

ABBREVIATED C.V.

ENRIQUE GOMEZ-BARRENA

DOB: April 25th, 1963. Zaragoza, Spain;

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Degrees and academic background

M.D., 1987, Universidad de Zaragoza, Spain

Ph.D., 1992, Universidad Autónoma de Madrid, Spain

Internship and Residency in Orthopaedic Surgery, 1987-92, Hospital "La Paz", Madrid, Spain

Orthopaedic Research Fellowship, 1994, Hospital for Special Surgery, New York, NY

Other certificates

E.C.F.M.G. (Educational Commission for Foreign Medical Graduates, Philadelphia, Pennsylvania, U.S.A.)

Certification, January 1994; T.O.E.F.L. (Test of English as a Foreign Language), April 1993.

Hospital appointments

Staff Orthopaedic Surgeon, Hospital "La Paz", Madrid, Spain, 1993, 1995-1996

Staff Orthopaedic Surgeon, Hospital "Ntra. Sra. De Gracia", Zaragoza, Spain, 1996-2000.

Staff Orthopaedic Surgeon, Fundación "Jiménez Díaz" Hospital, Madrid, Spain, since 2000.

Associated Chief, Orthopaedic Surgery, Fundación "Jiménez Díaz" Hospital, Madrid, Spain, since 2007.

Academic Appointments

Assistant Professor, Universidad Autónoma de Madrid, 1996

Associate Permanent Professor of Orthopaedic Surgery, Universidad Autónoma de Madrid, since 2000.

Full Professor and Chair, Orthopaedic Surgery, Universidad Autónoma de Madrid, since 2007.

Vice-Dean, Universidad Autónoma de Madrid Medical School, since 2004

Research

Involved in 15 research grants (Spanish National Agencies, European Union 7th Frame Program), Management Committee of 537-EU COST action, and Steering Board of REMEDIC EU network (European Science Foundation).

Recent papers:

Puértolas JA, Medel FJ, Cegoñino J, Gomez-Barrena E, Ríos R: Influence of the remelting process on the fatigue behavior of electron beam irradiated UHMWPE. *J Biomed Mater Res B Appl Biomater.* 2006 Feb;76(2):346-53. (FI 2007: 1,933) 7/16

Konttinen YT, Tiainen V-M, Gomez-Barrena E, Hukkanen M, Salo J. Innervation of the joint and role of neuropeptides. *Ann. N.Y. Acad. Sci.* 2006; 1069: 149–154. (FI 2007: 1,731) 9/50

Gómez-Barrena E, Lindroos L, Čeponis A, López-Franco M, Sanchez-Pernaute O, Mönkkönen J, Herrero-Beaumont G, Konttinen YT. Cartilage oligomeric matrix protein (COMP) is modified by intra-articular liposomal clodronate in an experimental model of arthritis. *Clin Exp Rheumatol.* 2006 Nov-Dec;24(6):622-628. (FI 2007: 2,270) 10/21

Gómez-Barrena E, Orozco-Delclós L, Munuera L. Agentes locales en la consolidación ósea: Perspectivas para el futuro. *Rev Ortop Traum* 2006 Oct; 50 Supl 1: 13-21. (FI N/A)

Bonsfills N, Raygoza JJ, Boemo E, Garrido J Nuñez A, Gómez-Barrena E: Time-dependent strain variations are detected in soft-tissues around unstable knees after anterior cruciate ligament injury. An in vivo experimental study on the cat's knee. *The Knee.* 2007 Jan;14(1):39-45. (FI 2007: 1,307) 23/48

Medel FJ, Peña P, Cegoñino J, Gómez-Barrena E, Puértolas JA. Comparative fatigue behavior and toughness of remelted and annealed highly crosslinked polyethylenes. *J Biomed Mater Res B Appl Biomater* 2007; 83(2): 380-90. (FI 2007: 1,933) 7/16

Lacoste F, Granizo JJ, Gómez-Barrena E: Reliability of a simple fluoroscopic method to study sagittal plane femorotibial contact changes during total knee arthroplasty flexion. *The Knee* 2007; 14: 289-294. (FI 2007: 1,307) 23/48

