SUPPORTING INFORMATION for
Comprehensive Assessment of Human Pharmacokinetic Prediction Based on In Vivo Animal Pharmacokinetic Data.
Part1: Volume of Distribution at Steady State.
Part2: Clearance.

Franco Lombardo, PhD, Nigel J. Waters, PhD, Upendra A. Argikar, PhD, Michelle K. Dennehy, PhD, Jenny Zhan, BS, Mithat Gunduz MA, Shawn P. Harriman, PhD, Giuliano Berellini, MS, Ivana Liric-Rajlic, BS, and R. Scott Obach, PhD

Compound Name	human CAS #	human VDss (L/kg)	human CL (mL/min/kg)	human fup	human Reference	human Comments	rat CAS #	rat VDss (L/kg)	rat CL (mL/min/kg)	rat fup	rat Reference	rat Comments	dog CAS #	dog VDss (L/kg)	dog CL (mL/min/kg)	dog fup	dog Reference	dog Comments	monkey CAS #	monkey VDss (L/kg)	monkey CL (mL/min/kg)	monkey fup	monkey Reference	monkey Comments
Abacavir	136470-78-5	0.84	13.00	0.5000	Chittick GE, Gillotin C, McDowell JA, Lou Y, Edwards KD, Prince WT, and Stein DS. (1999) Abacavir: absolute bioavailability, bioequivalence of three oral formulations, and effect of food. Pharmacotherapy 19: 932-942. Ziagen Product Label.		136470-78-5		30.00															
Acecainide (N-acetylprocainamide)	32795-44-1	1.90	4.00	0.9000	Coyle JD, Bruetsch H, and Lima JJ (1984) Acecainide pharmacokinetics in normal subjects of known acetylator phenotype. Biopharm. Drug Dispos. 12: 599-612. Connolly SJ and Kates RE (1982). Clinical pharmacokinetics of N-acetylprocainamide. Clin. Pharmacokinet. 7: 206-220.		32795-44-1	2.90	28.00	0.5000	Kamath, Bindie L; Lai, Chi-Ming; Gupta, Surinder D.; Duhart, Marvin J.; Nacobi, Avraham. Pharmacokinetics of procainamide and N-acetylprocainamide in rats. Journal of Pharmaceutical Sciences (1981), 70(3), 299-302. Nacobi, Avraham; Kamath, Bindie L.; Gupta, Surinder D.; Duhart, Marvin J.; Lai, Chi-Ming. Age and sex differences in pharmacokinetics of procainamide in rats. Journal of Pharmaceutical Sciences (1980), 72(7), 798-99. In vivo	0.5135	Lai C; M; Reynolds R D; Kamath B L; Calabrese S; Gupta S D; Louis Z M; Nacobi A. Effect of concomitant ureter ligation on the pharmacokinetics of N-acetylprocainamide in dogs. Research communications in chemical pathology and pharmacology (1980), 29(2), 369-72. In vivo									
Acetaminophen	103-90-2	1.00	5.00	0.5200	Rowlins MD, Henderson DB, Hijab AR (1977) Pharmacokinetics of paracetamol (acetaminophen) after intravenous and oral administration. Eur. J. Clin. Pharmacol. 11: 283-286. Kurz H, Mauser-Gundisch A, Fuhrich P (1977) Differences in the binding of drugs to plasma proteins from newborn and adult man. I. Eur. J. Clin. Pharmacol. 11: 463-467.		103-90-2	0.92	15.00	0.2700	Jung, Donald. Disposition of acetaminophen in protein-calorie malnutrition. Journal of Pharmacology and Experimental Therapeutics (1985), 232(1), 178-82. Zaher, N. U.; Nuki, S.; Jung, D. Influence of water deprivation on the disposition of paracetamol. Journal of Pharmacy and Pharmacology (1987), 39(2), 144-7. Nakayama, Taiji; Sasaoka, Tsuji; Kanno, Tadashi; Matsumura, Miki; Sasaki, Kenji; Kumagai, Yuji; Kimura, Ryo. Sex-dependent pharmacokinetics and pharmacodynamics of metabolite interactions. III. Effect of acetaminophen sulfate and its positional isomers on the pharmacokinetics of acetaminophen in rats. Biological & Pharmaceutical Bulletin (1997), 20(5), 522-526.	Data from Jung (1985) and Nakamura, et al., (1997) were from the control groups.	103-90-2	0.58	4.00	0.8900	St. Omer, V. E. V.; Mohammad, F. K. Effect of antidotal N-acetylcysteine on the pharmacokinetics of acetaminophen in dogs-preliminary observations. Journal of Clinical Pharmacy & Therapeutics (1986), 7(6), 277-81. Duggin, G.G. and Mudge, G.H (1975) Renal tubular transport of paracetamol and its conjugates in the dog. Br. J. Pharmacol. 54: 359-365.		103-90-2		7.30		Takahashi M, Washio T, Suzuki N, Igeta K, Fujii Y, Hayashi M, Shirasaka Y, Yamashita S (2008). Characterization of gastrointestinal drug absorption in cynomolgus monkeys. Mol. Pharmacol. 5: 340-348.	
Acetazolamide	59-66-5	0.37	0.65	0.0400	Chapron DJ, Sweeney KR, Feig PU, and Kramer PA (1981) Influence of advanced age on the disposition of acetazolamide. Br. J. Clin. Pharmacol. 18: 363-371.	VDss and t1/2 were calculated from C vs t data obtained by digitization of plots included in the reference.	59-66-5	0.21	68.00	0.2000	Ichikawa M, Nada K, Hirata H, Iwamoto K. Quantitation of acetazolamide in rat plasma, brain tissue and cerebrospinal fluid by high-performance liquid chromatography. Journal of pharmaceutical and biomedical analysis (1998), 17(8), 1415-	Parameters were calculated from C vs t data obtained by digitization of the mean C vs t plot in the reference.	59-66-5									
Acetylmethadol, L-	1477-40-3	8.30	5.40	0.2000	Walsh SL, Johnson RE, Cone EJ, and Bigelow GE (1994) Intravenous methadone and methadyl acetate kinetics and pharmacokinetics in humans. J Pharmacol Exp. Ther. 365: 71-82. Toro-Goyco E, Martin BR, and Harris LS (1980) Binding of l-alpha-acetylmethadol and its metabolites to blood constituents. Biochem. Pharmacol. 29: 1897-1902.		1477-40-3						1477-40-3	5.90	28.00		Tse, FLS and Welling PG (1980) Pharmacokinetics of acetylmethadols II. Plasma levels of D- and L-alpha-acetylmethadol and their major metabolites in the dog. Biopharm. Drug Dispos. 1: 221-233	Calculated from reported compartmental parameters	1477-40-3							
Acetylsalicylic Acid	50-78-2	0.22	12.00	0.6800	Aarons L, Hopkins K, Rowland M, Brossel S, and Thiercelin JF (1989) Route of administration and sex differences in the pharmacokinetics of aspirin, administered as its lysine salt. Pharm. Res. 6: 680-686. Lee S, Johnson D, Klein J, and Eyler J (1995) Protein binding of acetylsalicylic acid and salicylic acid to porcine and human serum. Vet. Human Toxicol. 37: 224-226.		50-78-2	0.40	67.00				50-78-2											
Acivicin	42228-92-2	0.50	0.69		McGovern JP, Patrick EA, Bell RJ, Taylor SA, Benjamin RS, Arsdale B, and Ohnuma T (1985) Pharmacokinetic and biochemical studies on acivicin in primate hepatocytes. Cancer Res. 45: 4465-4469.	VDss was calculated from C vs t data obtained by digitization of a plot for one subjected that was included in the reference. Plasma concentrations were determined by bioassay.	42228-92-2	0.74	6.40		McGovern, J. Patrick; Williams, Marta G.; Stewart, Juliana C. Interspecies comparison of acivicin pharmacokinetics. Drug Metabolism and Disposition (1988), 16(2), 18-22.		42228-92-2	0.58	1.40		McGovern, J. Patrick; Williams, Marta G.; Stewart, Juliana C. Interspecies comparison of acivicin pharmacokinetics. Drug Metabolism and Disposition (1988), 16(2), 18-22.	VDss and CL calculated from digitization of the plots in the reference	42228-92-2	0.61	2.30		McGovern, J.P., Stewart, J.C., Elfring, G.L., Smith, R.B., Soares, N., Worst, J.H., Pugliesi, I.T.K., and Hornhoff, D.D. (1992) Plasma and cerebrospinal fluid pharmacokinetics of acivicin in Cynomolgus monkeys bearing intracranial neoplasms. Cancer Chemother. Pharmacol. 29: 177-181.	VDss calculated from reported iv microconstants.
Actisomide	96914-39-5	0.58	6.79	0.6954	Cook C S et al. Pharmaceutical Research, 1993, 10 (3), 427-433. Data from 50 mg/person 5 min infusion, N=6, 62.8 kg average weight. f'u taken as the β phase. fu in house		96914-39-5	4.20	48.00	0.6200	Cook, Chyung S.; Rosek, Leonard F.; Sidenbaugh, James; Anderson, Steve; Schoenhard, Grant L.; Karim, Azia. Pharmacokinetics of a novel antiarrhythmic drug, actisomide. Pharmaceutical Research (1993), 10(3), 427-33. fu in house	**PK parameters were calculated from compartmental values provided in the reference. Human data available**	96914-39-5	1.30	12.00	0.6180	Cook, Chyung S.; Rosek, Leonard F.; Sidenbaugh, James; Anderson, Steve; Schoenhard, Grant L.; Karim, Azia. Pharmacokinetics of a novel antiarrhythmic drug, actisomide. Pharmaceutical Research (1993), 10(3), 427-33. fu in house	PK parameters were calculated from compartmental values provided in the reference	96914-39-5	1.60	20.00	0.6200	Cook, Chyung S.; Rosek, Leonard F.; Sidenbaugh, James; Anderson, Steve; Schoenhard, Grant L.; Karim, Azia. Pharmacokinetics of a novel antiarrhythmic drug, actisomide. Pharmaceutical Research (1993), 10(3), 427-33. fu in house	PK parameters were calculated from compartmental values provided in the reference
Acyclovir	59277-89-3	0.71	4.70	0.8500	De Miranda P and Blum MR (1983) Pharmacokinetics of acyclovir after intravenous and oral administration. J. Antimic. Chemother. 12(Suppl B): 29-37.		59277-89-3	0.70	6.70	0.1900	Weintjes, M. Guillaume; Levy, Gerhard. Nonlinear pharmacokinetics of aspirin in rats. Journal of Pharmacology and Experimental Therapeutics (1988), 245(3), 809-13. Fu, Chauhwei J.; Melethil, Sriluxmanan; Mason, William D. The pharmacokinetics of aspirin in rats and the effect of buffer. Journal of Pharmacokinetics and Biopharmaceutics (1981), 9(2), 157-73. Kulkami, Chanda; Adidham, C.; Joseph, Thengam. Relationship between free fatty acids and protein binding of acetylsalicylic acid in rats. Indian Journal of Medical Research (1974-1980) (1984), 80(Nov), 584-7.	Used data from 8-week old rats only	59277-89-3	0.98	6.10	0.6700	Krasny, Harvey C. De Miranda, Paulo; Blum, M. Robert; Elion, Gertrude B. Pharmacokinetics and bioavailability of acyclovir in the dog. Journal of Pharmacology and Experimental Therapeutics (1981), 216(2), 281-8. Gwak, Hye-Sun; Oh, Jung-Hun; Han, Hye-Kyung. Effects of non-steroidal anti-inflammatory drugs on the pharmacokinetics and elimination of acyclovir in rats. Journal of Pharmacy and Pharmacology (2005), 57(3), 352-358.	Paper by Krasny, et al. used radioimmunoassay for analysis	59277-89-3	0.90	8.80		Good S S; de Miranda P. Metabolic disposition of acyclovir in the guinea pig, rabbit, and monkey. The American journal of medicine (1982), 73(1A), 91-5.	African Green Monkeys. Pharmacokinetic parameters were calculated from C vs t data obtained by digitization of the plot in the reference.
Adefovir	106941-25-7	0.42	3.70	0.9600	Cundy KC, Barditch-Crovo P, Walker RE, Collier AC, Ebeling D, Toole J, and Jaffe HS. (1995) Clinical pharmacokinetics of adefovir in human immunodeficiency virus type 1-infected patients. Antimic. Ag. Chemother. 39: 2401-2405. Hepsera Product Label.		106941-25-7	1.60	22.00		Shaw, Jeng-Pyng; Louie, Michael S.; Krishnamurthy, V. V.; Astrolli, Marty N.; Jones, Robert J.; Bridgeo, Alison M.; Lee, William A.; Cundy, Kenneth C. Pharmacokinetics and metabolism of selected prodrugs of PMEA in rats. Drug Metabolism and Disposition (1997), 25(8), 952-969.		106941-25-7	1.30	5.30		Cundy K; Gan L; Shaw, Jeng Pyng; Lee, William A. Oral absorption and hepatic extraction of adefovir dipivoxil in vitro dissolution and in vivo bioavailability in dogs. Journal of pharmaceutical sciences (1997), 86(12), 1324-8.		106941-25-7	0.81	16.00		Cundy, Kenneth C.; Shaw, Jeng Pyng; Lee, William A. Oral, subcutaneous, and intramuscular bioavailabilities of the antiviral nucleotide analog 9-(2-phosphonylmethoxyethyl) adenine in cynomolgus monkeys. Antimicrobial Agents and Chemotherapy (1996), 39(2), 365-8.	Pharmacokinetic parameters were calculated from C vs t data obtained by digitization of the plot provided in the reference.
Albuterol (salbutamol)	18559-94-9	1.90	7.80	0.9200	Roulton DW and Fawcett JP (1986) Enantioselective disposition of salbutamol in man following oral and intravenous administration. Br. J. Clin. Pharmacol. 1996, 41, 35-40. Morgan DJ, Prust JD, Richmond BH, Wilson G and Ed Z, Zizzone SP (1981) Pharmacokinetics of intravenous and oral salbutamol sulphate conjugate. Br. J. Clin. Pharmacol. 22: 587-591.	Data for enantiomers were averaged.	18559-94-9	30.00	97.00	0.0500	Meechee G R; Barrow A; Kulkarni S; Palmer E; Oxford J; Collup P V; Macomechie J G; Tarbit M H. Disposition of salmeterol enantiomer in laboratory animals and humans. Drug metabolism and disposition: the biological fate of chemicals (1993), 21(6), 1022-8.	VDss calculated from digitization of the plots in the reference	18559-94-9	3.90	32.00	0.0500	Meechee G R; Barrow A; Kulkarni S; Palmer E; Oxford J; Collup P V; Macomechie J G; Tarbit M H. Disposition of salmeterol enantiomer in laboratory animals and humans. Drug metabolism and disposition: the biological fate of chemicals (1993), 21(6), 1022-8.	VDss calculated from digitization of the plots in the reference	18559-94-9	1.10	32.00		Gobb, MS, Eberle JH, and Anderson JH (1989) Maternal metabolism and disposition of the beta-adrenergic agonist, salbutamol in near-term sheep and rhesus monkeys. Dev. Pharmacol. Ther. 6: 12-22	
Alfentanil	71195-58-9	0.45	3.90	0.0860	Bower S and Hull CJ (1982) Comparative pharmacokinetics of fentanyl and alfentanil. Br. J. Anaesth. 54: 871-877. McDonnell CG, Malkan D, Van Peli FO, and Shorten GD (2003) Elimination of alfentanil clearance by infusion is not altered by the chronic administration of simvastatin. Eur. J. Anaesth. 20: 612-617. Meulemans WEG, Hurkmans RMA, and Heykants JJP (1982) Plasma protein binding and distribution of fentanyl, sufentanil, alfentanil and lofentanil in blood. Arch. Int. Pharmacodyn. Ther. 257: 4-19. Lemmens HJ, Burm AG, Bovill JG, Hennis PJ, and Gladines MP (1992) Pharmacodynamics of alfentanil: The role of plasma protein binding. Anesthesiol. 76: 65-70.		71195-58-9	0.54	29.00	0.1600	Cox, Eugene H.; Kerbusch, Thomas; Van Der Graaf, Pieter H.; Danhof, Meindert. Pharmacokinetic-pharmacodynamic modeling of the electroencephalographic effect of synthetic opioids in the rat: correlation with the interaction at the mu-opioid receptor. Journal of Pharmacology and Experimental Therapeutics (1998), 284(3), 1095-1103. Epverman, Sven; Sarasin, Donald R.; Gerlach, Jochem; Van Leeuwen, Ronald L. Gobbi, Marco; Wada, D. Russell; Ebling, William F. Tissue distribution of fentanyl and alfentanil in the rat cannot be described by a blood flow limited model. Journal of Pharmacokinetics and Biopharmaceutics (1993), 21(3), 255-76. Meulemans WEG, Hurkmans RMA, and Heykants JJP (1982) Plasma protein binding and distribution of fentanyl, sufentanil, alfentanil, and lofentanil in blood. Arch. Int. Pharmacodyn. 257: 4-19.		71195-58-9	0.60	19.00	0.2700	Bite J E; Eberthuysen J A; McNeal D. Comparative study of the pharmacokinetics of alfentanil in rabbits, sheep, and dogs. American journal of veterinary research (1991), 52(4), 581-4. Meulemans WEG, Hurkmans RMA, and Heykants JJP (1982) Plasma protein binding and distribution of fentanyl, sufentanyl, alfentanil, and lofentanil in blood. Arch. Int. Pharmacodyn. 257: 4-19.		71195-58-9	1.10	32.00			
Allopurinol	315-30-0	0.58	11.00	0.9700	Breithaupt H and Tittelvitt (1982) Kinetics of allopurinol after single intravenous and oral doses. Eur. J. Clin. Pharmacol. 22: 77-84. Elion GB, Kovarskya A, Hitchings GH, Mirez E, and Rundles RW (1966) Metabolic studies of allopurinol, an inhibitor of xanthine oxidase. Biochem. Pharmacol. 15: 873-889.		315-30-0						315-30-0	0.16	0.97		Bianges, Joseph W.; Osborne, Carol A.; Felice, Laurence J.; Koehler, Lori A.; Ulrich, Lisa K.; Bird, Kathy A.; Chen, Mengfei; Sauchuk, Ronald J. Bioavailability and pharmacokinetics of intravenously and orally administered allopurinol in healthy beagles. American Journal of Veterinary Research (2000), 61(7), 812-816.	PK parameters calculated from digitization of the plots in the reference.	315-30-0							
Almotriptan	154323-57-6	2.20	8.90	0.6000	Gee J, Lienau J, Jungel JM, Jiusingl J, Catanoscar K, Palacios JM (2002) Almotriptan, a New Anti-Migraine Agent: A Review. CNS Drug Rev. 8: 217-236. Jansat, JM, Costa J, Salas F, Fernandez FJ, and Martinez-Tobed A (2002) Absolute bioavailability, pharmacokinetics, and urinary excretion of the novel antimigraine agent almotriptan in healthy male volunteers. J. Clin. Pharmacol. 42: 1-8.	VDss calculated from MRT and CL reported in Jansat, et al.	154323-57-6	2.70	55.80	0.7200	Aubets, J.; Cardenas, A.; Salva, M.; Jansat, J. M.; Martinez-Tobed, A.; Palacios, J. M. Disposition and metabolism of almotriptan in rats, dogs and monkeys. Xenobiotica (2004), 34(9), 807-822.	All male 64 SD rats. 5 mg/kg dose. VDss (MRT) from digitization; all other data from paper. AUC reported within 10% of calculated (calculated lower than reported)	154323-57-6	3.98	28.52	0.7300	Aubets, J.; Cardenas, A.; Salva, M.; Jansat, J. M.; Martinez-Tobed, A.; Palacios, J. M. Disposition and metabolism of almotriptan in rats, dogs and monkeys. Xenobiotica (2004), 34(9), 807-822.	4 Male/female dogs.1 mg/kg. All data from digitization. Calculated values essentially identical to reported.	154323-57-6	2.61	40.00	0.6000	Aubets, J.; Cardenas, A.; Salva, M.; Jansat, J. M.; Martinez-Tobed, A.; Palacios, J. M. Disposition and metabolism of almotriptan in rats, dogs and monkeys. Xenobiotica (2004), 34(9), 807-822. fu in house	4 Male/female cyno monkeys. 10 mg/kg. All data from digitization. Calculated values essentially identical to reported.
Alprazolam	28981-97-7	0.80	0.74	0.2900	Smith RB, Kroboth PD, Vandenlugt JT, Phillips JP, and Juhl RP (1984) Pharmacokinetics and pharmacodynamics of alprazolam after oral and IV administration. Psychopharmacology 84: 452-456. Greenblatt DJ and Wright CE (1993) Clinical pharmacokinetics of alprazolam. Therapeutic implications. Clin. pharmacokinet. 24: 453-471.	VDss obtained from C vs t data obtained by digitization of the plot provided in the reference.	28981-97-7	2.70	133.00	0.3500	Lau, Chyan E. A double-peak phenomenon in the pharmacokinetics of alprazolam after oral administration. Drug Metabolism and Disposition (1988), 27(8), 855-859. Guoergiew, et al. (2004) Development of a whole-body physiological based model to characterize the pharmacokinetics of benzodiazepines. 1. Estimation of rat tissue-plasma partition ratios. J Pharmacokinet. Pharmacodyn. 31: 259-287.		28981-97-7	2.70	133.00	0.3500	Lau, Chyan E. A double-peak phenomenon in the pharmacokinetics of alprazolam after oral administration. Drug Metabolism and Disposition (1988), 27(8), 855-859. Guoergiew, et al. (2004) Development of a whole-body physiological based model to characterize the pharmacokinetics of benzodiazepines. 1. Estimation of rat tissue-plasma partition ratios. J Pharmacokinet. Pharmacodyn. 31: 259-287.		28981-97-7							
Amantadine	768-94-5	6.60	4.80	0.3300	Aoki FY and Sitar DS (1988) Clinical pharmacokinetics of amantadine hydrochloride. Clin. Pharmacokinet. 14: 35-51.		768-94-5	6.40	19.00	0.5200	Gorodetz, Kenny R.; Smyth, Donald D.; Sitar, Daniel S. In vivo analysis of amantadine renal clearance in the uninephrectomized rat: functional significance of in vitro tubulotoxate-dependent amantadine renal tubule transport. Journal of Pharmacology and Experimental Therapeutics (1989), 250(2), 496-504. Summerfield, S. G.; Lucas, A. J.; Porter, R. A.; Jeffrey, P.; Gunn, R. N.; Virley, D.; Brown, F.; Spanoghe, M.; Hewson, L.; Ashford, E. I. J.; Fenscham, J.; Rolfe, A. D. Translational preclinical prediction of human in vivo brain penetration. Xenobiotica (2008), 38(12), 1518-1535.		768-94-5	6.40	19.00	0.5200	Gorodetz, Kenny R.; Smyth, Donald D.; Sitar, Daniel S. In vivo analysis of amantadine renal clearance in the uninephrectomized rat: functional significance of in vitro tubulotoxate-dependent amantadine renal tubule transport. Journal of Pharmacology and Experimental Therapeutics (1989), 250(2), 496-504. Summerfield, S. G.; Lucas, A. J.; Porter, R. A.; Jeffrey, P.; Gunn, R. N.; Virley, D.; Brown, F.; Spanoghe, M.; Hewson, L.; Ashford, E. I. J.; Fenscham, J.; Rolfe, A. D. Translational preclinical prediction of human in vivo brain penetration. Xenobiotica (2008), 38(12), 1518-1535.		768-94-5							
Amifloxacin	86393-37-5		4.56		Schentag J J et al. Pahamacokinetics of Amifloxacin After Oral and Ortravenous Administration. Review-DF infectious diseases. 1989 11, suppl5	Average of 4 doses 200, 400, 600 every 12h and 400 every 8h. N=5 male for each oral. Values reported as steady state. Average CL renal = 2.88 mL/min/kg (52% of total)	86393-37-5	3.60	12.00		Johnson, Judith A.; Berstgen, David P. Metabolism and disposition of amifloxacin in laboratory animals. Antimicrobial Agents and Chemotherapy (1985), 27(6), 774-81.	Parameters were calculated by analyzing the C vs t data obtained by digitizing the plot provided in the reference	86393-37-5	0.91	4.50		Frimodt-Moller, P. C.; Dorfflinger, T.; Madsen, P. O. Amifloxacin distribution in the dog prostate. Prostate (New York, N Y, United States) (1985), 6(2), 163-8.	CL and VD calculated from bolus/infusion regimen	86393-37-5	1.40	7.30		McCoy, Leslie F.; Creamer, Bruce P.; Berstgen, David P. Analysis of amifloxacin in plasma and urine by high-pressure liquid chromatography and intravenous pharmacokinetics in rhesus monkeys. Antimicrobial Agents and Chemotherapy (1985), 27(5), 768-71.	Clearance calculated using compartmental parameters listed in the reference. VDss was calculated from reported micro rate constants
Amikacin	37517-28-5	0.16	1.10	0.8800	Lerner AM, Dominguez-Gil A, Tabenkin JM, and De Castro S (1979) Pharmacokinetics of amikacin (BB-K8) in patients with normal or impaired renal function. J. Clin. Pharmacol. 19: 251-258. Bergan T, Bjornsen OA, Fjeldstad K, Kolstad I, Solberg R, Thorsen G, and Kolby WMM (1974) Comparative pharmacokinetics of amikacin and kanamycin. Clin. Pharmacol. Ther. 15: 610-616. Brunnemann SR and Segal JR (1991) Amikacin serum protein binding in spinal cord injury. Life Sci. 49: PL1-PL5.	CL calculated from reported compartmental model parameters. Protein binding data averaged from two papers.	37517-28-5	0.16	5.40		Fielding, R M; Lewis, D G; Moore-McCormick, L. Altered tissue distribution and elimination of amikacin encapsulated in unilamellar liposomes in rabbits and Macaques (MAI-sarcoma). Pharmaceutical research (1988), 15(1), 1775-81.		37517-28-5	0.20	3.50		Kufunchi, B.; Cristiani, J. F. Comparative pharmacokinetics of amikacin in Greyhound and Beagle dogs. Journal of Veterinary Pharmacology and Therapeutics (2006), 29(1), 71-3. Ishii, Y.; Ishizaki, J.; Yamada, H.; Nadagiria, A.; and Matsusaki, M (1981). Absorption, excretion and distribution of amikacin following intravenous drip administration. Japan. J. Antibiotics 31: 2034-2	Used beagle PK data from Kulunchi et al. Used C vs t data obtained following digitization of the 25 mg/kg dose group in the reference by Matsumoto, et al.	37517-28-5							
Aminocamptothecin, 9-	91421-43-1	2.20	6.50	0.0030	Herben VM, van Gijn R, Schellens JH, Schot M, Lovenz J, Millebrand MJ, Schoemaker NE, From MG, Beijnen JH, and ten Bokkel Huinink WW (1999) Phase I and pharmacokinetic study of a daily three 5-short intravenous infusion schedule of 9-aminocamptothecin in a colloidal dispersion formulation in patients with advanced solid tumors. J. Clin. Oncol.17: 1906-1914. Matsubara N, May RD, and Atsumi R (2004) A predictive model of human pharmacokinetics of topoisomerase I inhibitors derivatives and the in vitro cytotoxicity of topoisomerase I inhibitors assay. Clin. Cancer Res. 10: 6722-6731.		91421-43-1	5.00	150.00		Drak, R.; Sirdar, M.; Lopez, R.; Mueller, P.; Monaco, J. Pharmacokinetics of 9-amino-20(S)-camptothecin (NSC-60377) in rats.Chem. Abst. 119:190202		91421-43-1							
Aminocyclopropanecarboxylic Acid	22059-21-8	0.73	1.50		Cherkofsky, S.C. (1995) 1-Aminocyclopropylcarboxylic acid: mouse to man interspecies pharmacokinetic comparisons and allometric relationships. J. Pharm. Sci. 84: 1231-1235.		22059-21-8	0.64	3.20		Cherkofsky, S.C. (1995) 1-Aminocyclopropylcarboxylic acid: mouse to man interspecies pharmacokinetic comparisons and allometric relationships. J Pharm. Sci. 84: 1231-1235.	**Human data available**	22059-21-8	0.70	0.40		Cherkofsky, S.C. (1995) 1-Aminocyclopropylcarboxylic acid: mouse to man interspecies pharmacokinetic comparisons and allometric relationships. J Pharm. Sci. 84: 1231-1235.		22059-21-8	0.72	3.10		Cherkofsky, S.C. (1995) 1-Aminocyclopropylcarboxylic acid: mouse to man interspecies pharmacokinetic comparisons and allometric relationships. J Pharm. Sci. 84: 1231-1235.	
Amiodarone	1951-25-3	60.00	1.90	0.0002	Ujhely MR, Kramerus KJ, Vratilek K, O'Rangers E, Iland H, Neefe DL, Zimmerman JJ, and Chow MSS (1990) Disposition of intravenous amiodarone in subjects with normal and impaired renal function. J. Clin. Pharmacol. 30: 122-130. Verremne MC, McLean S, and Hendrikx R (1989) Plasma protein binding of amiodarone in a patient population: measurement by erythrocyte partitioning and a novel glass-binding method. Br. J. Clin. Pharmacol 28: 721-731.		1951-25-3	21.00	25.00	0.0001	Bavityapadhaya, S.; Somani, P. A comparison of plasma, white blood cell, red blood cell, and tissue distribution of amiodarone and desethylamiodarone in anesthetized dogs. Journal of Cardiovascular Pharmacology (1987), 10(4), 379-88. fu in house	Only data from low two doses were used from Wan and Ueda, 1986.	1951-25-3	1.40	29.00	0.0001	Bavityapadhaya, S.; Somani, P. A comparison of plasma, white blood cell, red blood cell, and tissue distribution of amiodarone and desethylamiodarone in anesthetized dogs. Journal of Cardiovascular Pharmacology (1987), 10(4), 379-88. fu in house	VDss calculated after digitization of the C vs t plot provided in the reference.	1951-25-3							
Amitriptyline	50-48-6	8.70	6.10	0.0700	Jorgensen A and Hansen V (1976) Pharmacokinetics of amitriptyline infused intravenously in man. Eur. J. Clin. Pharmacol. 10: 337-341. Nyberg G and Martensson E (1984) Determination of free fractions of tricyclic antidepressants. Naunyn-Sch.Arch. Pharmacol. 327: 260-265.		50-48-6	11.00	71.00	0.1100	Oshima, Natsuo; Kotaki, Hajime; Sawada, Yasufumi; Iga, Tatsuji. Tissue distribution and metabolism of amitriptyline after repeated administration in rats. Drug Metabolism and Disposition (1995), 23(1), 23-5.		50-48-6							
Amlodipine	88150-42-9	17.00	7.00	0.0050	Faulkner JK, McGilvery D, Chesteswell LF, Perry JL, and Taylor IW (1986) The pharmacokinetics of amlodipine in healthy volunteers after single intravenous and oral doses and after 14 repeated oral doses given once daily. Br. J. Clin. Pharmacol. 22: 21-26. Kristensen K, Nielsen K, Kristen D, and Hertel B (1989) Clinical pharmacokinetics of felodipine. Part I. Clin. Pharmacokinet. 16: 351-380.	VDss calculated from C vs t data obtained by digitization of the plot in Faulkner et al.	88150-42-9	32.00	122.00	0.0600	Stopher, D.A., Beresford, A.P., Macrae, V.P., and Humphrey, M.J. The metabolism and pharmacokinetics of amlodipine in humans and animals. Journal of Cardiovascular Pharmacology 12(Supp 7) 535-539 (1988)		88150-42-9	25.00	11.00	0.0300	Stopher, D.A., Beresford, A.P., Macrae, V.P., and Humphrey, M.J. The metabolism and pharmacokinetics of amlodipine in humans and animals. Journal of Cardiovascular Pharmacology 12(Supp 7) 535-539 (1988)		88150-42-9							
Amoxicillin	26787-78-0	0.25	3.30	0.8500	Arancibia A, Guitman J, Gonzalez G, and Gonzalez C (1980) Absorption and disposition kinetics of amoxicillin in normal human subjects. Antimicrob. Ag. Chemother. 17: 599-602. Bergan T (1984) Pharmacokinetics of beta-lactam antibiotics. Scand. J. Infect. Dis. 42(Suppl): 83-96.		26787-78-0	0.50	17.00	0.8200	Torres-Molina, F.; Perez-Albarracin, J. E.; Garcia-Carbonell, M. C.; Arnbrosio, J. C.; Gavarro, J.; Pla-Delfina, J. M. Nonlinearities in amoxicillin pharmacokinetics: Disposition studies in the rat. Antimicrobial agents and chemotherapy (1984), 25(3), 329-38. Sakamoto, Hiroshi; Hirose, Toshiharu; Mine, Yasuhiro. Pharmacokinetics of FK027 in rats and dogs. Journal of Antibiotics (1985), 38(4), 496-504.		26787-78-0	0.31	3.40	0.6600	Kung K; Warner M. Bioavailability of different forms of amoxycillin administered orally to dogs. The Veterinary record (1994), 135(24), 566-8. Sakamoto, Hiroshi; Hirose, Toshiharu; Mine, Yasuhiro. Pharmacokinetics of FK027 in rats and dogs. Journal of Antibiotics (1985), 38(4), 496-504.		26787-78-0							
Amphetamine (-d)	300-62-9	6.10	9.70	0.8000	Angagaard E, Gunne LM, Jonsson LE and Nilsasson F (1970) Pharmacokinetic and clinical studies on amphetamine-dependent patients. J. Clin. Pharmacol. 10: 213-219. Beckett AH, Bendigo R, and Sellers EM (1969) Clinical pharmacokinetics of non-opiate abused drugs. Clin. Pharmacokinet. 16: 1-26. De la Torre R, Farre M, Navarro M, Pacifici R, Zuccaro P, and Pichini S. (2004) Clinical pharmacokinetics of amfetamine and related substances: monitoring in conventional and non-conventional matrices. Clin. Pharmacokinet. 43: 157-185.	PK reported as monoexponential decline so reported VD was used as VDss. CL calculated from VD and t1/2.	51-64-9	6.60	90.00	0.5900	Buxser, J. D.; Davis, L. E. Comparative study of the pharmacokinetics of amphetamine. Research in Veterinary Science (1972), 14(2), 207-15.		51-64-9	2.70	7.10	0.7300	Buxser, J. D.; Davis, L. E. Comparative study of the pharmacokinetics of amphetamine. Research in Veterinary Science (1972), 14(2), 207-15.	(+)Enantiomer	51-64-9				Drug shows monoexponential decline, so reported terminal phase VD was assumed to be equal to VDss	
Amphetamine (-l)							156-34-3	4.30	66.00		Hutchaleelaha, Athiwat; Sukkasitthiraj, Juthamas; Chow, Hsiao-Hui; Mayersohn, Michael. Disposition kinetics of d- and l-amphetamine following intravenous administration of racemic amphetamine to rats. Drug Metabolism and Disposition (1994), 22(3), 409-11.		156-34-3						156-34-3					

Amphotericin B	1397-89-3	0.62	0.17	0.0300	Bellmann, R. Curr. Clin. Pharmacol., 2007, 2, 37-58. VDss 0.62 L/kg. PK parameters variability due to formulation and disease state, reported in a plethora of references, cited by the same author. Actual data taken from Kan et al. J. Infect. Dis. 1981, 164, 418-423, for 16 healthy volunteers.		1397-89-3	2.30	1.90	0.1100	Robbie, Gabriel; Chiou, Win-L. Elucidation of human amphotericin B pharmacokinetics: identification of a new potential factor affecting interspecies pharmacokinetic scaling. Pharmaceutical Research (1998), 15(10), 1630-1636.		1397-89-3	10.00	0.90	0.0850	Robbie, Gabriel; Chiou, Win-L. Elucidation of human amphotericin B pharmacokinetics: identification of a new potential factor affecting interspecies pharmacokinetic scaling. Pharmaceutical Research (1998), 15(10), 1630-1636.		1397-89-3	9.30	4.20	0.5510	Kim, H.; Lockenberg, D.; Marco, A.; Symchowicz, S.; Lin, C. Comparative pharmacokinetics of Sch 28191 and amphotericin B in mice, rats, dogs, and cynomolgus monkeys. Antimicrobial Agents and Chemotherapy (1984), 26(1), 446-9.	Pharmacokinetic parameters were calculated from mean C vs t data obtained by digitization of the plot provided in the reference.
Ampicillin	69-53-4	0.22	2.80	0.8500	Blum RA, Kohli RK, Harrison NJ, and Schentag JJ (1988) Pharmacokinetics of ampicillin (2.0 grams) and sulbactam (1.0 gram) coadministered to subjects with normal and abnormal renal function and with end-stage renal disease on hemodialysis. Antimic. Ag. Chemother. 32: 1470-1476. Bergan T (1984) Pharmacokinetics of beta-lactam antibiotics. Scand. J. Infect. Dis. 42(Suppl): 83-98.		69-53-4	1.10	19.00	0.6000	Hagimaka J; Wakui J; Yasuda H; Uno T; Takahashi K; Kalagi T High-performance liquid chromatographic determination of ampicillin and its metabolites in rat plasma, bile and urine by post-column derivatization with sodium hypochlorite. Journal of chromatography (1987), 400 151-61. Tsuji, Akira; Yoshikawa, Takayoshi; Nishide, Kazunori; Minami, Ichiro; Kimura, Motonobu; Nakashima, Emi; Terasaki, Tetsuya; Miyamoto, Eisuke; Nightingale, Charles H.; Yamana, Tsukinaka. Influence of probenecid on renal excretion of beta-lactam antibiotics in human and exotic fluid of dogs. Journal of Pharmaceutical Sciences (1983), 72(11), 1238-12.	VDss calculated using micro rate constants provided in the reference.	69-53-4	0.58	9.10	0.5800	Collins BE, Wilhite LE, Bleisegen ME. (1970) Pharmacokinetic evaluation of the oral absorption of different ampicillin preparations in beagle dogs. Antimic. Ag. Chemother. 35-40. Kan WM, Lerner AM, Finland M. (1981) Gastrointestinal, bone IV, and Wondrich L, Schoel, Elizabeth A. Prediction of the concentrations of penicillin, a-acetic fluid from serum kinetics and protein binding of the antibiotics in serum and exotic fluid of dogs. Journal of Infectious Diseases (1978), 138(2), 166-73.		69-53-4	9.30	4.20	0.5510		
Amrinone	60719-84-8	1.30	8.90	0.8900	Hamilton RA, Kowalsky SF, Wright EM, Cernak P, Berninger DP, Strothers RM, and Eckstein J (1984) Effect of the acrylate phenotype on amrinone pharmacokinetics. Clin. Pharmacol. Ther. 40: 615-619. Kopela V, Trevaskis T, and Landmann H (1984) The binding of amrinone to plasma proteins. Pharmapie 41: 300-301.	CL value from rapid acetylators only.	60719-84-8						60719-84-8	1.20	6.00		Kullberg, M. P.; Dornbecker, B.; Lennon, J.; Rose, E., Edelson, J. High-performance liquid chromatographic analysis of amrinone and its N-acetyl derivative in plasma. Pharmacokinetics of amrinone in the dog. Journal of Chromatography (1985), 187(1),		60719-84-8					
Amsacrine	51264-14-3	1.60	4.30	0.0290	Zuhlsa JL, Vassos AR, and Paxton JW (1985) Pharmacokinetics of amsacrine in patients receiving combined chemotherapy: a preliminary report. Cancer Chemother. Pharmacol. 14: 21-26. Paxton JW, Kim SH, and Whitfield LR (1990) Pharmacokinetic and toxicity scaling of the antitumor agents amsacrine and C-921, a new analogue, in mice, rats, rabbits, dogs, and humans. Cancer Res. 50: 2692-2697.	VDss reported in Paxton, et al, and cites Jurlina, et al., references which has only VdSteta at 1.7 L/kg. Used value from Paxton report.	51264-14-3	4.50	83.00	0.1200	Paxton, James W.; Kim, Sang N.; Whitfield, Lloyd R. Pharmacokinetic and toxicity scaling of the antitumor agents amsacrine and C-921, a new analog, in mice, rats, rabbits, dogs, and humans. Cancer Research (1990), 50(9), 2692-7.		51264-14-3	2.80	16.00	0.0813	Paxton, James W.; Kim, Sang N.; Whitfield, Lloyd R. Pharmacokinetic and toxicity scaling of the antitumor agents amsacrine and C-921, a new analog, in mice, rats, rabbits, dogs, and humans. Cancer Research (1990), 50(9), 2692-7.		51264-14-3	2.60	3.70	0.7000		
Amsalog	80841-47-0	0.30	2.60	0.0011	Paxton JW, Hardy JR, Evans PC, Harvey VJ, and Baguley BC: 4'-(9-acridylamino)-methanesulfon-m-anisidine (CI-921) and 4'-(methoxy-4-methylsulfonylamino)phenylamino)-2-acridinecarboxamide (CI-921) in a phase 1 trial. Cancr. Chemother. Pharmacol. 22: 235-240. Fyfe D, Price C, Langley RE, Pegoretti C, Houghton J, Osborne L, Wolf PJ, Gardner C, Baguley BC, and Carmichael J (2001) A phase I trial of amsalog (CI-921) administered by intravenous infusion using a 5-day schedule. Cancr. Chemother. Pharmacol. 47: 322-327. Paxton JW, Kim SN, and Whitfield LR (1990) Pharmacokinetic and toxicity scaling of the antitumor agents amsacrine and CI-921, a new analogue, in mice, rats, rabbits, dogs, and humans. Cancer		80841-47-0	2.00	66.00	0.0110	Paxton, James W.; Kim, Sang N.; Whitfield, Lloyd R. Pharmacokinetic and toxicity scaling of the antitumor agents amsacrine and C-921, a new analog, in mice, rats, rabbits, dogs, and humans. Cancer Research (1990), 50(9), 2692-7.		80841-47-0	1.00	3.70	0.0038	Paxton, James W.; Kim, Sang N.; Whitfield, Lloyd R. Pharmacokinetic and toxicity scaling of the antitumor agents amsacrine and C-921, a new analog, in mice, rats, rabbits, dogs, and humans. Cancer Research (1990), 50(9), 2692-7.		80841-47-0					
Amsidufungin	166663-25-8	0.57	0.21	0.1600	Dowell JA, Schranz J, Bianchi A, and Foster G (2003) Safety and pharmacokinetics of coadministered voriconazole and amsidufungin. J. Clin. Pharmacol. 43: 1373-1382. Eisai's Product Label.		166663-25-8						166663-25-8	1.80	1.70		Zuoxiao L.; Stratford R.E. Development of a plasma high-performance liquid chromatographic assay for L-V01038, a lipopeptide antifungal agent, and its application in a dog pharmacokinetic study. Journal of chromatography. B Biomedical sciences and applications. [J Chromatogr B Biomed Sci Appl] 1 Aug 1997, vol. 695, no. 2, p. 271-9.		166663-25-8					
Antipyrine	60-80-0	0.77	0.64	0.9200	Andreasen PB and Vewell ES (1974) Comparison of plasma levels of antipyrine, tolbutamide, and warfarin after oral and intravenous administration. Clin. Pharmacol. Ther. 16: 1059-1065. Danhof M, van Zuilen A, Boeijinga JK, and Breimer DD (1982) Studies of the effect of metabolic pathways of antipyrine in man. Eur. J. Clin. Pharmacol. 21: 433-441. Lee KJ, Mosier R, Hollenback T, Castello J, Johnson N, Gordon P, Sinko P J, Notne K, and Lee YH (2003) Modulation of nonspecific binding in ultrafiltration protein binding studies. Pharm. Res. 20: 1015-1021.	Danhof reference not included for VDss (would require digitization); Andreasen reference used a one-compartment model so VDc = VDss.	60-80-0	0.81	9.10	1.0000	Sunesson-C-K, Lui-L-L, Knowlton-P-W. Effect of amiodarone and desethylamiodarone on the pharmacokinetics of antipyrine in the rat. Pharmaceutical research 1987, vol. 4, no. 3, p. 251-4 Chevalayre, B.; Belpaire, F. M.; De Smet, T.; Bogaert, M. G. Alteration of the pharmacokinetics and metabolism of propranolol and antipyrine elicited by intravenous catheters in the rat. Journal of Pharmacology and Experimental Therapeutics (1986), 240(3), 1075-6.		60-80-0	0.09	6.30	0.6000	Kalkhoff R, Cronson JW, Cantwell R, Kalkhoff J. Comparative disposition of pharmacologic markers for cytochrome P-450 mediated metabolism, glomerular filtration rate, and extracellular and total body fluid volume of Greyhound and Beagle dogs. Journal of veterinary pharmacology and therapeutics. 2007, vol. 30, no. 4, p. 314-9. Galtier, Marc; Briand, Dominique; Pinguet, Frederic; Gomeni, Roberto; Fabre, David; Bressolle, Francoise. Pharmacokinetic parameters of antipyrine in dogs after hepatectomy. Biopharmaceutics & drug disposition (1992), 13(8), 529-39.		60-80-0	0.74	4.60	0.6000	Doyle E and Cleeveland LF (1981) Comparative pharmacokinetics of antipyrine (phenazone) in the baboon, cynomolgus monkey and rhesus monkey. Toxicology 19: 159-168.	Data from cynomolgus monkeys is listed. Data is also available for baboon and rhesus.
Aprepitant	170729-80-3	0.94	1.00	0.0500	Majumdar AK, Howard L, Goldberg MR, Hickey L, Constantan M, Rothenberg PL, Crumley TM, Panebianco D, Bradstreet TE, Bergman AJ, Westerman SA, Cunningham HE, Butler K, Knapp A, De Lepeleire I, Michiels N, and Petty KJ (2006) Pharmacokinetics of aprepitant after single and multiple-oral doses in healthy volunteers. J. Clin. Pharmacol. 46: 291-300. Emend Product Label.		170729-80-3	3.20	18.00	0.0020	Used data from lowest dose administered		170729-80-3	1.00	2.60	0.0009	Used data from lowest dose administered		170729-80-3					
Artesunate	88495-63-0	15.00	1070.00	0.2500	Newton PN, Barnes KI, Smith PJ, Evans AC, Chierakul, W, Ruangweerayut R, and Whitworth J (2006) The pharmacokinetics of intravenous artesunate in adults with severe falciparum malaria. Eur. J. Clin. Pharmacol. 62: 1003-1005. Li Q, Xie LH, Haeberle A, Zhang J, and Weina P (2006) The evaluation of radiolabeled artesunate on tissue distribution in rats and protein binding in humans. Am. J. Trop. Med. Hyg. 75: 617-624.		88495-63-0	4.00	212.00	0.2200	Li Qiqi, Xie Lixia, Haeberle Adam, Zhang Jing, Weina Peter. The evaluation of radiolabeled artesunate on tissue distribution in rats and protein binding in humans. Am J Trop Med Hyg(2006, vol. 75, no. 3, p. 617-24.		88495-63-0	0.50	44.00	0.1800	Bennett, Kent; Sii, Yuanzheng; Steinbach, Thomas; Zhang, Jing Li, Qiqi. Pharmacokinetic and pharmacodynamic evaluation of intramuscular artesunate in healthy beagle dogs. American Journal of Tropical Medicine and Hygiene (2005), 73(1), 36-41.	no VDss reported	88495-63-0					
Azimilid	26122-68-7	0.95	2.50	0.9400	Sinko PJ, Ho NF, Kochek G, Cohen L and Bell R (1979) Kinetics and absolute bioavailability of azimilid. Clin. Pharmacol. Ther. 25: 418-415. Henry JA and Mitchell SA (1981) Effect of pH on human plasma protein binding of a series of beta-adrenoceptor antagonists. Br. J. Clin. Pharmacol. 11: 119P-120P.	VDss calculated from reported micro constants.	26122-68-7	5.40	69.00	0.6700	Belpaire, Frans M.; Rosseel, Marie Therese; Vermeulen, An M.; De Smet, Frits; Bogaert, Marc G. Stereoselective pharmacokinetics of azimilid in the rat: influence of aging and of renal failure. Mechanisms of Ageing and Development (1992), 67(1-2), 201-10.	Pharmacokinetic parameters were calculated from C vs t data obtained by digitization of plots provided in the reference. Averaged the data for two enantiomers.	26122-68-7	1.40	4.40	0.6400	McAinsh J and Holmes BF (1982) Pharmacokinetic studies with azimilid in the dog. Biopharm. Drug Dispos. 4: 249-261.	Calculated from three-compartment model parameters included in the publication.	26122-68-7		7.50	0.7607	Takahashi M, Morino T, Sasaki M, Ignis K, Fujii Y, Hayashi M, Shirasaka Y, Yamashita S (2006) Pharmacokinetic parameters of gastrointestinal drug absorption in cynomolgus monkeys. Mol. Pharmacol. 5: 345-348.	m:3-5 cyno
Atomoxetine	83015-26-3	0.85	9.30	0.0200	Strattera Product Label	CYP2D6 EM data MRT is calculated as VDCL. CL was calculated as CLpo/F (F=63%)	83015-26-3	4.30	36.00	0.1100	Mattiuz, Edward L.; Ponsler, G. Douglas; Bartlusch, Robert J.; Wood, Paul G.; Mullen, John H.; Shugart, Richard L.; Li, Qimin; Wheeler, William J.; Kuo, Fengjiun; Conrad, Preston C.; Sauer, John-Michael. Disposition and metabolic fate of atomoxetine hydrochloride: pharmacokinetics, metabolism, and excretion in the Fischer 344 rat and beagle dog. Drug Metabolism and Disposition (2002), 30(1), 88-97.		83015-26-3	1.40	7.40	0.0300	Mattiuz, Edward L.; Ponsler, G. Douglas; Bartlusch, Robert J.; Wood, Paul G.; Mullen, John H.; Shugart, Richard L.; Li, Qimin; Wheeler, William J.; Kuo, Fengjiun; Conrad, Preston C.; Sauer, John-Michael. Disposition and metabolic fate of atomoxetine hydrochloride: pharmacokinetics, metabolism, and excretion in the Fischer 344 rat and beagle dog. Drug Metabolism and Disposition (2002), 30(1), 88-97.							
Atropine	51-55-8	3.30	7.60	0.6100	Adams RG, Verma P, Jackson AJ, and Miller RL (1982) Plasma pharmacokinetics of intravenously administered atropine in normal human subjects. J. Clin. Pharmacol. 22: 477-481. Kuei H, Maurer-Gerstrom A, and Sickel-Hill (1977) Differences in the binding of drugs to plasma proteins from newborn and adult man. I. Eur. J. Clin. Pharmacol. 11: 463-467.		51-55-8	23.00	53.00	0.7700	Uno R, Sugre G, Bianchi E, Brunt G, Dalpra P, and Fiaschi AI (1991) Plasma kinetics of atropine and ipratropium in rats after different routes of administration evaluated by a radioreceptor assay. Eur. J. Drug Metab. Pharmacokinet. 52: 111-115.		51-55-8						51-55-8	0.55	41.00	0.1770	Prete M R; Hansen C J; Jr Butler F M Jr. Plasma atropine concentrations via intravenous, endotracheal, and intraosseous administration. The American journal of emergency medicine (1987), 5(2), 101-4.	Pharmacokinetic parameters were calculated from C vs t data provided in the reference
Azelastine	58581-89-8	15.00	9.00	0.1700	Wellkyl, Howard JR, and Wichmann JK (1990) Absolute bioavailability and pharmacokinetics of azelastine. Pharm. Res. 7: S-347. Eckerle T, Simons R, and Simons KJ (1999) Clinical pharmacology of new histamine H1-receptor antagonists. Clin. Pharmacokinet. 36: 229-252.		58581-89-8		58.00	0.1000	Makino, Toshiaki; Inagaki, Takafumi; Komatsu, Ken-ichi; Kano, Yoshihiro. Pharmacokinetic interactions between Japanese traditional medicine (kampo) and modern medicine (8). Effect of Sho-seiryu-to on the pharmacokinetics of azelastine hydrochloride in rats. Biological & Pharmaceutical Bulletin (2004), 27(6), 870-873.		58581-89-8	8.10	50.00	0.0626	Hasegawa J; Tomono Y; Tanaka M; Fujita T; Sugiyama K; and Hirose N. (1991) Pharmacokinetic and biopharmaceutical studies on azelastine hydrochloride in beagle dogs by quantitative selected ion monitoring. Arzneim. Forsch. 31: 1213-1230.	Parameters calculated from C vs t data provided in the reference	58581-89-8					
Azithromycin	83905-01-5	33.00	10.00	0.8800	Luke DR, Foulds G, Cohen SF, and Lerg B (1986) Safety, tolerance, and pharmacokinetics of intravenous azithromycin. Antimicrob. Agents Chemother. 40: 2277-2279. Shepard RM and Fulkerson FB (1990) The pharmacokinetics of azithromycin in human serum and tissues. J. Antimic. Chemother. [illegible]	Protein binding in concentration dependent; cited value measured at concentrations observed after IV dosing.	83905-01-5	84.00	34.00	0.7100	Shepard RM and Fulkerson FC (1990) Pharmacokinetics of azithromycin in rats and dogs. J. Antimic. Chemother. 25 (Suppl A): 49-60.		83905-01-5	12.00	6.00	0.7400	Shepard RM and Fulkerson FC (1990) Pharmacokinetics of azithromycin in rats and dogs. J. Antimic. Chemother. 25 (Suppl A): 49-60.		83905-01-5					
Azlocillin	37091-66-0	0.26	2.50	0.6500	Haen E, Reinsen J, Richter E, Frank U, and Adam D (1983) Über die Verbindung der applikationsgeschwindigkeit für die pharmakokinetischen parameter von azlocillin und mezlocillin. Arz. Forsch. 33: 864-866. Bergan T (1984) Pharmacokinetics of beta-lactam antibiotics. Scand. J. Infect. Dis. 42(Supp): 83-98.	Pharmacokinetic parameters were calculated from C vs t data provided in the reference.	37091-66-0						37091-66-0	0.27	2.80		Qian, Yuanxu; Wang, Qinan. Pharmacokinetic study of China-made azlocillin in dogs. Zhongguo Kangshengsu Zazhi (1985), 14(5), 182-6.	VDss calculated using micro rate constants provided in the reference	37091-66-0					
Aztreonam	78110-38-0	0.18	1.50	0.4000	Burgess DS, Summers KK, and Hastifrit CC (1986) Pharmacokinetics and pharmacodynamics of aztreonam administered by continuous intravenous infusion. Clin. Ther. 21: 1882-1899. Swabb EA, Sugerman A, Franco M, Pratt TB, and Stern M (1982) Renal handling of the monobactam aztreonam in healthy subjects. Clin. Pharmacol. Ther. 32: 604-614.		78110-38-0	0.41	15.00	0.1500	Swabb, Edward A.; Bonner, Daniel P. Prediction of aztreonam disposition in humans based on data from animals. Journal of Pharmacokinetics and Biopharmaceutics (1982), 11(2), 216-33. Kita, Yasuo; Fugono, Takeshi; Imada, Akira. Comparative pharmacokinetics of cefuzonam and aztreonam in mice, rats, rabbits, dogs, and cynomolgus monkeys. Antimicrobial Agents and Chemotherapy (1986), 29(1), 127-34.	VDss calculated from C vs t data obtained by digitization of the plot provided in the reference. **pgb only from Kita et al.**	78110-38-0	2.10	9.40	0.8000	Swabb, Edward A.; Bonner, Daniel P. Prediction of aztreonam disposition in humans based on data from animals. Journal of Pharmacokinetics and Biopharmaceutics (1982), 11(2), 216-33. Kita, Yasuo; Fugono, Takeshi; Imada, Akira. Comparative pharmacokinetics of cefuzonam and aztreonam in mice, rats, rabbits, dogs, and cynomolgus monkeys. Antimicrobial Agents and Chemotherapy (1986), 29(1), 127-34.	VDss calculated from C vs t data obtained by digitization of the plot provided in the reference. **pgb only from Kita et al.**	78110-38-0			0.5300	Kita, Yasuo; Fugono, Takeshi; Imada, Akira. Comparative pharmacokinetics of cefuzonam and aztreonam in mice, rats, rabbits, dogs, and cynomolgus monkeys. Antimicrobial Agents and Chemotherapy (1986), 29(1), 127-34.	
Betamethasone	378-44-9	1.30	2.80	0.3600	Petersen MC, Nation RL, McBride WG, Ashley JJ, and Moore RG (1983) Pharmacokinetics of betamethasone in healthy adults after intravenous administration. Eur. J. Clin. Pharmacol. 25: 643-650.	VDss was calculated using C vs t data obtained by digitization of the plot provided in the reference.	378-44-9	0.68	5.00	0.1200	Tamokoopouulos C S; Neugebauer J M; Donnelly M; Griffin P R Analysis of betamethasone in rat plasma using automated solid-phase extraction coupled with liquid chromatography-tandem mass spectrometry. Determination of plasma concentrations in rat following oral and intravenous administration. Journal of chromatography B. Analytical technologies in the biomedical and life sciences (2003), 779(2), 161-6. Peets, Edwin A.; Staub, Marilyn; Synchowicz, Sarmon. Plasma binding of betamethasone-3H, dexamethasone-3H, and cortisol-14C: comparative study. Biochemical Pharmacology (1969), 18(7), 1655-63.		378-44-9			0.3000	Peets, Edwin A.; Staub, Marilyn; Synchowicz, Sarmon. Plasma binding of betamethasone-3H, dexamethasone-3H, and cortisol-14C: comparative study. Biochemical Pharmacology (1969), 18(7), 1655-63.		378-44-9					
Betamipron	3440-28-6	0.28	9.20	0.1700	Saito A (1991) Pharmacokinetics of panipenem/betamipron. Chemotherapy (Tokyo) 39(Suppl. 2): 227-236. Kurihara A, Nagayama H, Hirooka M, Tokiwa H, and Kawahara Y (1992) Prediction of human pharmacokinetics of panipenem/betamipron, a new carbapenem, from animal data. Antimic. Ag. Chemother. 36: 1810-1816.	VDss calculated from C vs t data provided in the reference.	3440-28-6	0.23	17.00	0.1400	Kurihara, Atsushi; Nagayama, Hideo; Hirooka, Masafumi; Tokiwa, Hiroshi; Kawahara, Yukinori. Prediction of human pharmacokinetics of panipenem-betamipron, a new carbapenem, from animal data. Antimicrobial Agents and Chemotherapy (1992), 36(9), 1810-16.		3440-28-6	0.40	8.00	0.5900	Kurihara, Atsushi; Nagayama, Hideo; Hirooka, Masafumi; Tokiwa, Hiroshi; Kawahara, Yukinori. Prediction of human pharmacokinetics of panipenem-betamipron, a new carbapenem, from animal data. Antimicrobial Agents and Chemotherapy (1992), 36(9), 1810-16.		3440-28-6	0.23	7.90	0.2800	Kurihara, Atsushi; Nagayama, Hideo; Hirooka, Masafumi; Tokiwa, Hiroshi; Kawahara, Yukinori. Prediction of human pharmacokinetics of panipenem-betamipron, a new carbapenem, from animal data. Antimicrobial Agents and Chemotherapy (1992), 36(9), 1810-16.	
Betaxolol	63659-18-7	4.80	3.40	0.4000	Luddon TM, Boyle DA, Glenwinkel D, Kennedy GT, Crawford MH, Ludden LK, and Clement WA (1986) Absolute bioavailability and dose proportionality of betaxolol in normal healthy subjects. J. Pharm. Sci. 77: 776-783. Henry JA and Mitchell SA (1981) Effect of pH on human plasma protein binding of a series of beta-adrenoceptor antagonists. Br. J. Clin. Pharmacol. 11: 119P-120P.		63659-18-7	12.00	154.00	0.5400	VDss calculated from C vs t data obtained by digitization of the plot provided in the reference.		63659-18-7	8.20	20.00	0.4700	Fernandes, B.; Durand, A.; Andre-Fraisse, J.; Theret, J. P.; Herrmann, P. Pharmacokinetics and metabolism of betaxolol in various animal species and man. L.E.R.S. Monograph Series (1983), 1(Betaxolol Other Beta-1 Adrenoceptor Antagonists), 51-64. Mesa Takuro; Nozawa, Minako; Ida, Seiu. Studies on the metabolic fate of [(-)-(R)-[(cyclopropylmethoxy)ethyl]phenoxy]-2-hydroxypropylamine hydrochloride (betaxolol hydrochloride). (I). Protein binding in rat, dog and human. Yakuri to Chiryo (1973-2000) (1985), 13(Suppl. 7), S1827-S1839. Chem Abs. 114:35349	VDss calculated from C vs t data obtained by digitization of the plot provided in the reference.	63659-18-7	
Bevantolol	59170-23-9	0.67	5.50	0.0150	Michiel JJ, Drummer OH, Anderson AIE, and Louis WJ (1986) Pharmacokinetics of concentration-effect relationships of bevantolol (CY-7758) in normal volunteers. J. Cardiovasc. Pharmacol. 8: 1201-1207. Hirawa M, Harada S, Ebashi Y, Takachi M, Seki H, and Shima M (1992) Metabolic fate of bevantolol hydrochloride. Absorption, distribution and excretion in rats and dogs after single oral administration. Yakuri to Chiryo 20: 1695-1708.	VDss calculated from reported micro constants.	59170-23-9			0.0600	Ichikawa, Masayuki; Herukl, Sachio; Esumi, Yoshio; Takachi, Masao; Seki, Hideaki; Shima, Michio. Metabolic fate of bevantolol hydrochloride. (I). Absorption, distribution and excretion in rats and dogs after single oral administration. Yakuri to Chiryo (1973-2000) (1992), 20(5), 1695-708.		59170-23-9	4.00	45.00	0.0400	Ichikawa, Masayuki. Pharmacokinetic study of NC-1400 in dogs. Yakuri to Chiryo (1973-2000) (1984), 12(5), 3129-39. Ichikawa, Masayuki; Herukl, Sachio; Esumi, Yoshio; Takachi, Masao; Seki, Hideaki; Shima, Michio. Metabolic fate of bevantolol hydrochloride. (I). Absorption, distribution and excretion in rats and dogs after single oral administration. Yakuri to Chiryo (1973-2000) (1992), 20(5), 1695-708.	Data averaged for enantiomers	59170-23-9	
Bisoprenin	120410-24-4	0.20	2.50	0.9200	Shiba K, Maezawa H, Yoshida M, Sakai O, and Saito A (1994) Basic and clinical studies of bisoprenin. Chemotherapy 42(Suppl. 2): 223-229. Yamashita, Hiroshima K, Nomura K, Takeuchi H, Hikida M, and Nasuka T (1994) Pharmacokinetics of bisoprenin in laboratory animals. Chemotherapy 42(Suppl. 4): 543-553.		120410-24-4	0.19	13.00	0.9600	Yamashita, Noriaki; Kawashima, Kosuke; Nomura, Kazuto; Takeuchi, Hiroyuki; Hikida, Masao; Nasuka, Takeshi. Pharmacokinetics of bisoprenin in laboratory animals. Chemotherapy (Tokyo) (1994), 42(Suppl. 4), 543-53.	Parameters were calculated by analyzing the C vs t data obtained by digitizing the plot provided in the reference	120410-24-4	0.21	4.70	0.9400	Yamashita, Noriaki; Kawashima, Kosuke; Nomura, Kazuto; Takeuchi, Hiroyuki; Hikida, Masao; Nasuka, Takeshi. Pharmacokinetics of bisoprenin in laboratory animals. Chemotherapy (Tokyo) (1994), 42(Suppl. 4), 543-53.	Parameters were calculated by analyzing the C vs t data obtained by digitizing the plot provided in the reference	120410-24-4	0.25	5.50		Yamashita, Noriaki; Kawashima, Kosuke; Nomura, Kazuto; Takeuchi, Hiroyuki; Hikida, Masao; Nasuka, Takeshi. Pharmacokinetics of bisoprenin in laboratory animals. Chemotherapy (Tokyo) (1994), 42(Suppl. 4), 543-53.	Parameters were calculated by analyzing the C vs t data obtained by digitizing the plot provided in the reference
Bitolbadole	33570-04-6	2.50	10.00		Fourtillan JB, Brisson AM, Girault J, Ingrand I, Decuzi JP, Drieu K, Jouenne P, and Billet A (1993) Proprietes pharmacocinetiques du bitolbadole et des gingkolides A et B chez le sujet sain apres administrations intraveineuses et orales d'extrait de Ginkgo biloba (EGB 761). Therapie 50: 137-144.		33570-04-6	10.00	140.00				33570-04-6	0.50	7.00		CL and VD were recalculated from AUC, MRT, and dose data provided in the reference. VDss was calculated using CL based on AUC(0-tlast) and MRT(last). Dose was 50 ug to a 100 g rat.		33570-04-6					
Biperiden	514-65-8	12.00	12.00	0.0970	Grimsldi R, Perucca E, Roberto G, Gelmi C, Timeschi F, Hollmann M, and Crema A (1986) Pharmacokinetic and pharmacodynamic profiles following the intravenous and oral administration of the antiparkinsonian drug biperiden to normal subjects. Eur. J. Clin. Pharmacol. 29: 735-737. Nakashima E, Yokogawa K, Ichimura F, Kurata K, Kido H, Yamaguchi N, and Yamena T (1987) A physiologically based pharmacokinetic model for biperiden in animals and its extrapolation to human. Chem. Pharm. Bull. 35: 719-725.		514-65-8	12.00	68.00	0.2100	Yokogawa, Koichi; Nakashima, Emi; Ichimura, Fujio. Effect of hepatic blood volume on the distribution kinetics of biperiden as a function of age in rats. Drug Metabolism and Disposition (1990), 18(2), 253-63. Nakashima E, Yokogawa K, Ichimura F, Kurata K, Kido H, Yamaguchi N, Yamena T. A physiologically based pharmacokinetic model for biperiden in animals and its extrapolation to human. Chemical & pharmaceutical bulletin (1987), 35(2), 718-25. Kochenburger G, Mollsagen DR, Liu P, Koeglinger KA, Kerr HM, Sikes M, and Kosteniuk KR (2008) Impact of pH on plasma protein binding equilibrium dialysis. Chem. Biol. Interact. 176: 419-426.		514-65-8	9.70	27.00	0.1900	Nakashima E; Yokogawa K; Ichimura F; Kurata K; Kido H; Yamaguchi N; Yamena T. A physiologically based pharmacokinetic model for biperiden in animals and its extrapolation to human. Chemical & pharmaceutical bulletin (1987), 35(2), 718-25.		514-65-8					
Bisoprolol	66722-44-9	2.40	3.70	0.6600	Boehler Y, Sundt T, and Moube M (1988) Pharmacokinetics and Metabolism of Bisoprolol-Enantiomers in Humans. J. Pharm. Sci. 87: 299-294. Leopold G, Fabis J, Ungerhofer W, and Eisenring KU (1986) Basic pharmacokinetics of bisoprolol, a new highly beta1-selective adrenoceptor antagonist. J. Clin. Pharmacol. 26: 616-624.	VDss calculated from C vs t data obtained by digitization of the plot provided by Leopold et al.	66722-44-9	1.40	13.00	0.8500	Buhring KU, et al., (1986) Pharmacokinetics and metabolism of bisoprolol-C-14 in three animal species and human. J. Cardiovasc. Pharmacol. 8(Suppl.11): 521-528. Rudges, Trudy; Leahy, David; Rowland, Malcolm. Tissue distribution of basic drugs: Accounting for enantiomeric, compound and regional differences amongst beta-blocking drugs in rat. Journal of Pharmaceutical Sciences (2005), 94(6), 1237-1248.	Pharmacokinetic parameters were calculated from C vs t data obtained by digitization of plots provided in the reference.	66722-44-9	3.50	7.90	0.7000	Horikin Y, et al., (1987) Stereoselective pharmacokinetics of bisoprolol after intravenous and oral administration in healthy volunteers. Eur. J. Clin. Pharmacol. 32: 589-594. Buhring KU, et al., (1986) Pharmacokinetics and metabolism of bisoprolol-C-14 in three animal species and human. J. Cardiovasc. Pharmacol. 8(Suppl.11): 521-528.	Averaged the data for R- and S-enantiomers. Data were calculated by digitizing the C vs t data provided in the reference. Pharmacokinetic parameters were calculated from C vs t data obtained by digitization of plots provided in the reference.	66722-44-9	3.00	12.00	0.7500	Buhring KU, et al., (1986) Pharmacokinetics and metabolism of bisoprolol-C-14 in three animal species and human. J. Cardiovasc. Pharmacol. 8(Suppl.11): 521-528.	Pharmacokinetic parameters were calculated from C vs t data obtained by digitization of plots provided in the reference.
Bretylcolin	57801-81-7	0.75	2.00	0.0820	Jochemsen R, Wesselman JG, Hermans J, Van Boxtel CJ, and Breimer DD (1982) Characteristics of bretylcolin in healthy subjects following intravenous and oral administration. Br. J. Clin. Pharmacol. 14(Suppl. 2): 285-290. Jochemsen R, Joores MP, Wesselman JG, Richter E, and Breimer DD (1982) Pharmacokinetics of oral bretylcolin in patients with liver cirrhosis. Br. J. Clin. Pharmacol. 16(Suppl 2): 315S-322S.	VDss was calculated using data obtained by digitization of the C vs t plot provided in the reference.	57801-81-7	3.00	23.00	0.2200	Arzneimittelforschung. 1966 Mar;16(3A):568-74. Blood level, distribution, excretion, and metabolite pattern of [14C]bretylcolin in the rat, dog, and rhesus monkey. Bechtel WD, Mieraui J, Richter I, Sitaoni M.		57801-81-7	6.10	11.00		Arzneimittelforschung. 1966 Mar;16(3A):568-74. Blood level, distribution, excretion, and metabolite pattern of [14C]bretylcolin in the rat, dog, and rhesus monkey. Bechtel WD, Mieraui J, Richter I, Sitaoni M.		57801-81-7	6.50	13.00		Arzneimittelforschung. 1966 Mar;16(3A):568-74. Blood level, distribution, excretion, and metabolite pattern of [14C]bretylcolin in the rat, dog, and rhesus monkey. Bechtel WD, Mieraui J, Richter I, Sitaoni M.	

