

## **CURRICULUM VITAE**

Christos Reppas

**BIRTHPLACE:** Athens, Greece

**BIRTHDATE:** 29 January 1961

**MARITAL STATUS:** Married to Vassiliki Loi (1996)  
Children: Yannis, 1997, Maria, 2000

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## **EDUCATION**

- 1982 Bachelor of Pharmacy, National & Kapodistrian University of Athens, Greece  
1986 Doctor of Philosophy in Biopharmaceutics, University of Athens, Greece

## **POSITIONS HELD**

- Research Assistant during the Military Service (NIMTS Hospital, Clinical Pharmacokinetics Laboratory) Athens, Greece (1986 - 1987)
- Research Fellow, College of Pharmacy, The University of Michigan, Ann Arbor, Michigan, USA (1988 - 1989)
- Lecturer, Department of Pharmaceutical Technology, Faculty of Pharmacy, National & Kapodistrian University of Athens, Greece (1989 - 1993)
- Assistant Professor, Department of Pharmaceutical Technology, Faculty of Pharmacy, National & Kapodistrian University of Athens, Greece (1993 – 2002)
- Associate Professor, Department of Pharmaceutical Technology, Faculty of Pharmacy, National & Kapodistrian University of Athens, Greece (2002 – 2010)
- Professor, Department of Pharmaceutical Technology, Faculty of Pharmacy, National & Kapodistrian University of Athens, Greece (2010-present)

## **PROFESSIONAL INVOLVEMENT**

### **Registered Pharmacist**

Greece (1983)

### **Association Memberships**

AAPS

CRS

EUFEPS

Greek CRS Chapter [Member of the Board of Directors (1991-1999)]

### **Reviewer / Editorial Board Memberships**

Journal of Drug Delivery Science & Technology (2002-today) / Member of the Editorial Board (2002-today)

Biopharmaceutics & Drug Disposition (2006-2009) / Member of the Editorial Board (2006-present)

Die Pharmazie (2000-2007) / Member of the Editorial Board (2000-2007)

Farmakeftiki (Greek) (1991-1995)

Diabetes Nutrition & Metabolism (1994)

CRC Nutrition Reviews (2005)

Pharmaceutical Research (1995-present)

Journal of Pharmaceutical Sciences (1996-present) – 2011 top reviewer

Journal of Pharmacy and Pharmacology (1996-present) / Member of the Editorial Board (2014 – present)

International Journal of Pharmaceutics (1999-present)

European Journal of Pharmaceutical Sciences (2000-present)

European Journal of Pharmaceutics and Biopharmaceutics (2003-present)

Journal of Controlled Release (1997-present)  
Drug Development and Industrial Pharmacy (2003-present)  
Molecular Pharmaceutics (2008-present)

Evaluator of European Universities  
2012

### **Other activities/achievements**

- Visiting scientist, Department of Pharmacy, Chelsea College, University of London, UK (1984)
- Senior Research Fellow, College of Pharmacy, The University of Michigan, Ann Arbor, Michigan, USA (1990)
- Temporary Pharmacokineticist, Department of Clinical Pharmacokinetics, Glaxo Group Research Ltd., Greenford, Middlesex, UK (1993)
- Construction of protocols and data analysis of Bioequivalence studies in humans (1996-1999)
- Advisor to the Greek Drug Regulatory Agency (Ethnikos Organismos Farmakon, EOF) 1999-2000
- Member of various organizing committees and/or scientific committees of symposia, courses and conferences worldwide (1997-today)
- Visiting Professor, Department of Pharmaceutical Technology, University of Frankfurt, Germany (1998)
- Member of the Greek Pharmacopeia Committee (2000 – 2004), Associate Director 2012-2013
- Member of Doctoral Evaluation Committee of Ph.D thesis performed at the Department of Pharmaceutics, The Danish University of Pharmaceutical Sciences, Copenhagen, Denmark (2003), and four Theses performed at the Department of Pharmaceutical Technology, Goethe University, Frankfurt/Main, Germany
- Invited co-editor with J Dressman of the special issue of Advanced Drug Delivery Reviews, volume 59, issue 7, 30 July 2007
- Fellowship by the German DAAD for a 2 month visit at the University of Frankfurt (July –August 2007)
- Director of the Laboratory of Biopharmaceutics and Pharmacokinetics, University of Athens (2007-today)
- Pre-examiner of doctoral dissertation performed at the University of Helsinki, Finland (2008)
- Co-editor with J Dressman of the book entitled Oral Drug Absorption, 2<sup>nd</sup> edition, (2010)
- Visiting Professor, Department of Pharmaceutical Technology, University of Frankfurt, Germany (2010)
- More than 60 invited presentation at international meetings in Europe, USA, Asia

### **PUBLICATIONS**

Based on [www.scopus.com](http://www.scopus.com) (28 January 2016), after excluding self-citations, a total of 3795 citations have been identified (h-index 27).

