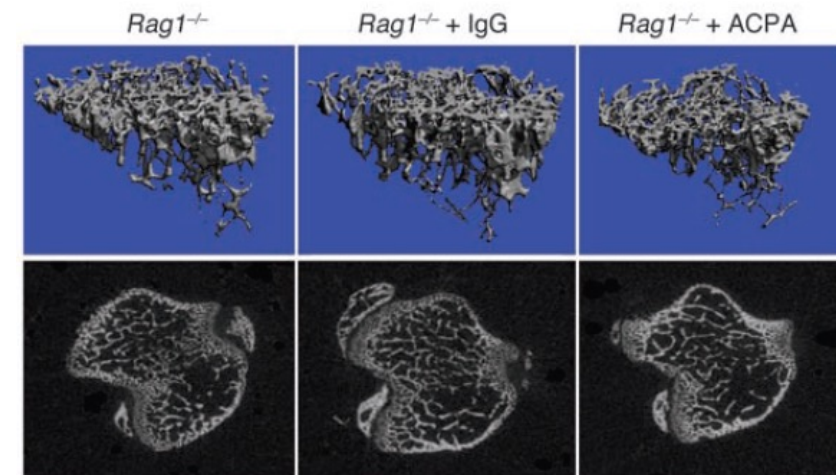
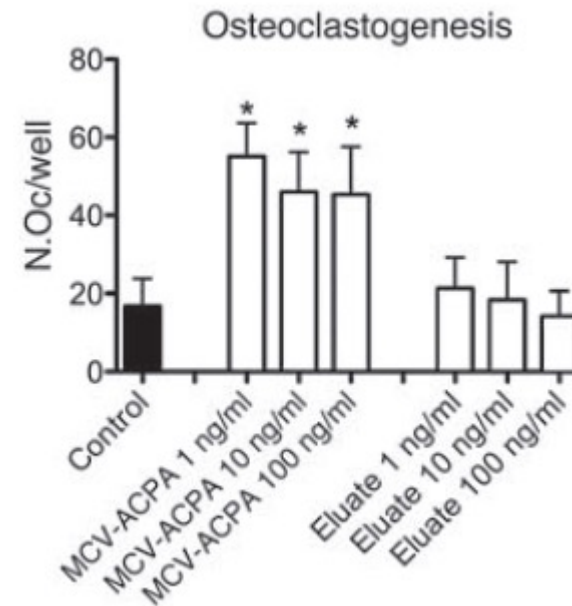
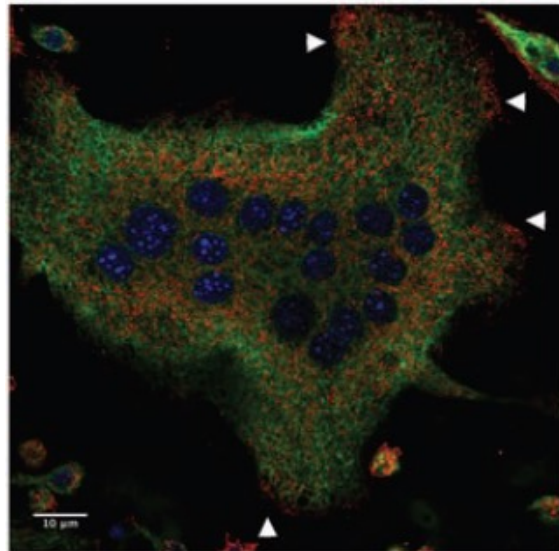


Las amistades peligrosas

Induction of osteoclastogenesis and bone loss
by human autoantibodies against
citrullinated vimentin

Ulrike Harre,¹ Dan Georgess,² Holger Bang,³ Aline Bozec,¹ Roland Axmann,¹ Elena Ossipova,⁴
Per-Johan Jakobsson,⁴ Wolfgang Baum,¹ Falk Nimmerjahn,⁵ Eszter Szarka,⁶ Gabriella Sarmay,⁶
Grit Krumbholz,⁷ Elena Neumann,⁷ Rene Toes,⁸ Hans-Ulrich Scherer,⁸ Anca Irinel Catrina,³
Lars Klareskog,³ Pierre Jurdic,² and Georg Schett¹

J Clin Invest. 2012;122(5):1791–1802.

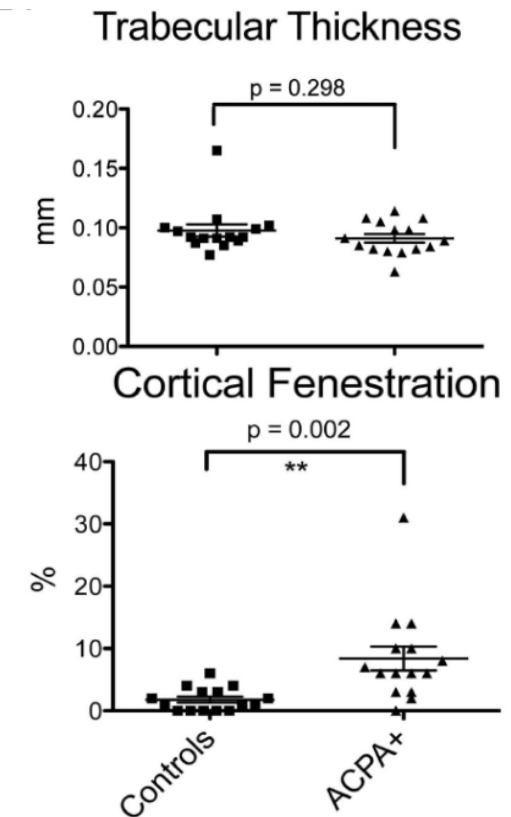
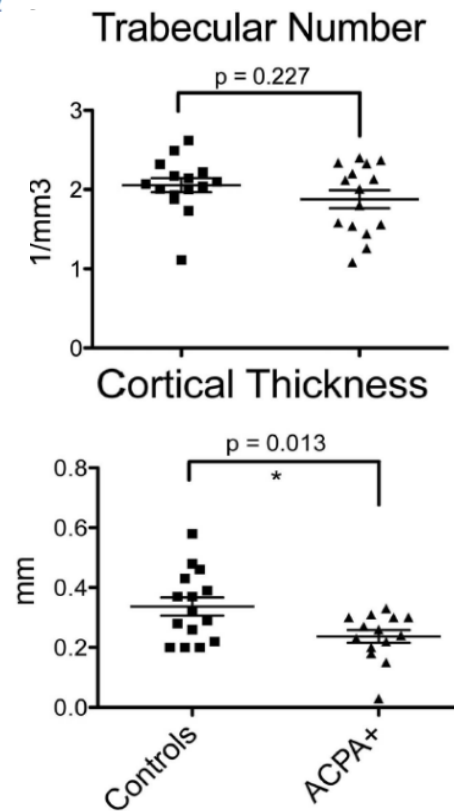
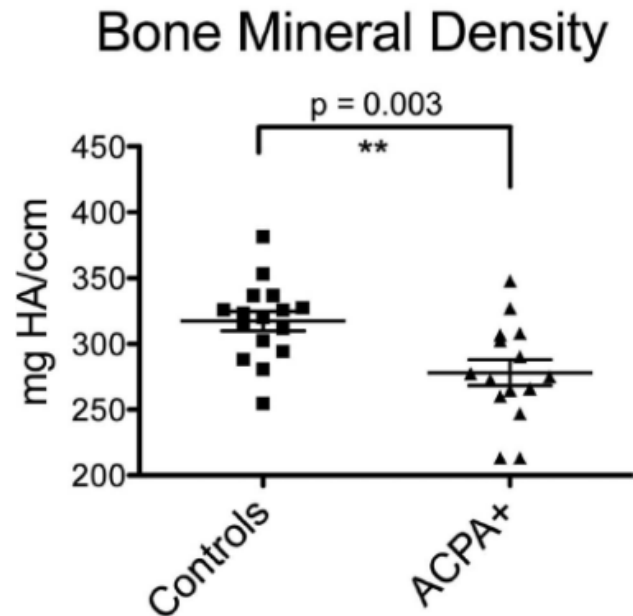