Budesonide	51333-22-3	3.90	20.00	0.1300	Rydelik A, Andersson P, Eddebacker S, Tornesson M, Davies D, and Pauwels R (1992) Pharmacokinetics and metabolism of budesonide, a selective glucocorticoid. Eur. J. Resp. Dis. 82: 88-95. Entocort EC Product Label.	VDss was calculated using data obtained by digitization of the C vs t plot provided in the reference.	51333-22-3	29.26	72.00	0.0396	Jendbro, Magnus; Johansson, Carl-Johan; Strandberg, Per; Falk Nilsson, Hanna; Eddebacker, Staffan. Pharmacokinetics of budesonide and its major ester metabolite after inhalation and intravenous administration of budesonide in the rat. Drug Metabolism and Disposition (2001), 29(5), 768-776. Wei Kai; Blomgren Anders L; Ekholm Kjell; Welder Benjamin; Eddebacker Staffan; Hochhaus Gunther. Budesonide and ciclesonide: effect of tissue binding on pulmonary receptor binding. Drug metabolism and disposition: the biological fate of chemicals		51333-22-3	0.70	32.00	0.1100	Arthur G R; Feldman H S; Cowin B G. Comparative pharmacokinetics of bupivacaine and ropivacaine, a new amide local anaesthetic. Anesthesia and analgesia (1988), 67(11), 1053-8. Journal code: 1310650. ISSN 0003-2999. Arthur G R; Feldman H S; Cowin B G; Thompson, Gary A.; Myers, Jane A.; Arthur, G. Richard; Bridenbaugh, Phillip O. The influence of lactic acid on the serum protein binding of bupivacaine: species differences. Anesthesiology (1984), 61(2), 127-33.	Free fraction was calculated from affinity, protein concentration and number of binding sites provided in the reference.	51333-22-3	0.66	10.00	0.0510	Thompson, Gary A.; Turner, Patricia A.; Bridenbaugh, Phillip O.; Stanberg, Roger C.; Dornan, Donald D. The influence of disorpam on the pharmacokinetics of intravenous and epidural bupivacaine in the rhesus monkey. Anesthesia & Analgesia (Baltimore, MD, United States) (1989), 68(2), 161-6. Cryle, Dennis E.; Dornan, Donald D.; Thompson, Gary A.; Myers, Jane A.; Arthur, G. Richard; Bridenbaugh, Phillip O. The influence of lactic acid on the serum protein binding of bupivacaine: species differences. Anesthesiology (1984), 61(2), 127-33.	Rhesus Monkey
Bupivacaine	38396-39-3	0.84	4.30	0.0560	Burn AGL, Van der Meer AD, Van Kleef JW, Zeijlmans PWM, and Groen K (1984) Pharmacokinetics of the enantiomers of bupivacaine following intravenous administration of the racemate. Br. J. Clin. Pharmacol. 18: 125-129.	Values for enantiomers were averaged.	38396-39-3	2.40	76.00	0.2300	PK data in house: 1 mg/kg dose. N=3. Coyle, Dennis E.; Dornan, Donald D.; Thompson, Gary A.; Myers, Jane A.; Arthur, G. Richard; Bridenbaugh, Phillip O. The influence of lactic acid on the serum protein binding of bupivacaine: species differences. Anesthesiology (1984), 61(2), 127-33.	Free fraction was calculated from affinity, protein concentration and number of binding sites provided in the reference.	38396-39-3	0.70	32.00	0.1100	Arthur G R; Feldman H S; Cowin B G. Comparative pharmacokinetics of bupivacaine and ropivacaine, a new amide local anaesthetic. Anesthesia and analgesia (1988), 67(11), 1053-8. Journal code: 1310650. ISSN 0003-2999. Arthur G R; Feldman H S; Cowin B G; Thompson, Gary A.; Myers, Jane A.; Arthur, G. Richard; Bridenbaugh, Phillip O. The influence of lactic acid on the serum protein binding of bupivacaine: species differences. Anesthesiology (1984), 61(2), 127-33.	Free fraction was calculated from affinity, protein concentration and number of binding sites provided in the reference.	38396-39-3	0.66	10.00	0.0510	Thompson, Gary A.; Turner, Patricia A.; Bridenbaugh, Phillip O.; Stanberg, Roger C.; Dornan, Donald D. The influence of disorpam on the pharmacokinetics of intravenous and epidural bupivacaine in the rhesus monkey. Anesthesia & Analgesia (Baltimore, MD, United States) (1989), 68(2), 161-6. Cryle, Dennis E.; Dornan, Donald D.; Thompson, Gary A.; Myers, Jane A.; Arthur, G. Richard; Bridenbaugh, Phillip O. The influence of lactic acid on the serum protein binding of bupivacaine: species differences. Anesthesiology (1984), 61(2), 127-33.	Rhesus Monkey
Buprenorphine	52485-79-7	4.90	19.00	0.0400	Kuhlman JJ, Lalezari S, Magluilo, J, Levine B, Darwin WD, Johnson RE, and Cone EJ (1994) Human pharmacokinetics of intravenous, sublingual and buccal buprenorphine. J. Anal. Toxicol. 20: 369-378. Elkader A and Sproule B (2005) Buprenorphine clinical pharmacokinetics in the treatment of opioid dependence: a review. Clin. Pharmacokinet 44: 448-492.		52485-79-7	8.37	0.05		Gorjal, Sunithra; Tseng, Tsung-Min; Cowan, Alan. Characterization of the pharmacokinetics of buprenorphine and buthupreno phine in rats after intravenous bolus administration of buprenorphine. European Journal of Pharmaceutical Sciences (2002), 16(3), 197-203.		52485-79-7							52485-79-7						
Busulphan	55-98-1	0.55	2.40	1.0000	Hassan M, Nilsson C, Hassan Z, Gungor T, Aschan J, Winiarski J, Hentschke P, Ringden O, Eder S, Seger R, and Lagercrantz P (2002) A phase II trial of liposomal busulphan as an intravenous myeloablative conditioning regimen for cell transplantation: 500 mg/m(2) as a optimal total dose for conditioning. Bone Marrow Transplantation 30: 833-841. Ehrsson H and Hassan M (1984) Binding of busulfan to plasma proteins and blood cells. J. Pharm. Pharmacol. 36: 594-596.		55-98-1	0.68	5.00	0.9100	Hassan, M.; Ehrsson, H.; Wallin, I.; Ekstberg, S. Pharmacokinetic and metabolic studies of busulfan in rat plasma and brain. European Journal of Drug Metabolism and Pharmacokinetics (1988), 13(4), 301-5. Hassan, M.; Ehrsson, H.; Wallin, I.; Ekstberg, S. Pharmacokinetic and metabolic studies of busulfan in rat plasma and brain. European Journal of Drug Metabolism and Pharmacokinetics (1988), 13(4), 301-5.	Compounds administered in 100% DMSO.	55-98-1	1.00	19.25		Ehninger, G.; Schuler, U.; Renner, U.; Ehrsson, H.; Zeller, F.-P.; Blanz, J.; Stern, R.; Zweig, H. J. Use of a water-soluble busulfan formulation-pharmacokinetic studies in a canine model. Blood (1995), 85(11), 3247-9.		55-98-1							
Butorphanol	42408-82-2	12.00	41.00	0.1700	Vachharajani NN, Shyu WC, Garrett WR, Morgenthaler EA and Barthwaite PB (1983) The absolute bioavailability and pharmacokinetics of butorphanol nasal spray in patients with postoperative pain. J. Clin. Pharmacol. 23: 500-506. Shyu WC, Lovette RC, Vachharajani NN, Wong K, Mordenti J, Swiger JE, Van Harken DR, and Smyth RD (1983) Disposition of parenteral butorphanol in man. Drug Metab. Dispos. 8: 230-235.		42408-82-2	4.80	91.20	0.3400	Grunenwald, Doreen; Blom-Rosemalen, Margret C. M.; Dochez, Mendpiel; de Lange, Elizabeth C. M. High-performance liquid chromatography of nalbuphine, butorphanol and morphine in blood and brain microdialysate samples: Application in pharmacokinetic/pharmacodynamic studies in rats. Journal of Chromatography, B: Analytical Technologies in the Biomedical and Life Sciences (2003), 792(1-2), 230-237. Esumi, Yoshio; Mitsugi, Kouichi; Nambu, Toshio; Ohnuki, Toshiharu; Ogata, Shintaro; Yokoshima, Tetsuyoshi. Studies on the metabolic fate of butorphanol tartrate (Levo-BC-3573). 2. Studies on the transfer to fetus and milk, binding to melanin pigment and serum protein, tissue accumulation after administration of 14C-butorphanol tartrate (Levo-BC-3573) in the rat. Oyo Yakuri (1983), 26(2), 1-17, 46.		42408-82-2	8.40	58.00	0.3687	Pfeffer, M.; Smyth, R. D.; Pittman, K. A.; Nordella, P. A. Pharmacokinetics of subcutaneous and intramuscular butorphanol in dogs. Journal of Pharmaceutical Sciences (1980), 69(7), 801-3. In-house		42408-82-2							
Caffeine	58-08-2	0.63	1.40	0.6400	Blanchard J and Sawers SJA (1983) Comparative pharmacokinetics of caffeine in young and elderly men. J. Pharmacokinet. Biopharm. 11: 109-126.	VDss was calculated from C vs t data obtained by digitization of the plot included in the reference.	58-08-2	0.92	12.50	0.9600			58-08-2	0.62	3.06	0.0837	Drug Metab Rev. 1984-1985;15(7):1355-93. Interspecies comparison of in vivo caffeine pharmacokinetics in man, monkey, rabbit, rat, and mouse. Bernal M, Lutke R, Tegtmeier G, Young JF, Gavalda S. In-house		58-08-2		3.06	0.0837				
Candoxatrilat	123122-54-3	0.25	2.30	0.8723	McDowell G et al. Cardiovascular Drug Reviews, 2000, 18, 259-270. Data from 150 mg iv dose. MRT calculated from CL and VDss. In-house		123122-54-3		15.00	0.2300	Kaye B, Brearley C.J.;Cassano NJ, Herron M, Humphrey MJ, Moffat AB (1997) Formation and pharmacokinetics of the active drug candoxaprilat in mouse, rat, rawll, dog and man following administration of the prodrug candoxatril. Xenobiot. 27, 1091-1102. In-house	60 mg/kg of candoxaprilat administered iv to rats. N=3	123122-54-3		5.80			5 mg/kg of candoxaprilat administered iv to rats. N=4	123122-54-3					
Captopril	62571-86-2	0.75	12.00	0.7300	Duchin KL, Singhal SM, Willard DA, Migdalof BH, McKinstry DW (1982) Captopril kinetics. Clin. Pharmacol. Ther. 31: 452-458. Cressy WA, Morrison RA, Singhs SM, and Willard DA (1980) Pharmacokinetics and bioavailability of captopril in man. Eur. J. Clin. Pharmacol. 20: 267-270.	Combined data from Cressy and Duchin papers. Note that protein binding also has S-S bond component.	62571-86-2	1.70	13.00		Biochem Pharmacol. 1983 Sep 1;32(17):2467-72. Drug-protein conjugates--IV. The effect of acute renal failure on the disposition of [14C]captopril in the rat. Young JH, Breckenridge AM, Park BK.		62571-86-2	2.45	10.08		PK parameters after IV infusion	J Pharm Sci. 1981 Oct;70(10):1108-12.Pharmacokinetics of captopril in dogs and monkeys. Singhal SM, Peterson-AE, Ross JJ Jr, Shaw JM, Keim GR, Migdalof BH.	62571-86-2	3.63	18.92		PK parameters after IV infusion	
Carboplatin	41575-94-4	0.26	1.50	1.0000	Elferink F, van der Vijgh WJ, Klein I, Vermorken JB, Gall HE, and Pinedo HM (1987) Pharmacokinetics of carboplatin after i.v. administration. Cancer Treatment Rep. 71: 1211-1217. Gaver RC, George AM, and Dedi G (1987) In vitro stability, plasma protein binding and blood cell partitioning of 14C-carboplatin. Cancer Chemother. Pharmacol. 20: 271-276.	Used 1.6 m2 = 60 kg since the study was done in all females.	41575-94-4	0.40	11.50		PK data in house. 1 mg/kg dose. N=3.		41575-94-4	0.99	3.30	0.9616	Page B L; McEntee M C; George S L; Williams P L; Hedner U L; Nowotnik C A; Rivlare J E; Dawford W W; Thrall D E. Pharmacokinetic and phase I evaluation of carboplatin in dogs. Journal of veterinary internal medicine / American College of Veterinary Internal Medicine (1991), 7(6), 335-40. In-house	Beagle dogs	41575-94-4	0.32	72.90	1.0000	Jacobs, Shane S.; Fox, Elizabeth; Devine, Christopher; Morgan, Lindsay B.; McCully, Cynthia L.; Balis, Frank M. Plasma and cerebrospinal fluid pharmacokinetics of intravenous oxaliplatin, carboplatin, and oxaliplatin in nonhuman primates. Clinical Cancer Research (2005), 11(4), 1487-94.	Rhesus Monkey, avg wt = 10kg (range 8-15kg used in the study)
Carnustine (BCNU)	154-93-8	1.20	76.00	0.2300	Hemmer WD, Peters WP, Grier JF, Antman K, Schreiger L, and Fox E (1986) Pharmacokinetic and immediate effects of high-dose carmustine in man. Canc. Treatm. Rep. 70: 877-880.	Used VD as VDss because PK was first order.	154-93-8						154-93-8	1.10	17.80			Supko J G; Garcia-Carbonero R; Puchalski T A; Malayasi L. Plasma pharmacokinetics and pharmacodynamics of carmustine, a nitrosourea, and 4-hydroxyperoxycyclophosphamide, and paclitaxel from a biodegradable polymer implant in the monkey brain. Cancer Research (1995), 55(4), 672-684.		154-93-8	0.90	21.00			Fung, Laurence K.; Everett, Mathew G.; Sills, Allen; Sipos, Eric P.; Thompson, Reid; Watts, Mark; Colvin, O. Michael; Brem, Henry; Salmons, M. Mark. Pharmacokinetics of intercritial delivery of carmustine, 4-hydroperoxycyclophosphamide, and paclitaxel from a biodegradable polymer implant in the monkey brain. Cancer Research (1995), 55(4), 672-684.	
Carumonam	87638-04-8	0.18	1.50	0.7200	Weidekamm E, Kronenberger D, Portmann R, Stoeckel K, Egger HJ, and Dubach UC (1985) Single dose pharmacokinetics and absolute bioavailability of the new monocyclic beta-lactam carumonam (Ro 17-2301, AMA-1080). Recent Adv. Chemother, Proc. 14th Int. Congr. Chemother. (Antimicrobial Sect. 2), 1305-1308. Kita Y, Fugono T, and Imada A (1987) Pharmacokinetics of carumonam in experimental animals. Chemotherapy 35(Suppl 2): 187-197.		87638-04-8	0.10	22.00	0.7000	Yoshida K, Mitani M, Naeshiro I, Torii H, Tamagami S. Disposition of carumonam (AMA-1080/Ro 17-2301), a new N-sulfonated monocyclic beta-lactam, in rats and dogs. Antimicrob Agents Chemother. 1988 Jun;29(6):1017-24.Kita, Yasuo; Fugono, Takeshi; Imada, Akira. Comparative pharmacokinetics of carumonam and aztreonam in mice, rats, rabbits, dogs, and cynomolgus monkeys. Antimicrobial Agents and Chemotherapy (1988), 29(1), 127-34.		87638-04-8	0.10	5.50	0.8900	ppb from Kita et al.		87638-04-8	0.12	4.50	0.7600	ppb only from Kita et al.	ppb only from Kita et al.
Caspofungin	162808-62-0	0.13	0.14	0.0350	Stone JA, Xu X, Winchell GA, Deutsch PJ, Pearson PG, Migoya EM, Minto QC, Xi L, Miller A, Sandhu P, Singh R, deLuna F, Distler SC, Lasseter KC (2004) Disposition of caspofungin: site of distribution in determining pharmacokinetics in plasma. Antimic. Ag. Chemother. 48: 611-623.	VDss was calculated from rate micro-contants provided in the reference.	162808-62-0	0.50	0.43		Sandhu, Punam; Xu, Xin; Bondinsky, Peter J.; Balani, Suresh K.; Morris, Michael L.; Tang, Yu S.; Miller, Akiba R.; Pearson, Paul G. Disposition of caspofungin, a novel antifungal agent, in mice, rats, rabbits, and monkeys. Antimicrobial Agents and Chemotherapy (2004), 48(4), 1272-1280.		162808-62-0							162808-62-0	0.30	0.30			Sandhu, Punam; Xu, Xin; Bondinsky, Peter J.; Balani, Suresh K.; Morris, Michael L.; Tang, Yu S.; Miller, Akiba R.; Pearson, Paul G. Disposition of caspofungin, a novel antifungal agent, in mice, rats, rabbits, and monkeys. Antimicrobial Agents and Chemotherapy (2004), 48(4), 1272-1280.	
Cefamandole	34444-01-4	0.16	3.60	0.2500	Brogard JM, Kopferschmitt J, Spach MO, Grutel O, and Lamboeuf J (1979) Cefamandole pharmacokinetics and dosage adjustments in relation to renal function. J. Clin. Pharmacol. 19: 269-277. Leroy A, Fillastre JP, Oberndherder G, and Humbert G (1977) Pharmacokinetics of cefamandole in normal subjects and in uremic patients. Drugs Exptl. Clin. Res. 3: 51-59. Bergan T (1984) Pharmacokinetics of beta-lactam antibiotics. Scand. J. Infect. Dis. 43(Suppl): 63-68.	VDss and CL calculated from two-compartment terms listed in Brogard, et al. and from a digitized plot in Leroy, et al.	34444-01-4	0.25	21.60		Morita E, Mizuno N, Nishikata M, Miyake K. (1980) Comparison of the pharmacokinetics of five b-lactams antibiotics between neonatal and adult rats. Dev. Pharmacol. Ther. 14, 223-230.	N=3, 20 mg/kg, male Wistar rats.	34444-01-4							34444-01-4						
Cefazolin	25953-19-9	0.12	0.89	0.1800	Charson P, Jolly V, Contrepois A, Garaud JJ, Bauchet J, Mohler J, Nguyen PC, and Carbon C (1987) Alteration of gentamicin and cefazolin kinetics with control of the hypothyroid state in humans. Antimic. Agents Chemother. 31: 645-637. Decosta MD, Zini B, Chauvaud S, and Bernard JP (1988) Cefazolin serum protein binding and its inhibition by bilirubin, fatty acids and other drugs. Biochem. Pharmacol. 37: 2807-2814. Bergan T (1977) Comparative pharmacokinetics of cefazolin, cephalothin, cephalexin, and cephaloridine after intravenous administration. Chemother. 23: 389-404.	VDss assumed to be equal to reported VD in Charson, et al., because 1st order kinetic model.	25953-19-9	0.17	5.40	0.0800	Antimicrob Agents Chemother. 1993 Sep;37(9):1781-5. Alterations in pharmacokinetics and protein binding behavior of cefazolin henrdodosmic rats. Nadai M, Hasegawa T, Kato K, Wang L, Takeuchi T, Kato S. Vd = 0.18 L/kg, Cl 5.5 mL/min/kg, MRT 0.54, t1/2 not reported. (Morita E, Mizuno N, Nishikata M, Miyake K (1980) Comparison of the pharmacokinetics of five b-lactams antibiotics between neonatal and adult rats. Dev. Pharmacol. Ther. 14, 223-230.) Vss = 0.17 L/kg, Cl 5.2 mL/min/kg, MRT 0.55, t1/2	Weighted average of both references in rat. N=8 in Nadai et al, and N=3 in Morita et al.	25953-19-9	0.27	3.50	0.7000	Vet Surg. 1995 Jul-Aug;24(4):347-51.Cephalexin and cefazolin in vitro antibacterial activity and pharmacokinetics in dogs. Petersen DW, Ewen E. Antimicrob Agents Chemother. 1983 Jan;11 Suppl:179-83. Animal pharmacokinetics and toxicology of cefotetan--a new oxyhamycin antibiotic. Suzuki H, Imamura K, Yoshida T, Shibata R, Matsuzawa T, Ozaki H, Sakai T, Shiobara Y, Tachibana A, Yano K. Pharmacotoxicol Pharmacodyn. 1990 Oct;13(10):802-11. Toxic K, Pharmacodyn. 1990 Oct;13:115-1052.		25953-19-9	0.13	1.90	0.0600	Antimicrob Agents Chemother. 1993 Sep;37(9):1781-5. Alterations in pharmacokinetics and protein binding behavior of cefazolin henrdodosmic rats. Nadai M, Hasegawa T, Kato K, Wang L, Takeuchi T, Kato S. Antimicrob Agents Chemother. 1983 Jan;11 Suppl:179-83. Animal pharmacokinetics and toxicology of cefotetan--a new oxyhamycin antibiotic. Suzuki H, Imamura K, Yoshida T, Shibata R, Matsuzawa T, Ozaki H, Sakai T, Shiobara Y, Tachibana A, Yano K. Pharmacotoxicol Pharmacodyn. 1990 Oct;13:115-1052.	
Cefclidin	105239-91-6	0.27	1.70		Akiyama K, et al. Chemother. (Tokyo) 1997, 43, 678-682.	VDss calculated from reported V1 and k12,k21 constants in patients with liver insufficiency. However, plots and statements regarding healthy volunteers confirmed the essentially equal profiles in healthy subjects. N=18, 57.5 average weight.	105239-91-6							0.23	3.30			Kita, Yasuo; Yamasaki, Toshiyuki; Imada, Akira. Comparative pharmacokinetics of SCE-2787 and related antibiotics in experimental animals. Antimicrobial Agents and Chemotherapy (1992), 36(11), 2481-6.									
Cefepime	88040-23-7	0.29	2.20	0.7800	Kalman D, Barriere SL, Johnson BL (1992) Pharmacokinetic disposition and bacteriocidal activities of cefepime, ceftazidime, and cefoperazone in serum and biliary fluid. Antimicrob. Agents Chemother. 36: 453-457. Bedfordshire MA, Forgue ST, Gleason CR, Knapp CA, Pittman KA, Weidler DJ, Movatt HJ, Tenney J, and Marsh DR (1992) Pharmacokinetics of cefepime after single and multiple intravenous administrations in healthy subjects. Antimicrob. Ag. Chemother. 36: 552-557.		88040-23-7	0.38	11.00	0.9000	Antimicrob Agents Chemother. 1987 May;31(5):799-804. Pharmacokinetics of the novel cephalosporin cefepime (BMY-51612) in rats and monkeys.Forgue ST, Shay WC, Gleason CR, Pittman-KA, Bartholeyns RA, Nakamoryo, Hiroshi; Ekumi, Yoshio; Takashi, Mamoru; Sato, Hideaki; Nomiya, Shinichi; Okamura, Kuchi; Sudo, Yuka. Study on the pharmacokinetics of cefepime. II. Pharmacokinetics in dogs after single intravenous administration and protein binding in human and animals. Japanese Journal of Antibiotics (1992), 45(8), 938-62.		88040-23-7	0.14	2.20	0.5182	J Vet Pharmacol Ther. 2001 Jun;24(3):187-92. Pharmacokinetics of cefepime pharmacokinetics in neonatal foals and adult dogs. Gardner SY, Paguio MG. In-house		88040-23-7	0.20	1.60		Antimicrob Agents Chemother. 1987 May;31(5):799-804. Pharmacokinetics of the novel cephalosporin cefepime (BMY-51612) in rats and monkeys.Forgue ST, Shay WC, Gleason CR, Pittman-KA, Bartholeyns RA.	
Cefixime	79350-37-1	0.40	9.3100	0.3100	Faulkner RD, Fernandez P, Lawrence G, Sta LL, Fallowski AJ, Weiss AJ, Yacobi A, and Silber BM (1988) Absolute bioavailability of cefixime in man. J. Clin. Pharmacol. 28: 700-706.		79350-37-1	0.40	6.00	0.4000	Sakamoto, Hiroshi; Hirose, Toshiharu; Mine, Yasuhiro. Pharmacokinetics of FK027 in rats and dogs. Journal of Antibiotics (1995), 48(4), 456-504. CODEN: JANTA2 ISSN:0021-8820.	High dose PK	79350-37-1	0.24	0.40	0.0700	Sakamoto, Hiroshi; Hirose, Toshiharu; Mine, Yasuhiro. Pharmacokinetics of FK027 in rats and dogs. Journal of Antibiotics (1995), 48(4), 456-504. CODEN: JANTA2 ISSN:0021-8820.	High Dose PK. MRT calculated from A, B and alpha and beta parameters reported for compartmental PK and Cl as dose/AUC reported. VDss calculated as Cl/alpha	79350-37-1							
Cefmenoxime	65085-01-0	0.20	3.65		Grasnerman, G. Krichard; Sennello, Lawence T.; Steinberg, Frank J.; Sonnenblick, Emanuel. Intramuscular and intravenous pharmacokinetics of cefmenoxime, a new broad-spectrum cephalosporin, in healthy subjects.Antimicrobial Agents and Chemotherapy (1982), 21(1), 141-5.	Average of 30 subjects in 6 cohorts, 3 intravenous infusion and 3 intravenous bolus injections. 500, 1000, 2000 mg doses in each dosing regimen.	65085-01-0	0.28	7.46		Tsuchiya, K. et al. Absorption, distribution and excretion of cefmenoxime (SCE-1365), a novel broad spectrum cephalosporin, in mice, rats, rabbits and dogs. Chemotherapy (Tokyo), 1981, 29 (Suppl 1), 206-219. 610 from beta (41 h 51		65085-01-0	0.30	8.91		Tsuchiya, K. et al. Absorption, distribution and excretion of cefmenoxime (SCE-1365), a novel broad spectrum cephalosporin, in mice, rats, rabbits and dogs. Chemotherapy (Tokyo), 1981, 29 (Suppl 1), 206-219. 610 from beta (41 h 51		65085-01-0							
Cefmetazole	56796-20-4	0.13	1.50	0.1500	Ko K, Cathcart SR, Griffith DL, Pelletier GR, and Adams WJ (1989) Pharmacokinetics of intravenously administered cefmetazole and cefoxitin and effects of probenecid on cefmetazole elimination. Antimicr. Agents Chemother. 33: 1658-1662. Ko K, Cathcart SR, Griffith DL, Pelletier GR, and Adams WJ (1989) Pharmacokinetics of intravenous cefmetazole with emphasis on comparison between predicted theoretical levels in tissue and actual skin window fluid levels. Antimicr. Agents		56796-20-4	0.35	25.30	0.5510	Morita E, Mizuno N, Nishikata M, Miyake K. (1980) Comparison of the pharmacokinetics of five b-lactams antibiotics between neonatal and adult rats. Dev. Pharmacol. Ther. 14, 223-230. In-house	N=3, 20 mg/kg, male Wistar rats.	56796-20-4	0.90	8.00	0.7500	Shinde, Hideyo; Kawai, Kenji; Ikeda, Toshihiko; Ignatsu, Isamu; Sugasawa, Shinichi. Absorption, distribution, excretion and metabolism [of cefmetazole]. Sankyo Kenkyusho Nenpo (1979), 31, 42-6.		56796-20-4	0.30	3.30	0.3400	Shinde, Hideyo; Kawai, Kenji; Ikeda, Toshihiko; Ignatsu, Isamu; Sugasawa, Shinichi. Absorption, distribution, excretion and metabolism [of cefmetazole]. Sankyo Kenkyusho Nenpo (1979), 31, 42-6.	High dose PK
Cefodizime	69739-16-8	0.05	0.61	0.1800	Brysiewicz A, Procyk T, Tremblay D, Lenbertik, and Fourtillan JB (1990) The pharmacokinetics of cefodizime following intravenous and intramuscular administration of a single dose of 1 g. J. Antimic. Chemother. 26(Suppl C): 59-63. Scaglione F, Demartini G, Arcidiacono MR, Dugnani S, and Fraschini F (1987) Serum protein binding and extravascular diffusion of cefodizime and cefotaxime. Antimicrob Ag. Chemother. 31: 1-4. Cep Rev. 14: 216-216.	VDss calculated from C vs t data provided in the reference.	69739-16-8	0.18	1.10	0.0097	J Pharmacobiodyn. 1990 Oct;13(10):932-11. Prediction of the pharmacokinetics of cefodizime and cefotetan in humans from pharmacokinetic parameters in animals. Matsuhisha H, Suzuki H, Sugiyama Y, Sawada Y, Iga T, Hanano M, Kawaguchi Y. In-house		69739-16-8	0.26	4.10	0.2433	J Pharmacobiodyn. 1990 Oct;13(10):932-11. Prediction of the pharmacokinetics of cefodizime and cefotetan in humans from pharmacokinetic parameters in animals. Matsuhisha H, Suzuki H, Sugiyama Y, Sawada Y, Iga T, Hanano M, Kawaguchi Y. In-house		69739-16-8	0.15	1.20	1.0000	J Pharmacobiodyn. 1990 Oct;13(10):932-11. Prediction of the pharmacokinetics of cefodizime and cefotetan in humans from pharmacokinetic parameters in animals. Matsuhisha H, Suzuki H, Sugiyama Y, Sawada Y, Iga T, Hanano M, Kawaguchi Y. In-house	
Cefoperazone	62893-19-0	0.17	1.30	0.0700	Kalman D, Barriere SL, Johnson BL (1992) Pharmacokinetic disposition and bacteriocidal activities of cefepime, ceftazidime, and cefoperazone in serum and biliary fluid. Antimicrob. Agents Chemother. 36: 453-457.		62893-19-0	0.39	23.00	0.3600	In-house		62893-19-0	0.28	5.80	0.5902	Montessosa C, Villa R, Antossi P, Zanoni R, Cavi S. Pharmacodynamics and pharmacokinetics of cefoperazone and cefotaxime in dogs following single dose intravenous and intramuscular administration. Vet J. 2003 Sep;166(2):170-6. Sferrna K. Cefoperazone: absorption, excretion, distribution, and metabolism. Clin Ther. 1980;2(Spec Issue):60-79. In-house		62893-19-0	0.13	0.96	0.3744	Montessosa C, Villa R, Antossi P, Zanoni R, Cavi S. Pharmacodynamics and pharmacokinetics of cefoperazone and cefotaxime in dogs following single dose intravenous and intramuscular administration. Vet J. 2003 Sep;166(2):170-6. Sferrna K. Cefoperazone: absorption, excretion, distribution, and metabolism. Clin Ther. 1980;2(Spec Issue):60-79. In-house	
Ceftazoxime	60925-61-3	0.17	0.66	0.1900	Pfeffer M, Gaver RC, and Van Harken DR (1980) Human pharmacokinetics of a new broad-spectrum parenteral cephalosporin antibiotic, ceftazoxime. J. Pharm. Sci. 69: 398-403.		60925-61-3	0.50	5.40			High dose PK	60925-61-3	0.50	6.50			Lee, Francis H.; Pfeffer, Morris; Van Harken, Donald R.; Smyth, Robert D.; Hetrendorf, Gerard H. Comparative pharmacokinetics of ceftazoxime (BL-S786/B) and ceftazidin in laboratory animals and humans. Antimicrobial Agents and Chemotherapy (1980), 17(5), 838-42.		60925-61-3							
Ceftiofiofin	122841-10-5	0.30	1.77		Qiu et al. Ceftiofiofin, Chin J Clin Pharmacol. 2006, 25, 207-210.	N=5 each dosing regimen (1g ceftiofiofin sulfate in winnorbio analgin) 60 kg average weight. 1 hr infusion. (A Vss = 0.22 L/kg after 0.5 hr infusion 1g dose is reported by time-error. Antimic Ag Chemother 1994, 38, 2268-2272. Compound named FK-027)	122841-10-5	0.20	9.60				122841-10-5	0.39	3.50			Sakamoto, Hiroshi; Hatano, Kazuo; Higashi, Yasuyuki; Mine, Yasuhiro; Nakamoto, Shoji; Tawara, Shuichi; Kamimura, Toshiaki; Matsumoto, Fumio; Kuwahara, Shogo. Animal pharmacokinetics of FK027, a novel parenteral broad-spectrum cephalosporin. Journal of Antibiotics (1993), 46(1), 120-30.		122841-10-5	0.28	1.90			Sakamoto, Hiroshi; Hatano, Kazuo; Higashi, Yasuyuki; Mine, Yasuhiro; Nakamoto, Shoji; Tawara, Shuichi; Kamimura, Toshiaki; Matsumoto, Fumio; Kuwahara, Shogo. Animal pharmacokinetics of FK027, a novel parenteral broad-spectrum cephalosporin. Journal of Antibiotics (1993), 46(1), 120-30.	
Ceftobiamine	63527-52-6	0.19	2.70	0.6000	Wise R, Baker S, and Livingston R (1980) Comparison of ceftiofiamine and mecillaclam pharmacokinetics and tissue levels. Antimic. Ag. Chemother. 18: 369-371. Eximius F, Guilbert J, Rosenkilde HC, Hic I, LeGa A (1980) Pharmacokinetics of ceftiofiamine in normal human volunteers. J. Antimic. Chemother. Suppl A: 83-87.	VDss calculated from C vs t data provided in the reference.	63527-52-6						63527-52-6	0.50	8.13			Tagami, Osamu; Maeda, Tokuro; Omoto, Mikio; Fujimoto, Kikuyo; Naito, Shunichi. Pharmacokinetic study of ceftiofiofin (CT-1) in dogs. Pharmaceutical Research (1985), (3), 124-30.		63527-52-6	0.50	6.50					
Cefotetan	69712-56-7	0.13	0.42	0.1500	Zimmerman J, Cohen A, and Tilyum P (1989) Absolute bioavailability and noncompartmental analysis of intravenous and intramuscular Cefotan (cefotetan) in normal volunteers. J. Clin. Pharmacol. 29: 161-167. Carver PL, Nightingale CH, and Quintiliani R (1989) Pharmacokinetics and pharmacodynamics of total and unbound cefotaxin and cefotetan in healthy volunteers. J. Antimic. Chemother. 22: 99-106.		69712-56-7	0.25	12.78	0.7000	Antimicrob Chemother. 1983 Jan;11 Suppl:179-83. Animal pharmacokinetics and toxicology of cefotetan--a new oxyhamycin antibiotic. Suzuki H, Imamura K, Yoshida T, Shibata M, Matsuzawa T, Ozaki H, Sakai T, Shiobara Y, Tachibana A, Yano K. Pharmacotoxicol. 1990 Oct;13(10):802-11. J Pharmacobiodyn. 1990 Oct;13(10):932-11. Prediction of the pharmacokinetics of cefodizime and cefotetan in humans from pharmacokinetic parameters in animals. Matsuhisha H, Suzuki H, Sugiyama Y, Sawada Y, Iga T, Hanano M, Kawaguchi Y.		69712-56-7	0.25	4.00	0.6000	Antimicrob Chemother. 1983 Jan;11 Suppl:179-83. Animal pharmacokinetics and toxicology of cefotetan--a new oxyhamycin antibiotic. Suzuki H, Imamura K, Yoshida T, Shibata M, Matsuzawa T, Ozaki H, Sakai T, Shiobara Y, Tachibana A, Yano K. Pharmacotoxicol. 1990 Oct;13(10):802-11. J Pharmacobiodyn. 1990 Oct;13(10):932-11. Prediction of the pharmacokinetics of cefodizime and cefotetan in humans from pharmacokinetic parameters in animals. Matsuhisha H, Suzuki H, Sugiyama Y, Sawada Y, Iga T, Hanano M, Kawaguchi Y.		69712-56-7	0.17	1.70	0.1300	Antimicrob Chemother. 1983 Jan;11 Suppl:179-83. Animal pharmacokinetics and toxicology of cefotetan--a new oxyhamycin antibiotic. Suzuki H, Imamura K, Yoshida T, Shibata M, Matsuzawa T, Ozaki H, Sakai T, Shiobara Y, Tachibana A, Yano K. Pharmacotoxicol. 1990 Oct;13(10):802-11. J Pharmacobiodyn. 1990 Oct;13(10):932-11. Prediction of the pharmacokinetics of cefodizime and cefotetan in humans from pharmacokinetic parameters in animals. Matsuhisha H, Suzuki H, Sugiyama Y, Sawada Y, Iga T, Hanano M, Kawaguchi Y.	