### Peer reviewed research articles

- 1) Koupparis M, Macheras P, Reppas C. Application of automated flow injection analysis (FIA) to dissolution studies. *Intl J Pharm.* **20**: 325-333 (1984)
- 2) Macheras P, Reppas C. Studies on drug-milk freeze-dried formulations I: Bioavailability of sulfamethizole and dicoumarol formulations. *J. Pharm. Sci.* **75**: 692-696 (1986)
- 3) Macheras P, Reppas C. Studies on drug-milk freeze-dried formulations II: Effect of regenerated fluid volume on nitrofurantoin bioavailability. *J Pharm. Sci* **75**:1145-1150 (1986)
- 4) Macheras P, Reppas C. Dissolution and *in vitro* penetration behaviours of dicoumarol, nitrofurantoin and sulfamethizole in the presence of protein. *Intl. J. Pharm.* **37**:103-112 (1987)
- 5) Fleisher D, Lippert CL, Sheth N, Reppas C, Wlodyga J. Nutrient effects on intestinal drug absorption. *J Controlled Rel.* **11**: 41-49 (1990)
- 6) Macheras P, Reppas C, Dressman JB. Estimate of volume/flow ratio of gastrointestinal (GI) fluids in humans using pharmacokinetic data. *Pharm. Res.* **7**: 518-522 (1990)
- 7) Reppas C, Giamboudakis P, Avarlis P, Parisi-Poulou M, Macheras P. Bioavailability of Uniphillin<sup>®</sup> tablets. *Farmakeftiki* **3**:131-133 (1990)
- 8) Ismailos G, Reppas C, Dressman JB, Macheras P. Unusual solubility behaviour of cyclosporin A in aqueous media *J. Pharm. Pharmacol.* **43**: 287-289 (1991)
- 9) Macheras P, Ismailos G, and Reppas C. Bioavailability study of a freeze-dried sodium phenytoin-milk formulation. *Biopharm. Drug Disp.* **12**: 687-695 (1991)
- 10) Reppas C, Meyer JH, Sirois PJ, Dressman JB. Effect of hydroxypropylmethylcellulose on gastrointestinal transit and luminal viscosity in dogs. *Gastroenterology* **100**:1217-1223 (1991)
- 11) Macheras P, Reppas C, Symillides M. Fraction of the bioavailable dose remaining in the body at the time of peak plasma concentration in a linear, open, one-compartment model. *J. Pharm. Sci.* **81**: 110-112 (1992)
- 12) Macheras P, Symillides M, and Reppas C. Equations for the fraction of bioavailable dose remaining in the body in the one-compartment model. *Biopharm. Drug Disp.* **13**: 229-232 (1992)
- 13) Reppas C, Dressman JB. Viscosity modulates blood glucose response to nutrient solutions in dogs. *Diab. Res. Clin. Pract.* **17**: 81-88 (1992)
- 14) Macheras P, Symillides M, Reppas C. On the assessment of the relative magnitude of rate constants in the linear open one-compartment model. *J. Pharm. Sci.* **81**: 1231-1233 (1992)
- 15) Dressman JB, Adair C, Barnett JL, Berardi RR, Dunn-Kucharski VA, Jarvenpaa K, Parr D, Sowle CA, Swidan SZ, Tobey SW, Reppas C. High molecular weight hydroxypropylmethylcellulose: A cholesterol lowering agent. *Arch. Int. Med.* **153**:1345-1353 (1993)
- 16) Macheras P, Symillides M, Reppas C. Estimation of absorption rate constant in a one-compartment model with the profile of the bioavailable dose eliminated as a function of multiples of half-life. *J. Pharm. Sci.* **82**:1298-1300 (1993)
- 17) Reppas C, Adair CH, Barnett JL, Berardi RR, DuRoss D, Swidan SZ, Thill PF, Tobey SW, Dressman JB. High viscosity hydroxypropylmethylcellulose reduces postprandial blood glucose concentrations in NIDDM patients. *Diab. Res. Clin. Pract.*