Las amistades peligrosas

Bone loss before the clinical onset of rheumatoid arthritis in subjects with anticitrullinated protein antibodies

Arnd Kleyer,¹ Stephanie Finzel,¹ Jürgen Rech,¹ Bernhard Manger,¹ Manuel Krieter,¹ Francesca Faustini,¹ Elisabeth Araujo,¹ Axel J Hueber,¹ Ulrike Harre,¹ Klaus Engelke,² Georg Schett¹

Ann Rheum Dis 2014;**73**:854–860.

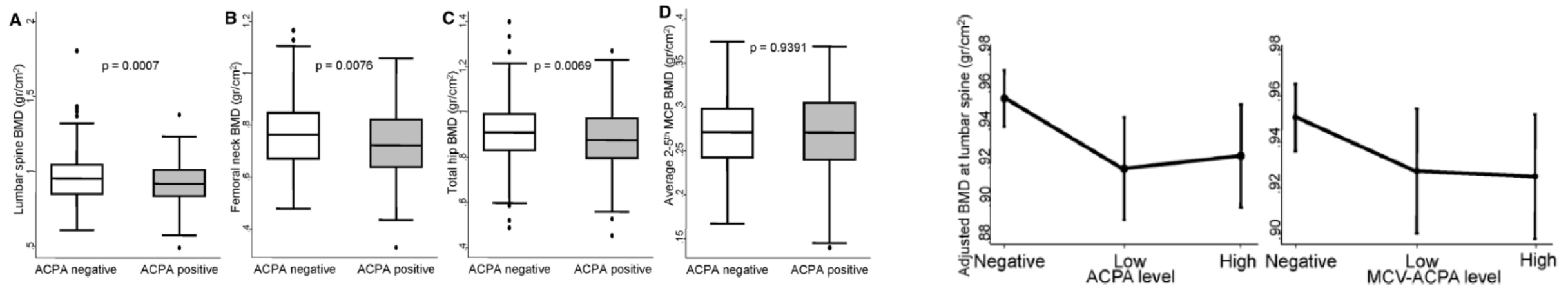


Las amistades peligrosas

Anti-citrullinated protein antibodies are associated with decreased bone mineral density: baseline data from a register of early arthritis patients

Rheumatol Int 2017; 37:799-806

Irene Llorente¹ · Leticia Merino^{1,3} · Ana M. Ortiz¹ · Eugenio Escolano² · Saturnino González-Ortega² · Rosario García-Vicuña¹ · Jesús A. García-Vadillo¹ · Santos Castañeda¹ · Isidoro González-Álvaro¹



Las amistades peligrosas



¿Solo Vimentina citrulinada?

Las amistades peligrosas

Association of high titers of anti-carbamylated protein antibodies with decreased bone mineral density in early arthritis patients

PLoS ONE 2018; 13: e0202583

Cristina Regueiro¹, Ana M. Ortiz², Maria Dolores Boveda³, Santos Castañeda², Isidoro Gonzalez-Alvaro², Antonio Gonzalez¹*

