

CURRICULUM VITAE

Nicholas H.G. Holford, MB, ChB, MSc, FRACP

Nationality: British

New Zealand citizen

Date of Birth: December 5, 1946

Place of Birth: Birkenhead, Cheshire, England

ADDRESS

Department of Pharmacology and Clinical Pharmacology

School of Medicine, University of Auckland

85 Park Road, Grafton

Auckland 1042

New Zealand

Phone: +64 (9) 923-6730 Fax 373-7556

Email: n.holford@auckland.ac.nz

Web: <http://www.fmhs.auckland.ac.nz/sms/pharmacology/holford>

PRESENT POSITION

Professor Clinical Pharmacology

Department of Pharmacology and Clinical Pharmacology

University of Auckland

EDUCATION

1972 M.B., Ch.B. with Distinction

1971 M.Sc., Pharmacology

1969 B.Sc., Pharmacology with Honours

University of Manchester

School of Medicine

Manchester, England

SCHOLASTIC AND PROFESSIONAL HONOURS/AWARDS

Wild Prize in Pharmacology, University of Manchester, 1971

Brockbank Medical Prize, University of Manchester, 1972

Turner Medical Prize, University of Manchester, 1972

PKPD Champion Award, 5th International Symposium on Measurement and Kinetics of In Vivo Drug Effects; Noordwijkerhout, the Netherlands, April 2006

Research Achievement Award, Clinical Pharmacology and Translational Research, American Association of Pharmaceutical Sciences, San Diego, CA, USA, November 2007

Gary Neil Award for Innovation in Drug Development, American Society of Clinical Pharmacology, Atlanta, GA, USA, March 2010

Fellow of the American Association of Pharmaceutical Scientists, American Association of Pharmaceutical Sciences, San Antonio, TX, USA, November 2013

Inaugural visiting professor at the University of Pavia, Italy. This competitive award allowed me to visit the University of Pavia and give a series of seminars May 4-May 8, 2015. I was hosted by Professor Paulo Magni in the School of Bioengineering.

Fellow of the International Society of Pharmacometrics, American Conference on Pharmacometrics, Seattle, Washington, USA, October 2016

SPECIALITY

Clinical Pharmacology

PROFESSIONAL QUALIFICATIONS

Registration General Medical Council of Great Britain, 1972-1975

Medical License (A33608) California, 1979-1983

Registration Medical Council of New Zealand (12912), 1983-

Member Royal College of Physicians (United Kingdom). 1974- 1975

Fellow and Life Member of the Royal Australasian College of Physicians. 1984-

ACADEMIC AND PROFESSIONAL POSITIONS

1. 2013 September – Adjunct Professor,
Yonsei University
Seoul, Korea
2. 2009 February – Professor Clinical Pharmacology
Department of Pharmacology and Clinical Pharmacology
University of Auckland
3. 2006 July – Adjunct Professor
Biopharmaceutical Sciences
University of California
San Francisco, CA, USA
4. 2006 May- Honorary Professor
School of Pharmacy
University of Queensland, Brisbane
5. 2005 - Associate Member Therapeutic Goods Administration/MedSafe
Joint Interim Expert Advisory Committee on Standards with expertise in
Pharmacokinetics/Bioavailability
6. 2004 - Director, PKPDRX Ltd
Auckland, New Zealand
7. 1999 – 2005 Adjunct Professor
Dept Pharmacology
Georgetown University
Washington, DC, USA
8. 1998 Jul 1-Sept 30 Visiting Professor
Dept Neurology
Oregon Health Sciences University
Portland, Oregon, USA
9. 1998 Feb 14-April 30 Visiting Professor
Dept Pharmacology

- Georgetown University
Washington, DC, USA
10. 1997-2009 Associate Professor Clinical Pharmacology
Department of Pharmacology and Clinical Pharmacology
University of Auckland
 11. 1991- 2002 Special Government Employee
Expert for the Center for Drug Evaluation and Research
US Food and Drug Administration
 12. 1983-97 Senior Lecturer Clinical Pharmacology
Department of Pharmacology and Clinical Pharmacology
University of Auckland
Auckland, New Zealand
 13. 1987-90 Clinical Lecturer in Pharmacy
University of Otago
Dunedin ,New Zealand
 14. 1983-89 Honorary Medical Officer
Auckland Hospital
Auckland, New Zealand
 15. 1981-1983 Assistant Professor of Medicine, Pharmacy and Pharmaceutical Chemistry
Division of Clinical Pharmacology
School of Pharmacy
University of California
San Francisco, CA, USA
 16. 1978-1981 Lecturer in Medicine and Pharmacy
Schools of Pharmacy and Medicine
University of California
San Francisco, CA, USA
 17. 1975-1978 Fellow in Clinical Pharmacology
University of California
Division of Clinical Pharmacology
San Francisco, CA, USA
 18. 1975 Registrar, Medicine
Western Infirmary
Glasgow, Scotland
 19. 1973-1975 Senior House Officer, Medical Rotation
Western Infirmary
Glasgow, Scotland
 20. 1973 House Surgeon
Infirmary Branch
Macclesfield Hospital
Macclesfield, Cheshire, UK
 21. 1972-1973 House Physician
Professorial Medical Unit
Manchester Royal Infirmary
Manchester, UK

EDITORIAL

Consulting Editor, Clinical Pharmacokinetics, 1996-2000
Associate Editor, Journal of Biopharmaceutical Statistics, 2001- 2009
Editorial Board, Drug Metabolism and Pharmacokinetics, 2001-
Editor, Clinical Pharmacokinetics, 2000-2001
Editorial Board, Biopharmaceutics & Drug Disposition, 1999-
Editorial Board, Journal Pharmacokinetics & Pharmacodynamics, 1999-2010
Editorial Board, European Journal of Pharmaceutical Sciences, 1998-2003

Editorial Board, Journal Pharmacokinetics & Pharmacodynamics, 1999-2010
Editorial Board, Clinical Pharmacokinetics, 1984-2001
Editorial Board, Pharmaceutical Research, 2005-2012
Editorial Board, European Journal of Clinical Pharmacology, 2007-
Editorial Board, CPT: Pharmacometrics and Systems Pharmacology, 2012-

TEACHING

University of California San Francisco

Medicine 140.22F Pathophysiology of Disease

With Others from Dept. Medicine

Lectures 6 Units. 1981-1983

Pharmaceutical Chemistry 168, Clinical Pharmacokinetics

With Dr TN Tozer

Conferences 2 Units. 1981-1983

Pharmaceutical Chemistry 214, Advanced Pharmacokinetics

With Drs LZ Benet & TN Tozer

Conferences 2 Units. 1981-1983

Pharmaceutical Chemistry 212A, Computer Literacy

With Dr RA Upton

Lectures 1 Unit. 1982-1983

Pharmaceutical Chemistry 212B, Mathematical Modelling

With Dr RA Upton

Lectures 1 Unit. 1982-1983

Pharmaceutical Chemistry 212C, Computer Programming

With Dr RA Upton

Lectures 1 Unit 1982-1983

Research Supervision

3 units 1981-1983

University of Auckland

Pharmacology 60.307, 565.203, 565.305, HUMANBIO 251,256,355,MBChB221 (Medicine)

Clinical Pharmacology (With Others from Dept. Pharmacology)

Lectures & Tutorials. 1983 (part),1984-

Pharmacology 96.301, 565.302, PHARMCOL 201, MEDSCI 204 (Science BSc)

Pharmacology (With Others from Dept. Pharmacology)

Lectures & Laboratories. 1985-

Pharmacology 96.404, 565.722, PHARMCOL 722 (Science MSc)

Clinical Pharmacology (With Others from Dept. Pharmacology)

Lectures & Laboratories. 1987-1991, 1993-

Pharmacology 96.408,565.716, PHARMCOL 716, 726

Pharmacometrics MEDSCI 719 (Sole teacher)

Lectures & Laboratories. 1994-

Auckland Hospital

Trainee Intern Tutorials 1984-1989

FRACP Training Programme Auckland

Clinical Pharmacology Lectures. 1984-1989

Clinical Pharmacology Tutorials 2012-

International Training Courses

1. Modelling Workshop
Principal Instructor
Roche, Nutley, NJ, USA. 1992

2. MKMODEL Workshop, Hoffman-La Roche
Principal Instructor
Basel, Switzerland 1993
3. European Course: CEIP Evaluation and Interpretation of
Pharmacokinetic/Pharmacodynamic Data
Co-instructor
Basel, Switzerland, 1993
4. Principles of PKPD Analysis,
Modelling Dose Effects in Alzheimer's Disease, Population Approach to
Pharmacokinetics/Pharmacodynamics, Applied Statistics Conference
Principal Instructor
Atlantic City, New York, USA, 1993
5. NONMEM Workshop, Hoffman-La Roche
Principal Instructor
Basel, Switzerland 1994
6. Modelling and Simulation Workshop, Hoffman-La Roche,
Co-Instructor
Basel, Switzerland 1997
7. Stanford University Medical Center/Center for Drug Development Science Course "Clinical
Development of New Drugs and Therapeutic Agents: Art, Science and New
Frontiers", Pharmacokinetic and pharmacodynamic assessment.
Palo Alto, CA, July 1997.
8. FDA/Center for Drug Development Science Course "Clinical Development of New Drugs
and Therapeutic Agents: Art, Science and New Frontiers", Pharmacokinetic and
pharmacodynamic assessment.
McLean, VA, May 1998.
9. Eli Lilly/Center for Drug Development Science Course "Clinical Development of New
Drugs and Therapeutic Agents: Art, Science and New Frontiers", Pharmacokinetic and
pharmacodynamic assessment.
Indianapolis, IN, August 1998.
10. Clinical Pharmacometrics. <http://www.dml.georgetown.edu/cdds/guphm>
Principal Instructor
Georgetown University, DC. March 1998
11. American Association of Pharmaceutical Scientists. Short Course on Clinical Trial
Simulation.
Course organizer.
Denver, CO, USA. 21 October 2001
12. Population Analysis Group Europe. Bayesian Modelling Workshop.
Course co-organizer and Co-Instructor.
Paris, France, June 2002
13. National Center for Co-ordination of Clinical Trials. Clinical Trial Simulation Workshop.
Course organizer and Instructor.
Havana, Cuba, November 2002
14. Population Analysis Group Australia and New Zealand and Africa. Population Analysis
Workshop
Course co-organizer and Co-Instructor.
Cape Town, South Africa, November 2002
15. National Center for Co-ordination of Clinical Trials. Clinical Trial Simulation Workshop.
Course organizer and Instructor.
Havana, Cuba, October 2003
16. American Association of Pharmaceutical Scientists, Short Course on Bayesian Modelling.
"NONMEM and PRIOR".
Co-Instructor
Salt Lake City, UT, USA, October 2003.
17. Novartis/Roche Population Modelling Workshop.
Course organizer and instructor

- Basel, Switzerland, June 2004
18. Novartis/Roche Population Modelling Workshop.
Course organizer and instructor
East Hanover, USA, August 2004
 19. Population Analysis Group Australia and New Zealand and Japan. Clinical Pharmacology and Population Analysis Workshop.
Course organizer and Co-Instructor
Meiji Pharmaceutical University, September 2004
 20. National Center for Co-ordination of Clinical Trials. Clinical Trial Simulation Workshop.
Course co-organizer and Instructor.
Havana, Cuba, November 2004
 21. Population Analysis Group Australia and New Zealand. Intermediate Workshop on "PKPD effect compartment and turnover"
Course co-organizer and Co-Instructor
Brisbane, Australia, February 2005
 22. University of California DC, Center for Drug Development Science.
Workshop "Modelling Likelihoods Using NONMEM"
Washington, DC, USA, March 2005
 23. State University of New York at Buffalo, Workshop "Population Analysis Using NONMEM"
Course co-organizer and Co-Instructor
Buffalo, NY, USA, August 2005
 24. The 3rd Meiji Pharmaceutical University Extension Course, "Bootstrap, randomization and mixture model tests in NONMEM"
Instructor
Meiji University, Tokyo, September 2005
 25. University of Rhode Island, Workshop "Population Analysis Using NONMEM"
Course co-organizer and Co-Instructor
Kingston, RI, USA, September 2005
 26. AP2POP, Workshop on Optimal Population PK design & Bootstrap, randomization and mixture model tests in NONMEM
Course Co-Instructor
Marseille, France, October 2005
 27. Free University of Berlin, School of Pharmacy, Workshop "Population Analysis Using NONMEM"
Course co-organizer and Instructor
Berlin, Germany, October 2005
 28. American Association of Pharmaceutical Scientists, Short Course MS101 Clinical Trial Simulation "How to perform a simulation study".
Co-Instructor
Nashville, TN, USA, November 2005
 29. 6th Congress of Pharmacology and Therapeutics, Workshop "Clinical Trial Simulation"
Course Co-Organizer and Instructor
Santiago de Cuba, Cuba, November 2005
 30. Centre for Molecular Immunology, Workshop "Clinical Trial Simulation"
Course Co-Organizer and Instructor
Havana, Cuba, November 2005
 31. American Association of Pharmaceutical Scientists, Short Course PKPD in Drug Development "Simvastatin Case Study".
Co-Instructor
San Antonio, TX, USA, November 2006
 32. University of Halle, School of Pharmacy, Workshop "Population Analysis Using NONMEM"
Course co-organizer and Instructor
Halle, Germany, November 2006

33. National University of Singapore, Clinical pharmacology and development of a pharmacometric resource
Advisor and Instructor
Singapore, February-April 2007
34. Sheiner & Rowland Advanced PKPD Workshop
Course Instructor
Sils Maria, Switzerland, April 2008
35. Population PKPD and NONMEM
Course Instructor
Johnson & Johnson
Lambertville, PA.USA, September 2008
36. Population PKPD and NONMEM
Course Instructor
University of Cape Town
Cape Town, South Africa, February 2009
37. Sheiner & Rowland Advanced PKPD Workshop
Course Instructor
Washington DC, USA, May 2009
38. Population PKPD and NONMEM
Course Instructor
Merck Inc.
West Point, PA.USA, May 2009
39. Population PKPD and Disease Progress
Course Instructor
Universite Lyon
Lyon, France, June 2009
40. Population PKPD
Course Instructor
Universite Catholique de Louvain
Brussels, Belgium, July 2009
41. Sheiner & Rowland Advanced PKPD Workshop
Course Instructor
Seoul, Korea, September 2009
42. Population PKPD and NONMEM
Course Instructor
Chugai.
Tokyo, Japan, September 2009
43. Sheiner & Rowland Advanced PKPD Workshop
Course Instructor
Sils Maria, Switzerland, April 2010
44. NONMEM Workshop
Course Instructor
Beijing, China, September 2010
45. Sheiner & Rowland Advanced PKPD Workshop
Course Instructor
Philadelphia, USA, April 2011
46. Basic PKPD Workshop
Course Instructor
Canberra, Australia, Feb 2012
47. Sheiner & Rowland Advanced PKPD Workshop
Course Instructor
Singapore, Feb 2012
48. Clinical Pharmacology Workshop
Course Instructor
University of Malaya, Kuala Lumpur, Feb 2012
49. Pharmacometrics Workshop

- Course Instructor
University of Malaya, Kuala Lumpur, Feb 2012
- 50. Sheiner & Rowland Advanced PKPD Workshop
Course Instructor
Sils Maria, Switzerland, April 2012
- 51. Clinical Pharmacology Workshop
Course Instructor
University of Utah, Salt Lake City, July 2012
- 52. Pharmacometrics Workshop
Course Instructor
University of Utah, Salt Lake City, July 2012
- 53. Introductory PKPD Workshop
Course Instructor
Canberra, Australia, Dec 2012
- 54. Introductory NONMEM Workshop
Course Instructor
Canberra, Australia, Dec 2012
- 55. Sheiner & Rowland Advanced PKPD Workshop
Course Instructor
Philadelphia, USA, April 2013
- 56. Pharmacometrics Workshop
Course Instructor
Grenoble, France, July 2013
- 57. Pharmacometrics Workshop
Course Organizer and Instructor
Free University of Berlin, Berlin, August 2013
- 58. Time to Event Workshop
Course Organizer and Instructor
Bayer, Berlin, August 2013
- 59. Sheiner & Rowland Advanced PKPD Workshop
Course Instructor
Tokyo, Japan, Sept 2013
- 60. Clinical Pharmacology Workshop
Course Organizer and Instructor
Chugai, Tokyo, Sept 2013
- 61. Clinical Pharmacology Workshop
Course Organizer and Instructor
Daichi-Sankyo, Tokyo, Sept 2013
- 62. Sheiner & Rowland Advanced PKPD Workshop
Course Instructor
Sils Maria, Switzerland, April 2014
- 63. Sheiner & Rowland Advanced PKPD Workshop
Course Instructor
Lambertville NJ, USA, April 2015
- 64. Basic PKPD and NONMEM Workshop
Course Instructor
Santiago, Chile, September 2015
- 65. Sheiner & Rowland Advanced PKPD Workshop
Course Instructor
Sils Maria, Switzerland, April 2016

SABBATICAL LEAVE

Dec 1989-March 1990 University of California
San Francisco, USA

Dr Lewis Sheiner

Population Pharmacodynamics of Theophylline

April 1990-Dec 1990 Hoffman-La Roche

Basel, Switzerland

Dr Theo Güntert

Population Based Drug Development Methods

Feb 1998-June 1998 Center for Drug Development Science, Georgetown University

Washington DC, USA

Prof Carl Peck

Clinical trial simulation in drug development

July 1998-Sept 1998 Dept Neurology, Oregon Health Sciences University

Portland, OR, USA

Prof Jay Nutt

Disease progress and pharmacodynamic models in Parkinson's disease

Oct 1998-Dec 1998 Dept Clinical & Experimental Pharmacology, University of Natal

Durban, South Africa

Dr Lynn McFadyen/Dr Julia Botha/Dr Colin Pillai

Population pharmacokinetics and pharmacodynamics of anti-tuberculous drugs

Feb 2005 School of Pharmacy, University of Queensland

Brisbane, Australia

Dr Stephen Duffull

April-June 2005 Dept of Pharmacokinetics, University of Uppsala

Uppsala, Sweden

Prof Mats Karlsson

July-Aug 2005 Dept of Biomathematics, University of Philadelphia

Kennet Square, PA, USA

Prof Raymond Boston

Oct-Dec 2005 National Centre for Coordination of Clinical Trials (CENCEC), Ministry of Health
(MINSAP)

Havana, Cuba

Dr Martha Fors-Lopez

July-Sep 2013

Prof Pierre Marquet, CHU Limoges, France

Oct-2013 - Feb 2014

Auckland (Starship Hospital, Auckland City Hospital)

Mar-Jun 2014

Dr Catherine Litalien, St Justine's Children's Hospital, Montreal

REFEREED PUBLICATIONS

1. Holford NH. Antagonism of some spasmogens of the rat seminal vesicle. *Br J Pharmacol.* 1972;46(3):522P.
2. Davidson JK, Morley P, Hurley GD, Holford NG. Adrenal venography and ultrasound in the investigation of the adrenal gland: an analysis of 58 cases. *Br J Radiol.* 1975;48(570):435-50.
3. Holford N, Sheiner LB. The digoxin concentration: before and after the fact. *Am Heart J.* 1977;94(4):529-30.
4. Holford NH, Vozeh S, Coates P, Powell JR, Thiercelin JF, Upton R. More on heparin lock. *N Engl J Med.* 1977;296(22):1300-1.

