

PERSONAL INFORMATION

Maria Del Val Bermejo Sanz

WORK EXPERIENCE

September 1989-December 1993

Research Assistant

Universidad de Valencia (Spain)

Research and laboratory practice teaching of Undergraduate students

January 1994-October 1998

Assistant Professor

Universidad de Valencia (Spain)

Research and education

November 1998-September 2008

Associate Professor

Universidad de Valencia (Spain)

Research and Education

October 2008-September 2010

Associate Professor

Universidad Miguel Hernandez (Spain)

Research and Education

October 2010- Present

Full Professor

Universidad Miguel Hernandez (Spain)

Research and Education

EDUCATION AND TRAINING

September 1983-September 1989

Pharmacy Degree

Universidad de Valencia (Spain)

October 1989-September 1992

Ph.D

Universidad de Valencia (Spain)

ADDITIONAL INFORMATION

Expertise

Intestinal drug absorption; Preclinical models of drug absorption, Cell culture models of biological barriers. Bioavailability, Bioequivalence, In vitro in vivo correlations, Pharmacokinetics, Biopharmacy, BCS, Biowaivers, Dissolution

Publications

Publications from 2006.

C. Fernandez-Teruel, I. Gonzalez-Alvarez, V. G. Casabo¹, A. Ruiz-Garcia, M. Bermejo. Kinetic modelling of the intestinal transport of sarafloxacin. Studies in situ in rat and in vitro in Caco-2 cells. Journal of Drug Targeting, April 2005; 13(3): 199-212

Miguel Angel Cabrera Perez, , Isabel Gonzalez Alvarez, Carlos Fernandez Teruel², Carmen Navarro Fontestad² Marival Bermejo Sanz. A Topological Sub-structural Approach for the Prediction of P-Glycoprotein Substrates. JOURNAL OF PHARMACEUTICAL SCIENCES, VOL. 95, NO. 3, MARCH 2006

Margarita Rodriguez-Ibanez, Gloria Sanchez-Castano, Manuela Montalar-Montero, Marival Bermejo, Teresa M^a Garrigues, Virginia Merino. Mathematical modelling of in situ and in vitro efflux of ciprofloxacin and grepafloxacin. Int J Pharm. 2006 Jan 3;307(1):33-41

Isabel Gonzalez-Alvarez¹, Carlos Fernandez-Teruel², Teresa M. Garrigues¹, Vicente G.

Casabo1, Ana Ruiz-Garcia3, Marival Bermejo. Kinetic modeling of passive transport and active efflux across Caco-2 cells using a compartmental approach in NONMEM. *Xenobiotica*, December 2005; 35(12): 1067-1088

Toshihide Takagi, Chandrasekharan Ramachandran, Marival Bermejo, Shinji Yamashita, Lawrence X. Yu, and Gordon L. Amidon. A Provisional Biopharmaceutical Classification of the Top 200 Oral Drug Products in the United States, Great Britain, Spain, and Japan. *Molecular Biopharmaceutics* 2006; 3(6); 631-643. DOI: 10.1021/mp0600182

Balakrishnan A, Hussainzada N, Gonzalez P, Bermejo M and Polli J.

Bias in estimation of transporter kinetic parameters from overexpression systems: Interplay of transporter expression level and substrate affinity. *JOURNAL OF PHARMACOLOGY AND EXPERIMENTAL THERAPEUTICS* 320 (1): 133-144 JAN 2007

Isabel Gonzalez-Alvarez, Carlos Fernandez-Teruel, Vicente G. Casabo-Alos, Teresa M. Garrigues, James E. Polli, Ana Ruiz-Garcia and Marival Bermejo

In situ Kinetic Modelling of Intestinal Efflux in Rats: Functional Characterization of Segmental Differences and Correlation With In Vitro Results. *Biopharm. Drug Dispos.* 28: 1-11 (2007)