Cefotiin	35607-66-0	0.17	3.60	0.7300	Ko H, Calhoun SK, Griffith DL, Peters GR, and Adams WJ (1980) Pharmacokinetics of intravenously administered cefmetazole and cefotiain and effects of probenecid on cefmetazole elimination. Antimicr Agents Chemother. 33: 356-361.	35607-66-0	0.20	9.40	0.9300				35607-66-0	0.60	11.00		Petersen, Steven W.; Rosin, Eberhard. In vitro antibacterial activity of cefotiain and cefmetazole and pharmacokinetics in dogs. American Journal of Veterinary Research (1983); 54(5), 1496-9 Frader G; Brister S; Richards G K; Perritt J; Brown R A; Chu R C; Mulder D S Antibiotic prophylaxis in vascular surgery, pharmacokinetic study of four commonly used cephalosporins. Journal of vascular surgery : official publication, the Society for Vascular Surgery [and] International Society for Cardiovascular Surgery, North American Chapter (1986); 3(3), 525-8.		35607-66-0	0.20	1.90	0.9000			
Cefozopran	113359-04-9	0.24	2.10	0.7386	Calculated via WinNonLin from plasma data reported by Hori S, et al. Chemotherapy (Tokyo) 1992; 41, 5-4, 187-194. N=5, 30' drip infusion. 1 g dose, 70 kg average weight. N in house	113359-04-9	0.20	9.40	0.9300	Kita, Yasuo; Yamasaki, Toshiyuki; Imada, Akira. Comparative pharmacokinetics of SCE-2787 and related antibiotics in experimental animals. Antimicrobial Agents and Chemotherapy (1992); 36(11), 2481-6		113359-04-9	0.20	3.00	0.9000				113359-04-9	0.20	1.90	0.9000	Kita, Yasuo; Yamasaki, Toshiyuki; Imada, Akira. Comparative pharmacokinetics of SCE-2787 and related antibiotics in experimental animals. Antimicrobial Agents and Chemotherapy (1992); 36(11), 2481-6.	
Cefpirimizole	84880-03-5	0.21	1.70		Lakings DB, Frim JM,Bowman RJ, Allen HR (1984) Pharmacokinetics of cefpirimizole in normal humans after single- and multiple-dose intravenous infusion. Antimicr. Ag. Chemother. 26, 802-806.	1000 mg dose, data digitized from reported plot N=6, 70 kg average weight 2 0' infusion.	84880-03-5						84880-03-5	0.20	0.60	0.0700				84880-03-5	0.20	3.00			Murata, Teizo; Matsusawa, Yoshimasa; Okano, Reiko; Taira, Junko; Kato, Noboru; Yugari, Yasumi; Ohnishi, Haruo; Kosugama, Hiroshi; Inaba, Hitoshi. Pharmacokinetics of AC 1270 in animals after parenteral administration. Chemotherapy (Tokyo) (1984), 32(Suppl. 9), 137-44.	
Cefpiramide	70797-11-4	0.15	0.48	0.0300	Conte JE (1987) Pharmacokinetics of cefpiramide in volunteers with normal or impaired renal function. Antimicr. Ag. Chemother. 31(10) 1585-1588.	N=10, weight assumes an 70 kg, 2 gram dose as 20 minutes iv infusion. Cfp reported as 2 LVL73 m2 and converted using the factor 1.73 m2/70 kg, pph taken as mid point as variable across concentrations taken ex-vivo from fu 0.05 at 305 ug/mL (1 hour) to 0.21at 41.1 ug/mL and 0	70797-11-4	0.26	9.50	0.5400	Matsui H, Noshiro Y, Yano K (1983) Pharmacokinetics of cepiramide (SM-1652), new broad-spectrum and long-acting cephalosporin, parenterally administered to laboratory animals. Chemother. (Tokyo) ; 31 (5-1) 114-123	VDss calculated as V1*(1-e1*k1)/k1 and corresponding to (V1+V2) and V3 reported. 20 mg/kg dose.	70797-11-4	0.49	5.70	0.7000	VDss calculated as V1*(1-e1*k1)/k1 and corresponding to (V1+V2) and V3 reported. 20 mg/kg dose. N=9		70797-11-4	0.10	0.50	0.0700	Matsui H, Noshiro Y, Yano K (1983) Pharmacokinetics of cepiramide (SM-1652), new broad-spectrum and long-acting cephalosporin, parenterally administered to laboratory animals. Chemother. (Tokyo) ; 31 (5-1) 114-123.	VDss calculated as V1*(1-e1*k1)/k1 and corresponding to (V1+V2) and V3 reported. 20 mg/kg dose. N=9
Cefprome	84957-29-9	0.24	1.90	0.9000	Nakagoma I,Akinda Y, Yomaji E, Nitta Y, Ohishi M, Katagiri K, Imamura N, and Takase K (1992) Single- and multiple-dose pharmacokinetics of intravenous cefpirome (HR510) in healthy volunteers. J Clin. Pharmacol 32: 256-260. Tabata S, Shimura T, Maeda T, Hayashi I, Takayashi I, and Sato A (1991) Protein binding of cefpirome sulfate in man and animals and its displacing effect on bilirubin bound to human serum albumin. Chemotherapy 39(Suppl. 1): 109-114.		84957-29-9	0.30	9.50		PK data in house. 1 mg/kg dose. N=3.			84957-29-9	0.22	3.20	0.5423				84957-29-9	0.27	2.40	0.6458	Kessel, N.; Seeger, K. Pharmacokinetic properties of the new cephalosporin antibiotic HR 810 in animals. Infection (Munich, Germany) (1983); 11(5), 258-21. N in house	
Ceftazidime	72558-82-8	0.31	2.40	0.7900	Kalmon D, Bantere SL, Johnson BL (1982) Pharmacokinetic disposition and bactericidal activities of cefepime, ceftazidime, and cefpiroxamie in serum and blister fluid. Antimicrob. Agents Chemother. 26: 651-657. Wise R, Armstong GC, Brown RM, and Andrews JM (1981) The pharmacokinetics and tissue penetration of ceftazidime in healthy volunteers. Antimicr. Agents Chemother. 8(Suppl)b: 277-282. Lam WW, Duncan MA, Gambertoglio JG, Bantere SL, and Guglielmo BJ (1984) Effect of protein binding on serum bactericidal activities of ceftazidime and cefepiraxime in healthy volunteers. Antimic. Ag. Chemother. 32: 298-302.	VDss calculated for Wise et al from C vs t data provided in the reference. Plasma analysis done by bioassay.	72558-82-8	0.30	8.70		PK data in house. 1 mg/kg dose. N=3.			72558-82-8	0.21	3.20	1.0000				72558-82-8	0.26	2.10	0.9401	Sakamoto, Hiroshi; Hatano, Kazuo; Higashi, Yasuyuki; Mine, Yasuhiko; Nakamoto, Shuji; Tsuona, Shuichi; Kamimura, Toshiaki; Matsumoto, Kenji; Inoue, Kiyoshi; Ishii, Kenji. Pharmacokinetics of FK037, a novel parenteral broad-spectrum cephalosporin. Journal of Antimicrobs (1992), 46(1), 120-30. N in house	
Ceftezosime	68401-81-0	0.20	2.10	0.7200	Yamasaku F and Suzuki Y (1982) Pharmacokinetics of ceftezosime, cefotaxime and moxalactam in healthy volunteers after i.v. constant infusion. Chemotherapy 31: 842-852. Peterson LR, Geerling DN, Van Eaks, LL, Eckfeldt JH, and Larson TA (1982) Pharmacokinetics, protein binding, and extravascular distribution of ceftezosime in normal subjects. Antimic. Agents Chemother. 21: 644-649.	VDss calculated from C vs t data provided in the reference.	68401-81-0	0.54	19.33	0.7000	Antimicrob Agents Chemother. 1980 Feb;17(2):167-64 Pharmacokinetics of ceftezosime in humans after parenteral dosing.Murakawa T, Sakamoto H, Fukuda S, Nakamoto S, Nawamori S, Hirose T, Itoh N, Nishida M.	VDss calculated from C vs t data provided in the reference.	68401-81-0	0.27	3.25	0.8300				68401-81-0	0.29	5.93	0.9030	Antimicrob Agents Chemother. 1980 Feb;17(2):167-64 Pharmacokinetics of ceftezosime in humans after parenteral dosing.Murakawa T, Sakamoto H, Fukuda S, Nakamoto S, Hirose T, Itoh N, Nishida M. N in house	
Ceftriaxone	73384-59-5	0.09	0.26	0.0520	McNamara PJ, Gibaldi M, and Gerkens K (1982) Volume of distribution terms for a drug (ceftriaxone) exhibiting concentration-dependent protein binding II. Physiological significance. Eur. J. Clin. Pharmacol. 23, 457-612. Martin C, Rage J, Lukiec F, Guillen JC, Auge A, Pecking M, and Gouin F (1992) Pharmacokinetics and tissue penetration of a single dose of ceftriaxone (1,000 milligrams intravenously) for antibiotic prophylaxis in thoracic surgery. Antimic. Agents Chemother. 36: 1854-1857.	Protein binding in concentration dependent; value is the average between doses of 150-3000 mg	73384-59-5	1.00	20.00	0.0710				73384-59-5	0.25	3.95	0.7172				73384-59-5	0.11	0.19	0.9400	Antimicrob Agents Chemother. 1984 Aug;26(2):204-7. Comparative pharmacokinetics of Wy-12115, ceftriaxone, and ceftiofuxime in rats, dogs, and rhesus monkeys. Matsui H, Komiya M, Ikeda C, Tachibana A. N in house	
Ceftrozoime	55268-75-2	0.15	2.20	0.12-0.60	Gower PE and Dash CH (1977) The pharmacokinetics of cefroxime after intravenous injection. Eur. J. Clin. Pharmacol. 12: 221-227. Benon JM, Baudrout FD, Perrotti AT, Cunningham PE, and DiPiro JT (1993) In vitro protein binding of cefprozil and cefuroxime in adult and neonatal sera. Antimic. Agents Chemother. 37: 1240-1247.	VDss calculated from reported micro rate constants. Concentration dependent protein binding.	55268-75-2						55268-75-2	1.50	5.00					55268-75-2					Nanbo, Toshio; Takaichi, Hatsuo; Mitsuji, Koichi; Ibumi, Yoshito; Okumura, Kazuo; Tsuji, Hikoji; Fukuda, Ichiro. Pharmacokinetics and metabolic study of cefuroxime in rats and dogs. Chemotherapy (Tokyo) (1979), 27(Suppl.	
CEP-18770	847499-27-8	0.87	0.29		Sala F et al. Development and validation of a high-performance liquid chromatography-tandemmass spectrometymethod for the determination of the novel proteasome inhibitor CEP-18770 in human plasma and its application in a clinical pharmacokinetic study. J. Mass Spectrom. 2010, 45, 1268–1265	Data digitized from figure 4	847499-27-8	18.10	3.17				847499-27-8							847499-27-8						
Cephalexin	15686-71-2	0.21	3.90	0.8500	Kirby WMM and De Maine JB (1971) Pharmacokinetics of the cephalosporins in healthy volunteers and uremic patients. Postgrad. Med. J. Suppl. 47(Cephalosporin Antibiotics): 41-46.	Pharmacokinetic parameters calculated from C vs t data obtained by digitization of plots included in the reference.	15686-71-2	0.85	24.20		Morita E, Mizuno N, Nishikata M, Miyake K (1990) Comparison of the pharmacokinetics of five b-lactams antibiotics between neonatal and adult rats. Dev Pharmacol Ther. 14, 223-230.	N=3, 20 mg/kg, male Wistar rats.											Only non-i.v PK data available	15686-71-2				
Cephradine	38821-53-3	0.21	3.30	0.9500	Rattie ES, Bernardo PO, and Rieth LJ (1976) Pharmacokinetic interpretation of cephradine levels in serum after intravenous and extravascular administration in humans. Antimic. Ag. Chemother. 10: 293-297. Sorgel F (1984) Pharmacokinetics of beta-lactam antibiotics. Scand. J. Infect. Dis. 42(Suppl): 63-68.	VDss estimated from C vs t data obtained by digitization of plots provided in the reference.	38821-53-3	1.10	21.70		Morita E, Mizuno N, Nishikata M, Miyake K (1990) Comparison of the pharmacokinetics of five b-lactams antibiotics between neonatal and adult rats. Dev Pharmacol Ther. 14, 223-230.	N=3, 20 mg/kg, male Wistar rats.												38821-53-3				
Cerivastatin	145599-86-6	0.33	2.90	0.0100	Mack W, Ritter W, Ochmann K, Unger S, Ahr G, Wingender W, and Kuhlmann J (1997) Absolute and relative bioavailability of the HMG-CoA reductase-inhibitor cerivastatin. Int. J. Clin. Pharmacol. Ther. 35: 255-260. Bayrol Product Label.		145599-86-6	3.00	27.00				145599-86-6							145599-86-6						
Chlordiazepoxide	58-25-3	0.25	0.37	0.0560	Desmond PV, Patwardhan RV, Scheiner S, and Hayanga AM (1980) Short-term ethanol administration impairs the elimination of chlordiazepoxide (Librium) in man. Eur. J. Clin. Pharmacol. 18: 377-382. Greenblatt DJ, Divoll M, Harmatz JS, Harrison W, Springer J, Christie R, Moore JD, Weisman L, and Kaplan SA (1977) Pharmacokinetic and biopharmaceutic profile of chlordiazepoxide HCl in healthy subjects: single-dose studies by the intravenous, intramuscular, and oral routes. J. Pharmacokinet. Biopharm. 5: 2-21. Desmond PV, Roberts, RK, Wood AJJ, Duran GD, Wilkinson GR, Scheiner S (1980) Effect of heparin administration on plasma binding of benzodiazepines. Br. J. Clin. Pharmacol. 9: 171-175.		58-25-3	1.30	7.80	0.1500	Guerogiraw, et al. (2004) Development of a whole-body physiological based model to characterize the pharmacokinetics of benzodiazepines. I. Estimation of rat tissue plasma partition ratios. J Pharmacokinet. Pharmacodyn. 31: 269-298																	
Cicaprost	94079-80-8	0.08	3.80		Hildebrand M, Stales T, Kaczmarek A, and Matthen H (1986) Pharmacokinetics of 2H-cicaprost in healthy volunteers. Drug Metabolism 14: 755-773	VDss was calculated from MRT from a paper cited in the reference.	94079-80-8	1.00	49.00		Hildebrand M (1984) Interspecies extrapolation of pharmacokinetics data of three prostacyclin-mimetics. Drug Metabolism 14: 763-773	Data reported and used for allometric scaling were taken from other publications by the same author												94079-80-8	1.20	14.20		Hildebrand M (1984) Interspecies extrapolation of pharmacokinetics data of three prostacyclin-mimetics. Drug Metabolism 14: 763-773	Data reported and used for allometric scaling were taken from other publications by the same author
Cidofovir	113852-37-2	0.49	2.50	1.0000	Cundy KC, Petty BG, Flaherty J, Fisher PE, Polis MA, Wachsman M, Lietman PS, Lalezari JP, Hitchcock MJM, and Jaffe HS (1993) Clinical pharmacokinetics of cidofovir in human immunodeficiency virus-infected patients. Antimic. AgentsChemother. 36: 1274-1280.		113852-37-2	2.00	0.70	1.0000	Pharmacokinetics, bioavailability, metabolism, and tissue distribution of cidofovir (HPMPC) and cyclic HPMPC in rats. Cundy, Kenneth C.; Bidgood, Alison M.; Lynch, Geoffrey; Shaw, Jong-Pyng; Griffin, Linda; Lee, William A. Gilead Sci., Inc., Foster City, CA, USA. Drug Metabolism and Disposition (1999), 24(7), 745-752. N in house																	
Ciprofloxacin	85721-33-1	2.10	8.30	0.7000	Bergogne-Bereziin E (2003) Clinical role of protein binding of quinolones. Clin. Pharmacokinet 41: 741-750. Jaehde U, Sorergel F, Reiter A, Sigl G, Naber KG, and Schurack W (1990) Effect of probenecid on the distribution and elimination of ciprofloxacin in humans. Clin. Pharmacol. Ther. 58: 522-541. Leibert JT, Rogge MC, Kaiser L, Echols RM, and Heller AH (1992) Pharmacokinetic profiles of ciprofloxacin after single intravenous and oral doses. Antimic. Agents Chemother. 36: 993-996. Ljungbong B and Nilsson-Ehle I (1988) Pharmacokinetics of intravenous ciprofloxacin at three different doses. J. Antimic. Chemother. 22: 715-720.		85721-33-1	4.60	27.00	0.7900	Albino Rats		85721-33-1	3.10	18.00	0.8772				85721-33-1	1.80	4.70	0.9500	Rhesus Monkey
Cisalopram	59729-33-8	12.00	4.30	0.2000	Joffe P, Larsen FS, Pedersen V, Ring-Larsen H, Aaes-Jorgensen T, and Sidiqi J (1998) Single-dose pharmacokinetics of citalopram in patients with moderate renal insufficiency or hepatic cirrhosis compared with healthy subjects. Eur. J. Clin. Pharmacol. 54: 227-242. Celexa Product Label.	VDss calculated from C vs t data obtained by digitization of the plot provided in the reference.	59729-33-8	21.00	82.00	0.2600				59729-33-8	10.00	14.00	0.4464				59729-33-8	10.00	40.00	0.0900	Overoe, Kerstin Fredricson. Kinetics of citalopram in test animals: drug exposure in safety studies. Progress in Neuro-Psychopharmacology & Biological Psychiatry (1982), 6(3), 297-309. N in house	
Cladribine	4291-63-8	7.70	14.00	0.7900	Saven A, Cheung WK, Smith L, Moyer M, Johannsen T, Rose E, Golland R, Kosty M, Miller WE, and Piro LD (1994) Pharmacokinetics and pharmacodynamics of 2-chloro-2-deoxyadenosine (cladribine) in healthy subjects and in patients with leukaemia. Eur. J. Clin. Pharmacol. 46: 563-564.		4291-63-8	4.50	25.30				4291-63-8							4291-63-8						
Clazosentan	186384-56-9	0.23	10.50		Data reported by van Giesbergen et al. J. Clin. Pharmacol. 2007; 47, 1374-1380. 12 Clarenciean and 12 Japanese subjects. 2 sequential 4-h infusion at 1, 5 and 15 mg/h. Average weight 61 kg. Compartmental analysis with V1,V2,V3 and Vss reported. MRT calculated from C0 and Vss. 0,t2 taken as the g-phase.		186384-56-9	0.32	11.70		Roux et al. J. Pharmacol. Exp. Ther. 1997, 283, 1110-1118. 10 mg/kg dose.		186384-56-9	0.11	2.89					186384-56-9	0.26	19.00		Roux et al. J. Pharmacol. Exp. Ther. 1997, 283, 1110-1118. 10 mg/kg dose. Rhesus monkey.	
Clevidipine	167221-71-8	0.58	142.00	0.0038	Ericsson H, Fant C, Hoglund L, John-Mehgard A, Nordlander M, Sunnerhof M, and Regardh CG (1998) Pharmacokinetics and pharmacodynamics of clevidipine in healthy volunteers after intravenous infusion. J. Clin. Pharmacol. 50: 61-67. Ericsson H, Thoberder B, and Regardh CG (1999) In vitro hydrolysis rate and protein binding of clevidipine, a new ultrashort-acting calcium antagonist metabolized by esterases, in different animal species and man. Eur. J. Pharm. Sci. 8: 29-37.	Data for the enantiomers are averaged.	167221-71-8	0.44	224.00		Ericsson, H.; Thoberder, B.; Bjorkman, J. A.; Nordlander, M.; Regardh, C. G. Pharmacokinetics of new calcium channel antagonist clevidipine in the rat, rabbit, and dog and pharmacokinetic/pharmacodynamic relationship in anesthetized dogs. Drug Metabolism and Disposition (1999), 27(5), 558-564.		167221-71-8	0.21	163.00					167221-71-8						
Clindamycin	18323-44-9	0.79	4.50	0.0600	Gatti G, Flaherty J, Bulgi J, White J, Bonn M, and Gambertoglio J (1993) Comparative study of bioavailabilities and pharmacokinetics of clindamycin in healthy volunteers and patients with AIDS. Antimic. Agents Chemother. 37: 1137-1143. Gordon RC, Regamey C, and Kirby WMM (1973) Serum protein binding of erythromycin, lincomycin, and clindamycin. J. Pharm.		18323-44-9	1.40	40.00	0.3250	Si, H Yangtzeinternational Journal of Pharmaceutics 322_2007		18323-44-9	0.86	6.10	0.0350	E. Lacy_J. Vet Pharmacol. Therap 22. 261-266-1999. N in house			18323-44-9						
Clomipramine	303-49-1	13.00	8.20	0.0290	Dilaprize M, Pellet J, Gay JP, Lang F, Quay MC, and Blanchon Y (1984) Pharmacocinetique d'une dose unique de clomipramine en intraveineuse, chez le volontaire sain. Therapie 39: 237-245. Nyberg G and Mauritzson E (1984) Determination of free fractions of tricyclic antidepressants. Neurop Sch Arch.	Pharmacokinetic parameters were calculated from C vs t provided in the reference.	303-49-1						303-49-1	3.70	23.30	0.0100				303-49-1						
Clonazepam	1622-61-3	2.90	0.88	0.1500	Crevoisier C, Delisle MC, Joseph L and Fabiet G (2003) Comparative single-dose pharmacokinetics of clonazepam following intravenous, intramuscular and oral administration to healthy volunteers. Eur. Neurol. 49: 173-177. Lucet RW and Coutinho CB. (1976) The role of substituents in the hydrophobic binding of the 1,4-benzodiazepines by human plasma proteins. J. Pharmacokinet. Biopharm. 4: 1-14.	VDss calculated using C vs t data obtained by digitization of the plot included in the reference.	1622-61-3	3.10	70.50		PK data in house. 1 mg/kg dose. N=3.		1622-61-3	2.49	24.00	0.1800				1622-61-3	6.80	14.30	0.4231	Allen A M, Journal of pharmaceutical sciences March 1978, vol.67, no. 3 N in house	
Clozapine	5786-21-0	1.60	2.50	0.0550	Cheng YF, Lundberg T, Bondesson U, Lindstrom L, and Gustavsson J (1993) Clinical pharmacokinetics of clozapine in chronic schizophrenic patients. Eur. J. Clin. Pharmacol. 34: 445-448. Schaber G, Stevens J, Gaertner HJ, Dietz K, and Breyer-Pfaff U (1988) Pharmacokinetics of clozapine and its metabolites in psychiatric patients: plasma protein binding and renal		5786-21-0	8.68	77.50		Lei Sun_European Jor. Of Pharmacology_398_2000									5786-21-0						
Cocaethylene	529-38-4	1.60	13.00	0.6400	Perez-Reyes M, Jeffcoat AR, Myers M, Sitler K, and Cook CE (1994) Comparison in humans of the potency and pharmacokinetics of intravenously injected cocaethylene and cocaine. Psychopharmacol. 116: 428-432. Bailey DN (1997) Effect of drugs and cocaine metabolites on cocaine and cocaethylene binding to serum in vitro. Ther. Drug Monit. 19: 473-476.	Parameters were calculated from C vs t data obtained by digitization of plots in the reference.	529-38-4						529-38-4	2.68	42.20					529-38-4						
Cocaine	50-36-2	2.00	32.00	0.1200	Chow MJ, Ambre JJ, Ruo TI, Atkinson AJ, Brauner DJ, and Fischman AN (1983) Kinetics of cocaine distribution in man after intravenous and oral dosage. Clin. Pharmacol. 26: 26-31. Jeanet J, Muse RA, Fischman M, Schuster CR, and Davis JM (1983) Kinetics of cocaine in humans after intravenous and intranasal administration. Biopharm. Drug Dispos. 4: 9-16. Edwards DJ and Bowles SK (1988) Protein binding of cocaine in human serum. Pharm. Res. 5: 440-442. Parker, Robert B.; Williams, Cheri L.; Lazure, S. Casey; Lima, John J. Factors affecting serum protein binding of cocaine in humans. Journal of Pharmacology and Experimental Therapeutics (1995), 275(2), 1000-1004.	Paper by Javaid, et al. reported one compartment kinetics so VDss = Cl/Dose.	50-36-2	16.40	253.00	0.7900	Cocaine_rats_Eurs_JP_J.Pharmacol exp ther 1991_257:307-315. N in house	NEW_from ward paper ref	50-36-2	2.60	48.70	0.7588	S. casey lazure_DMD_31:16-20_2003. N in house		50-36-2	6.80	14.30	0.9231	S. casey lazure_DMD_31:16-20_2003. N in house	
Codeine	76-57-3	3.50	15.00	0.7000	Quay DWP, Hart WM, Findley JWA, Hattenhorst CS, Abraham PA, Oparah JA, Jones EC, and Mazde GR (1983) Pharmacokinetics and pharmacodynamics of codeine in end-stage renal disease. Clin. Pharmacol. Ther. 42: 63-71. Mohammed SS, Christopher MM, Mehta P, Kedar A, Gross S, and Derendorf H (1992) Increased erythrocyte and protein binding of codeine in patients with sickle cell disease. J. Pharm. Pharmacol. 44: 1114-1116.		76-57-3	5.10	103.30	0.6200	J. Shah_DMD_Vol.18_no.5_1990	fir J.D. Baggot_am.J.Vet.Res.vol38_no4	76-57-3							76-57-3						
Colchicine	64-86-8	6.10	2.10	0.6100	Ferron GM, Rochdi M, Jusko WJ, and Scheremann JM (1995) Oral absorption characteristics and pharmacokinetics of colchicine in healthy volunteers. J. Pharmacokinet. Biopharm. 23: 674-683. Sohrouvand A, Chappey O, Dupin T, and Scheremann JM (1994) Binding of colchicine and thiocolchicoside to human serum proteins and blood cells. Int. J. Clin. Pharmacol. Ther. 32: 408-410.		64-86-8	31.40	34.30	0.7200	Beate Bittner_Biopharm. Drug Dispos. 24: 175–181 (2003)		64-86-8							64-86-8						
Cyclophosphamide	50-18-0	0.73	1.10	0.8700	Juma FD, Rogers HJ, and Trounce JR (1979) Pharmacokinetics of cyclophosphamide and alkylating activity in man after intravenous and oral administration. Br. J. Clin. Pharmacol. 8: 209-217. Juma FD, Rogers HJ, and Trounce JR (1979) The kinetics of urinary elimination of cyclophosphamide in man. Br. J. Clin. Pharmacol. 8: 455-458.	VDss calculated from microconstants reported in the reference.	50-18-0	0.67	11.10		Hong Luo:cancer chemoter Pharmacol (2000)58:532-539		50-18-0							50-18-0						

Cyclosporine	59865-13-3	3.30	7.50	0.0680	Legg B, Gupta SK, Rowland M, Johnson RWG, and Solomon LR (1983) Cyclosporin pharmacokinetics and detailed studies of plasma and erythrocyte binding during intravenous and oral administration. Eur. J. Clin. Pharmacol. 24: 451-460. Min DI, Lee M, Ku YM, and Flanigan M (2000) Gender-dependent racial difference in disposition of cyclosporine among healthy African American and white volunteers. Clin. Pharmacol. Ther. 68: 479-486.	Reported whole blood parameters converted to plasma parameters using a blood/plasma ratio of 1.3.	59865-13-3	2.56	1.70	0.0000	Y.H. Lee international journal of pharmaceutics 194(2000). fu in house		59865-13-3	10.80	8.10	0.0001	Robert G. Buice _Transplantation vol40_no5. fu in house	M_Dogs	59865-13-3					
Cytarabine	147-94-4	0.67	41.67		Breithaupt H et al., Cancer, 1982, 50, 1248-1257. Data from 1-12 g doses with 2-2.5 hours iv infusion N=5 (see table 2 and 4) (Ara-C)		147-94-4						147-94-4	0.86	11.30		Scott-Mcnorcliff JCR et al. cancer Chemother Pharmacol. 1991, 28, 13-18.	N=6 male hound dogs. Anesthetized, 22 kg median weight (13-32 kg), 600 mg/m2 0.51 m2/10 kg conversion used as data were reported in m2. Davies and Morris 1993	147-94-4					
Dalbavancin	171500-79-1	0.14	0.01	0.0200	Leighton A, Gottlieb AB, Dorr MB, Jabes D, Moscoso G, VanSaders C, Minassian EJ, Campbell HCM, and Kelly E (2004) Tolerability, pharmacokinetics, and serum bactericidal activity of intravenous dalbavancin in healthy volunteers. Antimic. Agents Chemother. 48: 940-945. Jabes D, Candiani G, Romano G, Brunel C, Riva S, and Cavalieri M (2004) Efficacy of Dalbavancin against Methicillin-Resistant Staphylococcus aureus in the Rat Granuloma Pouch Infection Model. Antimicrob. Agents Chemother. 48: 1119-1123.		Marco Cavalieri_JAC_2005-55														171500-79-1					
Dapsone	80-08-0	0.83	0.48	0.2500	Pieters FAMJ and Zuidema J (1987) The absolute bioavailability of dapsone in dogs and humans. Int. J. Clin. Pharmacol. Ther. Toxicol. 25: 266-455. Riggs JT and Levy L (1971) Binding of dapsone and monacetyldapsone by human plasma proteins. Biochem. Biophys. Res. Commun. 44: 1479-1485.	VDss calculated from C vs t data obtained by digitization of plot provided in the reference.	80-08-0	1.60	5.20		Dwaitt R. Hellort_DMD_28:925-929_2000		80-08-0								80-08-0					
Darifenacin	133099-04-4	2.60	12.00	0.0200	Skerjanec A (2006) The clinical pharmacokinetics of darifenacin. Clin. Pharmacokinet. 45: 325-350. Enablex®Product Label.	Pharmacokinetic parameters were calculated from C vs t data obtained by digitalization of the plot provided in the reference.	133099-04-4	7.00	59.00	0.0200	K.C. Beaumont_Xenobiotica_28:no 1 :63-75. 1998		133099-04-4	6.80	39.00	0.0200	A.C. Beaumont_Xenobiotica_28:no 1 :63-75. 1998		133099-04-4					
Dechlorine	2353-33-5	4.60	130.00	1.0000	van-Groeningen CJ, Leyva A, O'Brien AMP, Gall HE, and Pinedo HM (1986) Phase I and pharmacokinetic study of 5-aza-2'-deoxycytidine (NSC 127716) in cancer patients. Cancer Res. 46: 4831-4836. Decitabine®Product Label.		2353-33-5	1.80	7.90	1.0000	Zhongfa liu_RMC_2006_20_1117-1126. fu in house		2353-33-5	0.85	8.60	1.0000	Guy G. Chabot_Cancer Research_43_592-597_Feb._1983. fu in house		2353-33-5					
Defleroxinox	201530-41-8	0.20	0.84		Sochaud R et al. J. Clin. Pharmacol. 2008; 48; 919-925. N=17; 70-kg average weight assumed. 150 mg dose as 90 minutes infusion.		201530-41-8	0.46	6.20	0.8000	Brun G. et al. GJM. DMD 2008;36: 2523-2528/PPB_H Markus Weiss DMD 34:971-975, 2006		N=3, 10 mg/kg dose iv. ICL670, CGP72670, Exjade						201530-41-8					
Desipramine	50-47-5	15.00	11.00	0.1600	Closuit DA, Bianhill JG, and Jaffe JH (1986) Clinical pharmacokinetics of imipramine and desipramine in alcoholics. Clin. Pharmacol. Ther. 39: 181-187. Jerling M, Lindberg B, Bondesson U, and Gram LF (1988) Fenfluramine metabolism of imipramine and desipramine: impact of the sparteine oxidation phenotype. Clin. Pharmacol. Ther. 43: 400-406. Nyberg G and Martensson E (1984) Determination of free fractions of tricyclic antidepressants. Naunyn-Sch. Arch. Pharmacol. 327: 260-266.	VDss calculated from C vs t data obtained by digitization of plots provided in the references. Data from CYP2D6 poor metabolizers not included.	D.E. Keyler_JPET_272_1117-1123_1995														50-47-5					
Desmethyldiazepam	1088-11-5	0.45	0.12	0.0300	Klotz U, Antonin KH, Bieger H, and Bieck PR (1977) Disposition of diazepam and desmethyldiazepam in cirrhosis of the liver in patients with and without ascites. Clin. Pharmacol. Ther. 21: 436-135. Lucek RW and Coutinho CB (1979) The rate of substitutants in the hydrophobic binding of the 1,4-benzodiazepines by human plasma proteins. Molec. Pharmacol. 12: 612-619.		Desmethyldiazepam_Rats_Patricia M. Klockowski_JPET_1988														1088-11-5					
Dexamethasone	50-02-2	0.94	3.20	0.3200	Boxe JQ, Yunbak AM, Meikle AW, and Juelsto WJ (1981) Effect of smoking on prednisone, prednisolone, and dexamethasone pharmacokinetics. J. Pharmacokinet. Biopharm. 9: 1-14. Tauer SB, Moore RG, Ashley JJ, and McBride WG (1978) Disposition of synthetic glucocorticoids. I Pharmacokinetics of dexamethasone in healthy adults. J Pharmacokinet. Biopharm. 7: 349-364.		Dexamethasone_Rats_M.N. Samtani_Biopharm. Drug dispos 26:85-95_2005. fu in house														50-02-2					
Dexloxiglumide	119617-90-2	0.18	3.70	0.0240	Webber C, Blah A, Persson S, Peard AJ, Makovec F, Kapil RP, Jicht SA, Helding JD, D'Amato M, Cybulski, JR, Chiesmanutt LF, and Rovati LC (2003) Pharmacokinetics and metabolism of the cholecystokinin antagonist dexloxiglumide in male human volunteers. Drug Metab. Dispos. 31: 1-8.	Protein binding data for 1 ug/ml, concentration is included.	Webber C_ European Journal of Drug Metabolism and Pharmacokinetics (2003), 28(3), 201-212. fu in house														119617-90-2					
Desmedetomidine	145108-58-3	1.60	11.00	0.0600	Anttila A, Penttilä J, Heinonen A, Vuorikette L, and Scheinin M (2003) Bioavailability of dexmedetomidine after extravascular doses in healthy subjects. Br. J. Clin. Pharmacol. 56: 691-693. Dexmedetomidine®Product Label.		Corrotto J.J.G. Bol_JPFT_282_3_1051-1058_1997														145108-58-3					
Dextazoxane	24584-09-6	0.55	3.10	1.0000	Rosing H, Ten Bokkel Huinink WW, Van Gijn R, Rombouts RFM, Bult A, and Beijnen JH (1995) Comparative open, randomized, cross-over bioequivalence study of two intravenous dexrazoxane formulations (Cardioxane and ICRF-187) in patients with advanced breast cancer, treated with 5-fluorouracil-doxorubicin-cyclophosphamide (FDC). Eur. J. Drug Metab. Pharmacokinet. 24: 69-77. Zinecard Product Label.		Rosing H., Ten Bokkel Huinink WW, Van Gijn R, Rombouts RFM, Bult A, and Beijnen JH (1995) Comparative open, randomized, cross-over bioequivalence study of two intravenous dexrazoxane formulations (Cardioxane and ICRF-187) in patients with advanced breast cancer, treated with 5-fluorouracil-doxorubicin-cyclophosphamide (FDC). Eur. J. Drug Metab. Pharmacokinet. 24: 69-77. Zinecard Product Label.														24584-09-6					
Diazepam	439-14-5	1.00	0.38	0.0230	Klotz U, Avant GR, Houmpis A, Schwiker S, and Wilkinson (1975) The effects of age and liver disease on the disposition and elimination of diazepam in adult man. J. Clin. Invest. 55: 347-359. Andersson T, Andrew K, Cederberg C, Edvardsson G, Heggstad A, and Lundborg P (1990) Effect of omeprazole and cimetidine on plasma diazepam levels. Eur. J. Clin. Pharmacol. 39: 51-54. Herman RJ and Wilkinson GR (1986) Disposition of diazepam in young and elderly subjects after acute and chronic dosing. Br. J. Clin. Pharmacol. 42: 147-155. Lucek RW and Coutinho CB (1979) The rate of substitutants in the hydrophobic binding of the 1,4-benzodiazepines by human plasma proteins. Molec. Pharmacol. 12: 612-619. Desmond PV, Roberts RK, Wood AJJ, Dunn GD, Wilkinson GR, and Schenker S (1980) Effect of hepatic administration on plasma binding of benzodiazepines. Br. J. Clin. Pharmacol. 9: 171-175.		C.-F. C. TSANG DMD_Vol10_No-4_1982, 413-416														439-14-5					
Diclofenac	15307-86-5	0.22	3.50	0.0050	Willis JV, Kendall MJ, Flinn RM, Thornhill DP, and Welling PG (1979) The pharmacokinetics of diclofenac sodium following intravenous and oral administration. Eur. J. Clin. Pharmacol. 16: 405-410. Leutolds SB, Rao V, Bottolo N, Micoli A, Pellizzoni C, and Bojda M (1984) Farmacocinetica diclofenacsuk sodic administrat in doua urica pe cale intravenoasa si orala sub forma de solutie injectabila experimentala. Farmacia 43: 43-50. Chan KKW, Yuan RA, and Brandt KD (1987) In vitro protein binding of diclofenac sodium in plasma and synovial fluid. J. Pharm. Sci. 76: 105-108.	VDss calculated using micro rate constants and exponential fit parameters reported in the references.	Diclofenac_Rats_Pierre-Ribera_Journal of pharmacokinetics and biopharmaceutics 1981 vol:28 iss:6 pg:647. fu in house		PK parameters obtained from digitized paper										15307-86-5	0.22	8.50	0.0040	Pruekksaritanont_DMD_34:1606-1610,2006. fu in house	
Didanosine	69655-05-6	0.77	11.00	0.9500	Knupp CA, Shyu WC, Dolin R, Valentine FT, McLaren C, Martin RR, Pitman RA, and Buxtheuque RH (1991) Pharmacokinetics of didanosine in patients with acquired immunodeficiency syndrome or acquired immunodeficiency syndrome-related complex. Clin. Pharmacol. Ther. 49: 523-535. Videx Product Label.		69655-05-6	1.30	150.50		PK data in house. 1 mg/kg dose. N=3.		69655-05-6	0.96	25.30	1.0000	SANJEEV KAUL_DMD_vol21_no3_1993. fu in house		69655-05-6	1.30	27.20		Odiness, A. Antimicrobial Agents and Chemotherapy_oct_1996_2423-2425	
Diflunisal	22494-42-4	0.10	0.10	0.0016	Scott, H et al. Arthritis of Rheumatology. 20/07, 1(3); 588-575. Data reported as weighted average of 5 dosing regimens (infusions) from 500 to 1000 mg/m2 in infusion (20 min) doses (N=3 to N=11) (see Table 3). Cmax=0.0 ug/ml, T1/2=2.2 hr, Vd=0.16 L/kg.	Parameters calculated from a digitized C vs t plot provided in the report. Note: N=1	Jurm H._JPET_vol202_no1-1982/PPB_Jurm H Lin_JPET_vol230_no2_1989.														22494-42-4					
Digoxin	20830-75-5	4.10	1.70	0.7000	Conklin B, Kelly J, O'Malley K, Noel J, Lauer J, and Horgan J (1982) Digoxin pharmacokinetics in healthy young and elderly old age. Clin. Pharmacol. Ther. 26: 772-776. Dorflaus GS, Epting P, and Dettli L (1972) Protein binding of digoxin in human serum. Eur. J. Clin. Pharmacol. 5: 14-18.	VDss calculated using C vs t data obtained from digitalization of a plot reported in the reference.	Naoko Yoshida_Journal of Pharmaceutical sciences_vol:5,552-560_2006														20830-75-5					
Dipropiflyline	479-18-5	0.42	4.80		Zaidenra J and Merkus FWHM (1981) Pharmacokinetics and pharmacodynamics of dipropiflyline. Pharm. Weekbl. 3: 1320-131.	VDss was calculated using C vs t data obtained by digitalization of the plot provided in the reference.	MASAYUKIN ADA_Journal of Pharmaceutical Sciences Vol. 81, No. 10, October 1992.														479-18-5					
Disopyramide	3737-09-5	0.52	0.90	0.1600	Lima JJ, Haughey DB, and Leier CV (1984) Disopyramide pharmacokinetics and bioavailability following the simultaneous administration of disopyramide and 14C-disopyramide. J.								3737-09-5	1.27	9.87		Giacomini, Kathleen M. Journal of Cardiovascular Pharmacology (1982), 2(5), 825-32		3737-09-5					
Doflelide	115256-11-6	2.30	5.20	0.3600	Gammill JD, Hause CA, Meredith PA, Kelman AW, Rasmussen HL, Hille WG, and Elliott HL (1991) A dose ranging study of UK-68,798, a novel class III anti-arrhythmic agent, in normal volunteers. Br. J. Clin. Pharmacol. 32: 429-432. Smith DA, Rasmussen HG, Stopher DA, and Walker DK (1992) Pharmacokinetics and metabolism of doflelide in mouse, rat, dog and man. Xenobiotica 22: 293-319.	Data digitized from plot reported 2 mg/kg, midertain N=3.	115256-11-6	2.28	66.50	0.4700	Pharmacokinetics and metabolism of doflelide in mouse, rat, dog and man. Smith, D. Xenobiotica (1992), 22(6), 709-19.		115256-11-6	3.03	10.20	0.4600	Pharmacokinetics and metabolism of doflelide in mouse, rat, dog and man. Smith, D. Xenobiotica (1992), 22(6), 709-19.	Data digitized from plot reported. 0.2 mg/kg, female beagle dogs, N=4.	115256-11-6					
Dolasetron	115956-12-2	2.00	180.00		Gimmi DC, Chen YS, Martin LA, Avenaghan T, Ishee WF, and Weir SJ (1999) Intravenous pharmacokinetics and absolute oral bioavailability of dolasetron in healthy volunteers: part I. Biopharm. Drug Disp. 20: 29-39.	Pharmacokinetic parameters were calculated from C vs t data obtained by digitalization of the plot provided in the reference.	115956-12-2	26.00	72.00		PK data in house. 1 mg/kg dose. N=3.		115956-12-2		27.00	0.5000	Sanwald-Ducray P, Dow J (1997) Prediction of pharmacokinetic parameters of reduced dolasetron in man using in vitro metabolic data and interspecies allometric scaling. Xenobiot. 27, 189-204.	VDs reported and plots not available. Renal clearance 18.8 mL/min/kg. Fu estimated value in brat.	115956-12-2		77.00	0.5000	Sanwald-Ducray P, Dow J (1997) Prediction of pharmacokinetic parameters of reduced dolasetron in man using in vitro metabolic data and interspecies allometric scaling. Xenobiot. 27, 189-204.	VDs reported and plots not available. Renal clearance 18.8 mL/min/kg. Fu estimated value in brat.
Doripenem	148016-81-3	0.23	3.26	0.9200	Cirillo I et al. Pharmacokinetics, safety and tolerability of doripenem after 0.5-, 1- and 4-hour infusions in healthy volunteers. J. Clin. Pharmacol. 2006, 46, 798-806.	N=96, average weight 72.1 kg. Data reported as weighted average of 5 dosing regimens (infusions) from 500 to 1000 mg and 0.5 to 4 hours. Average VDss 16.96 L and clearance 14.12 L/h. renal clearance 10.2 L/h = 2.38 ml/min/kg or 0.7% of total clearance.	Iwo T, Nakano M, Kimura Y, Maesawa K (2004) Pharmacokinetics and tissue penetration of a new carbapenem, doripenem, intravenously administered to laboratory animals. In vivo, 20, 91-96.														148016-81-3	0.20	7.70	0.9400	Iwo T, Nakano M, Kimura Y, Maesawa K (2004) Pharmacokinetics and tissue penetration of a new carbapenem, doripenem, intravenously administered to laboratory animals. In vivo, 20, 91-96.	N=5, 20 mg/kg, male cynomolgus monkeys. Fpb by centrifugal ultrafiltration. 51% urinary excretion.
Doxazosin	74191-85-8	1.30	1.60	0.0170	Meredith PA, Elliott HL, Kelman AW, and Reid JL (1981) Application of pharmacokinetic-pharmacodynamic modelling for the comparison of quinazoline alpha-adrenoceptor agonists in hypertensive volunteers. J. Cardiovasc. Pharmacol. 7: 522-527. Vincent J, Meredith PA, Elliott HL, and Reid JL (1986) The pharmacokinetics of doxazosin in patients with renal failure. J. Clin Pharmacol. 21: 521-524. Kaye B, Cursons NJ, Faulkner JK, Stopher DA, and Reid JL (1986) The metabolism and kinetics of doxazosin in man, mouse, rat and dog. Br. J. Clin. Pharmacol. 21(Suppl. 1): 195-255.		B.Kaye_Br. J. Pharmac. (1986),21:195-255. fu in house		PK parameters obtained from digitized paper										74191-85-8					
Doxorubicin	23214-92-8	22.00	15.00	0.2800	Camaggi CM, Comparini R, Simoncini E, Testore F, Angelli B, and Pannati F (1988) Epirubicin and doxorubicin comparative metabolism and pharmacokinetics. Canc. Chemother. Pharmacol. 21: 221-228. Piscitelli SC, Rodvold KA, Rushing DA, and Tewksbury DA (1993) Pharmacokinetics and pharmacodynamics of doxorubicin in patients with small cell lung cancer. Clin. Pharmacol. Ther. 52: 555-561. Ekstiong S, Ehrsson H, and Eksjord B (1982) Protein binding of anthracycline glycosides, with special reference to adriamycin.		Doxorubicin_Rats_Jian-Cheng Wanga_European Journal of Pharmaceutics and Biopharmaceutics 62 (2006) 44–51														23214-92-8					
Enoxacin	74011-58-8	2.00	5.40	0.8000	Ito OE, Lebsack ME, Chapelsky M, Seelman-AJ, Quach J, and Norman-A (1982) Effect of oral antacids on disposition of intravenous enoxacin. Antimic. Agents Chemother. 37: 775-777. Wise R, Lister D, McNulty CAM, Griggs D, and Andrews JM (1986) The comparative pharmacokinetics and tissue penetration of four quinolones including intravenously administered enoxacin. Infection 14: S156-S202. Bergogne-Berezin E (2002) Clinical role of protein binding of quinolones.		Enoxacin_Rats_Naora K_Journal of Pharmacobio-Dynamics (1986), 12(2), 90-6		VDss is calculated from constants										74011-58-8					
Enoxaparine	41078-02-9	0.63	4.00	0.5500	Lunell E, Borga O, and Hamson R (1984) Pharmacokinetics of enoxaparine in patients with impaired renal function after a single intravenous dose. Clin. Pharmacol. Ther. 35: 267-271. Borgstrom L, Kiviniemi-Kiviniemi-M, Lassila R, Jorkman JHG, and Gerhardt DE (1988) Creation of four consecutive intraterrenous steady-state plasma concentrations of theophylline and enoxaparine by repeated infusions with exponentially decreasing delivery rates. Eur. J. Clin. Pharmacol. 35: 657-661. Borga O, Lassen N, and Lunell E (1988) Effects of probenecid on enoxaparine kinetics in man. Eur. J. Clin. Pharmacol. 20: 221-223. Tegner K, Borga O, and Svensson I (1981) Protein binding of enoxaparine. Eur. J. Clin. Pharmacol. 25: 703-706.		1) Dose-dependent pharmacokinetics of enoxaparine and its renal handling in rats. Nadai M, Hasegawa T, Muraoka I, Takagi K, Nakashima T. Department of Hospital Pharmacy, Nagoya University School of Medicine, Japan Journal of pharmacokinetics and biopharmaceutics. 2)Protein binding of enoxaparine. Tegner K, Borga O, Svensson I. European journal of clinical pharmacology (1981), 25(6), 703-6 (1981), 80(7), 649-52.	paper describes dose dependent PK. PK reported in table is from a non-saturating dose (2.5 mg/kg). Major clearance pathway is renal, (80% of dose excreted in urine as unchanged drug)	Title: journal of pharmacy and pharmacology ISSN: 0022-3573/073-1022 Year: 1992 Volume: 44 Number: 7 Pages: 594-598 Author: TSUNEKAWA Y, HASEGAWA T, NAGAMI M, TAKAGI K, INAGE-SAWA T Article Keywords: PHARMACOKINETICS AND SCALING FOR THE PHARMACOKINETICS OF XANTHINE DERIVATIVES														41078-02-9					
Entacapone	130929-57-6	0.27	12.00	0.0200	Heikkinen H, Sarahenno M, Anttila S, Ottolia P, and Pentikainen PJ (2001) Pharmacokinetics of entacapone, a peripherally acting catechol-O-methyltransferase inhibitor, in man. A study using a stable isotope technique. Eur. J. Clin. Pharmacol. 56: 821-826. Najib J (2001) Entacapone: a catechol-O-methyltransferase inhibitor for the adjunctive treatment of parkinson's disease. Clin.		1)Forsberg, Markus; Lehtonen, Marko; Heikkinen, Minna; Savolainen, Jouko; Jarvinen, Tomi; Mannisto, Pekka T. Pharmacokinetics and pharmacodynamics of entacapone and tolcapone after acute and repeated administration: A comparative study in the rat. Journal of Pharmacology and Experimental Therapeutics (2002), 300(2), 494-500.	PK in Wistar rat (IV 3 mg/kg) digitize it														130929-57-6					
Epirubicin	56420-45-2	45.00	20.00	0.2500	Camaggi CM, Comparini R, Simoncini E, Testore F, Angelli B, and Pannati F (1988) Epirubicin and doxorubicin comparative metabolism and pharmacokinetics. Canc. Chemother. Pharmacol. 21: 221-228. Camaggi CM, Simoncini E, Mastrini A, Angelli B, Comparini R, and Pannati F (1985) Epirubicin plasma and blood pharmacokinetics after single i.v. bolus in advanced cancer patients. Drugs Exptl. Clin. Res. 11: 295-394. Ekstiong S, Ehrsson H, and Eksjord B (1982) Protein binding of anthracycline glycosides, with special reference to adriamycin. Canc. Chemother. Pharmacol. 10: 7-10.		Contradistinction between doxorubicin and epirubicin in vivo metabolism, pharmacokinetics and toxicodynamics after single- and multiple-dosing in rats. Journal of Pharmacy and Pharmacology, (2001), 53(7), 967-997.	SD rats (PK parameters following 20 mpk acute dose)														56420-45-2					
Epoladopriost	90693-76-8	2.40	66.20		Hildebrand M. Inter-species Extrapolation of Pharmacokinetic Data of Three Prostglin-Mimetics. Prostaglandin, 1984, 48, 297-312. 0.1/2=0.693/kel	Data reported and used for allometric scaling were taken from other publications by the same author.	90693-76-8	1.50	170.00		Hildebrand M. Bioactivation of Epoladopriost in animals and man. Prostaglandin, 1990, 40, 177-189. N=3 female. 10 ug (1.8 ug/kg) in dose. t/kel = 0.203 kg.										90693-76-8	1.50	63.10		Hildebrand M. Bioactivation of Epoladopriost in animals and man. Prostaglandin, 1990, 40, 177-189. N=3 female cynomolgus monkeys. 10 ug (1.8 ug/kg) in dose. t/kel = 0.203 kg.	
Eritoran	185955-34-4	0.05	0.01		Wong YN, Rossignol D, Rose JR, Kao R, Carter A, and Lynn M (2003) Safety, pharmacokinetics, and pharmacodynamics of E5564, a lipid A antagonist, during an ascending single-dose clinical study. J Clin Pharmacol. 43: 736-742. Rossignol DP, Wasan KM, Chou K, Wu E, Wong N, Rose J, Moran J, and Lynn M (2003) Safety, pharmacokinetics, pharmacodynamics, and plasma lipoprotein distribution of eritoran (E5564) during continuous intravenous infusion in healthy volunteers. Antimic. Agents Chemother. 48: 2233-2240.	Protein binding driven by lipoproteins--not reported directly	185955-34-4	0.08	0.25				Kaneko, K.; Ueda, R.; Kikuchi, K.; Sano, Y.; Yoshimura, T. Quantitative determination of a potent lipopolysaccharide antagonist, E5564, in rat and dog plasma by high-performance liquid chromatography with fluorescence detection. Journal of Chromatography. B: Biomedical Sciences and Applications (1999), 736(1 + 2), 67-75.		185955-34-4	0.08	0.02		Kaneko, K.; Ueda, R.; Kikuchi, K.; Sano, Y.; Yoshimura, T. Quantitative determination of a potent lipopolysaccharide antagonist, E5564, in rat and dog plasma by high-performance liquid chromatography with fluorescence detection. Journal of Chromatography. B: Biomedical Sciences and Applications (1999), 736(1 + 2), 67-75.															
Ertapenem	153832-46-3	0.12	0.45	0.1000	Majumdar AK, Musson DG, Birk KL, Kitchen-CJ, Holland S, McCrea J, Mistry G, Hersey M, Ni L, Li SX, Hansen R, Blum RA, Lim RL, Greenberg H, Waldman S, Deutsch P, and Rogers JD (2002) Pharmacokinetics of ertapenem in healthy young volunteers. Antimic. Agents Chemother. 46: 3506-3511.	Protein binding non-linear over the concentration range studied in vivo; median value used.	153832-46-3	0.34	10.00		Wong, R. K.; Ku, X.; Ni, S.; Lin, J. H.; Singh, R.; Sahly, Y.; Mistry, G.; Holland, S.; Waldman, S.; Musson, D.; Majumdar, A. Comparative disposition of [14C]ertapenem, a novel carbapenem antibiotic, in rat, monkey and man. Xenobiotica (2004), 34(4), 379-389.	PK parameters calculated from C vs t data obtained by digitalization of the plots provided in the reference.	153832-46-3										153832-46-3	0.17	0.47		Wong, R. K.; Ku, X.; Ni, S.; Lin, J. H.; Singh, R.; Sahly, Y.; Mistry, G.; Holland, S.; Waldman, S.; Musson, D.; Majumdar, A. Comparative disposition of [14C]ertapenem, a novel carbapenem antibiotic, in rat, monkey and man. Xenobiotica (2004), 34(4), 379-389.	PK parameters calculated from C vs t data obtained by digitalization of the plots provided in the reference.

Erythromycin	114-07-8	0.95	5.60	0.1000	Welling PG and Craig WA (1978) Pharmacokinetics of intravenous erythromycin. J Pharm. Sci. 67: 1067-1068.	Plasma concentrations determined using a bioassay.	114-07-8	9.30	73.00	0.2200	Duthie, G.S. (1985) Interspecies correlation of the pharmacokinetics of erythromycin, oleandomycin, and tylosin. J. Pharm. Sci. 74: 943-946. fulltext	T1/2 obtained for oral dose of 50 mpk	114-07-8	2.40	19.00	0.2200	Grant, Arthur E.; Grant, Dennis; English, Arthur R.; Gorzo, Thomas D.; Consolazio, Caroline F.; Fanella, James A.; Haskell, Suzanne L.; Reisema, James A. Pharmacokinetic and in vivo studies with azithromycin (CP-62,993), a new macrolide with an extended half-life and excellent tissue distribution. Antimicrobial Agents and Chemotherapy (1987), 31(12), 1948-1954. Grant, Arthur E.; Gorzo, Thomas D. Pharmacokinetics of azithromycin in rats and dogs. J. Antimic. Chemother. 25 (Suppl A): 49-60. Duthie, G.S. (1985) Interspecies correlation of the pharmacokinetics of erythromycin, oleandomycin, and tylosin. J.	Combined data from multiple references	114-07-8	8.24	31.60	0.3848	Ward, Keith W.; Corn, David James; Magliola, Daniel; Bhuyan, Sanjeev; Nisbett, Ernell; Lawrence, Matthew S. Exploration of the African green monkey as a preclinical pharmacokinetic model: intravenous pharmacokinetic parameters. Drug Metabolism and Disposition (2004), 36(4), 715-722. fulltext	
Esmolol	81147-92-4	1.20	290.00	0.5900	Sum CY, Yacobi A, Kantrowitz R, Stampfli H, Davis CS, and Lee CM (1983) Kinetics of esmolol, an ultra-short-acting beta blocker, and of its major metabolite. Clin. Pharmacol. Ther. 34: 427-434. Okamura M, Kumagai M, Murasaki Y, Ohkura T, Miyamoto Y, Kawai Y, Tamura T, Takaoki Y, and Tomiwa H (2001) Stereoselective pharmacokinetics of esmolol enantiomers. Yakubutsu Dotai 16: 477-485.	Okamura, Miyako; Kumagai, Masamichi; Murasaki, Yuko; Ohkura, Takako; Miyamoto, Yoshiaki; Kawai, Yoichiro; Tamura, Takashi; Takaoki, Yutaka; Tomiwa, Hiroki. Stereoselective pharmacokinetics of esmolol enantiomers. Yakubutsu Dotai (2001), 16(6), 477-485.		81147-92-4	3.40	1500.00	0.6200	VDss calculated from C vs t data obtained by digitization of the plot provided in the reference. Averaged the two enantiomers.	81147-92-4					
Estradiol	50-28-2	1.20	30.00	0.0160	Kuhnz W, Gamsa C, and Mahler M (1983) Pharmacokinetics of estradiol, free and total estrone, in young women following single intravenous and oral administration of 17beta estradiol. Arz Forsch. 33: 968-973. Bruning PF and Bonfrer JMG (1988) Free fatty acid concentrations correlated with the available fraction of estradiol in human plasma. Cancer Res. 48: 2606-2609.	Sawanchi-Nassar R N; Hussain A A; Crooks P A. Nasal absorption and metabolism of progesterone and 17 beta-estradiol in the rat. Drug metabolism and disposition: the biological fate of chemicals (1988), 17(2), 248-54.; Plowchalk, David R.; Teeguarden, Justin. Development of a Physiologically Based Pharmacokinetic Model for Estradiol in Rats and Humans: A Biologically Motivated Quantitative Framework for Evaluating Responses to Estrogens and Other Endocrine Active Compounds. Toxicological Sciences (2002), 68(1), 60-78.		50-28-2												
Estramustine phosphate	4891-15-0	0.12	0.84		Hudes G, Haas N, Yeskow G, Gillon T, Gunnarsson PO, Ellmark M, Nordle O, Eriksson B, Miller L, Crean L, Kopreski M, Vann D, and Hartley-Asp B (2002) Phase I clinical and pharmacological trial of intravenous estramustine phosphate. J. Clin. Oncol. 20: 1115-1127. Gunnarsson PO, Andersson SE, Johansson SA, Nilsson T, and Pyrn-Forshell G (1984) Pharmacokinetics of estramustine phosphate (Estracyt) in prostatic cancer patients. Eur. J. Clin. Pharmacol. 26: 113-119.	Compartmental model parameters from Gunnarsson, et al. were used in the calculation of VDss.	4891-15-0						4891-15-0	0.16	2.00		Fongren, Bjorn; Gunnarsson, Per Olov; Johansson, Sven Aker; Kant, Rolf. Radioimmunassay of estramustine phosphate in plasma. Acta Pharmacologica Suecica (1978), 15(2), 200-10.	Pharmacokinetics were calculated from C vs t data obtained by digitization of the plot provided in the reference.	4891-15-0					
Ethambutol	74-55-5	1.70	10.00	0.1800	Lee CS Grieder DC, Gambertoglio JG, and Bennet LZ (1980) Disposition kinetics of ethambutol in man. J Pharmacokinet. Biopharm. 8: 335-346. Holdiness MR (1984) Clinical pharmacokinetics of ethambutol. Clin. Pharmacokinet. 9: 511-544.		74-55-5						74-55-5	3.80	13.00		Lee, Chingsan C.; Vaughlee, Abraham. Disposition kinetics of ethambutol in nephrectomized dogs. Journal of Pharmaceutical Sciences (1984), 73(6), 787-		74-55-5					
Ethinylestradiol	57-63-6	4.30	7.00	0.0140	Kuhnz W, Humpel M, Bore H, and Gross D (1984) Influence of repeated oral doses of ethynylestradiol on the metabolic disposition of [13C2-ethinylestradiol in young women. Eur. J. Clin. Pharmacol. 50: 231-235. Kuhnz W, Pfeffer M, and Al-Yacoub G (1984) Protein binding of the contraceptive steroids gestodene, 3-keto-desogestrel and ethinylestradiol in human serum. J. Steir. Biochem. 20: 313-318. Pacifici GM, Viani A, Rizzo G, and Cerne M (1988) Plasma protein binding of ethinylestradiol: effect of disease and interaction with drugs. Int. J. Clin. Pharmacol. Res. 8: 43-54.		57-63-6	5.70	55.00	0.0088	Sawanchi-Nassar R N; Hussain A; Crooks P A. Nasal absorption of 17 alpha-ethinylestradiol in the rat. The Journal of pharmacy and pharmacology (1988), 41(2), 214-5. fulltext		57-63-6												
Ethinylestradiol-17-Sulfate	75803-36-0	0.61	1.20		Goldsteker JW, Milekowsky G, Newburger J, Dorsette A, and Strachansky SA (1988) Human pharmacokinetics of ethinyl estradiol 3-sulfate and 17-sulfate. Steroids 51: 63-79.	VDss calculated from reported micro-constants.	75803-36-0														75803-36-0	8.70	13.00		Newburger, Jerald; Castrucone, V; Daniel, Moore; Perry H, Jr; Williams, Mary C; Goldsteker, Joseph W. The pharmacokinetics and metabolism of ethinyl estradiol and its three sulfates in the baboon. American Journal of Obstetrics and Gynecology (1983), 146(3), 80-7.	VDss calculated using two-compartment parameters provided in the reference.
Ethinylestradiol-3-Sulfate	24560-70-1	2.30	4.70	0.0110	Goldsteker JW, Milekowsky G, Newburger J, Dorsette A, and Strachansky SA (1988) Human pharmacokinetics of ethinyl estradiol 3-sulfate and 17-sulfate. Steroids 51: 63-79. Reed MJ and Fotherby K (1980) Interaction of ethinylestradiol sulphate with plasma proteins. J. Steroid Biochem. 13: 495-497.	VDss calculated from reported micro-constants.	24560-70-1														24560-70-1	21.00	39.00		Newburger, Jerald; Castrucone, V; Daniel, Moore; Perry H, Jr; Williams, Mary C; Goldsteker, Joseph W. The pharmacokinetics and metabolism of ethinyl estradiol and its three sulfates in the baboon. American Journal of Obstetrics and Gynecology (1983), 146(3), 80-7.	VDss calculated using two-compartment parameters provided in the reference.
Etomidate	33125-97-2	2.70	13.00	0.2300	Van hamme MJ, Ghoneim MM, and Ambre JJ (1978) Pharmacokinetics of etomidate, a new intravenous anesthetic. Anesthesiology 49: 274-277. de Ruiter G, Fragiacomo DT, deBaer Y, Van Hamme MJ, and Ambre JJ (1979) Pharmacokinetics of etomidate in surgical patients. Arch. Int. Pharmacodyn. Ther. 243: 180-188. Meuldermans WEG and Heykants JJP (1979) The plasma protein binding and distribution of etomidate in dog, rat and human blood. Arch. Int. Pharmacodynam. Ther. 221: 150-161.	Microconstant values from Van Hamme, et al., were used to estimate VDss. Data were combined with deRuiter et al.	33125-97-2	4.53	93.00	0.1910	De Paepe P, et al. Pharm Res. 1999, 16, 924-929. VDss data cited by Poulin et al (see comments) as well. Pub data reported by Poulin et al. 50 mg/kg/hr infusion. Male Wister rats.	Poulin, Patrick; Theil, Frank-Peter. Prediction of pharmacokinetics prior to in vivo studies. 1. Mechanism-based prediction of volume of distribution. Journal of Pharmaceutical Sciences (2002), 91(1), 129-156. CODEN: JPHSEAE ISSN:0022-3549. CAN 136:302318 AN 2002:678204 CAPLUS		33125-97-2	1.90	17.00	0.2152	Zhang, J; Malenf L; Hagar B; Hu S; Robertson S; Coleman D; Stanley T H; Sinnamon J B. Buccal absorption of etomidate from a solid formulation in dogs. Anesthesia and analgesia (1996), 83(5), 1116-22. fulltext	VDss calculated from two-compartmental parameters reported in the reference. Mongrel dogs.	33125-97-2					
Etoposide	33419-42-0	0.18	0.50	0.1200	Pfluger KH, Schmidt L, Merkel M, Jungelas H, and Havemann K (1987) Drug monitoring of etoposide (VP16-213). Canc. Chemother. Pharmacol. 20: 59-66. Kaul S, Ipavenstein LN, Stewart DJ, Fields SZ, Kosty M, Leathem N, Bukowski R, Gandara D, Gross E, and Ali M (1988) Pharmacokinetics and bioequivalence of etoposide following intravenous administration of etoposide phosphate and etoposide in patients with solid tumors. J. Clin. Oncol. 13: 2605-2641. Lee, KJ, Mower R, Hollenbert J, Castelo J, Jemerin A, Gordon P, Sinko PJ, Hoine K, and Lee YH (2003) Modulation of intestinal etoposide binding to ultrafiltration protein-binding studies. Pharm. Res. 20: 1015-1021.		33419-42-0	0.58	23.00	0.4300	Carceri Trullols, Jaime; Torres-Molina, Francisca; Arasto, Amparo; Sauleblide, Anas; Peris, Jose Esteban. Effect of cyclosporine A on the tissue distribution and pharmacokinetics of etoposide. Cancer Chemotherapy and Pharmacology (2004), 54(2), 163-160. Burgio, David E.; Gosland, Michael P.; Michaelis, Patrick J. Modulation effects of cyclosporine on etoposide pharmacokinetics and CNS distribution in the rat. Cancer Chemotherapy and Pharmacology (1994), 34(5), 517). 587-92. Lu, Hongbin; Kyung, Chin; Jun-Shik. Effects of mixture on the pharmacokinetics of etoposide in rats. Biopharmaceutics & Drug Disposition (2007), 28(3), 151-156. Nishimura, T.; Kato, Y.; Amano, N.; Ono, M.; Kubo, Y.; Kimura, Y.; Fujita, H.; Tsuji, A. Species Difference in Intestinal Absorption Mechanism of Etoposide and Diguon between Cynomolgus Monkey and Rat. Pharmaceutical Research (2008), 25(10), 2467-2476. Fleming, Ronald A.; Arbuck, Susan G.; Stewart, Clinton F. Interspecies differences in in vitro etoposide plasma protein binding. Biochemical Pharmacology (1991), 42(11), 2248-9.	Averaged pharmacokinetic parameters from three reports.	33419-42-0	1.40	13.00	0.6300	Floy, Andrea B.; Rasnick, Kenneth M.; Bollman, Cheryl K.; Kiselow, Michael A.; Auto, Karolina; Bonalles, Bernard B.; Lewis, Lionel D. Oral bioavailability of etoposide after administration of a single dose to tumor-bearing dogs. American Journal of Veterinary Research (2008), 69(10), 1216-1222. Fleming, Ronald A.; Arbuck, Susan G.; Stewart, Clinton F. Interspecies differences in in vitro etoposide plasma protein binding. Biochemical Pharmacology (1991), 42(11), 2248-9.	33419-42-0	0.16	1.50	0.0251	Nishimura, T.; Kato, Y.; Amano, N.; Ono, M.; Kubo, Y.; Kimura, Y.; Fujita, H.; Tsuji, A. Species Difference in Intestinal Absorption Mechanism of Etoposide and Diguon between Cynomolgus Monkey and Rat. Pharmaceutical Research (2008), 25(10), 2467-2476. fulltext	Half-life estimated by digitization of the C vs t plot provided in the reference.
Famotidine	76824-35-6	1.20	6.60	0.8400	Yeh KC, Clemens JA, Lin JH, Cronlamer ML, Kennedy SM, Hucker HB, Antonello J, Vlasses P, Ryan JR, and Williams RL (1987) Single-dose pharmacokinetics and bioavailability of famotidine in man. Results of multicenter collaborative studies. Biopharm. Drug Dispos. 8: 549-560.	VDss calculated from C vs t data obtained by digitization of the plots provided in the reference.	76824-35-6	0.80	22.00	0.4700	Matsuzaki, Takanobu; Morisaki, Takafumi; Sugimoto, Wataoki; Mitsui, Koji; Sato, Daisuke; Nomaguchi, Akinobu; Tamura, Kimio; Tezuka, Tomohiro; Inui, Ken-ichi; Hamada, Akinobu; Saito, Hiroshi. Pharmacokinetic interaction between famotidine and down-regulation of metal ion organic cation transporter 2 (SLC22a2) and rat multidrug and toxin extrusion 1 (Slc47a1) in ischemia/reperfusion-induced acute kidney injury. Drug Metabolism and Disposition (2008), 36(4), 649-654. fulltext		76824-35-6	0.79	8.60	0.7300	Boom, Sandra P. A.; Hoet, Sandra; Russel, Frank G. M. Saturable urinary excretion kinetics of famotidine in the dog. Journal of Pharmacy and Pharmacology (1987), 49(2), 288-292.		76824-35-6	2.10	15.00	0.1300	Tahara, Hiromitsu; Kusuhara, Hiroyuki; Chida, Michiko; Fuse, Eiichi; Sugiyama, Yuichi. Is the monkey an appropriate animal model to examine drug-drug interactions involving renal clearance? Effect of probenecid on the renal elimination of H2 receptor antagonists. Journal of Pharmacology and Experimental Therapeutics (2005), 315(3), 1187-1194.
Felodipine	72509-76-3	4.40	11.00	0.0036	Eulgar B, Regardh CG, Johnsson G, Johansson L, Lindberg P, Lofberg L, and Ronn O (1985) Felodipine kinetics in healthy men. Clin. Pharmacol. Ther. 38: 205-211.	VDss calculated from compartmental parameters provided in the reference by Eulgar, et al., 1985.	72509-76-3	15.00	61.00	0.0050	Wang S K; Sutin T A; Boatenholm C; Regardh C G. Contribution of the intestine to the first-pass metabolism of felodipine in the rat. The Journal of pharmacology and experimental therapeutics (1988), 250(2), 628-6. Uno, Kazuo; Yamagami, Satoru; Kobayashi, Shoji; Kohei, Hiroshi; Tsukada, Shigeru; Esumi, Yoshio; Takaichi, Mebsuo; Jim, Yoshitaka; Ishikawa, Hisako. Studies on the metabolic fate of felodipine. (8). Absorption site, protein binding, distribution in blood cell, and transfer into feces and milk in rats. Yakubutsu Dotai (1991), 6(5), 769-79.		72509-76-3	5.40	33.00	0.0050	Aiken, David; Burgess, Roger A.; Campbell, Simon F.; Carter, Anthony J.; Cross, Peter E.; Gardiner, Donald G.; Humphrey, Michael J.; Stopher, David A. Long-acting dihydropyridine calcium antagonists. A comparison of the pharmacological and pharmacokinetic properties of amlodipine with its cefta and thio-bioisosteres. Journal of the Chemical Society, Perkin Transactions 2 (1992), (7), 1137-40. Eriksson, U. G.; Hoffmann, K. J.; Sinnomson, R.; Regardh, C. G. Pharmacokinetics of the enantiomers of felodipine in the dog after oral and intravenous administration of a pseudoracemic mixture. Xenobiotica (1992), 21(1), 75-88. Uno, Kazuo; Yamagami, Satoru; Kobayashi, Shoji; Tsukada, Shigeru; Esumi, Yoshio; Takaichi, Mebsuo; Jim, Yoshitaka; Ishikawa, Hisako. Studies on the metabolic fate of felodipine. (8). Absorption site, protein binding, distribution in blood cell, and transfer into feces and milk in rats. Yakubutsu Dotai (1991), 6(5), 769-79.	Averaged the pharmacokinetic data from the two reports, and averaged the data of the enantiomers.	72509-76-3					
Fenoterol	13392-18-2	1.20	29.00	0.5300	Wanke K, Hildebrandt R, Gunther K, Langer-U, and Gundel-Remy U (1982) The pharmacokinetics of the beta2-adrenoreceptor agonist fenoterol in healthy women. Eur. J. Clin. Pharmacol. 43: 663-665. Hewitt RC, Brogden RN, Speight TM, and Avery GS (1978) Fenoterol: a review of its pharmacological properties and therapeutic efficacy in asthma. Drugs 15: 2-32.	Study subjects all women, so a body weight of 55 kg was assumed.	13392-18-2	1.10	64.00	0.9500	Kuster, Andrew S.; Hofmann, Gerard A.; Frankhuijzen Sennegond, Ank C.; Noordhoek, Jan. Peripheral and systemic intestinal metabolism of fenoterol in the conscious rat. Drug Metabolism and Disposition (1995), 23(8), 864-70. Kojima, Shuji; Kubodera, Akiko; Otani, Masahiro; Kobayashi, Shoji; Kohei, Hiroshi. Studies on the absorption, distribution, metabolism and excretion of 1-(3,5-dihydroxyphenyl)-1-hydroxy-2-[(4-hydroxyphenyl)isopropylamino]-ethane hydrobromide (Th 1165a, fenoterol hydrobromide) in rats. Ojin Yakuri (1980), 2(1), 35-66.		13392-18-2												
Fenoxiprone	77671-31-9	1.80	29.00	0.3000	Aiken RG, Belz GG, Haegele KD, Meinicke T, and Schechter PJ (1981) Kinetics of fenoxiprone, a new nonsteroidal, in healthy subjects. Clin. Pharmacol. Ther. 30: 209-216. Hook RH, Rosenbaum H, Thompson GA, and Oberholzer BA (1986) Human serum and plasma protein binding of fenoxiprone and its sulfoxide metabolite. Arzneimittelforsch. 36: 1511-1513.		77671-31-9						77671-31-9	2.10	26.00		Dage, R.C. and Oberholzer, R.A. (1980) Pharmacology and pharmacokinetics of enoxiprone. Cardiology 77 (Suppl 3): 2-12.	Pharmacokinetic parameters were calculated from C vs t data obtained by digitization of the plot provided in the reference. Averaged the two enantiomers.	77671-31-9					
Fentanyl	437-38-7	0.89	4.70	0.1600	Fung DL and Eisele JH (1980) Fentanyl pharmacokinetics in awake volunteers. J. Clin. Pharmacol. 20: 652-658. Schleimer R, Bergstrom RF, Gwinn J, and Hewitson G (1977) Pharmacokinetics of fentanyl as determined by radioimmunoassay. Clin. Pharmacol. Ther. 23: 188-194. Meuldermans WEG, Hurkmans RMA, and Heykants JJP (1980) Plasma protein binding and distribution of fentanyl, sufentanil, alfentanil and lofentanil in blood. Arch. Int. Pharmacodyn. Ther. 257: 4-19.		437-38-7	3.80	58.00	0.1700	Ohkuba, Hiroyuki; Fujita, Kosuhon; Kobayashi, Hiroyuki. Pharmacokinetics of fentanyl in male and female rats after intravenous administration. Arzneimittel-Forschung (2007), 57(6), 260-263. Meuldermans, W. E. G.; Hurkmans, R. M. A.; Heykants, J. J. P. Plasma protein binding and distribution of fentanyl, sufentanil, alfentanil and lofentanil in blood. Archives internationales de Pharmacodynamie et de Therapie (1982), 257(1), 4-19. Ohkuba, Hiroyuki; Kobayashi, Hiroyuki; Shigeoka, Tsunehiko; Tsuji, Shinichi; Shimomura, Hatsushi; Nemoto, Hiroyuki; Fujiwaki, Makoto; Miura, Kodo; Uemoyama, Tetsuji. Pharmacokinetics of fentanyl after intravenous and subcutaneous administration to rats and dogs. Japanese Pharmacology & Therapeutics (2001), 29(11), 855-864.	Pharmacokinetic data averaged from two references.	437-38-7	4.70	54.00	0.1600	Sano, Tadashi; Nishimura, Ryohei; Kameosa, Hidekiso; Iguchi, Eri; Nagata, Yoichiro; Mochizuki, Manabu; Sasaki, Nobuo. Pharmacokinetics of fentanyl after single intravenous injection and constant rate infusion in dogs. Veterinary Anaesthesia and Analgesia (2006), 33(4), 268-273. Meuldermans, W. E. G.; Hurkmans, R. M. A.; Heykants, J. J. P. Plasma protein binding and distribution of fentanyl, sufentanil, alfentanil and lofentanil in blood. Archives internationales de Pharmacodynamie et de Therapie (1982), 257(1), 4-19. Ohkuba, Hiroyuki; Kobayashi, Hiroyuki; Shigeoka, Tsunehiko; Tsuji, Shinichi; Shimomura, Hatsushi; Nemoto, Hiroyuki; Fujiwaki, Makoto; Miura, Kodo; Uemoyama, Tetsuji. Pharmacokinetics of fentanyl after intravenous and subcutaneous administration to rats and dogs. Japanese Pharmacology & Therapeutics (2001), 29(11), 855-864.	VDss calculated from compartmental parameters provided in the reference. Data averaged from two references.	437-38-7					
Finasteride	98319-26-7	1.10	2.40	0.0950	Steiner JF (1994) Clinical pharmacokinetics and pharmacodynamics of finasteride. Clin. Pharmacokinet. 30: 16-27. Carlin JR, Hoglund P, Eriksson LO, Christaitis P, Gregoire SL, Taylor AM, and Andersson KE (1992) Disposition and pharmacokinetics of [14C]finasteride after oral administration in humans. Drug Metab. Dispos. 20: 149-155.		98319-26-7						98319-26-7	0.36	2.10	0.1800	Carlin, J. R.; Christaitis, P.; Anson, B. H.; Ellsworth, R. E.; Rosaggi, A.; Miller, R. R.; Chiu, S. H. L.; Vandenheuvel, W. J. A. Disposition and metabolism of finasteride in dogs. Drug Metabolism and Disposition (1987), 15(1), 100-109.		98319-26-7												
Flecainide	54143-55-4	6.10	4.90	0.5200	Wang T, Goldoway LA, Thompson KA, Conard GJ, Bergstrand RA, Kuen D, Stokes DM, and Woosley RL (1983) The development and testing of intravenous dosing regimens: application to flecainide for left suppression of ventricular arrhythmias. Clin. Pharmacol. Ther. 43: 490-506. Tjandra-Maga TB, Verbeeraat B, Van Hecken A, Mullie A, and DeSchepper PJ (1980) Flecainide: single and multiple oral dose kinetics, absorption and bioavailability in healthy volunteers. Br. J. Clin. Pharmacol. 10: 309-316. Mundle A, Burchin T, Tabi S, and Skolbaz J (1982) The effect of low-dose quinidine on the disposition of flecainide in healthy volunteers. Eur. J. Clin. Pharmacol. 43: 441-443. Johnston A, Mohiddin KA, and Hamer J (1982) Serum protein binding of flecainide. Br. J. Clin. Pharmacol. 13: 267-268.	VDss from the reference by Wang, et al. was calculated using the compartmental parameters reported in the reference.	54143-55-4	6.90	34.00	0.4100	Pinson, Donatella; Padrini, Roberto; Furlanut, Mario; Morselli, Raffaella; Ferrari, Mariano. Plasma and tissue levels of flecainide in rats. Pharmacological Research Communications (1983), 15(8), 739-46. Yamada, Kazuhiko; Kaneko, Mitsuo; Kaiko, Mihara, Kiyoshi; Ogata, Hiroyasu. Enantioselective tissue distribution of the basic drugs disopyramide, flecainide and verapamil in rats: role of plasma protein and tissue phospholipid binding. Pharmaceutical Research (1998), 15(8), 1250-1254.		54143-55-4	6.90	24.00	0.3000	VDss was calculated from data obtained by digitization of the C vs t plot provided in the reference.	54143-55-4					
Flecainide	86386-73-4	0.75	0.31	0.8900	Foulds G, Wojciechowski C, Windler DJ, Garg DJ, and Gibson P (1988) Steady state pharmacokinetics of flecainide in man. N.Y. Acad. Sci. 544: 427-30. Humphrey MJ, Jevons, S, and Tarbit MH (1985) Pharmacokinetic evaluation of UK-49,858, a metabolically stable muscle antifungal drug, in animals and humans. Antimic. Agents Chemother. 28: 648-653.		86386-73-4	0.97	4.20	0.9000	Humphrey, M. J.; Jevons, S.; Tarbit, M. H. Pharmacokinetic evaluation of UK-49,858, a metabolically stable muscle antifungal drug, in animals and humans. Antimicrobial Agents and Chemotherapy (1985), 28(5), 648-53. Aoyama, Takashiro; Fujita, Kiyoshi; Nishida, Masaji; Matsusaka, Yoshiro; Kishi, Shima; Nishiwaki, Kimura, Kenjirou; Matsumoto, Yoshiaki. Pharmacokinetics of Flecainoate and Flecainoate after Intragastric Yang-K Wang G J Kimpton W F. Fluorocarbon distribution in the brain: a crossover study in freely-moving rats using in vivo microdialysis. Pharmaceutical research (1994), 11(10), 1570-5. mineral administration to peritoneal dialysis rats. Drug Metabolism and Pharmacokinetics (2005), 20(6), 465-490.	Reported VD is assumed to be VDss from a one-compartmental model used in Aoyama, et al. Pharmacokinetic data are averaged between Aoyama, et al., and Yang, et al. Protein binding is the average between Yang, et al., and Humphrey et al.	86386-73-4	0.70	0.65	0.9900	Humphrey, M. J.; Jevons, S.; Tarbit, M. H. Pharmacokinetic evaluation of UK-49,858, a metabolically stable muscle antifungal drug, in animals and humans. Antimicrobial Agents and Chemotherapy (1985), 28(5), 648-53.	VD reported is vague	86386-73-4					
Fluoxetine	2622-85-7	0.68	2.00	1.0000	Cutler RE, Blair AD, and Kelly MD (1978) Fluoxetine kinetics in subjects with normal and impaired renal function. Clin. Pharmacol. Ther. 24: 323-342. Lee KJ, Mower R, Hollenbert T, Castelo J, Jemerin M, Gordon P, Sinko PJ, Hoine K, and Lee YH (2002) Modulation of etoposide binding to ultrafiltration protein binding studies. Pharm. Res. 19: 1015-1021.		2622-85-7						2622-85-7	0.64	2.40		Pennington J E; Block E R; Reynolds H Y S. Fluoxetine and amphetamine (S enantiomer) in bronchial secretions. Antimicrobial agents and chemotherapy (1974), 6(3), 324-6.	Pharmacokinetics were calculated from C vs t data obtained by digitization of the plot provided in the reference.	2622-85-7					
Flumazenil	78755-81-4	0.80	16.00	0.5800	Jansson U, Walker S, Mose K, van Gansberg U and Kistler U (1991) Flumazenil disposition and elimination in cirrhosis. Clin. Pharmacol. Ther. 49: 317-323. Fronten-Lagrangues G, Giguere JF, Lavoie J, Willems B, and Bulteau-Pignoux MF (1989) Pharmacokinetics of intravenous flumazenil (Ro 15-1788) in cirrhotic patients with moderate or severe liver dysfunction. Hepatology 10: 969-972. Klotz U, Ziegler G, and Reimann IW (1986) Pharmacokinetics of the selective benzodiazepine antagonist Ro 15-1788 in man. Eur. J. Clin. Pharmacol. 27: 115-119.		78755-81-4	1.30	147.00		Mandenna, Jaap W.; Gubbens-Stibbe, Jony M.; Danhof, Meinhart. Stability and pharmacokinetics of flumazenil in the rat. Psychopharmacology (Berlin, Germany) (1991), 103(3), 364-7.		78755-81-4	1.00	16.00	0.6848	Oliver F M; Sweatman T W; Uhlert J H; Kahn M A; Randolph M M; Ahearn K L; Mantrell T D. Comparative pharmacokinetics of submucosal vs. intravenous flumazenil (Romazicon) in an animal model. Pediatric dentistry (2000), 22(6), 489-93. fulltext	Pharmacokinetics were calculated from C vs t data obtained by digitization of the plot provided in the reference.	78755-81-4					
Flunitrazepam	1622-62-4	1.90	1.40	0.1700	Kangas L, Kanto J, and Paikkanen A (1982) A pharmacokinetic and pharmacodynamic study of flunitrazepam. Int. J. Clin. Pharmacol. Ther. Toxicol. 20: 585-588. Lucek RW and Coulehle CB (1976) The role of substituents in the hydrophobic binding of the 1,4-benzodiazepines by human plasma proteins. Molec. Pharmacol. 12: 612-618.	VDss calculated from C vs t data obtained by digitization of the plot included in the reference.	1622-62-4	3.80	60.00	0.1500	Mandenna, Jaap W.; Sansom, Lloyd N.; Dow-Vietez, M. Carmen; Wellington James, Marilyn; Danhof, Meinhart. Pharmacokinetic-pharmacodynamic modeling of the electroencephalographic effects of benzodiazepines. Correlation with receptor binding and anticonvulsant activity. Journal of Pharmacology and Experimental Therapeutics (1995), 272(1), 417-8.		1622-62-4	3.40	78.00	0.1723	Kaplan S A; Alexander K; Jack M L; Puglisi C V; De Silva J A; Lee T L; Weinfeld R E. Pharmacokinetic profiles of clonazepam in dog and humans and of flunitrazepam in dogs. Journal of pharmaceutical sciences (1974), 63(4), 527-32. fulltext	VDss calculated from compartmental parameters provided in the reference.	1622-62-4					