- 22:61-69 (1993)
- 18) Ismailos G, Reppas C, Macheras P. Enhancement of cyclosporin A solubility by d-alphatocopheryl-polyethylene-glycol-1000 succinate (TPGS). *Eur. J. Pharm. Sci.* **1**:269-271 (1994)
- 19) Macheras P, Symillides M, Reppas C. The cutoff time point of the partial area method for assessment of rate of absorption in bioequivalence studies. *Pharm. Res.* **11**:831-834 (1994)
- 20) Reppas C, Lacey LF, Keene ON, Macheras A, Bye A. Evaluation of different metrics as indirect measures of rate of drug absorption from extended release dosage forms at steady-state. *Pharm. Res.* **12**:103-107 (1995)
- 21) Swidan SZ, Reppas C, Barnett JL, Greenwood DE, Tallman AM, Tobey SW, Dressman JB. Ability of two comestible formulations of hydroxypropylmethylcellulose to lower serum cholesterol concentrations. *Eur. J. Pharm. Sci.* **4**:239-245 (1996)
- 22) Macheras P, Symillides M, Reppas C. An improved intercept method for the assessment of absorption rate in bioequivalence studies. *Pharm. Res.* **13**:1755-1758 (1996)
- 23) Papageorgiou N, Gaga M, Marossis C, Reppas C, Avarlis P, Kyriakou M, Tsipra S, Zeibecoglou K, Tracopoulos G. Prevalence of asthma and asthma-like symptoms in Athens, Greece. *Respir. Med.* **91**:83-88 (1997)
- 24) Reppas C, Eleftheriou G, Macheras P, Symillides M, Dressman JB. Effect of elevated viscosity in the upper gastrointestinal tract on drug absorption in dogs. *Eur. J. Pharm. Sci.* **6**:131-139 (1998)
- 25) Galia E, Nicolaides E, Hoerter D, Loebenberg R, Reppas C, Dressman JB. Evaluation of various dissolution media for predicting *in vivo* performance of class I and II drugs. *Pharm. Res.* **15**:698-705 (1998)
- 26) Reppas C, Eleftheriou G, Macheras P, Symillides M, Greenwood D, Dressman JB. The effect of HPMC - a cholesterol lowering agent - on oral drug absorption in dogs. *Biopharm. Drug Dispos* **19**:523-530 (1998)
- 27) Reppas C, Greenwood DE, Dressman JB. Longitudinal versus radial effects of hydroxypropylmethylcellulose on gastrointestinal glucose absorption in dogs. *Eur. J. Pharm. Sci.* **8**:211-219 (1999)
- 28) Nicolaides E, Galia E, Efthymiopoulos C, Dressman JB, Reppas C. Forecasting the *in vivo* performance of four low solubility drugs from their *in vitro* dissolution data. *Pharm. Res.* **16**:1876-1882 (1999)
- 29) Nicolaides E, Hempenstall JM, Reppas C. Biorelevant dissolution tests with the flow-through apparatus? *Diss. Technol.* **7**:8-11 (2000)
- 30) Nicolaides E, Symillides M, Dressman JB, Reppas C. Biorelevant dissolution testing to predict the plasma profile of lipophilic drugs after oral administration. *Pharm. Res.* **18** 380-388 (2001)
- 31) Loi V, Fotaki N, Reppas C, Wheatley T, Dressman J. Release of phenylpropanolamine HCl from ethylcellulose-coated pellets in biorelevant media. *Pharm. Tech.* **25**: 44-50 (2001)
- 32) Vertzoni M, Symillides M, Iliadis A, Nicolaides E, Reppas C. Comparison of simulated cumulative drug vs. time data sets with indices. *Eur. J. Pharm. Biopharmac.* **56**:421-428 (2003)
- 33) Vertzoni M, Fotaki N, Kostewicz E, Stippler E, Leuner C, Nicolaides E, Dressman J, Reppas C. Dissolution media simulating the intraluminal composition of the small intestine: physiological issues and practical aspects. *J. Pharm. Pharmacol.* **56**:453-462 (2004)

- 34) Klein S, Butler J, Hempenstall JM, Reppas C, Dressman J. Media to simulate the postprandial stomach I. matching the physicochemical characteristics of standard breakfasts. *J. Pharm. Pharmacol.* **56**:605-610 (2004)
- 35) Fotaki N, Symillides M, Reppas C. In vitro vs. canine data for predicting input profiles of isosorbide-5-mononitrate from oral extended release products on a confidence interval basis. *Eur. J. Pharm. Sci.* **24**:115-122 (2005)
- 36) Vertzoni M, Reppas C, Archontaki H. Optimized determination of lycopene in canine plasma using reversed-phase high-performance liquid chromatography. *J. Chromatography B*, **819**:149-154 (2005)
- 37) Kalantzi L, Polentarutti B, Alberty T, Laitmer D, Abrahamsson B, Dressman J, Reppas C. The delayed dissolution of paracetamol products in the canine fed stomach can be predicted *in vitro* but it does not affect the onset of plasma levels. *Intl. J. Pharmac.* **296**:87-93 (2005)
- 38) Vertzoni M, Dressman JB, Butler J, Hempenstall J, Reppas C. Simulation of fasting gastric conditions and its importance for the *in vivo* dissolution of lipophilic compounds *Eur. J. Pharm. Biopharm.* **60**:413-417 (2005)
- 39) Fotaki M, Symillides M, Reppas C. Canine vs. *in vitro* data for predicting input profiles of L-sulpiride after oral administration *Eur. J. Pharm. Sci.* **26**:324-333 (2005)
- 40) Kalantzi L, Goumas K, Kalioras V, Abrahamsson B, Dressman J, Reppas C. Characterization of the human upper gastrointestinal contents under conditions simulating bioavailability/bioequivalence studies. *Pharm. Res.* **23**: 165-176 (2006)
- 41) Vertzoni M, Kartezini T, Reppas C, Archontaki H, Valsami G. Solubilization and quantification of lycopene in aqueous media in the form of cyclodextrin binary systems. *Intl. J. Pharmac.* **309**:115-122 (2006)
- 42) Kalantzi L, Persson E, Polentarutti B, Abrahamsson B, Goumas K, Dressman J, Reppas C. Canine intestinal contents vs. simulated media for the assessment of solubility of two weak bases in the human small intestinal contents. *Pharm. Res.* **23**:1373-1381 (2006)
- 43) Raušl D, Fotaki N, Zanoški R, Vertzoni M, Cetina-Čižmek B, Khan ZI, Reppas C. Intestinal permeability and excretion into bile control the arrival of amlodipine into the systemic circulation after oral administration. *J. Pharm. Pharmacol.* **58**:827-836 (2006)
- 44) Vertzoni M, Reppas C, Archontaki H. Optimization and validation of a high-performance liquid chromatographic method with UV detection for the determination of ketoconazole in canine plasma. *J. Chromatography B* **839**:62-67 (2006)
- 45) Vertzoni M, Reppas C, Archontaki H. Sensitive and simple liquid chromatographic method with ultraviolet detection for the determination of nifedipine in canine plasma. *Anal. Chim. Acta* **573-574**: 298-304 (2006)
- 46) Vertzoni M, Valsami G, Reppas C. Plasma profiles of lycopene after single oral and intravenous administrations in dogs. *J. Pharm. Pharmacol.* **58**:1211-1217 (2006)
- 47) Constantinou MA, Vertzoni M, Reppas C, Tsantili-Kakoulidou A, Mikros E. <sup>1</sup>H NMR monitoring of the canine metabolic profile after oral administration of xenobiotics. A metabonomic approach. *Mol. Pharmac.* **4**:258-268 (2007)
- 48) Vertzoni M, Pastelli E, Psachoulas D, Kalantzi L, Reppas C. Estimation of intragastric solubility of drugs: In what medium? *Pharm. Res.* **24**:909-917 (2007)
- 49) Vogt M, Kunath K, Vertzoni M, Reppas C, Dressman JB. Cogrounding enhances the oral bioavailability of EMD 57033, a poorly soluble drug, in dogs. *Eur. J. Pharm. Biopharm.* **68**:338-345 (2008)