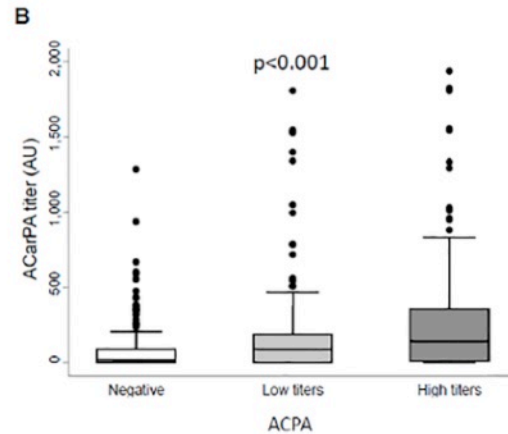
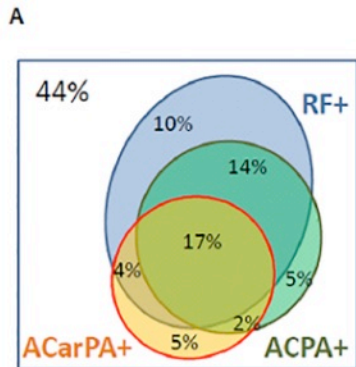
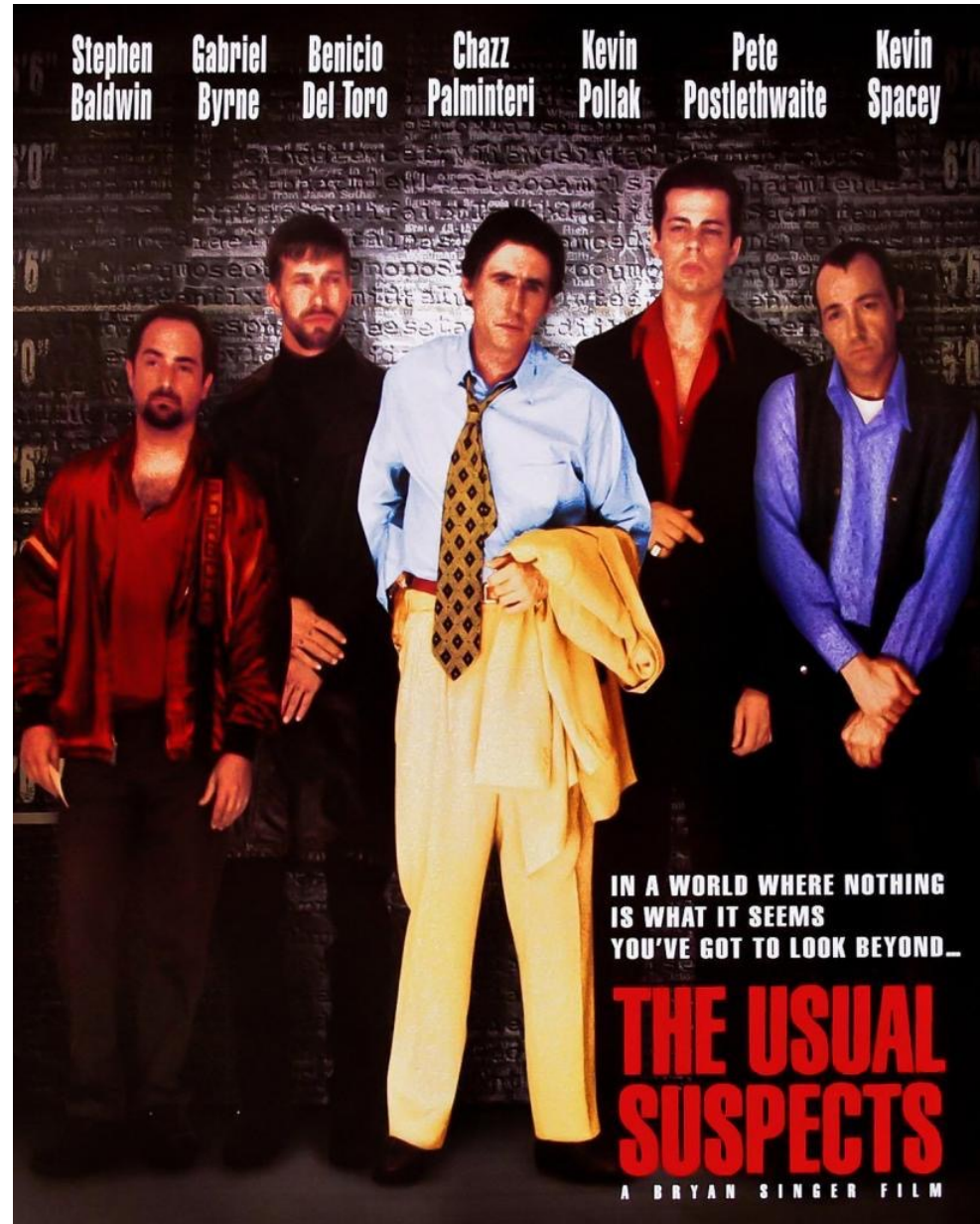


Table 4. Conditional analysis of the association of BMD with anti-CarPA and ACPA.

Location	anti-CCP	anti-CarPA (n) ^a	Coefficient ^b	SE	p
LS	negative	negative (291)	ref.		
		low-positive (23)	-0.17	0.27	0.5
		high-positive (19)	-0.52	0.30	0.09
	positive	negative (101)	-0.25	0.14	0.09
		low-positive (45)	0.06	0.20	0.8
		high-positive (53)	-0.50	0.19	0.007
TH	negative	negative	ref.		
		low-positive	-0.27	0.19	0.16
		high-positive	-0.30	0.22	0.17
	positive	negative	-0.10	0.10	0.3
		low-positive	0.10	0.14	0.5
		high-positive	-0.37	0.13	0.005



Sospechosos habituales: glucocorticoides

Ibañez *et al. Arthritis Research & Therapy* 2010, **12**:R50
<http://arthritis-research.com/content/12/2/R50>