PUBLICATIONS from 2008-2013

1. Title: "Purely in-silico BCS classification: Science based quality standards for the world's drugs" Authors: Dahan, Arik; Wolk, Omri; Kim, Young Hoon; Ramachandran, Chandrasekharan; Crippen, Gordon; Takagi, Toshihide; Bermejo, Marival; Amidon, Gordon Source: *Molecular Pharmaceutics Mol Pharm.* 2013 Oct 4. [Epub ahead of print] PMID: 24094040
2. Title: Hydrogels: an interesting strategy for smart drug delivery. Author(s): Gonzalez-Alvarez, Marta; Gonzalez-Alvarez, Isabel; Bermejo, Marival Source: *Therapeutic delivery* Volume: 4 Issue: 2 Pages: 157-60 Published: 2013-Feb DOI: 10.4155/tde.12.142
3. Title: Innovative in Vitro Method To Predict Rate and Extent of Drug Delivery to the Brain across the Blood-Brain Barrier Author(s): Mangas-Sanjuan, Victor; Gonzalez-Alvarez, Isabel; Gonzalez-Alvarez, Marta; Bermejo, Marival Source: *Molecular Pharmaceutics* Volume: 10 Issue: 10 Pages: 3822-3831 Published: OCT 2013 DOI: 10.1021/mp400294x
4. Title: Ion-pair strategy for enabling amifostine oral absorption: Rat in situ and in vivo experiments. Author(s): Samiei N, Mangas-Sanjuan V, Gonzalez-Alvarez I, Foroutan M, Shafaati A, Zarghi A, Bermejo M Source: *European journal of pharmaceutical sciences : official journal of the European Federation for Pharmaceutical Sciences* Volume: 49 Issue: 4 Pages: 499-504 Published: 2013-Jul-16 DOI: 10.1016/j.ejps.2013.04.025
5. Title: Mathematical modeling of oral absorption and bioavailability of a fluoroquinolone after its precipitation in the gastrointestinal tract Author(s): Fernandez-Teruel C, Mangas-Sanjuan V, Gonzalez-Alvarez I, Ruiz-Garcia A, Casabo VG, Bermejo M. Source: *Xenobiotica* Volume: 43 Issue: 9 Pages: 745-754 Published: SEP 2013 DOI: 10.3109/00498254.2012.759667
6. Title: Provisional classification and in silico study of biopharmaceutical system based on caco-2 cell permeability and dose number. Author(s): Pham-The, Hai; Garrigues, Teresa; Bermejo, Marival; Gonzalez-Alvarez, Isabel; Monteagudo, Maikel Cruz; Cabrera-Perez, Miguel Angel. Source: *Molecular pharmaceutics* Volume: 10 Issue: 6 Pages: 2445-61 Published: 2013-Jun-3 DOI: 10.1021/mp4000585
7. Title: Semisynthesis, Cytotoxic Activity, and Oral Availability of New Lipophilic 9-Substituted Camptothecin Derivatives. Author(s): Rodriguez-Berna, G, Cabanas, MJD; Mangas-Sanjuan,; Gonzalez-Alvarez, M ; Gonzalez-Alvarez, I; Abasolo, I; Schwartz, Bermejo, M; Corma, A. Source: *Acs Medicinal Chemistry Letters* Volume: 4 Issue: 7 Pages: 86-90 Published: JUL 2013 DOI: 10.1021/ml400125z.
8. Title: The Use of Rule-Based and QSPR Approaches in ADME Profiling: A Case Study on Caco-2 Permeability Author(s): Hai Pham-The, Isabel Gonzalez-Alvarez, Marival Bermejo, Teresa Garrigues, Huong Le-Thi-Thu, and Miguel Angel Cabrera-Perez. Source: *Molecular Informatics* Volume: 32 Issue: 5-6 Pages: 459-479 Published: JUN 2013 DOI: 10.1002/minf.201200166
9. Title: A new mathematical approach for the estimation of the AUC and its variability under different experimental designs in preclinical studies Author(s): Navarro Fontestad, C; Gonzalez-Alvarez, I; Fernandez Teruel, C; Bermejo, M; Casabo Alos, V. Source: *Pharmaceutical Statistics* Volume: 11 Issue: 1 Pages: 14-23 Published: JAN-FEB 2012 DOI: 10.1002/pst.484
10. Title: In vitro-in situ permeability and dissolution of fexofenadine with kinetic modeling in the