Fluorouracil, 5-	51-21-8	0.23	26.00	0.6400	Port RE, Daniel B, Ding RW, and Hermann R (1991) Relative importance of dose, body surface area, sex and age for 5-fluorouracil clearance. Oncology 48: 277-281. Schaef L,J, Dobbs BR, Edwards R, and Perier DG (1987) Nonlinear pharmacokinetic characteristics of 5-fluorouracil (5-FU) in colorectal cancer patients. Eur. J. Clin. Pharmacol. 32: 411-418. Esposito M, Rosso R, and Santi L (1974) Plasma protein binding of antineoplastic drugs in rats and humans. BICS Library	5-FU shows dose dependent kinetics; low dose data cited.	51-21-8	0.25	33.00	0.8900	Choi YW Biopharm. Drug. Dispos. 2005; 26, 93-98.	N=9 30 mg/kg dose iv in control rat	51-21-8							51-21-8					
Flupirtaustine	69-23-8	2.90	9.70	0.6400	VDss calculated from Cl and MRT reported by Krajcsi/ten R, et al. Eur. J. Clin. Pharmacol. 1996; 51, 163-167. N=14, 2.5 mg i.v. bolus, 72 kg average weight.	fu_Waters et al. 2006	69-23-8						69-23-8	5.50	15.40			Data digitized from 4 plots (4 different animal) reported by Lux et al. Pharm. Res. 1997; 16, 1-6. Dose 2.5 mg/kg, 2 mg average weight, 0.5/2 mg/kg dose, 7.2 kg average weight. Reported Vz = 5 L (7080 mL/kg) and Cl/2 = 0 hr with a Cl = 5.8 L/h (820 mL/kg, calculated – 14% larger than reported)	Ritscher WA, Grumroth KW, Hussain SA (1981) Pharmacokinetics of PFA (trisodium phosphonoformate) after iv and po administration in beagle dogs and rabbits. Meth. Find. Exp. Clin. Pharmacol. 7(1):41-46.								
Fosfomycin	23155-02-4	0.32	2.00	1.0000	Gotz M, Sugiyama M, Nakajima S, and Yamadatine H (1991) Cerebrospinal penetration of fosfomycin after administration to human volunteers. Antimic. Agents Chemother. 35: 393-397. Potel G, Metgzner M, Baron D, Reynaud A, Touze MD, and Corbeau AL (1989) Pharmacokinetics of fosfomycin in normal and burn patients. Effect of probenecid. Drugs Exptl. Clin. Res. 15: 177-184. Kestle DG and Kirby WMM (1970) Clinical pharmacology and in vitro activity of phosphomycin. Antimic. Agents Chemother. 310-327 (Chem Abst. 75:52016).		23155-02-4								23155-02-4	0.77	6.90	1.0000	Gutierrez OL, Ocampo CL, Aguilera JR, Luna J, Sumaza LH (2008) Pharmacokinetics of disodium fosfomycin in mongrel dogs. Res. Vet. Sci. 85, 156-161	Data digitized as urine for Clinical data of MRT inconsistent with values reported. N=12 (9M, 3F, mongrel dogs) 18 kg average weight each dose. 40 and 80 mg/kg, single bolus iv dose daily for three days. Rapid t1/2 and data no subject to accumulation, 1 compartment profile. data/profile at 60 mg/kg available as well and overnight similar.							
Furosemide	54-31-9	0.12	1.60	0.0120	Smith DE, Lin ET, and Benet LZ (1980) Absorption and disposition of furosemide in healthy volunteers, measured with a metabolite-specific assay. Drug Metab. Dispos. 8: 337-340. Hammerlund MM, Paalzow LK, and Odlind B (1984) Pharmacokinetics of furosemide in man after intravenous and oral administration. Application of moment analysis. Eur. J. Clin. Pharmacol. 26: 197-207	Park JH, Lee WI, Yoon WH, Park Y-O, Lee J-S, Lee MG (1998) Pharmacokinetic and pharmacodynamic changes of furosemide after intravenous and oral administration to rats with alloxan-induced diabetes mellitus. Biopharm. Drug. Disp. 19, 357-364.	N=10 SD control rats 6 mg dose per animal (weight 200-250 g).	54-31-9	0.69	19.60	0.1200	Li T, Lee, M. G., Chiou WL. Effect of rate and composition of fluid replacement on the pharmacokinetics and pharmacodynamics of intravenous furosemide. 1988, 14, 495-509.		54-31-9	0.10	3.40	0.0200	N=6 per treatment (0% to 100% fluid replacement) No significant differences reported and data averaged across four treatments N=16 total. Beagle-mongrel dogs, 12.5 kg median weight 20 mg/kg dose infused over 6 hr (0% data from Cohen MR et al. JPET, 1976, 197, 697-702. Average vd in iv and in intro determination in dog at various	Doyle E, Chasteuvel LF, Miller JN (1982) Comparative pharmacokinetics of fluorinide in female rhesus monkeys, cynomolgus monkeys and baboons. Comp. Biochem. Physiol. 71C, 89-93. fu in house	FEMALE. Rhesus, cyno and baboons. 3 mg/kg 5, 3.5 and 6 kg median weight, respectively
Gabapentin	60142-96-3	0.71	1.70	0.9700	Vollmer KO, Arhal H, Thomann P, Wagner F, and Jahrchen D (1986) Pharmacokinetic model and absolute bioavailability of the new anticonvulsant gabapentin. Adv. Epileptol. 17: 209-211. Neurotin Product Label.	Vollmer et al. Arzneim-Forsch. 1986, 36, 830-839.	N=5, 50 mg/kg dose. Data digitized from plot reported. Data in blood (Cb/Cp) reported as 0.71 but curve fit and PK parameters reported as 0.65, see legend of figure 1. Data taken "as is" without correction of digitized points for Cb/Cp ratio. Reported clearance 9.5 mL/min/kg (570 mL/hr/kg) and VDss reported as 1.23 L/kg. AUC#1 reported as 90.2 µg*hr/mL. **pph reported as < 3% in rat, human and monkey reported by Radziszki, J., et al Drug. metab. Disp. 1995, 23, 443-448.**		60142-96-3	0.65	2.30	0.0200	Radziszki, LL, Tucci D, von Hodenberg A, Vollmer KO, McNally WP, Dettori G, Vianoni, R.I., Kindbeuder HN, Chang T (1995) Disposition of gabapentin (neurontin) in mice, rats, dogs and monkeys. Drug Metab. Disp. 23, 441-448.	N=4 (2M/2F) cynomolgus monkeys. 25 mg/kg dose. Data digitized from mean plasma values. Reported clearance 2.6 mL/min/kg, VDss 0.65 L/kg (calculated 0.617 L/kg). **pph reported as < 3% in rat, human and monkey.**	
Galantharmine	357-70-0	2.30	5.60	0.8300	Wessta P, van Thiel MJS, Vermeer GA, Soesterbeek AM, Graaf AH, and Claessens HA (1998) Pharmacokinetics of galanthamine (a long-acting anticholinesterase drug) in anaesthetized patients. Br. J. Anaesth. 58: 1303-1307. Bickel U, Thomsen T, Weiner W, Fischer JF, Bachus R, Mörk M, and Kwatz H (1991) Pharmacokinetics of galanthamine in humans and beagle dogs after intravenous and oral dosing. J. Pharm. Sci. 80: 620-629. Zhao Q, ten GR, Verhaegte T, and Tuyen L (2002) Pharmacokinetics and safety of galantamine in subjects with hepatic impairment and healthy volunteers. J. Clin. Pharmacol. 42: 1404-1412.		357-70-0	5.20	31.70	0.7500	Mordeglia, Johan; Verhaegte, Tom; Willems, Bart; Bode, Wilhelmina; Leutjens, Karel; Mewbliesse, Willem (2003) Pharmacokinetics of galantamine, a cholinesterase inhibitor, in several animal species. Arzneimittel-Forschung , 53(7), 486-495.	Male Wistar rat 2.5 mg/kg, fu from De Buck et al. DMD 2007, 35, 1766-1780.	357-70-0	2.78	12.30	0.8605	VDss reported as 4.4 L/kg, male dogs, 1.25 mg/kg, 11 kg median weight. VDss as personal communication by Dr. J. Mordeglia on June 9 2006.		357-70-0					
Garenoxacin	194804-75-6	1.00	1.23	0.2500	Hayakawa, Hiroyoshi; Fukushima, Yoko; Kato, Hiroshi; Fukumoto, Hiroyuki; Kuroiwa, Hiroyuki; Nishigaki, Tadashi; Tabuchi, Tsuyoshi; Kurosaki, Hiroyuki; Juntei, Tsuji; Akira, (2003) Metabolism and disposition of novel des-fluoro quinolone garenoxacin in experimental animals and an interspecies scaling of pharmacokinetic parameters. Drug Metab. Disp. 31 (11) 1409-1418.	Also known as garenfloxacin and T 3811. Human data reported from a presentation by Gaiger, D. et al at 2001 ICAAC. Average weight taken as 70 kg. MRT from VDss and Cl. Data to be confirmed.	194804-75-6	0.90	12.10	0.1300	Hayakawa, Hiroyoshi; Fukushima, Yoko; Kato, Hiroshi; Fukumoto, Hiroyuki; Kuroiwa, Hiroyuki; Nishigaki, Tadashi; Tabuchi, Tsuyoshi; Kurosaki, Hiroyuki; Juntei, Tsuji; Akira, (2003) Metabolism and disposition of novel des-fluoro quinolone garenoxacin in experimental animals and an interspecies scaling of pharmacokinetic parameters. Drug Metab. Disp. 31 (11) 1409-1418.	10 mg/kg iv, N=3-4, Monocompartmental profile, MRT= 0/2	194804-75-6	1.29	2.43	0.2300	Hayakawa, Hiroyoshi; Fukushima, Yoko; Kato, Hiroshi; Fukumoto, Hiroyuki; Kuroiwa, Hiroyuki; Nishigaki, Tadashi; Tabuchi, Tsuyoshi; Kurosaki, Hiroyuki; Juntei, Tsuji; Akira, (2003) Metabolism and disposition of novel des-fluoro quinolone garenoxacin in experimental animals and an interspecies scaling of pharmacokinetic parameters. Drug Metab. Disp. 31 (11) 1409-1418.	15 mg/kg, N=3-4, beagle dogs.	194804-75-6	0.86	3.39	0.1900	Hayakawa, Hiroyoshi; Fukushima, Yoko; Kato, Hiroshi; Fukumoto, Hiroyuki; Kuroiwa, Hiroyuki; Nishigaki, Tadashi; Tabuchi, Tsuyoshi; Kurosaki, Hiroyuki; Juntei, Tsuji; Akira, (2003) Metabolism and disposition of novel des-fluoro quinolone garenoxacin in experimental animals and an interspecies scaling of pharmacokinetic parameters. Drug Metab. Disp. 31 (11) 1409-1418.	5 mg/kg dose, iv, N=3-4 male cyno monkeys.
Gatifloxacin	112811-59-3	1.70	2.80	0.8000	Gajjar DA, LaCreta FP, Uderman HD, Kotla GD, Duncan G, Bishofer MJ, and Gosselin DM (2000) A dose-escalation study of the safety, tolerability, and pharmacokinetics of intravenous gatifloxacin in healthy adult men. Pharmacotherapy 20: 495-501. Perry C, Balfour J, and Lamb HM (1999) Gatifloxacin. Drugs 57: 1-7.	Dose T. Ishikawa K, Machida M, Kusajima H, Ishida R, Uchida H (1999) Pharmacokinetics of gatifloxacin, a new quinolone, and its enantiomers. I. Pharmacokinetics in laboratory animals. Japan. J. Chemother. 47 (5), 112-123.	N=5, 10 mg/kg (racemate)	112811-59-3	2.11	4.20	0.8400	N=5, 2 mg/kg (racemate)	112811-59-3	1.85	10.20	0.8300	N=3, 5 mg/kg of racemate.
Gavestinel	153436-22-7	0.12	0.09	0.0320	Ikeirene L et al. J Clin Pharmacol, 1999, 39, 540-566. Data from 100 mg iv dose, 70 Kg weight. MRT calculated from CL and VDss. Gvt=50536	fu reported as fu%.but unlikely to be %. Likely to be fu	153436-22-7	0.30	1.20	0.0100	Ikeirene L et al. J Clin Pharmacol, 1999, 39, 540-566. Allometric scaling work. T1/2 not reported.		153436-22-7	0.20	2.10	0.1000	Ikeirene L et al. J Clin Pharmacol, 1999, 39, 540-566. Allometric scaling work. T1/2 not reported.		153436-22-7	0.32	4.40	0.0200	Ikeirene L et al. J Clin Pharmacol, 1999, 39, 540-566. Allometric scaling work. T1/2 not reported.	Cyno monkeys. 2-6 kg weight.
Gemcitabine	95058-81-4	1.50	32.00	1.0000	Patinik A, Eichhardt SG, Iobricka E, Tolzher AA, Hammond LA, Takimoto CH, Schwartz G, McCreney H, Goetz A, Morri M, Ismala S, Weitman L, Mathe G, Hanauske A, Zhang S, and Rowinsky EK (2001) A phase I pharmacokinetic, and biological study of the farnesyltransferase inhibitor lipitarib in combination with gemcitabine in patients with advanced malignancies. Clin. Cancr. Res. 6: 470-477. Gemzar Product Label.	Parameters calculated from data obtained by digitization of the plot provided in the reference.	95058-81-4	1.00	5.00	0.9300	Aggarwal-Sandhya Kiran; Gudetsky-Gary A; Desai Pankaj B Pharmacokinetics of gemcitabine in tumor and non-tumor and therapeutic (2004), 24(2), 147-152 (7) Fredick, K. J.; Martin-Jimenez, T. Pharmacokinetics of gemcitabine and its primary metabolite in dogs after intravenous infusion. Journal of Veterinary Pharmacology and Therapeutics (2004), 27(2), 147-152 (7) Fredick, K. J.; Martin-Jimenez, T. Pharmacokinetics of gemcitabine and its primary metabolite in dogs after intravenous bolus dosing and its in vitro pharmacodynamics. Journal of Veterinary Pharmacology and Therapeutics (2004), 27(2), 147-152	digitizi t data , iv bolus 10 mgk in normal SD rats	95058-81-4	1.41	10.76	0.7655	PK from Ref 2: IV bolus of 3 mgk in female rhs breed dogs	95058-81-4	5.50	177.00						PK obtained following 45 min IV infusion at 200 mgk in Rhesus Monkey
Gentamicin	1403-66-3	0.33	1.00	1.0000	Bertino JS, Booker LA, Franck P, and Rybicki B (1991) Gentamicin pharmacokinetics in patients with malignancies. Antimic. Agents Chemother. 35: 1555-1559. Gordon RC, Regamey C, and Kirby WMM (1972) Serum protein binding of the aminoglycoside antibiotics. Antimic. Agents Chemother. 2: 214-216.		1403-66-3	0.33	7.80		Tanira, M. O. M., Ali, B. H., Bashir, A. K.. Effect of endotoxin on gentamicin pharmacokinetics in old and young adult rats. Life Sciences (1997), 60(6), 412-424. CODEN: LIFSAA; ISSN:0024-3205. CAN 126188784: AN 1997:78604 CAPLUS	PK reported is not with endotoxin challenge. Gentamicin dosed as 3 mg/kin male wister rats (reported age effect on PK parameters, PK parameters are on "young" rats 2-3 months)	1403-66-3	0.33	2.10											
Ginkgolide A	15291-75-5	0.62	2.30		Fourtillan JB, Brisson AM, Girault J, Ingrand I, Decourt JP, Drieu K, Jouenne P, and Eliber A (1995) Proprietes pharmacocinetiques du bilobalide et des ginkgolides A et B chez le sujet sain apres administrations intraveineuses et orales d'extrait de Ginkgo biloba (EGb 761). Therapie 50: 137-144.		15291-75-5	4.30	65.00		Xie, Jiaohu; Ding, Cungang; Ge, Qinghua; Zhou, Zhen; Zhi, Xiaojin. Simultaneous determination of ginkgolides A, B, C and bilobalide in plasma by LC-MS/MS and its application to the pharmacokinetic study of Ginkgo biloba extract in rats. Journal of Chromatography, B: Analytical Technologies in the Biomedical and Life Sciences (2008), 864(1-2), 67-84. CODEN: JCBAAH; ISSN:1570-0232. CAN 149269322: AN 2008:234129	CL and VD were recalculated from AUC, MRT, and dose data provided in the reference. VDss was calculated using CL based on AUC(0-tau) and MRT(tau). Dose was 100 ug to 300 g. ind.													
Ginkgolide B	15291-77-7	0.91	2.30		Fourtillan JB, Brisson AM, Girault J, Ingrand I, Decourt JP, Drieu K, Jouenne P, and Eliber A (1995) Proprietes pharmacocinetiques du bilobalide et des ginkgolides A et B chez le sujet sain apres administrations intraveineuses et orales d'extrait de Ginkgo biloba (EGb 761). Therapie 50: 137-144.		15291-77-7	3.50	60.00		Xie, Jiaohu; Ding, Cungang; Ge, Qinghua; Zhou, Zhen; Zhi, Xiaojin. Simultaneous determination of ginkgolides A, B, C and bilobalide in plasma by LC-MS/MS and its application to the pharmacokinetic study of Ginkgo biloba extract in rats. Journal of Chromatography, B: Analytical Technologies in the Biomedical and Life Sciences (2008), 864(1-2), 67-84. CODEN: JCBAAH; ISSN:1570-0232. CAN 149269322: AN 2008:234129	CL and VD were recalculated from AUC, MRT, and dose data provided in the reference. VDss was calculated using CL based on AUC(0-tau) and MRT(tau). Dose was 100 ug to 300 g. ind.	15291-77-7												
Glipizide	29094-61-9	0.16	0.56	0.0200	Pentikainen P J, Neuvonen P J, and Penttila A (1983) Pharmacokinetics and pharmacodynamics of glipizide in health volunteers. Int. J. Clin. Pharmacol. Ther. Toxicol. 21: 88-107. Fuccella LM, Tamassia V, and Valetti G (1973) Metabolism and kinetics of the hypoglycemic agent glipizide in man--comparison with glibenclamide. J. Clin. Pharmacol. New Drugs 13: 68-75.		29094-61-9	0.30	1.00		Hui, Yu-hua; Huang, Nagja Helen; Gilbert, Lewis; Bina, Holly; Wolfe, Jeffrey; Ma, Chi; Ma, Ji; Ma, Ji; Ma, Chi; Ma, Ji; Ma, Chi; Ma, Ji. Pharmacokinetic comparisons of tail-bleeding with cannula- or retro-orbital bleeding techniques in rats using six marketed drugs. Journal of Pharmacological and Toxicological Methods (2007), 56(2), 258-264. CODEN: JPTMEZ; ISSN:1056-8719. CAN 147 426455: AN 2007:1045582 CAPLUS	digitize it	29094-61-9												
Granisetron	109889-09-0	2.70	9.10	0.3500	Allen A, Argill CC, Pierce DM, Upward J, and Zussman BD (1994) Pharmacokinetics and tolerability of ascending intravenous doses of granisetron, a novel 5-HT3 antagonist, in healthy human subjects. Eur. J. Clin. Pharmacol. 46: 159-162. Kytril Product Label.	VDss calculated from CL and MRT provided in Allen, et al., 1994.	109889-09-0	16.70	824.00		1) Huang, Chien-Tsai; Chen, Chen-Fu; Tsai, Tung-Hu. Pharmacokinetics of granisetron in rat blood and toxicity microdialysis. Life Sciences (1999), 64(21), 1921-1931. CODEN: LIFSAA; ISSN:0024-3205. CAN 131 02537: AN 1999:285321 CAPLUS; 2) Clarke, S. E.; Austin, N. E.; Bloomer, J. C.; Hautbock, R. E.; Higham, F. C.; Hollis, F. J.; Nash, M.; Sharddow, P. C.; Tasker, T. C.; et al. Metabolism and disposition of 14C-granisetron in rat, dog and man after intravenous and oral dosing. Xenobiotica (1994), 24(11), 1119-31. CODEN: XENOB4; ISSN:0049-8254. CAN	3 mgk IV dose in male SD rat (digitize it)	109889-09-0												
Haloperidol	52-86-8	17.00	7.80	0.0800	Holley FO, Magliozzi JR, Stanski DR, Lombrozo L, and Hellbron LE (1983) Haloperidol kinetics after oral and intravenous administration. Clin. Pharmacol. Ther. 33: 477-484. Chang WH, van Wert, Jaen MM, and Cohen BM (1992) Pharmacokinetics of haloperidol and reduced haloperidol in Chinese schizophrenic patients after intravenous and oral administration of haloperidol. Psychopharmacology 106: 517-522. Cheng YF, Paalzow LK, Bondesson U, Eriksson B, Eriksson S, Eriksson SO, Lindberg A, and Lindstrom L (1987) Pharmacokinetics of haloperidol in psychotic patients. Psychopharmacology 91: 410-414. Forsman A and Ohman R (1977) Studies on serum protein binding of haloperidol. Curr. Ther. Res. 21: 246-255.		52-86-8	10.40	86.20	0.2400	Cheng, Y. F.; Paalzow, L. K.. Linear pharmacokinetics of haloperidol in the rat. Biopharmaceutics & Drug Disposition (1983), 1(1), 68-76. CODEN: BDDD6; ISSN:0142-2782. CAN 116 115162: AN 1983:115162 CAPLUS; Sumnerdahl, S. G.; Lacasa, A. J.; Foster, R. A.; Jeffrey, P.; Gunn, R. N.; Read, K. R.; Rabiner, E. A.; Laruelle, M.; Brown, G. M.; Lucas, R. M.; Pickavance, J.; Duffy, A. D. Toward an improved prediction of human in vivo brain penetration. Xenobiotica (2008), 38(12), 1518-1535.	0.5 mgk IV dose in male SD rat	52-86-8												
Hexobarbital	56-29-1	1.10	3.40	0.5300	Breimer DD, Hontoff C, Zilly W, Richter E, and van Rossum JM (1975) Pharmacokinetics of hexobarbital in man after intravenous infusion. J. Pharmacokinet. Biopharm. 3: 1-11. Zilly W, Breimer DD, and Richter E (1976) Influence of drug metabolism in man after rifampicin treatment measured by increased hexobarbital and tolbutamide clearance. Eur. J. Clin. Pharmacol. 9: 219-227. Zilly W, Breimer DD, and Richter E (1978) Hexobarbital disposition in compensated and decompensated cirrhosis of the liver. Clin. Pharmacol. Ther. 23: 525-534.		56-29-1	2.50	40.60		1) Tabata, Masahiko; Ostrow, J. Donald; Webster, Cecile C.; Zucker, Geoffrey M.; Kapitulnik, Jaime. Effects of phenylhydrazine on the pharmacokinetics of phenobarbital and hexobarbital and the pharmacokinetics of [14C]hexobarbital in jaundiced and heterozygous Gunn rats. Journal of Pharmacology and Experimental Therapeutics (1986), 236(3), 561-7. CODEN: JPETAB; ISSN:0022-3565. CAN 105 2656: AN 1986:102656 CAPLUS; 2)Ono, S.; Pokelly, B. G.; O'Reilly, W. J. Hexobarbital pharmacokinetics in rats after ligation of the common bile duct. Journal of Pharmacology and Experimental Therapeutics (1977), 201(3), 534-40. CODEN: JPETAB; ISSN:0022-3565. CAN 87:87213 AN:1977:465713 CAPLUS	Gunn rat, sex differences in PK. CI obtained from Ref 2. data refer to males only.	56-29-1												
Hydralazine	86-54-4	1.50	65.00	0.1200	Lucidon TM, Shepherd AMM, McNay JL, and Lin MS (1983) Effect of intravenous dose on hydralazine kinetics after administration. Clin. Pharmacol. Ther. 34: 148-152. Kirsten R, Nelson K, Kirsten D, and Heintz B (1998) Clinical pharmacokinetics of vasodilators. Part I. Clin. Pharmacokinet. 34: 457-492.	From Lucidon, et al., used 1.02 umol/kg dose group. Blood values corrected to plasma using BP=1.68.	86-54-4	2.76	136.00		Iwaki, Masahiro; Ogiso, Tarc; Ito, Yoshimasa. Pharmacokinetics and bioavailabilities of hydralazine, endrine hydrazone, a metabolite of hydralazine, in the rat. Journal of Pharmaceutical Sciences (1986), 75(10), 937-73.		86-54-4			0.2900	Lesser JW, Ierall ZH, Davis DC, Dayton PG. (1974) Metabolism and disposition of hydralazine-14C in man and dog. Drug Metab. Disp. 2, 351-360.	N=2, HPLC data in plot digitized separately and then averaged. 2 mg/kg dose. Data appeared unreliable and not used in calculations. Points at later time point having same concentration (or higher) than earlier time points. Second dog with fewer points and some	86-54-4							
Hydromorphone	466-99-9	4.30	28.00	0.8600	Dilaudid-HP Product Label		466-99-9				Zheng M, McElmee K M, Ong M C. LC-MS-MS analysis of hydromorphone and hydromorphone-metabolites with application to a pharmacokinetic study in Sprague-Dawley rat: xenobiotica; the fate of foreign compounds in biological systems (2010), 20(2), 141-51.	T 1/2 obtained following IP admin	466-99-9	5.80	71.00		1)Goodes, A. G. P.; Paprich, M. G.; Rutte, E. P.; Rider, M. A. Pharmacokinetics and physiological effects of intravenous hydromorphone in cocerticus dogs. Journal of Veterinary Pharmacology and Therapeutics (2004), 27(2), 147-152 (7) Fredick, K. J.; Hogan, Bryan K.; Kruger-Hadly Lisa A.; Smith, Lesley J. Pharmacokinetics of hydromorphone hydrochloride in healthy dogs. Veterinary Anaesthesia and Analgesia (2005), 32(2), 250-256.	PK from both a 0.1 mgk and 0.2 mgk (in both dose groups high variability). VDss 4.5 and 7.2 L/kg, Cl 68 and 75 mL/min/kg, MRT 1.2 and 1.2 hr, t1/2 1 and 1.3 hours.	466-99-9							
Hydroxychloroquine	118-42-3	700.00	11.00	0.5700	Tett SE, Cutler DJ, Day RO, and Brown KF (1988) A dose-ranging study of the pharmacokinetics of hydroxychloroquine after intravenous administration in healthy volunteers. J. Clin. Pharmacol. 28: 303-310. Brocks DR, Skeith KJ, Johnston C, Emamdoharri J, Jones P, Russell AS, and Jamali F (1994) Hematologic disposition of hydroxychloroquine enantiomers. J. Clin. Pharmacol. 34: 1088-1097.		118-42-3	14.60	28.20	0.6200	Emami, Jaber; Pasutto, Franco M.; Jamali, Fakhreddin. Effect of experimental diabetes mellitus and arthritis on the pharmacokinetics of hydroxychloroquine enantiomers in rats. Pharmaceutical Research (1998), 15(1), 897-901.	Note: data are for R isomer...S isomer data available in reference	118-42-3												
Hydroxysfauroxpurine, 7-	112953-11-4	0.15	0.00	0.0022	Fuse E, Tanii H, Kurata N, Kobayashi H, Shimada Y, Tamura T, Sasaki Y, Tanigawara Y, Lush RD, Hendee D, Figg WD, Arbuck SG, Sendelweiser AM, Sausville EA, Akinaga S, Kuwabara T, and Kuwano O (1998) Unprecedented clinical pharmacology of UCN-01 caused by specific binding to human alpha1-acid glycoprotein: phase I and pharmacokinetic study in cancer patients. O'Reilly S, Rudek MA, Davidson SA, Ayhercroft JL, Ess-Brown K, Carducci MA, and Donehower RC (2005) A phase I and pharmacokinetic study of short infusions of UCN-01 in patients with refractory solid tumors. Clin. Canc. Res. 11: 664-671.	Used data from 95 mg/m2 group.	112953-11-4	16.70	65.00		Kurata N, Kuwabara T, Tanii H, Fuse E, Akiyama T, Akinaga S, Kobayashi H, Yamaguchi K, Kobayashi S. Pharmacokinetics and pharmacodynamics of 7-hydroxysfauroxpurine (UCN-01), a kinase inhibitor, UCN-01. Cancer Chemother Pharmacol. 1999;44(1):12-8.	MRT calculated from Cl and Vdss data	112953-11-4	6.09	10.20	0.0074	Kurata N, Kuwabara T, Tanii H, Fuse E, Akiyama T, Akinaga S, Kobayashi H, Yamaguchi K, Kobayashi S. Pharmacokinetics and pharmacodynamics of 7-hydroxysfauroxpurine (UCN-01), a kinase inhibitor, UCN-01. Cancer Chemother Pharmacol. 1999;44(1):12-8. fu in house	Dose: 0.5 mg/kg MRT calculated from Cl and Vdss data	112953-11-4							
Ibuprofen	15687-27-1	0.15	0.82	0.0060	Mertin R, Kneitelwald, G, Tolsen KH, Kerkmann T, Mengold R, and Augustin J (1992) Pharmacokinetics and absolute bioavailability of ibuprofen after oral administration of ibuprofen lysine in man. Biopharm. Drug Dispos. 11: 265-278. Lee KJ, Brown R, Hellenbach T, Cadette J, Johnson N, Gordon P, Sinko PJ, Hedne K, and Lee YH (2003) Modulation of nonspecific binding in ultrafiltration protein binding studies. Pharm. Res. 20: 1494-1499.		15687-27-1	0.55	4.80	0.0550	Shah, A. Jung, D. Dose-dependent pharmacokinetics of ibuprofen in the rat. Drug Metabolism and Disposition (1987), 15(3), 151-4.		15687-27-1	0.16	0.49	0.0400	Schwirk W et al. Pharmacokinetics of ibuprofen in dogs. J. vet. Pharmacol. Therap.,1987, 10, 281-285. MRT derived from VDss and Cl.	N=6, mongrel dogs with BW 13-20kg, dose 5 mg/kg iv. VDss range 0.128-0.210, Cl, range 0.37-0.66, t1/2 is high.	15687-27-1							
Idarubicin	58957-92-9	38.00	24.00	0.0760	Robert J (1993) Clinical pharmacokinetics of idarubicin. Clin. Pharmacokinet. 24: 275-288. Kessel M, Gieseler F, and Woodcock BG (1999) Influence of serum protein on the uptake and retention of idarubicin by sensitive and multidrug resistant human leukemic cells. Eur. J. Clin. Pharmacol. 55: 369-373.	Compendium of intravenous data with median values.	58957-92-9	36.50	78.50		Kullmann O. et al., Pharmacokinetics and toxicology of idarubicin in the rat. European Journal of Drug Metabolism and Pharmacokinetics, 2001, 26, 215-220.	N=16 male Wistar rats, BW 344 g (S.D. 49 g). Dose 2.25 mg/kg. VDss=MDRTPCL, MRT reported as MDRT. VDss S.D. 91 Cl, S.D. 17 values, MDRT S.D. 301 min.	58957-92-9												
Idazoxan	79944-58-4	3.30	10.00		Muir NC, Lloyd-Jones JG, Nicholls JD, and Clifford JM (1988) The pharmacokinetics after intravenous and oral administration in man of the alpha2-adrenoceptor antagonist idazoxan (RX781094). Eur. J. Clin. Pharmacol. 35: 743-745.	VDss calculated from digitized plots.	79944-58-4	3.10	71.20		Valles, Joaquim; Obach, Roseend; Menargues, Angel; Francesca, Joan; Jane, Francesc. A pharmacokinetic-pharmacodynamic linking model for the a2-adrenergic antagonism of idazoxan on clonidine-induced mydriasis in the rat. Journal of Pharmacy and Pharmacology (1995), 47(2), 157-62.	MRT calculated from Cl and Vdss data	79944-58-4							