RESEARCH ARTICLE

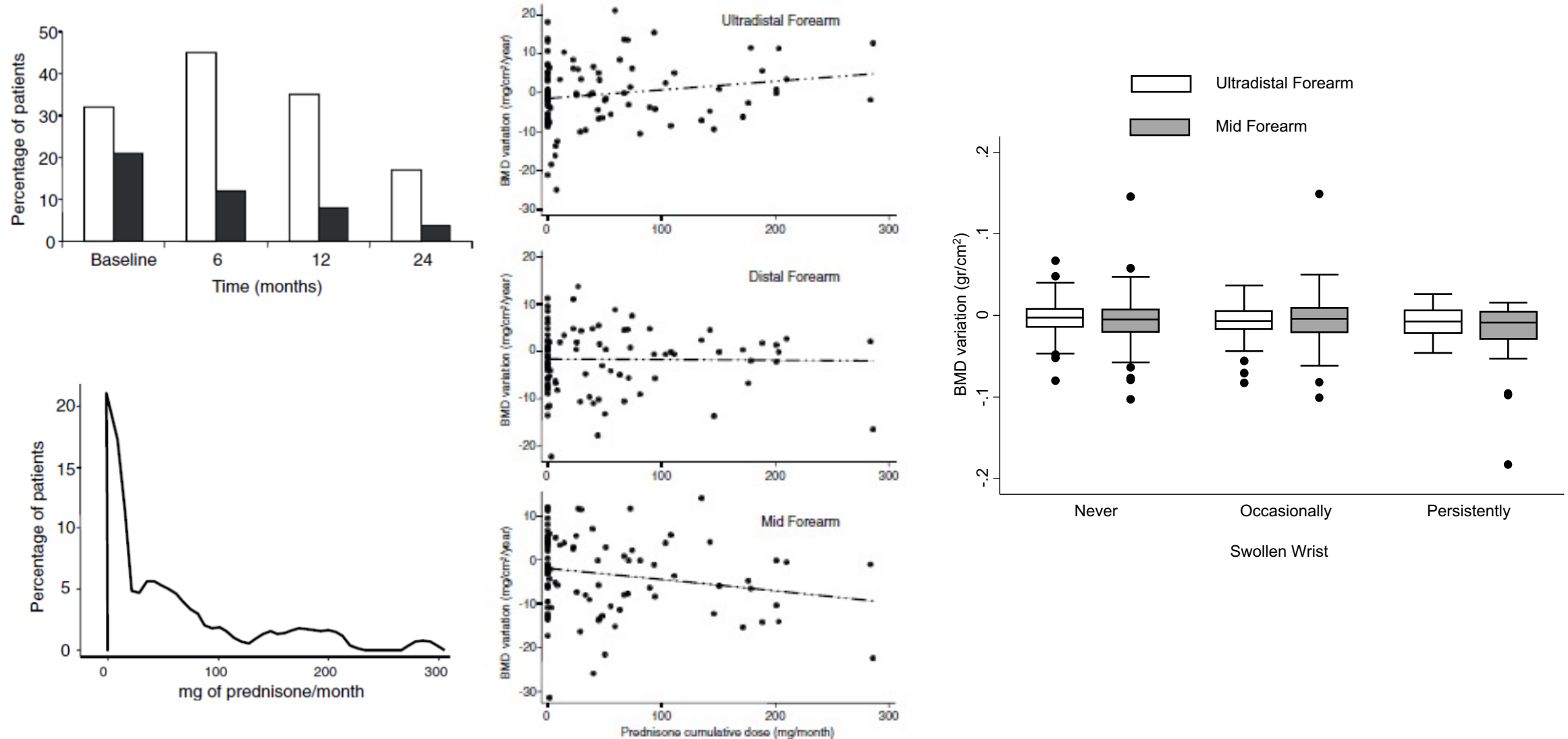
Open Access

A rational use of glucocorticoids in patients with early arthritis has a minimal impact on bone mass

Monica Ibañez¹, Ana M Ortiz², Isabel Castrejón², J Alberto García-Vadillo², Inmaculada Carvajal³, Santos Castañeda², Isidoro González-Álvaro^{2*}

