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Personal Data:

Place of Birth: Paderborn, Germany (12/12/1955)
Nationality: German
Marital Status: Married, 1984

Education:

1975-1979 Undergraduate Student, Pharmacy, Westf. Wilhelms -
Universität, Münster, FRG
1979 State Examination in Pharmacy (B.Sc.)
1979-1980 Practical Pharmacy Education, Elisabeth Apotheke, Detmold,
FRG
1980-1984 Graduate Studies at the Institute of Pharm. Chem. (Ph.D.)
1994 GLP Short Course

Positions held:

Oct. 1980 - Nov. 1984 Teaching Assistant for Pharm. Chemistry and Biochemistry,
Westf. Wilhelms Universitaet
Jan. 1985 - June 1987 Postdoctoral Research Pharmacologist Department of Pharm.
Chemistry, School of Pharmacy, Univ. of California, San Francisco,
Group Leader: Prof. Dr. W. Sadee
July 1987 - July 1992 Assistant Professor of Pharmacy, Department of
Pharmaceutics, University of Florida, Gainesville
July 1992-July 2001 Associate Professor of Pharmacy, University of Florida
July 1999-present Adjunct Faculty at the Engineering Research Center
July 2001-present Professor of Pharmacy, University of Florida

Professional Licensures: "Approbation Apotheker", Muenster, 1983

Scientific/Professional Societies:

Member of American Association of Pharmaceutical Scientist (AAPS)
Member of American Association for the Advancement of Science
Member of the European Federation for Pharmaceutical Sciences
Member of the American College of Clinical Pharmacology (ACCP)
Member of the American Society of Pharmacometrics
Member of the AAPS Inhalation Nasal Technology Focus Group (INTFG)
Member of the AAPS Bioequivalence Focus Group

Services to Scholarly and Professional Journals:

Professional Organizations:

Regent, ACCP (2012-)
Regent of the ACCP (1999-2005)
Chairman, Honors & Award Committee, ACCP (2000-2005)
Member of the Executive Committee of INTFG (2011-2013)

Editorial Advisory Board:

J. Clin. Pharmacol.
AAPS PharmSci. (2000-2008)
Journal of Pharmacy and Pharmacology
Pharmaceutical Research

Referee (Selection):

AAPSPT, J. Chromat.; J. Pharmacokin. Biopharm., J. Pharmacol. Res., J. Pharm. Sci.; J. Pharmaceut., Clin. Pharmacokin., Eur. J. Clin. Investigations, Eur. J. Pharm. Sci., J. Allergy Clin. Immunology, J. Contr. Rel., Br. J. Pharmacol., Br. J. Clin. Pharmacol., Molecul. Pharmaceut.

Major University Services:

Health Center Institutional Review Board (1990- 1995)
Member of the Health Center Student Conduct Standards Committee. Honary Degrees, UF (2000-2006)
Distinguished Alumni Awards and Memorials Committee (2003-2006)

Awards:

Young Investigator Award from the "Deutsche Gesellschaft für Atemwegs und Lungenforschung" (1991)
Fellow of the American College of Clinical Pharmacology (1992)

Tanabe Young Investigator Award of the American Association of Clinical Pharmacology (1998)
Teaching Improvement Award of the Univ. of Florida (1998)
Fellow of American Association of Pharmaceutical Scientists (2004)
University of Florida Research Foundation Professorship (2006)
Teaching Experience: Responsible for pharmaceutical analysis courses on the graduate level, and the biopharmaceutics and pharmacokinetic class.

Research Interests: Clinical Pharmacology of Anti-inflammatory and Antiallergic Drugs, especially their Pharmacokinetic and Pharmacodynamic (PK/PD) Assessment after Topical delivery, PK/PD based Design and Evaluation of Pulmonary, Nasal and Ocular Delivery Systems, Clinical Trial Simulations, Population Pharmacokinetic Approaches
Bioequivalence Asserssment of Drugs for topical administration (nasal, lung delivery).