- presence of sodium dodecyl sulfate. Author(s): E. Gundogdu, V. Mangas-Sanjuan, I. Gonzalez-Alvarez, M. Bermejo, E. Karasulu. Source: European Journal of Drug Metabolism and Pharmacokinetics Volume: 37 Issue: 1 Pages: 65-75 Published: MAR 2012 DOI: 10.1007/s13318-011-0059-4
11. Title: QSPR in Oral Bioavailability: Specificity or Integrality? Author(s): Cabrera-Perez MA, Pham-The H, Bermejo M, Alvarez IG, Alvarez MG, Garrigues TM Source: Mini-Reviews in Medicinal Chemistry Volume: 12 Issue: 6 Pages: 534-550 Published: JUN 2012
12. Title: In Silico Prediction of Caco-2 Cell Permeability by a Classification QSAR Approach. Author(s): Hai Pham The, Isabel Gonzalez-Alvarez, Marival Bermejo, Victor Mangas Sanjuan, Inmaculada Centelles, Teresa M. Garrigues, Miguel Angel Cabrera-Perez Source: Molecular Informatics Volume: 30 Issue: 4 Pages: 376-385 Published: APR 2011 DOI: 10.1002/minf.201000118
13. Title: Influence of polyunsaturated fatty acids on Cortisol transport through MDCK and MDCK-MDR1 cells as blood-brain barrier in vitro model. Author(s): Navarro, C.; Gonzalez-Alvarez, I.; Gonzalez-Alvarez, M.; Manku, M.; Merino, M.; Casabo, V.G.; Bermejo, M. Source: European Journal of Pharmaceutical Sciences Volume: 42 Issue: 3 Pages: 290-299 Published: FEB 14 2011 DOI: 10.1016/j.ejps.2010.12.005
14. Title: An Exploratory Study of Two Caco-2 Cell Models for Oral Absorption: A Report on Their Within-laboratory and Between-laboratory Variability, and Their Predictive Capacity Author(s): Prieto, P; Hoffmann, S; Tirelli, V; Tancredi, F; Gonzalez, I; Bermejo, M; and De Angelis, I. Source: Atla-Alternatives To Laboratory Animals Volume: 38 Issue: 5 Pages: 367-386 Published: OCT 2010
15. Title: Computer simulations for bioequivalence trials: Selection of analyte in BCS drugs with first-pass metabolism and two metabolic pathways Author(s): Navarro-Fontestad, Carmen; Gonzalez-Alvarez, Isabel; Fernandez-Teruel, Carlos; Casabo-Alos, Vicente and Bermejo, Marival. Source: European Journal of Pharmaceutical Sciences Volume: 41 Issue: 5 Pages: 716-728 Published: DEC 23 2010 DOI: 10.1016/j.ejps.2010.09.017
16. Title: Drug penetration across the blood-brain barrier: an overview. Author(s): Mangas V; Gonzalez-Alvarez M.; Gonzalez-Alvarez I.; Bermejo M. Source: Therapeutic delivery Volume: 1 Issue: 4 Pages: 535-62 Published: 2010-Oct. DOI: 10.4155/tde.10.37
17. Title: Computer simulations of bioequivalence trials: Selection of design and analyte in BCS drugs with first-pass hepatic metabolism: Linear kinetics (I) Author(s): Fernandez-Teruel C, Nalda Molina R, Gonzalez-Alvarez I, Navarro-Fontestad C, Garcia-Arieta A, Casabo VG, Bermejo M. Source: EUROPEAN JOURNAL OF PHARMACEUTICAL SCIENCES Volume: 36 Issue: 1 Pages: 137-146 Published: 2009
18. Title: Computer simulations of bioequivalence trials: Selection of design and analyte in BCS drugs with first-pass hepatic metabolism: Part II. Non-linear kinetics. Author(s): Fernandez-Teruel C, Gonzalez-Alvarez I, Navarro-Fontestad C, Garcia-Arieta A, Bermejo M, Casabo VG. Source: EUROPEAN JOURNAL OF PHARMACEUTICAL SCIENCES Volume: 36 Issue: 1 Pages: 147-156 Published: 2009
19. Title: Unique pharmacology of KAR-2, a potential anti-cancer agent: Absorption modelling and selective mitotic spindle targeting. Author(s): Gonzalez-Alvarez I, Gonzalez-Alvarez M, Oltra-Noguera D, Merino V, Tokesi N, Ovadi J, Bermejo M. Source: EUROPEAN JOURNAL OF PHARMACEUTICAL SCIENCES Volume: 36 Issue: 1 Pages: 11-19 Published: 2009
20. Title: Biowaiver Monographs for Immediate Release Solid Oral Dosage Forms: Aciclovir. Author(s): Arnal J, Gonzalez-Alvarez I, Bermejo M, Amidon GL, Junjinger HE, Kopp S, Midha KK, Shah VP, Stavchansky S, Dresman J, Barends DM, Source: JOURNAL OF PHARMACEUTICAL SCIENCES Volume: 97 Issue: 12 Pages: 5061-5073 Published: 2008
21. Title: Pharmacokinetics in drug discovery. Author(s): Ana Ruiz-Garcia¹, Marival Bermejo², Aaron Moss³, Vicente G. Casabo. Source: JOURNAL OF PHARMACEUTICAL SCIENCES Volume: 97 Issue: 2 Pages: 654-690 Published: FEB 2008
22. Title: Progress in the development of early diagnosis and a drug with unique pharmacology to improve cancer therapy. Author(s): A. LEHOTZKY, N. TOKESI 1, I. GONZALEZ-ALVAREZ 2, V. MERINO , M. BERMEJO ; F. OROSZ , P. LAU, G. G. KOVACS AND J. OVADI. Source: PHILOSOPHICAL TRANSACTIONS OF THE ROYAL SOCIETY A-MATHEMATICAL PHYSICAL AND ENGINEERING SCIENCES Volume: 366 Issue: 1880 Pages: 3599-3617 Published: 2008
1. Colon-Useche S, Gonzalez-Alvarez I, Mangas-Sanjuan V, Gonzalez-Alvarez M, Pastoriza P, Molina-Martinez I, Bermejo M, Garcia-Arieta A. 2015. Investigating the Discriminatory Power of BCS-Biowaiver in Vitro Methodology to Detect Bioavailability Differences between Immediate Release Products Containing a Class I Drug Molecular Pharmaceutics 2015 doi:

10.1021/acs.molpharmaceut.5b00076

2. Cuesta-Gragera A, Navarro-Fontestad C, Mangas-Sanjuan V, Gonzalez-Alvarez I, Garcia-Arieta A, Troconiz IF, Casabo VG, Bermejo M 2015. Semi-physiologic model validation and bioequivalence trials simulation to select the best analyte for acetylsalicylic acid. *European journal of pharmaceutical sciences : official journal of the European Federation for Pharmaceutical Sciences* 74:86-94.