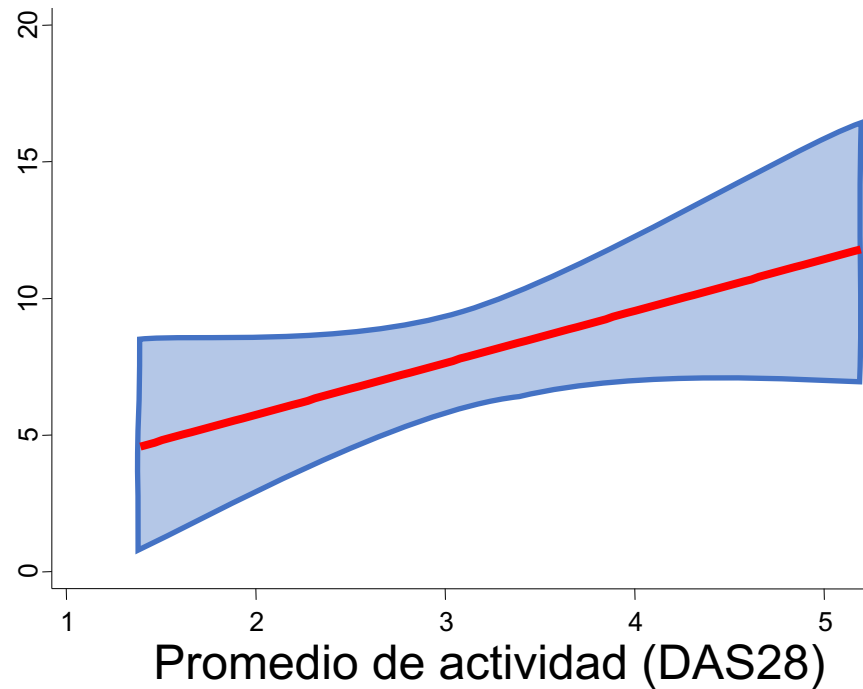


Sospechosos habituales: glucocorticoides

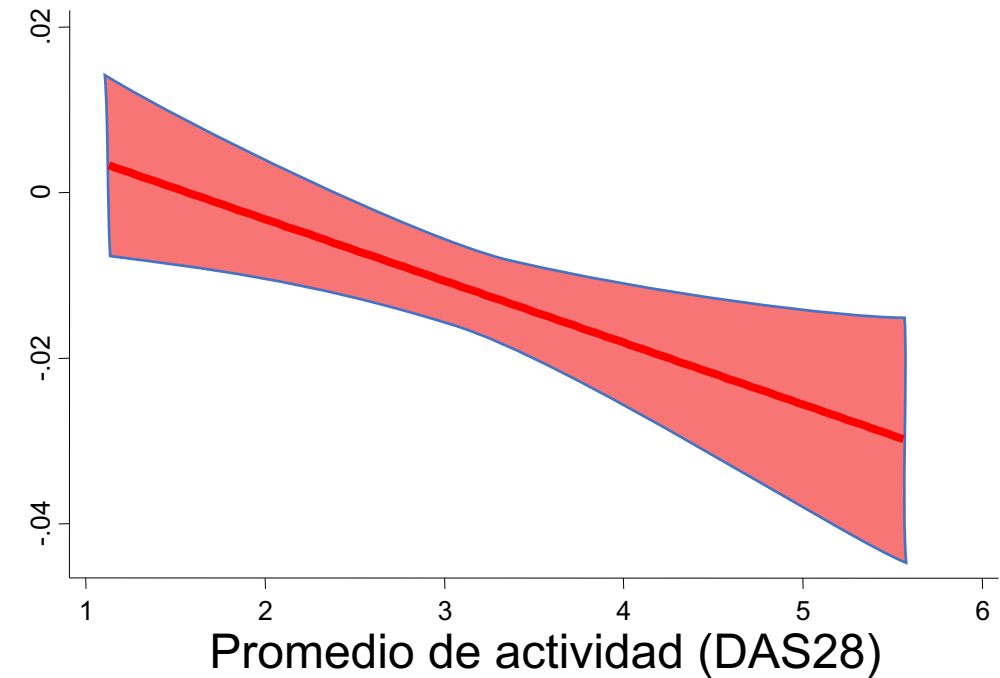


Sospechosos habituales: Actividad AR

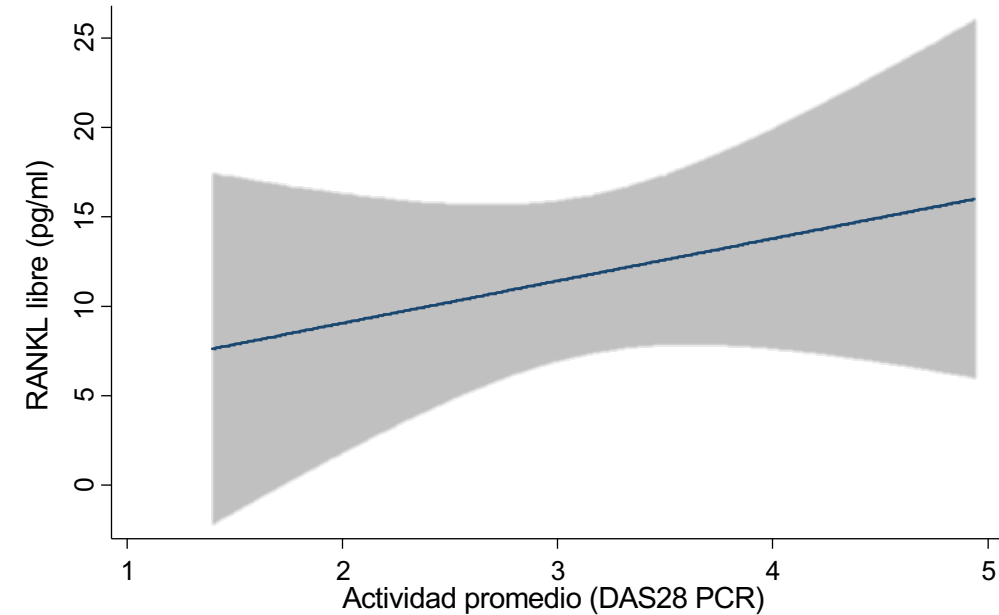
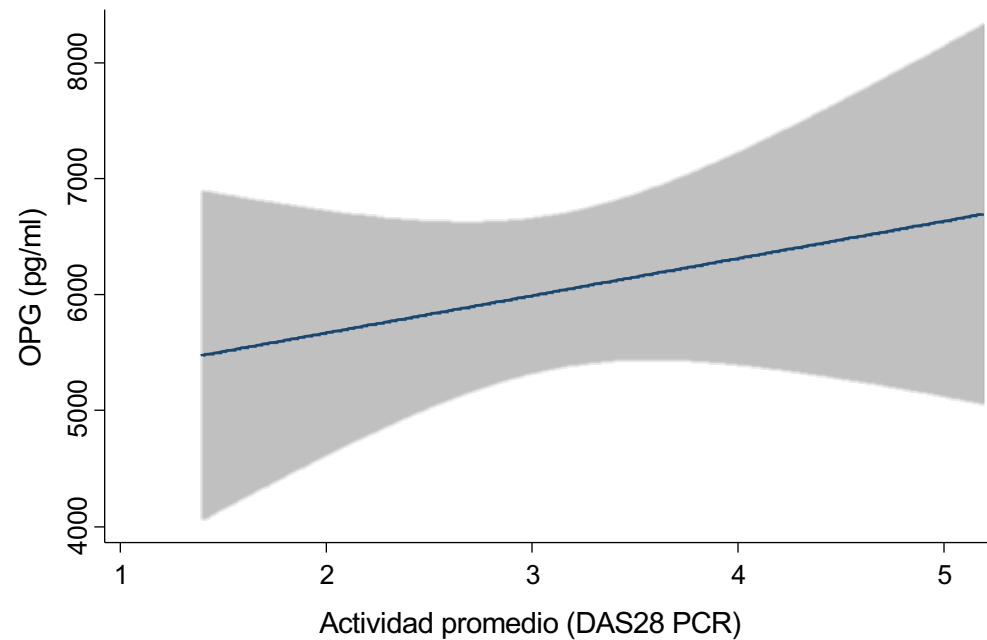
Δ Erosiones (SHS)



Δ DMO CL (mg/cm²)