- 50) Kalantzi L, Page R, Nicolaidis E, Digenis G, Reppas C. In vitro methods can forecast the effects of intragastric residence on dosage form performance. *Eur. J. Pharm. Sci.* 33:445-451 (2008)
- 51) Jantratid E, Janssen N, Reppas C, Dressman JB. Dissolution Media Simulating Conditions in the Proximal Human Gastrointestinal Tract: An Update *Pharm Res.* 25:1663-1676 (2008)
- 52) Vertzoni M, Archondaki H, Reppas C. Determination of intraluminal individual bile acids by HPLC with charged aerosol detection *J. Lipid Res.* 49:2690-2695 (2008)
- 53) Reppas C, Swidan SZ, Tobey SW, Turowski M, Dressman JB. Hydroxypropylmethylcellulose (HPMC) Significantly Lowers Blood Cholesterol in Mildly Hypercholesterolemic Human Subjects. *Eur. J. Clin. Nutr.* 63: 71-77 (2009)
- 54) S. Clarysse, J. Tack, F. Lammert, G. Duchateau, C. Reppas, P. Augustijns. Postprandial evolution in composition and characteristics of human duodenal fluids in different nutritional states *J. Pharm. Sci.* 98:1177-92 (2009)
- 55) C. Markopoulos, M. Vertzoni, A. Agalias, P. Magiatis, C. Reppas. Stability of Oleuropein in the Human Proximal Gut. *J. Pharm. Pharmacol.* 61:143-149 (2009)
- 56) Diakidou A, Vertzoni M, Abrahamsson B, Dressman J, Reppas C. Simulation of gastric lipolysis and prediction of felodipine release from a matrix tablet in the fed stomach. *Eur. J. Pharm. Sci.* 37:133-140 (2009)
- 57) Clarysse S, Psachoulis D, Brouwers J, Tack J, Annaert P, Duchateau G, Reppas C, Augustijns P. Postprandial Changes in Solubilizing Capacity of Human Intestinal Fluids for BCS Class II Drugs *Pharm Res.* 26: 1456-1466 (2009)
- 58) Shono Y, Jantratid E, Kesisoglou F, Mao Y, Vertzoni M, Reppas C, Dressman JB. Prediction of Food Effects on the Absorption of Celecoxib Based on Biorelevant Dissolution Testing Coupled with PBPK Modeling. *Eur. J. Pharm. Biopharm.* 73:107-114 (2009)
- 59) Fotaki N, Aivaliotis A, Butler J, Dressman J, Fischbach M, Hempenstall J, Klein S, Reppas C. A comparative study of different release apparatus in generating in vitro-in vivo correlations for extended release formulations *Eur. J. Pharm. Biopharm.* 73:115-120 (2009)
- 60) Diakidou A, Vertzoni M, Goumas K, Söderlind E, Abrahamsson B, Dressman J, Reppas C. Characterization of the contents of ascending colon to which drugs are exposed after oral administration to healthy adults. *Pharm Res.* 26:2141-2151 (2009)
- 61) Diakidou A, Vertzoni M, Dressman J, Reppas C. Estimation of intragastric drug solubility in the fed state: Comparison of various media with data in aspirates. *Biopharm. Drug Dispos.* 30:318-325 (2009)
- 62) Erceg M, Cindric M, Pozaic Frketic L, Vertzoni M, Cetina-Cizmek B, Reppas C. A LC-MS-MS method for determination of low doxazosin concentrations in plasma after oral administration to dogs. *J Chromatogr Sci.* 48:114-9 (2010)
- 63) Vertzoni M, Goumas K, Söderlind E, Abrahamsson B, Dressman JB, Poulou A, Reppas C. Characterization of the Ascending Colon Fluids in Ulcerative Colitis. *Pharm Res.* 27:1620-1626 (2010)
- 64) Shono Y, Jantratid E, Kesisoglou F, Reppas C, Dressman JB. Forecasting *in vivo* oral absorption and food effect of micronized and nanosized aprepitant formulations in humans *Eur. J. Pharm. Biopharm.* 76: 95-104 (2010)
- 65) M. Vertzoni, A Diakidou, M Chatziliadis, E Söderlind, B Abrahamsson, JB Dressman, C Reppas. Biorelevant media to simulate fluids in the ascending colon of