3. Cuesta-Gragera A, Navarro-Fontestad C, Mangas-Sanjuan V, Gonzalez-Alvarez I, Garcia-Arieta A, Troconiz IF, Casabo VG, Bermejo M 2015. Validation of a semi-physiological model for caffeine in healthy subjects and cirrhotic patients. *European journal of pharmaceutical sciences : official journal of the European Federation for Pharmaceutical Sciences* 73:57-63.

4. Lozoya-Agullo I, Zur M, Wolk O, Beig A, Gonzalez-Alvarez I, Gonzalez-Alvarez M, Merino-Sanjuan M, Bermejo M, Dahan A 2015. In-situ intestinal rat perfusions for human F-abs prediction and BCS permeability class determination: Investigation of the single-pass vs. the Doluisio experimental approaches. *International Journal of Pharmaceutics* 480(1-2):1-7.

5. Oltra-Noguera D, Mangas-Sanjuan V, Centelles-Sanguesa A, Gonzalez-Garcia I, Sanchez-Castano G, Gonzalez-Alvarez M, Casabo V-G, Merino V, Gonzalez-Alvarez I, Bermejo M 2015. Variability of permeability estimation from different protocols of subculture and transport experiments in cell monolayers. *Journal of Pharmacological and Toxicological Methods* 71:21-32.

6. Isabel Lozoya-Agullo, Isabel Gonzalez-Alvarez, Marta Gonzalez-Alvarez, Matilde Merino-sanjuan and Marival Bermejo. In Situ Perfusion Model in Rat Colon for Drug Absorption Studies: Comparison with Small Intestine and Caco-2 Cell Model 2015 *Journal of Pharmaceutical Sciences* Volume 104, Issue 9 (pages 3136-3145). Article first published online: 17 APR 2015 | DOI: 10.1002/jps.24447

7. Malgorzata Frik, Jacob Fernandez-Gallardo, Oscar Gonzalo, Victor Mangas-Sanjuan, Marta Gonzalez-Alvarez, Alfonso Serrano del Valle, Chunhua Hu, Isabel Gonzalez-Alvarez, Marival Bermejo, Isabel Marzo, and Maria Contel. Cyclometalated Iminophosphorane Gold(III) and Platinum(II) Complexes. A Highly Permeable Cationic Platinum(II) Compound with Promising Anticancer Properties. *Journal of Medicinal Chemistry*. 2015 Vol X pages XX DOI: 10.1021/acs.jmedchem.5b00427.

8. Isabel Borrás-Linares, María Herranz-López, Enrique Barrajon-Catalan, David Arraez-Roman, Isabel Gonzalez-Alvarez, María del Val Bermejo, Alberto Fernandez Gutierrez, Vicente Micol, and Antonio Segura-Carretero. Permeability Study of Polyphenols Derived from a Phenolic-Enriched Hibiscus sabdariffa Extract by UHPLC-ESI-UHR-Qq-TOF-MS. *Int. J. Mol. Sci.* 2015, 16, 1-x; doi:10.3390/ijms160x000x

9. Oltra-Noguera, D., Mangas-Sanjuan, V., Gonzalez-Alvarez, I., Colon-Useche, S., Gonzalez-Alvarez, M., Bermejo, M., Drug gastrointestinal absorption in rat: strain and gender differences, *European Journal of Pharmaceutical Sciences* (2015), doi: <http://dx.doi.org/10.1016/j.ejps.2015.07.021>.

10. Ignacio Gonzalez-Garcia, Victor Mangas-Sanjuan, Matilde Merino-Sanjuan, and Marival Bermejo. In vitro-in vivo correlations: general concepts, methodologies and regulatory applications. *Drug Development and Industrial Pharmacy*. <http://informahealthcare.com/ddi>. ISSN: 0363-9045 (print), 1520-5762 (electronic). (doi:10.3109/03639045.2015.1054833)

*"Low Buffer Capacity and Alternating Motility Along The Human Gastrointestinal Tract: Implications for In Vivo Dissolution and Absorption of Ionizable Drugs". Hens, Bart; Tsume, Yasuhiro; Bermejo, Marival; Paixao, Paulo; Koenigsnecht, Mark; Baker, Jason; Hasler, William; Lionberger, R.; Fan, Jianghong; Dickens, Joseph; Shedden, Kerby; Wen, Bo; Wysocki, Jeffrey; Lobenberg, Raimar; Lee, Allen; Fioritto, Ann; Amidon, Gregory E.; Yu, Alex; Benninghoff, Gail; Salehi, Niloufar; Talatoff, Arjang; Sun, Duxin; Amidon, Gordon *Mol Pharm.* 2017 Dec 4;14(12):4281-4294. doi: 10.1021/acs.molpharmaceut.7b00426. Epub 2017 Aug 4.