5. Guentert TW, Holford NH, Coates PE, Upton RA, Riegelman S. Quinidine pharmacokinetics in man: choice of a disposition model and absolute bioavailability studies. *J Pharmacokinet Biopharm.* 1979;7(4):315-30.
6. Guentert TW, Upton RA, Holford NH, Riegelman S. Divergence in pharmacokinetic parameters of quinidine obtained by specific and nonspecific assay methods. *J Pharmacokinet Biopharm.* 1979;7(3):303-11.
7. Guentert TW, Upton RA, Holford NH, Bostrom A, Riegelman S. Gastrointestinal absorption of quinidine from some solutions and commercial tablets. *J Pharmacokinet Biopharm.* 1980;8(3):243-55.
8. Holford NH. Quinidine-digoxin interaction. *Ann Intern Med.* 1980;93(4):638-9.
9. Holford NH. Internal medicine-epitomes of progress: digoxin, quinidine and sudden death. *West J Med.* 1980;133(3):233-4.
10. Holford NH. The quinidine-digoxin interaction. *N Engl J Med.* 1980;302(15):864.
11. Scheinman MM, Remedios P, Cheitlin MD, Peters RW, Holford N, Desai J, et al. Effects of antiarrhythmic drugs on atrioventricular conduction in patients with acute myocardial infarction. *Circulation.* 1980;62(1):20-8.
12. Upton RA, Buskin JN, Williams RL, Holford NH, Riegelman S. Negligible excretion of unchanged ketoprofen, naproxen, and probenecid in urine. *J Pharm Sci.* 1980;69(11):1254-7.
13. Whiting B, Holford NH, Sheiner LB. Quantitative analysis of the disopyramide concentration-effect relationship. *Br J Clin Pharmacol.* 1980;9(1):67-75.
14. Frey FJ, Amend WJ, Lozada F, Frey BM, Holford NH, Benet LZ. Pharmacokinetics of prednisolone and endogenous hydrocortisone levels in cushingoid and non-cushingoid patients. *Eur J Clin Pharmacol.* 1981;21(3):235-42.
15. Holford NH, Coates PE, Guentert TW, Riegelman S, Sheiner LB. The effect of quinidine and its metabolites on the electrocardiogram and systolic time intervals: concentration--effect relationships. *Br J Clin Pharmacol.* 1981;11(2):187-95.
16. Holford NH, Sheiner LB. Understanding the dose-effect relationship: clinical application of pharmacokinetic-pharmacodynamic models. *Clin Pharmacokinet.* 1981;6(6):429-53.
17. Holford NH, Sheiner LB. Pharmacokinetic and pharmacodynamic modeling in vivo. *Crit Rev Bioeng.* 1981;5(4):273-322.
18. Bikle DD, Peck CC, Holford NH, Zolock DT, Morrissey RL. Pharmacokinetics and pharmacodynamics of 1,25-dihydroxyvitamin D3 in the chick. *Endocrinology.* 1982;111(3):939-46.
19. Frey BM, Frey FJ, Holford NH, Lozada F, Benet LZ. Prednisolone pharmacodynamics assessed by inhibition of the mixed lymphocyte reaction. *Transplantation.* 1982;33(6):578-84.
20. Gambertoglio JG, Frey FJ, Holford NH, Birnbaum JL, Lizak PS, Vincenti F, et al. Prednisone and prednisolone bioavailability in renal transplant patients. *Kidney Int.* 1982;21(4):621-6.
21. Holford NH, Sheiner LB. Kinetics of pharmacologic response. *Pharmacol Ther.* 1982;16(2):143-66.
22. Rakhit A, Kunitani M, Holford NH, Riegelman S. Improved liquid-chromatographic assay of quinidine and its metabolites in biological fluids. *Clin Chem.* 1982;28(7):1505-9.
23. Silber B, Holford NH, Riegelman S. Stereoselective disposition and glucuronidation of propranolol in humans. *J Pharm Sci.* 1982;71(6):699-704.
24. Williams RL, Blume CD, Lin ET, Holford NH, Benet LZ. Relative bioavailability of chlorthalidone in humans: adverse influence of polyethylene glycol. *J Pharm Sci.* 1982;71(5):533-5.
25. Silber BM, Holford NH, Riegelman S. Dose-dependent elimination of propranolol and its major metabolites in humans. *J Pharm Sci.* 1983;72(7):725-32.
26. Tozer TN, Gambertoglio JG, Furst DE, Avery DS, Holford NH. Volume shifts and protein binding estimates using equilibrium dialysis: application to prednisolone binding in humans. *J Pharm Sci.* 1983;72(12):1442-6.
27. Gambertoglio JG, Holford NH, Kapusnik JE, Nishikawa R, Saltiel M, Stanik-Lizak P, et al. Disposition of total and unbound prednisolone in renal transplant patients receiving anticonvulsants. *Kidney Int.* 1984;25(1):119-23.

28. Rakhit A, Guentert TW, Holford NH, Verhoeven J, Riegelman S. Pharmacokinetics and pharmacodynamics of quinidine and its metabolite, quinidine-N-oxide, in beagle dogs. *Eur J Drug Metab Pharmacokinet.* 1984;9(4):315-24.
29. Rakhit A, Holford NH, Effeney DJ, Riegelman S. Induction of quinidine metabolism and plasma protein binding by phenobarbital in dogs. *J Pharmacokinet Biopharm.* 1984;12(5):495-515.
30. Rakhit A, Holford NH, Guentert TW, Maloney K, Riegelman S. Pharmacokinetics of quinidine and three of its metabolites in man. *J Pharmacokinet Biopharm.* 1984;12(1):1-21.
31. Rosenbaum JS, Holford NH, Richards ML, Aman RA, Sadee W. Discrimination of three types of opioid binding sites in rat brain in vivo. *Mol Pharmacol.* 1984;25(2):242-8.
32. Rosenbaum JS, Holford NH, Sadee W. Opiate receptor binding-effect relationship: sufentanil and etorphine produce analgesia at the mu-site with low fractional receptor occupancy. *Brain Res.* 1984;291(2):317-24.
33. Thibonnier M, Holford NH, Upton RA, Blume CD, Williams RL. Pharmacokinetic-pharmacodynamic analysis of unbound disopyramide directly measured in serial plasma samples in man. *J Pharmacokinet Biopharm.* 1984;12(6):559-73.
34. Rosenbaum JS, Holford NH, Sadee W. In vivo receptor binding of opioid drugs at the mu site. *J Pharmacol Exp Ther.* 1985;233(3):735-40.
35. Holford NH. Clinical pharmacokinetics and pharmacodynamics of warfarin. Understanding the dose-effect relationship. *Clin Pharmacokinet.* 1986;11(6):483-504.
36. Mahood CB, Rothwell RP, Holford N. Slow-release theophylline (THEO-24). *N Z Med J.* 1986;99(794):21.
37. Mahood CB, Rothwell RP, Holford NH. Slow release theophylline (Theo-24). *N Z Med J.* 1986;99(797):165.
38. Webster DR, Boston GD, Holford NH, Paton DM. Relationship of metabolism of 2', 3'- and 5'-adenine nucleotides to presynaptic inhibition of transmitter release in rat vas deferens. *Naunyn Schmiedebergs Arch Pharmacol.* 1986;333(2):163-7.
39. Faull RL, Villiger JW, Holford NH. Benzodiazepine receptors in the human cerebellar cortex: a quantitative autoradiographic and pharmacological study demonstrating the predominance of type I receptors. *Brain Res.* 1987;411(2):379-85.
40. Holford NH. Clinical pharmacokinetics of ethanol. *Clin Pharmacokinet.* 1987;13(5):273-92.
41. Holford NH, Clements P, Collier P, Orié NG, van Bork LE, Jonkman JH. Pharmacokinetics and pharmacodynamics of thiazinamium in asthmatic patients. *Eur J Clin Pharmacol.* 1987;33(3):237-42.
42. Milne RJ, Gamble GD, Holford NH. Behavioural tolerance to morphine analgesia is supraspinally mediated: a quantitative analysis of dose-response relationships. *Brain Res.* 1989;491(2):316-27.
43. Holford NH. Concepts and usefulness of pharmacokinetic-pharmacodynamic modelling. *Fundam Clin Pharmacol.* 1990;4 Suppl 2:93s-101s.
44. Holford NH. Relevance of pharmacodynamic principles in therapeutics. *Ann Acad Med Singapore.* 1991;20(1):26-30.
45. Ware GJ, Holford NH, Davison JG. Unit dose dispensing. *N Z Med J.* 1991;104(908):125.
46. Ware GJ, Holford NH, Davison JG, Harris RG. Unit dose calendar packaging and elderly patient compliance. *N Z Med J.* 1991;104(924):495-7.
47. Holford NH. beta-blockers vs calcium channel blockers vs ACE inhibitors. *Pharmacoeconomics.* 1992;1(6):460-1.
48. Holford NH, Ambros RJ, Stoeckel K. Models for describing absorption rate and estimating extent of bioavailability: application to cefetamet pivoxil. *J Pharmacokinet Biopharm.* 1992;20(5):421-42.
49. Holford NH, Peace KE. Results and validation of a population pharmacodynamic model for cognitive effects in Alzheimer patients treated with tacrine. *Proc Natl Acad Sci U S A.* 1992;89(23):11471-5.
50. Holford NH, Peace KE. Methodologic aspects of a population pharmacodynamic model for cognitive effects in Alzheimer patients treated with tacrine. *Proc Natl Acad Sci U S A.* 1992;89(23):11466-70.

51. Holford N, Black P, Couch R, Kennedy J, Briant R. Theophylline target concentration in severe airways obstruction - 10 or 20 mg/L? A randomised concentration-controlled trial. *Clin Pharmacokinet.* 1993;25(6):495-505.
52. Holford N, Hashimoto Y, Sheiner LB. Time and theophylline concentration help explain the recovery of peak flow following acute airways obstruction. Population analysis of a randomised concentration controlled trial. *Clin Pharmacokinet.* 1993;25(6):506-15.
53. Guentert TW, Holford NH, Pfefen JP, Dingemans J. Mixed linear and non-linear disposition of lazabemide, a reversible and selective inhibitor of monoamine oxidase B. *Br J Clin Pharmacol.* 1994;37(6):545-51.
54. Holford NH, Guentert TW, Dingemans J, Banken L. Monoamine oxidase-A: pharmacodynamics in humans of moclobemide, a reversible and selective inhibitor. *Br J Clin Pharmacol.* 1994;37(5):433-9.
55. Holford NH, Guentert TW, Dingemans J, Kettler R. Pharmacodynamics of lazabemide, a reversible and selective inhibitor of monoamine oxidase B. *Br J Clin Pharmacol.* 1994;37(6):553-7.
56. Holford NH, Peace K. The effect of tacrine and lecithin in Alzheimer's disease. A population pharmacodynamic analysis of five clinical trials. *Eur J Clin Pharmacol.* 1994;47(1):17-23.
57. Anderson BJ, Woolard GA, Holford NH. Pharmacokinetics of rectal paracetamol after major surgery in children. *Paediatr Anaesth.* 1995;5(4):237-42.
58. Guentert TW, Banken L, Hilton S, Holford NH. Moclobemide: relationships between dose, drug concentration in plasma, and occurrence of adverse events. *J Clin Psychopharmacol.* 1995;15(4 Suppl 2):84S-94S.
59. Holford NH. The target concentration approach to clinical drug development. *Clin Pharmacokinet.* 1995;29(5):287-91.
60. Holford NH. Input from the deep south compartment. A personal viewpoint. *Clin Pharmacokinet.* 1995;29(3):139-41.
61. Holford NH, Williams PE, Muirhead GJ, Mitchell A, York A. Population pharmacodynamics of romazarit. *Br J Clin Pharmacol.* 1995;39(3):313-20.
62. Veszelovsky E, Holford NH, Thomsen LL, Knowles RG, Baguley BC. Plasma nitrate clearance in mice: modeling of the systemic production of nitrate following the induction of nitric oxide synthesis. *Cancer Chemother Pharmacol.* 1995;36(2):155-9.
63. Holford NH. A size standard for pharmacokinetics. *Clin Pharmacokinet.* 1996;30(5):329-32.
64. Nutt JG, Holford NH. The response to levodopa in Parkinson's disease: imposing pharmacological law and order. *Ann Neurol.* 1996;39(5):561-73.
65. Anderson BJ, Holford NH. Rectal paracetamol dosing regimens: determination by computer simulation. *Paediatr Anaesth.* 1997;7(6):451-5.
66. Anderson BJ, Holford NH, Woollard GA. Aspects of theophylline clearance in children. *Anaesth Intensive Care.* 1997;25(5):497-501.
67. Anderson BJ, McKee AD, Holford NH. Size, myths and the clinical pharmacokinetics of analgesia in paediatric patients. *Clin Pharmacokinet.* 1997;33(5):313-27.
68. Holford NH. Complex PK/PD models--an alcoholic experience. *Int J Clin Pharmacol Ther.* 1997;35(10):465-8.
69. Pruijn FB, van Daalen M, Holford NH, Wilson WR. Mechanisms of enhancement of the antitumour activity of melphalan by the tumour-blood-flow inhibitor 5,6-dimethylxanthenone-4-acetic acid. *Cancer Chemother Pharmacol.* 1997;39(6):541-6.
70. Reid AW, Anderson BJ, Futter ME, Holford NH. Relationship of muscle strength to potassium concentration in a hypokalaemic infant. *Anaesth Intensive Care.* 1997;25(5):525-7.
71. Anderson BJ, Holford NH. Rectal acetaminophen pharmacokinetics. *Anesthesiology.* 1998;88(4):1131-3.
72. Anderson BJ, Holford NH, Woollard GA, Chan PL. Paracetamol plasma and cerebrospinal fluid pharmacokinetics in children. *Br J Clin Pharmacol.* 1998;46(3):237-43.
73. Anderson BJ, Monteleone J, Holford NH. Variability of concentrations after rectal paracetamol. *Paediatr Anaesth.* 1998;8(3):274.

74. Reith D, Monteleone JP, Whyte IM, Ebelling W, Holford NH, Carter GL. Features and toxicokinetics of clozapine in overdose. *Ther Drug Monit.* 1998;20(1):92-7.
75. Anderson BJ, Gunn TR, Holford NH, Johnson R. Caffeine overdose in a premature infant: clinical course and pharmacokinetics. *Anaesth Intensive Care.* 1999;27(3):307-11.
76. Anderson BJ, Holford NH, Armishaw JC, Aicken R. Predicting concentrations in children presenting with acetaminophen overdose. *J Pediatr.* 1999;135(3):290-5.
77. Anderson BJ, Holford NH, Woollard GA, Kanagasundaram S, Mahadevan M. Perioperative pharmacodynamics of acetaminophen analgesia in children. *Anesthesiology.* 1999;90(2):411-21.
78. du Preez MJ, Botha JH, McFadyen ML, Holford NH. The pharmacokinetics of theophylline in premature neonates during the first few days after birth. *Ther Drug Monit.* 1999;21(6):598-603.
79. Holford NH. Target concentration intervention: beyond Y2K. *Br J Clin Pharmacol.* 1999;48(1):9-13.
80. Parke J, Holford NH, Charles BG. A procedure for generating bootstrap samples for the validation of nonlinear mixed-effects population models. *Comput Methods Programs Biomed.* 1999;59(1):19-29.
81. Schuitmaker M, Anderson BJ, Holford NH, Woollard GA. Pharmacokinetics of paracetamol in adults after cardiac surgery. *Anaesth Intensive Care.* 1999;27(6):615-22.
82. Anderson BJ, Holford NH. Reply. *J Pediatr.* 2000;137(6):892.
83. Anderson BJ, Pearce S, McGann JE, Newson AJ, Holford NH. Investigations using logistic regression models on the effect of the LMA on morphine induced vomiting after tonsillectomy. *Paediatr Anaesth.* 2000;10(6):633-8.
84. Anderson BJ, Ralph CJ, Stewart AW, Barber C, Holford NH. The dose-effect relationship for morphine and vomiting after day-stay tonsillectomy in children. *Anaesth Intensive Care.* 2000;28(2):155-60.
85. Anderson BJ, Woollard GA, Holford NH. A model for size and age changes in the pharmacokinetics of paracetamol in neonates, infants and children. *Br J Clin Pharmacol.* 2000;50(2):125-34.
86. Holford NH, Kimko HC, Monteleone JP, Peck CC. Simulation of clinical trials. *Annu Rev Pharmacol Toxicol.* 2000;40:209-34.
87. Kimko HC, Reece SS, Holford NH, Peck CC. Prediction of the outcome of a phase 3 clinical trial of an antischizophrenic agent (quetiapine fumarate) by simulation with a population pharmacokinetic and pharmacodynamic model. *Clin Pharmacol Ther.* 2000;68(5):568-77.
88. Anderson BJ, Woollard GA, Holford NH. Acetaminophen analgesia in children: placebo effect and pain resolution after tonsillectomy. *Eur J Clin Pharmacol.* 2001;57(8):559-69.
89. Chan PL, Holford NH. Drug treatment effects on disease progression. *Annu Rev Pharmacol Toxicol.* 2001;41:625-59.
90. Gobburu JV, Holford NH. Vz, the terminal phase volume: time for its terminal phase? *J Biopharm Stat.* 2001;11(4):373-5.
91. Grange S, Holford NH, Guentert TW. A pharmacokinetic model to predict the PK interaction of L-dopa and benserazide in rats. *Pharm Res.* 2001;18(8):1174-84.
92. Holford NH. Target concentration intervention: beyond Y2K. *Br J Clin Pharmacol.* 2001;52 Suppl 1:55S-9S.
93. Michelsen LG, Holford NH, Lu W, Hoke JF, Hug CC, Bailey JM. The pharmacokinetics of remifentanyl in patients undergoing coronary artery bypass grafting with cardiopulmonary bypass. *Anesth Analg.* 2001;93(5):1100-5.
94. Anderson BJ, van Lingen RA, Hansen TG, Lin YC, Holford NH. Acetaminophen developmental pharmacokinetics in premature neonates and infants: a pooled population analysis. *Anesthesiology.* 2002;96(6):1336-45.
95. Hauser RA, Holford NH. Quantitative description of loss of clinical benefit following withdrawal of levodopa-carbidopa and bromocriptine in early Parkinson's disease. *Mov Disord.* 2002;17(5):961-8.