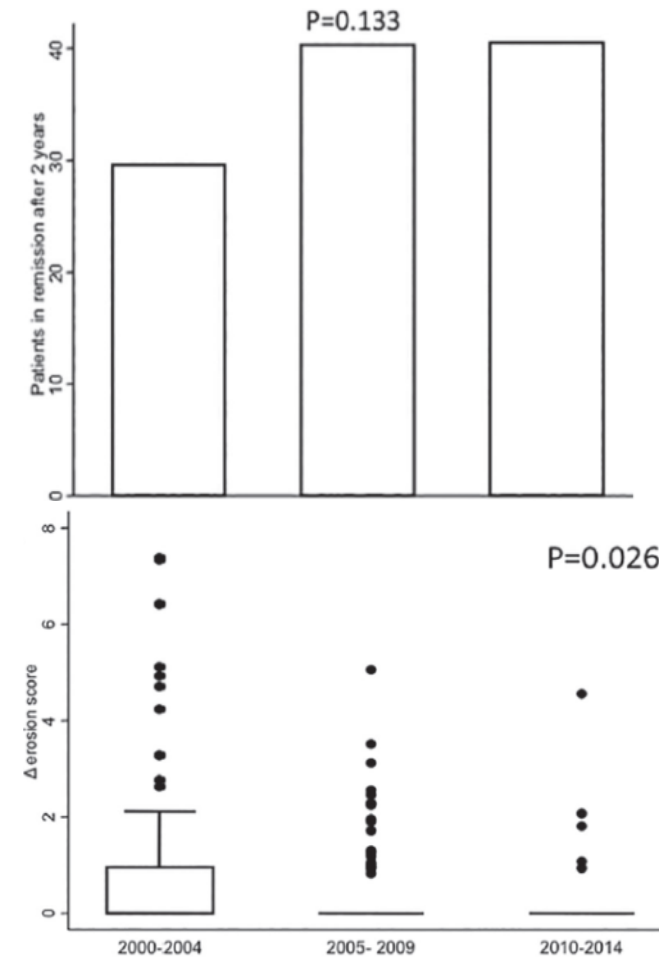
Sospechosos habituales: Actividad AR

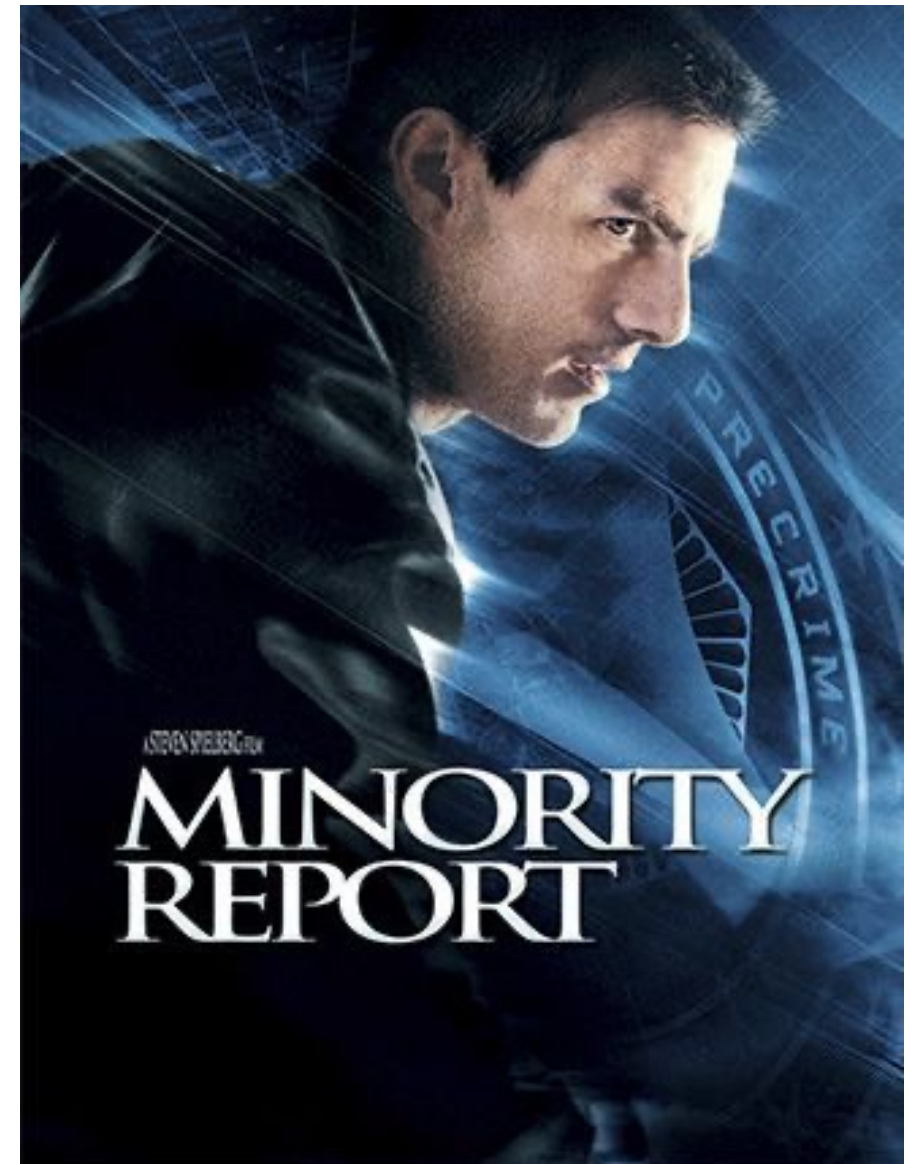


Are rheumatologists adhering to the concepts *window of opportunity* and *treat-to-target*? Earlier and more intense disease-modifying anti-rheumatic drug treatment over time in patients with early arthritis in the PEARL study

E. Toledano¹, A.M. Ortiz², J. Ivorra-Cortes³, N. Montes², A. Beltran²,
L. Rodríguez-Rodríguez⁴, L. Carmona⁵, I. González-Álvaro²

Clin Exp Rheumatol 2018; 36: 382-8





Sentencia previa



Hand cortical bone mass and its associations with radiographic joint damage and fractures in 50–70 year old female patients with rheumatoid arthritis: cross sectional Oslo-Truro-Amsterdam (OSTRA) collaborative study

G Haugeberg, M C Lodder, W F Lems, T Uhlig, R E Ørstavik, B A C Dijkmans, T K Kvien and A D Woolf

Ann Rheum Dis 2004;63:1331-1334

Cortical hand bone loss after 1 year in early rheumatoid arthritis predicts radiographic hand joint damage at 5-year and 10-year follow-up

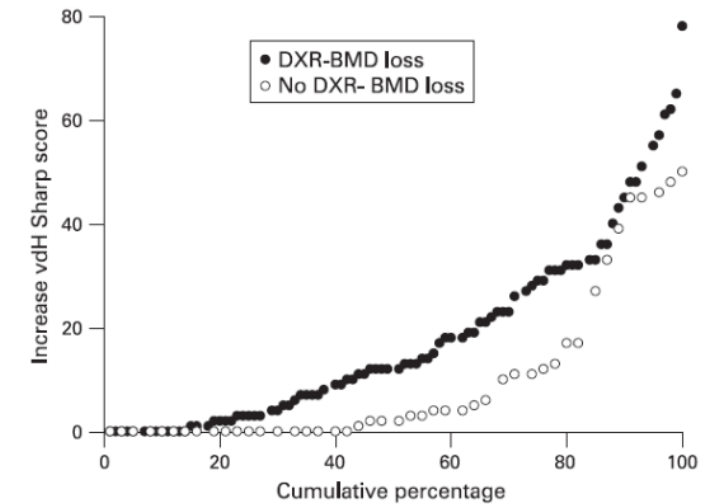
M Hoff,^{1,2} G Haugeberg,^{2,3} S Ødegård,^{4,5} S Syversen,^{4,5} R Landewé,⁶ D van der Heijde,^{4,7} T K Kvien^{4,5}

Ann Rheum Dis 2009;68:324–329.