Retrobun	143443-90-7	4.40	6.40		Dockens RC, Santone KS, Mitnka JG, Morrison RA, Jernal M, Greene DS, and Barbhaiya RH (2000) Disposition of radiolabeled fibrinogen in rats, dogs, monkeys, and humans. Drug Metab. Dispos. 28: 972-980.		143443-90-7	2.80	67.50		Dockens, Randy C.; Santone, Kenneth S.; Mitnka, James G.; Morrison, Richard A.; Jernal, Mohammed; Greene, Douglas S.; Barbhaiya, Rashmi H. Disposition of radiolabeled fibrinogen in rats, dogs, monkeys, and humans. Drug Metabolism and Disposition (2000), 28(8), 972-980.	MRT calculated from Cl and Vdss data	143443-90-7						143443-90-7	5.50	19.10		Dockens, Randy C.; Santone, Kenneth S.; Mitnka, James G.; Morrison, Richard A.; Jernal, Mohammed; Greene, Douglas S.; Barbhaiya, Rashmi H. Disposition of radiolabeled fibrinogen in rats, dogs, monkeys, and humans. Drug Metabolism and Disposition (2000), 28(8), 972-980.	MRT calculated from Cl and Vdss data. F = 22
Iloprost	78919-13-8	0.37	16.00	0.4000	Hildebrand M (1997) Pharmacokinetics and pharmacodynamics of the prostacyclin analogue iloprost in man. Eur. J. Clin. Pharmacol. 30: 61-68. Hildebrand M (1997) Pharmacokinetics and tolerability of oral iloprost in thromboangiitis obliterans patients. Eur. J. Clin. Pharmacol. 53: 51-56. Ventavis Product Label	VDss calculated from digitized plots. VDss and CL data are the average of the two reports; CLD data are only from Hildebrandt.	78919-13-8	0.79	32.40				78919-13-8	0.93	67.20			Data reported and used for allometric scaling were taken from other publications by the same author. t1/2=0.6936/ke	78919-13-8						
Imatinib	152459-95-5	2.90	3.20	0.5500	Peng B, Dutreix C, Mehring G, Hayes MJ, Ben-Am M, Siebelding M, Pokorny R, Capdeville R, and Lloyd P (2004) Absolute bioavailability of imatinib (Glivec) using intravenous infusion. J. Clin. Pharmacol. 44: 158-162. Glivec Product Label	VDss calculated from C vs t data obtained by digitization of the plot provided in the reference.	152459-95-5	3.10	19.90	0.0550	PK data in house. 1 mg/kg dose. N=3. ALOS. fu from Kretz O. et al., Br. J. Clin. Pharmacol., 2004, 58(2), 212-216.		152459-95-5	7.95	39.00	0.1900	Ishizuka M et al., Plasma pharmacokinetics and CYP3A12-dependent metabolism of c-kit inhibitor imatib in dogs, Xenobiotica 2007; 27(5): 502-513. fu from Kretz O. et al., Br. J. Clin. Pharmacol., 2004, 58(2), 212-216.	Beagle dogs, BW 10.2 Kg (males) and 9.5 Kg (female), Dose 20 mg/kg. Data from the average of mean values of two groups (4 males and 4 females) (see table 1p, S07). Ref human and monkey data (see Table 1p, S11) (Data purchased from Novartis Pharma (Basel))	152459-95-5	5.90	12.00	0.1120	Neville K, et al., Pharmacokinetic of imatinib in Northern Finnish, China and Caucasian Research 2004; 10, 2525-2529.	N=3 male rhesus monkey BW 11.0-14.4 Kg, Dose 15 mg/kg, age 39 mo. Vdss SD 5.6, Cl= 10.5, t1/2 SD 167 min, MRT is from Vdss and Cl. t1/2 beta. fu (%+/) range 10.0-11.8
Imipenem	64221-86-9	0.24	3.00	0.8600	Saito A (1991) Pharmacokinetics of panipenem/betamipron. Chemotherapy (Kitasato) 39: 227-236. Swagel T (1994) Pharmacokinetics of beta-lactam antibiotics. Scand. J. Infect. Dis. 42(Suppl): 83-96.	VDss calculated from C vs t data provided in the reference.	64221-86-9	0.24	14.50	1.0000	Duguie, Antoine; Cuvet, William; Pacpemas, Joel; Delaire, Stanley; Pestron, Agnes; Jamois, Caroline; Bouquet, Serge. Pharmacokinetic/pharmacodynamic modeling of the electroenzymatic/antigram effect of imipenem in healthy rats. Antimicrobial Agents and Chemotherapy (2001), 45(8), 1682-1687. In-house	MRT calculated from Cl and Vdss data; Vdss = Vc based upon compartmental modeling	64221-86-9	32.00	4.30	1.0000	Baker CW, Zhang W, Sanchez S, Buddsberg SC, Swafford FD McCracken, Stevenson MA Pharmacokinetics of imipenem in healthy rats. Am J Vet Res 2003; 64, 696-699. In-house	MRT calculated	64221-86-9	0.28	5.70	0.9750	Hori et al., Pharmacokinetics of Doripenem in animals, In-vivo, 2006, 20, 91-96.	N=5, female BW=2.7-4.0 Kg, dose 20mg/Kg, i.v. MRT from Cl and Vdss. Data obtained from the use of Imipenem/Cilastatin, but like the value obtained with the only Imipenem (see dog and rat tables)
Imipramine	50-49-7	12.00	13.00	0.0750	Brosen K and Gram LF (1988) Fenipam metabolism of imipramine and desipramine: impact of the sparteine oxidation phenotype. Clin. Pharmacol. Ther. 42: 400-406. Nyberg G and Martensson E (1984) Determination of free fractions of tricyclic antidepressants. Naunyn-Sch. Arch. Pharmacol. 327: 260-266. Sranon A and Chen Z (1979) Binding of imipramine to plasma proteins: effect of hyperlipoproteinemia. Clin. Pharmacol. Ther. 25: 319-325.	VDss was calculated using C vs t data obtained from plots provided in the reference.	50-49-7	19.90	92.52		Lin Tsu-Hien et al. J. Pharm. Pharmacol., 1995, 37, 735-738.		50-49-7						50-49-7						
Indinavir	150379-17-9	0.82	16.00	0.3600	Yeh KC, Stone JA, Carides AD, Rotbart P, Woolf E, and Jia WD (1998) Absolute bioavailability and dose proportionality of pharmacokinetics and bioavailability in healthy volunteers using stable isotope labeling technique: study design and model-independent data analysis. J. Pharm. Sci. 88: 568-573. Boffito M, Hoggard PG, Reynolds HE, Bonora S, Meaden ER, Sirricco A, Di Perri G, and Back DJ (2002) The unbound percentage of indinavir and indinavir remains constant throughout the dosing interval in HIV positive subjects. Br. J. Clin. Pharmacol. 54: 262-264.	VDss and t1/2 were calculated from data obtained by digitization of C vs t plots (group C) provided in the report.	150379-17-9	2.20	69.00	0.0400	Lin, Jun-H.; Chiba, Masato; Chen, I.-Wu; Nishimo, Joy A.; Vastag, Kat J. Sex-dependent pharmacokinetics of indinavir in vivo and in vitro extension. Drug Metabolism and Disposition (1998), 24(12), 1298-1306. In-house	Gender selective PK properties; data reported for males, female data available in reference	150379-17-9	0.73	15.00	0.1183	Lin,J.H. et al., Species differences in pharmacokinetics. Drug Metab Disp, 1996, 24, 1111-1120. In-house	male beagles dog, N=4, BW 9-11 Kg,10 mg/kg i.v. dose. MRT from CL and VDss. VDss SD 0.06, CL SD 2.6, t1/2 SD 0.08	150379-17-9	1.45	35.70	0.3000	Lin,J.H. et al., Species differences in pharmacokinetics. Drug Metab Disp, 1996, 24, 1111-1120.	male rhesus monkey, N=3, BW 3-6 Kg, 10 mg/kg i.v. dose. MRT from CL and VDss. VDss SD 0.41, CL SD 4.2, t1/2 SD 0.018
Inogatran	155415-08-0	0.26	6.10		JCC Feb 1995 abstract: Teger-Nilsson Ann-Cathrine et al. Phase I Studies on Inogatran, a New Selective Thrombin Inhibitor	total dose 25 umol is bolus (N=16). Vdss reported as 0.26 mL/kg. MRT calculated from VDss and CL.	155415-08-0	0.77	83.00	0.7600	Eriksson UG, Renberg L, Bredberg U, Teger-Nilsson A-C and Regardh CG (1998) Animal pharmacokinetics of inogatran, a low-molecular-weight thrombin inhibitor with potential use as an antithrombotic drug. Biopharm Drug Dispos 19:55-64.	Dose 2 umol/kg or 0.87 mg/kg, n=5	155415-08-0	0.31	9.00	0.7600	Eriksson UG, Renberg L, Bredberg U, Teger-Nilsson A-C and Regardh CG (1998) Animal pharmacokinetics of inogatran, a low-molecular-weight thrombin inhibitor with potential use as an antithrombotic drug. Biopharm Drug Dispos 19:55-64.	Dose 2 umol/kg or 0.87 mg/kg	155415-08-0	0.53	28.00	0.7600	Eriksson UG, Renberg L, Bredberg U, Teger-Nilsson A-C and Regardh CG (1998) Animal pharmacokinetics of inogatran, a low-molecular-weight thrombin inhibitor with potential use as an antithrombotic drug. Biopharm Drug Dispos 19:55-64.	Dose 0.1 umol/kg or 0.048 mg/kg, n=4
Iodoxodeoxyuridin	83997-75-5	53.60	140.00		Armand et al. J. Clin. Oncol. 1992;10 (7) 1180-190	N=16, across several dose. Average of VDss 2.171 +/- 1.551 Liter/l. Clearance 340+/- 130 L/h/m2. Conversion factor 1.73 ml/70 kg.	83997-75-5	14.00	36.60		Edwards DMF, Meerse P, Erkhpropoulos C, Beelen G, Fraser D, Pianezola B and Sindlo Benedetti M (1992) Pharmacokinetics of iodoxodeoxuridin in the rat, dog, and monkey. Drug Metab Dispos 19:938-945.	MRT calculated from Cl and Vdss data, Dose 4.7 mg/kg, F = 0.46(0.08)	83997-75-5	2.60	6.50		Edwards DMF, Meerse P, Erkhpropoulos C, Beelen G, Fraser D, Pianezola B and Sindlo Benedetti M (1992) Pharmacokinetics of iodoxodeoxuridin in the rat, dog, and monkey. Drug Metab Dispos 19:938-945.	MRT calculated from Cl and Vdss data, Dose 0.92 +/- 0.0(mg/kg; F = 0.2(0.03)	83997-75-5	14.00	43.20		Edwards DMF, Meerse P, Erkhpropoulos C, Beelen G, Fraser D, Pianezola B and Sindlo Benedetti M (1992) Pharmacokinetics of iodoxodeoxuridin in the rat, dog, and monkey. Drug Metab Dispos 19:938-945.	MRT calculated from Cl and Vdss data, Dose 0.95 +/- 0.00 mg/kg
Iohexol	66108-95-0	0.16	2.00	1.0000	Brock SE, Knuben E, and Nilsson-Ehle P (1988) Contrast media as markers for glomerular filtration: a pharmacokinetic comparison of four agents. Scand. J. Clin. Lab Invest. 48: 247-253.	VDss calculated from C vs t data obtained by digitization of the plot provided in the reference.	66108-95-0						66108-95-0	0.18	4.20				66108-95-0						
Ioimeprol	78649-41-9	0.23	1.40		Lonasso et al. Pharmacokinetics and safety of ioimeprol in healthy volunteers and in patients with renal impairment or end-stage renal disease requiring hemodialysis. Invest. Radiol. 2001, 36, 304-310.	Only data in healthy volunteers taken. N=6. 50 ml of 400 mg I/ml, solution of ioimeprol.	78649-41-9	0.22	7.40		Lonasso et al. Pharmacokinetics and tissue distribution of ioimeprol in animals. Eur. J. Radiol. 1999, 18, Suppl 1, S13-S20.	Data from a 3-compartment analysis.	78649-41-9	0.25	3.40		Lonasso et al. Pharmacokinetics and tissue distribution of ioimeprol in animals. Eur. J. Radiol. 1999, 18, Suppl 1, S13-S20.	Data from a 3-compartment analysis.	78649-41-9						
Ioparmidol	60166-93-0	0.28	1.90	1.0000	McKinstry DN, Rommel AJ, and Sugerman AA (1984) Pharmacokinetics, metabolism, and excretion of ioparmidol in healthy subjects. Invest. Radiol. 19: s171-s174.		60166-93-0						60166-93-0	0.32	4.80				60166-93-0						
Iopromide	73334-07-3	0.22	1.40	0.9900	Krause W, Schuhmann-Giampieri G, Sieke T, and Kaufmann J (1994) Dose proportionality of iopromide pharmacokinetics and tolerability after IV injection in healthy volunteers. Eur. J. Clin. Pharmacol. 46: 339-343. Ultravist Product Label		73334-07-3						73334-07-3	0.33	4.82				73334-07-3						
Ipratropium	60205-81-4	5.10	21.40	0.9544	Emsing K, de Zwaan RA, Nossent GD, Koster GJH, Cornelissen, P.J.G. et al. (1998) Pharmacokinetics of ipratropium bromide after single dose inhalation and oral and intravenous administration. Eur. J. Clin. Pharmacol. 36, 189-194. In-house	N=10, 74 kg average weight VDss calculated as sum of Vc, Vrapidm and Vtrans reported. 2 mg/dose administered in 20	60205-81-4	7.50	50.00	0.7200			60205-81-4	9.80	41.60	0.8008	4 beagle dogs, 2M/2F, 0.106 mg/kg/hr over 3 hours.		60205-81-4						
Irinotecan	97682-44-5	3.50	7.00	0.5100	Xie R, Mathijssen RHJ, Sparreboom A, Verweij J, and Karlsson MO (2002) Clinical pharmacokinetics of irinotecan and its metabolites in relation with diarrhea. Clin. Pharmacol. Ther. 72: 265-275. Camptosar Product Label	No t1/2 reported from Xie, et al.	97682-44-5	4.30	55.70		Kameda N, Yokokura T. Nonlinear pharmacokinetics of CPT-11 in rats. Cancer research (1990), 50(6), 1721-5.		97682-44-5	1.01	3.90	0.1754	Ikeda M, Ohnishi Y, Ishii H, Tanioka Y, Yoshida I, Sudo K, Hatano H, Mizuno N, Ike K, Sugiyama Y. Pharmacokinetics of CPT-11 in rhesus monkeys. Cancer Chemother Pharmacol. 1998;41(1):103-8. In-house	Data in dog reported in the paper cited as a comparative data, by the same group. T1/2 not reported.	97682-44-5	2.50	13.20	0.1874	n=6 rhesus monkey across 3 0.25 mg/kg dose range. Accounting terminal profile. T1/2 not calculable.	n=6 rhesus monkey across 3 0.25 mg/kg dose range. Accounting terminal profile. T1/2 not calculable.
Isoglycyrrhizinate (acid)	691410-17-0	0.05	0.05		Sun L. et al. J Clin.Pharmacol 2007, 47, 767-773. N=9, 63 kg average weight, 30*4f, 100 mg dose. Dosed as magnesium salt.		691410-17-0	0.25	2.37	0.0508	Hu et al. Eur. J. Drug. Metab. Pharmacokin. 2003, 28, 259-264. N=9, per point, 50 mg/kg dose.	Data digitized from plot reported. Dipotassium glycyrrhizinate. Lowest dose digitized. AUC reported corresponding to 170.3*mg/h, (or 1021.2 mg.min/L-1 as reported). Aglycone of Isoglycyrrhizinate in human data set. GAS							691410-17-0						
Isosorbide Dinitrate	87-33-2	1.90	31.00	0.7200	Flatzer R, Reutemann G, and Gelesart RL (1982) Pharmacokinetics of intravenous isosorbide dinitrate. J. Pharmacokinet. Biopharm. 10: 575-586. Santoro V, Radio A, Jaber JP, Luccioni R, and Frances Y (1986) Pharmacokinetics of isosorbide dinitrate and its mononitrate metabolites after intravenous infusion. J. Pharmacokinet. Biopharm. 14: 1-17. Strasell P and Galeazzi RL (1985) Isosorbide dinitrate bioavailability, kinetics, and metabolism. Clin Pharmacol Ther		87-33-2	2.60	122.00		Morrison RA and Fung HL (1986) Isosorbide dinitrate disposition in the rat: Metabolite pharmacokinetics and interactions. J Pharmacol Exp Ther 231:129-130.	MRT calculated from Cl and Vdss data, Dose 2 mg/kg, F = 40	87-33-2						87-33-2	1.70	58.80		Doyle S and Chassaud LF (1991) Pharmacokinetics of isosorbide dinitrate in rhesus monkey, tymomolgus monkey, and baboons. J Pharm Sci 70:1270-1272.	Data from Cynomolgus Monkey, 3-4 kg body weight. Baboon and Rhesus Monkey data also available. MRT calculated from Cl and Vdss data.
Isosorbide-5-Mononitrate	16051-77-7	0.70	2.00	1.0000	Major RM, Taylor T, Chassaud LF, Darragh A, and Lambie BF (1984) Isosorbide 5-mononitrate kinetics. Clin. Pharmacol. Ther. 35: 653-658. Strasell P, Galeazzi RL, and Sollea M (1984) Isosorbide 5-mononitrate and isosorbide 2-mononitrate kinetics after intravenous and oral dosing. Clin. Pharmacol. Ther. 36: 685-691.		16051-77-7						16051-77-7	0.82	6.90			MRT calculated from Cl and Vdss data, Dose 3 mg/kg, F = 71.5	16051-77-7						
Itraconazole	84625-61-6	7.40	5.10	0.0020	Heykants J, Van Peer A, Van de Velde V, Van Rosy P, Meuldermans W, Lavrijsen K, Woestenborghs R, Van Cutsem J, and Cauwenbergh G (1989) The clinical pharmacokinetics of itraconazole: an overview. Mycoses 32(Suppl 1): 67-87.	VDss was calculated from C vs t data obtained by digitization of the plot provided in the reference.	84625-61-6	5.07	9.16	0.9000			84625-61-6						84625-61-6						
Ketamine	6740-88-1	2.90	19.00	0.4700	Geisslinger G, Hering W, Thomsen P, Kroll R, Kamp HD, and Brune K (1993) Pharmacokinetics and pharmacodynamics of ketamine enantiomers in surgical patients using a stereoselective analytical method. Br. J. Anaesth. 70: 666-671. Freitne JL, Lanao JM, Calvo MB, Martel C, Hernandez-Arbeiza J, and Dominguez-Gil A (1987) Pharmacokinetic and clinical evaluation of ketamine administered by i.v. and epidural routes. Int. J. Clin. Pharmacol. Ther. Toxicol. 25: 77-80. Clements JA and Nimmo MS (1981) Pharmacokinetics and analgesic effect of ketamine in man. Br. J. Anaesth. 53: 27-30. Drayton FG, Sitter RL, Cook DR, and Peel JM (1983) The binding of ketamine to plasma proteins: emphasis on human plasma. Eur. J. Clin. Pharmacol. 24: 805-810. Hijazi Y and Boulieu R (2002) Protein binding of ketamine and its active metabolites in human plasma. Eur. J. Clin. Pharmacol. 58: 37-40.	Racemate; data were combined.	6740-88-1	3.68	114.70	0.5300	Edwards SR, Mintz CF, Mather LE. Concurrent ketamine and alfentanil administration: pharmacokinetic considerations. Br J Anaesth. 2002 Jan;88(1):94-100. In-house		6740-88-1	2.50	32.20	0.4700	Kaka J, Hughes W. Pharmacokinetics of Ketamine and two Metabolites in the Dog. J pharmacokinetics and Biopharmaceutics 1980, 8 (2), 193-202.	Dose 15 mg/kg, F = 48.5	6740-88-1						
Ketanserin	74050-98-9	3.90	6.70	0.0550	Heykants J, Van Peer A, Woestenborghs R, Gouldt S, and Mille J (1988) Pharmacokinetics of ketanserin and its metabolite ketanserin-ol in man after intravenous, intramuscular and oral administration. Eur. J. Clin. Pharmacol. 31: 343-350. Persson B, Patterson A, and Ivedser T (1987) Pharmacokinetics of ketanserin in patients with essential hypertension. Eur. J. Clin. Pharmacol. 32: 259-265. Terlik E, Mosler A, Kirch W, Meinertz T, and Zahlten-Kumeli A (1992) Pharmacokinetics and pharmacodynamics of the 5-HT2 receptor antagonist ketanserin in man. J. Cardiovasc. Pharmacol. 5: 1034-1039. Barenbrug M, Van Ooy A, Van Rossum JM, Van Ooy A, Van Rossum JM, Van Ooy A (1996) Ketanserin pharmacokinetics in patients with renal failure. Br. J. Clin. Pharmacol. 29: 715-723. Reimann IW, Dionisius PO, and Klaus U (1981) Pharmacokinetics of ketanserin in man. Eur. J. Clin. Pharmacol. 25: 73-76.		74050-98-9	0.67	3.80	0.0100	Michiels M, Monbaliu J, Meuldermans W, Hendrickx R, Geerts R, Woestenborghs R, Heykants J. Pharmacokinetics and tissue distribution of ketanserin in rat, rabbit and dog. Arzneimittelforschung. 1988 Jun;38(6):775-84. In-house	Male rat data reported. Female data in reference. Dose = 10 mg/kg. MRT Calculated from Cl and Vdss	74050-98-9	4.70	24.70	0.0400	Michiels M, Monbaliu J, Meuldermans W, Hendrickx R, Geerts R, Woestenborghs R, Heykants J. Pharmacokinetics and tissue distribution of ketanserin in rat, rabbit and dog. Arzneimittelforschung. 1988 Jun;38(6):775-84. In-house	Dose 2.5 mg/kg (0.63 and 10 mg/kg in ref). MRT calculated.	74050-98-9						
Ketoprofen	22071-15-4	0.13	1.60	0.0080	Debruyne D, de Lagry BH, Rydelynick JP, Albessard F, and Moulin M (1987) Clinical pharmacokinetics of ketoprofen after single intravenous administration as a bolus or infusion. Clin. Pharmacokinet. 12: 214-221. Lee KJ, Mower R, Hollenback T, Castelo J, Johnson N, Gordon P, Sinko PJ, Hulme K, and Lee YH (2002) Modulation of nonspecific binding in ultrafiltration protein binding studies. Pharm. Res. 20: 1015-1021.		22071-15-4						22071-15-4						22071-15-4						
Ketorolac	74103-06-3	0.11	0.35	0.0058	Jung D, Mroszczak E, and Bynum L (1989) Pharmacokinetics of ketorolac tromethamine in humans after intravenous, intramuscular and oral administration. Eur. J. Clin. Pharmacol. 35: 423-425. Reed MD, Myers CM, and Blumer JL (2001) Influence of midazolam on the protein binding of ketorolac. Curr. Ther. Res. 62: 558-565. Mroszczak EJ, Lee FM, Combs D, Sampaio FH, Huang BL, Wu AT, Tolen LG, Madlon-Kay, and Chu DK (1987) Ketorolac tromethamine absorption, distribution, metabolism, excretion, and pharmacokinetics in animals and humans. Drug Metab. Dispos. 15: 618-629.		74103-06-3						74103-06-3	0.33	1.25			MRT calculated from Cl and Vdss data, Dose 0.5 mg/kg, F = 100.9(66.7)	74103-06-3						
L-692429	145455-23-8	0.20	3.05		Gertz BJ et al. J. Clin Endocrin. Metab. 1993, 77, 1393-1397. Data from 1.0 mg/kg dose (others administered) N=6, 70 kg average weight assumed.		145455-23-8	0.15	2.70	0.0200	Leung K.H. et al. Pharmacokinetics and disposition of L-692429, a novel dipeptidyl growth hormone secretagogue in preclinical species. Drug. Metab. Disp. 1996, 24, 753-760.	Non linear PK from 0.1 to 5 mg/kg. Lowest dose data taken. N=5.	145455-23-8	0.34	19.30	0.8600	Leung K.H. et al. Pharmacokinetics and disposition of L-692429, a novel dipeptidyl growth hormone secretagogue in preclinical species. Drug. Metab. Disp. 1996, 24, 753-760.	N=3, 0.1 mg/kg	145455-23-8	0.16	5.70	0.0600	Leung K.H. et al. Pharmacokinetics and disposition of L-692429, a novel dipeptidyl growth hormone secretagogue in preclinical species. Drug. Metab. Disp. 1996, 24, 753-760.	chimpanzee N=4, 0.5 mg/kg
Lamifiban	144412-49-7	0.29	1.90	0.9400	Luse T, Saner A, Coassolo P, Brandt R, Schmitt-Hoffmann AH, Chou RC, Animal pharmacokinetics and interspecies scaling from animals to man of lamifiban, a new platelet aggregation inhibitor. J Pharm Pharmacol. 48: 573-577.		144412-49-7	0.24	9.50		Luse T, Saner A, Coassolo P, Brandt R, Schmitt-Hoffmann AH, Chou RC, Animal pharmacokinetics and interspecies scaling from animals to man of lamifiban, a new platelet aggregation inhibitor. J Pharm Pharmacol. 1996 Jun;48(6):573-7.	MRT calculated from data, dose 2.2 mg/kg	144412-49-7	0.75	7.00				144412-49-7	0.29	2.60		Luse T, Saner A, Coassolo P, Brandt R, Schmitt-Hoffmann AH, Chou RC, Animal pharmacokinetics and interspecies scaling from animals to man of lamifiban, a new platelet aggregation inhibitor. J Pharm Pharmacol. 1996 Jun;48(6):573-7.	MRT calculated from data, dose 0.6 mg/kg
Lamivudine	134678-17-4	1.30	4.80	0.9400	Yuen GJ, Morris DM, Mydlow PK, Haidar S, Hall ST, and Hussey EK (1995) Pharmacokinetics, absolute bioavailability, and disposition characteristics of lamivudine. J. Clin. Pharmacol. 35: 1174-1180. Takubo T, Hirayama S, Moriya T, Minamide Y, Kato T, Nakamura R, and Kimura J (1997) Studies on the metabolic fate of lamivudine (3) tissue distribution, transfer into fetus and milk, pharmacokinetics and metabolism in lactating dams of milk. Jpn Pharmacol Ther 25: 1-9. Takubo Data 10 mg/kg		134678-17-4						134678-17-4						134678-17-4	1.20	12.60		Abney GM, Dantel MJ, Harter AJ, Godwin K, and Bodo FM (1993) Pharmacokinetics of lamivudine and BCH-189 in plasma and cerebrospinal fluid of rhesus primates. Antimicrob Agents Chemother 38:2779-2782.	MRT calculated from Cl and Vdss data, Dose 20 mg/kg. Ave weight for 5 monkeys calculated (5.62 kg)
Lebrazole	112809-51-5	1.90	0.57	0.4100	Soudt A, Gaubatzwa N, Pinera Y, Mathlf F, Jouan A, Candel JM, Goddon J, Cavelier C, Arnaud-Le Pitrier C, and Vrewland F (1991) Pharmacokinetics of lebrazole in healthy premenopausal women. Biopharm Drug Dispos. 12: 779-8b. Colusi DM, Parisot CY, and Lefevre GV (1998) Plasma protein binding of letrozole, a new nonsteroidal aromatase enzyme inhibitor. J Clin Pharmacol. 38: 777.		112809-51-5	2.02	0.65		Tao X, Brodie AM, Nnane IP. The effect of tamoxifen on the pharmacokinetics of letrozole in female rats. Biopharm Drug Dispos. 2006 Oct;27(7):335-44.	VDss calculated from Cl and MRT. N=12. dose= 0.1, 0.5 and 0.1 mg/kg	112809-51-5						112809-51-5						112809-51-5
Levocabastine	79516-68-0	1.17	0.43	0.4530	De Buck S S, Drug Metabolism and Disposition, 2007, 35(10), 1756-1760. 70 kg average weight assumed. MRT calculated from Cl, and VDss. 0.2 mg iv/dose		79516-68-0	1.36	27.00	0.4600	De Buck, Stefan S.; Sinha, Vikash K.; Fenu, Luca A.; Nijsen, Marjolein J.; Mackie, Claire E.; Gilissen, Ron A. H. J. Prediction of human pharmacokinetics using physiologically based modeling: a retrospective analysis of 26 clinically tested drugs. Drug Metabolism and Disposition (2007), 35(10), 1756-1760.	Rat weight assumed to be 0.25kg	79516-68-0						79516-68-0						
Levodopa	59-92-7	1.70	23.00	0.7600	Bolsterlee DRC, Wood MD, Earnest M, Morley K, Waller DG, Renwick AG, and George CF (1989) The effect of age on the pharmacokinetics of levodopa administered alone and in the presence of carbidopa. Br. J. Clin. Pharmacol. 28: 61-68. Rizzo V, Merrini M, Morselli S, Metz -EG-E G, and Preuss-E E (1989) Concentrations of L-dopa in plasma and plasma ultrafiltrates. J. Pharm. Biomed. Anal. 14: 1043-1048.		59-92-7						59-92-7	0.76	23.70			**Data digitized from plots reported.Dieke et al. JPET, 1995, 273, 1323-1331. Data points seemingly different between test and plot. Points adjusted to reproduce AUCinf reported (64.6 hr*mcg/mL) and VDss reported (5.74 + - 0.21 L/kg). VDss calculated = 0.92 L/kg N=4, 20 mg/kg (MW 197.2), data from microdialysis.**	Dieke et al. JPET, 1995, 273, 1323-1331.	59-92-7						59-92-7
Levonorgestrel	797-63-7	1.50	1.80	0.0250	Stead RJ, Gommer SFM, Rogers SM, Back DJ, Orme MLE, Hodson ME, and Boden JC (1987) Pharmacokinetics of contraceptive steroids in patients with cystic fibrosis. Thorax 62: 59-64. Aviane Product Label.		797-63-7	0.74	1.30		Gomaa AA, Osman FH, Salem HT, Abdel Wareth AA. A study of interaction between levonorgestrel and ethanol. Contraception. 1981 Jun;23(6):535-42.	MRT calculated from data, dose 0.005 mg/kg	797-63-7						797-63-7						797-63-7
Levosimendan	141505-33-1	0.24	3.80	0.0200	Sundberg S, Antila S, Scheinin H, Hayha M, Virtanen M, and Lehtonen L (1998) Integrated pharmacokinetics and pharmacodynamics of the novel calcium sensitizer levosimendan as assessed by systolic time intervals. Br. J. Clin. Pharmacol. 36: 629-635. Lilleberg J, Antila S, Karlsson M, Miettinen P, Nyman L, Sundberg S, Virtanen M, Lehtonen L. Dose pharmacodynamics of simendan, a novel calcium sensitizer, in healthy volunteers. Clin. Pharmacol. Ther. 56: 554-563. Wikberg T, Kivikoskinen T and Karlsson M (1998) Enantiomeric bioanalysis of simendan and levosimendan by chiral high-performance liquid chromatography. Chirality 8: 511-517.		141505-33-1						141505-33-1	0.22	3.37			n=10, Dose = 0.1 mg/kg. MRT calculated from Vdss and CL	141505-33-1						

Lidocaine	137-58-6	1.80	16.00	0.3300	Bauer LA, Brown T, Gilbaldi M, Hudson L, Nelson S, Raisys V, and Shea JP (1982) Influence of long-term infusions on lidocaine kinetics. Clin. Pharmacol. Ther. 31: 433-437. Bennett PN, Aarons LJ, Bending MR, Skinner JA, and Rowland M (1982) Pharmacokinetics of lidocaine and its deethylated metabolite: dose and time dependency under a ramp infusion. J. Pharmacokinet. Biopharm. 10: 265-281. Grossman SH, Davis D, Kitchell BB, Shand DG, and Routledge PA (1982) Disarayan and lidocaine plasma protein binding in renal disease. Clin. Pharmacol. Ther. 31: 355-357. Barry M, Keeling PW, Weir D, and Feely J (1984) Severity of cirrhosis and the relationship of alpha 1-acid glycoprotein concentration to plasma protein binding of lidocaine Clin. Pharmacol. Ther. 47: 366-370.		137-58-6	2.52	46.70	0.4300	Francillo, Richard J.; DiGregorio, G. John; Sell, Adam. Effect of cimetidine on the pharmacokinetics of quinidine and lidocaine in the rat. Journal of Pharmaceutical Sciences (1982), 71(7), 820-6.Ippei Kishi LM, C.; Shibata, N.; Yoshikawa, Y.; Takada, K. Effect of glycerol-induced acute renal failure on the pharmacokinetics of lidocaine after transdermal application in rats. Biol Pharm Bull 2003; 26(8): 1150-1154 (normal rats)	One compartment model - Vdss = Vc; MRT calculated from data	137-58-6						137-58-6	0.66	66.00	0.0600	Benowitz N, Forsyth FP, Melmon KL. Rowland M. Lidocaine disposition kinetics in monkey and man. 1 Prediction by a perfusion model. Clin Pharmacol Ther. 1974 Jul;16(1):87-96.	MRT calculated from data, dose 10 mg, monkey was weight 3.2-3.4 kg.
Lorcainide	59729-31-6	6.60	16.00	0.1500	Kirst U, Mueller-Seydlitz P, and Heinzkill P (1978) Disposition and antiarrhythmic effect of lorcainide. Int. J. Clin. Pharmacol. Biopharm. 17: 152-158. Kirst U, Mueller-Seydlitz P, and Heinzkill P (1978) Pharmacokinetics of lorcainide in man: a new antiarrhythmic agent. Clin. Pharmacokinet. 3: 407-418.		59729-31-6	15.70	103.00	0.2600	De Buck, Stefan S.; Sinha, Vikash K.; Fenu, Luca A.; Nijsen, Marjoleen J.; Mackie, Claire E.; Gilissen, Ron A. H. J. Prediction of human pharmacokinetics using physiologically based modeling: a retrospective analysis of 26 clinically tested drugs. Drug Metabolism and Disposition (2007), 35(10), 1766-1780.	Rat weight assumed to be 0.25kg	59729-31-6						59729-31-6					
Lubelazole	144665-07-6	2.60	1.70	0.0030	AVERAGED ACROSS TWO REPORTS (N almost identical). Weight averaged within each report. Henrot et al. Clin. Ther. 1998; 20(4), 682-690. Three-way cross-over study in 11,10 and 12 healthy subjects at 5, 10 and 15 mg dose respectively as 1-hr pf. Male and female subjects. 70 kg reported average weight. Weight-averaged VDss: 2(0.1, 2.1 L/kg, Cl: 1.8 mL/min/kg; MRT = 28.7 h; t1/2 = 21.5hVan De Velde, V. et al. Int. J. Clin. Pharmacol. Ther. 1998; 36, 460-464. N=8, total of 21 administrations across 6 doses 2.5 to 25 mg, each separated by 12 days. 30' inf. 79 kg average weight. Weight-averaged data: VDss= 2.15 L/kg, Cl= 1.51 mL/min/kg; MRT = 23.3 h; t1/2 = 19.8h. N.from Ch.Pk. Ch.Pk. Pharmacokinetics and Disposition 2007, 35(10), 1766-1780		144665-07-6	4.24	25.00	0.0080	De Buck, Stefan S.; Sinha, Vikash K.; Fenu, Luca A.; Nijsen, Marjoleen J.; Mackie, Claire E.; Gilissen, Ron A. H. J. Prediction of human pharmacokinetics using physiologically based modeling: a retrospective analysis of 26 clinically tested drugs. Drug Metabolism and Disposition (2007), 35(10), 1766-1780.	Rat weight assumed to be 0.25kg	144665-07-6	1.47	41.60				144665-07-6	Data digitized from plot reported by Sugiyama et al. Toxicol. Appl. Pharmacol. 1996; 139, 104-114. N=6, anesthetized dogs, 0.63 mg/kg. PO paper and **no reported PK parameters for comparison**, other than the plot.				
Maraviroc	376348-65-1	2.30	9.40	0.2500	Abel S. et al. (2008) Assessment of the absorption, metabolism and absolute bioavailability of maraviroc in healthy male subjects. Br J Clin Pharmacol 66: 241-251. N=8 in 2 dosing groups from cohort 2 of a study of 3 cohorts. Average weight 80 kg.	N=8 in study 2 cohort 1 and N=8 in cohort 2. Overall average weight 80 kg, average of two cohorts: at 30 mg	376348-65-1	2.53	74.00	0.4900	Walker et al. DMD 2005, 33, 587-595. N=2 iv, 1 mg/kg. No plots available. VDss from personal communication by D. Walker, April 9 2008		376348-65-1	2.32	21.00	0.3600	Walker et al. DMD 2005, 33, 587-595. N=4 iv, 0.5 mg/kg. No plots available. VDss from personal communication by D. Walker, April 9 2008						376348-65-1					
Maspizport	187523-35-9	10.00	15.00	0.0038	Zheng D, Krishna R, Wang L, Zeng J, Mirska J, Dai R, Narasimhan N, Reveal BM, Sinhaal NR, and Kraft J (2003) Metabolism, pharmacokinetics, and protein covalent binding of radiolabeled maspizport (BMS-204352) in humans. Drug Metab. Dispos. 32: 63-69. Krishna R, Yao M, Kaczor D, Vachhangani N, and Sinhaal NR. (2003) In vitro protein binding studies with BMS-204352: lack of protein binding displacement interaction in human serum. Biopharm. Drug Dispos. 22: 41-44.		187523-35-9	6.30	43.00																			
Mirtazapine	134208-17-6	1.54	6.17	0.0110	De Buck S S, Drug Metabolism and Disposition, 2007, 35(10), 1766-1780. 70 kg average weight assumed. MRT calculated from CL and VDss. 2.8 mg is given		134208-17-6	1.73	39.20	0.0300	De Buck, Stefan S.; Sinha, Vikash K.; Fenu, Luca A.; Nijsen, Marjoleen J.; Mackie, Claire E.; Gilissen, Ron A. H. J. Prediction of human pharmacokinetics using physiologically based modeling: a retrospective analysis of 26 clinically tested drugs. Drug Metabolism and Disposition (2007), 35(10), 1766-1780.	Rat weight assumed to be 0.25kg	134208-17-6						134208-17-6						134208-17-6
Mebendazole	31431-39-7	1.20	15.00	0.0860	Dawson M, Braithwaite PA, Nelson MG, Morton TR (1985) The pharmacokinetics and bioavailability of a tracer dose of [24-		31431-39-7	2.60	9.80																31431-39-7
Melagatran	159776-70-2	0.23	1.90	0.9300	Eriksson UG, Bredberg U, Hoffmann KJ, Thuresson A, Gabrielsson M, Ericsson H, Ahnoff M, Gislen K, Fager G, and Gustafsson D (2003) Absorption, distribution, metabolism, and excretion of ximelagatran, an oral direct thrombin inhibitor, in rats, dogs, and humans. Drug Metab. Dispos. 31: 294-305.		159776-70-2	0.39	16.90	0.9600	Eriksson UG, Bredberg U, Hoffmann KJ, Thuresson A, Gabrielsson M, Ericsson H, Ahnoff M, Gislen K, Fager G, Gustafsson D, "Absorption, distribution, metabolism, and excretion of ximelagatran, an oral direct thrombin inhibitor, in rats, dogs, and humans" Drug Metab Dispos. 2003 Mar;31(3):294-305.	Mean values from Sprague-Dawley male and female, fasted. MRT was calculated from digitized data	159776-70-2	0.35	7.00	0.8900	Eriksson UG, Bredberg U, Hoffmann KJ, Thuresson A, Gabrielsson M, Ericsson H, Ahnoff M, Gislen K, Fager G, Gustafsson D, "Absorption, distribution, metabolism, and excretion of ximelagatran, an oral direct thrombin inhibitor, in rats, dogs, and humans" Drug Metab Dispos. 2003 Mar;31(3):294-305.	MRT was calculated from digitized data	159776-70-2
Meloxicam	71125-38-7	0.15	0.12	0.0030	Nagles H, Tuerck D, Busch U, Heinzel G, and Nehmiz G (1996) Pharmacokinetics and tolerability of meloxicam after i.m. administration. Br. J. Clin. Pharmacol. 41: 135-138. Buechi U, Busch U, Heinzel G, and Schmaus H (1997) Pharmacokinetics of the pharmacokinetics of meloxicam, a new non-steroidal anti-inflammatory drug (NSAID), in man. Eur. J. Clin. Pharmacol. 48: 269-272. Tuerck D, Buechi U, Heinzel G, and Nagles H (1997) Clinical pharmacokinetics of meloxicam. Arz. Forsch. 47: 253-258. Schmid J, Buechi U, Heinzel G, Bueler G, Loehle S, and Kummer M (1995) Meloxicam. Pharmacokinetics and metabolic pattern after intravenous infusion and oral administration to healthy subjects. Drug Metab. Dispos. 23: 1206-1213. Tuerck D, Schwarz A, Hoeffler D, Nagles HH, Nehmiz G, and Heinzel G (1996) Pharmacokinetics of meloxicam in patients with end-stage renal disease undergoing continuous ambulatory peritoneal dialysis. Eur. J. Clin. Pharmacol. 51: 309-313.		71125-38-7	0.26	0.25	0.0040	Buechi U, Schmid J, Heinzel G, Schmaus H, Baierl J, Huber C, Roth W., "Pharmacokinetics of meloxicam in animals and the relevance to humans" Drug Metab Dispos. 1998 Jun;26(6):576-84.		71125-38-7	0.35	0.17	0.0300	Buechi U, Schmid J, Heinzel G, Schmaus H, Baierl J, Huber C, Roth W., "Pharmacokinetics of meloxicam in animals and the relevance to humans" Drug Metab Dispos. 1998 Jun;26(6):576-84.	Vdss=T1/2 * CL / 0.693, which is similar to the one from digitized data (0.36L/kg)	71125-38-7
MEN-10755	169317-77-5	2.40	2.50		Bos AME, deVries EGE, Dombrowsky P, Aarsbot S, Uges DRA, Schepers D, Wouters J, Scanlon MN2, Hanauska AR, Giaccone G, Mulder NH, Sleijfer DT, Postmus PE, Sleijfer S. Pharmacokinetics of MEN-10755, a novel anthracycline disaccharide analogue, in two phase 1 studies in adults with advanced solid tumors. Canc. Chemother. Pharmacol. 49: 161-169.		169317-77-5	13.30	10.80		Uno, R.; Petrini, A.; DiOrazio, V.; Giachetti, A.; Crea, A.E.G. "Pharmacokinetics of a new anthracycline (MEN 10755) in different animal species and in man" Pharmacol Res 1999, 39(Suppl.): 98.	The PDF of article was not available	169317-77-5	12.00	18.30		Uno, R.; Petrini, A.; DiOrazio, V.; Giachetti, A.; Crea, A.E.G. "Pharmacokinetics of a new anthracycline (MEN 10755) in different animal species and in man" Pharmacol Res 1999, 39(Suppl.): 98.	The PDF of article was not available	169317-77-5
Mepentzine	57-42-1	2.30	4.90	0.4200	Chen K, Tse J, Jennings F, and Orme ML (1987) Pharmacokinetics of low-dose intravenous pethidine in patients with renal dysfunction. J. Clin. Pharmacol. 27: 516-22. Verbeek RK, Cardinal JA, and Wallace SM (1984) Effect of age and sex on the plasma binding of acidic and basic drugs. Eur. J. Clin.	VDss calculated from C vs t data provided in the reference	57-42-1	9.20	245.00		Dahlstrom BE, Paalzow LK, Lindberg C, Borgenstrt C., "Pharmacokinetics and analgesic effect of pethidine (meperidine) and its metabolites in the rat", Drug Metab Dispos. 1979 Mar-Apr;7(2):108-12.		57-42-1						57-42-1						57-42-1
Mepitiutol	54340-58-8	3.30	28.00	0.7300	Norbury MT, Franklin RA, and Graham DF (1982) Pharmacokinetics of the new analgesic, mepitiutol, after oral and intravenous administration to volunteers. Eur. J. Clin. Pharmacol. 25: 77-80. Gayle E, Sorck WA, Carlos F, and Vercuyzer A (1987) Pharmacokinetics of intravenously administered mepitiutol during general anesthesia in man. Eur. J. Anaesth. 4: 35-43. Franklin RA (1988) The clinical pharmacokinetics and metabolism of the analgesic mepitiutol.	VDss was calculated from C vs t data provided in the reference by Norbury, et al.	54340-58-8	4.40	58.40		Xie Q, Wang X, Wang X, Jiang Z, Qiu Z, "Design, synthesis, and bioavailability evaluation of coumarin-based prodrug of mepitiutol", Bioorg Med Chem Lett. 2005 Nov 15;15(22):4953-6.	Vdss, CL, t1/2, and MRT was calculated from digitized data.	54340-58-8						54340-58-8						
Mercaptopurine, 6-MP	50-44-2	1.00	15.00	0.8500	Coffey JJ, White CA, Leela AA, Rogers WI, and Seppick AA (1972) Effect of oral mercaptopurine dosage on 6-mercaptopurine and 6-thiouric acid. Clin. Pharmacol. 13: 1260-1269. Esposito M, Rosso R, and Santi L (1974) Plasma protein binding of antineoplastic drugs in rats and humans. IRCS Library Compendium 2: 1165.	Pharmacokinetic parameters were calculated using the mean C vs t values from three study subjects receiving intravenous 500 mg/m2.	50-44-2						50-44-2						50-44-2	0.90	15.20		Zimm S, Collins JM, Riccardi R, O'Neill D, Narang PK, Chabner B, Poplack DG, "Variable pharmacokinetics of oral 6-mercaptopurine in maintenance chemotherapy in acute lymphoblastic leukemia being optimally delivered?", N Engl J Med. 1983 Apr 28;308(17):1005-9.	CL: 11.418L/hm2 reported. BW: 3kg; BSA: 0.2m2	
Meropenem	96036-03-2	0.30	3.90	0.8700	Burman LA, Nilsson-Ehle I, Hutchinson M, Haworth SJ, and Norrby SR (1991) Pharmacokinetics of meropenem and its metabolite ICI 213,689 in healthy subjects with known renal metabolism of imipenem. J. Antimic. Chemother. 27: 219-224. Nilsson-Ehle I, Burman LA, Hutchinson M, Haworth SJ, and Norrby SR (1991) Pharmacokinetics of meropenem in subjects with renal insufficiency. Eur. J. Clin. Pharmacol. 41: 535-538. Leroy A, Jehanne JP, Bonia-Lutton F, Sterrer I, and Humbert G (1992) Pharmacokinetics of meropenem (ICI 194660) and its metabolite (ICI 213689) in healthy subjects and in patients with renal impairment. Antimic. Agents Chemother. 36: 2794-2798. Sumita Y, Nisaida H, Tada K, Kohsaki T, Kato M, Okuda T, and Fukasawa M (1992) Pharmacokinetics of meropenem, a new carbapenem antibiotic, parenterally administered to laboratory animals. Chemotherapy 40(Suppl. 1): 123-131.		96036-03-2	0.14	26.40	0.5000	Harrison MP, Moss SR, Featherstone A, Foakes AG, Sandeen AM, Case DE. The disposition and metabolism of meropenem in laboratory animals and man. J. Antimicr. Chemother. 1989; 24, suppl A 165-177. full-texture	Data digitized from plots reported. Male and female rats (N not reported). 135 mg/kg. The PK parameters reported have been determined using the radioactive compound plasma profile. The plots diverge significantly in rat and the digitalization was performed on the parent compound profile.	96036-03-2	0.22	4.00	0.7300	Harrison MP, Moss SR, Featherstone A, Foakes AG, Sandeen AM, Case DE. The disposition and metabolism of meropenem in laboratory animals and man. J. Antimicr. Chemother. 1989; 24, suppl A 165-177. full-texture	Data digitized from plots reported 6 male beagle dogs used. 120 mg/kg. The PK parameters reported have been determined using the radioactive compound plasma profile. Similar data were obtained as the two profiles overlap.	96036-03-2	0.23	7.50	0.6600	Harrison MP, Moss SR, Featherstone A, Foakes AG, Sandeen AM, Case DE. The disposition and metabolism of meropenem in laboratory animals and man. J. Antimicr. Chemother. 1989; 24, suppl A 165-177. full-texture	Data digitized from plots reported. 300 mg/kg dose. N=3 male cynomolgus monkeys. The PK parameters reported differ from computed since they have been determined using the radioactive compound plasma profile.
Metaraxolin	95549-92-1	0.44	0.53		Lapka R. et al. (1989) Interspecies pharmacokinetics scaling of metaraxon, a novel alpha-adrenergic antagonist. Biopharm. Drug Disp. 10, 581-589.	Average of 6 volunteers receiving a 10 mg dose as a 3-min infusion, plus 6 volunteers receiving a 6 mg dose in a 30-min infusion. 73 kg average weight. Data essentially identical among cohorts. Compound also referred as lenoxirox or VUF81111. 1 U2 not reported but plot available.	95549-92-1	5.90	44.20			N=32 male Wistar rats. 5 mg/kg iv 200 g average weight. Compound also referred as lenoxirox or VUF81111. 1 U2 not reported but plot available.							95549-92-1						
Metformin	657-24-9	0.64	7.40	1.0000	Pentikainen P J, Neuvonen P J, and Penttila A (1979) Pharmacokinetics of metformin after intravenous and oral administration to man. Eur. J. Clin. Pharmacol. 16: 195-202.	VDss calculated from reported rate micro-constants.	657-24-9	0.54	16.80		Chio VH, Chung SJ, Lee MG, "Pharmacokinetic interaction between DA-8159, a new enic\agonist, and metformin in rats: competitive inhibition of metformin in the hepatic OCT\PMAT", Br J Pharmacol. 2008 Apr;153(7):1348-59. Epub 2008 Jan 21.	MRT was calculated from digitized data.	657-24-9						657-24-9						657-24-9
Methadone	76-99-3	4.40	1.70	0.2100	Nilsson MI, Grontoft-L, Widerlov E, and Anggard E (1983) Pharmacokinetics of methadone in methadone maintenance treatment of opiate addicts. Acta Pharmacol. Toxicol. 53: 1-7. Pharmacol. 20: 497-501. Kristensen K, Blemmer T, Angelo HR, Christrup LL, Dreisch NE, Rasmussen SN, and Sjoegren P (1984) Stereoselective pharmacokinetics of methadone in chronic pain patients. Ther. Drug Monit. 18: 221-227. Berkowitz BA (1976) The relationship of pharmacokinetics to pharmacological activity: morphine, methadone and naloxone. Clin. Pharmacokinet. 1: 219-226.		76-99-3	8.28	60.00		Cantos MA, Du Souich P, Carlos R, Suarez E, Lukas JC, Calvo R, "Effect of omeprazole on oral and intravenous R/S-methadone pharmacokinetics and pharmacodynamics in the rat", J Pharm Sci. 2002 Jul;91(7):1627-38.	MRT and T1/2 were calculated from digitized data	76-99-3						76-99-3						
Methamphetamine	537-46-2	4.30	4.40	0.8500	Harris DS, Boxenbaum H, Everhart ET, Sequeira G, Mendelson JE, and Jones RT (2003) The bioavailability of intranasal and smoked methamphetamine. Clin. Pharmacol. Ther. 74: 475-486. Cook CE, Jeffcoat AR, Hill JM, Pugh DE, Patetta PK, Sadler BM, White WR, and Perez-Reyes M (1993) Pharmacokinetics of methamphetamine self-administered to human subjects by smoking S-(+)-methamphetamine hydrochloride. Drug Metab. Dispos. 21: 717-723. Lin SN, Strong JM, Yeh SY, Lin LY, and Jacob P (1995) Methamphetamine and ethanol interactions in humans. Clin. Pharmacol. Ther. 57: 559-568. De la Torre R, Farre M, Navarro M, Pacifici R, Zuccaro P, and Pichini S (2004) Clinical pharmacokinetics of amfetamine and related substances: monitoring in conventional and non-conventional matrices. Clin. Pharmacokinet. 43: 157-185.	Values for individual stereoisomers were averaged.	537-46-2	9.00	126.00	0.9200	Rivolino GJ, Byrnes KA, Gentry WB, Owens SM, "Spontaneous locomotor activity and pharmacokinetics of intravenous methamphetamine and its metabolite amphetamine in the rat", J Pharmacol Exp Ther. 1998 Dec;291(3):1220-6.	MRT and T1/2 were calculated from digitized data (Linpk).	537-46-2						537-46-2						537-46-2
Methotrexate	59-05-2	0.43	2.10	0.3700	Bore P, Bretz R, Lenig K, Faure R, and Claire JP (1987) Methotrexate and 7-hydroxymethotrexate pharmacokinetics following intravenous bolus administration and high-dose infusion of methotrexate. Eur. J. Canc. Clin. Oncol. 23: 1385-1390. Herman-SA, Vang-Frederiksen J, Hoffman J, Koehlke R, and Kurtz DE (1986) Pharmacokinetics of low-dose methotrexate in rheumatoid arthritis patients. J. Pharm. Sci. 79: 165-171. Esposito M, Rosso R, and Santi L (1974) Plasma protein binding of antineoplastic drugs in rats and humans. IRCS Library		59-05-2	0.16	10.50	0.6400	Chio VH, Bae SK, Oh JM, Kim SG, Lee MG, "Pharmacokinetics of intravenous methotrexate in mutant Nagase analbuminemic rat", Biopharm Drug Dispos. 2007 Oct;28(7):385-92.								59-05-2						
Methylphenidate	113-45-1	2.20	0.55	0.8500	Scrinivas NR, Hubbard JW, Korchinski ED, and Midha KK (1993) Enantiomer pharmacokinetics of d-threo-methylphenidate in humans. Pharm. Res. 10: 14-21. De la Torre R, Farre M, Navarro M, Pacifici R, Zuccaro P, and Pichini S (2004) Clinical pharmacokinetics of amfetamine and related substances: monitoring in conventional and non-conventional matrices. Clin.	Data for individual stereoisomers were averaged.	113-45-1	3.00	53.00		Patrick KS, Ellington KR, Breese GR, "Distribution of methylphenidate and d-threo-methylphenidate in rats", J Pharmacol Exp Ther. 1984 Oct;231(1):61-5.	Vdss, CL, t1/2, and MRT was calculated from digitized data.	113-45-1						113-45-1						
Methylprednisolone	83-43-2	1.20	6.10	0.2300	Booker BM, Magee MH, Blum RA, Lees CD, and Jusko WJ (2002) Pharmacokinetics and pharmacodynamic interactions between dilltiazem and methylprednisolone in healthy volunteers. Pharmacotherapy. Ther. 71: 135-363		83-43-2	1.40	62.10		Hayes A, Pyszczynski N, Dullins DC, Allison RR, Jusko WJ, "Pharmacokinetics of methylprednisolone after intravenous and intramuscular administration in rats", Biopharm Drug Dispos. 2007 Dec;28(9):473-77.	Vdss, CL, t1/2, and MRT was calculated from digitized data.	83-43-2						83-43-2						
Metoclopramide	364-62-5	3.20	5.70	0.8000	Magueat E, Hagnge H, Attal P, Singlas E, Etienne JP, and Talund AM (1981) Pharmacokinetics of metoclopramide in patients with liver cirrhosis. Br. J. Clin. Pharmacol. 11: 185-187. Weib D, Buss DC, Fitkell S, Bateman DN, and Routledge PA The plasma protein binding of metoclopramide in health and renal disease. Br. J. Clin. Pharmacol. 21: 334-336.	VDss calculated from C vs t data obtained by digitization of the plot provided in the reference.	364-62-5	3.30	48.00		Tam, Yun K.; Axelson, James E.; McGilveie, Barbara; Ongley, Roberta; Price, John G. II. Dose-dependent pharmacokinetics of metoclopramide in man: an effect of hemoperfusion? Journal of Pharmacology and Experimental Therapeutics (1981), 217(1), 764-9.	Brake et al. The absorption and elimination of metoclopramide in three animal species. J Pharm Pharmacol. 1976; 28, 32-38.	364-62-5	1.10	23.10						364-62-5						
Metoprolol	51384-51-1	3.10	13.00	0.8800	Jordo L, Altman PD, Aurell M, Johansson L, Johnsson G, and Regardh CG (1981) Pharmacokinetic and pharmacodynamic properties of metoprolol in patients with impaired renal function. Clin. Pharmacokinet. 5: 189-190. Schaal L J, Campbell EC, Mayerson MB, Vagodes T, and Perrier DG (1987) Influence of fasting and gender on the pharmacokinetics of metoprolol. Eur. J. Clin. Pharmacol. 33: 355-361. Richard J, Cantin JM, and Godbillon J (1984) Inter and intra-subject variability of metoprolol kinetics after intravenous administration. Eur. J. Drug metab. Pharmacokinet. 19: 157-162. Johnsson G and Regardh CG (1976) Clinical pharmacokinetics of beta-adrenoceptor blocking drugs. Clin. Pharmacokinet. 1: 210-263.	VDss calculated using micro rate constants reported in the reference by Richard et al.	51384-51-1	6.30	87.20	0.8400	Borg K O, Fellenius E, Johansson R, Wallbrng H. Pharmacokinetic studies of metoprolol (+) in the rat and the dog. Acta pharmacologica et toxicologica (1978), 36(Suppl 5), 104-10. fu in house		51384-51-1	3.10	32.80	0.7500	Borg K O, Fellenius E, Johansson R, Wallbrng H. Pharmacokinetic studies of metoprolol (+) in the rat and the dog. Acta pharmacologica et toxicologica (1978), 36(Suppl 5), 104-10. fu in house						51384-51-1	14.00	21.90	0.8100	Ward, Keith W.; Cron, David James; Magiera, Daniel; Bhadrinda, Sanjeev; Nisbet, Ernell; Lawrence, Matthew S. Exploration of the African green monkey as a preclinical pharmacokinetic model: metoprolol and atenolol pharmacokinetics. Drug Metabolism and Disposition (2008), 36(4), 715-724. full-texture	African green monkeys
Metronidazole	443-48-1	0.40	0.85	0.9600	Sundsvickar DR, Chien YW, Lin TK, Lambert HJ (1975) Binding of metronidazole and its derivatives to plasma proteins: an assessment of drug binding phenomenon. J. Pharm Sci. 64: 1797-1802. Bergan T and Thorsteinsson GB (1976) Pharmacokinetics of metronidazole and its metabolites in reduced renal function. Chemotherapy 22: 305-318.	Plasma concentrations determined using a bioassay.	443-48-1	1.20	5.80	0.9600	Tu, Yu-Hong; Wang, Youmin; Allen, Lloyd V., Jr.; Albers, Donald D.; Gorgin, Mousavian K. Pharmacokinetics of metronidazole administered intravenously to male rats. International Journal of Pharmaceutics (1980), 6(1-2), 119-25. fu in house	high dose, 25 mg/kg	443-48-1	0.10	2.50	0.9600	Neff-Davis C; A; Davis L C; Gillette E L. Metronidazole: a method for the determination in biological fluids and its disposition kinetics in the dog. Journal of veterinary pharmacology and therapeutics (1981), 4(2), 121-7. fu in house		443-48-1						
Mexiletilin	51481-65-3	0.09	2.10	0.7000	Modi J, Dvorscak K, Janku I, and Krebs V (1982) Beitrag zur pharmakokinetik und dosierung von mexiletilin bei intravenoser infusion. Infection 10(Supp 2): s190-s195. Bergan T (1984) Pharmacokinetics of beta-lactam antibiotics. Scand. J. Infect. Dis. 47(Suppl. 40):38.	VDss calculated using micro rate constants reported in the reference.	51481-65-3	0.30	50.00	0.6500	Jungbluth G L; Jusko W J. Dose-dependent pharmacokinetics of mexiletilin in rats. Antimicrobial agents and chemotherapy (1989), 33(6), 839-43.	high dose, 20 mg/kg	51481-65-3						51481-65-3						
Mibefradil	116644-53-2	3.10	4.00	0.0050	Weiker HA (1998) Single- and multiple-dose mibefradil pharmacokinetics in normal and hypertensive subjects. J. Pharm. Pharmacol. 50: 963-967. Weiker HA, Wilhelm H, and Bullingham R (1998) Clinical pharmacokinetics of mibefradil. Clin. Pharmacokinet. 35: 405-423.		116644-53-2																						
Micafungin	235114-32-6	0.21	0.17	0.0023	Herbert MR, Blough DK, Townsend RW, Allison M, Buell D, Keirns J, and Bekersky I (2005) Concomitant tacrolimus and micafungin pharmacokinetics in healthy volunteers. J. Clin. Pharmacol. 45: 1010-1014. Herbert MR, Smith HE, Marbury TC, Swan SA, Smith WB, Townsend RW, Buell D, Keirns J, and Bekersky I (2005) Pharmacokinetics of micafungin in healthy volunteers, volunteers with moderate liver disease, and volunteers with renal dysfunction. J. Clin. Pharmacol. 45: 1145-1152.		235114-32-6	0.38	1.00	0.0020	Pharmacokinetics of the antifungal drug micafungin in mice, rats, and dogs and its in-vitro protein binding and distribution to blood cells. Yamato, Yasuhiro; Kanekiu, Hayato; Hashimoto, Tomoko; Kakechima, Masatakai; Mitsiishi, Kuji; Kawamura, Akio; Terakawa, Masato; Kagayama, Akira. Biopharmaceutical and Pharmacokinetic Research Laboratories, Fujisawa Pharmaceutical Co., Ltd., Osaka, Japan. Nippon Kagaku Ryoho Gakkai Zasshi (2002), 51(Suppl 1), 74-79.	Original Article in Japanese. PK parameters incorporated from English sections of the article. 1mg/kg, male, IV bolus. Serum protein binding	235114-32-6	0.25	0.78	0.0020	Pharmacokinetics of the antifungal drug micafungin in mice, rats, and dogs and its in-vitro protein binding and distribution to blood cells. Yamato, Yasuhiro; Kanekiu, Hayato; Hashimoto, Tomoko; Kakechima, Masatakai; Mitsiishi, Kuji; Kawamura, Akio; Terakawa, Masato; Kagayama, Akira. Biopharmaceutical and Pharmacokinetic Research Laboratories, Fujisawa Pharmaceutical Co., Ltd., Osaka, Japan. Nippon Kagaku Ryoho Gakkai Zasshi (2002), 51(Suppl 1), 74-79.	Original Article in Japanese. PK parameters incorporated from English sections of the article. 1mg/kg, male, iv bolus. Serum protein binding	235114-32-6