96. Mould DR, Holford NH, Schellens JH, Beijnen JH, Hutson PR, Rosing H, et al. Population pharmacokinetic and adverse event analysis of topotecan in patients with solid tumors. *Clin Pharmacol Ther.* 2002;71(5):334-48.
97. Sheiner LB, Holford NH. Determination of maximum effect. *Clin Pharmacol Ther.* 2002;71(4):304; author reply -5.
98. Whiting B, Holford NH, Begg EJ. Clinical pharmacology: principles and practice of drug therapy in medical education. *Br J Clin Pharmacol.* 2002;54(1):1-2.
99. Frey N, Laveille C, Paraire M, Francillard M, Holford NH, Jochemsen R. Population PKPD modelling of the long-term hypoglycaemic effect of gliclazide given as a once-a-day modified release (MR) formulation. *Br J Clin Pharmacol.* 2003;55(2):147-57.
100. van der Marel CD, Anderson BJ, van Lingen RA, Holford NH, Pluim MA, Jansman FG, et al. Paracetamol and metabolite pharmacokinetics in infants. *Eur J Clin Pharmacol.* 2003;59(3):243-51.
101. Anderson BJ, Holford NH. No urine, no urinary clearance. *Eur J Clin Pharmacol.* 2004;60(4):297.
102. Bouwmeester NJ, Anderson BJ, Tibboel D, Holford NH. Developmental pharmacokinetics of morphine and its metabolites in neonates, infants and young children. *Br J Anaesth.* 2004;92(2):208-17.
103. Chan PL, Nutt JG, Holford NH. Modeling the short- and long-duration responses to exogenous levodopa and to endogenous levodopa production in Parkinson's disease. *J Pharmacokinet Pharmacodyn.* 2004;31(3):243-68.
104. Matthews I, Kirkpatrick C, Holford N. Quantitative justification for target concentration intervention--parameter variability and predictive performance using population pharmacokinetic models for aminoglycosides. *Br J Clin Pharmacol.* 2004;58(1):8-19.
105. Chan PL, Nutt JG, Holford NH. Pharmacokinetic and pharmacodynamic changes during the first four years of levodopa treatment in Parkinson's disease. *J Pharmacokinet Pharmacodyn.* 2005;32(3-4):459-84.
106. Chan PL, Nutt JG, Holford NH. Importance of within subject variation in levodopa pharmacokinetics: a 4 year cohort study in Parkinson's disease. *J Pharmacokinet Pharmacodyn.* 2005;32(3-4):307-31.
107. Duffull SB, Kirkpatrick CM, Green B, Holford NH. Analysis of population pharmacokinetic data using NONMEM and WinBUGS. *J Biopharm Stat.* 2005;15(1):53-73.
108. Allegaert K, Anderson BJ, Cossey V, Holford NH. Limited predictability of amikacin clearance in extreme premature neonates at birth. *Br J Clin Pharmacol.* 2006;61(1):39-48.
109. Anderson BJ, Allegaert K, Holford NH. Population clinical pharmacology of children: general principles. *Eur J Pediatr.* 2006;165(11):741-6.
110. Anderson BJ, Allegaert K, Holford NH. Population clinical pharmacology of children: modelling covariate effects. *Eur J Pediatr.* 2006;165(12):819-29.
111. DeAngelo DJ, Stone RM, Heaney ML, Nimer SD, Paquette RL, Klisovic RB, et al. Phase 1 clinical results with tandutinib (MLN518), a novel FLT3 antagonist, in patients with acute myelogenous leukemia or high-risk myelodysplastic syndrome: safety, pharmacokinetics, and pharmacodynamics. *Blood.* 2006;108(12):3674-81.
112. Holford NH, Chan PL, Nutt JG, Kiebertz K, Shoulson I. Disease progression and pharmacodynamics in Parkinson disease - evidence for functional protection with levodopa and other treatments. *J Pharmacokinet Pharmacodyn.* 2006;33(3):281-311.
113. Lockwood P, Ewy W, Hermann D, Holford N. Application of clinical trial simulation to compare proof-of-concept study designs for drugs with a slow onset of effect; an example in Alzheimer's disease. *Pharm Res.* 2006;23(9):2050-9.
114. Tannenbaum SJ, Holford NH, Lee H, Peck CC, Mould DR. Simulation of correlated continuous and categorical variables using a single multivariate distribution. *J Pharmacokinet Pharmacodyn.* 2006;33(6):773-94.

115. Anderson BJ, Allegaert K, Van den Anker JN, Cossey V, Holford NH. Vancomycin pharmacokinetics in preterm neonates and the prediction of adult clearance. *Br J Clin Pharmacol.* 2007;63(1):75-84.
116. Chan PL, Nutt JG, Holford NH. Levodopa slows progression of Parkinson's disease: external validation by clinical trial simulation. *Pharm Res.* 2007;24(4):791-802.
117. Fang L, Holford NH, Hinkle G, Cao X, Xiao JJ, Bloomston M, et al. Population pharmacokinetics of humanized monoclonal antibody HuCC49deltaCH2 and murine antibody CC49 in colorectal cancer patients. *J Clin Pharmacol.* 2007;47(2):227-37.
118. Herd DW, Anderson BJ, Holford NH. Modeling the norketamine metabolite in children and the implications for analgesia. *Paediatr Anaesth.* 2007;17(9):831-40.
119. Holford N, Karlsson MO. Time for quantitative clinical pharmacology: a proposal for a pharmacometrics curriculum. *Clin Pharmacol Ther.* 2007;82(1):103-5.
120. Overgaard RV, Holford N, Rytved KA, Madsen H. PKPD model of interleukin-21 effects on thermoregulation in monkeys--application and evaluation of stochastic differential equations. *Pharm Res.* 2007;24(2):298-309.
121. Tham LS, Holford NH, Hor SY, Tan T, Wang L, Lim RC, et al. Lack of association of single-nucleotide polymorphisms in pregnane X receptor, hepatic nuclear factor 4alpha, and constitutive androstane receptor with docetaxel pharmacokinetics. *Clin Cancer Res.* 2007;13(23):7126-32.
122. Anand KJ, Anderson BJ, Holford NH, Hall RW, Young T, Shephard B, et al. Morphine pharmacokinetics and pharmacodynamics in preterm and term neonates: secondary results from the NEOPAIN trial. *Br J Anaesth.* 2008;101(5):680-9.
123. Anderson BJ, Holford NH. Mechanism-based concepts of size and maturity in pharmacokinetics. *Annu Rev Pharmacol Toxicol.* 2008;48:303-32.
124. Herd DW, Anderson BJ, Keene NA, Holford NH. Investigating the pharmacodynamics of ketamine in children. *Paediatr Anaesth.* 2008;18(1):36-42.
125. Holford N, Nutt JG. Disease progression, drug action and Parkinson's disease: why time cannot be ignored. *Eur J Clin Pharmacol.* 2008;64(2):207-16.
126. Iida S, Kinoshita H, Holford NH. Population pharmacokinetic and pharmacodynamic modelling of the effects of nicorandil in the treatment of acute heart failure. *Br J Clin Pharmacol.* 2008;66(3):352-65.
127. Tham LS, Wang L, Soo RA, Lee SC, Lee HS, Yong WP, et al. A pharmacodynamic model for the time course of tumor shrinkage by gemcitabine + carboplatin in non-small cell lung cancer patients. *Clin Cancer Res.* 2008;14(13):4213-8.
128. Tham LS, Wang LZ, Soo RA, Lee HS, Lee SC, Goh BC, et al. Does saturable formation of gemcitabine triphosphate occur in patients? *Cancer Chemother Pharmacol.* 2008;63(1):55-64.
129. Anderson BJ, Holford NH. Mechanistic basis of using body size and maturation to predict clearance in humans. *Drug Metab Pharmacokinet.* 2009;24(1):25-36.
130. Ploeger BA, Holford NH. Washout and delayed start designs for identifying disease modifying effects in slowly progressive diseases using disease progression analysis. *Pharm Stat.* 2009;8(3):225-38.
131. Rhodin MM, Anderson BJ, Peters AM, Coulthard MG, Wilkins B, Cole M, et al. Human renal function maturation: a quantitative description using weight and postmenstrual age. *Pediatr Nephrol.* 2009;24(1):67-76.
132. Anderson BJ, Holford NH. Leaving no stone unturned, or extracting blood from stone? *Paediatr Anaesth.* 2010;20(1):1-6.
133. Forsyth R, Thuy V, Salorio C, Christensen J, Holford N. Review: efficient rehabilitation trial designs using disease progress modeling: a pediatric traumatic brain injury example. *Neurorehabil Neural Repair.* 2010;24(3):225-34.
134. Holford N. Dosing in children. *Clin Pharmacol Ther.* 2010;87(3):367-70.
135. Holford N, Ma SC, Ploeger BA. Clinical trial simulation: a review. *Clin Pharmacol Ther.* 2010;88(2):166-82.
136. Nutt JG, Chung KA, Holford NH. Dyskinesia and the antiparkinsonian response always temporally coincide: a retrospective study. *Neurology.* 2010;74(15):1191-7.

137. Potts AL, Anderson BJ, Holford NH, Vu TC, Warman GR. Dexmedetomidine hemodynamics in children after cardiac surgery. *Paediatr Anaesth*. 2010;20(5):425-33.
138. Bulitta JB, Kinzig M, Jakob V, Holzgrabe U, Sörgel F, Holford NHG. Nonlinear pharmacokinetics of piperacillin in healthy volunteers – implications for optimal dosage regimens. *British Journal of Clinical Pharmacology*. 2010;70(5):682-93.
139. Cortinez LI, Anderson BJ, Penna A, Olivares L, Munoz HR, Holford NH, et al. Influence of obesity on propofol pharmacokinetics: derivation of a pharmacokinetic model. *Br J Anaesth*. 2010;105(4):448-56.
140. Holford N. Holford NHG and Sheiner LB "Understanding the Dose-Effect Relationship-Clinical Application of Pharmacokinetic-Pharmacodynamic Models", *Clin Pharmacokin* 6:429-453 (1981)-The Backstory. *AAPS J*. 2011;13(4):662-4
141. Anderson B, Holford N. Evaluation of a morphine maturation model for the prediction of morphine clearance in children. *Br J Clin Pharmacol*. 2011;72(3):518-20
142. Chigutsa E, Visser ME, Swart EC, Denti P, Pushpakom S, Egan D, et al. The SLCO1B1 rs4149032 polymorphism is highly prevalent in South Africans and is associated with reduced rifampin concentrations: dosing implications. *Antimicrob Agents Chemother*. 2011;55(9):4122-7
143. Holford NH, Nutt JG. Interpreting the results of Parkinson's disease clinical trials: Time for a change. *Mov Disord*. 2011;26(4):569-77
144. Sumpter AL, Holford NHG. Predicting weight using postmenstrual age – neonates to adults. *Pediatric Anesthesia*. 2011;21(3):309-15
145. Anderson BJ, Holford NHG. Tips and traps analyzing pediatric PK data. *Pediatric Anesthesia*. 2011;21(3):222-37
146. Patel K, Choy SS, Hicks KO, Melink TJ, Holford NH, Wilson WR. A combined pharmacokinetic model for the hypoxia-targeted prodrug PR-104A in humans, dogs, rats and mice predicts species differences in clearance and toxicity. *Cancer Chemother Pharmacol*. 2011;67(5):1145-55
147. Holford NHG, Ma SC, Ploeger BA. Response to validation and assessment of predictive performance in simulation models of clinical trials. *Clinical Pharmacology & Therapeutics*. 2011;89(4):488
148. Gengiah TN, Holford NH, Botha JH, Gray AL, Naidoo K, Abdool Karim SS. The influence of tuberculosis treatment on efavirenz clearance in patients co-infected with HIV and tuberculosis. *Eur J Clin Pharmacol* 2012; 68: 689-95.
149. Holford NH, Ma SC, Anderson BJ. Prediction of morphine dose in humans. *Paediatr Anaesth* 2012; 22: 209-22.
150. Vu TC, Nutt JG, Holford NHG. Disease progress and response to treatment as predictors of survival, disability, cognitive impairment and depression in Parkinson's disease. *Br J Clin Pharmacol* 2012; 74: 284-95.
151. Vu TC, Nutt JG, Holford NHG. Progression of motor and nonmotor features of Parkinson's disease and their response to treatment. *Br J Clin Pharmacol* 2012; 74: 267-83.
152. Holford N. Modeling helps in understanding antidepressants. *Clin Pharmacol Ther* 2012; 92: 155-6.
153. Senn S, Holford N, Hockey H. The ghosts of departed quantities: approaches to dealing with observations below the limit of quantitation. *Stat Med* 2012; 31(30): 4280-4295
154. Holford NHG, Buclin T. Safe and effective variability – A criterion for dose individualization. *Ther Drug Monit* 2012; 34 (5), 565-568.
155. Zhao, W., Kaguelidou, F., Zhang, D., Fakhoury, M., Jacqz-Aigrain, E., Biran, V., ... van den Anker, J. N. (2013). External evaluation of population pharmacokinetic models of vancomycin in neonates: The transferability of published models to different clinical settings. *British Journal of Clinical Pharmacology*, 75 (4), 1068-1080. doi:10.1111/j.1365-2125.2012.04406.x
156. Thai HT, Mentre F, Holford NH, Veyrat-Follet C, Comets E. A comparison of bootstrap approaches for estimating uncertainty of parameters in linear mixed-effects models. *Pharm Stat*. 2013;12(3):129-40.

157. Holford N. A Time to Event Tutorial for Pharmacometricians. *CPT: pharmacomet syst pharmacol.* 2013;2:e43 doi: 10.1038/psp.2013.18
158. Holford NHG. Disease progression and neuroscience. *Journal of Pharmacokinetics and Pharmacodynamics.* 2013;40:369-76 doi: 10.1007/s10928-013-9316-2
159. Wright, D. F. B., Duffull, S. B., Stamp, L. K., Barclay, M. L., Merriman, T. R., & Holford, N. H. G. (2013). The population pharmacokinetics of allopurinol and oxypurinol in patients with gout. *European Journal of Clinical Pharmacology*, 69 (7), 1411-1421. doi:10.1007/s00228-013-1478-8
160. Holford NHG. Clinical pharmacology = disease progression + drug action. *British Journal of Clinical Pharmacology.* 2013; doi: 10.1111/bcp.1217
161. Pillai, G., Mirza, F., Davies, G., Denti, P., McIlleron, H., Zvada, S., ... Holford, N. H. G. (2013). Pharmacometrics: Opportunity for reducing disease burden in the developing world: The case of Africa. *CPT: Pharmacometrics and Systems Pharmacology*, 2 (8). doi:10.1038/psp.2013.45
162. Anderson, B. J., & Holford, N. H. (2013). Understanding dosing: children are small adults, neonates are immature children. *Arch Dis Child*, 98 (9), 737-744. doi:10.1136/archdischild-2013-303720
163. Holford, N., Heo, Y. -A., & Anderson, B. (2013). A pharmacokinetic standard for babies and adults. *Journal of Pharmaceutical Sciences*, 102 (9), 2941-2952. doi:10.1002/jps.23574
164. Storset E, Holford N, Midtvedt K, Bremer S, Bergan S, Asberg A. Importance of hematocrit for a tacrolimus target concentration strategy. *Eur J Clin Pharmacol.* 2014;70(1):65-77..
165. Thai HT, Mentre F, Holford NH, Veyrat-Follet C, Comets E. Evaluation of bootstrap methods for estimating uncertainty of parameters in nonlinear mixed-effects models: a simulation study in population pharmacokinetics. *J Pharmacokinet Pharmacodyn.* 2014;41(1):15-33.
166. McCune JS, Bemer MJ, Barrett JS, Scott Baker K, Gamis AS, Holford NHG. Busulfan in Infant to Adult Hematopoietic Cell Transplant Recipients: A Population Pharmacokinetic Model for Initial and Bayesian Dose Personalization. *Clin Cancer Res.* 2014;20(3):754-63.
167. Holford SD, Allegaert K, Anderson BJ, Kukanich B, Sousa AB, Steinman A, et al. Parent-metabolite pharmacokinetic models - tests of assumptions and predictions. *Journal of Pharmacology & Clinical Toxicology.* 2014;2(2):1023-34.
168. Hannam JA, Anderson BJ, Mahadevan M, Holford NH. Postoperative analgesia using diclofenac and acetaminophen in children. *Paediatr Anaesth.* 2014;24(9):953-61.
169. Ribba B, Holford NH, Magni P, Troconiz I, Gueorguieva I, Girard P, et al. A review of mixed-effects models of tumor growth and effects of anticancer drug treatment used in population analysis. *CPT: pharmacometrics & systems pharmacology.* 2014;3:e113.
170. Ribba B, Holford N, Mentre F. The use of model-based tumor-size metrics to predict survival. *Clin Pharmacol Ther.* 2014;96(2):133-5.
171. Storset E, Holford N, Hennig S, Bergmann TK, Bergan S, Bremer S, et al. Improved prediction of tacrolimus concentrations early after kidney transplantation using theory-based pharmacokinetic modelling. *Br J Clin Pharmacol.* 2014;78(3):509-23.
172. Cortinez LI, Anderson BJ, Holford NH, Puga V, de la Fuente N, Auad H, et al. Dexmedetomidine pharmacokinetics in the obese. *Eur J Clin Pharmacol.* 2015;71(12):1501-8.
173. Al-Sallami HS, Goulding A, Grant A, Taylor R, Holford N, Duffull SB. Prediction of Fat-Free Mass in Children. *Clin Pharmacokinet.* 2015;doi:10.1007/s40262-015-0277-z.
174. Barrett JS, Hirankarn S, Holford N, Hammer GB, Drover DR, Cohane CA, et al. A Hemodynamic Model to Guide Blood Pressure Control During Deliberate Hypotension with Sodium Nitroprusside in Children. *Frontiers in Pharmacology, section Obstetric and Pediatric Pharmacology.* 2015;http://dx.doi.org/10.3389/fphar.2015.00151.