Gómez-Barrena E, Bonsfills N, Martin G, Ballesteros-Massó R, Foruria A, Nuñez-Molina A: Insufficient recovery of neuromuscular activity around the knee after experimental anterior cruciate ligament reconstruction. *Acta Orthop* 2008 Feb;79(1):39-47. (FI 2007: 1,285) 25/48

Esteban J, Gomez-Barrena E, Cordero J, Zamora N, Kinnari TJ, Fernandez-Roblas R. Evaluation of semiquantitative cultures from sonicated retrieved orthopaedic implants in the diagnosis of orthopaedic infection. *J Clin Microbiol.* 2008 Feb;46(2):488-92. (FI 2007: 3,708) 20/94

Kinnari T, Soininen A, Esteban J, Zamora N, Alakoski E, Kouri VP, Anttila A, Lappalainen R, Konttinen YT, Gomez-Barrena E, Tiainen VM. Adhesion of Staphylococcal and caco-2 cells on diamond-like carbon polymer hybrid coating. *J Biomed Mater Res A.* 2008 Sep;86(3):760-8. (FI 2007: 2,612) 5/16

Virtanen S, Milošev I, Gomez-Barrena E, Trebše R, Salo J, Konttinen YT. Special modes of corrosion under physiological and simulated physiological conditions. *Acta Biomater.* 2008 May;4(3):468-76. (FI 2007: 3,133) 2/16

- Garcia-Alvarez F, Castiella T, Guallar E, Grasa JM, Gomez-Barrena E, Lacleriga A. Influence of platelet time activation on articular cartilage growth in the rabbit knee. Preliminary study. *The Knee*. 2008 Aug;15(4):314-7. (FI 2007: 1,307) 23/48
- Bonsfills N, Gomez-Barrena E, Nuñez A. Loss of neuromuscular control related to motion in the acutely ACL-injured knee. An experimental study. *Eur J Appl Physiol* 2008 Oct;104(3):567-77. (FI 2007: 1,752) 44/78
- Gomez-Barrena E, Puertolas JA, Munuera L, Konttinen YT. UHMWPE research update: From the bench to the bedside. *Acta Orthop* 2008 Dec;79(6):832-40. (FI 2007: 1,285) 25/48
- Kinnari TJ, Esteban J, Martin-de-Hijas NZ, Sánchez-Muñoz O, Sánchez-Salcedo S, Colilla M, Vallet-Regí M, Gomez-Barrena E. The influence of surface porosity and pH on bacterial adherence to hydroxyapatite and biphasic calcium phosphate bioceramics. *J Med Microbiol*. 2009 Jan;58(Pt 1):132-7. (FI 2007: 2,091) 51/94
- Kinnari TJ, Esteban J, Gomez-Barrena E, Zamora N, Fernandez-Roblas R, Nieto A, Doadrio JC, López-Noriega A, Ruiz-Hernández E, Arcos D, Vallet-Regí M. Bacterial Adherence to SiO₂ based multifunctional bioceramics. *J Biomed Mater Res A*. 2009; 89(1): 215-23. (FI 2007: 2,612) 5/16
- Pascau A, Guardia B, Puértolas JA, Gómez-Barrena E: A knee model of hydrodynamic lubrication during the gait cycle and the influence of prosthetic joint conformity. *J Orthop Sci* 2009; 14(1): 68-75 (FI 2007: 0,704) 34/48
- Lozano D, F de Castro L, Dapia S, Andrade-Zapata I, Manzarbeitia F, Alvarez-Arroyo MV, Gomez-Barrena E, Esbrit P. Role of Parathyroid Hormone-Related Protein in the decreased osteoblast function in diabetes-related osteopenia. *Endocrinology* 2009; 150 (5): 2027-35. (FI 2007: 5,045) 16/92
- Goodman SB, Konttinen YT, Takagi M, Gomez-Barrena E. Biocompatibility of joint replacements. *J Biomed Mater Res A*. 2009 Aug;90(2):603-18. (FI 2007: 2,612) 5/16
- Bonsfills N, Nuñez A, Gomez-Barrena E. Muscle stimulation controls anterior knee laxity after experimental ACL section. *Arch Orthop Trauma Surg*. 2009 Aug;129(8):1053-61. (FI 2007: 0,913) 30/48
- Martin-de-Hijas N, García-Almeida D, Ayala G, Fernandez-Roblas R, Gadea I, Gómez-Barrena E, Esteban J. Biofilm development by clinical strains of non-pigmented rapidly growing mycobacteria. En prensa, *Clin Mic Infect* (13-03-09). *Clin Microbiol Infect*. 2009 Jul 14. [Epub ahead of print] (FI 2007: 2,980) 28/94
- Kinnari TJ, Esteban J, Zamora N, Fernandez R, López-Santos C, Yubero F, Mariscal D, Puertolas JA, Gomez-Barrena E. Effect of surface roughness and sterilisation on the adherence of *s. Aureus* and *s. Epidermidis* to ultra-high molecular weight polyethylene (UHMWPE).. *Clin Mic Infect*. (In press 29-06-09) (FI 2007: 2,980) 28/94
- Lozano D, Manzano M, Doadrio JC, Salinas A, Valler-Regi M, Gómez-Barrena E, Esbrit P. Osteostatin-loaded bioceramics stimulate osteoblastic growth and differentiation. *Acta Biomater*. (In press 25-08-09). (FI 2007: 3,133) 2/16
- Pajarinen J, Cenni E, Savarino L, Gomez-Barrena E, Tamaki Y, Takagi M, Jari Salo J, Konttinen YT. Toll-like receptors in foreign body and purulent synovitis in aseptic and septic loosening – a potential to respond against danger signals? *J Biomed Mater Res –A-* (In press 25-08-09). (FI 2007: 2,612) 5/16

