

Lista de Publicaciones

Rolando A. Gittens, PhD – INDICASAT AIP

Artículos

1. Cheng A, Goodwin WB, deGlee BM, **Gittens RA**, Vernon JP, Hyzy SL, Schwartz Z, Sandhage KH, Boyan BD. Surface modification of bulk titanium substrates for biomedical applications via low-temperature microwave hydrothermal oxidation. *J Biomed Mater Res A*. 2018;106(3):782-796. (PMID: 29067777)
2. Stradecki-Cohan HM, Cohan CH, Raval AP, Dave KR, Reginensi D, **Gittens RA**, Youbi M, Perez-Pinzon MA. Cognitive Deficits after Cerebral Ischemia and Underlying Dysfunctional Plasticity: Potential Targets for Recovery of Cognition. *J Alzheimers Dis*. 2017;60(s1):S87-S105. (PMID: 28453486)
3. Reginensi D, Valerio S, Ortiz D, Pravia A, Morgan C, **Gittens RA**. Cerebral decellularized extracellular matrix as in vitro model for neural development *J Cereb Blood Flow Metab*. 2017;37(1S):260-261.
4. Coronado LM, Montealegre S, Chaverra Z, Mojica L, Espinosa C, Almanza A, Correa R, Stoute JA, **Gittens RA**, Spadafora C. Blood Stage Plasmodium falciparum Exhibits Biological Responses to Direct Current Electric Fields. *PLoS One*. 2016;11(8):e0161207 (PMID: 27537497)
5. Hyzy SL, Cheng A, Cohen DJ, Yatzkaier G, Whitehead AJ, Clohessy RM, **Gittens RA**, Boyan BD, Schwartz Z. Novel hydrophilic nanostructured microtexture on direct metal laser sintered Ti-6Al-4V surfaces enhances osteoblast response in vitro and osseointegration in a rabbit model. *J Biomed Mater Res A*. 2016 Aug;104(8):2086-98. (PMID: 27086616)
6. Wang X, Schwartz Z, **Gittens RA**, Cheng A, Olivares-Navarrete R, Chen H, Boyan BD. Role of integrin $\alpha 2 \beta 1$ in mediating osteoblastic differentiation on three-dimensional titanium scaffolds with submicron-scale texture. *J Biomed Mater Res A*. 2015;103(6):1907-18.(PMID: 25203434)
7. **Gittens RA**, Olivares-Navarrete R, Hyzy SL, Sandhage KH, Schwartz Z, Boyan BD. Superposition of Nanostructures on Microrough Titanium-Aluminum-Vanadium Alloy Surfaces Results in an Altered Integrin Expression Profile in Osteoblasts. *Connect Tissue Res*. 2014;55(Suppl 1): 164-8 (PMID: 25158204)
8. Lai M, Hermann CD, Olivares-Navarrete R, Cheng A, **Gittens RA**, Walker M, Cai Y, Cai K, Sandhage KH, Schwartz Z, Boyan BD. Role of $\alpha 2 \beta 1$ Integrins in Mediating Cell Shape on Microtextured Titanium Surfaces. *J Biomed Mater Res A*. 2015;103(2):564-73 (PMID: 24733736)
9. **Gittens RA**, Olivares-Navarrete R, Schwartz Z, Boyan BD. Implant osseointegration and the role of microroughness and nanostructures: Lessons for spine implants. *Acta Biomater*. 2014;10(8):3363-71 (PMID: 24721613)
10. **Gittens RA**, Scheideler L, Rupp F, Hyzy SL, Geis-Gerstorfer J, Schwartz Z, Boyan BD. A review on the wettability of dental implant surfaces II: Biological and clinical aspects. *Acta Biomater*. 2014;10(7):2907-18 (PMID: 24709541)
11. Rupp F, **Gittens RA**, Scheideler L, Marmur A, Boyan BD, et al. A review on the wettability of dental implant surfaces I: Theoretical and experimental aspects. *Acta Biomater*. 2014;10(7):2894-906. (PMID: 24590162)
12. **Gittens RA**, Olivares-Navarrete R, Rettew R, Butera RJ, Alamgir FM, et al. Electrical polarization of titanium surfaces for the enhancement of osteoblast differentiation. *Bioelectromagnetics*. 2013. 34(8):599-612 (PMID: 23996899).
13. Olivares-Navarrete R, Hyzy SL, **Gittens RA**, Schneider JM, Haithcock DA, Ullrich PF, Slosar PJ, et al. Rough titanium alloys regulate osteoblast production of angiogenic factors. *Spine J*. 2013;13(11): 1563-70 (PMID: 23684238).
14. **Gittens RA**, Olivares-Navarrete R, Cheng A, Anderson DM, McLachlan T, Stephan I, Fedorov AG, et al. The role of titanium surface micro/nanotopography and wettability on the differential response of human osteoblast lineage cells. *Acta Biomater*. 2012;9(4):6268-77 (PMID: 23232211).
15. **Gittens RA**, Olivares-Navarrete R, McLachlan T, Cai Y, Hyzy SL, Schneider JM, Schwartz Z, et al. Differential responses of osteoblast lineage cells to nanotopographically-modified, microroughened titanium-aluminum-vanadium alloy surfaces. *Biomaterials*. 2012;33(35):8986-94 (PMID: 22989383).
16. Olivares-Navarrete R, **Gittens RA**, Schneider JM, Hyzy SL, Haithcock D, Ullrich P, Schwartz Z, Boyan BD. Osteoblasts exhibit a more differentiated phenotype and increased BMP production on titanium alloy substrates than on PEEK. *Spine J*. 2012;12(3):265-72. (PMID: 22424980)
17. Wang X, **Gittens RA**, Song R, Tannenbaum R, Olivares-Navarrete R, Schwartz Z, et al. Effects of structural properties of electrospun TiO₂ nanofiber meshes on their osteogenic potential. *Acta Biomater*. 2012;8:878-85. (PMID: 22075122)
18. **Gittens RA**, Olivares-Navarrete R, Tannenbaum R, Boyan BD, Schwartz Z. Electrical implications of corrosion for osseointegration of titanium implants. *J Dent Res* 2011;90(12):1389-1397. (PMID: 21555775)
19. **Gittens RA**, McLachlan T, Olivares-Navarrete R, Cai Y, Berner S, Tannenbaum R, et al. The effects of combined micron-/submicron-scale surface roughness and nanoscale features on cell proliferation and differentiation. *Biomaterials*. 2011;32(13):3395-3403. (PMID: 21310480)
20. Lee CS, Moyer HR, **Gittens RA**, Williams JK, Boskey AL, Boyan BD, et al. Regulating in vivo calcification of alginate microbeads. *Biomaterials*. 2010;31(18):4926-4934. (PMID: 20363022)

Capítulos de Libros

21. Lee CS, Hermann CD, **Gittens RA**, Olivares-Navarrete R, Schwartz Z, Boyan BD. Bone bioengineering: scaffolds, growth factors and stem cells. In: Huang GTJ, Thesleff I, editors. Stem cells in craniofacial development and regeneration. Hoboken, NJ: John Wiley & Sons; 2013. p. 341-366.

Patentes

22. **Gittens Ibacache RA**, Vernon J, Sandhage KH, Boyan BD. Surface Modification of Implant Devices (Microwave Hydrothermal Treatment), 2013. US Patent PCT/US2012/068469.
23. **Gittens Ibacache RA**, Sandhage KH, Tannenbaum R, Schwartz Z, Boyan BD. Surface modification of implant devices (Gaseous Heat Treatment), 2013. US Patent US13/575,540.