175. Allegaert K, Holford N, Anderson BJ, Holford S, Stuber F, Rochette A, et al. Tramadol and o-desmethyl tramadol clearance maturation and disposition in humans: a pooled pharmacokinetic study. *Clin Pharmacokinet*. 2015;54(2):167-78.
176. Holford N, Yim DS. Clearance. *Translational and Clinical Pharmacology*. 2015;23(2):42-5.
177. Vega EA, Ibacache ME, Anderson BJ, Holford NH, Nazar CE, Solari S, et al. Rocuronium pharmacokinetics and pharmacodynamics in the adductor pollicis and masseter muscles. *Acta Anaesthesiol Scand*. 2016;60(6):734-46.
178. Sottas CE, Anderson BJ, Holford NH. Salbutamol has rapid onset pharmacodynamics as a bronchodilator. *Acta Anaesthesiol Scand*. 2016;60(9):1328-31
179. Holford N, Yim DS. Volume of distribution. *Translational and Clinical Pharmacology*. 2016;24(2):74-7.
180. Heo Y-A, Holford N, Kim Y, Son M, Park K. Quantitative model for the blood pressure-lowering interaction of valsartan and amlodipine. *Br J Clin Pharmacol*. 2016;82(6):1557-67.
181. Anderson BJ, Holford NH. Getting the dose right for obese children. *Arch Dis Child*. 2016; DOI: 10.1136/archdischild-2016-311696.
182. Xue L, Holford N, Ding X-l, Shen Z-y, Huang C-r, Zhang H, et al. Theory based PKPD of S- and R-warfarin and effects on INR: influence of body size, composition and genotype in cardiac surgery patients. *Br J Clin Pharmacol*. 2016; DOI 10.1111/bcp.13157.

SUBMITTED

1. Chae D, Son M, Kim K, Son H, Holford N, Park K. Mechanistic modeling of telmisartan blood pressure lowering effect in Humans. 2016
2. Noor Harun S, Wainwright WE, Grimwood K, Holford NHG, Hennig S. *Pseudomonas aeruginosa* eradication therapy and *Aspergillus* in young children with cystic fibrosis. 2016
3. Anderson BJ, Holford NHG. Negligible impact of birth on renal function and drug metabolism. 2016
4. Jiang Y, Holford N, Murry DJ, Brown TL, Milavetz G. Population pharmacokinetics of ethanol in moderate and heavy drinkers. 2016
5. Holford N. Absorption and Half-Life. 2016
6. Tsuji Y, Holford NHG, Kasai H, Ogami C, Heo Y-A, Higashi Y, et al. Population pharmacokinetics and pharmacodynamics of linezolid-induced thrombocytopenia in hospitalized patients. 2016
7. Holford NHG, Anderson BJ. Normal fat mass - A theory based size predictor for dose including the effects of obesity. 2016

NON-REFEREED PUBLICATIONS

1. Holford NHG, Digoxin, Quinidine, and Sudden Death. *UCSF Pharmacy & Therapeutics Forum*, 28: 1-2 (1980)
2. Holford NHG. Digoxin, Quinidine and Sudden Death. *West. J. Med*. 133: 233-234 (1980)
3. Holford NHG. Quinidine: Fact and Fiction in 1980. *Pharm. Intl*. 1: 202-205 (1980)
4. Holford NHG, Paton DM. Transdermal Systems in Principle and Practice. *New Ethicals* 21: 13-18 (1984)
5. Holford NHG, Paton DM. Controlled Release of Transdermal Glyceryl Trinitrate. *Current Therapeutics* 24:13-18 (1984)
6. Holford NHG. Theophylline - Designing the Optimum Dosage Regimen. *Hosp. Therap*. 21-31 Feb (1985)

7. Holford NHG. Target Effect or Therapeutic Range - What is the goal of antiarrhythmic therapy? Forum on the Management of Arrhythmias: The Role of Flecainide (Editor W. Smith), Adis Press, pp 15-32. (1985)
8. Holford NHG. The pharmacology of angiotensin converting enzyme inhibitors. New Concepts in Cardiovascular Medicine. The Developing Role of Captopril. ADIS Press, pp 56-64, (1986)
9. Australasian Society for Clinical and Experimental Pharmacology, New Zealand Section. Viewpoint - Therapeutic Drug Monitoring. NZ. Med. J. 100:664-665 (1987)
10. Holford NHG. Computers in Pharmacology. Pharmacological computing in Auckland. Australasian Society for Clinical and Experimental Pharmacology Newsletter 1:6 (1988)
11. Holford NHG. Wheels for NONMEM. Technical Report. University of California San Francisco. Dept. Laboratory Medicine (1990)
12. Holford NHG. Choosing the first dose. New Ethicals 1990; 27:73-80
13. Holford NHG. Response surface approach to drug interactions. 1998
<http://www.dml.georgetown.edu/cdds/talks/wwwRespsurf>
14. Holford NHG. Validation of population models and clinical trials. 1998
<http://www.dml.georgetown.edu/cdds/talks/Wwwwvalid>
15. Holford NHG. Optimal clinical trial design - modelling, simulation, analysis. 1998
<http://www.dml.georgetown.edu/cdds/talks/wwwtrialmsa>
16. Holford NHG. Clearance and volume method of dose prediction. New Ethicals 2000; September: 57-63

BOOKS and BOOK CHAPTERS

1. Holford NHG. DRUGFUN - A Program for Estimating Parameters of Standard Pharmacokinetic Models Using Non-Linear Least Squares Methods. Article in Public Procedures Notebook, Edited by HM Perry and JJ Wood, Bolt, Beranek and Newman, Inc., Cambridge, MA. 8:35-50 (1979)
2. Holford NHG. MULTIFUN - A Program For Estimating Parameters of a System of Functions Using Non-Linear Least Squares Methods. Article in Public Procedures Notebook, Edited by HM Perry and JJ Wood, Bolt, Beranek and Newman, Inc., Cambridge, MA. 8:51-8:62 (1979)
3. Holford NHG. MKMODEL - A mathematical modelling tool for simulation and parameter estimation. Article in Public Procedures Notebook, Edited by HM Perry and JJ Wood, Bolt, Beranek and Newman, Inc., Cambridge, MA. pp 4:89-4:126 (1982)
4. Holford NHG. MODELTEST - A method for choosing the optimum model using the Schwartz and Leonard Criteria. Article in Public Procedures Notebook, Edited by HM Perry and JJ Wood, Bolt, Beranek and Newman, Inc., Cambridge, MA. pp 4:139-4:146 (1982)
5. Holford NHG. GRAFIT - A procedure for graphical analysis of simulated and fitted models. Article in Public Procedures Notebook, Edited by HM Perry and JJ Wood, Bolt, Beranek and Newman, Inc., Cambridge, MA. pp 4:131-4:138 (1982)
6. Holford NHG. DRUGAUC - A procedure to estimate clearance and steady state volume of distribution using areas under the concentration and concentration movement curve. Article in Public Procedures Notebook, Edited by HM Perry and JJ Wood, Bolt, Beranek and Newman, Inc., Cambridge, MA. pp 4:81-4:88 (1982)
7. Holford NHG. GOFIT - Displays goodness-of-fit measures for models fitted with DRUGFUN and MKMODEL. Estimates standard errors and deviation of the fit are presented in a goodness-of-fit table. Article in Public Procedures Notebook, Edited by HM Perry and JJ Wood, Bolt, Beranek and Newman, Inc., Cambridge, MA. pp 4:127-4:130 (1982)
8. Holford NHG, Perry HM. MAKETABNAMES, MAKETABS, FILLTABS, PRINTTABS, POOLTABS, DELETETABS. A series of table management procedures. Articles in Public Procedures Notebook, Edited by HM Perry and JJ Wood, Bolt, Beranek and Newman, Inc., Cambridge, MA. pp 1:1-1:22 (1982)

9. Holford NHG. DRUGMODEL - A Pharmacokinetic Modelling Program. Supplement to Public Procedures Notebook, Edited by HM Perry and JJ Wood, Bolt, Beranek and Newman, Inc., Cambridge, MA. pp 1-21 (1982)
10. Holford NHG. Clinical Interpretation of Drug Concentrations. Chapter 63 in Basic and Clinical Pharmacology. Edited by B Katzung. Lange Medical Publications, Palo Alto, CA. (1982)
11. Holford NHG. Clinical Interpretation of Drug Concentrations. Chapter 65 in Basic and Clinical Pharmacology. 2nd Edition. Edited by B Katzung. Lange Medical Publications, Palo Alto, CA. (1984)
12. Holford NHG, Clements PJ, Collier P, Orié NGM, Van Bork LE, Jonkman JHG. A Pharmacodynamic Model for Thiazinaminum in Asthmatic Patients. Article in Pharmacokinetics: A Modern View. Edited by LZ Benet and G Levy. Plenum Press, New York, NY. 1984
13. Rakhit A, Holford NHG, Effeney DJ, Riegelman S. Phenobarbital induction of quinidine binding in dogs and its effect on quinidine disposition. Article in Pharmacokinetics: A Modern View. Edited by LZ Benet and G Levy. Plenum Press, New York, NY. 1984
14. Holford NHG. Therapeutic Drug Monitoring and Dosage. Auckland Hospital Laboratory Manual (4th Edn) Section 2: 51-54 (1984)
15. Holford NHG. The Great Marijuana Debate. Edited by Max Abbott. Mental Health Foundation of New Zealand, Auckland. pp 12-16 (1985)
16. Holford NHG. Clinical Interpretation of Drug Concentrations. Chapter 67, pp 788-795 in Basic and Clinical Pharmacology. 3rd Edition. Edited by B Katzung. Lange Medical Publications, Palo Alto, CA. (1987)
17. Holford NHG. Therapeutic Drug Monitoring. Chapter in Drug Treatment (3rd Edition), p 194-222, Adis Press, Auckland, NZ. (1987)
18. Holford NHG. Prediction of Drug Effect In Vivo. Chapter in Systems & Control Encyclopedia. p 1244-1249 (1988)
19. Holford NHG. Clinical Interpretation of Drug Concentrations. Chapter in Basic and Clinical Pharmacology. 4th Edition. Edited by B Katzung. Lange Medical Publications, Palo Alto, CA. (1989)
20. Holford NHG. Therapeutic Drug Monitoring. Chapter in The Disease Index. Edited by TM Speight. Medical Publishing Company, Auckland, NZ. (1989)
21. Holford NHG. Pharmacodynamics. Chapter in Rational Therapeutics - A clinical pharmacologic guide for the health professional. Edited by RL Williams, DC Brater, J Mordanti. Marcel Dekker, Inc. New York. (1990)
22. Holford NHG. Clinical Interpretation of Drug Concentrations. Chapter in Basic and Clinical Pharmacology. 5th Edition. Edited by B Katzung. Lange Medical Publications, Palo Alto, CA. (1991)
23. Holford NHG. Physiological Alternatives to the Effect Compartment Model. Chapter in Advanced Methods of Pharmacokinetics and Pharmacodynamic Systems Analysis. Edited by DZ D'Argenio. Plenum Press, New York. (1991)
24. Holford NHG, Couch RAF. Therapeutic Drug Monitoring. Chapter in The New Ethical Disease Index. Adis Press, Auckland, NZ. (1991)
25. Holford NHG. Parametric models of the time course of drug action: the population approach. In "New strategies in drug development and clinical evaluation: The population approach". Eds. M. Rowland & L. Aarons. Commission of the European Communities, Brussels. (1992)
26. Van Boxtel C, Holford NHG, Danhof M. Editors. "In Vivo Study of Drug Action". Edited . Elsevier, Amsterdam. (1992)
27. Holford NHG. Parametric Models of Drug Action. Chapter in "The In Vivo Study of Drug Action". Edited by C. Van Boxtel, NHG Holford, M Danhof. Elsevier, Amsterdam. (1992)
28. Holford NHG, Peck CC. Population Pharmacodynamics and Drug Development. Chapter in "The In Vivo Study of Drug Action". Edited by C. Van Boxtel, NHG Holford, M Danhof. Elsevier, Amsterdam. (1992)
29. Holford NHG. Clinical Pharmacokinetics and Pharmacodynamics - The Quantitative Basis for Therapeutics. Chapter 37 in "Clinical Pharmacology - Basic Principles in

- Therapeutics". Edited by KL Melmon, HF Morelli, B Hoffman, DW Nierenberg. Macmillan. (1992)
30. Holford NHG, Couch RAF. Therapeutic Drug Monitoring. Chapter in The New Ethicals Disease Index. Adis Press, Auckland, NZ. (1993)
 31. Holford NHG, Ludden T. Time course of drug effect. Chapter 11 in 'Handbook of Experimental Pharmacology, Vol 110: Pharmacokinetics of Drugs'. Edited by PG Welling, LP Balant. Springer-Verlag, Heidelberg (1994)
 32. Steimer J-L, Vozech S, Racine-Poon A, Holford NHG, O'Neill R. The population approach: Rationale, methods, applications in clinical pharmacology and drug development. Chapter 15 in 'Handbook of Experimental Pharmacology, Vol 110: Pharmacokinetics of Drugs'. Edited by PG Welling, LP Balant. Springer-Verlag, Heidelberg (1994)
 33. Holford NHG. Pharmacodynamics and bioequivalence. Chapter 5 in "Generics and Bioequivalence" Editor AJ. Jackson. CRC Press, Boca Raton (1994)
 34. Holford NHG and Benet LZ. Pharmacokinetics and pharmacodynamics: Rational dose selection & the time course of drug action. Chapter 3 in Basic and Clinical Pharmacology. 6th Edition. Edited by B Katzung. Lange Medical Publications, Palo Alto, CA. (1995)
 35. Speight T, Holford NHG. Avery's Drug Treatment (4th Edition). 1997; Adis Intl, Auckland
 36. Holford NHG, Tett S. Therapeutic Drug Monitoring. Chapter in Avery's Drug Treatment (4th Edition) Eds. Speight T, Holford NHG. 1997; Adis Intl, Auckland
 37. Holford NHG. The clearance and volume method of dose prediction. Appendix to Avery's Drug Treatment (4th Edition) Eds. Speight T, Holford NHG. 1997; Adis Intl, Auckland
 38. Holford NHG. Population models for Alzheimer's and Parkinson's disease. In "The Population Approach: Measuring and Managing Variability in Response, Concentration and Dose". Eds. Aarons L, Balant LP et al. European Commission, Brussels. 1997
 39. Holford NHG and Benet LZ. Pharmacokinetics and pharmacodynamics: Rational dose selection & the time course of drug action. Chapter 3 in Basic and Clinical Pharmacology. 7th Edition. Edited by B Katzung. 1997; Lange Medical Publications, Palo Alto, CA
 40. Holford NHG. Pharmacokinetics and pharmacodynamics: Rational dose selection & the time course of drug action. In: Katzung B, editor. Basic and Clinical Pharmacology. 8 ed. San Francisco, CA: McGraw-Hill Professional Publishing; 2001. p. 35-50.
 41. Holford NHG. Concentration controlled therapy. In: Breckenridge A, editor. Esteve Foundation Workshop. Amsterdam: Elsevier Science; 2001; p. 135-144.
 42. Holford NHG, Mould DR, Peck CC. Disease Progress Models. In: Atkinson A, editor. Principles of Clinical Pharmacology. San Diego: Academic Press; 2001. p. 253-262.
 43. Holford NHG, Karlsson MO. Academic perspective: Modeling and simulation as a teaching tool. In: Kimko HC, Duffull SB, editors. Simulation for designing clinical trials. A pharmacokinetic-pharmacodynamic modeling perspective. New York: Marcel Dekker; 2003. p. 211-226
 44. Holford NHG. Input-Output Models. In: Kimko HC, Duffull SB, editors. Simulation for designing clinical trials. A pharmacokinetic-pharmacodynamic modeling perspective. New York: Marcel Dekker; 2003. p. 17-30.
 45. Holford NHG. Pharmacokinetics and pharmacodynamics: Rational dose selection & the time course of drug action. In: Katzung B, editor. Basic and Clinical Pharmacology. 9 ed. San Francisco, CA: McGraw-Hill Professional Publishing; 2003. p. 34-50.
 46. Holford NHG. Dose Response: Pharmacokinetic-Pharmacodynamic Approach. In: Ting N, editor. Design and Analysis of Dose Response Clinical Trials. New York: Springer; 2006. p 73-88
 47. Holford NHG. Pharmacokinetics and pharmacodynamics: Rational dose selection & the time course of drug action. In: Katzung B, editor. Basic and Clinical Pharmacology. 9 ed. San Francisco, CA: McGraw-Hill Professional Publishing; 2006. p. 34-49.
 48. Holford NHG, Atkinson AJ. Time course of drug response. In: Atkinson A, editor. Principles of Clinical Pharmacology. 2nd ed. San Diego: Academic Press; 2007. p. 301-11.
 49. Holford NHG, Mould DR, Peck CC. Disease progress models. In: Atkinson A, editor. Principles of Clinical Pharmacology. 2nd ed. San Diego: Academic Press; 2007. p. 313-21.