Bone mineral density in the hand as a predictor for mortality in patients with rheumatoid arthritis

Christina Book¹, Jakob Algulín², Jan-Åke Nilsson¹, Tore Saxne³ and Lennart Jacobsson¹

Rheumatology 2009;48:1088–1091

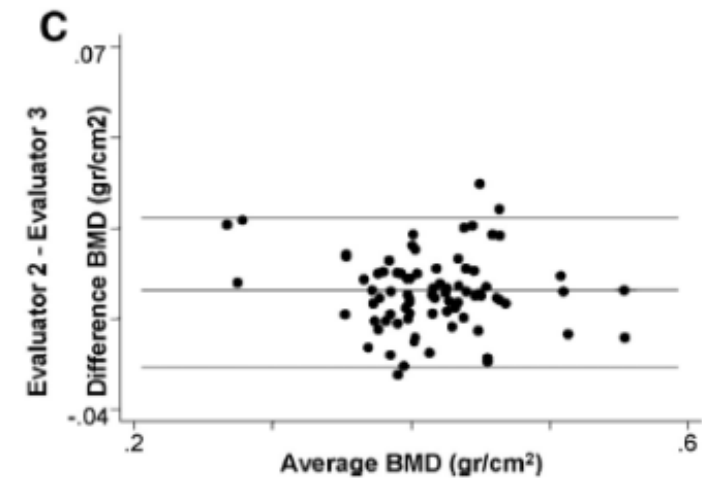
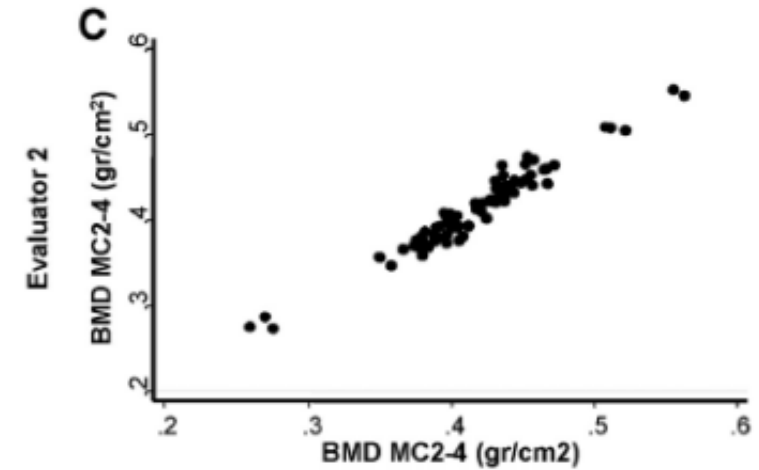
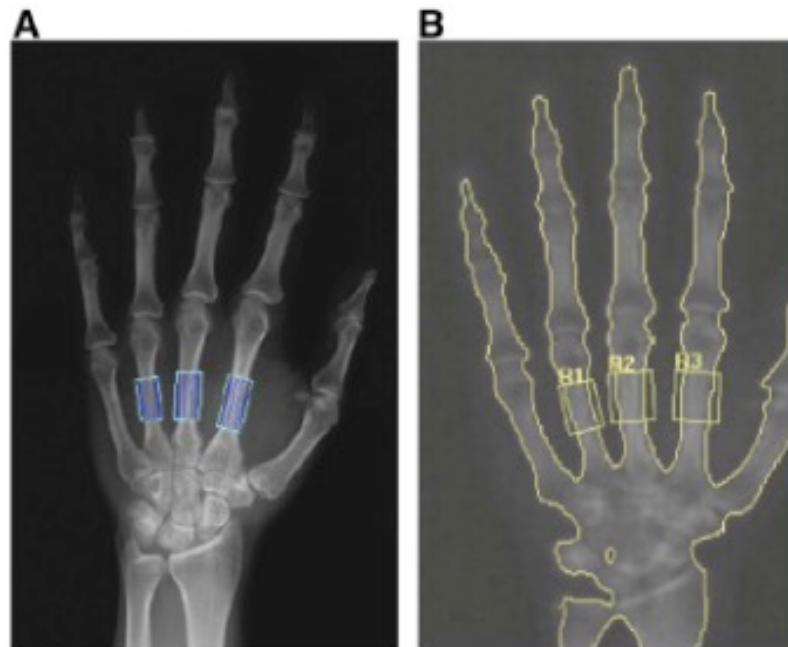


Sentencia previa

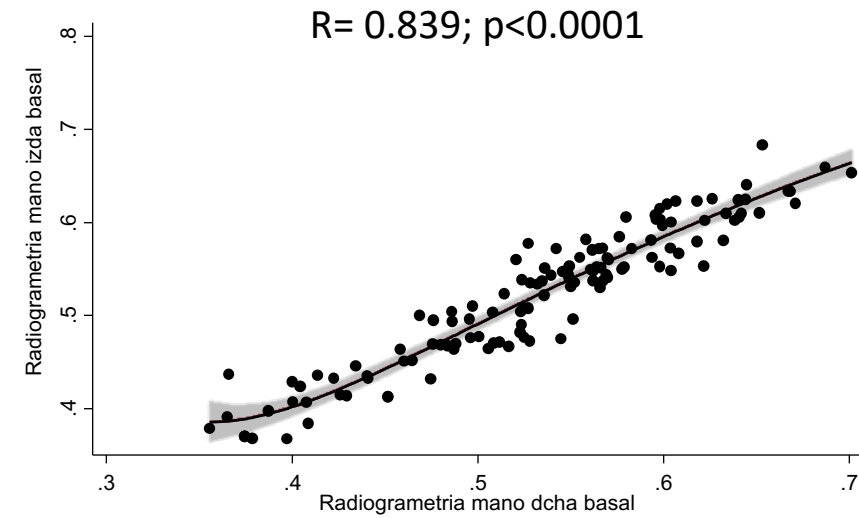
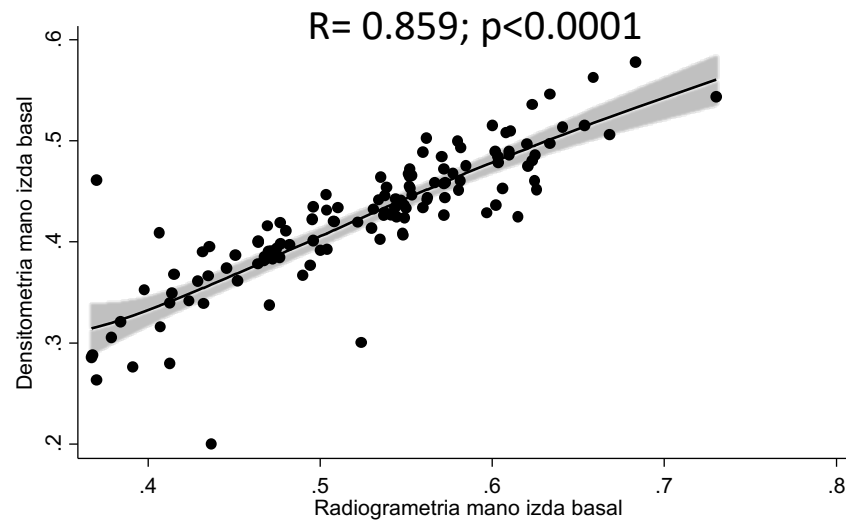
Reproducibility of Metacarpal Bone Mineral Density Measurements Obtained by Dual-Energy X-Ray Absorptiometry in Healthy Volunteers and Patients With Early Arthritis