*Gonzalez-Garcia, I.; Mangas-Sanjuan, V.; Merino-Sanjuan, M.; Alvarez-Alvarez, C.; Diaz-Garzon, J.; Rodriguez-Bonnin, A.; Langguth, T.; Torrado-Duran, J.J.; Langguth, P.; Garcia-Arieta, A.; Bermejo, M... IVIVC approach based on Carbamazepine Bioequivalence. *Pharmazie* 72 (2017) doi: 10.1691/ph.2017.7011

* Gated Mesoporous silica nanocarriers for a "Two-Step" Targeted system to colonic tissue. M. Gonzalez-Alvarez, I. Gonzalez-Alvarez, C. Coll2, C. Gimenez, E. Aznar, V. Mangas-Sanjuan, M. Bermejo, F. Sancenon, R. Martinez-Manez.: *Mol Pharm.* 2017 Dec 4;14(12):4442-4453. doi: 10.1021/acs.molpharmaceut.7b00565. Epub 2017 Nov 9.

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*Comparison of segmental-dependent permeability in human and in situ perfusion model in rat. Ruiz-Picazo Alejandro, Lozoya-Agullo Isabela, b, Ortiz-Azcarate Miguela, Merino-Sanjuan Matildeb, c, Gonzalez-Alvarez Martaa, Gonzalez-Alvarez Isabel, Bermejo Marival, , *Eur J Pharm Sci.*

2017 Sep 30;107:191-196. doi: 10.1016/j.ejps.2017.06.033. Epub 2017 Jul 4.

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*Investigating drug absorption from the colon: Single-pass vs. Doluisio approaches to in-situ rat large-intestinal perfusion.

Lozoya-Agullo I, Zur M, Fine-Shamir N, Markovic M, Cohen Y, Porat D, Gonzalez-Alvarez I, Gonzalez-Alvarez M, Merino-Sanjuan M, Bermejo M, Dahan A. *Int J Pharm.* 2017 Jul 15;527(1-2):135-141. doi: 10.1016/j.ijpharm.2017.05.018. Epub 2017 May 10. PMID: 28501438

*Usefulness of Caco-2/HT29-MTX and Caco-2/HT29-MTX/Raji B Coculture Models To Predict Intestinal and Colonic Permeability Compared to Caco-2 Monoculture. Lozoya-Agullo I, Araujo F, Gonzalez-Alvarez I, Merino-Sanjuan M, Gonzalez-Alvarez M, Bermejo M, Sarmento B. *Mol Pharm.* 2017 Apr 3;14(4):1264-1270. doi: 10.1021/acs.molpharmaceut.6b01165. Epub 2017 Mar 10. PMID: 28263609

*Evaluation of the intestinal permeability of rosemary (*Rosmarinus officinalis* L.) extract polyphenols and terpenoids in Caco-2 cell monolayers. Perez-Sanchez A, Borrás-Linares I, Barrajón-Catalán E, Arraez-Roman D, Gonzalez-Alvarez I, Ibanez E, Segura-Carretero A, Bermejo M, Micol V. *PLoS One.* 2017 Feb 24;12(2):e0172063. doi: 10.1371/journal.pone.0172063. eCollection 2017. PMID: 28234919

Publications 2016

Mangas-Sanjuan V, Gutierrez-Nieto J, Echezarreta-Lopez M, Gonzalez-Alvarez I, Gonzalez-Alvarez M, Casabo VG, Bermejo M, Landin M. Intestinal Permeability of -Lapachone and Its Cyclodextrin Complexes and Physical Mixtures.

Eur J Drug Metab Pharmacokinet. 2016 Dec;41(6):795-806. PMID: 26602766

Pham-The H, Casanola-Martin G, Garrigues T, Bermejo M, Gonzalez-Alvarez I, Nguyen-Hai N, Cabrera-Perez MA, Le-Thi-Thu H. Exploring different strategies for imbalanced ADME data problem: case study on Caco-2 permeability modeling. *Mol Divers.* 2016 Feb;20(1):93-109. doi: 10.1007/s11030-015-9649-4. (gestor 2015)

Mangas-Sanjuan V, Colon-Useche S, Gonzalez-Alvarez I, Bermejo M, Garcia-Arieta A Assessment of the Regulatory Methods for the Comparison of Highly Variable Dissolution Profiles. *AAPS J.* 2016 Nov;18(6):1550-1561. PMID: 27571779

Bermejo M, Mangas-Sanjuan V, Gonzalez-Alvarez I, Gonzalez-Alvarez M. Enhancing Oral Absorption of -Lapachone: Progress Till Date. *Eur J Drug Metab Pharmacokinet.* 2017 Feb;42(1):1-10. doi: 10.1007/s13318-016-0369-7. Review.