50. Holford NHG. Pharmacokinetics and pharmacodynamics: Rational dose selection & the time course of drug action. In: Katzung B, editor. Basic and Clinical Pharmacology. 11 ed. San Francisco,CA: McGraw-Hill Professional Publishing; 2009. p. 34-50.
51. Holford NHG. Pharmacokinetics and pharmacodynamics: Rational dose selection & the time course of drug action. In: Katzung B, editor. Basic and Clinical Pharmacology. 12 ed. San Francisco,CA: McGraw-Hill Professional Publishing; 2012.
52. Holford NHG. Pharmacokinetics and pharmacodynamics: Rational dose selection & the time course of drug action. In: Katzung B, editor. Basic and Clinical Pharmacology. 13 ed. San Francisco,CA: McGraw-Hill Professional Publishing; 2015.

BOOK REVIEWS, ABSTRACTS, LETTERS TO THE EDITOR

1. Holford NHG, Vozech S, Coates PC, Powell JR, Thiercelin JF, Upton RA. More on Heparin Lock. N. Eng. J. Med. 296: 1300-1301 (1977), Letter to the Editor
2. Guentert TW, Upton RA, Holford NHG, Riegelman S. Absorption Characteristics of Two Quinidine Solutions and Three Commercially Available Tablets. Acad. Pharmaceut. Sci. 8: 56 (1978), Abstract
3. Beal S, Fox FJ, Holford NHG, Meister W. Anticoagulation in Myocardial Infarction. N. Eng. J. Med. 298: 571 (1978), Letter to the Editor
4. Holford NHG, Coates PE, Guentert TW, Riegelman S, Sheiner LB. Electrocardiographic Effects of Quinidine in Man - Evidence of Active Metabolite(s). Pharmacologist 21: 200 (1979), Abstract
5. Rakhit A, Holford NHG, Guentert TW, Riegelman S. Pharmacokinetics of Quinidine and its Metabolites in Man After I.V. Infusion and Multiple Oral Doses. Acad. Pharmaceut. Sci. 10: 123 (1980), Abstract
6. Silber B, Holford NHG, Riegelman S. Dose-Dependent Kinetics of Propranolol and Its Major Metabolites in Healthy Volunteers. Acad. Pharmaceut. Sci. 10: 76 (1980), Abstract
7. Hooymans PM, Witt MD, Holford NHG, Massie BM, Pluym BFM, Merkus FWHM. Quinidine Decreases Both Renal and Metabolic Clearance of Digoxin. Am. J. Cardiol. 45: 453 (1980), Abstract
8. Holford NHG. The Quinidine-Digoxin Interaction. N. Eng. J. Med. 302: 864 (1980), Letter to the Editor
9. Holford NHG. Quinidine-Digoxin Interaction. Ann.Intern. Med. 93: 638 (1980), Letter to the Editor
10. Holford NHG. DRUGMODEL-A Pharmacokinetic Modelling Program for the PROPHET System. Proceedings of the 5th Annual Symposium on Computer Applications in Health Care. pp 603-606 (1981)
11. Holford NHG, Altman D, Riegelman S, Buskin JN, Upton RA. Pharmacokinetic and Pharmacodynamic Study of Cimetidine Administered with Naproxen. Clin. Pharmacol. Ther. 29: 251-252 (1981), Abstract
12. Holford NHG. The Serum Concentration of Drugs. Edited by F. W. H. M. Merkus. Excerpta Medica. Pharmacy International 2:XI (1981), Book Review
13. Frey BM, Holford NHG, Frey FJ. Underestimation of transcortin concentration by protein binding measurements. Proceedings of XI. Intl. Cong. Clin. Chem. (1981), Abstract
14. Amend WJC, Gambertoglio JG, Birnbaum J, Lisak PS, Holford NHG. Reduction in Prednisolone Metabolism In Uremia. American Society of Nephrology 15th Annual Meeting, (1983), Abstract
15. Holford NHG, Lisak PS, Gambertoglio JG. Influence of the Error Model or the Estimation of Prednisolone Protein Binding in Man. Clin. Pharmacol. Therap. 33: 201 (1983), Abstract
16. Gambertoglio JG, Lisak PS, Holford NHG, Amend WJC. Diminished Prednisolone Clearance in Renal Failure. Clin. Pharmacol. Therap. 33: 264 (1983), Abstract

17. Thibonnier M, Holford NHG, Upton RA, Williams RL. Pharmacokinetic-pharmacodynamic Relationship between Unbound Disopyramide Level and Electrocardiographic Effect. Proc. 2nd World Conf. Clin. Pharmacol. (1983), Abstract
18. Fuseau E, Holford NHG, Sheiner LB. Quantitation of the Digoxin- Quinidine Interaction using Routine Patient Data. Proc. 2nd World Conf. Clin. Pharmacol. (1983), Abstract
19. Holford NHG. Rational Warfarin Dosing - A Pharmacokinetic- Pharmacodynamic Analysis. Proc. ASCEP Autumn Meeting, May (1984), Abstract
20. Holford NHG. Interpretation of Drug Concentrations - Part I. Department of Clinical Pharmacology, Auckland Hospital, Bulletin No. 39, April (1984)
21. Holford NHG. Interpretation of Drug Concentrations - Part II. Department of Clinical Pharmacology, Auckland Hospital, Bulletin No. 40, May (1984)
22. Holford NHG, Brater DC, A Physiological Pharmacokinetic-Dynamic Model for Furosemide applied to the Interaction with Ibuprofen, Naproxen, and Sulindac. Clin.Pharmacol.Ther. 37:202 (1985). Abstract
23. Holford NHG. MKMODEL - A Modelling Tool for Microcomputers - Pharmacokinetic Evaluation and Comparison with Standard Computer Programs. Clin. Exptl. Pharmacol. & Physiol. Suppl 9:95 (1985) Abstract
24. James A, Farmer K, Couch R, Holford NHG. Pharmacokinetics of Netilmicin in the Very Immature Preterm Infant. Proc.Soc.Ped.Res. (1985). Abstract
25. Holford NHG. Rational dosage of calcium channel blockers. Proc. Cardizem. A New Era in Calcium Channel Blockade. (1985)
26. Holford NHG, Brater DC, A Physiological Pharmacokinetic-Dynamic Model for Loop Diuretics - Application to the Frusemide/Non- steroidal anti-inflammatory drug (NSAID) interaction in man. Proc. ASCEP (NZ). Wellington, August (1985).Abstract
27. Holford NHG. ABSORB - a library of models of drug absorption integrated with the Wagner-Nelson method and MKMODEL. Proc. ASCEP. Brisbane, December. (1985). Abstract.
28. Mahood CB, Rothwell RPG, Holford N. Slow-release theophylline (THEO-24). Letter to the Editor. New Zealand Medical Journal 99:21 1986
29. Mahood CB, Rothwell RPG, Holford N. Slow-release theophylline (THEO-24). Letter to the Editor. New Zealand Medical Journal 99:165 1986
30. Holford NHG. Rational warfarin dosing: a pharmacokinetic- pharmacodynamic analysis. Clinical Pharmacology and Therapeutics 39:199 1986. Abstract
31. Holford NHG, Black P, Briant R, Couch R, Kennedy J. Theophylline target concentration - comparison of 10 vs 20 mg/L in patients with airways obstruction requiring IV theophylline. III World Conference on Clinical Pharmacology and Therapeutics, Stockholm, Sweden. August 1986. Abstract
32. Holford NHG, Black P, Briant R, Couch R, Kennedy J. Theophylline target concentration - comparison of 10 vs 20 mg/L in patients with airways obstruction requiring IV theophylline. Australasian Society for Clinical and Experimental Pharmacology. (NZ Branch). Annual Meeting. Dunedin. August 1986. Abstract. NZ Med J 100:254 1987
33. Villiger JW, Faull RLM, Holford NHG, Veale AMO, Synek BJL. Heterogeneous distribution of benzodiazepine receptor subtypes in the human basal ganglia of normal and Huntington's diseased brains. Australasian Society for Clinical and Experimental Pharmacology. (NZ Branch). Annual Meeting. Dunedin. August 1986. Abstract. NZ Med J 100:254 1987
34. Holford NHG, Couch RA. The relative bioavailability of ethanol from two New Zealand beers. Australasian Society for Clinical and Experimental Pharmacology. (NZ Branch). Annual Meeting. Auckland. May 1987. Abstract
35. Holford NHG. MKMODEL - A mathematical modelling tool. Australasian Society for Clinical and Experimental Pharmacology. Annual Meeting. Hobart, Tasmania. December 1987. Abstract
36. Holford NHG, Couch RA. The relative bioavailability of ethanol from two New Zealand beers. Australasian Society for Clinical and Experimental Pharmacology. Annual Meeting. Hobart, Tasmania. December 1987. Abstract

37. Holford NHG, Couch RA. The relative bioavailability of ethanol from two New Zealand beers. American Society for Clinical Pharmacology and Therapeutics. Annual Meeting. San Diego, CA, USA. March 1988. Abstract
38. Holford NHG, Couch RA. The relative bioavailability of ethanol from two New Zealand beers. 5th South East Asia-Western Pacific Regional Meeting of Pharmacologists. Beijing, China. July 1988. Abstract
39. Milne RJ, Gamble GD, Holford NHG. Repeated exposure to the testing procedures attenuates tonic descending inhibition of nociceptive transmission and reduces the bulbospinal contribution to morphine analgesia. *Neuroscience Letters (Suppl 34):S120* 1989. Abstract
40. Holford NHG, Jonkers R, Van Boxtel CJ. Comparison of a physiological pharmacokinetic-pharmacodynamic model with an effect compartment model describing the hypokalaemic effect of terbutaline with and without metoprolol. 4th World Congress on Clinical Pharmacology and Therapeutics. Mannheim. July 1989. Abstract
41. Hashimoto Y, Sheiner LB, Holford NHG. Population pharmacodynamics of theophylline in severe airways obstruction. American Society for Clinical Pharmacology and Therapeutics. Annual Meeting. San Francisco, CA, USA. March 1990. Abstract
42. Holford NHG, Jonkers R, Van Boxtel CJ. Parameter estimates of a physiological pharmacokinetic-pharmacodynamic model with an effect compartment model describing the hypokalaemic effect of terbutaline with and without metoprolol. American Society for Clinical Pharmacology and Therapeutics. Annual Meeting. San Francisco, CA, USA. March 1990. Abstract
43. Holford NHG, Gabrielsson JL, Sheiner LB, Benowitz N, Jones R. A physiological pharmacodynamic model for tolerance to cocaine effects on systolic blood pressure, heart rate and euphoria in human volunteers. IUPHAR Satellite Symposium "Measurement and Kinetics of *In Vivo* Drug Effects". Noordwijk, The Netherlands. June 1990. Abstract.
44. Guentert TW, Holford NHG, Dingemans J. Parametric estimates of a non-linear pharmacokinetic model for a selective monoamine oxidase inhibitor. American Society for Clinical Pharmacology and Therapeutics. Annual Meeting. San Antonio, TX, USA. March 1991. Abstract
45. Holford NHG, Guentert TW, Dingemans J, Kettler R. Fully parametric (FP) and semi-parametric (SP) estimates of the pharmacodynamics of a selective monoamine oxidase B (MAOB) inhibitor. American Society for Clinical Pharmacology and Therapeutics. Annual Meeting. San Antonio, TX, USA. March 1991. Abstract
46. Williams PEO, Muirhead GJ, Mitchell AM, Holford NHG. Population-based analyses of the dosage- and concentration-response relationships for an antirheumatoid drug. The Population Approach '91. Manchester, England. September 1991. Abstract
47. Guentert TW, Holford NHG, Dingemans J. Dose-linearity and accumulation behaviour of a selective monoamine oxidase B (MAOB) inhibitor. American Society for Clinical Pharmacology and Therapeutics. Annual Meeting. Orlando, FL, USA. March 1992. Abstract
48. Holford NHG, Peace K. Population pharmacodynamic model for the effect of tacrine in Alzheimer's Disease (AD). American Society for Clinical Pharmacology and Therapeutics. Annual Meeting. Orlando, FL, USA. March 1992. Abstract
49. Guentert TW, Holford NHG, Dingemans J, Korn A. Physiological model relating plasma concentrations of moclobemide with their inhibitory effect on monoamine metabolism. 2nd Jerusalem Conf. on Pharmaceutical Sciences and Clinical Pharmacology. Jerusalem, Israel. May 1992. Abstract.
50. Holford NHG, Williams PEO, Muirhead GJ, Mitchell A, York A. Population pharmacodynamics of romazart in patients with rheumatoid arthritis. *Clin. Exptl. Pharmacol. Toxicol. (Suppl 21):28* (1992)
51. Holford NHG, Fraser A. Physiological model for gastro-intestinal transit, absorption, and first-pass metabolism of ethanol in humans. American Society for Clinical Pharmacology and Therapeutics. Annual Meeting. Honolulu, Hawaii, USA. March 1993. Abstract

52. Holford NHG. A population pharmacodynamic model for the time course of FEV1 after salbutamol inhalation by asthmatics. Australasian Society for Clinical and Experimental Pharmacology and Toxicology. Brisbane, Australia, December 1993. Abstract.
53. Holford NHG, Guentert TW, Dingemans J. Fully parametric and semi-parametric pharmacodynamics of a selective monoamine oxidase B inhibitor. Australasian Society for Clinical and Experimental Pharmacology and Toxicology. Auckland, New Zealand, December 1994. Abstract.
54. Holford NHG, Fraser A. Population pharmacokinetics of ethanol in humans: influence of dose, meals, H2-antagonists, race and ethanol use. American Society for Clinical Pharmacology and Therapeutics. Annual Meeting. San Diego, CA, USA. March 1995. Abstract
55. Holford NHG, Nutt J. PKPD model for the short and long duration responses to levodopa and diurnal variation in patients with Parkinson's disease. Australasian Society for Clinical and Experimental Pharmacology and Toxicology. Wellington, New Zealand, June 1995. Abstract.
56. Ware GJ, Holford NHG. Pharmacists and medicine information - a key aspect of pharmaceutical care. Australian Pharmacist (supplement) 1996; 15: 5-6
57. Monteleone JPR, Holford NHG, Reith D, Ebelling W, Whyte IM. Toxicokinetics of clozapine in overdose. Australasian Society for Clinical and Experimental Pharmacology and Toxicology. Dunedin, New Zealand, September 1996. Abstract.
58. Chen P, Holford NHG, Nutt J. Pharmacokinetic and pharmacodynamic changes after a 72h levodopa holiday in patients with Parkinson's disease. Australasian Society for Clinical and Experimental Pharmacology and Toxicology. Dunedin, New Zealand, September 1996. Abstract.
59. Sengers MG, Holford NHG. Pharmacokinetics of DACA in metastatic solid tumour patients: Prediction of elimination clearance. Australasian Society for Clinical and Experimental Pharmacology and Toxicology. Dunedin, New Zealand, September 1996. Abstract.
60. Ware GJ, Holford NHG. Patient's perceptions of the effectiveness of their medicines - does this affect long-term compliance? Australian Pharmaceutical Sciences Association. Australian Journal of Hospital Pharmacy 1996;26:506. Abstract.
61. The Rido Working Group. Amstein R, Steimer JL, Holford NHG, Guentert TW, Racine A, Gasser D, Peck C, Kutzera S, Buehler FR. RIDO: Multimedia CD-ROM software for training in drug development via PK/PD principles and simulation of clinical trials. American Association of Pharmaceutical Scientists. October 1996. Abstract.
62. Anderson BJ, Holford NHG, Woollard GA. Paracetamol kinetics in neonates. Anaes Intens Care 1997; 25: 721-722. Abstract
63. The Rido Working Group. Holford NHG, Amstein R, Gasser D, Guentert TW, Kutzera S, Peck C, Racine A, Rohr HP, Steimer JL, Buehler FR. Simulating clinical trials with RIDO. American Society for Clinical Pharmacology and Therapeutics. Annual Meeting. New Orleans, LA, USA. March 1998. Abstract
64. Holford NHG. Simulation based evaluation of an enrichment trial design for Alzheimer's disease. American Society for Clinical Pharmacology and Therapeutics. Annual Meeting. New Orleans, LA, USA. March 1998. Abstract
65. Anderson BJ, Holford NHG, Monteleone J. Variability of concentrations after rectal paracetamol. Paediatr Anaesthesia 1998 ; 8: 274 Letter
66. Anderson BJ, Holford NHG. Rectal acetaminophen pharmacokinetics. Anaesthesiology 1998; 88: 1131. Letter
67. Holford NHG, Whyte IM, Buckley NA, Dawson AH. Changes in international normalized ratio after paracetamol overdose: a population pharmacokinetic-dynamic model for the influence of paracetamol and n-acetyl cysteine. Australasian Society for Clinical and Experimental Pharmacology and Toxicology. Auckland, New Zealand, September 1999. Abstract
68. Chan PLS, Holford NHG. The use of clinical trial simulation in examining the effect of levodopa on disease progression in patients with parkinson's disease. Australasian