- humans and their usefulness in predicting intracolonic drug solubility *Pharm Res.* 27: 2187-2196 (2010)
- 66) D. Juenemann, E. Jantratid, C. Wagner, C. Reppas, M. Vertzoni, Jennifer B Dressman. Biorelevant in vitro dissolution testing of products containing micronized or nanosized fenofibrate with a view to predicting plasma profiles *Eur. J. Pharm. Biopharm.* 77: 257-264 (2011)
- 67) Maria Vertzoni, Anders Carlsson, Bertil Abrahamsson, Konstantinos Goumas, Christos Reppas. Degradation kinetics of metronidazole and olsalazine by bacteria in ascending colon and in feces of healthy adults *Int. J. Pharmac.* 413:81-86 (2011)
- 68) Psachoulias D, Vertzoni M, Goumas L, Kalioras V, Beato S, Butler J, Reppas C. Precipitation in and supersaturation of contents of the upper small intestine after administration of two weak bases to fasted adults, *Pharm Res.* in press
- 69) Erceg M, Vertzoni M, Cerić H, Dumić M, Cetina-čizmek B, Reppas C. In vitro vs. canine data for assessing early exposure of doxazosin base and its mesylate salt. *Eur. J. Pharm. Biopharm.* in press
- 70) Müllertz A, Fatouros DG, Smith JR, Vertzoni M, Reppas C. Insights into intermediate phases of human intestinal fluids visualized by atomic force microscopy and cryo-transmission electron microscopy ex vivo. *Mol Pharm.* 2012 Feb 6;9(2):237-47
- 71) Vertzoni M, Markopoulos C, Symillides M, Goumas C, Imanidis G, Reppas C. Luminal lipid phases after administration of a triglyceride solution of danazol in the fed state and their contribution to the flux of danazol across Caco-2 cell monolayers. *Mol Pharm.* 2012 May 7;9(5):1189-98.
- 72) Wagner C, Jantratid E, Kesisoglou F, Vertzoni M, Reppas C, B Dressman J. Predicting the oral absorption of a poorly soluble, poorly permeable weak base using biorelevant dissolution and transfer model tests coupled with a physiologically based pharmacokinetic model. *Eur J Pharm Biopharm.* 2012 Sep;82(1):127-38.
- 73) Psachoulias D, Vertzoni M, Butler J, Busby D, Symillides M, Dressman J, Reppas C. An in vitro methodology for forecasting luminal concentrations and precipitation of highly permeable lipophilic weak bases in the fasted upper small intestine. *Pharm Res.* 2012 Dec;29(12):3486-98.
- 74) Arndt M, Chokshi H, Tang K, Parrott NJ, Reppas C, Dressman JB. Dissolution media simulating the proximal canine gastrointestinal tract in the fasted state. *Eur J Pharm Biopharm.* 2013 Aug;84(3):633-41.
- 75) Markopoulos C, Imanidis G, Vertzoni M, Symillides M, Parrott N, Reppas C. In vitro and ex vivo investigation of the impact of luminal lipid phases on passive permeability of lipophilic small molecules using PAMPA. *Pharm Res.* 2013 Dec;30(12):3145-53.
- 76) Müllertz A, Fatouros DG, Vertzoni M, Reppas C. Unravelling the ultrastructure of ascending colon fluids from patients with ulcerative colitis by cryogenic transmission electron microscopy. *J Pharm Pharmacol.* 2013 Oct;65(10):1482-7.
- 77) Griffin BT, Kuentz M, Vertzoni M, Kostewicz ES, Fei Y, Faisal W, Stillhart C, O'Driscoll CM, Reppas C, Dressman JB. Comparison of in vitro tests at various levels of complexity for the prediction of in vivo performance of lipid-based formulations: case studies with fenofibrate. *Eur J Pharm Biopharm.* 2014 Apr;86(3):427-37.
- 78) Markopoulos C, Thoenen F, Preisig D, Symillides M, Vertzoni M, Parrott N, Reppas C, Imanidis G. Biorelevant media for transport experiments in the Caco-2