Midazolam	59467-70-8	1.10	5.30	0.0170	Heizmann P, Eckert M, and Ziegler WH (1983) Pharmacokinetics and bioavailability of midazolam in man. Br. J. Clin. Pharmacol. 16: 43s-49s. Pentikäinen P J, Valisalmi L, Himberg J J, and Cevoniuk C (1983) Pharmacokinetics of midazolam following intravenous and oral administration in patients with chronic liver disease and in healthy subjects. J. Clin. Pharmacol. 29: 272-277		59467-70-8	2.60	90.00	0.0400	AVERAGE of data from: Hevings S. et al. (1992) Pharmacokinetics-EEG effect relationship of midazolam in aging BN/BiRij rats. Br. J. Pharmacol. 107: 171-177; Mantlema JW et al. Pharmacokinetic-pharmacodynamic modeling of the electroencephalographic effects of benzodiazepines. Correlation with receptor binding and anticonvulsant activity. J. Pharmacol. Exp. Ther. 1991; 257, 472-478.	**Hevings et al.** 4 month old BN rat, N=8, VDss: 3.4 L/kg; CL=16 mL/min/kg; t½=35; MRT=3.1 h; t½β: 5.0h. **Mantlema JW et al.** N=8, VDss: 1.8 L/kg, CL: 75 mL/min/kg, t½=25; MRT 0.4 h, t½β:0.05.See also: Guengerich, et al. (2004) Development of a whole-body physiological based model to characterize the pharmacokinetics of benzodiazepines. 1. Estimation of in vivo plasma partition ratios. J. Pharmacokinet. Pharmacodyn. 31: 169-203. Data in Mouse	59467-70-8	1.10	35.20	0.0223	Kuroha, Masanori; Azumano, Akinori; Kuze, Yuji; Shimoda, Minoru; Kokai, Eichi. (2002) Effect of multiple dosing of ketoconazole on pharmacokinetics of midazolam, a cytochrome P-450 3A substrate in beagle dogs Drug Metab. and Disp., 30, 63-68. Scientificnet Report	N=4, 0.5 mg/kg	59467-70-8	3.00	22.30	0.1492	Hall, Richard I.; Sidem, Faraj; Hug, Carl C., Jr. Pharmacokinetics and pharmacodynamics of midazolam in the enflurane-anesthetized dog. Journal of Pharmacokinetics and Biopharmaceutics (1988), 16(2), 231-62. Scite Report
Mitoxantrone	65271-80-9	12.00	7.90	0.2500	Canal P, Attal M, Chatelut E, Gauchard S, Hugard F, Muller C, Gerfault D, Laurent G, Houin G, and Bugat R (1993) Plasma and cellular pharmacokinetics of mitoxantrone in high-dose chemotherapeutic regimen for refractory lymphomas. Canc. Res. 53: 6850-6854. Scott LJ and Fagan DP (2004) Mitoxantrone: a review of its use in multiple sclerosis. CNS Drugs 18: 379-396		65271-80-9							65271-80-9	26.60	10.00		Lu, Katherine; Suvarg, Nirmal; Lou, Ti Li. Pharmacokinetic studies of mitoxantrone. Monograph Series of the European Organization for Research on Treatment of Cancer (1982), 12(New Anticancer Drugs: Mitoxantrone Bisantrene), 71-84.	beagle dogs, 100mg/m2 dose	65271-80-9				
Mivacurium (cis/cis)	106791-40-6	0.27	5.20	0.7000	Head-Rapson AG, Devlin JC, Parker CJ, Hunter JM (1994) Pharmacokinetics of the three isomers of mivacurium and pharmacodynamics of the cis/cis isomer in hepatic cirrhosis. Br J Anaesth. 72: 613-618. Roy JJ and Varin F (2004) Physiochemical properties of neuromuscular blocking agents and their impact on the pharmacokinetic-pharmacodynamic relationship. Br. J. Anesth. 93: 341-348.		106791-40-6	0.65	9.90			Toscano1F et al., Pharmacokinetic-pharmacodynamic modeling of mivacurium in rats. Br J Pharmacol Pharmacol sciences, 1997, 80(2), 252-258	Seemingly administered as a mixture of all isomers (cis-cis, cis-trans, trans-trans). Rat, Sprague-Dawley,male, BW 300-350g, dose 0.5 mg/kg in infusion (2.5 min), MRT calculated from VDss and CL. T1/2 calculated from slope of digitized ln1 line in Figure 1 and as 0.693/(-slope).	106791-40-6	1.00	3.47		N=4, Beagle dogs, BW 7.95-8.69 Kg. Dose 0.015 mg/kg is MRT from VDss and CL. Data taken only for cis/cis form.	106791-40-6				
Morphine	57-27-2	2.30	26.00	0.6500	Owen JA, Sitar DS, Berger L, Brunell L, Duke PC, and Mireskio PA (1983) Age-related morphine kinetics. Clin. Pharmacol. Ther. 34: 364-369. Berkowitz BA (1976) The relationship of pharmacokinetics to pharmacological activity: morphine, methadone and naloxone. Clin. Pharmacokinet. 1: 219-230. Lotsch J, Weiss M, Kobal G, and Geisslinger G (1998) Pharmacokinetics of morphine-6-glucuronide and its formation from morphine after intravenous administration. Clin. Pharmacol. Ther. 63: 629-639. Aitkenhead AR, Vater M, Achola K, Cooper MG, and Smith G (1980) Morphine kinetics in healthy subjects and in patients with end-stage renal disease. Br. J. Anaesth. 52: 813-819.		57-27-2	14.90	57.90	0.8605	Sverjhaus HA et al. Effects of naltrexone on the pharmacodynamics and pharmacokinetics of intravenously administered morphine in the rat. Pharmacol. 1993, 46, 66-74/opts from Baggott JD et al., Am. J. Vet. Res. 1973, 34, 571-574	N=10, male SD rats, 10 mg/kg dose	57-27-2	4.10	61.10	0.8800	Kuhlenkirch B, Lasseller BDX, Paprzik MG. Pharmacokinetics of morphine and plasma concentrations of morphine-6-glucuronide following morphine administration to dogs. Journal of Veterinary Pharmacology and Therapeutics 2005, 28(4), 371-375. VDss 4.0 L/kg, Cl 62.5 mL/min/kg, t1/2 1.4 h, MRT 1.2 h.Shelley EP, Baggott JD, Eisele JH, Willits N, Wolner MJ, Jarvis KA, Elliott AR, Tagawa M. Morphine-nalfurafine interaction in dog, swine and Rhesus monkeys. J. Vet. Pharmacol. Ther. 1994, 17, 202-210. VDss 3.6 L/kg, Cl 58.7 mL/min/kg, t1/2 0.92 h, MRT 1 h.Dyph from Baggott JD et al., Am. J. Vet. Res. 1973, 34, 571-574.	Morphine sulphate. N=5 beagle dogs, BW Average of both reference. N=6 in both cases.	57-27-2	2.60	45.40	0.8100	N=6 Rhesus Monkey 2mg/kg
Moxalactam	64952-87-2	0.17	0.72	0.3900	Winer R, Baker S, and Livingston B (1980) Comparison of ceftazidime and moxalactam pharmacokinetics and tissue levels. Antimicrob. Ag. Chemother. 18: 268-271. Standford HC, Doscotte GL, Ikuntamate CI, Rivera G, Forrest A, Tatem B, Leslie J, and Nix DE (1993) Moxalactam pharmacokinetics in neonates compared with ceftazidime: integration of serum pharmacokinetics and microbiologic activity following single-dose administration to normal volunteers. Antimic. Agents Chemother. 39: 413-417.		64952-87-2	0.25	9.10	1.0000	Mongki K et al. Disposition of moxalactam and N-methylsulfonylthiotetrazole in rats and monkeys. Chemotherapy (Tokyo) 1980, 28(S7), 207-35. Go to Scopus	Average of both reference as in monkey. Moxalactam disodium (CAS 64953-12-4). Monkey VDss 1231 L/kg, Cl 6.9 mL/min/kg, t1/2 3 h. In Sugano, VDss 5.28 L/kg, Cl 8.4 mL/min/kg, t1/2 0.4 h	64952-87-2	0.20	2.20	0.6600	Sugano K, Okada N, Okada H, Tanaka H, Noritsuka S. Disposition of 6059-S in rats, dogs and monkeys. Chemotherapy (Tokyo) 1980, 28(S7), 1159-1176. Sugano K, Okada N, Tanaka H, Noritsuka S. Disposition of 6059-S in rats, dogs and monkeys. Chemotherapy (Tokyo) 1980, 28(S7), 207-35. Go to Scopus	Moxalactam disodium (CAS 64953-12-4).	64952-87-2	0.19	2.30	1.0000	Average of both reference as in rat. Moxalactam disodium (CAS 64953-12-4). Monkey VDss 1.6 L/kg, Cl 2.6 mL/min/kg, t1/2 1.9 h; Sugano, VDss 0.16 L/kg, Cl 1.8 mL/min/kg, t1/2 1 h.
Moxifloxacin	151096-09-2	1.40	2.40	0.8000	Avelox IV Product Label	VDss calculated using C vs t data obtained by digitization of the plot provided in the label.	151096-09-2	3.60	42.50	0.6300	Siefert, H. M., Domsky-Berte, A., Henninger, K., Hucke, F., Kohlsdorfer, C., Stass, H. H. (1999) Pharmacokinetics of the 8-methoxyquinolone moxifloxacin: a comparison in humans and other mammalian species. J Antimicrob. Chemother. 43(Suppl B), 69-79	N=3 male Wistar rats, mean body weight 0.19 kg, 9.2 mg/kg dose.	151096-09-2	2.70	3.70	0.7100	N=3 female beagle dogs. Mean body weight 12 kg. 2.8 mg/kg dose iv.	151096-09-2	4.90	11.50	0.6200	Female rhesus monkeys, N=3, mean weight 4.5 kg, 2.8 mg/kg dose.
Moxonidine	75438-57-2	1.80	11.00	0.9300	Theodor R, Weinmann HJ, Weber W, and Michaelis K (1991) Absolute bioavailability of moxonidine. Eur. J. Drug Met. and Pharmacokin. 16: 113-116. Schaefer HG, Tsoutsias N, and Weinmann HJ (1998) The pharmacokinetics of moxonidine. Rinc Cardiovasc Rheumatother. 3: 49-[illegible]		75438-57-2	3.20	50.10			Lee, Minsok M.; Abrahams, Terrell L.; Lindsay, Thomas J.; Chay, Sylvia; Kaplan, Jonathan A.; Gingrich, Jeffrey R. Metabolism and disposition of moxonidine in Fischer 344 rats. Drug Metabolism and Disposition (2000), 28(6), 646-658.	Data digitized from plot reported for moxonidine in plasma. Fischer 344 male, 0.3 mg/kg dose.	75438-57-2					75438-57-2				
Nalbuphine	20594-83-6	4.60	22.00	0.5000	Aitkenhead AR, Lih ES, and Achola KJ (1988) The pharmacokinetics of nalbuphine administered to healthy volunteers. Br. J. Clin. Pharmacol. 25: 264-268. Jaillon P, Gardin ME, Lecocq B, Richard MO, Meignen S, Blondel Y, Grégoir JC, Bergstrème L and Verginaud G (1989) Pharmacokinetics of nalbuphine in infants, young healthy volunteers, and elderly patients. Clin. Pharmacol. Ther. 45: 226-232.		20594-83-6	11.00	110.70			Rao, Li-Heng; Hoong, Cheng-Hua; Hu, Oliver Yoa-Pu; Wong, Jhi Jung; Hu, Shung-Tai. In vitro and in vivo evaluation of the metabolism and pharmacokinetics of sebacoyl-dinalbuphine Drug Metab.Disp. (2005), 33(3), 395-402.	Data digitized from plot (Figure 5, triangles) reported. N=5 SD rats, 22.35 mg/kg. Reported AUC (0-inf) = 196.75, VD(z) = 17.45 L/kg, CY= 148 mL/min/kg.	20594-83-6					20594-83-6				
Nalmexone	16590-41-3	7.60	57.00	0.7900	Wall ME, Brine DR, and Perez-Reyes M (1981) Metabolism and disposition of naltrexone in man after oral and intravenous administration. Drug Metab. Dispos. 9: 369-375. Ladefoged SM, Mellgren L, Baggot JD, Sokoloski TD, Frank SG, and Reuning, RH (1976) Tritiated naltrexone binding in plasma from several species and tissue distribution in mice. J. Pharm. Sci. 65: 712-716.	Calculated from C vs t data provided in the report.	16590-41-3																	16590-41-3	7.59	54.50		Reuning, Richard H.; Ashcraft, Susan B.; Willey, Jeffrey L.; Wall, Michael E.; Brine, Dennis R. Pharmacokinetics and bioavailability of naltrexone after intravenous and oral administration in rhesus monkeys. Drug Metab. Dispo. 1979, 585-589	N=6 female rhesus monkeys in plot digitized, 10 mg/kg. Data in tables from 5/5 animals. Also called BW 12-80/39 in article.
Napsagatran	154397-77-0	0.36	6.40		Hauptmann J. (2002) Pharmacokinetics of an emerging new class of anticoagulant/antithrombotic drugs: A review of small-molecule thrombin inhibitors. Eur J Clin Pharmacol 57: 751-758.		154397-77-0	0.60	65.40	0.2200	Interspecies pharmacokinetic comparisons and allometric scaling of napsagatran, a low molecular weight thrombin inhibitor Lave, Thierry; Portmann, Reiner; Schenker, Gabriela; Guiard, Alexis; Gurnet, Alberto; Grossmita, Maria-Angela; Schmitt, Monique J. Pharm. Pharmacol (1999), 51, 95-91.	N=5, 5 mg/kg SPF, Rico albino male rats, 0.36 kg median weight	154397-77-0	0.64	26.10	0.5200	Interspecies pharmacokinetic comparisons and allometric scaling of napsagatran, a low molecular weight thrombin inhibitor Lave, Thierry; Portmann, Reiner; Schenker, Gabriela; Guiard, Alexis; Gurnet, Alberto; Grossmita, Maria-Angela; Schmitt, Monique J. Pharm. Pharmacol (1999), 51, 95-91.	N=3 male beagle dogs, 3.5 mg/kg, 15.8 kg median weight	154397-77-0	0.32	19.20		N=3 male cynomolgus monkeys, 4.7 kg median weight, 1.63 mg/kg dose
Nebivolol	118457-14-0	11.00	14.00		Cheymol G, Poirier JM, Carrupt PA, Testa B, Weissenburger J, Lavene JC, and Snoeck E (1997) Pharmacokinetics of beta-adrenoceptor blockers in obese and normal volunteers. Br. J. Clin. Pharmacol. 43: 563-570.		118457-14-0	6.20	49.00	0.0150	De Bruck, Stefan S.; Simha, Vikasha R.; Feng, Luca A.; Nijem, Marylene J.; Marlos, Clara E.; Gibson, Rick A. H. J. Prediction of human pharmacokinetics using physiologically based modeling: a retrospective analysis of 26 clinically tested drugs. Drug Metab. Dispos. (2007) 35, 1799-1780.	rat:bol 0.25 kg	118457-14-0					118457-14-0				
Nefiracodone	83366-66-9	0.51	7.50	0.0100	Barthlepa RH, Dantebler KA, and Greene DS (1999) Pharmacokinetics, absolute bioavailability, and disposition of [14C]nefiracodone in rats. Drug Metab. Dispos. 27: 91-5. PPB data from http://www.drugs.com/pro/nefazodone.html#clinpha.html		83366-66-9							83366-66-9	3.24	26.00		Shukla et al. (1992) Pharmacokinetics, absolute bioavailability and disposition of 14C-nefiracodone in the dog. Drug Metab. Dispos., 21, 522-527.	m=4, 10 mg/kg 30 min iv infusion, beagle dog	83366-66-9				
Nelarabine	121032-29-9	4.90	81.00	0.8000	Arranon Product Label.		121032-29-9							121032-29-9										121032-29-9	1.30	42.00		Sung et al. (2007) Plasma and cerebrospinal fluid pharmacokinetics of nelarabine in cynomolgus primates. Cancer Chemother. Pharmacol. 59, 743-747.	rhesus: n=4, 1 h iv infusion of 35 mg/kg, median values quoted
Netilmicin	56391-56-1	0.07	0.55	1.0000	Welling PG, Baumweller A, Lau CC, and Madsen PO (1977) Netilmicin Pharmacokinetics After Single Intravenous Doses to Elderly Male Patients. Antimic. Agents Chemother. 12: 228-234. Contreras A, Brion N, Gerazd JJ, Faulisson F, Delassi F, Leng JC, Dreyfusch JC, and Carbon C (1985) Renal disposition of gentamicin, dibekacin, tobramycin, netilmicin, and amikacin in humans. Antimic. Agents Chemother. 27: 520-524.	Used data from group 1 (mean age 54 yr) and analyzed C vs t data provided in the reference by Welling et al.	56391-56-1							56391-56-1	0.34	3.40		Blanc et al. (1991) Progress in lymphology: Proceedings of the XIIth international congress of lymphology, Paris, 243-244.	m=7, digitized profile to obtain PK parameters	56391-56-1				
Nicardipine	55985-32-5	1.00	11.00	0.0100	Gumrel M, Cheymol G, Hubert M, Julien-Lanoe C, and Lavene D (1989) Simultaneous study of the pharmacokinetics of intravenous and oral nicardipine using a stable isotope. Eur. J.Clin. Pharmacol. 37: 381-385. Kristen H, Nelson K, Kirsten D, and Heinrip B (1988) Clinical pharmacokinetics of vasodilators. Part I. Clin. Pharmacokinet. 14: 457-482.		55985-32-5	1.90	162.00	0.0840	Higuchi S and Shibuya Y (1983) Comparative pharmacokinetics of nicardipine hydrochloride, a new vasodilator, in various species. Xenobiotica 10:447-454.	m:3, 0.8 mg/kg, digitized profile to obtain VDss	55985-32-5	2.39	27.00	0.0620	Higuchi S and Shibuya Y (1983) Comparative pharmacokinetics of nicardipine hydrochloride, a new vasodilator, in various species. Xenobiotica 10:447-454.	m:3, 0.4 mg/kg beagle, profile digitized to obtain VDss	55985-32-5	1.23	27.00	0.0600	rhesus, m:4, 0.4 mg/kg, profile digitized to obtain VDss
Nicotine	54-11-5	2.60	18.00	0.9500	Benowitz NL, Jacob P, Jones RT, and Rosenberg J (1982) Interindividual variability in the metabolism and cardiovascular effects of nicotine in man. J. Pharmacol. Exp. Ther. 221: 368-372.		54-11-5	2.77	46.30			Jung et al. (1999) Simultaneous GC-MS determination of nicotine and cotinine in plasma for the pharmacokinetic characterization of nicotine in rats. J. Pharm. Biomed. Anal. 20, 195-202. Arneric et al. (1997) A97-089 (3-[(1S)-Pyrrolidinylethoxy]-2-methylpyridine): An Orally Effective Cholinergic Channel Modulator With Potential Once-a-Day Dosing and Cardiovascular Safety. Drug Dev. Res. 41, 31-43.	1 mg/kg, m:4	54-11-5					Arneric et al. (1997) A97-089 (3-[(1S)-Pyrrolidinylethoxy]-2-methylpyridine): An Orally Effective Cholinergic Channel Modulator With Potential Once-a-Day Dosing and Cardiovascular Safety. Drug Dev. Res. 41, 31-43.		54-11-5				
Nifedipine	21829-25-4	0.79	7.30	0.6440	Rashid TJ, Martin L, Clarke H, Waller DG, Renwick AG, and George CF (1995) Factors affecting the absolute bioavailability of nifedipine. Br. J. Clin. Pharmacol. 40: 51-58. Robertson DRC, Waller DG, Renwick AG, and George CF (1988) Age-related changes in the pharmacokinetics and pharmacodynamics of nifedipine. Br. J. Clin. Pharmacol. 25: 297-305. Kleinbloesem CH, van Harten J, Wilson JHG, Danlief HA, van Brummelen P, and Breimer DD (1986) Nifedipine: kinetics and hemodynamic effects in healthy subjects given intravenous and oral single dose administration. Clin. Pharmacol. Ther. 40: 21-28. Kleinbloesem CH, van Brummelen P, van de Linde JA, Voogd PJ, and Breimer DD (1984) Nifedipine: kinetics and dynamics in healthy subjects. Clin. Pharmacol. Ther. 35: 762-769. Ramsch KD, Graefe KH, Schertlin D, Sommer J, and Ziegler R (1986) Pharmacokinetics and metabolism of calcium-blocking agents nifedipine, nitrendipine, and nimodipine. Am. J. Nephrol. 6(Suppl 1): 73-80		21829-25-4	0.27	5.90	0.0350	Eliot et al. (1999) Pharmacokinetics and Pharmacodynamics of Nifedipine in Untreated and Atorvastatin-Treated Hypertjpatients: Rats. J. Pharm. Exp. Ther. 291, 188-193. Eliot et al. (1999) Effects of hypertjpidemia on the pharmacokinetics of nifedipine in rat. Pharm. Res. 16, 209-213.	m:7, 0.1 mg/kg	21829-25-4					21829-25-4				
Nimodipine	66085-59-4	1.10	15.00	0.0160	Muck W, Breuel HP, and Kuhlmann J (1986) The influence of age on the pharmacokinetics of nimodipine. Int. J. Clin. Pharmacol. Ther. 24: 293-298. Renwick KD, Gerhardt KA, Schertlin D, Sommer J, and Ziegler R (1986) Pharmacokinetics and metabolism of calcium-blocking agents nifedipine, nitrendipine, and nimodipine. Am. J. Nephrol. 6(Suppl 1): 73-80. Huyghens M, Sillesen T, Saltman A, Pohjavuoss T, Muck W, and Kiese M (1990) Continuous infusion of nimodipine during coronary artery surgery: hemodynamics and pharmacokinetic study. Br. J. Anaesth. 74: 526-533.		66085-59-4	5.50	19.60	0.0300	Zhang et al. (2004) Distribution of nimodipine in brain following intranasal administration in rats. Acta Pharmacol. Sin. 25, 522-526. Hughes et al. (1987) Influence of cardiopulmonary resuscitation on plasma concentrations of nimodipine in the dog. J. Pharm. Pharmacol. 39, 991-996. Mayer et al. (1992) High performance liquid chromatography-electrospray ionization mass spectrometry for Communication Absorption, concentrations in plasma, and excretion after single administration of [14C]nimodipine in rats, dogs, and monkeys. Arzneimittel-Forschung 35, 1783-1786.	n=6, 2 mg/kg, profile digitized to obtain PK parameters	66085-59-4	3.00	18.00	0.0300	Hughes et al. (1987) Influence of cardiopulmonary resuscitation on plasma concentrations of nimodipine in the dog. J. Pharm. Pharmacol. 39, 991-996. Mayer et al. (1992) High performance liquid chromatography-electrospray ionization mass spectrometry for Communication Absorption, concentrations in plasma, and excretion after single administration of [14C]nimodipine in rats, dogs, and monkeys. Arzneimittel-Forschung 35, 1783-1786.	m:6, 51 µg/kg, profile digitized to obtain PK parameters	66085-59-4	3.62	33.00	0.0950	Qian et al. (1992) High performance liquid chromatography-electrospray ionization mass spectrometry for quantitation of nimodipine in rodent plasma. J. Chromatogr. B 579, 315-320.
Nisoldipine	63675-72-9	5.50	15.00	0.0030	van Harten J, van Brummelen P, Lodewijks MTM, Danhof M, Breimer DD (1988) Pharmacokinetics and hemodynamic effects of nisoldipine and its interaction with cimetidine. Clin. Pharmacol. Ther. 43: 320-331. van Harten J, van Brummelen P, Wilson JHP, Lodewijks MTM, and Breimer DD (1988) Nisoldipine: kinetics and effects on blood pressure and heart rate in patients with liver cirrhosis after intravenous and oral administration. Eur. J. Clin. Pharmacol. 34: 337-342.		63675-72-9	0.89	45.80	0.0090	Abi et al. (1988) Pharmacokinetics of nisoldipine. I. Absorption, concentration in plasma and excretion after single administration of 14C-nisoldipine in rats, dogs, monkeys and swine. Arzneim.-Forsch. Drug Res. 38, 1558-1568.	n=2, male Sprague-Dawley, 1mg/kg, profile digitized to obtain VDss	63675-72-9	4.10	37.20	0.0280	Abi et al. (1988) Pharmacokinetics of nisoldipine. I. Absorption, concentration in plasma and excretion after single administration of 14C-nisoldipine in rats, dogs, monkeys and swine. Arzneim.-Forsch. Drug Res. 38, 1558-1568.	m:3, female beagle, 0.5 mg/kg, profile digitized to obtain PK parameters	63675-72-9				
Nitrofurantoin	67-20-9	0.57	9.70	0.1700	Weaver BA and Paterson GE (1982) Nitrofurantoin disposition in the pregnant ewe. Pharmacol. Ther. 29: 93-99. Kaplan SA, Weinfeld RE, Abramson FP, and Blackwell (1977) Differences in the binding of drugs to plasma proteins from newborn and adult man. I. Eur. J. Clin. Pharmacol. 11: 463-467. Maestro PT and Lamminsaa U (1982) Nitrofurantoin is highly bound to plasma protein. J. Antimicrob. Chemother. 9: 243-245.		67-20-9	0.34	22.70			Wang et al. (2007) Effects of the Flavonoid Chrysin on Nitrofurantoin Pharmacokinetics in Rats: Potential Involvement of ABCG2. Drug Metab Dispos 35, 269-274.	n=7, Sprague-Dawley female, 2 mg/kg, profile digitized to obtain VDss	67-20-9					67-20-9				
Ofloxacin	82419-36-1	1.60	2.50	0.7500	Gascon AR, Campo, E, Hernandez RM, Calvo B, Ernesti J, and Pedraz JL (1998) Pharmacokinetics and tissue distribution of intravenous ofloxacin for antibiotic prophylaxis in biliary surgery. Clin. Drug Invest. 15: 491-499. Bergogne-Berezin E (2002) Clinical role of protein binding of quinolones. Clin. Pharmacokinet. 41: 243-252.		82419-36-1	1.42	13.20	0.6400	Wang H, Liao Z-X, Chen M, Hy K-L (2000) Effects of hepatic fibrosis on ofloxacin pharmacokinetics in rats. Pharmacol. Res. 53, 28-34.Kawakami J, Yamamoto K, Sawada Y, Iga T (1994) Prediction of brain delivery of ofloxacin, a new quinolone, in the human from animal data. J. Pharmacobio. Biopharm. 22, 207-227.	Data digitized from plots reported. Data in good agreement with reported values. Fu = 0.77 from Ooie et al see perfloxacin.	82419-36-1	1.30	23.20	0.5100	Kawakami J, Yamamoto K, Sawada Y, Iga T. (1994) Prediction of brain delivery of ofloxacin, a new quinolone, in the human from animal data. J. Pharmacobio. Biopharm. 22, 207-227	Data from digitization of plot reported. 5 mg/kg dose	82419-36-1			0.7100	
Oleandomycin	3922-90-5	0.77	9.10	0.3963	Duthu G S, J Pharm Sci, 1985, 74(9), 943-945. Data in 70.0 kg weight subjects (see Ref. 7). MRT calculated from CL and VDss. Scientificnet Report		3922-90-5	6.80	51.00	0.4800	Duthu G. S. (1985) Interspecies correlation of the pharmacokinetics of Erythromycin, Oleandomycin and Tylosin. J. Pharm. Sci. 74, 943-946. Scientificnet	25 mg/kg dose, iv	3922-90-5	1.60	12.00	0.1267	10 mg/kg dose	3922-90-5				
Omeprazole	73590-58-6	0.24	8.40	0.0500	Regardh CG, Andersson T, Lagerstrom PO, Lundborg P, and Skanberg I (1990) The pharmacokinetics of omeprazole in humans-a study of single intravenous and oral doses. Ther. Drug Monit. 12: 163-172. Regardh CG, Gustavsson M, Hoffman KJ, Lofberg L and Skanberg I (1985) Pharmacokinetics and metabolism of omeprazole in animals and man-an overview. Scand. J Gastroent.108(Suppl): 79-94.		73590-58-6	0.44	53.00	0.1900	Lee-DY, Kim JM, Lee MG (2017) Pharmacokinetic interaction between oltipraz and omeprazole in rats: Competitive inhibition of metabolism of oltipraz by omeprazole via CYP1A1 and 3A2, and of omeprazole by oltipraz via CYP1A1/2, 2D1/2, and 3A1/2. Eur. J. Pharm. SCI. 22, 328-335. // pgb from Faster clearance of omeprazole in mutant regase sodium/nitric rats: possible roles of cytochrome P450 isozymes. Pharmacogenetics 7, 1-8. Data in plasma protein binding are. Dae Y. Jung, Young A. Kim, Young J. Kim, Sung Y. Lee, Myung G. Gonzalez. Drug Disp. (2008), 36(6), 127-133.	Data from iv administration of a 20 mg/kg dose without oltipraz. N=8	73590-58-6					73590-58-6				
Oseltamivir acid	187227-45-8	0.37	4.80	0.9700	He G, Massarella J, and Ward P (1999) Clinical pharmacokinetics of the prodrug oseltamivir and its active metabolite Ro 64-0802. Clin. Pharmacokinet. 37: 471-484.		187227-45-8	1.30	25.00			Li W, Escaplon PA, Eisenberg EJ, Cundy KC, Sweet C, Jakeman KJ, Merson J, Lew W, Williams M, Zhang L, Kim CU, Bischofberger N, Chen MS, Mendel DB (1995) Identification of GS 4104 an orally bioavailable prodrug of the influenza virus neuraminidase inhibitor GS 4071. Antimicr. Ag. Chemother. 41, 647-653	N=4, 10 mg/kg iv dose, oseltamivir acid GS 4071, dosed as such. Very slow oral absorption, rico example of flip-flop kinetics, with t1/2 and t= 10.6 h	187227-45-8	0.56	5.30	0.9100	Li W, Escaplon PA, Eisenberg EJ, Cundy KC, Sweet C, Jakeman KJ, Merson J, Lew W, Williams M, Zhang L, Kim CU, Bischofberger N, Chen MS, Mendel DB (1995) Identification of GS 4104 an orally bioavailable prodrug of the influenza virus neuraminidase inhibitor GS 4071. Antimicr. Ag. Chemother. 41, 647-653. Scientificnet	N=5 beagle dogs, average weight 7.8 kg. 5 mg/kg iv dose, oseltamivir acid GS 4071, dosed as such	187227-45-8				
Oxaepam	604-75-1	0.59	1.10	0.0400	Scotte J, Lott S, Dossing M, Vollmer-Larsen A, Olesen KL, Victor N, Andreasen F, and Andreasen PB (1983) Bioavailability and pharmacokinetics of oxazepam. Eur. J. Clin. Pharmacol. 35: 385-390. Lucek RW and Coulehe CB (1976) The role of substituents in the hydrophobic binding of the 1,4-benzodiazepines by human plasma proteins. Molec. Pharmacol. 12: 612-619. Desmond PV, Roberts RK., Wood AJJ, Dunn GD, Wilkinson GR, Schenker S (1980) Effect of hepatic and renal impairment on pharmacokinetics of benzodiazepines. Br. J. Clin. Pharmacol. 9: 273-279.	**WEIGHT-AVERAGED** data from: Dingemanse J, Sollie FAK, Beerman DD, Danhof M (1988) Pharmacokinetic Modeling of the Anticonvulsant Response of Oxazepam in Rats Using Receptor Occupancy Kinetics. Pharmacokinet. Pharmacodynamic Measure. J. Pharmacokin. Biopharm. 16, 203-228. Mandema JW et al. Pharmacokinetic-pharmacodynamic modeling of the electroencephalographic effects of benzodiazepines. Correlation with receptor binding and anticonvulsant activity. J. Pharmacol. Exp. Ther. 1991, 257, 472-478.	Dingemanse: Data from iv bolus (5 mg/kg) to **female** SPF/Wistar rat. N=5.VDss 1.3 L/kg, Cl 21.4 mL/min/kg, fu NR, MRT 1.03 h, t1/2 0.9 h/ Mandema, N=7 VDss 2.5 L/kg, Cl 28 mL/min/kg, fu 0.28, MRT 1.5 h, t1/2 1.4 h. fu data only from Mandema JW et al. J. Pharmacol. Exp. Ther. 1991, 257, 472-478.	604-75-1					604-75-1				
Oxycodon	76-42-6	2.50	6.10	0.1500	Lewis KP, Smith MT, Wade JA, Williams BL, and Cromwell T (1992) Comparative oxycodone pharmacokinetics in humans and other species. J. Pharmacokinet. Biopharm. 20: 97-105. Wood, J.H. 479-484. Lewis KP, Wright AWE, Cromwell T, and Smith MT (1993) Determination of the serum protein binding of oxycodone and oxycodone using ultrafiltration. Ther. Drug Monit. 15: 142-147.		76-42-6	2.80	62.00			Chen S, Edwards SR, Wyen BD, Smith MT. (2003) SEX DIFFERENCES IN THE PHARMACOKINETICS, ONDANSETRON, METHOCLOPRAMIDE ORAL BIOAVAILABILITY OF OXYCODONE in the Sprague-Dawley rat. Ch. Exp. Pharmacol. Physiol. 30, 295-302.	Data from iv bolus (5 mg/kg) to male rat, N=5.	76-42-6					76-42-6				
Oxytetracycline	79-57-2	1.70	2.00	0.9000	Kuze CM, Dumbaugh AC, and Frebert M (1959) Distribution and excretion of four tetracycline analogs in normal young men. J. Clin. Invest. 38: 1853-1863.	calculated from digitized plots	79-57-2							79-57-2	1.01	1.47		Duthie N, Bevill RF, Kortte GR, Schaeffer DJ (1988) An experimental model for pharmacokinetic analysis in renal failure. J. Pharmacokin. Biopharm. 16, 71-86.	N=11, female dogs, normal subjects only.10 mg/kg dose, iv bolus.	79-57-2				
Paclitaxel	33069-62-4	3.00	6.40	0.1200	Sonnichsen DS and Relling MV (1994) Clinical pharmacokinetics of paclitaxel. Clin. Pharmacokinet. 27: 256-259.	Averaged values listed in Table 1 of Sonnichsen and Relling. For t1/2 values, used longest value reported in each reference.	33069-62-4	3.10	10.70	0.0270	Li X, Chui J-X, (2007) Effect of gardenin on the pharmacokinetics of paclitaxel administered orally or intraperitoneally in rat. Int. J. Pharm. 327, 148-153. Scientificnet	Data digitized from plots reported. N=6, 2-mg/kg dose, time points adjusted to reproduce reported AUC. Very good agreement with reported PK parameters	33069-62-4					33069-62-4	1.34	6.20	0.0285	Xu L, Zach CL, Lin VS, Moll NB, Lum BL (2006) Pharmacokinetics and safety of bevacizumab administered in combination with cis-platin and paclitaxel in cynomolgus monkeys. Scientificnet	N=10 across two groups. Administered with cisplatin and with cisplatin and bevacizumab. 2-mg/kg dose of paclitaxel, 2 mg/kg cisplatin and 15 mg/kg bevacizumab. No altered PK. Scientificnet
Pamidronic acid (Pamidronate)	40391-99-9	1.80	2.50		Berenson JR, Rosen L, Vescio R, Lau KS, Wou M, Small A, Kowalski MO, Knight RD, and Seaman JJ (1997) Pharmacokinetics of pamidronate disodium in patients with cancer with normal or impaired renal function. J. Clin. Pharmacol. 37: 265-266.	Pharmacokinetic parameters were calculated from C vs t data obtained by digitization of the plot provided in the reference.	40391-99-9	0.18	15.20			Hoffman A, Stepensky D, Ezra A, van-Gelder JM, Golomb G (2001) Mode of administration-dependent pharmacokinetics of biophosphonates: and bioavailability determination. Int. J. Pharm. 225, 1-11.	1 mg/kg bolus, in-to-asintotic solution PK, dependent on date of administration (dh bifurcion showed a significantly lower clearance and VDss) but not on osmolicity of solution at least for clearance. VDss increased 1.5 times with a hypo-osmotic solution.	40391-99-9					40391-99-9				

Pantoprazole	102625-70-7	0.17	2.20	0.0200	Pue MA, Lemche J, Meineke I, and deMey C (1993) Pharmacokinetics of pantoprazole following single intravenous and oral administrations to healthy male subjects. Eur. J. Clin. Pharmacol. 44: 575-578. Huber R, Hartmann M, Silesky N, Luhmann R, Skerigava V, W. Zechlk. Pharmacokinetics of pantoprazole in man. International journal of clinical pharmacology and therapeutics [1996]; 34(1 Suppl): S7-10		102625-70-7	0.35	8.50			Fenton GM, McKeand W, Mayer PR (2001) Pharmacodynamic Modeling of Pantoprazole's Irreversible Effect on Gastric Acid Secretion in Humans and Rats. J. Clin. Pharmacol. 41, 149-156.	One compartment model, Vc taken as VDss and k12 and MRT calculated from Cl and VDss, fm3 across several doses.	102625-70-7								102625-70-7					
Papaverine	58-74-2	0.85	11.00	0.0730	Gamm ER, Rosebloom H, Green JR, and Schuermann W (1978) Pharmacokinetics of papaverine hydrochloride and its metabolites in normal volunteers and patients. In: J. Clin. Pharmacol. Biopharm. 18: 160-200. Berg G, Jonsson KA, Hammar M, and Nordander B (1980) Variable bioavailability of papaverine. Pharmacol. Toxicol. 62: 309-310.	Parameters calculated from C vs t data obtained by digitization of the plot reported in Gamm et al and averaged for two data sets. Vss was estimated by digitization of the plot in Berg et al. All data were averaged together weighted for the number of subjects in each study.	58-74-2			0.0900				58-74-2	3.01	21.60	0.1000	Kraus K, Sharpe A, Ulmer J, Hutzinger O, Menon A, Sale A, Ritschel WA. (1981) Pharmacokinetics and bioavailability of papaverine HCl following intravenous, peroral, rectal, vaginal, topical and buccal administration in beagle dogs. Biopharm. Drug Disp. 12, 537-546. dpjm from Belgaoui et al. Xenobiotica, 1975, 5 (7), 421-429	N=5, 2 mg/kg dose	58-74-2						
Pefloxacin	70458-92-3	1.50	2.00	0.7500	Fruchman AM, Le Roux Y, Lebkiaire MA, Djebbar F, Fourdillan JB, and Gaillot J (1988) Pharmacokinetics of pefloxacin after repeated intravenous and administration (400mg bid) in young healthy volunteers. J. Antimic. Chemother. 17(Suppl B): 65-79. Bergogne-Berezin E. (2002) Clinical role of protein binding of quinolones. Clin. Pharmacokinet 41: 741-750.	Pharmacokinetic parameters were calculated from C vs t data obtained by digitization of the plot provided in the reference.	94386-65-9	2.79	28.47	0.2800		Scatina JA, Hicks DR, Krantz M, Cayen MN (1990) metabolic disposition and pharmacokinetics and pefloxacin, a new cardiotonic drug, in laboratory animals and man. Eur. J. Drug Metab. Pharmacokin. 1991, 15, 37-48.	Data digitized and calculations performed via WinNonLin. 1 mg/kg iv/ml average weight 2.22 kg. Human data available	94386-65-9	1.07	7.89	0.1900	Scatina JA, Hicks DR, Krantz M, Cayen MN (1990) metabolic disposition and pharmacokinetics and pefloxacin, a new cardiotonic drug, in laboratory animals and man. Eur. J. Drug Metab. Pharmacokin. 1991, 15, 37-48.	Data digitized and calculations performed via WinNonLin. 1 mg/kg dose, N=5, male and female beagle dogs, average weight 11 kg.	94386-65-9	0.65	11.03	0.2100	Scatina JA, Hicks DR, Krantz M, Cayen MN (1990) metabolic disposition and pharmacokinetics and pefloxacin, a new cardiotonic drug, in laboratory animals and man. Eur. J. Drug Metab. Pharmacokin. 1991, 15, 37-48.	Data digitized and calculations performed via WinNonLin. 1 mg/kg dose, N=5, male and female rhesus monkeys, average weight 5.3 kg.
Pentamidine	100-33-4	53.00	74.00	0.2395	Conte JE, Duncan S, McKenna E, and Zurlinden E (1999) Effect of gender and age on the pharmacokinetics of pentamidine in HIV-infected patients. Clin. Drug Invest. 17: 263-269. fu in-house		100-33-4	10.10	111.50	0.4000	Ye T-K, Kang H-JK, Wentges MG, Au JL-S (1996) Pharmacokinetic interaction between intravenous 2',2'-dideoxyinosine and pentamidine in rats. Pharm. Res. 13, 628-632. fu in-house	N=5, 10 mg/kg. Data from administration of pentamidine alone, taken over 3 hr. Data digitized from plot and PK calculated from digitization. Reported values almost identical to calculated.	100-33-4	6.60	60.60	0.2659	Nasin TR, Dickinson CM, Adams SR, Meyersmith M, Jansen DD (1987) Effect of isoterms in dogs on the pharmacokinetics of pentamidine. J. Infect. Dis. 156, 1020-1026. fu in-house	Data digitized from Fig reported by Nasin TR et al. J. Infect. Dis. 1987, 155, 1020-1026. N=5, 15.4 kg average weight, 1ml iv infusion in isoterms: dog, 88 mg/m2 of pentamidine (or 6.5 mg/kg of isethionate salt, conversion factor 1.3), 6.88 mg/kg of PB). Volumes reported data are identical to control dogs. Minimal involvement of renal clearance (< 5%). Reported average total body clearance 47 mL*min-1.kg-1 (calculated 81.6) and VDss 16.3 L/kg, 10 4.0 hr. Total body clearance in controls 50 mL*hr-1.kg-1 after 1st infusion (N=5). Calculations deemed acceptable.	100-33-4						
Pentazocine	359-83-1	3.40	23.00	0.3900	Ritschel WA, Bykadi G, Hoffmann KA, Norman EJ, Lucke PJ, and Rindt W (1982) Disposition and clinical side effects of pentazocine when administered day and night. Arz. Forsch. 32: 64-68. Ritschel WA, Hoffmann KA, Willig JL, Frederick KA, and Neuenberger N (1983) The effect of age on the pharmacokinetics of pentazocine. Meth. Find. Expl. Clin. Pharmacol. 8: 697-703. Ehrenbo M, Agnarsdt S, Boman LO, Gustom E, and Lunotin U (1974) Pentazocine binding to blood cells and plasma proteins. Clin. Pharmacol. Ther. 16: 624-629.		359-83-1					**Non linear PK according to Suzuki T et al. Biol. Pharmacol. Bull. 1997, 20, 1193-1198.**									359-83-1	9.62	56.60		Pittman KA, Portman GA (1974) Pharmacokinetics of pentazocine in rhesus monkey. J. Pharm. Sci. 63, 84-88.	VDss abulated from compartmental data reported (iv. and microsomes). Chlorin does normalized area reported (incorporat baseln) 0.5 mg/kg dose, average weight 4.17 kg, N=3
Pentobarbital	76-74-4	0.91	0.47	0.3900	Ehrenbo M (1974) Pharmacokinetics and distribution properties of pentobarbital in humans following oral and intravenous administration. J. Pharm. Sci. 63: 1114-1118. Bagdt CG, Schwarz ML, and Hardy BG (1983) Pharmacokinetics of high-dose pentobarbital in severe head trauma. Clin. Pharmacol. Ther. 34: 457-461. Ehrenbo M and Odar-Cederlof I (1975) Binding of amobarbital, pentobarbital and diphenylhydantoin to blood cells and plasma proteins in healthy volunteers and uremic patients. Eur. J. Clin. Pharmacol. 8: 445-453.	VDss calculated using micro rate constants reported in the reference by Ehrenbo.	76-74-4	1.64	8.40	0.5000	Toon S, Rowland M (1983) Structure-pharmacokinetic relationships among the barbiturates in the cat. J. Pharmacol. Exp. Ther. 225, 752-763.	N=5, mongrel dogs, 26 kg average weight, 30 mg/kg dose	76-74-4	1.06	1.30		Frederiksen MC, Hornbom TK, Hao TL, Allcinson AJ Jr. (1980) Pharmacokinetics of pentobarbital in the dog. J. Pharmacol. Exp. Ther. 215, 355-360.	N=5, mongrel dogs, 26 kg average weight, 30 mg/kg dose	76-74-4						
Pentoxifylline	6493-05-6	1.80	39.00	0.5109	Beermann B, Ingre B, Mendez J, Chamberlain J, and McDonald A (1985) Kinetics of intravenous and oral pentoxifylline in healthy subjects. Clin. Pharmacol. Ther. 27: 25-28. Barnes A, Poster JM, LeCoz F, Molouaine M, Lecocq B, Grange JD, Poupon R, Cheynovis, and Jaillard P (1986) Pharmacokinetics of intravenous and oral pentoxifylline in healthy volunteers and in cirrhotic patients. Clin. Pharmacol. Ther. 47: 254-258. fu in-house	Calculated VDss from C vs t data obtained by digitization of plots included in the references.	6493-05-6	0.10	7.28	0.7600	N=5, 1 mg/kg dose.		6493-05-6	1.01	37.00	0.4266	Marsella R, Nicklin CF, Munson JW, Roberts SM (2000) Am. J. Vet. Res. 61, 631-637. fu in-house	N=5, female mixed breed dogs, 15 mg/kg dose	6493-05-6						
Phenacetin	62-44-2	1.40	21.00	0.4700	Raaflaub J and Dubach UC (1975) On the pharmacokinetics of phenacetin in man. Eur. J. Clin. Pharmacol. 8: 261-265. Kurt H, Mauser-Gerstrom A, and Sticker H-H (1977) Differences in the binding of drugs to plasma proteins from newborn and adult man. I. Eur. J. Clin. Pharmacol. 11: 463-467.	VDss data calculated from C vs t data reported in the paper. Values are for whole blood.	62-44-2							62-44-2	0.89	15.70		Soudhy S, Werner A, Kampffmeyer AG, (1976) Comparison of the pharmacokinetics of phenacetin in beagles after oral and intravenous administration in dog Kor. J. Drug Res. Pharmacolo. 1, 21-34	Data digitized from plot reported by Soudhy S. et al., Eur. J. Drug Res. Pharmacolo. 1976, 1, 21-34. N=5 beagle dogs, 14.7 kg average weight, 50 mg/kg dose. Good agreement with reported averaged AUC (2962 mL/min/kg) and Vss	62-44-2						
Phencyclidine	77-10-1	6.90	5.10	0.3500	Cook CE, Brine DR, Jeffstead AD, Hill JM, Wall ME, Perez-Reyes M, and Di Guisepe SR (1982) Phencyclidine disposition after intravenous and oral doses. Clin. Pharmacol. Ther. 31: 625-634.	VDss obtained from C vs t data obtained by digitization of the plot provided in the reference.	77-10-1	12.60	66.30	0.3700	Valentine JL, Arnal LW, Owens SM (1994) Anti-phencyclidine monoclonal Fab fragments markedly alter phencyclidine pharmacokinetics in rats. J. Pharmacol. Exp. Ther. 268, 1079-1085. fu in-house	N=6, control animals, 1mg/kg dose. Male SD rats	77-10-1	16.60	54.10	0.4300	Godley PJ, Moore ES, Wordsworth JR, Fleng J (1991) of ethanol and s-9-tetrahydrocannabinol on phencyclidine disposition in dogs. Biopharm. Drug Disp. 12, 549-554. Cook CE, Brine DR, Jeffstead AD, Hill JM (1982) Phencyclidine disposition after intravenous and oral doses. Clin. Pharmacol. Ther. 31, 625-634. Plasma phencyclidine pharmacokinetics in Dog and Monkey using a gas chromatography extracted ion monitoring assay. Biomed. Mass Spectrom. 5, 112-116.	**Weighted average of two references.** Godley Weighed dogs, N=7, 1.5 mg/kg, average weight 20.1 kg. Mean plasma concentration-time data available. Wilkon, Cook, Hill, Brine, N=6, 1 mg/kg, average weight, 1 mg/kg dose, values calculated from reported fit parameters.Ppgb from Owens, SM et al. J. Pharmacol. Exp. Ther. 1982, 226, 656-660.	77-10-1	6.78	36.60	0.3145	Wilkon AE, Dominic EF. (1976) Plasma phencyclidine pharmacokinetics in dog and monkey using a gas chromatography selected ion monitoring assay. Biomed. Mass Spectrom. 5, 112-116. fu in-house	N=7, rhesus monkeys, average weight 4.9 kg. 1.1 mg/kg dose, values calculated from reported fit parameters.
Phenobarbital	50-06-6	0.54	0.06	0.4900	Wilensky AJ, Friel PN, Levy RH, Conton CP, and Kakuny SP (1982) Kinetics of phenobarbital in normal subjects an epileptic patients. Eur. J. Clin. Pharmacol. 23: 87-92. Kurt H, Mauser-Gerstrom A, and Sticker H-H (1977) Differences in the binding of drugs to plasma proteins from newborn and adult man. I. Eur. J. Clin. Pharmacol. 11: 463-467.		50-06-6	1.02	0.80	0.6400	Toon S, Rowland M (1983) Structure-pharmacokinetic relationships among the barbiturates in the cat. J. Pharmacol. Exp. Ther. 225, 752-763.		50-06-6	0.79	0.10	0.5400	Pedersoli WM,Wilkes JS, Rieck WR (1987) Pharmacokinetics of single doses of phenobarbital given intravenously and orally in dogs. Am. J. Vet. Res. 48, 679-682.	Average of 5.5 and 15 mg/kg dose, N=8 each dose, average weight 24.3 kg, mixed breed male/female.Ppgb from Lascher R, Pedersoli WM. Pharmacokinetics of phenobarbital in anesthetized dogs for seizure of dog not seen. JPET 1979, 209, 429-435.	50-06-6						
Pimobendan	74150-27-9	2.04	14.00	0.0240	Chu KM, Shieh SM, and Hu OYP (1995) Plasma and red blood cell pharmacokinetics of pimobendan enantiomers in healthy Chinese. Eur. J. Clin. Pharmacol. 47: 537-542.	Data from enantiomers averaged.	74150-27-9	3.50	163.00		Asakura M, Nakagura A, Takai S, Matsumura R (1993) Simultaneous determination of the enantiomers of pimobendan and its main metabolite in rat plasma by high-performance liquid chromatography. J. Chrom. Biomed. Appl. 614, 135-141.	Data digitized from plot reported by Asakura M et al. J. Chrom. Biomed. Appl. 1993, 614, 135-141. 1 mg/kg dose of racemate, N=3, racemate treated as average of both (+) and (-) enantiomers (data for single enantiomers also available). AUC calculated slightly higher than reported (~ 12%) but deemed acceptable as Cmax (at 5 minutes) and MRT essentially identical to reported as well.	74150-27-9						
Pindolol	13523-86-9	1.20	7.70	0.5800	Lasene D, Weiss VA, Safar ME, Lorie Y, Agosa H, Georges D, and Milea PL (1977) Pharmacokinetics and hepato extraction ratio of pindolol in hypertensive patients with normal and impaired renal function. J. Clin. Pharmacol. 17: 501-508. Henry JA and Mitchell SN (1981) Effect of pH on human plasma protein binding of a series of beta-adrenoceptor antagonists. Br. J. Clin. pharmacol. 11: 139P-139P.	VDss calculated from reported micro rate constants.	13523-86-9	1.36	48.30	0.5700	Komori T, Shimoishi K, Hanashima H, Otagiri M (1986) Effects of repeated clenbuterolmyo-administration on the pharmacokinetic properties of pindolol in rats. Biol. Pharm. Bull. 21, 1276-1278.	Data digitized from plot reported by Komori T et al. 3 mg/kg iv bolus dose, N=7, control rate data used (without clenbuterolmyo). Calculated values in good agreement with reported data.Ppgb from intravenous et al. J. Chrom. Biomed. Appl. 1986, 494, 383-388.	13523-86-9	17.00	69.20	0.5551	Bressolle F, Gallard HR, Cros G, Serrano JJ (1981). Etude chez le chien des relations entre parametres pharmacocinetique et activite pharmacologique du pindolol. C. R. - Congr. Eur. Biopharm. Pharmacocinet., 1st 2, 302-308. fu in-house	Average of 5 values across 4 dogs and 2 doses (1 and 5 mg/kg). 4 female beagle dogs, 11.5 kg average weight. English title: Study on the relation between pharmacokinetic parameters and pharmacological activity of Pindolol in dog.	13523-86-9						
Piperacillin	61477-96-1	0.27	4.00	0.5000	De Schepper PJ, Tjandramaga TB, Mullie A, Verbesselt R, van Hecken A, Verleyen P, Verbesselt R, and Verbist L (1982) Comparative pharmacokinetics of piperacillin in normals and in patients with renal failure. Clin. Pharmacol. Ther. 31: 687-694. Tjandramaga TB, Mullie A, Verbesselt R, De Schepper PJ, and Verbist L (1978) Piperacillin: human pharmacokinetics after intravenous and intramuscular administration. Antimic. Ag. Chemother. 14: 829-837. Bergan T (1984) Pharmacokinetics of beta-lactam antibiotics. Scand. J. Infect. Dis. 42(Suppl): 63-96.	Weighted average: Nolting A, Dalla Costa T, Vinette R, Rand KH, Derendorf H (1996) Determination of free extracellular concentration of piperacillin by microdialysis. J. Pharm. Sci. 85, 369-372. VDss (L/kg): CI=13.5; fu = 0.58; MRT=0.33; t12 = 0.52/Mikaelsi T, Komuro M, Matsushita H. (1994) Pharmacokinetic studies of tazobactam/piperacillin in experimental animals. Chemother. 42, 9-2. 206-216. VDss= 0.3; Cl= 26.4/12 = 0.16; MRT = 0.61; t12= 0.4 ppb		61477-96-1	0.39	17.70	0.6100	Weighted average: Nolting A, Dalla Costa T, Vinette R, Rand KH, Derendorf H (1996) Determination of free extracellular concentration of piperacillin by microdialysis. J. Pharm. Sci. 85, 369-372. VDss(L/kg): CI=13.5; fu = 0.58; MRT=0.33; t12 = 0.52/Mikaelsi T, Komuro M, Matsushita H. (1994) Pharmacokinetic studies of tazobactam/piperacillin in experimental animals. Chemother. 42, 9-2. 206-216. VDss= 0.3; Cl= 26.4/12 = 0.16; MRT = 0.61; t12= 0.4 ppb	Nolting: N=9 each group (60 and 120 mg/kg dose) iv bolus. Data averaged across both groups. Total concentration by HPLC. fm by microdialysis./Mikaelsi, N=3, 40 mg/kg dose overnight fmeas and not influenced by tazobactam (1:4 tazobactam/piperacillin).	61477-96-1	0.24	6.60	0.8400	Weighted average: Blatts WK, Morrison JA, Hoffman TR (1983). Pharmacokinetics of piperacillin and gentamicin following intravenous administration to dogs. 72, 681-687. Nolting A, Dalla Costa T, Vinette R, Rand KH, 657-2 Mikaelsi T, Mikaelsi K, Matsushita H (1994) Pharmacokinetic study of tazobactam/piperacillin in experimental animals. Chemother. 42, suppl. 2. 206-216. VDss= 0.28; Cl= 5; MRT = 0.66, t1/2= 0.4 ppb	Blatts: N=6, average data, 10 kg average weight, 500 mg/kg BW, 1 min infusion./Mikaelsi, N=3, 40 mg/kg	61477-96-1	0.26	7.20	0.9506	Mikaelsi T, Komuro M, Matsushita H. (1994) Pharmacokinetic studies of tazobactam/piperacillin in experimental animals. Chemother. 42, 9-2. 206-216.	N=3, 40 mg/kg dose (dosed with tazobactam 10 mg/kg).
Pirmenol	68252-19-7	1.40	1.80	0.1300	Hammill SC, Shand DG, Rosaleidge PA. Hindman MC, Baker JT, and Pritchett ELC (1982) Pirmenol, a new antiarrhythmic agent: initial study of efficacy, safety and pharmacokinetics. Circulation 65: 369-375,	VDss calculated from reported rate microconstants.	68252-19-7	2.60	62.00	0.4900	Internal study, MAF-US-08-0301. fu in-house	N=3, 1 mg/kg, made SD rat. 10% 0.1N HCl/80% PEG. Profile largely first-order	68252-19-7	2.10	8.30	0.4916	Chang T, Am. J. Cardiol. (1987) Preclinical and Clinical Pharmacokinetics of Pirmenol 59, 15H-19H. fu in-house	Data digitized from plot reported by Chang T. 5 mg/kg iv bolus dose in monkey (N=2 male, 1 female). Calculated values in good agreement with reported. t1/2 = 2.73 h; Cl = 0.92 mL min-1 (= 9.3 mL min-1.kg-1) VD = 3.3 L.kg-1. VD reported assumed to be VD beta after calculation via Cl and t1/2. Calculated values considered in good agreement with reported data.	68252-19-7	0.87	4.92	0.6199	Chang T, Am. J. Cardiol. 1987, 59, 15H-19H. Preclinical and Clinical Pharmacokinetics of Pirmenol. fu in-house	Data digitized from plot reported by Chang T. 5 mg/kg iv bolus dose in monkey (N=2 male, 1 female). 0.5 mg/kg iv bolus dose in monkey (N=2). 0.5 mg per animal assumed with a reported: t1/2 = 2.73 h; Cl = 29.6 mL min-1 (= 5.6 mL min-1.kg-1) VD = 1.4 L.kg-1. VD reported assumed to be VD beta after calculation via Cl and t1/2. Calculated values considered in good agreement with reported data.
Pravastatin (acid)	81093-37-0	0.46	14.00	0.5000	Singhsi SM, Pan HY, Morrison RA, and Willard DA (1986) Disposition of pravastatin sodium, a tissue-selective HMG-CoA reductase inhibitor, in healthy subjects. Br. J. Clin. Pharmacol. 29: 239-243. Quinn JA and Jones PH (1984) Clinical pharmacokinetics of pravastatin. Clin. Pharmacokinet. 27: 94-103.		81093-37-0	0.19	26.00	0.3300	Hatanaka T, Honda S, Sasaki S, Katayama K, Koizumi T (1996) Pharmacokinetic and Pharmacodynamic Evaluation for Tissue-Selective Inhibition of Cholesterol Synthesis by Pravastatin. J. Pharmacokin. Biopharm. 26, 329-347.	Data digitized from Hatanaka T, J. Pharmacokin. Biopharm. 26, 329-347. N=6 5 per time, **average data from 50 and 100 mg/kg doses.** iv bolus. Pravastatin is a substrate for hepatic transporters and this work reported dose dependent VDss and Cl in the 10-200 mg/kg range. However the 50 and 100 mg/kg dose were in close agreement and in agreement with calculated data. See also Tsai et al. J. Pharm. Sci. 1996, 85, 1-6. Kamiyama et al. J. Life Sci. 2006, 78, 2852-2859. Yamasaki M. Biopharm. Drug Disp. 1996, 17, 775-786 ppgb from Fukuda et al. Drug Metab. Disp. 2006, 26, 1275-1282.	81093-37-0															
Prazosin	19216-56-9	0.73	4.70	0.0600	Meredith PA, Elliott HL, Kelman AW, and Reid JL (1985) Application of pharmacokinetic-pharmacodynamic modelling for the comparison of quinazoline alpha-adrenoceptor agonists in normotensive man. Br. J. Clin. Pharmacol. 19: 465-470. Van Harten J, Vanholder R, Van Landschoorth, De Smet R, Schoots A, and Ringoir S (1988) Drug protein binding in chronic renal failure: evaluation of nine drugs. Kidney Int. 33: 556-1554.		19216-56-9	5.11	68.80	0.1900	Ohkura T, Yamada S, Deguchi Y, Kimura R (1999) Comparative study of pharmacokinetics and in vivo α1-adrenoceptor binding of [α]prazosin and [β]prazosin in rats. Biol. Pharm. Bull. 22, 412-417	1.2 mmol/kg dose, N=2, male SD rats.	19216-56-9	2.17	14.10	0.2416	Baughman RA, Sorgel F, Mico BA, Benet LZ (1982) Dose-dependent bioavailability of prazosin in beagle dogs. J. Cardiovasc. Pharmacol. 5, 613-617. fu in-house	N=3 beagle dogs, 1 mg/kg iv dose. Cl is reported but PB ratio available (0.37).	19216-56-9						
Prednisolone	50-24-8	0.86	2.90	0.2500	Rose JQ, Yoshak AM, Melikk AW, and Jusko WJ (1981) Effect of smoking on prednisone, prednisolone, and dexamethasone pharmacokinetics. J. Pharmacokinet. Biopharm. 9: 1-14.	Note: prednisolone demonstrates complex dose-dependent PK (Frey BM and Frey FJ (1990) Clinical pharmacokinetics of prednisone and prednisolone. Clin. Pharmacokinet. 19: 126-146.	50-24-8	1.74	98.70	0.3200	Huang ML, Jusko WJ (1990) Nonlinear pharmacokinetics and interconversion of prednisolone and prednisone in rats. J. Pharmacokin. Biopharm. 18, 401-423. ppb and t1/2 from Teshima et al.	**N=4, 5 mg/kg dose, dosed as succinate ester sodium salt very rapidly converted to parent. Interconversion to prednisone modest. Non-linear kinetics above 10 mg/kg, with clearance decreasing. Data digitized from plot reported by Nakamura J, Ohyama K, Nakamura T, Ichikawa N, Nakashima M, Sasaki H. (2006) Prolonged blood concentration of prednisolone after intravenous injection of liposomal palmitoyl prednisolone. J. Contr. Rel. 112, 320-328. 20 mg/kg dose, N= 3 (not specified). fu 0.32, MRT 0.46, t1/2 0.12, VDss 0.28 L/kg, CL = 40.5 mL/min/kg.**	50-24-8															
Prednisone	53-03-2	0.57	2.50	0.2700	Georgiss JW, Fleisher KA, and Szefler SJ (1982) Bioavailability assessment of a liquid prednisone preparation. J. Allerg. Clin. Immunol. 70: 243-247. Ferry JJ and Wagner JG (1987) The nonlinear pharmacokinetics of prednisone and prednisolone. II. Plasma protein binding of prednisone and prednisolone in rabbit and human plasma. Biopharm. Drug Disposo. 8: 261-272.	Calculated parameters from C vs t data provided in the reference.	53-03-2	1.30	154.70	0.4100	Huang ML, Jusko WJ (1990) Nonlinear pharmacokinetics and interconversion of prednisolone and prednisone in rats. J. Pharmacokin. Biopharm. 18, 401-423. fu in-house	**N=4, 5 mg/kg dose, dosed as succinate ester sodium salt very rapidly converted to parent. Interconversion to prednisolone modest. Non-linear kinetics above 10 mg/kg, with clearance decreasing**	53-03-2	2.30	24.90	0.5000	El-Domer SM, White RF, White VM, Mellert LB, Hill DL (1977) Distribution and metabolism of prednisone in mice, dogs and monkeys. Cancer Treat. Rep. 61, 1279-1289.	N=2 female beagle dogs, 1 mg/kg. Scant data report but generally consistent with calculated values.	53-03-2	1.70	9.80	0.2812	**Weighted average: Ward KW**, Crom DJ, Magiera D, Bradness S, Nickell E, Lawrence MB. (2004) Exploration of the African green monkey as a preclinical pharmacokinetic model: intravenous pharmacokinetic parameters. Drug Met. Disp. 32, 719-723. VDss 1.9 L/kg, Cl= 7.54 mL/min/kg. MRT 4.07 hr; t1/2 3.21 hr / **El Domer SM**, White RF, White VM, Mellert JB, Hill DL (1977) Distribution and metabolism of prednisone in mice, dogs and monkeys. Cancer Treat. Rep. 61, 1279-1289. VDss 1.85 L/kg, Cl = 13.1 mL/min/kg. MRT = 2.7 hr; t1/2 = 2.36 hr fu in-house	Ward et al. African green monkeys, N=3, average weight 5 kg, 5 mg/kg dose in rapid infusion, dose not reported, multiple compounds in study. **See comments for preparation.**El Domer et al. N=2 female rhesus monkeys, 1 mg/kg. Scant data report but generally consistent with calculated values.
Probenecid	57-66-9	0.13	0.25	0.1300	Kattwinkel B, Eberhlhh, and Chase TN (1978) Intravenous probenecid loading: Effect on plasma and cerebrospinal fluid levels of probenecid and pharmacokinetics of cerebrospinal fluid. Neurology 28: 962-966. Emmanuelsson BM, Beermann B, and Paalzow LK (1987) Non-linear elimination and protein binding of probenecid. Eur. J. Clin. Pharmacol. 32: 395-401.	Parameters were determined using C vs t data obtained by digitization of the plot provided in the reference. Protein binding is saturable; the value at half maximum is reported	57-66-9				Emmanuelsson and Paalzow	**Dose dependent kinetics/concentration dependent ppb. VD, however barely changed. To be rechecked. See discussion on albumin fixn.**	57-66-9	0.46	0.34	0.1500	Kakusaki T, Yokohama Y, Natsuhori M, Kawanawa A, Kubo S, Yamada N, Ito N (2005) Probenecid, A chromatographic determination, plasma protein binding and in vivo pharmacokinetics in dog. 84, 343-365.	20 mg/kg Female beagle dogs, N=5, ppb concentration dependent, fixn sites, Scant fixn plot reported. ppb data at levels < 60 ug/mL reported in this study.	57-66-9						
Procainamide	51-06-9	2.20	10.00	0.8400	Christoff PR, Conti DR, Naylor C, and Jusko WJ (1982) Procainamide disposition in obesity. Drug Intell. Clin. Pharm. 17: 131-523. Reidenberg MM, Drayer DE, Levy M, and Warner H (1979) Polymorphic acetylation of procainamide in man. Clin. Pharmacol. Ther. 17: 723-730.		51-06-9	4.86	120.00	0.7200	Liu L-L, Knowlton PW, Sunesson CK Effect of amiodarone on the disposition of procainamide in rat. (1998) J. Pharm. Sci. 77, 682-686. fu in-house	N=7, control animals, 50 mg/kg iv bolus.	51-06-9	1.95	8.70	1.0000	Papich MG, Davis LE, Davis CA, McKernan RC, Brown SA (1986) Pharmacokinetics of procainamide hydrochloride in dogs. 47, 2281-2288. fu in-house	**N=5, 4 female 2 male beagle dogs**, 11.9 kg average weight, doses between 20 and 29 mg/kg (average 26 mg/kg). AUMC calculated from hybrid constants reported and used for VDss calculation taking reported AUC and CL. AUMC calculated							
Propafenone	54063-53-5	2.20	16.00	0.0380	Arbon M, Pugsleyman A, Moya A, and Cinca J (1985) Pharmacokinetics of intravenous propafenone in patients with episodes of paroxysmal supraventricular tachycardia. Meth. Find. Exptl. Clin. Pharmacol. 7: 436-438. Hollmann M, Brode E, Holz H, and Sumerer S, and Kerbl CH (1983) Investigations on the pharmacokinetics of propafenone in man. Arzn. Forsch. 33: 763-770. Chan GLY, Axelson JE, Price JDC, McGlone KM, and Kerr CR (1989) In vitro protein binding of propafenone in normal and uremic human sera. Eur. J. Clin. Pharmacol. 39: 495-499. Tonn GR, Kerr CR, and Axelson JE (1982) In vitro protein binding of propafenone and 5-hydroxypropafenone in serum, in solutions of isolated serum proteins, and to red blood cells. J. Pharm. Sci. 81: 1489-1493.	VDss calculated from analysis of the C vs t data provided in the reference by Arbon, et al and Hollmann et al.	54063-53-5	1.40	28.10	0.0900	Mehsar R (1992) Pharmacokinetics of propafenone enantiomers in rat. Drug Metab. Disp. 19, 687-691.	Data reported by Mehsar, Drug Metab. Disp. 1992, 19, 687-691, data for (-) enantiomer after 10 mg/kg iv of racemate, N=7. AUC and fu calculated identical to reported values as well as CL but VD calculated slightly higher than reported (reported: 0.70 L/kg, Cl = 18.8 mL/min/kg, MRT =0.34 h, t1/2 = 0.52 h. For (+) enantiomer calculated values are 2.1 L/kg, 37.2 mL/min/kg, 0.93 h and 0.67 h, respectively. Average used 2 ppb from Mehsar R. Biopharm. Drug Disp. 1991, 12, 299-310.	54063-53-5	2.72	27.50	0.0900	Fulgenzami A, Ugoni, LL, Arbos M, deMoura F, Fernandez J (1987) Pharmacokinetics of propafenone in the dog after single-dosed propafenone administration. 10, 251-263.	Concentration vs. time data. Parameters calculated via WinNonLin N=5, 6 male beagle dogs, 10 kg average weight, 2 mg/kg. Close agreement with reported parameters.2 ppb from Higuchi, J. Chrom. Biomed. Appl. 1985, 341, 205-311.	54063-53-5						
Propofol	2078-54-8	4.70	36.00	0.0160	Ibrahim A, Park S, Feldman J, Kerin A, and Khoracich ED (2002) Effects of paroxcuab, a parenteral COX-2-specific inhibitor, on the pharmacokinetics and pharmacodynamics of propofol. Anesthesiology 96: 89-95. Servin F, Desmonts JM, Isabeau JP, Cockshott ID, Plummer GF, and Farinotti R (1993) Pharmacokinetics and protein binding of propofol in patients with cirrhosis. Anesthesiology 69: 847-851. Shafer A, Doze VA, Shafer SL, and White PF (1988) Pharmacokinetics and pharmacodynamics of propofol infusions during general anesthesia. Anesthesiology 69: 348-356. Cortesia JL, Jimenez R, Calvo R, Suarez E, and Carlos R (1998) Serum protein binding of propofol in patients with renal failure or hepatic cirrhosis. Acta Anaesth. Scand. 40: 741-745.		2078-54-8	1.37	107.30	0.0300	Cox EH, Kribbe CAJ, Koster VS, Langemeijer MWE, Tukker EE, Langer R, Kalis PPM, Langemeijer HJM, Lie-A-Huen L, Dierkel M (1998) Influence of different fat emulsion-based intravenous formulations on the pharmacokinetics and pharmacodynamics of propofol in dogs. J. Vet. Pharmacol. Therap. 21, 401-410. ppb from Cockshott ID et al. The pharmacokinetics of propofol in laboratory animals. Xenobiot. 1992, 22, 369-375	N=22 across three formulations, all administered iv at 30 mg/kg in 5 minutes. **Blood data.**	2078-54-8	2.46	39.80	0.0200	Mantlinger RE, Clarke CR, Shawley RV, Hague CM (1980) Effects of chlorampheniccol on induction pharmacokinetics of propofol in Greyhounds. Am. J. Vet. Res. 58, 95-99. ppb from Cockshott ID et al. The pharmacokinetics of propofol in laboratory animals. Xenobiot. 1992, 22, 369-375	Greyhound dogs, N=5 (4M+1F), 25.5 kg average weight, 10 mg/kg bolus plus 0.4 mg/kg/min for 120 minutes.	2078-54-8						