- Society for Clinical and Experimental Pharmacology and Toxicology. Auckland, New Zealand, September 1999. Abstract
69. Holford NHG, Pharmacokinetics and pharmacodynamics of buprenorphine and naloxone in opiate-dependent subjects. American Society for Clinical Pharmacology and Therapeutics. Annual Meeting. Los Angeles, CA, USA. March 2000. Abstract
 70. Gobburu JVS, Holford NHG, Ko HC, Peck CC. Two-step model evaluation (tsme) for model qualification. American Society for Clinical Pharmacology and Therapeutics. Annual Meeting. Los Angeles, CA, USA. March 2000. Abstract
 71. Grange S, Holford NHG, Guentert TW. Model to predict the pk interaction of l-dopa and benserazide in rats. Millennial Congress Pharmaceutical Science, San Francisco, April 2000
 72. Grange S, Holford NHG, Guentert TW. Prediction of human l-dopa kinetics after l-dopa treatment with and without benserazide from in vivo l-dopa kinetics in rats. Millennial Congress of Pharmaceutical Science, San Francisco, April 2000
 73. Monteleone JPR, Holford NHG. A metric for comparing parameter estimation efficiency of different population pharmacokinetic designs. Australasian Society for Clinical and Experimental Pharmacology and Toxicology. Auckland, New Zealand, September 1999. Abstract
 74. Holford NHG, Baathe S, Karlson M. Comparative drug effects and seasonal disease progression in osteoporosis. Australasian Society for Clinical and Experimental Pharmacology and Toxicology. Christchurch, New Zealand, September 2000. Abstract
 75. Chan P, Holford NHG, Nutt J. Time course of pharmacodynamic parameters in patients with parkinson's disease treated with levodopa for 4 years. Australasian Society for Clinical and Experimental Pharmacology and Toxicology. Christchurch, New Zealand, September 2000. Abstract
 76. Anderson BJ, Woolard GA, Holford NHG. Paracetamol analgesia in children; placebos, emergence and pain resolution after tonsillectomy. Australasian Society for Clinical and Experimental Pharmacology and Toxicology. Christchurch, New Zealand, September 2000. Abstract
 77. Li J, Holford NHG, Kimko HC, Peck CC. Performance of an exponential model for empirical description of covariate effects in population PK analysis. American Association for Pharmaceutical Sciences, Phoenix, USA, October 2000. Abstract
 78. Bies RR, Holford NHG, Karlsson MO, Burak E, Kimko HC, Peck CC. A theoretically constrained allometric model may be a suitable alternative to an unconstrained allometric model for describing species differences in pharmacokinetics. American Association for Pharmaceutical Sciences, Phoenix, USA, October 2000. Abstract
 79. Mould DR, Holford NHG. A pooled population pharmacokinetic (PK) and pharmacodynamic (PD) analysis of topotecan (T). PAMM-EORTC. Verona, Italy, February 2001. Abstract
 80. Staschen CM, Bies RR, Holford NHG, Peck CC. Regression analysis of a physiologically based pharmacokinetic model (PBPK) for alpha1-protease inhibitor (API) disposition after IV infusion. American Society for Clinical Pharmacology and Therapeutics, Orlando, FL, March 2001. Abstract.
 81. Anderson BJ, Holford NHG. Why young children are resistant to acetaminophen poisoning - size matters. *J Pediatrics* 2000; 137(6):892. Letter.
 82. Chan PL, Holford NHG. Time course of levodopa pharmacokinetics and disease progression in patients with Parkinson's Disease. American Association of Pharmaceutical Scientists. Denver, CO, USA, October 2001. Abstract.
 83. Gobburu JVS, Holford NHG. Vz, the terminal phase volume: Time for its terminal phase?. *Journal of Biopharmaceutical Statistics* 2001;11(4):373-375. Letter.
 84. Sheiner LB, Holford NHG. Determination of maximum effect. *Clinical Pharmacology & Therapeutics* 2002;71(4):304. Letter.
 85. Holford NHG. Bias and power of a population pharmacokinetic study. American Society for Clinical Pharmacology and Therapeutics, Atlanta, GA, March 2002. Abstract

86. Holford NHG. Understanding disease progression using clinical pharmacology, 4th International Symposium on Measurement and Kinetics of *In Vivo* Drug Effects, Noordwijkerhout, The Netherlands, April 2002. Abstract.
87. Lockwood P, Ewy W, Holford N, Hermann D. Application of clinical trial simulation to optimize proof of concept studies in Alzheimer's disease, 4th International Symposium on Measurement and Kinetics of *In Vivo* Drug Effects, , Noordwijkerhout, The Netherlands, April 2002. Abstract.
88. Frey N, Laveille C, Paraire M, Francillard M, Holford NHG, Jochemsen R. Effect of gliclazide in a new once-a-day formulation, 4th International Symposium on Measurement and Kinetics of *In Vivo* Drug Effects, , Noordwijkerhout, The Netherlands, April 2002. Abstract.
89. Holford NHG, Chan PLS, Lee YY, Nutt J. Disease progression and Increased Levodopa Efficacy with Time in Parkinson's Disease. Movement Disorders Society Conference, Miami, Florida, USA. November 2002. Abstract
90. Chan, PLS Holford NHG, Nutt J. Application of clinical trial simulation to evaluate the ELLDOPA trial design. Movement Disorders Society Conference, Miami, Florida, USA. November 2002. Abstract
91. Holford NHG, Kirkpatrick C, Matthews I. Quantitative basis for aminoglycoside (AG) target concentration intervention from a population pharmacokinetic model (POPPK). *Clinical Pharmacology & Therapeutics* 2003;73(2):PDI-A-8. Abstract
92. Gobburu JV, Mould DR, Holford NHG. Implications of including and excluding correlation of random effects in hierarchical mixed effects pharmacokinetic (PK) models. *Clinical Pharmacology & Therapeutics* 2003;73(2):PI-86. Abstract
93. Tannenbaum S, Mould DR, Holford NHG, Lee H, Peck C. Validation of a novel method of combining both continuous and categorical covariates in a single joint function for clinical trial simulation. *Clinical Pharmacology & Therapeutics* 2003;73(2):P-87. Abstract
94. Holford NHG, Gobburu JVS, Mould DR. Implications of including and excluding correlation of random effects in hierarchical mixed effects pharmacokinetic models. Population Analysis Group Europe, Verona, June 2003. Abstract
95. Garnett, CE, Holford, NHG. The relative importance of between-subject correlation of population parameters compared with estimation correlation when applied to pharmacokinetic simulation. *Clinical Pharmacology & Therapeutics* 2004;75(2):P. Abstract
96. Chan PLS, Nutt JG, Holford NHG. Quantification of within subject variability (wsv) in levodopa pharmacokinetics in previously untreated parkinsonian patients followed for 4 years. Australasian Society for Clinical and Experimental Pharmacology and Toxicology, Sydney, Australia, 2003. Abstract.
97. Anderson BJ, Holford NHG. Allometric size modelling for diclofenac and metabolite pharmacokinetic interpretation in children. Australasian Society for Clinical and Experimental Pharmacology and Toxicology, Sydney, Australia, 2003. Abstract.
98. Anderson BJ, Holford NH. No urine, no urinary clearance. *Eur J Clin Pharmacol* 2004;60(4):297. Letter to the Editor.
99. Holford NHG. Review of "Fitting Models to Biological Data Using Linear and Non-Linear Regression" by Motulsky H and Cristopoulos A. *Statistics in Medicine* 2005;24(17):2745-2746.
100. Holford NHG. Simultaneous modelling of disease progression and time to event with NONMEM – likelihood ratio test criteria for random and informative dropout models and an evaluation of two methods affecting the quality of parameter estimates. Population Analysis Group Europe. Pamplona, Spain, June 2005
101. Holford NHG. The Visual Predictive Check – Superiority to Standard Diagnostic (Rorschach) Plots. Population Analysis Group Europe. Pamplona, Spain, June 2005 Abstract.
102. Holford NHG, Fleischer N, Peck CC. Topical Corticosteroid Bioequivalence – An Evaluation of the FDA Guidance. Population Analysis Group Europe. Pamplona, Spain, June 2005 Abstract.

103. Holford NHG, Gobburu J. Authors reply to comment on "V_z, the terminal phase volume: Time for its terminal phase?" *Journal of Biopharmaceutical Statistics* 2006;16:125-126
104. Garnett C, Holford NHG. Bone mineral density progression linked to dropout and time-to-fracture: application to postmenopausal women taking hormone replacement therapy. 5th International Symposium on Measurement and Kinetics of In Vivo Drug Effects; 2006 April 26-29; Noordwijkerhout, the Netherlands; 2006. Abstract.
105. Holford NHG, Pillai G, Roy S, Skerjanec A, Cremers S, Collins W, et al. Population pharmacokinetics of balicatib, a cathepsin K inhibitor. *PAGE*; 2006 June; Bruges; 2006. Abstract.
106. Holford NHG, Pillai G, Kaila N, Collins W, Roy S, Cremers S, et al. PKPD model for cathepsin K inhibition with balicatib and changes in bone turnover biomarkers, in particular NTx. *PAGE*; 2006 June; Bruges; 2006. Abstract.
107. Holford NHG, Kirkpatrick C, Duffull S. NONMEM Termination Status is Not an Important Indicator of the Quality of Bootstrap Parameter Estimates. *PAGE*; 2006 June; Bruges; 2006. Abstract.
108. Steimer JL, Holford NHG, Kaila N, Pillai G. Population PK model of balicatib, a cathepsin K inhibitor, and a PKPD model for changes in rapid and slow bone biomarkers. *PKUK*; 2006 November; Sheffield, UK; 2006. Abstract.
109. Tham LS, Holford NHG, Goh BC, Soo RA, Wang LZ, Lee SC. A Pharmacodynamic Model for the Time Course of Tumor Shrinkage Associated with Gemcitabine Chemotherapy in Asian Non-small Cell Lung Cancer Patients. *American Society for Clinical Pharmacology and Therapeutics*; 2007 March; California; 2007.
110. Vu T, Holford NHG. "Parametric models for multiple events". *Population Analysis Group Australia and New Zealand, Dunedin, February 2008*
111. Ploeger B, Holford NHG. Optimizing trial designs for distinguishing short (symptomatic) and long-term (protective) treatment effects from natural disease progression. *American Conference on Pharmacometrics, Phoenix, AZ. March 2008*
112. Holford, NHG, Chien J, Sinha V, Heathman, M, Geiser J, Manner D, Hardy T. "Delayed Response to Antidiabetic Agents and Effect on Progression of Type 2 Diabetes", *Population Approach Group Europe, Marseille, France June 2008*
113. Holford NHG. Review of 'Statistical Thinking for Non-Statisticians In Drug Regulation' by Richard Kay, ISBN: 978-0-470-31971-0. *Stat Med.* 2009;28(7):1179.
114. Holford NHG, Leisegang R, Maartens G. The influence of the time course of CD4 and viral load on clinical outcome events before and during antiretroviral therapy *Population Approach Group Europe, www.page-meeting.org/?abstract=1620. PAGE.* 2009;18. St Petersburg, Russia
115. Holford NHG, Leisegang R, Maartens G, The influence of the time course of CD4 and viral load on clinical outcome events before and during antiretroviral therapy *Population Approach Group Australia and New Zealand; 2009; Dunedin, New Zealand*
116. Chigutsa, E, McIlleron, H, Holford, NHG. Mixed order elimination with an absorption rate mixture for pyrazinamide in South African patients with tuberculosis *Population Approach Group Europe; 2010 June; Berlin; Abstract*
117. Holford NHG. Wings for NONMEM Version 703 for NONMEM 7. <http://wfn.sourceforge.net>; 2010.
118. Holford NHG. Wings for NONMEM Version 616 for NONMEM VI. <http://wfn.sourceforge.net>; 2010.
119. Holford NHG. Wings for NONMEM Version 720 for NONMEM 7.2. <http://wfn.sourceforge.net>; 2011.
120. Ma SC, Holford NHG. Quantifying disease progress with inactive treatments in multiple Parkinson's disease trials. *Population Approach Group Australia and New Zealand, Auckland. February, 2011*
121. Holford SD, Herbert C, Anderson BJ, Holford NHG. Antibiotic Dosing Calculator in Neonates and Children Trial. *Population Approach Group Australia and New Zealand, Auckland. February, 2011*

122. Holford NHG. The first dose of morphine – are children small adults? Population Approach Group Australia and New Zealand, Auckland. February, 2011
123. Holford NHG. Demonstration of symptomatic and disease modifying effects of levodopa in Parkinson's disease using the ELLDOPA study. Australasian Society of Clinical and Experimental Pharmacology and Toxicology (New Zealand), 2011, Christchurch, New Zealand
124. Hirankarn S, Holford NHG, Dombrowsky E, Patel D, Barrett JS. Pharmacokinetics of high-dose methotrexate in children with cancer: A mechanism-based evaluation of clearance prediction. 2012; PAGE, Venice
125. Holford NHG, Harankarn S, Dombrowsky E, Patel D, Barrett JS. What is the between cycle variability in methotrexate clearance? PAGE, Venice 2012.
126. Størset, E, Holford, NHG, Midtvedt, K. Bremer, S, Asberg A. Population pharmacokinetics of tacrolimus in kidney transplant recipients. PAGE, Venice 2012
127. Holford NHG, Størset E, Midtvelt K, Bremer S, Bergan S, Asberg A. Importance of hematocrit for a tacrolimus target concentration strategy, Australasian Society of Clinical and Experimental Pharmacology and Toxicology (New Zealand), 2012, Queenstown, New Zealand
128. Holford NH, Vu TC, Nutt JG. Authors' response to Marras and Oakes, 'Piecing together the puzzle of progression and mortality in Parkinson's disease'. *Br J Clin Pharmacol.* 2013;75:1370-1
129. Holford, N. H., & Buclin, T. (2013). Response to Diaz and de Leon "The Mathematics of Drug Dose Individualization Should be Built With Random Effects Linear Models". *Ther Drug Monit*, 35 (6), 873-874. doi:10.1097/FTD.000000000000019
130. Holford NHG, McCune J, Barrett J, Bemer M, Tay J, Baker S, et al., editors. Busulfan pharmacokinetics in neonates, infants, children and adults. PAGANZ; 2013 14 February; Brisbane.
131. Størset E, Staatz CE, Hennig S, Bergmann TK, Holford N. Identification of continuous covariate relationships. PAGANZ; 2013 February 14; Brisbane. 2013.
132. Størset E, Holford N, Hennig S, Bergmann TK, Bergan S, Bremer S, et al. Predicting tacrolimus doses early after transplantation - superiority of theory based models. PAGE 22 [www.page-meeting.org/?abstract=2808]; 2013 June 7; Glasgow. 2013..
133. Holford NHG, Smith MK. MDL - The DDMoRe Modelling Description Language www.page-meeting.org/?abstract=2712. PAGE. 2013;22:Abstr 2712.
134. Holford NHG, Smith MK. Model Coding Language: Rosetta Stone. PAGE; 2013 12-14 June; Glasgow. 2013.
135. Holford NHG. Evaluation of NONMEM 7.3.0 and Monolix 4.2.2 by Parametric Bootstrap PAGANZ; 2014 January 31; Dunedin. 2014
136. Størset E, Holford N, Hennig S, Bergmann, TK, Bergan S, Bremer S, Asberg A, Midtvedt K, Staatz CE. Evaluation of dosing strategies to achieve targeted tacrolimus exposure after adult kidney transplantation. PAGE, Alicante, Spain, 2014 March 16
137. Ribba B, Holford N, Mentre F. [On the use of model-based tumor size metrics to predict survival](#). PAGE, Alicante, Spain, 2014 March 17
138. Holford NHG. Busulfan target concentration intervention - Audit and model evaluation. PAGANZ; 2015 February 7; Melbourne. 2015
139. Holford N. [Evaluation of NONMEM and Monolix by Parametric Bootstrap](#). PAGE, Alicante, Spain, 2014 March 17
140. Staatz CE, Størset E, Bergmann TK, Hennig S, Holford N. Tacrolimus pharmacokinetics after kidney transplantation – Influence of changes in haematocrit and steroid dose. *Br J Clin Pharmacol.* 2015:doi: 10.1111/bcp.12729.
141. Tham LS, Wang LZ, Soo RA, Lee HS, Lee SC, Goh BC, et al. Erratum to: does saturable formation of gemcitabine triphosphate occur in patients? *Cancer Chemother Pharmacol.* 2015;75(3):657.
142. Heo Y-A, Kim K, Son M, Gug J, Chae D, Son H, et al. Modeling of blood pressure lowering effect for co-administration of valsartan and amlodipine. PAGE. 2015;24 Abstr 3385 [www.page-meeting.org/?abstract=3385].

143. Chae D, Son M, Kim K, Son H, Holford N, Park K. Mechanistic Modeling of Telmisartan Blood Pressure Lowering Effect in Human. PAGE. 2015;24 Abstr 3640 [www.page-meeting.org/?abstract=3640].
144. Holford N, Jiang Y, Murry DJ, Brown TL, Milavetz G. The influence of body composition on ethanol pharmacokinetics using a rate dependent extraction model. PAGE. 2015;24 Abstr 3405 [www.page-meeting.org/?abstract=3405].
145. Standing JF, Anderson BJ, Holford NH, Lutsar I, Metsvaht T. Comment on Pharmacokinetic Studies in Neonates: The Utility of an Opportunistic Sampling Design. Clin Pharmacokinet. 2015;54(12):1287-8.
146. Xue L, Holford NHG, Miao L. Warfarin PKPD – Theory, Body Composition and Genotype. PAGE 25 Abstr 5759 [www.page-meeting.org/?abstract=5759]. 9 June 2016.
147. Holford N, Kenealy T. Growth and decline of body size and composition – Prediction of the transition from pre-diabetes to Type 2 diabetes in humans PAGE 25 [www.page-meeting.org/?abstract=5848]. 8 June 2016.
148. Hannam JA, Anderson BJ, Holford NHG, editors. An optimal sampling schedule for neonates, infants & children receiving cefazolin +/- vancomycin for cardiopulmonary bypass. World Conference on Pharmacometrics; 22 August 2016; Brisbane.
149. Holford NHG, editor. Using normal fat mass to account for body size and composition. World Conference on Pharmacometrics; 24 August 2016; Brisbane.