- model to evaluate drug absorption in the fasted and the fed state and their usefulness. *Eur J Pharm Biopharm.* 2014 Apr;86(3):438-48.
- 79) Koumandrakis N, Vertzoni M, Reppas C. Increasing the biorelevance of simulated intestinal fluids for better predictions of drug equilibrium solubility in the fasted upper small intestine. *ADMET & DMPK* 2(2), 71-79 (2014)
- 80) Hens B, Brouwers J, Anneveld B, Corsetti M, Symillides M, Vertzoni M, Reppas C, Turner DB, Augustijns P. Gastrointestinal transfer: in vivo evaluation and implementation in in vitro and in silico predictive tools. *Eur J Pharm Sci.* 2014 Oct 15;63:233-42.
- 81) Petrakis O, Vertzoni M, Angelou A, Kesisoglou F, Bentz K, Goumas K, Reppas C. Identification of key factors affecting the oral absorption of salts of lipophilic weak acids: a case example. *J Pharm Pharmacol.* 2015 Jan;67(1):56-67.
- 82) Müllertz A, Reppas C, Psachoulis D, Vertzoni M, Fatouros DG. Structural features of colloidal species in the human fasted upper small intestine. *J Pharm Pharmacol.* 2015 Apr;67(4):486-92.
- 83) Dimopoulou M, Mourouti CS, Vertzoni M, Symillides M, Reppas C. In-vitro evaluation of performance of solid immediate release dosage forms of weak bases in upper gastrointestinal lumen: experience with miconazole and clopidogrel salts. *J Pharm Pharmacol.* 2015 in press
- 84) Markopoulos C, Vertzoni M, Symillides M, Kesisoglou F, Reppas C. Two-Stage Single-Compartment Models to Evaluate Dissolution in the Lower Intestine. *J Pharm Sci.* 2015 Sep;104(9):2986-97.
- 85) Reppas C, Karatza E, Goumas C, Markopoulos C, Vertzoni M. Characterization of Contents of Distal Ileum and Cecum to Which Drugs/Drug Products are Exposed During Bioavailability/Bioequivalence Studies in Healthy Adults. *Pharm Res.* 2015 Oct;32(10):3338-49.
- 86) Tajiri T, Morita S, Sakamoto R, Mimura H, Ozaki Y, Reppas C, Kitamura S. Developing dissolution testing methodologies for extended-release oral dosage forms with supersaturating properties. Case example: Solid dispersion matrix of indomethacin. *Int J Pharm.* 2015 Jul 25;490(1-2):368-74.
- 87) Andreas CJ, Chen YC, Markopoulos C, Reppas C, Dressman J. In vitro biorelevant models for evaluating modified release mesalamine products to forecast the effect of formulation and meal intake on drug release. *Eur J Pharm Biopharm.* 2015 Nov;97(Pt A):39-50.
- 88) Kourentas A, Vertzoni M, Stavrinoudakis N, Symillidis A, Brouwers J, Augustijns P, Reppas C, Symillides M. An in vitro biorelevant gastrointestinal transfer (BioGIT) system for forecasting concentrations in the fasted upper small intestine: Design, implementation, and evaluation. *Eur J Pharm Sci.* 2016 Jan 20; 82:106-14.

### **Patents**

- 1) Dressman JB, Reppas C, Tobey S, Sowle C. Pharmaceutical compositions and uses of water-soluble high-viscosity grade cellulosic ethers. Australian patent No 669654 (20 Jun 1996); US patent No 5,789,393 (4 Aug. 1998)

### **Review articles / Commentaries**

- 1) Dressman JB, Amidon GL, Reppas C, Shah VP. Dissolution testing as a prognostic tool for oral drug absorption: Immediate release dosage forms. *Pharm. Res.* **15**:11-22 (1998)
- 2) Dressman JB, Reppas C. *In vitro-in vivo* correlations for lipophilic poorly water-soluble drugs. *Eur. J. Pharm. Sci.*(Suppl. 2) **11**: S73-S80 (2000)
- 3) Dressman J, Butler J, Hempenstall J, Reppas C. The BCS: Where do we go from here? *Pharm. Tech.* July issue, 68-74 (2001)
- 4) Fotaki N, Reppas C. The flow-through cell methodology in the evaluation of intraluminal drug release characteristics. *Diss. Tech.* **12**:17-21 (2005)
- 5) Kalantzi L, Reppas C, Dressman JB, Amidon GL, Junginger HE, Midha KK, Shah VP, Stavchansky SA, Barends DM. Biowaiver monographs for immediate release solid oral dosage forms: Acetaminophen (paracetamol). *J. Pharm. Sci.* 95:4-14 (2006)
- 6) J. B. Dressman, M. Vertzoni, K. Goumas, C. Reppas. Estimating drug solubility in the gastrointestinal tract. *Adv. Drug Del. Rev.* 59: 591-602 (2007)
- 7) Brown CK, Friedel HD, Barker AR, Buhse LF, Keitel S, Cecil TL, Kraemer J, Morris JM, Reppas C, Stickelmeyer MP, Yomota C, Shah VP. FIP/AAPS Joint Workshop Report: Dissolution/In Vitro Release Testing of Novel/Special Dosage Forms *AAPS PharmSciTech* 12: 782-794 (2011)
- 8) Reppas C, Vertzoni M. Biorelevant in-vitro performance testing of orally administered dosage forms. *J Pharm Pharmacol.* 2012 Jul;64(7):919-30.
- 9) Lennernäs H, Aarons L, Augustijns P, Beato S, Bolger M, Box K, Brewster M, Butler J, Dressman J, Holm R, Julia Frank K, Kendall R, Langguth P, Sydor J, Lindahl A, McAllister M, Muenster U, Müllertz A, Ojala K, Pepin X, Reppas C, Rostami-Hodjegan A, Verwei M, Weitschies W, Wilson C, Karlsson C, Abrahamsson B. Oral biopharmaceutics tools - time for a new initiative - an introduction to the IMI project OrBiTo. *Eur J Pharm Sci.* 2014 Jun 16;57:292-9.
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- 11) Reppas C, Friedel HD, Barker AR, Buhse LF, Cecil TL, Keitel S, Kraemer J, Morris JM, Shah VP, Stickelmeyer MP, Yomota C, Brown CK. Biorelevant in vitro performance testing of orally administered dosage forms-workshop report. *Pharm Res.* 2014 Jul;31(7):1867-76.
- 12) Markopoulos C, Andreas CJ, Vertzoni M, Dressman J, Reppas C. In-vitro simulation of luminal conditions for evaluation of performance of oral drug products: Choosing the appropriate test media. *Eur J Pharm Biopharm.* 2015 Jun;93:173-82.