Propranolol	525-66-6	3.10	12.00	0.1300	Henry JA and Mitchell SN (1981) Effect of pH on human plasma protein binding of a series of .beta.-adrenoceptor antagonists. Br. J. Clin. Pharmacol. 11: 119P-120P. Chengmd G, Poirier JM, Campd PA, Testa B, Weissenburger J, Levron JC, and Sinsard S (1997) Pharmacokinetics of .beta.-adrenoceptor blockers in obese and normal volunteers. Br. J. Clin. Pharmacol. 43: 563-570.	525-66-6	4.58	94.30	0.1000	Belpaire FM, De Smet F, Vyncklier LL, Vermeulen AM, Rossel MT, Bogaert MG, Chauvelot-Moachon L (1992) Effect of aging on the pharmacokinetics of atenolol, metoprolol and propanolol in the rat. J. Pharmacol. Exp. Ther. 264, 114-122.	Data digitized from plots reported by Belpaire FM et al. J. Pharmacol. Exp. Ther. 1992, 264, 114-122. for 7, 3 months old wistar rats, 1 mg/kg. Data very close to reported values: CL= 96.8 mL.min-1.kg-1, VDb = 6.1 L.kg-1,t1/2 = 61.9 minutes.IPPB reported by Evans et al. JPET, 1973, 186, 114-122. fu = 0.13	525-66-6	6.79	51.80	0.0400	Vu VT, Bai SA, Abramson FP (1983) Interactions of phenobarbital with propranolol in the dog. J. Biomedicinally, metabolism and pharmacokinetics. J. Pharmacol. Exp. Ther. 224, 51-61.IPPB reported by Evans et al. JPET, 1973, 186, 114-122.	Calculated values from 2 compartment equation parameters reported, control animals, IV bol, 1.0 kg average weight assumed (beagle dogs). 0 mg total dose infused in IV (considered bolus). BWR =0.87.	525-66-6	2.26	20.80	0.0300	**Weight average of first two studies across species.** Ward KW, Cozin DJ, Magness D, Bhadresa S, Hobbel E, Lawrence MS. (2009) Exploration of the African green monkey as a predictive model for intravenous pharmacokinetic parameters. Drug Met. Disp. 36: 715-720.African green monkeys, N=3, average weight 3.3 kg, iv bolus or rapid infusion, dose not reported, multiple compounds in study. Vdss 4.24 L/kg, Cl= 13.1 mL/min/kg; MRT= 5.4; t1/2 = 6.4 h (Data from Branchi et al, digitized, N=6 in these monkeys, 2.5 mg/kg, iv bolus, 1974, 51, 1101-1107 VDss = 1.2 L/kg, CL = 24.7 mL/min/kg, MRT=54 min; t1/2= 48.3 min! Data reported by Wong H et al Drug Metab. Disp. 2004, 32, 1259-1269 or Bonaventure PM 3 weight=0.4 kg, 2.5 mg/kg, iv wt (Vdss 18.8 L/kg, CL = 25.5 mL/min/kg (Data from Branchi et al, 1974, 51, 1101-1107 ; MRT= 187 h, 186, t1/2=132. Data not used.	0.0200	
Quercetin	117-39-5	0.12	11.00	0.0090	Ferry DR, Smith A, Malkhandi J, Fyfe DW,DeTakis PG, Anderson D, Baker J, Kerr DJ (1996) Phase I clinical trial of the flavonoid quercetin: Pharmacokinetics and evidence for in vivo tyrosine kinase inhibition. Clin. Cancer Res. 2: 659-668. Boulton DW, Walle UK, and Walle T (1994) Extensive binding of the bioflavonoid quercetin to human plasma proteins. J. Pharm. Pharmacol. 50: 243-249.	117-39-5	0.28	115.90	0.0200	Chen X, YinQQF, Zhao Z, Chow MSS (2003) Pharmacokinetics modeling of quercetin and metabolites. Pharm. Res. 92, 893-901.	Data digitized from plot reported by Chen et al. Pharm. Res. 2003, 92, 892-901. Calculated parameters in generally good agreement with reported data. AUCinf reported as 1.13 ug.mL-1.hr N=5, 10 mg/kg dose,ipgb. Disposition of the Flavonoid Quercetin Given After Single Intravenous and Oral Administration in Rats Pharm. Res. 19, 1, Sand, Bach M, Al-Hadya Drug Development and Industrial Pharmacy, 2003, Vol. 29, No. 4, Pages 393-402	117-39-5												
Quinidine	56-54-2	2.90	4.00	0.2600	Ueda CT, Williamson BJ, and Dorindo BIS (1976) Disposition kinetics of dihydroquinidine following quinidine administration. Rev. Comm. Pash. Pharmacol. 14: 215-226. Ferrucci JT, Nelson DG, Simeon L, Antle J, and Jacobson S (1979) Pharmacokinetics of quinidine related to protein binding in man. Eur. J. Clin. Pharmacol. 15: 187-192. Woo E and Greenblatt DJ (1979) Pharmacokinetic and clinical implications of quinidine protein binding. J. Pharm. Sci. 68: 465-469.	56-54-2	5.28	18.63	0.3200	Funciello RJ, DiGregorio GJ, Sell A. (1983) Effect of cimetidine on the pharmacokinetics of quinidine and lidocaine in rat. J. Pharm. Sci. 72, 820-828. fu=fu=free	Data digitized from plot reported by Funciello et al. Values of CL t1/2 and Cl generally in agreement with reported data although 15-20% higher. N=5-6, depending on data point, 25 mg/kg iv bolus, pretreatment with saline. T1/2 reported 2.57, CL 22.17 mL/min/kg. 25 mg/kg dose,i **pgb reported as non linear** by transformation. Kaplan-Meier, Tasukuni, Sugiyama, Yuichi, Iga, Tetsuji. Hamano, Yoichi. Dose-dependent pharmacokinetics of quinidine in rats by physiologically based pharmacokinetics 1. Pharmacokin. Biopharm. (1985), 13(4), 425-45	56-54-2	4.26	3.58	0.1200	Cloftsy DR, Gibson TP (1982) Comparison of pharmacokinetic parameters of intravenous quinidine and quinine in dogs. J. Cardiovasc. Pharmacol. 4, 107-110. Bolton RP, Holford NHG, Effersy DJ, Riegelman S. Induction of quinidine metabolism and plasma protein binding by phenobarbital in dogs. J. Pharmacokin. Biopharm. 1981, 12, 695-713	N=7, mongrel dogs, 22.7 kg average weight, 6.5 mg/kg dose, identical protocol for quinidine and quinine. **Mixed-based dose dependent PK for quinidine.**	56-54-2	1.51	22.40	0.0207	Weight averaged. Ward KW, Cozin DJ, Magness D, Bhadresa S, Hobbel E, Lawrence MS. (2009) Exploration of the African green monkey as a predictive model for intravenous pharmacokinetic parameters. Drug Met. Disp. 36: 715-720. Vdss 3.4 L/kg, Cl 11.1 mL/min/kg;MRT 1.19 hr; t1/2 1.32 hr.!! Uedis CT, Rodell ML, Boulton W (1977) Concentration-time effects on quinidine disposition kinetics in rhesus monkeys. J. Pharmacokin. Biopharm. 5, 1-14. Data digitized from a data set of 2 monkeys, 4 doses, and from reported hybrid constants. VDss =0.28 L/kg, Clsistemic = 8.42 mL/min/kg; MRT = 0.75 hr; t1/2 = 0.82. fu=fu=free	African green monkeys, N=3, average weight 5.1 kg, iv bolus or rapid infusion, dose not reported, multiple compounds in study. Rhesus monkeys, 5 kg average weight, doses from 12 to 30 mg (total).
Quinine	130-95-0	1.80	1.90	0.3000	White NJ, Chinlerd Pharmacokinetics of antimalaria drugs. Clin. Pharmacokinet. 19: 187-215. White NJ, Chaveforach-T, Krishna S, Bunch C, and Silamut K (1983) Quinine disposition kinetics. Br. J. Clin. Pharmacol. 16: 399-403.	VDss calculated from reported rat micro-constants.	130-95-0	6.12	87.92	0.3600	Zhang H, Wong CW, Cowlle PF, Wanwimolruk S (2003) Effect of the grapefruit flavonoid naringin on the pharmacokinetics of quinine in rat. Drug Metab. Drug. Inter. 17, 351-363. fu=fu=free	Data digitized from plots reported by Zhang et al. Drug Metb. Drug.Inter. 2003, 17, 351-363. Values in good agreement with reported ones, e.g. CL reported as 5000 mL.hr-1.kg-1, VDss reported as 1.1 L.kg-1 and 18 mg/kg. fu=fu=free	130-95-0	3.74	8.11	0.0366	Cloftsy DR, Gibson TP (1982) Comparison of pharmacokinetic parameters of intravenous quinidine and quinine in dogs. J. Cardiovasc. Pharmacol. 4, 107-110. fu=fu=free	N=7, mongrel dogs, 22.7 kg average weight, 6.5 mg/kg dose, identical protocol for quinidine and quinine.	130-95-0											
Rabeprazole	117976-89-3	0.22	4.00	0.0370	Setiyarna T, Laurent A, Humphries T, and Huesgens J (2005) Pharmacokinetics of rabeprazole following single intravenous and oral administration to healthy subjects. Int. J. Clin. Pharmacol. Ther. 43: 37-42.	Pharmacokinetic parameters were calculated from C vs t data obtained by digitization of the plot provided in the reference.	117976-89-3	1.04	62.40	0.0730	Shao F, Sun J, Wang G, Xin H, Zhu X, Zhang J (2007) Liquid chromatography-mass spectrometry analysis and pharmacokinetics of rabeprazole sodium for injection formulation sterile powder for injection, in dogs and rats. Biopharm. Drug Disp. 28, 177-186. fu=fu=free	Data available in female and male, across three doses, N=3 per dose per gender. N=9 (male only) taken 2, 6 and 18 mg/kg. Values very close in male and female.	117976-89-3	2.62	86.00	0.0864	Shao F, Sun J, Wang G, Xin H, Zhu X, Zhang J (2007) Liquid chromatography-mass spectrometry analysis and pharmacokinetics studies of a novel rabeprazole formulation sterile powder for injection, in dogs and rats. Biopharm. Drug Disp. 28, 177-186. fu=fu=free	Data available in female and male N=3 per gender. N=3 (male only) taken, 10 mg total dose, average weight 10 kg. Values very close in male and female.	117976-89-3											
Ranitidine	66357-35-5	1.20	9.60	0.9500	Chao NP, Zech PY, Poirel N, and Haaj-Arora A (1982) Ranitidine kinetics in normal subjects. Clin. Pharmacol. Ther. 31: 770-774. Van Heckem AM, Tjandramaga TB, Mulle A, Verbesselt R, and De Schepper PJ (1982) Ranitidine: single dose pharmacokinetics and absolute bioavailability in man. Br. J. Clin. Pharmacol. 14: 195-200. Smith IL, Zeeman JA, Bernhard H, Eshelman FN, Martin LE, and Schentag JJ (1984) Ranitidine disposition and systemic availability in hepatic cirrhosis. Clin. Pharmacol. Ther. 35: 487-494.	VDss calculated from micro rate constants reported in the reference.	66357-35-5	2.87	21.90	1.0000	Varughese A, Lee C-S C. (1983) Disposition kinetics of ranitidine in rats. Drugs Exptl. Clin. Res. 9, 837-842 VDss 3.4 L/kg; Cl 27.1 mL/min/kg; MRT and t1/2 2.09 and 1.7, h, resp. **Weighted average with data reported** by Kaiss JS, Tanna MCM, Al-Khami-Al (1984) Disposition kinetics of cimetidine and ranitidine in endoscopy premedicated rats. Drug Chem. Toxicol. 12, 49-59. VDss 1.99 L/kg ; Cl 38.8 mL/min/kg; MRT and t1/2 0.92 and 1.65 h, resp. fu=fu=free	Varughese et al, N=13, 3 mg dose (~1 to 7 mg/kg, 0.28 kg/rat) iv MRT calculated from VDss and clearance! Kaiss et al, N=6, 50 mg/kg MRT calculated from VDss and clearance.	66357-35-5	1.65	11.60	0.8546	Eddenhan PJ, Chalstock AP, Higton DM, Fenwick SH, Linacre P, Jones WN, Bell JA, Manchee GR (1984) Absorption and disposition of ranitidine hydrochloride in ski and dog. Xenobiotica, 26, 947-955. fu=fu=free	Data digitized from plot reported by Eddenhan PJ et al. Xenobiotica 1996, 26, 947-955. N=4, 8 mg/kg dose, data normalized to 5 mg/kg. Calculated parameters in very good agreement with experimental ones. Reported AUC= 6365 ng.hr/mL, CL = 10.4 mL/min/kg, MRT = 3.8 h.											
R-Apomorphine	58-00-4	1.60	40.00	0.0570	Van Der Geest R, Van Laar T, Roger PP, Goldbere Sibbie JM, Bodde HE, Roos RAC, and Danhof M (1998) Pharmacokinetics, enantiomer interconversion, and metabolism of R-apomorphine in patients with idiopathic Parkinson's disease. Clin. Neuropharmacol. 21: 159-168. Smith RV, Weisgaudd RB, McLean AM, and Wilcox RE (1983) Interactions of apomorphine with serum and tissue proteins. J. Med. Chem. 26: 613-616.	58-00-4	2.70	196.00	0.1000	Breitberg E, Patane UK (1990) Altered pharmacokinetics and pharmacodynamics of apomorphine in the malnourished rat: modeling of the compound relationship between concentration and heart-rate response. Pharm. Res. 7, 319-324.	N=17 control animals, iv bolus, 2 mg/kg dose.	58-00-4											
Recainam	74738-24-2	1.40	4.50	0.8600	Anderson JL, Reddy P, Mynburg RJ, Wiseman HL, and deVane PJ (1983) Antiarrhythmic and pharmacokinetic evaluation of recainam (CGP 33847) in patients with frequent premature ventricular complexes and sustained ventricular tachycardia. Am. J. Cardiol. 71: 686-694. Scatina JA, Kimmel HB, Weinstein V, Troy SM, Sisenaine SF, and Cayen MN (1990) Species differences in the pharmacokinetics of recainam, a new antiarrhythmic drug. Biopharm. Drug Dispos. 11, 645-651.		74738-24-2	3.20	82.00	0.8800	n=2 30 mg/kg		74738-24-2	1.20	13.00	0.7000	n=8 15 mg/kg	74738-24-2	3.00	26.70	0.6900	Scatina JA, Kimmel HB, Weinstein V, Troy SM, Sisenaine SF, Cayen MN (1990) Species differences in the pharmacokinetics of recainam, a new anti-arrhythmic drug. Biopharm. Drug Dispos. 11, 645-651.	rhesus n=4/group, mean of 1 and 15 mg/kg
Remifentanil	132875-61-7	0.40	37.00	0.3000	Egan TD, Lemmens HJM, Fitest P, Hermann DJ, Muir KT, Stanton DR, and Shafer SL (1993) The pharmacokinetics of the new short acting opioid remifentanil (GI87084B) in healthy adult male volunteers. Anesthesiology 79: 881-892. Ultiva Product Label.	Terminal half-life was calculated from a population pharmacokinetic analysis in which clearance and volume of distribution were identical to parameters determined from a standard pharmacokinetic study.	132875-61-7								132875-61-7	0.22	63.10								blood, n=7	
Reniteken	126222-34-2	0.77	11.60	0.0558	Kleinbloesem CH, Wieber C, Fahrenr E, Dellenbach M, Welker H, Schreier Y, Belz GG (1992) Hemodynamics, biochemical effects, and pharmacokinetics of the renin inhibitor renitekren in healthy human subjects. Clin. Pharmacol. Ther. 51, 585-592. fu=fu=free	n=6, 40 mg dose used	126222-34-2	4.40	116.00	0.0530	Crassiotis P, Fischli W, Clozel J-P, Chiu RC (1994) Pharmacokinetics of renitekren, a potent orally active inhibitor of human renin, in rat, dog and primates. Xenobiotica 26, 323-340. fu=fu=free	n=3, 0.7 mg/kg	126222-34-2	1.52	24.70	0.0853	n=4, 0.7 mg/kg	126222-34-2	1.70	20.00	0.1000	Crassiotis P, Fischli W, Clozel J-P, Chiu RC (1994) Pharmacokinetics of renitekren, a potent orally active inhibitor of human renin, in rat, dog and primates. Xenobiotica 26, 323-340. fu=fu=free	cyno (n=3), Dose 2.55 mg/kg
Remoxipride	80125-14-0	0.65	1.70	0.1600	Widman M, Nilsson LB, Brycke B, and Lundstrom J (1993) Disposition of remoxipride in different species: species differences in metabolism. Acz Forsch. 43: 287-297. von Bahr C, Movin G, Noak WA, Jostell KG, and Widman M (1991) Clinical pharmacokinetics of remoxipride. Acta Psych Scand. 364(Suppl): 41-48.	Note probable typo in the article by von Bahr et al stating that CL is 118 l/ev/min--interpreted as 118 mL/min	80125-14-0	4.50	170.00	0.7400	Widman M, Nilsson LB, Brycke B, Lundstrom J (1993) Disposition of remoxipride in different species. Arzneim -Forsch / Drug Res. 43, 287-294.	blood, n=6 20 umol/kg, F= 1%	80125-14-0	1.60	4.90	0.1200	Widman M, Nilsson LB, Brycke B, Lundstrom J (1993) Disposition of remoxipride in different species. Arzneim -Forsch / Drug Res. 43, 287-294.	blood n=3 20umol/kg, F=94%	80125-14-0											
Reminron	144980-29-0	0.21	2.20		Herding R, Sundaresan P, Shah A and Boettcher M (2005) Effect of Gender and age on the Pharmacokinetics of Reminron. Clin. Drug. Invest. 25, 125-134.		144980-29-0	1.48	38.30	0.0540	Schoop T, Backemeyer B, Buehner K, Mesler S, Schatzmacher J, Seidel D, Steinke W, Weiner C, Zimmerd D (2003) Pharmacokinetics of reminron in healthy and brain injured patients. Biopharm. Drug Dispos. 24, 259-264	digitized, 5 mg/kgih for 2 h, n=4										digitized, 5 mg/kgih for 2 h, n=4	144980-29-0										
Ribavirin	36791-04-5	14.00	5.20	1.0000	Parvez B, DeRuppo M, Bergh C, Simon CR, and Gish Karen M (1989) Pharmacokinetics of ribavirin and urinary excretion of the major metabolite 1,2,4-triazole-3-carboxamide in normal volunteers. Int. J. Clin. Pharmacol. Ther. Toxicol. 27: 302-307. Preston SL, Drusano GL, Glue P, Nash J, Gupta SK, and McNamara P (1999) Pharmacokinetics and absolute bioavailability of ribavirin administered intravenously and followed by stable-isotope methodology. Antimic. Agents Chemother. 43: 2451-2456. Morse GD, Shelton MJ, and O'Donnell AM (1993) Comparative pharmacokinetics of antiviral nucleoside analogues. Clin. Pharmacokinet. 24, 481-510.		36791-04-5	11.40	43.00	0.9600	Lin C-C, Yeh L-T, Luo T, Lourenco D, Lau JYN (2003) Pharmacokinetics and metabolism of [14C] ribavirin in rats and cynomolgus monkeys. Antimicrob. Ag. Chemother. 47, 1385-1398. Lin C-C, Luo K, Lourenco D, Huang J, Fang JW, Lau JY (2004) Ribavirin pharmacokinetics, metabolism and excretion studies in chimpanzee versus rhesus monkey, a liver-targeted ribavirin prodrug. Hepatol. 34, 219A. fu=fu=free	n=3, Fiorel 27%	36791-04-5																		

SarCNU	81965-43-7	0.76	9.00		Parrasci L, Stinson SF, Metrychuk D, Sandor V, Miller WH, Bialzat C, Fatemazi F, Bergauth N, Fanaeifar L, Abuzi Jamal M, and Sauvelle E (2003) SarCNU, a nitrosurea analog on a day 1, 5, and 9 oral schedule: a phase I and pharmacokinetic study in patients with advanced solid tumors. J. Clin. Oncol. 21: 232-240.	VDss was calculated using C vs t data obtained by digitization of the plot provided in the reference.	81965-43-7				Brown		81965-43-7	0.81	17.60		Brown i.p2 dose dependent; Sujdo 9.9 mg/kg, n=4, digitized, i.p2 0.4 h	81965-43-7					
Sch3d43	95415-91-1	0.30	7.50	0.3500	Lin C, Lim J, Radwanski E, Kim HK, Marco A, Lapigana A, DiGiore C, and Symchowicz S (1987) Pharmacokinetics and metabolism of an intravenously administered panem (Sch 34343) in humans. Antimic. Ag. Chemother. 31: 84-87. Elopoulos GM, Reisner E, and Weinberg RC (1985) In vitro activity of Sch 34343 against enterococci and other Gram-positive bacteria. Antimic. Agents Chemother. 27: 26-32.	VDss calculated from digitized C vs t plot.	95415-91-1	0.14	22.80		Chung M, Radwanski E, Loebenberg D, Lin C-C, Odenis E, Symchowicz S, Gural RP, Miller GH (1985) Interspecies pharmacokinetic scaling of Sch 34343. J. Antimicrob. Chemother. 15, 227-233.	m=6 ppt	95415-91-1	0.24	8.90		Chung M, Radwanski E, Loebenberg D, Lin C-C, Odenis E, Symchowicz S, Gural RP, Miller GH (1985) Interspecies pharmacokinetic scaling of Sch 34343. J. Antimicrob. Chemother. 15, 227-233.	m=11, 20 mg/kg, bwt taken as 10 kg	95415-91-1	0.21	6.70		Chung M, Radwanski E, Loebenberg D, Lin C-C, Odenis E, Symchowicz S, Gural RP, Miller GH (1985) Interspecies pharmacokinetic scaling of Sch 34343. J. Antimicrob. Chemother. 15, 227-233.	m=6 cyno 20 mg/kg, bwt taken as 5 kg
Selegiline	2323-36-6	1.90	20.00	0.1300	Heinonen, EH, Anttila, M, Lammistuasta, RAS (1994) Pharmacokinetic aspects of deprenyl (selegiline) and its metabolites. Clin Pharmacol Ther. 56: 742-749. De la Torre R, Farre M, Navarro M, Pardo R, Zuccato F, and Froldi S (2004) Clinical pharmacokinetics of amfetamine and related substances: monitoring in conventional and alternative matrices. Clin. Pharmacokinet. 43: 157-185. Emsam Product Label. Zelapar Product Label.		2323-36-6		0.3100	Summerfield, S. G.; Lucas, A. J.; Porter, R. A.; Jeffrey, P.; Gunn, R. N.; Read, K. R.; Stewart, A. J.; Metcalf, A. C.; Osuna, M. C.; Killout, P. J.; Passchier, J.; Rulle, A. D. Toward an improved prediction of human in vivo brain penetration. Xenobiotica (2008), 38(12), 1518-1535.	Mahmoud I, Peters DK, Mason WD (1994) The pharmacokinetics and stereotaxic bioavailability of selegiline in the dog. Biopharm. Drug Dispos. 15, 653-664.	2323-36-6	9.46	160.00		m=6, 1 mg/kg	2323-36-6					
Sertraline	101526-83-4	0.82	3.70	0.9600	Sin J, Ripley G, Gehr TWB, Sica DA, Dandekar KA, and Hindenburg PH (1998) Pharmacokinetics of sertraline in renal failure. J. Clin. Pharmacol. 38: 133-143. Hindenburg PH, Dilea C, Kostof T, and Millington G (1982) Comparative kinetics of sertraline in four species. Drug Metab. Dispos. 21: 662-669.		101526-83-4	2.08	25.60	0.9100	Hindenburg PH, Dilea C, Kostof T, Millington G (1982) Comparative kinetics of sertraline in four species. Drug Metab. Dispos. 21, 662-669.	female, m=4	101526-83-4	1.40	9.00	0.9500	Hindenburg PH, Dilea C, Kostof T, Millington G (1982) Comparative kinetics of sertraline in four species. Drug Metab. Dispos. 21, 662-669.	m=3 male	101526-83-4					
Semaxanib	204005-46-9	0.98	14.00	0.0080	Sukhatme, Jutharnee; Crapp, Gillian; Hannah, Alison; Wagner, Gregory; Lewis, Laura K.; Antonian, Lola. **Pharmacokinetics and interspecies scaling of a novel VEGF receptor inhibitor, SU5416.** Journal of Pharmacy and Pharmacology (2001), 53(12), 1629-1636.	Data in rat, dog and monkey available in the same reference. N=59, 0.1-6 mg/kg iv, cancer patients with advanced malignancies and on a variety of concomitant medications. Human data originally reported by Crapp et al at conference proceedings. Deemed accurate.	204005-46-9	1.60	45.00	0.0070	Sukhatme, Jutharnee; Crapp, Gillian; Hannah, Alison; Wagner, Gregory; Lewis, Laura K.; Antonian, Lola. **Pharmacokinetics and interspecies scaling of a novel VEGF receptor inhibitor, SU5416.** Journal of Pharmacy and Pharmacology (2001), 53(12), 1629-1636.	N=4 male SD rats, 5 mg/kg	204005-46-9	1.40	52.00		Sukhatme, Jutharnee; Crapp, Gillian; Hannah, Alison; Wagner, Gregory; Lewis, Laura K.; Antonian, Lola. **Pharmacokinetics and interspecies scaling of a novel VEGF receptor inhibitor, SU5416.** Journal of Pharmacy and Pharmacology (2001), 53(12), 1629-1636.	N=6, 2 mg/kg dose, female beagle dogs	204005-46-9	1.63	27.70		Reinberger, Jamie; Antonia, Alexander; McCulley, Leticia; Dauser, Robert; Berg, Stacey; Storey, Susan Fauna and omeboxyne fluid pharmacokinetics of SU5416 after intravenous administration in patients with metastatic Cancer. Chemotherapy and Pharmacology (2004), 53(1), 38-42	N=5, male Rhesus monkey, 13 kg average weight. Representative plot digitized for comparison. One compartment fit and thus VDss can be taken as VDz calculated from average parameters. Plot of Cl vs t. Plot of log(Cl) conversion factor used from 3.8 mg/kg (95 mg/m2) dose reported.
Sibrafiblil	139755-83-2	1.40	9.10	0.0400	Nichols DJ, Muirhead GJ, and Harness JA (2002) Pharmacokinetics of sibrafiblil citrate after single oral doses in healthy male subjects: Absolute bioavailability, food effects and dose proportionality. Br. J. Clin. Pharmacol. 53(Suppl. 1): 55-125. Walker DK, Ackland MJ, James GC, Muirhead GJ, Rance DJ, Wastall P, and Wright PA (1999) Pharmacokinetics and metabolism of sibrafiblil in mouse, rat, rabbit, dog and man. Xenobiotica. 29, 293-310.		139755-83-2	1.30	48.00	0.0500	Walker DK, Ackland MJ, James GC, Muirhead GJ, Rance DJ, Wastall P, Wright PA (1999) Pharmacokinetics and metabolism of sibrafiblil in mouse, rat, rabbit, dog and man. Drug Metab. Dispos. 29, 297-310.	gender diff (female CL, 13 ml/min/kg, VDss 2.0 L/kg, male used)	139755-83-2	5.20	12.00	0.1400	Walker DK, Ackland MJ, James GC, Muirhead GJ, Rance DJ, Wastall P, Wright PA (1999) Pharmacokinetics and metabolism of sibrafiblil in mouse, rat, rabbit, dog and man. Drug Metab. Dispos. 29, 297-310.	m=5, 1 mg/kg	139755-83-2	5.20	12.00	0.1400	
Sintrodil	143248-63-9	0.68	29.59		Monzani M V et al., Eur J Pharm Sci, 1999, 7, 179-184. Data from 10 mg dose 30-min infusion, N=11, 79.08 kg average weight		143248-63-9	1.99	84.90		Giacchetti C, Sertoli M, Canali S, Lombardini E, Monzani MV, Sala A, Zanolo G (1998) Pharmacokinetic study in dogs and monkeys after single intravenous and oral administration of [14-C]-TP-236. Eur. J. Drug Met. Pharmacokin. 23, 230-236	Human data available: Monzani M V et al., Eur J Pharm Sci, 1999, 7, 179-184. Data from 10 mg dose 30-min infusion, N=11, 79.08 kg average weight	143248-63-9	1.18	63.70		Giacchetti C, Sertoli M, Canali S, Lombardini E, Monzani MV, Sala A, Zanolo G (1998) Pharmacokinetic study in dogs and monkeys after single intravenous and oral administration of [14-C]-TP-236. Eur. J. Drug Met. Pharmacokin. 23, 230-236	Giacchetti C, Bertolino M, Canali S, Lombardini E, Monzani MV, Sala A, Zanolo G (1998) Pharmacokinetic study in dogs and monkeys after single intravenous and oral administration of [14-C]-TP-236. Eur. J. Drug Met. Pharmacokin. 23, 230-236	Human data available: Monzani M V et al., Eur J Pharm Sci, 1999, 7, 179-184. Data from 10 mg dose 30-min infusion, N=11, 79.08 kg average weight
Sitagliptin	486460-32-6	2.80	6.00	0.6200	Janusia Product Label	Intravenous clearance was calculated from oral dose, oral exposure, and absolute bioavailability reported in the product label for a 100 mg dose.	486460-32-6	8.10	45.00	0.0800	Becorri MG, Reed JR, Teffera Y, Xia YQ, Kochansky CJ, Liu DQ, Hu S, Simone CS, Cocotte S, Hora DF, Stearns RA, Vincent SH (2007) Disposition of the dipeptidyl peptidase-4 inhibitor sitagliptin in rats and dogs. Drug Metab. Dispos. 35, 525-532.	mean of 0.5, 2 and 5 mg/kg, dose-independent kinetics, F 58%	486460-32-6	3.30	9.10	0.0551	Becorri MG, Reed JR, Teffera Y, Xia YQ, Kochansky CJ, Liu DQ, Hu S, Simone CS, Cocotte S, Hora DF, Stearns RA, Vincent SH (2007) Disposition of the dipeptidyl peptidase-4 inhibitor sitagliptin in rats and dogs. Drug Metab. Dispos. 35, 525-532. N.A=Issue	mean of 2 dose levels(0.5 and 1.5 mg/kg) N=3/6	486460-32-6					
Sotalol	3930-20-9	1.30	2.00	0.6200			3930-20-9		14.70				3930-20-9		14.70						Tawara K (1977) Studies on the pharmacokinetics and effects of beta-adrenergic blocking agents, sotalol. Hokkaido Igaku Zasshi 52, 245-258.	0.1 mg/kg data used, m=6, but assumed as 10 kg	3930-20-9					
Sparfloxacin	110871-86-8	3.90	2.70	0.5500	Zagam Product Label.		110871-86-8	3.50	19.60	0.5000	Nawa K, Kakiyo Y, Iwamoto K, Tanaka K, Yamaguchi T, Sekine Y (1992) Effect of brifeluten on the pharmacokinetics of sparfloxacin in rats. J. Antimicrob. Chemother. 30, 679-683.	m=5, 10mg/kg, digitized for VDss, MRT0-inf with 15% AUC extrapol	110871-86-8											
Sparfloxic_Acid	51321-79-0	0.33	1.22		Edichman C, Strong J M, Chabner B A, Cancer Research 1980, 40, 1902-1906, N=7. Data from infusion (T=21 min) of 600-2000 mg/kg miltay doses. CL assumed average BW 70 kg. MRT calculated from VDss and CL. SD beta.	VDss SD = 0.18	51321-79-0	1.10	17.40		Chadwick M, Silvetra DM, MacGregor JA, Bradman AR, Liss RH, Yesair DW (1982) Comparative physiological disposition of N-phosphonoacetyl-L-aspartate in several animal species after intravenous and oral administration.	Data digitized from plot reported by: N=4, male SD rats, 20 mg/kg iv dose. AUC within 10% of reported (AUC: 0-7.24, 7-infinite, 1), t1/2 longer than reported (59 min but calculated only between 1-4 hours). Vd calculated from intercept method (1-4 hour slope) from Cv extrapolated. Reported value 4.11 L/kg	51321-79-0	0.29	4.10		N=4, male and female beagle dogs, 5 mg/kg iv dose. Reported AUC (0-7), 23.2 ug.hr/mL-1, t1/2 longer than reported (53 min but calculated only between 1-5 hours). Vd calculated from intercept method (1-5 hour slope) from Cv extrapolated. Reported value 0.351 L/kg	51321-79-0	0.20	2.30		Chadwick M, Silvetra DM, MacGregor JA, Bradman AR, Liss RH, Yesair DW (1982) Comparative physiological disposition of N-phosphonoacetyl-L-aspartate in several animal species after intravenous and oral administration.	N=4, male and female rhesus monkeys, 10 mg/kg iv dose. Reported AUC (0-7), 70 ug.hr/mL-1, t1/2 longer than reported (53 min but calculated only between 1-5 hours). Vd calculated from intercept method (1-5 hour slope) from Cv extrapolated. Reported value 0.351 L/kg
Staurudine	3056-17-5	0.67	8.20	1.0000	Dudley MN, Graham KK, Kaul S, Gelotko S, Dunkle L, Browne M, and Meyer K (1992) Pharmacokinetics of staurudine in patients with AIDS or AIDS-related complex. J. Infec. Dis. 166: 480-485. Horton CM, Dudley MN, Kaul S, Meyer KH, Squires K, Dunkle L, and Anderson R (1995) Population pharmacokinetics of staurudine (d4T) in patients with AIDS or advanced AIDS-related complex. Antimic. Agents Chemother. 39: 2208-2213. Zerit XR Product Label.		3056-17-5	1.09	20.20	0.9000	Gerg M, Dutta T, Jain NK (2007) Reduced hepatic toxicity, enhanced cellular uptake and altered pharmacokinetics of staurudine-loaded galactosylated liposomes. Eur. J. Pharm. Biopharm. 67, 76-85. Kaul S, Dandekar KA, Schilling BE, Barthrope RH (1996) Toxicokinetics of 2',3'-didehydro-3'-deoxythymidine, staurudine (D4T). Drug Metab. Dispos. 27, 1-12.	Gerg: VDss calculated from CL and MRT. Kaul:F 100%. **fu reported as > 0.9. Taken as such.**	3056-17-5			0.9000	**fu reported as > 0.9**	3056-17-5	0.80	9.40	0.9000	Kaul S, Dandekar KA, Schilling BE, Barthrope RH (1996) Toxicokinetics of 2',3'-didehydro-3'-deoxythymidine, staurudine (D4T). Drug Metab. Dispos. 27, 1-12.	Kaul S, Dandekar KA, Schilling BE, Barthrope RH (1996) Toxicokinetics of 2',3'-didehydro-3'-deoxythymidine, staurudine (D4T). Drug Metab. Dispos. 27, 1-12. Gorniewicz J F (1995) In-vivo and in-vitro disposition and metabolism of 2'-deoxy-2',3'-didehydrothymidine, Antimicrob. Ag. Chemother. 39, 1414-1418
Sulbactam	68373-14-8	0.32	5.10	0.6200	Foulds G, Shedlofsky SP, Weinfeld DC, O'Brien MM, Hagen SL, Weidler DJ, and McMahon FG (1983) Pharmacokinetics of sulbactam in human. Antimic. Agents Chemother. 23: 602-608. Rho JP, Castle S, Smith K, Bawden RE, and Norman DC (1982) Effect of impaired renal function on the pharmacokinetics of cloxacillin/sulbactam. J. Antimic. Chemother. 29: 701-705. Foulds G, Miller RD, Kronish JW, and Thupp LD (1980) Sulbactam kinetics and excretion into breast milk in postpartum women. Clin. Pharmacol. Ther. 28: 632-636. Blum RA, Kohl RR, Harrison NJ, and Schentag JJ (1988) Pharmacokinetics of ampicillin/(2-D-gamma) and sulbactam (1-D-gluc) coadministered to subjects with normal and abnormal renal function and those undergoing hemodialysis or hemofiltration. Antimic. Agents Chemother. (1988), 32, 1470-1476. de la Pena A and Derendorf H (1989) Pharmacokinetic properties of beta-lactamase inhibitors. Int. J. Clin. Pharmacol. Ther. 27: 63-75.		Leroux-Roels G, Leroux-Roels I, Van Damme P, Bruyndonckx R, Van Hoof J, Vandekerckhove P, Hepatitis A vaccine administered to healthy adults: pharmacokinetics, immunogenicity, and safety. Clin Pharmacol Ther. 2010 Jan;87(1):90-6.	Liang Y, Xie L, Liu X, Qu H-Z, Wang G-Z (2004) LC-MS determination of sulbactam in beagle dog plasma and study on its pharmacokinetics when co-administrated with ceftazidime. J. China Pharma. Univ. 35, 419-426.	68373-14-8	0.34	3.56		n=9, 13 mg/kg, VDss calculated from MRT and CL	68373-14-8					
Sulfadiazine	68-35-9	0.29	0.55	0.4400	Mannisto PT, Mantyla R, Matilla J, Nykanen S, and Lammintausi (1982) Comparison of pharmacokinetics of sulphadiazine and sulphamethoxazole after intravenous administration. J. Antimic. Chemother. 9: 461-470. Wijkstrom A and Westerlund D (1983) Plasma protein binding of sulfadiazine, sulfamethoxazole and trimethoprim determined by ultrafiltration. J. Pharm. Biomed. Anal. 1: 293-299.	VDss determined from Css t data obtained by digitization of plot in the reference.	68-35-9	0.34	1.10	0.8600	Kaul S, Rinschel WA (1988) Influence of obesity on sulfonamide disposition in Zucker rats. Eur. J. Drug Metab. Pharmacokinet. 13, 273-282.	lean Zucker rat, m=6, 7 mg/kg	68-35-9			0.7800								
Sulfadoxine	57-66-5	0.12	0.34	0.0170	Dieterle W, Faigle JW (1981) Species differences in the disposition and metabolism of sulfamoxole. Xenobiotica 11, 559-568. N.A=Issue	VDss calculated from rate microcontrants reported in the reference.	57-66-5	0.43	0.46	0.0020	digitised, m=2 ppt, 100 mg/kg, MRT0-inf 16 h with 23% AUC extrapol		57-66-5	0.21	0.84	0.0365	digitised, m=2, 100 mg/kg	57-66-5	0.12	0.45	0.0140	Dieterle W, Faigle JW (1981) Species differences in the disposition and metabolism of sulfamoxole. Xenobiotica 11, 559-568. N.A=Issue	digitised, m=2, 100 mg/kg, rhesus
Sulfoxazole	127-69-5	0.17	0.20	0.0790	Kaplan SA, Weinfeld RE, Abruzzo CW, and Lewis M (1973) Pharmacokinetic profiles of sulfamethoxazole and its N4-acetylmetabolite, and oral administration to man. J. Pharm. Sci. 61, 773-779. Ose S, Gambertoglio JG, and Fleckenstein L (1982) Comparison of the disposition of total and unbound sulfisoxazole after single and multiple dosing. J. Pharmacokinet. Biopharm. 10: 157-72. Du Souich P, Calier R, and Grill S (1980) Effects of ceftiaxime on the serum protein binding of sulfisoxazole. Biopharm. Drug Dispos. 11: 271-279.	Pharmacokinetic parameters were calculated from C vs t data provided in the reference by Kaplan, et al.	127-69-5	0.25	0.65	0.0569	Kaul S, Rinschel WA (1988) Influence of obesity on sulfonamide disposition in Zucker rats. Eur. J. Drug Metab. Pharmacokinet. 13, 273-282.	lean Zucker rat, m=6, 7 mg/kg	127-69-5	0.86	1.39	0.6000	Suter RL, Lee C, Torosian G, Edds GT (1981) Pharmacokinetics of sulfisoxazole compared in humans and two monogastric animal species. J. Pharm. Sci. 70, 981-984.	127-69-5					
Sumatriptan	103628-46-2	1.70	19.00	0.8300	Closson VF, Furasea E, Efthymiopoulos C, and Bye A (1997) Mixed effect modeling of sumatriptan pharmacokinetics during drug development I: Interspecies allometric scaling. J. Pharmacokinet. Biopharm. 25: 149-167. Scott AK (1994) Sumatriptan clinical pharmacokinetics. Clin. Pharmacokinet. 27: 327-344.		103628-46-2	1.15	28.00	0.8500	Closson VF, Furasea E, Efthymiopoulos C, Bye A (1997) Mixed effect modeling of sumatriptan pharmacokinetics during drug development I: Interspecies allometric scaling. J. Pharmacokinet. Biopharm. 25: 149-167. Feyerabend B, Gaertner HJ, Oxford J, Breuninger J, Tartsch G (1993) Disposition of sumatriptan in laboratory animals and humans. Drug Metab. Dispos. 21, 751-759.	Dixon - F27%	103628-46-2	1.74	13.90	0.8600	Closson VF, Furasea E, Efthymiopoulos C, Bye A (1997) Mixed effect modeling of sumatriptan pharmacokinetics during drug development I: Interspecies allometric scaling. J. Pharmacokinet. Biopharm. 25: 149-167. Feyerabend B, Gaertner HJ, Oxford J, Breuninger J, Tartsch G (1993) Disposition of sumatriptan in laboratory animals and humans. Drug Metab. Dispos. 21, 751-759.	Closson 1 mg/kg m=4, Barrow 1 mg/kg, m=2, Dallas 1 mg/kg, m=4, digitized	103628-46-2				
Suramin	145-63-1	0.54	0.01	0.0030	Collins, JM, Klecker, RW, Yarchoan, R, Lane, HC, Fauci, AS, Redfield, RR, Broder, S, Myers, CE (1986) Clinical pharmacokinetics of suramin in patients with HTLV-III/LAV infection. J Clin Pharmacol. 26: 22-26.		145-63-1	0.75	0.04	0.0010	Ogden A, Wientjes MG, Au JL-S (2004) Suramin as a chemosensitizer: Oral pharmacokinetics in rats. Pharm. Res. 21, 2058-2063. Ogden A, Zhang C, Wientjes MG, Au JL-S (2002) Pharmacokinetics of suramin in rat. Proc. Amer. Assoc. Cancer Res. 43, 77	F < 3%	145-63-1											
Suxamed	149556-49-0	0.10	0.07	0.0019	Parliman I, Edholm M, Karlsuamsta S, Odell MA (1998) Pharmacokinetics of suxamed, a highly biliary excreted sulphoxalate analogue, in various species. Nonprecliclable human clearance by allometric scaling. Pharm. Pharmacol. Commun. 4, 493-498.	100 mg dose, n=3, fu measured at 25 uM ED	149556-49-0	1.20	62.00	0.0033	Parliman I, Edholm M, Karlsuamsta S, Odell MA (1998) Pharmacokinetics of suxamed, a highly biliary excreted sulphoxalate analogue, in various species. Nonprecliclable human clearance by allometric scaling. Pharm. Pharmacol. Commun. 4, 493-498.	Non-linear PK (saturation of CL60 - 25 and 50, mg/kg data available - 25 mg/kg data included here. Gender differences also (data presented is male). N=3. fu measured at 25 uM ED	149556-49-0	0.19	20.00	0.0100	Parliman I, Edholm M, Karlsuamsta S, Odell MA (1998) Pharmacokinetics of suxamed, a highly biliary excreted sulphoxalate analogue, in various species. Nonprecliclable human clearance by allometric scaling. Pharm. Pharmacol. Commun. 4, 493-498.	Non-linear PK - 5 mg/kg data shown, m=6, fu measured at 25 uM ED	149556-49-0	0.08	1.90	0.0030	Parliman I, Edholm M, Karlsuamsta S, Odell MA (1998) Pharmacokinetics of suxamed, a highly biliary excreted sulphoxalate analogue, in various species. Nonprecliclable human clearance by allometric scaling. Pharm. Pharmacol. Commun. 4, 493-498.	cyno, m=6, 25 mg/kg. Non-linear PK
Tacrolimus	104987-11-3	1.20	0.70	0.0100	Mancinelli LM, Frassetto L, Floren LC, Dressler D, Carrier S, Belenky I, Ewert LZ, and Christians U (2001) The pharmacokinetics and metabolic disposition of tacrolimus: a comparison across ethnic groups. Clin. Pharmacol. Ther. 69: 24-31. Iwasaki K, Miyazaki Y, Terasaya Y, Kasamura A, Tozaka Z, Hata T, and Ueno K (1996) Binding of tacrolimus (FK506) with human plasma proteins re-evaluation and effect of mycophenolic acid. Rev. Comm. Mater. Path. Pharmacol. 94: 251-257.		104987-11-3	1.13	8.95		31.60		Kawamura A, Iwasaki K, Fujita E, Terasaya Y, Hata T (1995) Pharmacokinetics of tacrolimus (FK506) administration a single dose and continuous infusion in dogs. Transplant. Proc. 22, 51-55. Shimada T, Tokada A, Yokogawa K, Kanetsu H, Nomura M, Kaji K, Kanetsu S, Kobayashi K + Miyamoto K-I (2002) Lowered blood concentration of tacrolimus and its recovery with changes in expression of CYP3A and P-glycoprotein after high-dose steroid therapy. Transplantation 74, 1419-1424. Sun LZ, Moon YJ, Lee MG, Sohn YT (2006) Pharmacokinetic changes of intravenous tacrolimus in rats with uranyl nitrate-induced renal failure. Rev. Commun. Mol. Pathol. Pharmacol. 108, 259-266.	Kawamura 0-72 h, 1 mg/kg, n=5-7; Shimada 0-8 h, 2 mg/kg n=5; Sun 0-6 h, n=14, 1 mg/kg iv	104987-11-3		232.00	0.0055	Venkataramanan R, Jain A, Cadoff E, Warty V, Iwasaki K, Nagase K, Krapcho A, Imanitoto O, Todo S, Fung JJ, Starzl TE (1995) Pharmacokinetics of FK506: Preclinical and clinical studies. Transplant. Proc. 22, 52-56. N.A=Issue	0.2 mg/kg, but taken as 10 kg	104987-11-3	2.93	4.40	0.0550	Iwasaki K, Shiraga T, Matsuda H, Kasamura A, Hata T, Chasenaud LF (1996) Absorption, distribution and excretion of tacrolimus (FK506) in the baboon. Yakubutsu Dotai 13, 478-483. N.A=Issue	baboon, 1mg/kg, blood, n=3
Talinolol	57460-41-0	3.30	4.90	0.2900	Trauscht B, Oertel R, Richter K, and Gramatte T (1995) Disposition and bioavailability of the beta1-adrenoceptor antagonist talinolol in man. Biopharm. Drug Dispos. 16, 453-464. Trauscht B, Oertel R, Richter K, and Gramatte T (1995) Die proteinbindung von talinolol. Pharmazie 50: 72.		57460-41-0	4.50	47.50		Spahn-Langguth H, Langguth P (2001) Grapefruit juice enhances the bioavailability of the beta-adrenoceptor antagonist talinolol in rats. J. Pharm. Sci. 12, 261-267. Tresde A, Nordbeck B, Marchner H, Wendel A K, Lemenses H, Bergmann UH (2002) Pulmonary absorption rate and bioavailability of drugs in vivo in rats: Structure–absorption relationships and physicochemical profiling of inhaled drugs. J. Pharm. Sci. 93, 1216-1233.	S-Langguth - m=6 4mg/kg, mean of enantiomers - no stereoselective PK. F 17%, Tresde - m=6, 1.4 mg/kg	57460-41-0											
Tamsulosin	106133-20-4	0.21	0.62	0.0100	van Hoogdalem E, Soeishi Y, Matsushima M, and Higuchi S (1997) Disposition of the selective alpha1A-adrenoceptor antagonist tamsulosin in humans: comparison with data from animals. Biopharm. Drug Dispos. 18, 239-249. Matsushima H, Kamimura H, Soeishi Y, Watanabe T, Higuchi S, and Tsunoo M (1998) Pharmacokinetics and plasma protein binding of tamsulosin hydrochloride in rats, dogs, and humans. Drug Metab. Dispos. 26: 240-245.		106133-20-4	3.25	82.20	0.2400	Matsushima H, Kamimura H, Soeishi Y, Watanabe T, Higuchi S, Tsunoo M (1998) Pharmacokinetics and plasma protein binding of tamsulosin hydrochloride in rats, dogs, and humans. Drug Metab. Dispos. 26, 240-245. Matsushima H, Watanabe T, Higuchi S (2000) Effect of alpha-1-acid glycoprotein on the pharmacokinetics of tamsulosin in rats treated with turpentine oil. J. Pharm. Sci. 89, 490-498. Ohkura T, Yamada S, Deguchi Y, Kimura R (1999) Comparative study on pharmacokinetics and in vivo alpha1-adrenoceptor binding of [^{3}H]-tamsulosin and [^{3}H]-prazosin in rats. Biol. Pharm. Bull. 22, 412-417.	1 mg/kg n=3; 0.3 mg/kg n=3; Ohkura - 1 mcg/kg n=3	106133-20-4	1.74	19.30	0.1000	Matsushima H, Kamimura H, Soeishi Y, Watanabe T, Higuchi S, Tsunoo M (1998) Pharmacokinetics and plasma protein binding of tamsulosin hydrochloride in rats, dogs and humans. Drug Metab. Dispos. 26, 240-245.	m=4, 1 mg/kg	106133-20-4					
Tebufelone	112018-00-5	12.00	8.90		Crum CA, Kelm GR, Meredith MP (1995) Interspecies scaling of tebufelone pharmacokinetic data and application to preclinical toxicology. Pharm. Res. 12, 995-951.	Data digitized from Dedrick-like plot reported. AUC reported 57.6 ng.h/mL-1, clearance reported 9.67 mL.min-1.kg-1. These data refer to the corrected I and C data for human, 25 mg dose and 72.9 average weight.	112018-00-5	7.90	41.35		Siestsema WK, Kelm GR, Dettbar RM, Doyle MJ, Loomans ME, Singh RE, Kinnard GO, Cantrell RA, Fischer RW (1995) Absorption, Bioavailability and Pharmacokinetics of Tebufelone in the Rat. J. Pharm. Sci. 82, 612-617.	2 mg/kg dose. CV (Crum/AUC). See also: Crum CA, Kelm GR, Meredith MP, (1995) Interspecies scaling of tebufelone pharmacokinetic data and application to preclinical toxicology. Pharm. Res. 12, 995-951. Data could not be digitized with sufficient accuracy for calculation from Dedrick-like plot.	112018-00-5	24.80	30.90		Data digitized from plot reported by Dobson RLM, Kelm GR and Neal DW (1994) Automated Gas Chromatography/Ion Trap Mass Spectrometry Assay for Tebufelone and 13C, 18O-labeled analog in plasma: applicability to absolute bioavailability determination. Biol. Mass Spectrom. 23, 75-80. Cl = 10.8 mL.min-1.kg-1. Vdss= 24.8 L.kg-1. MRT= 33.8 hr. n=10, m=1 kg	Cl and t 1/2 only available in Crum CA, Kelm GR, Meredith MP, (1995) Interspecies scaling of tebufelone pharmacokinetic data and application to preclinical toxicology. Pharm. Res. 12, 995-951. Data could not be digitized with sufficient accuracy for calculation from Dedrick-like plot.	112018-00-5	10.40	14.90		Crum CA, Kelm GR, Meredith MP, (1995) Interspecies scaling of tebufelone pharmacokinetic data and application to preclinical toxicology. Pharm. Res. 12, 995-951. Data could not be digitized with sufficient accuracy for calculation from Dedrick-like plot.	Data digitized from Dedrick-like plot reported. AUC reported 2097 ng.h/mL-1, clearance reported 16.6 mL.min-1.kg-1. These data refer to the corrected I and C data for monkey, 10 mg dose and 4.7 average weight. Vdss(app) not specified, 4.7 kg mean bwt, dose 10 mg
Tiaprofenic Ac-1	61036-64-4	1.50	0.20	0.1100	Antony KA, Lewis EW, Kenny MT, Dukeshih JK, Brackman MB, Kosina R, Yuh L, Ellis MG, and Thompson GA (1991) Pharmacokinetics of tiaprofenic acid and its metabolites of acyclovir following intravenous and intramuscular administration to humans. J. Pharm. Sci. 80: 605-607. Borrel M, Trains GL, Villa S, Salvadori A, Gentile MG, Fellin G, Rosina R, Cavenaghi L, and Bunka G (1987) Tiaprofenic pharmacokinetics in patients with chronic renal failure. Clin. Pharmacokin. 12: 260-261. Bernareggi A, Borgonovi M, Del Fiaveo A, Rosina R, and Savenaghi L (1991) Tiaprofenic binding in plasma following administration of increasing intravenous doses to healthy volunteers. Eur. J. Drug Metab. Pharmacokinet. 256: 265.		61036-64-4	1.56	0.53	0.0230	Fan-Havard P, Kosby Z, Bais RM, Smith C, Eng RHK (1992) Effect of morphine on pharmacokinetics and tiaprofenic-elimination pharmacokinetics. J. Antimicrob. Chemother. 32, 101-108. N.A=Issue	6 mg/kg m=4	61036-64-4	0.26	0.10		Bernareggi A, Rosina R, Zenatti C (1984) Pharmacokinetics of tiaprofenic in dogs. Biopharm. Pharmacokinet. Eur. Congr. 2, SE3-SE7.	5 mg/kg, m=3	61036-64-4					
Telavancin	372151-71-8	0.11	0.20	0.0700	Sun HK, Dudnik K, Nightingale CH, Shea JP, Semogg J, and Nicolau DP (2008) Tissue penetration of telavancin after intravenous administration in healthy subjects. Antimicr. Agents Chemother. 52: 788-790. Shaw JP, Semogg J, Kanga-L-Higgins DL, Kitt M, and Barriere S (2010) Pharmacokinetics, serum inhibitory and bactericidal activity, and safety of telavancin in healthy subjects. Antimicr. Agents Chemother. 49:		372151-71-8	0.10	0.85		Shaw J. An interspecies extrapolation of the pharmacokinetics of telavancin, a rapidly bactericidal concentration-dependent antibiotic. Xenobiotica, 2011, 41(1), 82–98. 10 mg/kg 2 min infusion.	Shaw J. An interspecies extrapolation of the pharmacokinetics of telavancin, a rapidly bactericidal concentration-dependent antibiotic. Xenobiotica, 2011, 41(1), 82–98. 10 mg/kg 2 h infusion. No differences between male and female rats	372151-71-8	0.14	1.10		Shaw J. An interspecies extrapolation of the pharmacokinetics of telavancin, a rapidly bactericidal concentration-dependent antibiotic. Xenobiotica, 2011, 41(1), 82–98. 10 mg/kg 2 h infusion. No differences between male and female rats	372151-71-8	0.17	0.95	0.1200	Shaw J. An interspecies extrapolation of the pharmacokinetics of telavancin, a rapidly bactericidal concentration-dependent antibiotic. Xenobiotica, 2011, 41(1), 82–98. 10 mg/kg 2 h infusion. No differences between male and female rats	cynomolgus not defined