PMID: 27538882 [PubMed - indexed for MEDLINE]

Perez-Castello I, Mangas-Sanjuan V, Gonzalez-Garcia I, Gonzalez-Alvarez I, Bermejo M, Marco-Garbayo JL, Troconiz IF.. Population pharmacokinetic model of lithium and drug compliance assessment. *Eur Neuropsychopharmacol.* 2016 Dec;26(12):1868-1876. doi: 10.1016/j.euroneuro.2016.11.005. PMID: 27865605

Lozoya-Agullo I, Zur M, Beig A, Fine N, Cohen Y, Gonzalez-Alvarez M, Merino-Sanjuan M, Gonzalez-Alvarez I, Bermejo M, Dahan A Segmental-dependent permeability throughout the small intestine following oral drug administration: Single-pass vs. Doluisio approach to in-situ rat perfusion. *Int J Pharm.* 2016 Dec 30;515(1-2):201-208. doi: 10.1016/j.ijpharm.2016.09.061. PMID: 27667756

Lozoya-Agullo I, Gonzalez-Alvarez I, Gonzalez-Alvarez M, Merino-Sanjuan M, Bermejo M. Development of an ion-pair to improve the colon permeability of a low permeability drug: Atenolol. *Eur J Pharm Sci.* 2016 Oct 10; 93:334-40. doi: 10.1016/j.ejps.2016.08.035. PMID: 27552904

Determination of intestinal permeability using in situ perfusion model in rats: Challenges and advantages to BCS classification applied to digoxin.. Caldeira TG, Ruiz-Picazo A, Lozoya-Agullo I, Saude-Guimaraes DA, Gonzalez-Alvarez M, de Souza J, Gonzalez-Alvarez I, Bermejo M. *Int J Pharm.* 2018 Nov 15;551(1-2):148-157. doi: 10.1016/j.ijpharm.2018.09.022. Epub 2018 Sep 13. PMID: 30218825

Giardiasis: Characteristics, Pathogenesis and New Insights About Treatment

V. Vivancos, I. Gonzalez-Alvarez, M. Bermejo and M. Gonzalez-Alvarez*. *Current Topics in Medicinal Chemistry*; Vol. 18; 2018, 00. *Curr Top Med Chem.* 2018;18(15):1287-1303. doi: 10.2174/1568026618666181002095314.

<http://www.eurekaselect.com/165818/article>

Linking the Gastrointestinal Behavior of Ibuprofen with the Systemic Exposure between and within Humans-Part 2: Fed State.

Paixao P, Bermejo M, Hens B, Tsume Y, Dickens J, Shedden K, Salehi N, Koenigsnecht MJ, Baker

JR, Hasler WL, Lionberger R, Fan J, Wysocki J, Wen B, Lee A, Frances A, Amidon GE, Yu A, Benninghoff G, Lobenberg R, Talattof A, Sun D, Amidon GL. *Mol Pharm*. 2018 Nov 12. doi: 10.1021/acs.molpharmaceut.8b00736. [Epub ahead of print]

PMID: 30417648

Linking the Gastrointestinal Behavior of Ibuprofen with the Systemic Exposure between and within Humans-Part 1: Fasted State Conditions.

Bermejo M, Paixao P, Hens B, Tsume Y, Koenigsnecht MJ, Baker JR, Hasler WL, Lionberger R, Fan J, Dickens J, Shedden K, Wen B, Wysocki J, Lobenberg R, Lee A, Frances A, Amidon GE, Yu A, Salehi N, Talattof A, Benninghoff G, Sun D, Kuminek G, Cavanagh KL, Rodriguez-Hornedo N, Amidon GL. *Mol Pharm*. 2018 Nov 12. doi: 10.1021/acs.molpharmaceut.8b00515. [Epub ahead of print] PMID: 30372084

Title: Long-Circulating Hyaluronan-Based Nanohydrogels as Carriers of Hydrophobic Drugs

Authors: Chiara Di Meo, Mayte Martinez-Martinez, Tommasina Coviello, Marival Bermejo, Virginia Merino, Isabel Gonzalez-Alvarez, Marta Gonzalez-Alvarez, Pietro Matricardi. *Pharmaceutics* 2018, 10(4), 213; <https://doi.org/10.3390/pharmaceutics10040213> (registering DOI)

Mass Transport Analysis of the Enhanced Buffer Capacity of the Bicarbonate-CO₂ Buffer in an Open System: Physiological and Pharmaceutical Significance" Author(s): Al-Gousous, Jozef; Sun, Kathy; McNamara, Daniel; Hens, Bart; Salehi, Niloufar; Langguth, Peter; Bermejo, Marival; Amidon, Gregory E.; Amidon, Gordon. *Mol Pharm*. 2018 Nov 5;15(11):5291-5301. doi: 10.1021/acs.molpharmaceut.8b00783. Epub 2018 Oct 26.