### **Monographs/Chapters/Books**

- 1) Reppas C. In vitro and in vivo studies on dissolution and absorption of sulfamethizole, nitrofurantoin and dicoumarol. Ph.D Thesis, University of Athens, Greece, 1986
- 2) Macheras P, Reppas C. *Biofarmakeftiki* (Greek), 2<sup>nd</sup> Edition, Athens, 1997  
[Review: *J. Controlled Rel.* **23**:88 (1993)]

- 3) Notes (in Greek) for the MSc students in Industrial Pharmacy (School of Pharmacy) for the courses *Advanced Biopharmaceutics and Pharmacokinetics* and *Statistical Inference in Pharmaceutical Sciences* (1999)
- 4) Macheras P, Reppas C, Dressman JB. Biopharmaceutics of orally administered drugs. Ellis Horwood, Series in Pharmaceutical Technology (ISBN 0-13-108093-8), England, 1995
- 5) Reppas C, Nicolaidis E. Analysis of drug dissolution data, in: *Methods for assessing oral drug absorption*, Dressman JB and Lennernaes H (editors), Marcel Dekker (ISBN: 0-8247-0272-7), New York, NY, 2000
- 6) Vertzoni M, Iliadis A, Nicolaidis E, Symillides M, Reppas C. *Orally administered drug products: dissolution data analysis with a view to IVIVC* in *Pharmaceutical Dissolution Testing*, Dressman JB and Kraemer J (editors), pp. 229-249, Taylor and Francis (ISBN 0-8247-5467-0) New York, NY 2005
- 7) S Klein, JB Dressman, C Reppas, In vitro methods to predict food effects, In: *International Bioequivalence Standards: A New Era*, Ed: GL Amidon, L Lesko, K Midha, V Shah, 2007 TRSL, Ann Arbor, MI ISBN 10-0-9790119-0-6, pp9-27
- 8) Macheras P, Symillidou M, Reppas C. Bioequivalence, in *Modern Pharmaceutics*, 5<sup>th</sup> Edition, Informa Healthcare, New York, pp 23-42, 2009
- 9) C. Reppas, P. Augustijns. Drug solubility in the gastrointestinal tract, in *Oral Drug Absorption*, 2nd ed. (Dressman J, and Reppas C, eds), Informa Healthcare, New York, pp 155-167, 2010

## **TEACHING ACTIVITIES**

### **Undergraduate Pharmacy students, University of Athens**

Lectures for the courses *Biopharmaceutics and Drug Disposition* (1989-today)  
Supervision of students at the *Laboratory in Pharmaceutical Technology* (1989-2000)  
Supervision of students at the Laboratory of Biopharmaceutics – Pharmacokinetics (2006-today)

### **Graduate (MSc) students on Industrial Pharmacy, University of Athens**

Lectures for the courses *Advanced Biopharmaceutics and Pharmacokinetics* and *Statistical Inference in Pharmaceutical Sciences* (1995-today)

### **Graduate Students from various European Universities (Socrates programs)**

Lectures for the Intensive course *New dosage forms and routes for administration of drugs* (1995-2006) and Lectures for the Intensive course *Solving challenges during contemporary drug discovery and development: How to combat viral infections?* (2006), Lectures for the Intensive course *Nanomedicines – Nanoparticles for Drug Delivery* (2008)

### **Undergraduate and Graduate students in Pharmaceutics**

*Series of lectures on Statistical Inference in Pharmaceutical Sciences*  
University of Leuven, Belgium (2008)  
Göthe University, Frankfurt, Germany (2010-2016)

## **UNDERGRADUATE THESES, MSc THESES, Ph.D THESES and POST-DOCTORAL TRAINING SUPERVISED**

### **Undergraduate theses**

- 1) Drug solubility in fasting gastric contents: An exclusively pH-dependent parameter?  
D. Psachoulas (2005)
- 2) Solubilization agents for Nitrofurantoin and Dicumarol  
N. Refenes (2006)
- 3) Solubility of miconazole and miconazole nitrate fasted state simulating gastric media  
K-S Mourouti (2011)
- 4) Comparison of two in vitro setups for the evaluation of fluticasone and salmeterol mixture to be used in Rolenium-ElpenhalerR  
A. Chrysos (2012)
- 5) Simulation of intragastric composition for the evaluation of drug solubility in the fed state  
C. Litou (2014)
- 6) In vitro assessment of a supersaturable drug delivery system by implementation of a dialysis bag  
P. Zarnpi (2014)
- 7) Exploring the impact of physiological parameters upon supersaturation/precipitation kinetics  
V. Barbatsalou (2015)
- 8) Pilot production, quality control testing and in vitro Biorelevant dissolution testing of various oral solid dosage forms of Compound A