CONTRACT RESEARCH REPORTS

1. Paton DM, Holford NHG, Avery RA, Mander P. Comparative Bioavailability of Piroxicam Capsules. Prepared for Douglas Pharmaceuticals (NZ), Ltd. (1984)
2. Holford NHG. Evaluation of the Sustained Release Characteristics of Two Novel Theophylline Formulations in Man. Prepared for Riker Laboratories (NZ), Ltd. (1985)
3. Holford NHG. Comparison of Alcohol Absorption from Two Beers. Prepared for Lion Breweries, Auckland. 1985
4. Holford NHG. Investigation of a new slow release preparation of theophylline and the effect of food on its absorption. Prepared for Riker Laboratories (NZ), Ltd. 1986
5. Holford NHG. Comparison of a new slow release preparation of theophylline with Nuelin-SR after multiple doses. Prepared for Riker Laboratories (NZ), Ltd. 1987
6. Holford NHG. Comparative Bioavailability of Metronidazole Tablets. Prepared for Evans Medical (NZ), Ltd. 1987
7. Holford NHG. Comparison of a new slow release preparation of theophylline with Nuelin-SR. Prepared for Riker Laboratories (NZ), Ltd. 1988
8. Holford NHG, Lockwood P. The bioavailability of carbamazepine from Tegretol 400 mg controlled release tablets compared with two Tegretol 200 mg controlled release tablets and two 200 mg conventional tablets. Prepared for Ciba-Geigy (Australia). 1989
9. Holford NHG, Lockwood P. The bioavailability of carbamazepine from Tegretol 200 mg controlled release tablets: A comparison in fasted and fed states and versus Tegretol 200 mg conventional tablets. Prepared for Ciba-Geigy (Australia). 1989
10. Lockwood P, Holford NHG. Relative bioavailability of two formulations of tamoxifen. Prepared for Farmitalia (Australia). 1990
11. Lockwood P, Holford NHG, Black P. Relative bioavailability of two formulations of sulindac. Prepared for Evans (NZ). 1991
12. Lockwood P, Holford NHG, Black P. Relative bioavailability of two formulations of timolol. Prepared for Evans (NZ). 1991
13. Holford NHG, Lockwood P. Relative bioavailability of a slow release nifedipine compared with Adalat and after administration with food. Prepared for Farmitalia (Australia). 1991
14. Holford NHG, Lockwood P. Relative bioavailability of a slow release nifedipine compared with Adalat at steady state. Prepared for Farmitalia (Australia). 1991
15. Holford NHG. A population pharmacokinetic analysis of fleroxacin concentrations measured in healthy subjects and patients: Application to initial dose prediction. Prepared for Hoffman-La Roche, Basel, November 1993.

16. Holford NHG. A population pharmacodynamic analysis of albuterol in asthma. Prepared for the Food and Drug Administration, Rockville, MD, USA. November 1993
17. Holford NHG. The effect of etidronate and phosphate in postmenopausal women. A population pharmacokinetic-pharmacodynamic analysis. Prepared for Proctor & Gamble, Cincinnati, November 1994
18. Holford NHG. The effect of tacrine in Alzheimer's disease: A population pharmacokinetic-pharmacodynamic analysis of the MMSE response. December 1994
19. Holford NHG. The effect of methocarbamol and placebo on the time course of low back pain: I. A population pharmacokinetic analysis. February 1995
20. Holford NHG. The effect of methocarbamol and placebo on the time course of low back pain: II. A population pharmacokinetic-dynamic analysis. February 1995
21. Holford NHG. The time course of clonazepam concentrations in patients with panic attacks. A population pharmacokinetic analysis. October 1995
22. Holford NHG. A population pharmacokinetic analysis of remifentanyl in patients undergoing cardiac bypass during coronary artery bypass graft surgery, January 1997.
23. Holford NHG. A population pharmacokinetic-pharmacodynamic analysis of SDZ ENA 713 in patients with Alzheimer's disease. February 1997
24. Holford NHG. Pharmacokinetics and pharmacodynamics of buprenorphine and naloxone in opiate dependent subjects participating in Study 1008A. November 1998
25. Holford NHG, Lockwood PA. Population pharmacokinetics of CI 1017. November 1999
26. Holford NHG. A population pharmacokinetic-dynamic analysis of naltrexone as an antagonist of morphine induced pupillary miosis. July 2000
27. Holford NHG. Naltrexone-morphine blockade: Estimation of naltrexone potency and influence of delivery system properties, August 2000
28. Holford NHG. PKPD model for acetaminophen. Dec 2001
29. Holford NHG, Mould DR. Population Disease Progress Models for the Time Course of HAM-D Score in Depressed Patients Receiving Placebo or Active Drug in Anti-Depressant Clinical Trials. Apr 2002
30. Holford NHG. Time Course of PASI with Placebo or Active Drug. Oct 2002.
31. Holford NHG. Clinical Trial Simulation of Disease Progression in Alzheimer's Disease. Mar 2003
32. Holford NHG. PKPD Model for Pathophysiology of Alzheimer's Disease. May 2003
33. Holford NHG. Clinical Pharmacology Review of a Novel Cardiovascular Agent. June 2003
34. Holford NHG. Population PKPD Analysis of QT Interval Changes. Sep 2003
35. Holford NHG. Population PK analysis of a Novel Anticancer Agent. June 2004
36. Holford NHG. Population PK Analysis of an Analgesic Agent. Oct 2004
37. Holford NHG. Population PKPD Analysis of a Bone Modifier 1. Dec 2005
38. Holford NHG. Population PKPD Analysis of a Bone Modifier 2. Feb 2006
39. Holford NHG. Population PKPD Analysis of a Bone Modifier 3. Feb 2006
40. Holford, NHG. Population PK Analysis of an AntiViral Agent. Oct 2006
41. Holford, NHG. Population PKPD Analysis of an AntiViral Agent. Oct 2006
42. Holford NHG. Population PKPD Analysis of a Bone Modifier 4. Dec 2006
43. Holford, NHG. Population PKPD Analysis of an AntiDepressant Agent. Nov 2006
44. Holford, NHG. Population PKPD Analysis of a Bone Modifier. Nov 2007
45. Holford, NHG. Population PK Analysis of a Metabolic Modifier. Dec 2007
46. Holford, NHG. Population PKPD Analysis of a Oral Hypoglycemic Agents. March 2008
47. Holford, NHG. Population PKPD Analysis of a Heart Rate Modifying Agent. January 2009
48. Holford, NHG. Population PKPD Analysis of a Cholesterol Lowering Agent. August 2011
49. Holford, NHG. Population PKPD Analysis of an Inotropic Agent. December 2012
50. Holford, NHG. Population PKPD Simulation of Pain Relief, December 2014

INTERNATIONAL INVITED LECTURES

1. Pharmacodynamic modelling: update and perspective. Symposium on "Variability in Pharmacokinetics and Drug Response". Swedish Academy of Pharmaceutical Sciences. Gothenburg, Sweden. October 1988
2. Pharmacokinetic-pharmacodynamic modelling. 4th World Congress on Clinical Pharmacology and Therapeutics. Mannheim, Germany. July 1989
3. Randomized Concentration Controlled Trials - Application to Theophylline. Center for Drug Evaluation and Research, Food and Drug Administration. Rockville, MD, USA. January 1990
4. Concepts and usefulness of pharmacokinetic-pharmacodynamic modelling. Methods in Phase 1. Hospices Civil de Lyon. Lyon, France. February 1990
5. MKMODEL - A Pharmacological Modelling Tool. Center for Drug Evaluation and Research, Food and Drug Administration. Rockville, MD, USA. March 1990
6. Drug concentration, time and effect. Symposium on "The Measurement of Drug Effect in Man". British Pharmacological Society. Sheffield, UK. April 1990
7. Physiological alternatives to the effect compartment model. Biomedical Simulations Resource Workshop on "Advanced Methods of Pharmacokinetic and Pharmacodynamic Systems Analysis". Los Angeles, USA. May 1990
8. Concepts of pharmacodynamic modelling. Servier Laboratories, Paris, France. June 1990
9. Physiological pharmacodynamic models. Pre-Satellite Workshop. IUPHAR Satellite Symposium "Measurement and Kinetics of *In Vivo* Drug Effects". Noordwijk, The Netherlands. June 1990
10. Concentration, dose and pharmacological effect: some theoretical issues. Drug Information Association, Amsterdam, The Netherlands. October 1990.
11. Pharmacodynamics and therapeutic drug monitoring. Swedish Clinical Pharmacology Group, Stockholm, Sweden. September 1990.
12. Physiological alternatives to the effect compartment model. Pharmacokinetics UK, November 1990.
13. Population pharmacokinetics and pharmacodynamics / A rational approach to drug development. Workshop at Goedecke, Freiburg, Germany. November 1990
14. Parametric Pharmacodynamic Models. The Population Approach. Manchester, England. September 1991.
15. Population pharmacodynamic models for analgesia. 5th World Congress on Clinical Pharmacology and Therapeutics. Yokohama, Japan. July 1992.
16. General concepts of parametric pharmacodynamic modelling. Second Intl. Workshop on Pharmacodynamics of Anticancer Agents. Eze, France. September 1992
17. A constructive approach to population pharmacodynamics. American Association of Pharmaceutical Scientists, Orlando, FL, November 1993.
18. Model based meta-analysis: Application to the pharmacodynamics of tacrine in Alzheimer's disease. Second International Symposium on Measurement and Kinetics of *In Vivo* Drug Effects, Noordwijkerhout, The Netherlands, April 1994
19. Pharmacokinetics/Pharmacodynamics in Phase III/IV. Workshop "PK/PD and Dose-Effect Relationships in Pharmaceutical Research and Development". Paris, France, April 1994
20. The blood is not a barrier to the brain. Symposium "Human Pharmacodynamics", ASCEPT Annual meeting, Auckland, New Zealand, December 1994
21. The effect of tacrine in Alzheimer's disease: the results of a population pharmacokinetic-pharmacodynamic approach. Symposium "Awakenings", ASCEPT Annual meeting, Auckland, New Zealand, December 1994
22. Target concentration intervention. Symposium "Therapeutic Drug Monitoring", Joint ASCEPT/APSA satellite meeting, Auckland, New Zealand, December 1994
23. Population approach to pharmacodynamics. European Association of Clinical Pharmacologists, First Congress, Paris, France, September 1995

24. Understanding clinical drug development by modelling drug response. FDLI/CDDS Conference "Drug Development: Who knows where the time goes?" Washington DC, USA, June 1996
25. The target concentration approach to clinical trials. VI World Conference on Clinical Pharmacology and Therapeutics. Buenos Aires, Argentina, August 1996
26. RIDO - What is behind it? ECPM/CDDS Workshop on Clinical Trial Simulation, Basel, October 1996
27. RIDO clinical trial simulator. ECPM/CDDS Workshop on Clinical Trial Simulation, Basel, October 1996
28. The role of PK/PD modelling in drug development. Arbeitsgemeinschaft f r angewandte Humanpharmakologie, Neu-Ulm, February 1997
29. Complex PK/PD models - an alcoholic experience. Arbeitsgemeinschaft f r angewandte Humanpharmakologie, Neu-Ulm, February 1997
30. Population models for Alzheimer's and Parkinson's disease. COST B1 Conference on the Population Approach "Measuring and Managing Variability in Response, Concentration and Dose", Geneva, February 1997
31. Clinical Development of New Drugs and Therapeutic Agents: Art, Science and New Frontiers. Stanford University, CA, USA. "Pharmacokinetic and Pharmacodynamic Assessment in Patients: Phase II", July 1997.
32. Modeling and Simulation of Clinical Trials in Drug Development and Regulation. Reston, VA, USA. "Teaching Modelling and Simulation via Interactive Multimedia: RIDO", November 1997.
33. Modeling and Simulation of Clinical Trials in Drug Development and Regulation. Reston, VA, USA. "Modelling Therapeutic Effects and Disease Progress", November 1997.
34. Modeling and Simulation of Clinical Trials in Drug Development and Regulation. Reston, VA, USA. "Present Role & Future of Modeling & Simulation in Drug Development: Academia", November 1997.
35. Population Pharmacokinetics: An Underutilised Resource?. Canberra, ACT, Australia. "Case Study: Examples for the Pharmaceutical Industry", December 1997.
36. Population Pharmacokinetics: An Underutilised Resource?. Canberra, ACT, Australia. "Study Design, Statistics – The Maths and Modelling", December 1997.
37. Public Discussion of Draft FDA Population Pharmacokinetics Guidance, "Validation". , University of Maryland Shady Grove, MD, USA, April 1998.
38. Population Analysis Group Europe Annual Meeting, "Clinical Trial Simulation". Wuppertal, Germany, June 1998.
39. South African Pharmacology Society, 1998 Congress, "Clinical Trial Simulation", MV Symphony, South Africa, October 1998.
40. Modelling and Simulation Workshop, "Model Building Practices: Disease Progress and Covariate Models", Arlington, VA, USA. February 1999.
41. Clinical Development of New Drugs and Therapeutic Agents: Art, Science and New Frontiers. Georgetown University, Washington DC, USA. "Good Practices in The Application of Computer Based Modeling and Simulation of Clinical Trials", June 1999.
42. European Centre for Pharmaceutical Medicine Workshop on Drug Development. "Using RIDO for Clinical Trial Simulation", Basel, Switzerland, September 1999
43. International Biometric Society Region Oesterreich-Schweiz (ROeS) Seminar "Simulating Disease Progress and Drug Action in Clinical Trials", Basel, Switzerland, September 1999
44. Jerusalem Conference for Pharmaceutical Scientists. "PD Rationale for Optimising Drug Delivery in Parkinson's Disease", Jerusalem, Israel, October 1999
45. Workshop on guidance for population approach to pharmacokinetics and pharmacodynamics. United States Food and Drug Administration. University of Maryland Shady Grove, MD, USA, Dec 1999.
46. East Coast Population Analysis Group Annual Meeting. "Disease progress modelling", University of Maryland Shady Grove, MD, USA, Dec 1999.
47. Population Analysis Group Australia and New Zealand. "Background, rationale for Population Approaches", Annual Meeting, Brisbane, Queensland, Australia, January 2000

48. Population Analysis Group Australia and New Zealand. "Applications: Covariate models", Annual Meeting, Brisbane, Queensland, Australia, January 2000
49. Population Analysis Group Australia and New Zealand. "Overview of the WinNonMix Program", Annual Meeting, Brisbane, Queensland, Australia, January 2000
50. Population Analysis Group Australia and New Zealand. "Three Stage Model Evaluation - a Form of Posterior Predictive Check", Annual Meeting, Brisbane, Queensland, Australia, January 2000
51. TDM 2000. "Individualization: Why? How? When?", University of Basel, Basel, Switzerland, February 2000
52. Academics to CDER: PK & PD for CDER Reviewers PKPD 101. "The time course of drug effect". FDA, Rockville, MD, USA, Feb 2000
53. COST B15 Expert Meeting "Modelling of Disease and Disease Progression", Leiden, Netherlands, April 2000
54. Millennial World Congress of Pharmaceutical Sciences, Chairman, "Mechanism based PK/PD in Drug Development", San Francisco, CA, USA, April 2000
55. Parkinson Study Group 13th Annual Meeting. "Modeling Parkinson's disease progression and its response to treatment " Indian River Plantation, Stuart, FL, USA, May 2000
56. Quantitative Methodologies to Improve Drug Development and Therapy, Lewis B Sheiner 60th Birthday Symposium, "Target Concentration Strategy", San Francisco, CA, USA, May 2000
57. South African Pharmacology Society, 2000 Congress. "Target concentration intervention or therapeutic drug monitoring", Durban, South Africa, September 2000
58. South African Pharmacology Society, 2000 Congress. "Understanding drug effects in chronic disease - the role of disease progress models", Durban, South Africa, September 2000
59. DIA 2000 Evolution of Drug Regulatory Practices in Asia "Clinical trial simulation - Levodopa in Parkinson's disease". Seoul, Korea September 2000
60. Esteve Foundation Symposium IX: Optimal Dose Identification "Concentration controlled therapy", Lloret de Mar, Spain, October 2000
61. Population Analysis Group Australia and New Zealand. "NONMEM and Bayes", PAWS, Christchurch, New Zealand, January 2001
62. Population Analysis Group Australia and New Zealand. "Hands on using PRIOR with NONMEM ", PAWS, Christchurch, New Zealand, January 2001
63. Population Analysis Group Australia and New Zealand. "Comparison of NONMEM and WinBUGS/PKBUGS ", PAWS, Christchurch, New Zealand, January 2001
64. Population Analysis Group Australia and New Zealand. "Using NONMEM for Clinical Trial Simulation", Annual Meeting, Christchurch, New Zealand, January 2001
65. Food and Drug Administration Science Forum, Science Across the Boundaries, "The Exposure Response Relationship and Clinical Trial Simulation", Washington DC, February 2001
66. Population Analysis Group Europe. "Auckland Bones and Summer Sun". Basel, Switzerland, June 2001
67. American Association of Pharmaceutical Scientists, Short Course on Clinical Trial Simulation. "Clinical Trial Simulation Software". Denver, CO, USA, October 2001.
68. European Federation of Pharmaceutical Sciences " Understanding the mechanism of drug action and disease process: Alzheimer's disease as a model for biomarker-based, disease-oriented approach", Basel, Switzerland, December 2001.
69. 4th International Symposium on Measurement and Kinetics of *In Vivo* Drug Effects, "Understanding disease progression using clinical pharmacology", Noordwijkerhout, The Netherlands, April 2002
70. MUF PADA, "Disease Progress and Drug Action Models, Scope and Implementation", Indianapolis, Indiana, USA, May 2002
71. Population Analysis Group Europe. "Population Disease Progress Models for the Time Course of HAMD Score in Depressed Patients Receiving Placebo in Anti Depressant Clinical Trials". Paris, France, June 2002