PMID: 30362350

Preclinical models for colonic absorption, application to controlled release formulation development. Isabel Lozoya-Agullo, Isabel Gonzalez Alvarez, Matilde Merino-Sanjuan, Marival Bermejo, Marta Gonzalez Alvarez Corresponding author. Isabel Gonzalez-Alvarez *Eur J Pharm Biopharm*. 2018 Sep;130:247-259. doi: 10.1016/j.ejpb.2018.07.008. Epub 2018 Jul 6.

In Vitro Dissolution as a Tool for Formulation Selection: Telmisartan Two-Step IVIVC. Ruiz Picazo A, Martinez-Martinez MT, Colon-Useche S, Iriarte R, Sanchez-Dengra B, Gonzalez-Alvarez M, Garcia-Arieta A, Gonzalez-Alvarez I, Bermejo M.

Mol Pharm. 2018 Jun 4;15(6):2307-2315. doi: 10.1021/acs.molpharmaceut.8b00153. Epub 2018 May 17. PMID: 29746133

Gastric Emptying and Intestinal Appearance of Nonabsorbable Drugs Phenol Red and Paromomycin in Human Subjects: A Multi-Compartment Stomach Approach. Paixao P, Bermejo M, Hens B, Tsume Y, Dickens J, Shedden K, Salehi N, Koenigsnecht MJ, Baker JR, Hasler WL, Lionberger R, Fan J, Wysocki J, Wen B, Lee A, Frances A, Amidon GE, Yu A, Benninghoff G, Lobenberg R, Talattof A, Sun D, Amidon GL. *Eur J Pharm Biopharm*. 2018 May 29. pii: S0939-6411(18)30404-1. doi: 10.1016/j.ejpb.2018.05.033. [Epub ahead of print] PMID: 29857136

Biopharmaceutical Optimization in neglected diseases for paediatric patients by applying the provisional paediatric Biopharmaceutical Classification System. Del Moral Sanchez JM, Gonzalez Alvarez I, Cerda Revert A, Gonzalez Alvarez M, Navarro Ruiz A, Amidon GL, Bermejo Sanz M. *Br J Clin Pharmacol*. 2018 May 30. doi: 10.1111/bcp.13650. [Epub ahead of print] PMID: 29846973

Computer simulations for bioequivalence trials: Selection of analyte in BCS class II and IV drugs with first-pass metabolism, two metabolic pathways and intestinal efflux transporter. Victor Mangas-Sanjuan, Carmen Navarro-Fontestad, Alfredo Garcia-Arieta, Inaki F. Troconiz, Marival Bermejo. *European Journal of Pharmaceutical Sciences*. Volume 117, 30 May 2018, Pages 193-203 DOI: 10.1016/j.ejps.2018.02.014

2. Title: Defining level A IVIVC dissolution specifications based on individual in vitro dissolution profiles of a controlled release formulation. Author(s): I Gonzalez-Garcia¹, A Garcia-Arieta^{2,a}, M Merino-Sanjuan^{1,3}, V Mangas-Sanjuan^{1,3}*, M Bermejo⁴

Source: *European journal of pharmaceutical sciences* : Volume: 119 Pages: 200-207 Published: 2018-Jul-01

DOI: 10.1016/j.ejps.2018.04.025

Semi-mechanistic Pharmacokinetic/Pharmacodynamic model of three pegylated rHuEPO and ior(R)EPOCIM in New Zealand rabbits. G. Reynaldo-Fernandez, J. Solozabal, D. Amaro, E.M. Fernandez-Sanchez, L. Rodriguez-Vera, M. Bermejo V. Mangas-Sanjuand, I.F. Troconiz *European Journal of Pharmaceutical Sciences* Volume 120, 30 July 2018, Pages 123-132

Summary of the In Vivo Predictive Dissolution (iPD) -Oral Drug Delivery (ODD) Conference 2018 Bart Hens, Jozef Al-Gousous, Kai Wang, Niloufar Salehi, Robert M. Ziff, Yasuhiro Tsume, Marival Bermejo, Paulo Paixao, James G. Brasseur, Alex Yu, Arjang Talattof, Gail Benninghoff, Peter

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Title: Classification of WHO Essential Oral Medicines for Children Applying a Provisional Pediatric Biopharmaceutics Classification System

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Ion-pair approach coupled with nanoparticle formation to increase bioavailability of a low permeability charged drug

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Level A IVIVC for immediate release tablets confirms in vivo predictive dissolution testing for ibuprofen.

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Exploring the Predictive Power of the In Situ Perfusion Technique towards Drug Absorption: Theory, Practice, and Applications.