Membership

Member, Spanish Society of Orthopaedic Surgery and Traumatology (SECOT), since 1992 (Associate Member, 1988-92); Member and Executive Committee (2006-), European Orthopaedic Research Society (EORS), since 1991; Member, Spanish Society of the Knee (SEROD) since 1992; International Member, American Academy of Orthopaedic Surgeons (AAOS), since 1997; Member, Iberian Society of Biomechanics and Biomaterials, since 2000; Member, Orthopaedic Research Society (ORS), since 2000.

Participation in meetings and publications

33 publications in books; 80 published papers; 125 presentations in National and International Meetings

Referee: *Rev Ortop Traum*; *Acta Orthop Scand* (*Acta Orthop*); *J Bone Joint Surg (Br)*; *J Biomed Mater Res –A-*; *Chemical Engineering Journal*; *Clinical Orthopaedics and Related Research*; *Clinical Anatomy*; *Diamond and related materials*; *Journal of Cellular and Molecular Medicine*; *Journal of Orthopaedic Research*; *Journal of Rheumatology*; *Libertas Academica*; *Seminars in Arthritis and Rheumatism*; *The Knee*; *The Open Orthopaedic Journal*

Editorial Board: *Techniques in Knee Surgery*, Lippincott Williams and Wilkins, Hagerstown MD, USA, since 2002; *Algia Hospital*, Ergon, Madrid, since 2006 (Co-editor); *The Open Orthopaedic Journal*, Bentham, UK, since 2007, *LA CHIRURGIA DEGLI ORGANI DI MOVIMENTO-Musculoskeletal Surgery*, Springer-Verlag, Italy, since 2009.

Scientific Committee, XXI Congress of SEROD, Madrid (Spain), 2002; 13rd Annual Meeting EORS, Helsinki (Finland), 2003; 41 Congress of SECOT, Madrid (Spain), 2004; 16th Annual Meeting EORS, Bologna (Italy), 2006; Chair, Organizing Committee, 3rd UHMWPE International Meeting, Madrid (Spain), 2007; Chair, Organizing Committee, 17th Annual Meeting EORS, Madrid (Spain), 2008.