Telithromycin	191114-48-4	3.00	14.00	0.4100	Perner C, Lenhart B, Weinling E, Wessels DH, Schotte HE, Montay G, and Sultes E (2002) Pharmacokinetics and Absolute Oral Bioavailability of an 800-mg Oral Dose of Telithromycin in Healthy Young and Elderly Volunteers. Chemotherapy 48: 217-223. Yamazaki H, Lamy S, Ducotter C, Bonnet C, and Lenhart B (2003) Study of binding of telithromycin to human serum proteins. Nippon Kagaku Ryoho Gakkai Zasshi 53: 269-205		191114-48-4	3.30	71.00	0.2600	Burger MT, Lin X, Chu DT, Hebert C, Rico AC, Seid M, Carroll SL, Barron L, Hohl K, Lovegrove M, Stearns R, Kirkey J, Young K, Anderson S, Desai MC, Pleiter J (2004) Synthesis and antibacterial activity of novel C_{13}-aryl ketolides. J. Med. Chem. 49, 1730-1743.; Lee JW, Lee MG (2007) Dose-dependent pharmacokinetics of telithromycin after intravenous and oral administration to rats: Contribution of intestinal first-pass effect to low bioavailability. J. Pharm. Pharmacol. Sci. 10, 37-50.	F 11%, 20 mg/kg Leo2, and 5 mg/kg Burger. Higher dose data available but different PK (saturation kinetics)	191114-48-4							191114-48-4					
Temozolomide	85622-93-1	0.50	3.60		Marzoller C, Decorsaz LA, Sherif, Gander M, Lejeune S, Bauer J, Bucki T, Brotter J, and Lejeune F (1998) Pharmacokinetics of temozolomide in association with thermatine in malignant melanoma and malignant glioma patients: comparison of oral, intravenous, and hepatic intra-arterial administration. Canc. Chemother. Pharmacol. 42: 423-440	VDss calculated from digitized C vs t plot provided in the report.	85622-93-1	0.92	9.80		Bogdanowicz L, Stadkowski P, Theisen CM, Pietsch J, Bleiss VR, Wirth M (2004) Disposition and pharmacokinetics of temozolomide in rat. Xenobiotica 34, 487-500.; Zhou Q, Gao P, Wang X, Nuhagaul S, Gallo JM (2007) Preclinical pharmacokinetic and pharmacodynamic evaluation of temozomic and conventional temozolomide dosing regimens. J. Pharmacol. Exp. Ther. 321, 282-290	2hrs; digitized, PK in tumor-bearing rats, n=7, 10 mg/kg. Bioyldermen n=3-5 SD bar. Weighted mean of CL values from 2 studies	85622-93-1							85622-93-1					
Tenofovir	147127-20-6	0.83	3.10	0.8300	Cundy KC, Sueneka C, Lynch GR, Griffin L, Lee WA, Shaw J-P (1998) Pharmacokinetics and bioavailability of the anti-human immunodeficiency virus nucleotide analog 9-[(R)-2-(phosphonomethoxy)propyl]adenine (PMPA) in dogs. Antimicrob. Ag. Chemother. 42, 687-690.	Averaged data from two dose levels.	147127-20-6	0.90	5.90									147127-20-6		16.20		Hamilton M, Gill SC, Wolf J, Moon McDermott L (2001) Pharmacokinetics of tenofovir disoproxil fumarate in rhesus monkeys. 41st ICAAC, Abstracts 47, 18.	rhesus, n=3/sex/group, 5 mg/kg data used. Little error in publication? Assumed AUC is in ug/ml-hr not mg/ml-s based on comment no. 4-5. Mid higher than human CL
Tenoxicam	59804-37-4	0.19	0.03	0.0085	Hanisz RC, Guentert TW, Enrico JF, Dubach UC, Brandt R, and Jeunet FS (1984) Pharmacokinetics of tenoxicam in healthy human volunteers. Eur. J. Rheum. Inflam. 7: 33-44. Nilsen OG, Aarsand K, Widerøe TE, and Guentert TW (2001) Single- and multiple-dose pharmacokinetics, kidney tolerability and plasma protein binding of tenoxicam in renally impaired patients and healthy volunteers. Pharmacol. Toxicol. 88: 265-272.	VDss calculated from reported micro rate constants in Hanisz, et al..	59804-37-4	0.22	0.47	0.0300	Lopez-Bustamante LG, Trocóniz JF, Fos D (1992) Effect of uraemia and anephric state on the pharmacokinetics of tenoxicam in the rat. J. Pharm. Pharmacol. 44, 898-901.	5 mg/kg, rm8	59804-37-4							59804-37-4					
Tenuazonic	63590-64-7	0.98	1.10	0.0800	Patterson SE (1985) Tenuazonic kinetics after oral and intravenous doses. Clin. Pharmacol. Ther. 38: 423-427. Sonders RC (1985) Pharmacokinetics of tenuazonic. Am. J. Med. 80: 20-26.	VDss calculated from reported micro rate constants.	63590-64-7	2.00	24.70		Oh KY, Bae SK, Kwon JW, Yoo M, Lee DC, Lee MG (2007) Pharmacokinetic and pharmacodynamic consequences of inhibition of tenuazon metabolism via CYP3A4, and/or 3A2 by DA-9158, an enecdiyne, in rats. Br. J. Pharmacol. 151, 24-34.	5 mg/kg, rm8	63590-64-7							63590-64-7					
Terbutaline	23031-25-6	1.50	3.40	0.7500	Borgström L, Nyberg L, Jonsson S, Lindberg C, and Paulsson J (1986) Pharmacokinetic evaluation in man of terbutaline given as separate enantiomers and as the racemate. Br. J. Clin. Pharmacol. 27: 49-56. Nyberg L (1984) Pharmacokinetic parameters of terbutaline in healthy man. An overview. Eur. J. Resp. Dis. 65(Suppl 134) 149-160. Lefebvre JS, van den Berg W, Wagenaar-Knigge I, Kreukniet J, and Maes RAA (1992) Pharmacokinetics of terbutaline, a beta2-sympathomimetic, in healthy volunteers and asthmatic patients. Arz. Forsch. 32: 159-162. Hallen B, Gabrielsson J, Palmer L, and Ekstrom B (1993) Pharmacokinetics of R(-)-terbutaline given intravenously and orally to healthy volunteers. Pharmacol. Toxicol. 73: 153-158. Hallen B, Gabrielsson J, Nyström S, Johansson A, Larsson E, and Gullstaud O (1993) Concomitant single-dose and multiple-dose pharmacokinetics of terbutaline in man, with a note on its enantiomers and major metabolites. Pharmacol. Toxicol. 70: 111-117	Cited terminal phase t1/2. Data are for the racemate.	23031-25-6	3.30	60.00		Tronde A, Nordeng K, Marchner H, Wendel A-K, Lennernäs H, Bengtsson UH (2003) Pulmonary absorption rate and bioavailability of drugs in vivo in rats: Structure-absorption relationships and physicochemical profiling of inhaled drugs. J. Pharm. Sci. 92, 1216-1233.	Tronde- rm8, 2.2 umol/kg	23031-25-6							23031-25-6					
Terodiline	15793-40-5	5.10	1.10	0.0800	Hallen B, Gabrielsson J, Palmer L, and Ekstrom B (1993) Pharmacokinetics of R(+)-terodiline given intravenously and orally to healthy volunteers. Pharmacol. Toxicol. 73: 153-158. Hallen B, Gabrielsson J, Nyström S, Johansson A, Larsson E, and Gullstaud O (1993) Concomitant single-dose and multiple-dose pharmacokinetics of terodiline in man, with a note on its enantiomers and major metabolites. Pharmacol. Toxicol. 70: 111-117		15793-40-5							41.00	0.1400	Hallen B, Grebb M, Broeckel H, Stromberg S (1990) Pharmacokinetics of terodiline and its major metabolite in dog with a correlation to a pharmacodynamic effect. Pharmacol. Toxicol. 66, 372-381.	0.15 mg/kg, rm3	15793-40-5							15793-40-5					
Tetracycline	60-54-8	1.20	1.50	0.7800	Kuhn CM, Dambach AC, and Finlend M (1958) Distribution and excretion of four tetracycline analogs in normal young men. J. Clin. Invest. 38: 1950-1963.	calculated from digitized plots	60-54-8	2.20	18.70		Oh YHJ, Han HK (2008) Pharmacokinetic interaction of tetracycline with non-steroidal anti-inflammatory drugs via organic anion transporters in rats. Pharmacol. Res. 52, 75-79.	rm4, 5 mg/kg	60-54-8							60-54-8					
Tezosentan	180384-57-0	0.28	8.10	0.0085	Dingemanse J, Clozel M, and Gerdesgen P-LM (2002) Pharmacokinetics and pharmacodynamics of tezosentan, an intravenous dual endothelin receptor antagonist, following chronic infusion in healthy subjects. Br. J. Clin. Pharmacol. 53: 355-362. Treiber A, Van Gerdesgen P-LM, and Dingemanse J (2003) In vivo and in vitro disposition profile of tezosentan, an intravenous dual endothelin receptor antagonist, in humans. Xenobiotica 33:		180384-57-0	0.27	4.30		Clozel M, Ramuz H, Loser J-P, Breu V, Hess P, Loffler B-M, Cosentani P, Risa S (1998) Pharmacology of tezosentan, new endothelin receptor antagonist designed for parenteral use. J. Pharmacol. Exp. Ther. 290, 840-846.	rm4, 10 mg/kg	180384-57-0							180384-57-0	0.21	15.60		Clozel M, Ramuz H, Clozel J-P, Breu V, Hess P, Loffler B-M, Cosentani P, Risa S (1998) Pharmacology of tezosentan, new endothelin receptor antagonist designed for parenteral use. J. Pharmacol. Exp. Ther. 290, 840-846.	data quoted in cyno; n=2 and 10 mg/kg
Theophylline	58-55-9	0.51	0.86	0.6100	Kolsen J, Borgstrom L, Koetter GH, Lassar M, Jorkinson JHD, and deRiccord CR (1985) Creation of four consecutive intersteady-state plasma concentration plateaus of theophylline and aminophylline by repeated infusions with exponentially decreasing delivery rates. Eur. J. Clin. Pharmacol. 35: 657-661. Lee KJ, Moser R, Hellebrand T, Cassin J, Johnson N, Gordon P, Sokal PJ, Holme K, and Lee YM (2003) Modulation of nonspecific binding in ultrafiltration protein binding studies. Pharm. Res. 20: 1015-1021. Lombardi TP, Bertino JS, Goldberg A, Middleton E, and Slaughter RL (1987) The effects of a beta-2 selective adrenergic agonist and a beta-nonselective antagonist on theophylline clearance. J. Clin. Pharmacol. 27: 523-529		58-55-9	0.55	2.25	0.2700	Matsunaga N, Hagashi M, Yamamoto K, Nishijima T, Kizu J, Nishikawa K, Takanaka A, Mochizuki A, Nakashima E (2002) Simultaneous assessment of the in vivo amount of CYP1A2 and CYP3A2 by the PACIP-test using theophylline in rats. Drug Metab. Pharmacokinet. 17, 180-186.	10 mg/kg, rm3	58-55-9	0.68	1.80	0.8635	Kanai H, Kokubun S, Matsumoto T, Kojima J, Onodera K (2008) Pharmacokinetic study of theophylline in dogs after intravenous administration with and without ethylenediamine. Meth. Find. Exp. Clin. Pharmacol. 22, 179-184. Scio House	10 mg/kg, rm3	58-55-9	0.69	3.80	0.6840	Wong H, Grossman SJ, Bai SA, Diamond S, Wright HR, Grace JE, Quan M, Lee K, Yeleswaram K, Christ DD (2004) The chimpanzee (Pan troglodytes) as a pharmacokinetic model for selection of human immunomodulatory drugs: characterization and application. Drug Metab. Dispos. 32, 1259-1265.	chimpanzee, rm1, 0.5 mg/kg
Tiagabine	115103-54-3	1.10	1.60	0.6400	Jansen JA, Oliver S, Drazich J, and Mengel HB (1995) Absolute bioavailability of tiagabine. Epilepsia 36(Suppl. 3): s159		115103-54-3	2.05	69.00		Clinton, A, et al. British Journal of Pharmacology, 130(5),	5 male SPF Wistar rats (weighing 200-250g). Iv infusion, 10mg/kg for 10min from right jugular vein. Blood removal veins for serial collection	115103-54-3							115103-54-3					
Tiaprofenic	60084-10-8	1.10	2.40	0.4709	Jayaram HN, Lagin E, Tricot G, Kreeburg P, Paulik E, Zhen W, Engeler GP, Hoffmann R, and Weber G (1992) Clinical pharmacokinetic study of tiaprofenic administered as a 1-hour infusion. Int. J. Cancer. 51: 182-189. Roberts JD, Stewart JA, McCormick JJ, Kraloff R, Culham CA, Hutchison JA, Newman RA, Haugh LD, and Young JA (1987) Phase 1 trial of tiaprofenic acid administered by 24-hour infusion: pharmacokinetic evaluation. Canc. Treatm. Rep. 71: 1241-1246. Scio House		60084-10-8	0.99	#REF!	0.8500	Oberg SK et al, Biopharmaceutics&Drug disposition, Vol.8, 135-152	10 adult mongrel dogs weighing between 15 and 23kg. The iv bolus doses were administered via cubital vein, and blood samples were taken from an indwelling venous catheter in the saphenous vein into heparinized tubes. Dose is 12, 24 and 48mg/kg	60084-10-8	2.00	7.30	1.0000	Grygiel JJ et al, Cancer Research 45, 2027-2036(1985)	rm3 adult rhesus monkeys ranging in weight from 8.1 to 15.1 kg. Iv infusion for 20min. HPLC-UV. Average from dose 100 and 500 mg/kg. Conversion used: 1 m/2 = 12 kg.
Ticarcillin	34787-01-4	0.16	1.80	0.5500	Watanabe K, Koyama M, Ijima F, Nakazawa H, and Nakahira K (1986) Phase I studies on BRL 28500 (clavulanic acid-ticarcillin). Chemotherapy 34: 247. Bergan T (1984) Pharmacokinetics of beta-lactam antibiotics. Scand. J. Infect. Dis. 42(Suppl): 83-98. Little RD, Clarke JT, Ralph ED, Luthy RP, and Kirby WMM (1975) Ticarcillin vs carbenicillin: clinical pharmacokinetics. Clin. Pharmacol. Ther. 17: 441-446.	Combined data from Watanabe and Little papers	34787-01-4										0.28	4.30		Tilmant L et al, Am J Vet Res Vol 46 No. 2, 479-481, 1985	34787-01-4
Tiridazole	19387-91-8	0.59	0.60	0.8000	Vinge E, Andersson KE, Ando G, and Lunell E (1983) Biological availability and pharmacokinetics of tiridazole after single and repeated doses. Scand. J. Infect. Dis. 15: 391-397. Sawyer PR, Bongiovi RN, Finder RM, Spangler TM, and Avery EG (1975) Tiridazole: a review of its antipsychotical activity and therapeutic efficacy. Drugs 11: 423-440	VDss calculated from digitized C vs t plot.	19387-91-8										0.89	1.67		Sakkada E et al, J. vet. Pharmacol. Therap. 14, 257-262, 1991	n=6 Beagle dogs, 4 males and 2 females 4-5 years old and in weight from 10.5 to 15kg (mean 12.1 kg). 5mg/ml. solution was given as a bolus injection over 2min. Dose 15mg/kg. HPLC-UV. Data digitized and parameters calculated via WinNonLin
Tirofiban	142373-60-2	0.99	4.30	0.3600	Barnett JS, Murphy G, Pendrick K, De Lepeleire I, Gould RJ, Fanelanzo D, Hand E, Deckmyn H, Vermylen J, and Annoul J (1994) Pharmacokinetics and pharmacodynamics of MK-383, a selective non-peptide platelet glycoprotein IIb/IIIa receptor antagonist, in healthy volunteers. Thromb. Haemost. 71: 386-390. Kondo K and Umemura K (2001) Clinical pharmacokinetics of tirofiban, a nonpeptide glycoprotein IIb/IIIa receptor antagonist: Comparison with the monoclonal antibody abciximab. Clin. Pharmacokinet. 41: 187-195.		142373-60-2	1.42	0.1500	Vickers, S et al. Drug Metabolism and Disposition, 1999 27(11), 1360-1366	male SD rats (250g). Iv-bolus were given through tail vein injection. 5mg/kg Radio immunoassay for sample analysis. Not sure how robust the method is. Hand et al 2004 was referred. Dose 5mg/kg. Radioactivity reading. [3H] concentration range 0.01 to 25ug/mL	142373-60-2	0.52	36.44	0.5500	Vickers, S et al. Drug Metabolism and Disposition, 1999 27(11), 1360-1366	Male beagle dog (8-12kg), n=3 or 4 at dose 0.12, 1.2, 3.6mg/kg of a 120min iv infusion. Sample was collected from femoral vein. Radio immunoassay for sample analysis. Not sure how robust the method is. Hand et al 2004 was referred. PPB was determined by ultracentrifugation (Vickers et al 1999). Vdss=0.51±0.20 L/kg(avg. n=3) 0.42±0.06(3.3mg/kg, n=4)
Tobramycin	32986-56-4	0.23	1.60	1.0000	Bourget P, Fernandez H, Delsuc C, and Tsitouré AM (1991) Pharmacokinetics of tobramycin in pregnant women, safety and efficacy of a once-daily dose regimen. J. Clin. Pharm. Ther. 16: 167-176. Champounis, Du Souich P, Ravaoarinoro M, Phanvat D, Lebourgeois J, and Cusson JR (1984) Single-dose pharmacokinetics of amipicillin and tobramycin administered by hypodermoclysis in young and older healthy volunteers. Br. J. Clin. Pharmacol. 42: 205-211. Gordon RC, Regamey C, and Kirby WMM (1972) Serum protein binding of the aminoglycoside antibiotics. Antimic. Agents Chemother. 2: 214-218.	Data from Champeaux et al was digitized to calculate parameters.	32986-56-4	0.68	15.70		Cavalli R et al, Pharmacological Research, 42(6), 541-545(2000)	Digitized from plot reported. Reported AUC = 352.3 mcl*g/mL-1. Male albino rats (Wistar-derived strain), weigh 350-450g. rm4, iv administration 5mg/kg. HPLC-fluorescence. Data digitized and parameters calculated via WinNonLin.	32986-56-4							32986-56-4					
Tocainide	41708-72-9	1.80	2.20	0.8700	Lalka D, Meyer MB, Duce BR, and Ekim AT (1974) Kinetics of the oral antiarrhythmic tolocaine-congener, tocainide. Clin. Pharmacol. Ther. 16: 757-766. Thomson AH, Murdoch D, Gillespie WR, Lindop GBM, and Adam AJ (1984) The pharmacokinetics of R- and S-tocainide in patients with acute ventricular arrhythmias. Br. J. Clin. Pharmacol. 21: 149-154. Sedman AJ, Blaedow OC, and Gal J (1982) Serum binding of tocainide and its enantiomers in human subjects. Res. Comm. Chem. Path. Pharmacol. 38: 165-169	Combined data from individual enantiomers.	41708-72-9	5.00	37.80		Venkataramanan R et al, Journal of Pharmacology and Experimental Therapeutics, 215(1), 231-234(1980)	Male Wistar rats, weighing 190-210g.Solutions of tocainide hydrochloride in normal saline containing a dose of 5(n=6), 10(n=5), 15(n=3), 20(n=6) and 40(n=6)mg/kg of tocainide were administered via the jugular vein. GC. Non linear kinetics between 5 and 40. 5 and 20 mg/kg(plot and PK calculated via WinNonLin. 5 mg/kg results used.	41708-72-9							41708-72-9					
Tolbutamide	64-77-7	0.12	0.21	0.0500	Zilly W, Breimer DD, and Richter E (1975) Induction of drug metabolism in man after rifampicin treatment measured by increased hexobarbital and tolbutamide clearance. Eur. J. Clin. Pharmacol. 9: 219-227. Ayesogu-G, Uhlken M, and Grigoleit HG (1984) A new aspect of serum protein binding of tolbutamide. Int. J. Clin. Pharmacol. Ther. Toxicol. 24: 64-66.	Concentration-dependent protein binding, reported, free fraction value in cited that was collected at relevant circulating concentrations.	64-77-7	0.13	0.42	0.0400	Yamao T et al, Biol. Pharm. Bull. 17(5):691-695(1994)	male Wistar rats (200-260g) rm6. 12mg/kg was injected into the right femoral vein. HPLC-UV	64-77-7							64-77-7					
Tolcapone	134308-13-7	0.12	1.90	0.0012	Jorga KM, Kroodsma JM, Fotteler B, Heizmann P, Meyer J, Busch MC, and van Harten J (1998) Effect of liver impairment on the pharmacokinetics of tolcapone and its metabolites. Clin. Pharmacol. Ther. 63: 444-57		134308-13-7	0.21	8.60		Lue T et al, Xenobiotica 26(8) 839-851(1996)	rm3 Iv-bolus injection to "Roro" male albino rats(average weight 0.25kg). Dose 1.5mg/kg. HPLC-UV	134308-13-7	0.16	1.90		Lue T et al, Xenobiotica 26(8) 839-851(1996)	rm2 Swiss male Beagle dogs (average weight 16.5kg). Dose 1.5mg/kg. HPLC-UV	134308-13-7
Tomopenem	222400-20-6	0.23	1.90	0.9100	Shibayama T, Matsushita Y, Hirota T, Saito T, and Kuwahara S (2007) Pharmacokinetics and dispositions of CS-023 (RO4908463), a novel parenteral carbapenem, in healthy male Caucasian volunteers. Antimicr. Agents Chemother. 50: 4186-4189. Shibayama T, Matsushita Y, Kawai K, Hirota T, Ikeda T, and Kuwahara S (2007) Pharmacokinetics and dispositions of CS-023 (RO4908463), a novel parenteral carbapenem, in animals. Antimic. Agents Chemother. 51: 357-363	Shibayama T et al. American Society for Microbiology, 51(1), 257-263	222400-20-6	0.25	3.96	0.9280	Shibayama T et al. American Society for Microbiology, 51(1), 257-263	[14C] labeled drug, male SD rats 6 week old and weighing 234-260g, single bolus dose of 10, 25 or 50mg/kg(n=2 for each dose) via the tail vein. HPLC-UV. MRT calculated.	222400-20-6	0.18	1.70	0.8500	Shibayama T et al. American Society for Microbiology, 51(1), 257-263	[14C] labeled drug, male cynomolgus monkeys 4 years old weighing about 3.7-4.4kg, single bolus dose of 5, 10 or 25mg/kg via the femoral vein of the lower limb. HPLC-UV
Topotecan	123948-87-8	1.80	13.00	0.6500	Schellens JHM, Creemers GJ, Beijnen JH, Rosing H, de Boer-Dennert M, McDonald M, Davies B, and Verweij J (1996) Bioavailability and pharmacokinetics of oral topotecan: a new topoisomerase inhibitor. Br. J. Canc. 73: 1568-1571. van Warmerdam LJC, Rosing H, Maes RAA, Beijnen JH, Rodtman S, de Boer-Dennert M, Maes RAA, and Beijnen JH (1995) Pharmacokinetics and pharmacodynamics of topotecan administered daily for 5 days every 3 weeks. Canc. Chemother. Pharmacol. 35: 237-245. Mesuitschi N, May RD, and Atsumi R (2004) A Predictive Model of Human Myelotoxicity Using Five Camptothecin Derivatives and the In vitro Colony-Forming Unit Granulocyte/Macrophage Assay. Clin. Cancer Res. 10: 6732-6740	Mustafa S et al. Xenobiotica, 36(12):1238-1258.	123948-87-8	3.08	24.40			digitized: male Wistar rats of 8-10 weeks age, weighing 240-260g. Iv-bolus 10mg/kg. HPLC-UV	123948-87-8	1.70	17.60		Davies BE et al, Pharmaceutical Research, 14(10), 1461-1465(1997)	rm4 adult female Beagle dog. 10 kg weight assumed. 30min infusion at a rate of 1mm/min into the cephalic vein using a 24 infusion pump. Dose 4mg/m2. weight=5.4 kg. Dose=21.6mg. HPLC-UV. Data from 5 beagles. TLC not available, roughly estimated from curve and taken as 1kg/1MRT. plots available.	123948-87-8	7.38	96.10	0.8000	S. Blaney et al. (1993) Plasma and cerebrospinal fluid pharmacokinetic study of topotecan in tumbuman primates. Cancer Res. 53, 705-707.	n=3 male rhesus monkeys (average 7.0 kg) were given 10mg/m2 topotecan as a 10-min iv infusion.HPLC. Consideration should be given to the presence of active metabolites in the interpretation. **Fu value estimated as 0.8 and reported from a different ref.**
Toremifene	56211-40-6	0.21	0.53	0.0100	Sgoifo-Pirt, Kosuf H, and Mutschler E (1990) Pharmacokinetics of toremifene and its metabolites in healthy controls and in chronic renal failure. Eur. J. Clin. Pharmacol. 39: 345-348. Kosuf H and Mutschler E (1989) Clinical pharmacokinetics and pharmacodynamics of toraxemifene. Clin. Pharmacokinet. 34: 1-9	VDss calculated from reported MRT.	56211-40-6	0.23	3.74	0.0600	Kim E et al, Biopharmaceutics &Drug Disposition, 24:27-35(2003)	Male SD rats, weighing 250-320g for 11. A dose of 10mg/kg iv infusion over 1min via the jugular vein. Blood sample was collected via the central artery. HPLC-UV	56211-40-6	0.08	0.14	0.0200	Glys B A et al, Drug Research, 35(8):1520-1526(1985)	beagle dogs(average weight 11kg). Dose 0.16, 1 and 5mg/kg (n=3 for each dose). HPLC-UV. Data digitized from 5 mg/kg. Data reported somewhat different at lower dose.	56211-40-6
Tramadol	27203-92-5	2.80	6.50	0.8000	Lintz W, Barth H, Osterloh G, and Schmidt-Boenhoff E (1989) Pharmacokinetics of tramadol and bioavailability of enteral tramadol formulations. 3rd communication: Suppositories. Arz. Forsch. 40: 889-891. Grond S and Sablotzki A (2004) Clinical pharmacology of tramadol. Clin. Pharmacokinet. 43: 879-923.	Parameters calculated from data reported in a table in Lintz, et al.	27203-92-5	3.86	63.50	0.7500	Paraiampunga R et al, Chinalty 19:190-196(2007). Scio House	rm4 male SD rats, weighed 250±30g. Single i.v. dose of 20mg/kg of rac-T were administered. HPLC-UV	27203-92-5	3.01	54.63	0.7454	Kukanich B et al, J vet Pharmacol. Therap 27:239-246(2004). Scio House	rm1 (1 female and 3 male) Beagle dogs weighing between 7 and 12kg. IV Dose 4.4mg/kg of tramadol HCL(equivalent to 3.8 mg/kg base)	27203-92-5
Trazodone	19794-93-5	0.52	1.40		Nilsen OG and Dale O (1992) Single dose pharmacokinetics of trazodone in healthy subjects. Pharmacol. Toxicol. 71: 150-153.	VDss calculated from C vs t data obtained by digitization of the plot provided in the reference.	19794-93-5	1.76	51.80	0.1200	Ruwé A et al, Pol J. Pharmacol. Pharm. 33:341-348(1981). Summerfield, S. G.; Lucas, A. J.; Porter, R. A.; Jeffrey, P.; Gore, R. N.; Read, K. R.; Stevens, A. J.; Metcalf, A. C.; Osuna, M. C.; Kilpatrick, P. J.; Plasschier, J.; Ruitz, A. D. Toxicol an improved prediction of human in vivo brain penetration. Xenobiotica 36(8), 709-731, 2006	rm7 male Wistar rats (180-220g). 5 and 10mg/kg iv dose. Plot for 5 mg/kg dose digitized and PK parameters alculated via WinNonLin. AUC at 10 linearant consistent with 5 mg/kg dose.	19794-93-5							19794-93-5
Treprostil	81846-19-7	0.23	10.70		Remsdulin, Umpson Wade, M, et al. J. Clin. Pharmacol. 29SA, A4, 82-88. Data digitized and calculations performed via WinNonLin. fm15, 152' infusion, 15 ng/kg/min, data very in very good agreement to reported PK parameters.		81846-19-7	0.11	35.80			Data digitized from plots reported by Fortilay et al. Prostaglandins, Leukotrienes and Essential Fatty Acids, 1993, 48, 167-174. fm15, **anesthetized dogs**. AUC reported 651 mcrhg/mL (~ 11 % difference)(Cmax 65.7 ng/mL. Compound 15A1181 is treprostil		81846-19-7							81846-19-7
Triamterene	396-01-0	13.00	63.00	0.4200	Gillich HJ, Kremer G, Mohler W, Mutschler E, and Volger KD (1982) Pharmacokinetics of triamterene after i.v. administration to man: determination of bioavailability. Eur. J. Clin. Pharmacol. 20: 237-241. Hasegawa J, Lin ET, Williams RL, Sorgel F, and Benet LZ (1982) Pharmacokinetics of triamterene and its metabolite in man. J. Pharmacokinet. Biopharm. 10: 507-523.		396-01-0	2.20	10.10		Kau S T et al, Journal of Pharmaceutical Science, 66(1):53-56(1977)	rm4 Male SD rats, 200-250g. A constant dose of 14C-triamterene 1mg/kg was administrated by infusion	396-01-0							396-01-0					
Triazolam	28911-01-5	0.58	3.00	0.1000	Vandenwe RF, Jouk JL, Patein GR, Cox SR, and Bonnbach FA (1981) Effect of ranitidine on the disposition of orally and intravenously administered triazolam. Clin. Pharm. 10: 539-543. Kroboth PD, Smith RB, Sokon MI, Shaw WR, Raub R, Gary M, and Juhl RP (1984) Triazolam protein binding and correlation with alpha-1 acid glycoprotein concentration. Clin. Pharmacol. Ther. 35: 592-598	VDss calculated from C vs t data obtained by digitization of the plot provided in the reference.	28911-01-5	3.40	60.80		Gaudreault J et al, Journal of Pharmaceutical Science 85(9) 999-1004(1994)	Female SD rats, weighing 0.25-0.325kg. HPLC-UV. Value are calculated from average of three groups: rm4 2.5mg/kg iv bolus through jugular cannula. 1hr or 4 hr (rm4 and 6, respectively) infusion rate. Blood removal vein at a rage of 4mg/kg/h	28911-01-5							28911-01-5
Trimethoprim	738-70-5	1.50	2.10	0.5000	Manolis-P T, Mantyla R, Mattila J, Nykanen S, and Lehtovaara U (1980) Pharmacokinetics of trimethoprim and sulfamethoxazole in serum and cerebrospinal fluid of adult patients with normal meninges. Antimicr. Agents Chemother. 26: 811-814. Wijkstroem A and Wesenlund D (1982) Plasma protein binding of sulfadiazine, sulfamethoxazole and trimethoprim determined by ultrafiltration. J. Pharm. Biomed. Anal. 1: 292-299.	VDss calculated from C vs t data obtained by digitization of the plot showing the 200 mg dose.	738-70-5	2.10	40.00	0.5100	Tu Yw et al, Journal of Pharmaceutical Science, 78(7):556-560(1989). Scio House	n=2 per time point(3 time points). Male SD rats, weigh 250-300g. Dose 25mg/kg via femoral vein. HPLC-UV	738-70-5	1.74	6.40	0.7080	Kaplan S.A. et al, Journal of Pharmaceutical Science, 59(2):358-362(1970). Scio House	rm2 dogs Dose 5.7mg/mL. iv injection. Spectrofluorometric.	738-70-5
Trimetrexate	52128-35-5	0.77	0.77	0.0500	Neutrexin Product Label		52128-35-5	9.20	71.10		PK data in house. 1 mg/kg dose. N=2.		52128-35-5	11.70	33.20	1.0000	E. Weir et al. (1992) Pharmacology and toxicity of a potent "lipophilic" 2,4-diamino quinazoline folate antagonist, trimetrexate, in normal dogs. Cancer Res. 42, 1696-1702.	rm4 mixed-breed dogs, weighing18-36kg. Iv-dose 15 to 6mg/kg. iv infusion. Radiolabeled trimetrexate2 2mg/kg to one dog. HPLC. Data digitized from plot reported (rdar:5). Data in plot refer to "total" drug. Data reported somewhat different at lower dose. MW = 369.42. dose equivalent to 5.41 umol/kg. Data not reported for this dose but seemingly one compartment. median weight (range 18-36 kg) taken as 27 kg. reported as not binding to plasma	52128-35-5	1.56	8.50	0.1000	Balis F.M. et al, Cancer Research, 46, 189-174(1986)	n=3 male rhesus monkeys each for 30 and 100mg/m2. iv bolus. HPLC.

Troxipectomycin	88659-04-9	0.70	1.70	0.6490	Nichols DJ, Bye A, and Nyvall E (1991) Pharmacokinetics of threectomycin sulphate in healthy subjects after single intravenous and intramuscular doses. Br. J. Clin. Pharmacol. 32: 255-262. N.in-house	Averaged data from all dose levels.	88659-04-9	4.46	4.28	0.6200	Nichols D.J et al, Xenobiotica, 21(7):827-837(1991). N.in-house	3H-troxipectomycin sulfate. Male and female SD rats(n=4 each), weighing 200-300g.Dose 5mg/kg. The data showed that no metabolism happened in vivo. Therefore total radioactivity counting in plasma is used as unchanged drug.Data questionable.	88659-04-9	49.80	2.69	0.6307	Nichols D.J et al, Drug Metabolism and Disposition, 19(4):781-786 (1991). N.in-house	(3H)Troxipectomycine sulfate. Male and female beagle dogs (n=4 per treatment), weighing 11-14kg, in bolus Dose 5mg/kg. The data showed that no metabolism happened in vivo. Therefore total radioactivity counting in plasma is used as unchanged drug.Data questionable.	88659-04-9					
Trovafloxacin	147059-72-1	1.30	1.40	0.2400	Vincent J, Venitz J, Tong R, Barto BA, Wilbuchi SA, Potter RJ, and Friedman HL (1997) Pharmacokinetics and safety of trovafloxacin in healthy male volunteers following administration of single intravenous doses of the prodrug, alatrovafloxacin. J. Antimic. Chemother. 39(Suppl.B): 75-80. Tang R, Liston TE, Harris SC (1996) Multiple-dose pharmacokinetics and safety of trovafloxacin in healthy volunteers. J. Antimic. Chemother. 37: 1095-1104.	Dosed as alatrovafloxacin prodrug which is very rapidly converted to trovafloxacin.	147059-72-1	0.75	13.50	0.0706	Tang R et al, Antimicrobial Agents and Chmotherapy, 40:561-566(1996)	digitized data: 4 male SD rats was given a 10mg/kg iv-bolus HPLC-UV.	147059-72-1	1.37	9.13	0.2500	Tang R et al, Antimicrobial Agents and Chmotherapy, 40:561-566(1996)	digitized: 3 male beagle dogs were given a dose of 5 mg/kg by iv 5-min infusion. HPLC-UV.	147059-72-1	1.93	5.93	0.3400	Tang R et al, Antimicrobial Agents and Chmotherapy, 40:561-566(1996)	digitized: n=3 male/female cynomolgus monkeys received a 20mg/kg dose by 5min infusion. HPLC-UV.
Troxacitabine	145918-75-8	1.00	2.40		Giles FJ, Cortes JE, Baker SD, Thomas DA, O'Brien S, Smith TL, Beran M, Bivins C, Jolivet J, and Kantarjian HM (2001) Troxacitabine, a novel deoxycitidine nucleoside analog, has activity in patients with advanced leukemia. J. Clin. Oncol. 19: 762-771.		145918-75-8	1.42	23.00		Moore LE, et al, Cancer Chemother Pharmacol, 39:532-536(1997)	Five adult male SD rats each were given 10, 25 or 50mg/kg iv via the jugular vein cannula. HPLC-UV.							145918-75-8					
Tubocurarine	57-94-3	0.45	3.40	0.5800	Rasmussen M, Stanko CA, and Triggs EJ (1979) Studies of d-tubocurarine pharmacokinetics in humans and dogs. Anaesth. Intens. Care 6: 30-35. Ghoneim MM, Kramer SG, Bamrow R, Pandya H, and Roath J(1973) Binding of d-tubocurarine to plasma proteins in normal man and in patients with hepatic or renal disease. Anesthesiol. 39: 432-435.	Pharmacokinetic parameters determined from reported two-compartment model parameters.	57-94-3						57-94-3	0.37	3.73		Ramzan UM, et al, Anaesth. Intens. Care 6:30-35(1978)	m-d greyhounds. 0.4mg/kg intravenous bolus injection. HPLC-fluorescences	57-94-3					
T2P-101	842131-33-3	0.10	0.10		Lassere, K.C. et al. J. Clin. Pharmacol. 2008; 48, 193-202.	Data digitized and calculations performed via WinNonLin. N=6 each group, 20 and 60 ug/kg examined (N=12 overall) and averaged. linear PK and very good agreement between observed and fit. Also, no significant effect of kappa opioid receptor agonist. Endocrinology (2008); 149(2): 6080-6088.	842131-33-3	0.45	4.04	0.1300	Fraser, Graeme L.; Hoveyda, Hamid R.; Tarnendsen, Gloria Strattan. Pharmacological stimulation of the growth hormone, prolactin, and feeding-stimulating effects of the kappa opioid receptor agonist T2P-101. Endocrinology (2008), 149(2), 6080-6088.								842131-33-3			0.1700		
UK-240,455	178608-09-3	0.80	6.00	0.1300	Webster R, Cole S, Geiger J, Reffey S, Walker D, and Wild W (2003) Pharmacokinetics and disposition of a novel MAOA glycine site antagonist (UK-240,455) in rats, dogs, and man. Xenobiotica 33:541-560.		178608-09-3	0.40	12.00	0.0300	Webster R et al, Xenobiotica, 33:541-560(2003)	n=3 male SD rats, weighing 250-300g. Dose 2mg/kg at a concentration of 2mg/mL in sterile saline and administered via tail vein. HPLC-UV.	178608-09-3	0.80	13.00	0.1500	Webster R et al, Xenobiotica, 33:541-560(2003)	2 male and 2 female beagle dogs. The left and right saphenous veins were cannulated. The right was used for dosing and to left for blood sampling. Dose 2mg/kg. HPLC-UV.	178608-09-3					
Valproic Acid	99-66-1	0.14	0.16	0.0840	Bryson SM, Verma N, Scott PJW, and Rubin PC (1983) Pharmacokinetics of valproic acid in young and elderly subjects. Br. J. Clin. Pharmacol. 16: 141-147. Lomax C, Pitsiavas V, Lamm JE, Cavanaugh JH, and Gonzalez-Scarano F (1983) Effect of infusion duration on valproate pharmacokinetics. Biopharm. Drug Dispos. 14: 389-396. Gugler R and Meuller G (1979) Plasma protein binding of valproic acid in healthy subjects and in patients with renal disease. Br. J. Clin. Pharmacol. 5: 441-446.		99-66-1	0.66	4.20	0.3640	Loscher W, The Journal of Pharmacology and Experimental Therapeutics, 204(2):255-261(1977)	**Sodium Valproate was dosed**. Male SD rats, weighing 340-470, received a slow intravenous injection of 200mg/kg of sodium valproate (in about 30sec). Three rats for each time interval. GC.	99-66-1	0.33	3.03	0.2150	Loscher W, The Journal of Pharmacology and Experimental Therapeutics, 204(2):255-261(1977)	**Sodium Valproate was dosea.** N=6 mongrel dogs of either sex, weighing 10.5-20kg, intravenous injection of 20mg/kg of sodium valproate (in about 30sec). GC.	99-66-1	0.25	4.20	0.2200	Lai A, et al, Therapie, 35:221-232(1980)	n=6, male rhesus monkeys (3.7-7.5kg). Single iv bolus dose 10, 20, 30 and 40mg/kg. Valproic acid (dissolved in a sterile saline solution as a sodium salt) was injected through the femoral catheter over a 30-sec period. Data for monkeys #2/3 and 6/8 displayed at 10 mg/kg and averaged. Data very consistent across animals and doses.Spit from Vincendon-CT and Levy-RH Plasma protein binding interaction between valproic and salicylic acids in rhesus monkeys. NI Smoking, N=6 monkeys, iv-bolus administration, 60 minutes values
Valspodar	121584-18-7	1.80	2.60	0.0220	Lush RM, Meadows B, Fojo AT, Kalabfleg G, Smith HT, Bates S, and Fojo WD (1997) Initial pharmacokinetics and bioavailability of PSC 833, a P-glycoprotein antagonist. J. Clin. Pharmacol. 37: 123-128. Simon N, Dailly E, Combes O, Malaise E, Lemaire M, Tillement JP, and Linen S (1998) Role of lipoproteins in the plasma binding of SDZ PSC 833, a novel multidrug resistance-reversing cyclosporin. Br. J. Clin. Pharmacol. 45: 173-176.		121584-18-7	3.90	5.50		Abstract. Pharmacokinetics following single intravenous jugular, hepatic portal and oral doses of [3-H]valspodar (PSC833, a P-glycoprotein modulator, in the rat. Amsterdam AM Assoc Pharm Sci (AAPS) (November 14-18, New Orleans) 1999. Abst. Authors: He, H.; Tian, P.; Fenniche, S.A.; White, Z.; Breen, W.; Yin, H.; Fischer, V.	Reported VD in abstract = 3.9 L/kg. Calculation of VD from Cl and t1/2 yields 7.14 V=Beta.							121584-18-7					
Vancomycin	1404-90-6	0.54	1.30	0.7000	Rotstein KA, Blum RA, Fischer JH, Zdobda HJ, Rotschafer JC, Crossley KB, and Riff LJ (1988) Vancomycin pharmacokinetics in patients with various degrees of renal function. Antimic. Agents. Chemother. 32: 1311-1314. Cutler NR, Nanang PK, Lewis CS, and Keane MF (1984) Pharmacokinetics of vancomycin in patients with various degrees of renal function. Antimic. Agents. Chemother. 25: 418-427. Cutler NR, Nanang PK, Lewis LJ, Ninos M, and Power M (1984) Vancomycin disposition: the importance of age. Clin. Pharmacol. Ther. 36: 603-610. Nakashima M, Katagiri K, Ogurna T (1982) Phase 1 studies for vancomycin hydrochloride for injection. Chemotherapy 30: 210-		1404-90-6	0.80	15.00		Gross, M et al, Antimicrobial agents and chemotherapy, Vol 47(2002), p3418-23817	male SD rats, N=3, 3mg/kg iv bolus in the lateral tail vein. Blood sample collected from the jugular vein. Sample analysis LC/MS/MC.	1404-90-6						1404-90-6					
Ventalfasine	93413-69-5	4.40	14.00	0.7300	Patel A, Tory S, Burke J, Trocheine S, Dantjus F, LeCoz F, Albin H, and Gordon JM (1998) Absolute bioavailability and electroencephalographic effects of conventional and extended-release formulations of venlafaxine in healthy subjects. J. Clin. Pharmacol. 38: 256-267. Effexor Product Label.		93413-69-5	6.60	64.50	0.5900	Howell S.R. et al, Xenobiotica, 24(4):315-327(1994). N.in-house	Male SD rats(n=3) weighing 260-400g received single 20mg/kg intermuscular injection. HPLC-UV	93413-69-5	3.30	13.50	0.5922	Howell S.R. et al, Xenobiotica, 24(4):315-327(1994). N.in-house	n=3 male/female dogs(one male and two female, 10-15 lkg)received single iv dose 2mg/kg. HPLC-UV.	93413-69-5	3.50	41.00	0.7080	Howell S.R. et al, Xenobiotica, 24(4):315-327(1994). N.in-house	n=3 female Rhesus monkey 4.7-6.1kg received single iv dose 5mg/kg into saphenous vein. HPLC-UV
Verapamil	52-53-9	2.70	18.00	0.0930	Abernethy DR, Wainer IW, Longstreth JA, and Andrawis NS (1992) Stereoselective verapamil disposition and dynamics in aging during racemic verapamil administration. J. Pharmacol. Exp. Ther. 260: 904-911. Zachariah PK, Meyer TP, Theobald MM, Franco RP, Kurtz SB, McCarthy JT, and Smith RL (1991) The pharmacokinetics of racemic verapamil in patients with impaired renal function. J. Clin. Pharmacol. 31: 45-53. Eichelbaum M, Gross AS, Hofmann U, and Mikus G (1988) Pharmacokinetics of (+)- and (+)-verapamil after intravenous administration. Br. J. Clin. Pharmacol. 17: 453-458. Eichelbaum M, Somogyi A, von Unruh GE, and Dengler HJ (1981) Simultaneous determination of the intravenous and oral pharmacokinetic parameters of D,L-verapamil using stable isotope-labelled verapamil. Eur. J. Clin. Pharmacol. 19: 133-137. Kirsten R, Nelson K, Kirsten D, and Hinze B (1988) Clinical pharmacokinetics of verapamil. Part I. Clin. Pharmacokinet. 14: 417-492.	Values for individual enantiomers were averaged.	52-53-9	2.15	33.50	0.1045	Ling S et al, Drug Metabolism and Disposition, 30:579-586 (2006)	verapamil hydrochloride.n=6 Male Sprague-Dawley rats (250-300g). Intravenous dose of 2mg/kg. HPLC-UV.	52-53-9	3.80	26.80	0.2365	Lee YH et al, Pharmaceutical Research, Vol 18, No 12, 1721-1728. N.in-house	3H Verapamil Hydrochloride. In vivo intestinal-vascular access port (IVAP)-bearing was used for the dosing and blood sampling. Rats were surgically fitted with jugular vein and duodenum access ports. 5.0mg/kg IV.n=6 HPLC-UV	52-53-9	5.35	22.80	0.3410	Wang H et al, Drug Metabolism and Disposition, 32:1285-1288, 2004	One Chimpanzee (male, 60-6kg) was administered a 5.0mg/kg intravenous dose of verapamil HCL.30min infusion HPLC-UV
Vildagliptin	274901-16-5	1.03	9.90	0.8851	He Y-L, et al.Clin. Pharmacokin. 2007; 46: 787-802. 30-minute intravenous infusion in 11 volunteers, 25 mg dose. VDss reported as 70.5 L, and 68.1 kg average weight. Crosported as 40.6 L/h, and MRT calculated from VD and Cl (LAF237). N.in-house		274901-16-5	8.60	48.30	0.9200	He H, et al. Drug Metab. Disp. 2009, 37:545-554.	N=3, 100 mg/kg dose.	274901-16-5	1.60	21.70	0.9700	He H, et al. Drug Metab. Disp. 2009, 37:545-554.	N=2, beagle dog, 3 mg/kg dose.	274901-16-5	0.70	35.00	0.9540	**Clearance data reported as ~ 1.5 L/h/kg.** Vildruan E, et al. J. Med. Chem. 2010, 46, 2774-2789. N.in-house	**LAF237.** N=3 anesthetized cyno monkeys, 0.389 umol/kg
Vinblastine	865-21-4	28.00	3.10	0.1400	Lu K, Yap HY, and Lee TL (1982) Clinical pharmacokinetics of vinblastine in cancer patients. Cancer Res. 42: 1398-1403. Lee KJ, Mower R, Hollenback T, Cantela J, Johnson N, Gordon P, Sinko PJ, Hahne K, and Lee YH (2003) Modulation of nonspecific binding in ultrafiltration protein binding studies. Biopharm. Dist. 24: 1515-1531.	Highly variable; used the median value.	865-21-4						865-21-4								865-21-4	2.10	7.00		Sethi V.S. et al. Cancer Chemother Pharmacol(1984) 12:31-35	n=2 Rhesus monkeys, N bolus injection of vinblastine sulfate 0.2mg/kg body weight. HPLC-UV
Vincristine	57-22-7	2.40	2.00	0.4000	Sethi VS, Jackson DV, White DR, Richards F, Stuart JJ, Mann HB, Cooper MR, and Spurr CL (1981) Pharmacokinetics of vincristine sulfate in adult cancer patients. Cancer Res. 41: 3161-3165. Abdel-Rahman M, Wotsch F, Harder S, and Woodcock BG (1992) Interaction between verapamil and vincristine binding to plasma proteins. Int. J. Clin. Pharmacol. Ther. Toxicol. 30:536-		57-22-7				Proc Am Assoc Cancer Res (AACR) 2002, 43: Abst 1363		57-22-7								57-22-7	1.80	4.80		Sethi V.S. et al. Cancer Chemother Pharmacol(1984) 12:31-35	n=2 Rhesus monkeys, N bolus injection of vincristine sulfate 0.05mg/kg body weight. HPLC-UV
Vindesine	53643-48-4	5.00	2.20		Ohnuma T, Holcenberg J, Andriko JA, and Holland JF (1980) Pharmacokinetics of vindesine given as an intravenous bolus and 24-hour infusion. Cancer Res. 40: 404-409.	VDss calculated using micro rate constants provided in the reference.	53643-48-4						53643-48-4								53643-48-4	2.30	7.60		Sethi V.S. et al. Cancer Chemother Pharmacol(1984) 12:31-35	n=3 Rhesus monkeys, N bolus injection of vindesine sulfate 0.1mg/kg body weight. HPLC-UV
Voriconazole	137234-62-9	2.20	8.30	0.4200	Purkins L, Wood N, Greenhalgh K, Eve MD, Oliver SD, and Nichols D (2003) The pharmacokinetics and safety of intravenous voriconazole - a novel wide-spectrum antifungal agent. Br. J. Clin. Pharmacol. 56(Suppl. 1): 2-9. Roffey SJ, Cole S, Comby P, Gibson D, Jezequel SG, Nedelman AMR, Smith DA, Walker DK, and Wright PW (2003) The disposition of voriconazole in healthy volunteers. Xenobiotica 33: 465-477. Quinn Pharm. Dev. 8: 29-34.		137234-62-9	1.78	9.10	0.4400	Roffey SJ et al, Drug Metabolism and Disposition, 31:731-741(2003)	male and female Sprague-Dawley rats (CD strains, n=10 per sex). Single iv dose of 1mg/mL. HPLC-UV	137234-62-9	0.88	1.50	0.4900	Roffey SJ et al, Drug Metabolism and Disposition, 31:731-741(2003)	digitized: a female beagle dog (14kg; Pfizer colony) Single iv dose of 1mg/mL administrated by infusion at a rate that delivered the intended dose in 7.5 min. HPLC-UV	137234-62-9					
Vorinostat	149647-78-9	0.50	28.00	0.2900	Kelly WK, Richon VM, O'Connor O, Curley T, MacGregor-Curtelli B, Tong W, Klang M, Schwartz L, Richardson S, Rosa E, Drobnjak M, Cordon-Cardo C, Chiao JH, Rifkind R, Marks PA, Scher H (2002) Phase I clinical trial of histone deacetylase inhibitor: suberoylanilide hydroxamic acid administered intravenously. Clin. Cancer Res. 9: 3578-3588. Zolinza Product Label.	VDss calculated from digitized C vs t plot.	149647-78-9	1.40	129.50	0.6100	Sandhu P et al, Drug Metabolism Letters, 2007, 1, 153-161. N.in-house	Male Sprague-Dawley rats (n=6), weighing approximately 275-325g. A cannula was implanted in the right jugular vein for dose administration and blood sampling. IV bolus 2mg/mL. LC/MS/MS	149647-78-9	0.60	54.70	0.4581	Sandhu P et al, Drug Metabolism Letters, 2007, 1, 153-161. N.in-house	Male beagle dogs (n=6), weighing 10.2-12.7 kg. Vorinostat was administrated via the cephalic or femoral vein as a slow bolus over 30 sec at 2mg/mL. LC/MS/MS	149647-78-9					
Warfarin	81-81-2	0.13	0.06	0.0150	Bjornsson TD, Mellin PJ, Sawicky S, and Blaschke TF (1978) Clofibrate displaces warfarin from plasma proteins in man: an example of a pure displacement interaction. J. Pharmacol. Exp. Ther. 205: 316-319.		81-81-2	0.24	0.17		Makino T et al, Journal of Ethnopharmacology, 82:35-40(2002)	n=8 male Wistar-ST rats. iv-bolus 1mg/kg. HPLC-MS	81-81-2								81-81-2					
Zalcitabine	7481-89-2	0.54	5.60		Kacher RW, Collins JM, Yarchoan RC, Thomas R, McAtee N, Broder S, and Myers CE (1988) Pharmacokinetics of 2,3'-dideoxycytidine in patients with AIDS and related disorders. J. Infect. Dis. 158: 274-278.		7481-89-2	1.00	11.20	0.8500	Ib, Y.H., Han, H.K., Acta Pharmacol Sin 2006, 27(1): 119. N.in-house	Male Sprague-Dawley rats weighing 260-330g. n=5. iv injection of zalcitabine 20mg/kg. HPLC-UV	7481-89-2			0.88	10.30				7481-89-2				Kelley, J.A., Litterst, C.L., Roth, J.S., et al., Drug Metab.Dispos 1987; 15(5): 595.	[3H] Zalcitabine was administrated to three Rhesus Monkey bearing Osmotic reservoirs as a dose level of 2 mg/mL. HPLC-UV. Data digitized by Dave Hopkins and averaged
Zaleplon	151319-34-5	1.30	16.00	0.4000	Rosen AS, Fourie P, Danielsh M, Gaspar F, and Troy SM (1998) Zaleplon pharmacokinetics and absolute bioavailability. Biopharm. Drug Dispos. 20: 171-175. Sonata Product Label.		151319-34-5	1.72	20.70		Gauthreaut, J.; Vatin, F.; Pollack, G.M., Pharm Res 1995, 12(11): 1692	Female Sprague-Dawley rats, weighing 231-273g. Weighed average of either 2.5mg/kg iv bolus (n=3) or n=5 2.4mg/kg iv infusion(the infusion). Non-compartmental PK parameters. HPLC-UV.	151319-34-5								151319-34-5					
Zanamivir	139110-80-8	0.23	1.60	0.8600	Cass LMR, Efthymiopoulos C, and Bye A (1999) Pharmacokinetics of zanamivir after intravenous, oral, inhaled or intranasal administration to healthy volunteers. Clin. Pharmacokinet. 36(Suppl. 1): 1-11. Daniel MJ, Barnett JM, and Pearson BA (1999) The low potential for drug interactions with zanamivir. Clin. Pharmacokinet. 36(Suppl. 1): 13-20.		139110-80-8	0.80	21.70		Li, W.; Escarpe, P.A., Eisenberg, E.J., et al. Antimicrob Agents Chemother 1998, 42(3): 647	n=4 SD rats(age 8 to 10 weeks) were given a single iv dose of 10mg/ kg. HPLC	139110-80-8								139110-80-8					
Zidovudine	30516-87-1	1.80	25.00	0.8000	Averetta FT, Mak M, Al-Uzri A, Peter K, Dell C, Franco J, Affinito M, Guerrotte R, Cuter Ov, et al (1992). Oral and intravenous zidovudine pharmacokinetics: The effect of granulocyte-macrophage colony-stimulating factor. J. Clin. Pharmacol. 32: 856-864. Blum MR, Liao SHT, Good SS, and deMiranda P (1988) Pharmacokinetics and bioavailability of zidovudine in human. Am. J. Med. 85(Suppl 2A): 189-194. Morse GD, Shelton MJ, and O'Donnell AM (1993) Comparative pharmacokinetics of antiretroviral nucleoside analogues. Clin. Pharmacokinet. 24: 101-124.		30516-87-1	0.96	25.10		Undakat J. D. et al, Pharmaceutical Research, 6(8):734-736(1989)	n=8 SD rats weighing 340-410g. Three different iv dose: 20, 40 and 60mg/kg. HPLC-UV	30516-87-1								30516-87-1					
Zinacin	109545-84-8	0.39	0.61		Kosowa O. et al. Antimicr. Ag. Chemother. 2001, 45, 917-921. Pharmacokinetics of a new parenteral oligosaccharide antibiotic, SCH27899 (zinacin) in healthy subjects.	22 subjects across 1,3,6 and 9 mg/kg Japanese healthy volunteers. Weight-averaged data (1 mg/kg dose N=5). 3-compartment analysis. Also called SCH 27899 or paromomycin or aminosidine.	109545-84-8						109545-84-8								109545-84-8	0.22	16.60		Data digitized from plot reported by Lin et al. Antimicr. Ag. Chemother. 2000, 44, 916-919.	N=5 male cynomolgus monkeys, dosed iv at 50 mg/kg. Reported CL = 33.7 mL/min/kg, t1/2 = 20.8 hours, AUC = 37.07 h*ug/mL
Zoledronic Acid	118072-93-8	0.60	2.20	0.7800	Sierjanez A, Berenson J, Hsu C, Major P, Miller WH, Rivera C, Schiavo A, Seaman J, and Waldmann T (2003) The pharmacokinetics and pharmacodynamics of zoledronic acid in cancer patients with varying degrees of renal function. J. Clin. Pharmacol. 43: 154-162. Reclast Product Label.	Pharmacokinetic parameters were calculated from C vs t data obtained by digitization of the plot provided in the reference.	118072-93-8						118072-93-8	0.28	4.13		Martin-Jimenez T. et al. J. vet. Pharmacol. Therap. 30:482-490(2007)	zoledronate. N=4 healthy male mixed breed dogs weighing 14.6 to 26.6kg. Dose 0.25mg/kg of zoledronic acid dissolved in 50ml of 0.9%NaCl as a 15-min iv constant rate infusion via a cephalic vein catheter. Plasma concentration of zoledronic acid were measured by a competitive radioimmunoassay.	118072-93-8					
Zolmitriptan	139264-17-8	1.80	6.70	0.7500	Seaber E2, Peck RW, Smith DA, Albanus J, Helling NR, Van-Lier J,Jm Sollie FAE, Werner J, and Jonkman JHG (1998) The absolute bioavailability and effect of food on the pharmacokinetics of zolmitriptan in healthy volunteers. Br. J. Clin. Pharmacol. 46: 433-440. Zomig Product Insert. Kaplan A (1997) The clinical pharmacokinetics of zolmitriptan. Cephalalgia 17(Suppl 19): 15-19.		139264-17-8	3.53	29.40		Cai J. et al, Chin Pharm J, 41(15):1171-1174(2006)	n=6 SD rats weighing 250±10g, half male and half female. Dose 0.5mg every rats. HPLC	139264-17-8								139264-17-8					
Zolpidem	82626-48-0	0.54	4.20	0.0800	Terrel JP, Harmann P, Durand A, Burke JT, Allen J, Garnjoost-Vajda S, Albin H, Thebault JJ, Olive G, and Warrington SJ (1988) Pharmacokinetics and metabolism of zolpidem in various animal species and humans. In Imidazopyridines in Sleep Disorders (ed Saxamel JP, Langer SZ, and Morselli PL). Raven Press, New York, pp 249-263.		82626-48-0	1.05	48.70	0.1700	Ishibashi K et al, Yakubutsu Dotai, 8(4):413-425(1993)	n=3 Male SD rats. HPLC-UV Dose 3.2mg/kg	82626-48-0								82626-48-0					