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Biomimetic Artificial Membrane Permeability Assay over Franz Cell Apparatus Using BCS Model Drugs.

de Souza Teixeira L, Vila Chagas T, Alonso A, Gonzalez-Alvarez I, Bermejo M, Polli J, Rezende KR. *Pharmaceutics*. 2020 Oct 19;12(10):988. doi: 10.3390/pharmaceutics12100988.

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Sanchez-Dengra B, Gonzalez-Alvarez I, Bermejo M, Gonzalez-Alvarez M.

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Projects

1. NoE Biosim :Biosimulation A new tool in drug development (LSHB-CT-2004-005137)

Entidad Financiadora: European Commission

Duracion 5 anos.

Investigador responsable: Prof. Erik Mosekilde. Technical University of Denmark

Numero de investigadores participantes:3 de la Universidad de Valencia. 40 en total

Investigador principal grupo UVEG: Marival Bermejo.

2. (AGL2005-06191-C02-01/ALI) MODELOS IN VITRO E IN SILICO PARA LA PREDICCION DE LA BIODISPONIBILIDAD DE COMPONENTES FUNCIONALES

Entidad financiadora. Ministerio de Educacion y ciencia

Duracion 3 anos

Entidades participantes Universidad de Valencia- IATA (CSIC)

Investigador principal: Marival Bermejo

Numero de investigadores participantes: 3 de la Universidad de Valencia-3 del IATA

3. STREP project: MEMTRANS: Membrane transporters: In vitro models for the study of their role in drug fate (FP6 LSHB-CT-2006- 518246)

Entidad Financiadora: Comision Europea

Duracion 3 anos

Entidades participantes: 6 grupos de investigacion europeos(4 Pymes + 2 Universidades)

Investigador Principal: Marival Bermejo

Numero de Investigadores participantes: 12 (2 por cada institucion)

4. Sistema de analisis STREP project: MEMTRANS:

Entidad Financiadora Ministerio Investigacion y ciencia

SAF2006-27499-E

Duracion 2 anos

Entidades participantes: UVEG

Investigador Principal: Marival Bermejo

Numero de Investigadores participantes: 1

5. Titulo (Fun-C-Food)

Entidad Financiadora Ministerio Investigacion y Ciencia

Consolider Ingenio 2010, CSD2007-00063

Duracion 5 anos

IP: Paco Tomas.

6. Modelos "in silico" para la prediccion de la Biodisponibilidad Oral de Farmacos:

Entidad Financiadora: Agencia Espanola de Cooperacion Internacional

A/016236/08.
Duracion 2 anos.
IP Marival Bermejo.

7. Proyecto Docencia. Fortalecimiento de la capacidad academica e investigativa en las ciencias biofarmaceuticas para profesionales vinculados al desarrollo de medicamentos.

Entidad Financiadora: Agencia Espanola de Cooperacion Internacional

B/020808/08

Duracion 1 ano

IP Marival Bermejo

8. Proyecto Docencia. Fortalecimiento de la capacidad academica e investigativa en las ciencias biofarmaceuticas para profesionales vinculados al desarrollo de medicamentos.

Entidad Financiadora: Agencia Espanola de Cooperacion Internacional

B/020808/09

Duracion 1 ano

IP Vicente Casabo

9. Modelizacion y simulacion para el diseno de nuevos medicamentos

Entidad Financiadora: Ministerio de ciencia y Tecnologia

SAF2009-12768.

Duracion 3 anos

IP Vicente Casabo

10. Montaje de un laboratorio de quimica computacional con fines academicos y cientificos para el diseno racional de nuevos candidatos a farmacos en enfermedades de alto impacto social
D/024153/09.

Entidad Financiadora: Agencia Espanola de Cooperacion Internacional

Duracion: 2 anos

Investigador responsable: Teresa Garrigues.

11. Red para el desarrollo de metodologias Biofarmaceuticas racionales que incrementen la competencia y el impacto social de las industrias farmaceuticas locales (RED BioFarma).

DCI-ALA/19.09.01/10/21526/245-297/ALFA III (2010) 29

Entidad Financiadora Comision Europea

Duracion: 3 anos

Investigador responsable: Marival Bermejo

"MODELOS IN VITRO DE EVALUACION BIOFARMACEUTICA" SAF2016-78756(AEI/FEDER, EU)
funded by Agencia Estatal Investigacion and European Union, through FEDER (Fondo Europeo de Desarrollo Regional)

Memberships

Member of

1)EUFEPS (European Society of Pharmaceutical Sciences)

2)SEFIG (Spanish Society of Industrial Pharmacy and Pharmaceutical Technology)

3)SEBBM (Spanis Society of Biochemistry and Molecular Biology).

Member of the Editorial Board of

1)European Journal of Pharmaceutical Science

2)Therapeutic Delivery

Board Member of the "Drug Delivery Foundation"

Foreign Member of the Academy of Pharmacist from Chile.
Member of AAPS
Member of the board of the Drug delivery foundation (www.ddfint.org)

Other Relevant Information