- M. Protopappa (2016)  
9) Physical and chemical stability of budesonide and formoterol to be used in a DPI device  
S. Skoursi-Siganou and S. Souleiman (2016)

### **MSc theses**

- 1) On the assessment of absorption of sparingly soluble drugs after oral administration  
E. Nicolaidis (1995-1997)
- 2) Effect of K8515 HPMC on lipase activity *in vitro*  
D. Prevedourou (1996-1998)
- 3) *In vitro* dissolution of clioquinol in biorelevant media  
N. Bizos (1996-1998)
- 4) Binding of K8515 HPMC to bile salts  
M. Yakoumi (2000-2001)
- 5) Binding of Mastic gum to bile salts  
L. Kalantzi (2000-2001)
- 6) Contribution to the improvement of the *in vitro* dissolution conditions of solid dosage forms  
D. Laitmer (2000-2001)
- 7) Interaction of calcium carbonate with levothyroxin in media simulating the the upper gastrointestinal lumen  
M. Petrogonnas (2000-2002)
- 8) Biorelevant *in vitro* testing of amlodipine and meloxicam for prediction of bioavailability  
D. Rausl (Jointly with the University of Zagreb 2001-2002)
- 9) *In vitro* release tests from monolithic extended release dosage forms aiming at the prediction of their *in vivo* performance  
A. Aibaliotis (2002-2003)
- 10) Solubility of lipophilic compounds in simulated gastric fluids and in aspirates from the fasted stomach of healthy subjects  
H. Pastelli (2003-2005)
- 11) Pancreatic enzymes on the *in vitro* drug release profile from solid lipid dosage forms  
C. Rigou (2003-2005)
- 12) Oleuropein and hydroxytyrosol after oral and iv administration in dogs  
C. Markopoulos (2005-2007)
- 13) Solubility of drugs in the fed small intestine  
D. Psachoulis (2006-2007)
- 14) Characterization of the fasted gastric environment  
C. Koulouri (2007-2008)
- 15) *In vitro* assessment of formulations targeting the colon  
E. Chatziliadis (2008-2009)
- 16) Evaluation of DDDPlus<sup>®</sup> for the prediction of dissolution in surfactant solutions and optimization of FASSIF composition  
N. Koumandrakis (2009-2011)
- 17) The USP IV dissolution apparatus in the evaluation of non-conventional immediate release dosage forms  
E. Avzoti (2010-2011)

- 18) In vitro assessment of luminal behaviour of free bases vs. salts of free bases  
O. Petrakis (2011-2012)
- 19) Evaluation of intraluminal behaviour of salts of weak acids with in vitro and in silico techniques  
A. Aggelou (2012-2013)
- 20) Physiological factors affecting oral drug absorption: the environment in the lower intestinal lumen of humans and the GI barrier in cirrhotic patients  
H. Karatza (2013-2014)
- 21) Optimization and validation works of an in vitro methodology to evaluation dissolution in the lower intestine  
D. Georgaka (2014-2016)

### **Ph.D theses**

- 1) Effects of water-soluble dietary fibers on gastrointestinal absorption of drugs  
G. Eleftheriou (1991-1998)
- 2) Assessment of gastrointestinal absorption of lipophilic drugs with the *in vitro* dissolution tests  
E. Nicolaidis (1997-2000)
- 3) Biorelevant dissolution testing: refined *in vitro* conditions and data analysis  
M. Vertzoni (1999-2004)
- 4) *In vitro* release data vs. canine data for the assessment of GI drug absorption  
N. Fotaki (1999-2004)
- 5) Comparison of human and canine intraluminal environment under conditions simulating a bioequivalence study in the fasted state and in the fed state.  
L. Kalantzi (2001-2005)
- 6) Drug absorption from the proximal colon  
A. Diakidou (2005-2011)
- 7) Oral absorption of salts vs. the free base  
M. Peko-Erceg (Jointly with the University of Zagreb 2005-2011)
- 8) In vitro permeability studies from intestinal aspirates and simulated intestinal fluids  
C. Markopoulos (2007-2012)
- 9) Precipitation of weak bases in the small intestine  
D. Psachoulis (2008-2012)
- 10) Supersaturation in upper small intestine of humans and in vitro simulation  
A. Kourentas (2012-2016)

### **Post-doctoral training**

- 1) Analysis of *in vitro* and *in vivo* drug data  
E. Nicolaidis (2001-2004)
- 2) Modeling oral drug absorption  
N. Fotaki (2004-2005)
- 3) Drug absorption after oral administration of lipid dosage forms  
M. Vertzoni (2004-2008)
- 4) Biorelevant in vitro evaluation of modified release products  
C. Markopoulos (2013-2014)