



3.6.1 Bone Pathophysiology and Biomaterials Group

Publications: 6

Impact Factor: 40.556

Q1: 4



Research Activity

Publications

- Escudero-Duch C, Vilaboa N. Recent efforts in the development of nanomaterials to control transgene expression. *Nanomedicine*. 2020; 15(21): 2019-22. Editorial Material. IF: 5.307; Q1
- García-Rey E, Sirianni R, García-Cimbrelo E, Sedel L. Total hip arthroplasty after acetabular fracture: does initial treatment make any difference to the outcome? A 5-to 23-year follow-up with clinical and radiological analysis. *Hip Int*. 2020; 30(3): 339-46. Article. IF: 2.135; Q3
- Nakal-Chidiac A, García O, García-Fernandez L, Martín-Saavedra FM, Sánchez-Casanova S, Escudero-Duch C, San Román J, Vilaboa N, Aguilar MR. Chitosan-stabilized silver nanoclusters with luminescent, photothermal and antibacterial properties. *Carbohydr Polym*. 2020; 250: 116973. Article. IF: 9.381; D1

- Sánchez-Casanova S, Martín-Saavedra FM, Escudero-Duch C, Uceda MIF, Prieto M, Arruebo M, Acebo P, Fabiilli ML, Franceschi RT, Vilaboa N. Local delivery of bone morphogenetic protein-2 from near infrared-responsive hydrogels for bone tissue regeneration. *Biomaterials*. 2020; 241: 119909. Article. IF: 12.479; D1
- Vallés G, Bensiamar F, Maestro-Paramio L, García-Rey E, Vilaboa N, Saldaña L. Influence of inflammatory conditions provided by macrophages on osteogenic ability of mesenchymal stem cells. *Stem Cell Res Ther*. 2020; 11(1): 57. Article. IF: 6.832; Q1
- Voellmy R, Bloom DC, Vilaboa N. Herpes simplex viruses whose replication can be deliberately controlled as candidate vaccines. *Vaccines*. 2020; 8(2): 230. Review. IF: 4.422; Q2

Research projects

Lerma Juárez MA. Contrato predoctoral (PRE2019-090430). MICIU. 2020-2024.

Management centre: FIBHULP

Saldaña Quero L. Contrato predoctoral (PE-JD-2018-PRE/BMD-7965). CM. 2019-2020.

Management centre: FIBHULP

Saldaña Quero L. Identificación de factores moleculares implicados en la osteonecrosis idiopática: análisis del transcriptoma del tejido óseo (PI18/00643). ISCIII. 2019-2021.

Management centre: FIBHULP

Saldaña Quero L. Preacondicionamiento inflamatorio de células madre mesenquimales para su aplicación en terapias

avanzadas de regeneración ósea mediante ingeniería de tejidos (PI15/00752). ISCIII. 2016-2020.

Management centre: FIBHULP

Vilaboa Díaz NE, Saldaña Quero L. Desarrollo de fluidos que potencien o favorezcan la osteointegración de los implantes ante distintas situaciones. Mozo-Grau S. A. 2017-Ongoing.

Management centre: FIBHULP

Vilaboa Díaz NE, Saldaña Quero L. Ensayos de biocompatibilidad in vitro de Peek reforzado para prótesis de cadera. Universidad de Zaragoza. 2020-Ongoing.

Management centre: FIBHULP



Vilaboa Díaz NE, Saldaña Quero L. Ensayos in vitro de un recubrimiento osteoinductor (HA) en vástagos femorales anatómicos. Universidad de Zaragoza. 2020-Ongoing.

Management centre: FIBHULP

Vilaboa Díaz NE. Bone substitutes based on hydrogels responsive to near infrared light for the generation of therapeutic hyperthermia generation of therapeutic hyperthermia (NIRHYD). CIBER-BBN. 2018-2021.

Management centre: CIBER-BBN

Vilaboa Díaz NE. Contrato Miguel Servet Categoría A (CES07/031). CM. 2007-2025.

Management centre: FIBHULP

Vilaboa Díaz NE. Detección de activación de HSF parte II-IV. HSF Pharmaceuticals. 2004-Ongoing.

Management centre: FIBHULP

Vilaboa Díaz NE. Hidrogeles que responden a energía infrarroja y contienen adenovirus de alta capacidad. Aplicación en regeneración ósea (RTI2018-095159-B-I00). MICIU. 2019-2021.

Management centre: FIBHULP

Cibers and Retics

Vilaboa Díaz NE. Networked Biomedical Research Center for Bio-engineering, Biomaterials and Nanomedicine (CIBER-bbn). ISCIII (31/12/2021)

Patents and trademarks

Fabilli M, Wilson C, Padilla F, Martín Saavedra FM, inventors; The regents of the University of Michigan, assignee. Ultrasound-triggerable agents for tissue engineering; PCT/US2013/044817, US2013/0330389; 2012 June 08.

González Carrasco JL, Benavente Castro

R, Cifuentes Cuellar SC, Lieblich Rodríguez M, Olalde Graells B, Atorrasagasti Goyalde G, Argarate Madariaga N, Pacha Olivenza MA, Fernández Calderón MC, Saldaña Quero L, González Martín ML, Pérez Giraldo C, Gallardo Moreno AM, inventors; CSIC, Fundación Tecnalia Research & Innovation, FIBHULP, Universidad de Extremadura, Centro de Investigación Biomédica en Red (CIBER). Moldable, biodegradable, biocompatible and bioresorbable implant material, method for its preparation and uses thereof. P201530683; 2015 May 18.

Martín Saavedra FM, Vilaboa Díaz NE, Cebrián Hernando V, Arruebo Gordo M, Santamaría Ramiro J, Gómez Navascués L, inventors; FIBHULP, CIBER-BBN, Universidad de Zaragoza, assignees. Fibrin hydrogel with plasmonic nanoparticles; P201330894, PCT/ES2014/070484; 2013 June 14.

Vilaboa Díaz NE, Calzado Martín A, Crespo García L, Saldaña Quero L, Moreo Calvo P, Alastrué Vera V, inventors; FIBHULP, CIBER-BBN, assignees. Chamber device for dynamic cell culture on biomaterials; P201330040, PCT/ES2013/070819; 2013 January 16.

Vilaboa Díaz NE, González Carrasco JL, Multigner Domínguez M, Lieblich Rodríguez M, Muñoz Hernández M, Frutos Torres E, Saldaña Quero L, inventors; FIBHULP, CSIC, CIBER-BBN, Universidad Alfonso X El Sabio, assignees. Magnesium/polymer composite biomaterial for biomedical applications; P201030950, PCT/ES2011/070440; 2010 June 21.

Vilaboa Díaz NE, González Carrasco JL, Saldaña Quero L, Frutos Torres E, inventors; FIBHULP, CSIC, CIBER-BBN, assignees. Method to obtain a metallic-coated biomaterial; P201030949, PCT/ES2011/070400; 2010 June 21.

Voellmy R, Vilaboa Díaz NE, inventors; HSF Pharmaceuticals S.A., assignee. Inhibitors of heat shock factor I and uses thereof. US 62/495,501; 2016 September 16.

Voellmy R, Vilaboa Díaz NE. Inventors; HSF Pharmaceuticals SA. Assignees. Compounds that induce protein unfolding and a mitigated response thereto, and methods of use thereof. US 62/764,569. 2018 August 08

Voellmy R, Vilaboa Díaz NE. Inventors; HSF Pharmaceuticals SA. Assignees. Inhibitors of heat shock factors and uses thereof. US62/499,650. 2017 February 17