72. Population Analysis Group Europe. Bayesian Modelling Workshop. "NONMEM and Bayes". Paris, France, June 2002
73. Clinical Trial Simulation in Drug Development, Institute of International Research, "Asking the Questions That Matter", Washington DC. August 2002.
74. National Center for Co-ordination of Clinical Trials. Clinical Trial Simulation Workshop, Havana, Cuba, November 2002
75. Population Analysis Group Australia and New Zealand and Africa. "Parkinson's Disease: Progression of Disease and Drug Action", Cape Town, South Africa, November 2002
76. Population Analysis Group Australia and New Zealand. "Population Pharmacokinetics of Aminoglycosides – The Importance of Within Subject Variability", Annual Meeting, Sydney, Australia, January 2003
77. Meet the Expert "Clinical Pharmacology=Disease Progress+Drug Action". American Society for Clinical Pharmacology and Therapeutics. Annual Meeting, Washington DC, April 2003
78. Memorial Sloan Kettering Cancer Institute. "The Exposure Response Relationship", New York, NY. April 2003
79. European Association for Clinical Pharmacology and Therapeutics. "Clinical Pharmacology=Disease Progress+Drug Action". 6th Congress, Istanbul, Turkey, June 2003
80. National Center for Co-ordination of Clinical Trials. 3 day Clinical Pharmacology Workshop, Havana, Cuba, October 2003
81. American Association of Pharmaceutical Scientists, Short Course on Bayesian Modelling. "NONMEM and PRIOR". Salt Lake City, UT, USA, October 2003.
82. Australasian Society for Clinical and Experimental Pharmacology and Toxicology, "Clinical pharmacology and rational clinical trial design and analysis". Sydney, Australia, December, 2003
83. Population Analysis Group Australia and New Zealand. "Disease Progress and Drug Action Models Scope and Implementation", Annual Meeting, Adelaide, Australia, January 2004
84. Population Analysis Group Australia and New Zealand. "Parameter Variability Theory and Application", Annual Meeting, Adelaide, Australia, January 2004
85. Population Analysis Group Europe. "Disease Progression in Parkinson's Disease – Evidence for Protective Effects of Drug Treatment". Uppsala, Sweden June 2004
86. International Biometrics Conference. "The Drug Treatment of Parkinson's Disease The interaction between disease progress, drug action and biostatistics". Cairns, Australia, July 2004
87. Population Analysis Group Australia and New Zealand and Japan. Clinical Pharmacology and Pharmacometrics Workshop. Tokyo, September 2004
88. World Conference on Anti-Infectives "Sex and Age are Unimportant for Pharmacokinetics", Nuremberg, September 2004
89. PKPD Symposium, "Disease Progress and Neuroprotection - Alzheimer's and Parkinsons' Disease". Pfizer, Groton, CT, USA, October 2004
90. National Center for Co-ordination of Clinical Trials. 1 day Clinical Pharmacology Workshop, Havana, Cuba, November 2004
91. Third International Workshop on the Design and Conduct of Clinical Trials, "The Drug Treatment of Parkinson's Disease. The interaction between disease progress, drug action and biostatistics". Havana, Cuba, November 2004
92. Keio University, 15th International Symposium for Life Sciences and Medicine, Symposium speaker "CNS Disease Progression and Drug Action", Tokyo, Japan, January 2005
93. 125th Meeting of Japanese Pharmaceutical Society, Plenary keynote speaker "Clinical Pharmacology = Disease Progress + Drug Action", Tokyo, Japan, March 2005
94. American Society for Clinical Pharmacology and Therapeutics. Symposium speaker "PKPD models for red blood cell responses to erythropoietic stimulation with and without chemotherapy and iron supplements", Annual Meeting, Orlando, FL, USA, March 2005

95. Food and Drug Administration, Office of Clinical Pharmacology and Biopharmaceutics, Seminar, "Placebo Response and Disease Progression: CNS and Osteoporosis Examples", Rockville, MD, USA, March 2005
96. National University of Singapore, Dept of Pharmacology, Seminar "Disease Progression and Drug Action The Clinical Pharmacology of Levodopa", Singapore, April 2005
97. University of Leiden, Dept of Pharmacology, Seminar "Clinical Pharmacology = Disease Progress + Drug Action", Leiden, The Netherlands, May 2005
98. AstraZeneca Seminar "Disease Progression Concepts with Specific Applications to Alzheimer's and Parkinson's Disease", Sodertalje, Sweden, June 2005
99. Population Analysis Group Europe, Plenary tutorial "An overview on how to use NONMEM for PK/PD analyses", Pamplona, Spain, June 2005
100. University of Sheffield, Dept Pharmacology, Seminar "Clinical Pharmacology = Disease Progress + Drug Action", Sheffield, UK, July 2005
101. Medical Faculty of Cienfuegos, Lecture "Clinical Trial Science", Cienfuegos, Cuba, October 2005
102. 6th Congress of Pharmacology and Therapeutics, Cuban Society of Pharmacology, Plenary lecture "Clinical Trial Science", Santiago de Cuba, Cuba, November 2005
103. Centre for Molecular Immunology, Lecture "Clinical Trial Science", Havana, Cuba, November 2005
104. American Association of Pharmaceutical Sciences Annual Meeting, Symposium lecture "The Time Course of Placebo Response in Clinical Trials", Nashville, TN, November 2005
105. American Association of Pharmaceutical Sciences Annual Meeting, Symposium lecture "Why Oncologists and Their Patients Need Model Based Clinical Pharmacology", Nashville, TN, November 2005
106. American Association of Pharmaceutical Sciences Annual Meeting, PKPDM Round Table Presentation "The FDA Critical Path and the Placebo Response", Nashville, TN, November 2005
107. Drug Information Association Conference Exposure/Response Best Practice design, analysis, and review, Symposium lecture "Tricky Hypothesis testing - A Mix of Methods", Philadelphia, PA, USA, December 2005
108. Bichat University, Seminar "Survival in a bathtub", Paris, France, June 2006
109. International PKPD Symposium, Yonsei University, Symposium Lecture "The Time Course of Response to Antidepressants in Clinical Trials – Do Antidepressants Really Take 2 Weeks To Work?", Seoul, Korea, October 2006
110. Australian Health and Medical Research Council Congress, Symposium Lecture "The Time Course of Response to Antidepressants in Clinical Trials – Do Antidepressants Really Take 2 Weeks To Work?", Melbourne, Australia, November 2006
111. Lewis B Sheiner Memorial Symposium, "When PK is not needed", University of California, Washington DC, USA December 2006
112. Population Analysis Group Australia and New Zealand. "Time to Event Analysis", Annual Meeting, Singapore, February 2007
113. Pharmaceutical Sciences World Congress, "Bone Disease Progression and Drug Action", Amsterdam, April 2007
114. Population Analysis Group Europe, Plenary tutorial "Disease Progress Models", Copenhagen, Denmark, June 2007
115. University of Koeln, Clinical Pharmacology, "Nature or Nurture – PKPD of Warfarin", Koeln, Germany, June 2007
116. 7th International Workshop on Cancer PKPD, "The Time Course of Tumor Size Response to Gemcitabine – What Can We Learn About Pharmacology?", Liberia, Costa Rica, September 2007
117. American Association of Pharmaceutical Sciences Annual Meeting, Research Achievement Award lecture "All Models are Wrong - Stamp Collecting to Physics", San Diego, CA, USA November 2007

118. American Association of Pharmaceutical Sciences Annual Meeting, Bone Symposium, " Linking PKPD of a Biomarker to Outcome Events - Application to Osteoporosis", San Diego, USA CA, November 2007
119. American Association of Pharmaceutical Sciences Annual Meeting, CPTR Point Counterpoint, "'Individualized' (PKPD-guided) but not 'personalized' (pharmacogenetic-guided) is a better approach to dosing of medicines than 'one-dose-fits-all ", San Diego, CA, USA November 2007
120. American Conference on Pharmacometrics. "How drugs may slow disease progression", Phoenix, AZ, USA March 2008
121. Cincinnati Children's Hospital, Seminar "A mechanistic approach to size and maturity", Cincinnati, OH, USA March 2008
122. European Medicines Evaluation Authority Workshop on Models in Paediatric PK "Mechanism based concepts of size and maturity", London, UK April 2008
123. 13. Pharmakokinetik/Pharmakodynamik-Expertentreffen, "Disease progression in Parkinson's disease", Isny, Germany May 2008
124. Population Analysis Group Europe, "Stuck in Modelling – Attempts to describe disease progress and the action of oral hypoglycaemic agents in type 2 diabetes", Marseille, France June 2008
125. Population Analysis Group Europe, Tutorial "Visual predictive check" (with Prof Mats Karlsson, Univ Uppsala), Marseille, France June 2008
126. Michael J Fox Foundation Meeting on Parkinson Disease Sub-Types "Disease Progress and Clinical Outcome in Parkinson's Disease", New York, NY, USA July 2008
127. IXth World Congress on Clinical Pharmacology & Therapeutics, "PKPD model development in infants and children", Quebec, Canada July 2008
128. University of Stellenbosch, Medical Grand Rounds, "Osteoporosis and fractures – why time cannot be ignored", Stellenbosch, South Africa, February 2009
129. University of Cape Town, Medical Grand Rounds, "Clinical Pharmacology=Disease Progress + Drug Action", Cape Town, South Africa, March 2009
130. University of Cape Town, Dept Statistics, "Time to event analysis", Cape Town, South Africa, March 2009
131. Population Analysis Group Europe, Debate "Children are small adults", St. Petersburg, Russia June 2009
132. International Association of Therapeutic Drug Monitoring & Clinical Toxicology. "Quantitative Rules for Target Concentration Intervention", Montreal, Canada. October 2009
133. International Association of Therapeutic Drug Monitoring & Clinical Toxicology. "Time course and pharmacodynamics of non-small cell lung cancer size changes in patients treated with gemcitabine", Montreal, Canada. October 2009
134. American Association of Pharmaceutical Sciences Annual Meeting, Sunrise Session, "Quantitative Basis of Dosing", Los Angeles, CA, USA November 2009
135. American Association of Pharmaceutical Sciences Annual Meeting, RoundTable, " Model Evaluation - A Pharmacologists View", Los Angeles, CA, USA November 2009
136. University of Cape Town, Department of Paediatrics, "Dosing in Children", Cape Town, South Africa, February 2010
137. University of Cape Town, Department of Clinical Pharmacology, "Target Concentration Intervention The Science of Dose Individualization", Cape Town, South Africa, February 2010
138. University of Cape Town, Department of Clinical Pharmacology, "Clinical application of plasma protein binding", Cape Town, South Africa, February 2010
139. American Society of Clinical Pharmacology and Therapeutics. "Three Strikes And You are Out! Why traditional statistical practice is stopping therapeutic progress in Parkinson's disease", Atlanta, GA, USA, March 2010
140. Oregon Health Science University, Department of Neurology, "Three Strikes And You are Out! Why traditional statistical practice is stopping therapeutic progress in Parkinson's disease", Portland, OR, USA, April 2010

141. 6th International Symposium on Measurement and Kinetics of In Vivo Drug Effects; "Target Concentration Intervention Can we hit the targets?" Noordwijkerhout, the Netherlands, April 2010
142. 6th International Symposium on Measurement and Kinetics of In Vivo Drug Effects; "Delaying Time-to-Event in Parkinson's Disease: Prognostic Tools for Managing PD?" Noordwijkerhout, the Netherlands, April 2010
143. CHU de Limoges, Service de Pharmacologie et Toxicologie, "Delaying Time-to-Event in Parkinson's Disease", Limoges, France, May 2010
144. University of Cincinnati Children's Hospital, Department of Clinical Pharmacology, "PK of Creatinine in Neonates -- Vancomycin as a covariate?", Cincinnati, OH, July 2010
145. University of Queensland, Pharmacy Australia Centre of Excellence, "Disease Modifying Treatments. Design and Analysis for Demonstrating Disease Modifying Effects", Brisbane, QLD, Australia, November 2010
146. American Association of Pharmaceutical Sciences Annual Meeting, Symposium, "Disease Modifying Treatments. Design and Analysis for Demonstrating Disease Modifying Effects", New Orleans, LA, USA November 2010
147. American Association of Pharmaceutical Sciences Annual Meeting, RoundTable, "Pharmacokinetics in Humans -- the Gold Standard", New Orleans, LA, USA November 2010
148. University of Rochester, Department of Neurology, "Clinical Pharmacology Disease Progress and Drug Action", Rochester, NY, USA, November, 2010
149. University of Rochester, Department of Biostatistics, "Delaying Time-to-Event in Parkinson's Disease: Prognostic Tools for Managing PD?", Rochester, NY, USA, November, 2010
150. State University of New York at Buffalo, Department of Pharmaceutical Sciences, "Time to event analysis", Buffalo, NY, USA, November 2010
151. University of Cape Town, Department of Clinical Pharmacology, "Interpreting the results of Parkinson's disease clinical trials: Time for a change", Cape Town, South Africa, March 2011
152. American Society of Clinical Pharmacology and Therapeutics. "The Effects of Informative Dropouts on the Design and Evaluation of Clinical Trials", Dallas, TX, USA, March 2011
153. American Society of Clinical Pharmacology and Therapeutics. "Dosing in children – how to reach the target effect", Dallas, TX, USA, March 2011
154. American Society of Clinical Pharmacology and Therapeutics. "Disease Progress", Dallas, TX, USA, March 2011
155. Population Approach Group of Europe, Holford NHG, Lavielle M. "A tutorial on time to event analysis for mixed effect modelers", Athens, Greece, June 2011
156. AstraZeneca, "Interpreting the results of Parkinson's disease clinical trials: Time for a change", Gothenberg, Sweden, June 2011
157. Rosa, Webinar, "Clinical pharmacology=Disease progression+Drug action", September 2011
158. American Association of Pharmaceutical Sciences Annual Meeting, Symposium, "Understanding Why Hazard is Important", Washington, DC, USA November 2011
159. Indiana University, CTSI Symposium, "Disease Progression and Disease Modification of Parkinson's disease", Indianapolis, IN, USA, November 2011
160. Monash University, CMUS Seminar, "The first dose of morphine – are children small adults?", Melbourne, Victoria, Australia, November 2011
161. Australasian Society of Clinical and Experimental Pharmacology and Toxicology (Australia), "The design and analysis of clinical trials in Parkinson's disease", Perth, Western Australia, Australia, December 2011
162. Holford NHG, Harankarn S, Dombrowsky E, Patel D, Barrett JS. What is the between cycle variability in methotrexate clearance? PAGANZ,2012, Melbourne.
163. Sumpter A, Holford NHG, Anderson BA. A Model for Maturation of Milrinone Clearance from Prematurity to Adulthood. PAGANZ 2012, Melbourne

164. Hannam, J, Holford NHG, Anderson BA. Paracetamol and diclofenac additive effects after tonsillectomy, PAGANZ 2012, Melbourne
165. Turkistani, A, Holford S, Holford NHG. A clinical trial incident. PAGANZ 2012, Melbourne
166. Holford NHG. Safe and effective variability: The rational basis for dose individualization, Australasian Society of Clinical and Experimental Pharmacology and Toxicology (New Zealand), 2012, Queenstown, New Zealand
167. Holford NHG. Quantitative pharmacology. PAGJA, 2012, Osaka, Japan
168. Holford NHG. Quantitative pharmacology. CTSI, 2012, Indianapolis, USA
169. Holford NHG. PKPD tutorial, World Conference on Pharmacometrics, 2012, Seoul, Korea
170. Holford NHG. Clinical pharmacology and disease progress. Centre for Health Research, 2012, Luxembourg
171. Holford NHG Time to event analysis for pharmacokineticists, AAPS, Webinar, 2012
172. Holford NHG History of pharmacometrics, PAGANZ Annual Meeting, Brisbane, Australia, 2013
173. Holford NHG Tacrolimus and haematocrit, CHU Limoges, France, 2013
174. Holford NHG Population pharmacokinetics of busulfan, University of Washington, Seattle, USA, 2013
175. Holford NHG Tumour size and survival, Seattle Genetics, Seattle, USA, 2013
176. Holford NHG Mechanism based disease progression. International Society of Quantitative Pharmacology, Beijing, China. 2013
177. Holford NHG Systems Pharmacology and Clinical Outcome. 7th Noordwijkerhout Symposium, Netherlands, April 2014
178. Holford NHG Target concentration intervention – can we hit the target? Conference de Prestige, University of Montreal, Montreal, Canada, May 2014
179. Holford NHG, Disease progression and survival. State University of Buffalo, New York, USA, May 2014
180. Holford NHG. Power and Type 1 Error of Tumour Size Metrics Used to Predict Survival. Population Approach Group of Europe, Alicante, Spain, June 2014
181. Holford NHG. Busulfan dosing – initial and next doses. Necker Hospital for Children, Paris, France, July 2014
182. Holford NHG Safe and effective variability. World Congress on Pharmacology, Cape Town, South Africa, July 2014
183. Holford NHG Rational clinical pharmacology – concentration not dose. Plenary lecture, World Congress on Pharmacology, Cape Town, South Africa, July 2014
184. Holford NHG Systems Pharmacology and Clinical Outcome. CTSI Symposium, Indiana University, USA, Nov 2014
185. Holford NHG Modelling Description Language – Structure and MDL-IDE Implementation. DDMoRe Consortium, Amsterdam, March 2015
186. Holford, NHG Why children are small adults - The first dose of morphine, Necker Hospital for Children, Paris, France, April 2015
187. Holford NHG Bootstrap and Confidence Intervals, Chugai Clinical Pharmacology Seminar, Tokyo, Japan, July 2015
188. Holford NHG Modelling informative dropout, Astellas Clinical Pharmacology Seminar, Tokyo, Japan, July 2015
189. Holford NHG Quantitative Pharmacology - Birth, Maturation, Adulthood, Dept Clinical Pharmacology seminar, Indiana University, USA, Nov 2015
190. Holford NHG Rational Clinical Pharmacology – Concentration not dose, CTSI Symposium, Indiana University, USA, Nov 2015
191. Holford NHG Using Normal Fat Mass to Account for Body Size and Composition, World Conference on Pharmacometrics, Brisbane, Australia, Aug 2016
192. Holford NHG Why clearance is my religion, American Association of Pharmaceutical Science, Denver, CO, USA, Nov 2016