*Irene Llorente,¹ Leticia Merino,² Eugenio Escolano,³
Dolores Martínez Quintanilla,¹ Jesús A García-Vadillo,¹
Isidoro González-Álvaro,^{1,7,*} and Santos Castañeda^{1,7,*}*

J Clin Densitom 2020; 23: 678-84

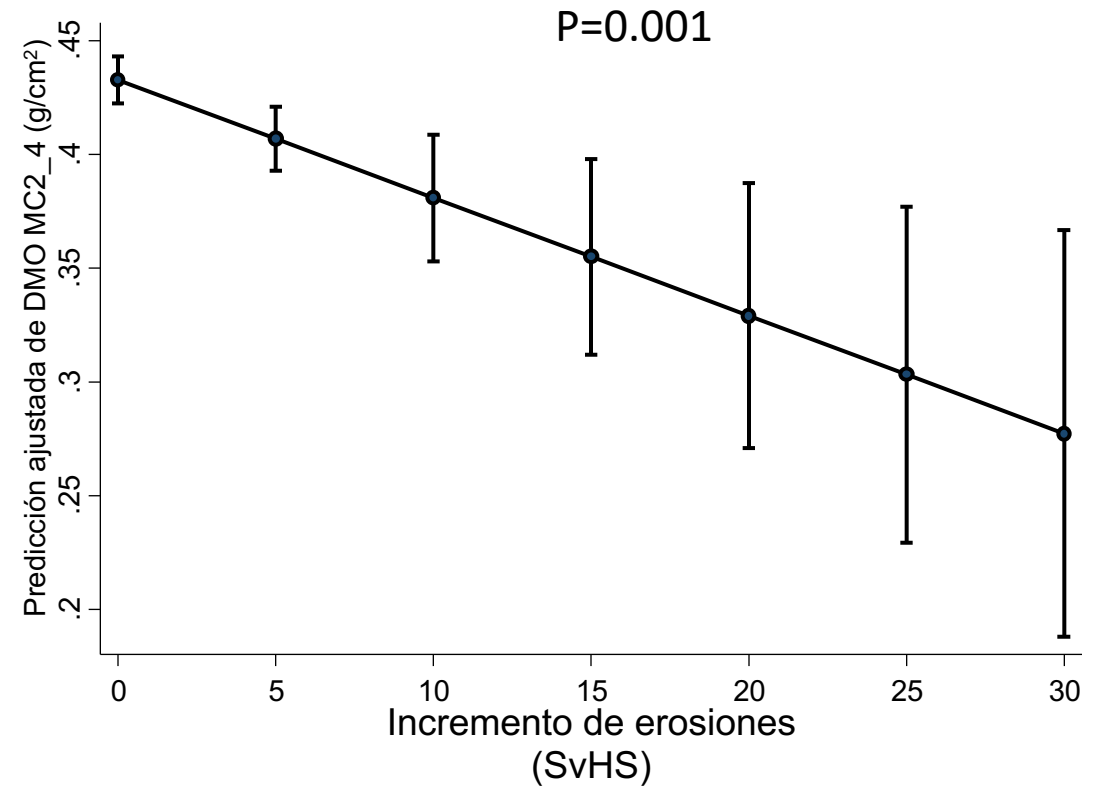
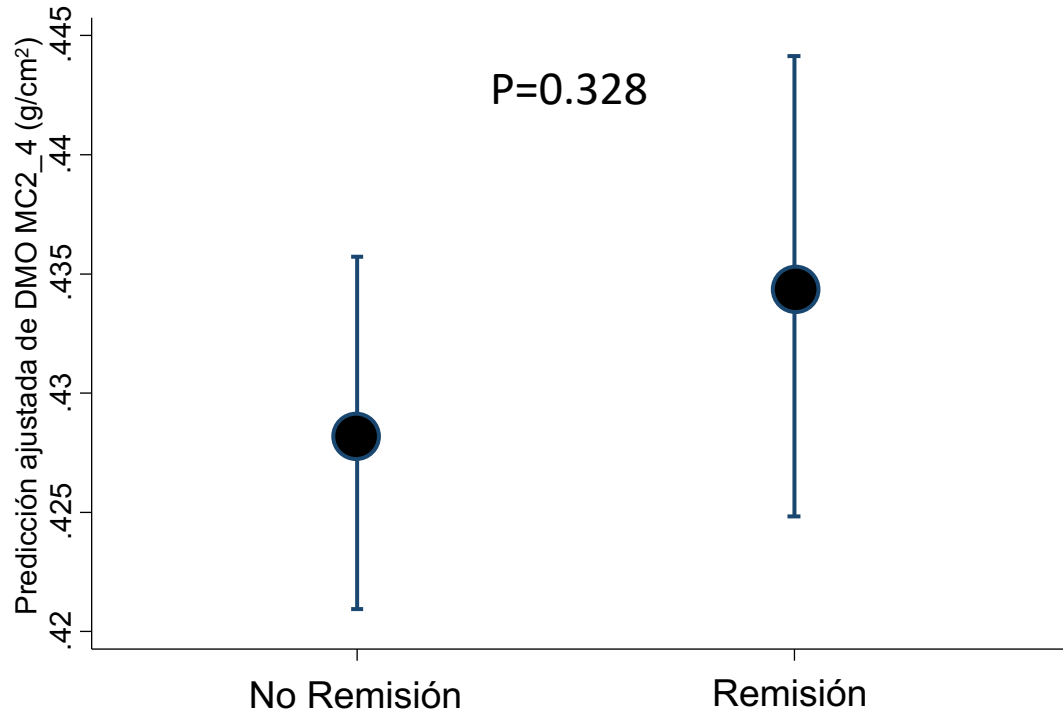


Sentencia previa



Artículo en preparación

Sentencia previa



Artículo en preparación

Ideas para reflexionar

- ¿Cómo inducen osteoporosis los a-CarP?
- Mejor control actividad de la AR, ¿mejor calidad de hueso?
- ¿Por qué todo va peor en el hueso cortical?
- ¿Hay diferentes fenotipos de osteoclastos?



¡Gracias por la atención!