PUBLICATIONS

1. Identification of glucocorticoid receptors in normal and adult human lung. G. Hochhaus, P. Rohdewald, H. Möllmann, D. Greschuchna. *Res. Exp. Med.* 182, 71-78 (1983)
2. Comparison of the glucocorticoid receptor of the human lung with those of other human and bovine target organs. G. Hochhaus, P. Rohdewald, H. Möllmann, W.T. Ulmer. *Atemw.-Lungenkrkh.* 9, 281-283 (1983)
3. Receptor binding affinities of commercial glucocorticoids to the glucocorticoid receptor of human lung. P. Rohdewald, H. Möllmann, G. Hochhaus. *Atemw.-Lungenkrkh.* 10, 484-487 (1984)
4. Simultaneous determination of glucocorticoid alcohols, their succinates and hydrocortisone in plasma. P. Rohdewald, J. Rehder, G. Drehsen, G. Hochhaus, H. Derendorf, H. Möllmann. *J. Pharm. Biomed. Anal.* 3, 565-573 (1985)
5. Glucocorticoid receptors in the respiration tract. P. Rohdewald, H. Möllmann, K.M. Mueller, G. Hochhaus. In: *Bochumer Treff 1984, Rezeptoren und nervoese Versorgung des bronchopulmonalen Systems*, Verlag Gedon & Reuss, Muenchen, 223-242 (1985)

6. Affinities of glucocorticoids for glucocorticoid receptors in the human lung. P. Rohdewald, H. Möllmann, G. Hochhaus. *Agents and Action*. 17, 290-291 (1985)
7. HPLC determination of glucocorticoid alcohols, their phosphates and hydrocortisone in biological fluids. H. Derendorf, P. Rohdewald, G. Hochhaus, H. Möllmann. *J. Pharm. Biomed. Anal.* 4, 197-206 (1986)
8. Delta opiate receptors in human neuroblastoma cell lines. G. Hochhaus, V.C. Yu, W. Sadee. *Brain Res.* 382, 327-331 (1986)
9. Development of a biotin-avidin probe for detecting opiate receptors. G. Hochhaus, B.W. Gibson, W. Sadee. *NIDA Research Monographs*. 75, 33-36 (1987)
10. Biotinylated human β -endorphins as probes for the opiate receptor G. Hochhaus, B.W. Gibson, W. Sadee. *J. Biol. Chem.* 263, 92-97 (1988)
11. A biotin-avidin based enzyme immunoassay for β _H-endorphin. G. Hochhaus, W. Sadee. *Pharm. Res.* 5, 232-235 (1988)
12. Effects of opioid peptides on human neuroblastoma cells. W. Sadee, V.C. Yu, G. Hochhaus. *NIDA Research Monograph 87, Opioid peptides: an update*. Rao S. Rapaka, Bhola N. Dhawan (eds.). National Institute on Drug Abuse. (1988)
13. [Biocytin¹³]dynorphin A1-13 amide: a potential probe for the k-opioid receptor. G. Hochhaus, A. Patthy, R. Schwieter, D.V. Santi, W. Sadee. *Pharm. Res.* 5, 790-794 (1988)
14. Neuronal cell differentiation of human neuroblastoma cells by retinoic acid plus herbimycin-A1. P.N. Preis, H. Saya, L. Nadasdi, G. Hochhaus, V. Levin, W. Sadee. *Cancer Research*. 48, 6530-6534 (1988)
15. Differentiation of human neuroblastoma cells: marked potentiation of PGE1-stimulated accumulation of cyclic AMP by retinoic acid. V.C. Yu, G. Hochhaus, F-H. Chang, M.L. Richards, H. R. Bourne, W. Sadee. *J. Neurochem.* 51, 1892-1899 (1988)
16. Differential therapeutic aspects of the treatment of toxic gas poisoning with glucocorticoids. H.W. Möllmann, J. Barth, D. Schött, H. Derendorf, G. Hochhaus. *Intensivmed.* 26, 2-15 (1989)

17. An avidin/biotin based enzyme-linked Immunosorbent assay for dynorphin A1-13. G. Hochhaus, Lase Hu. *J. Pharm. Biomed. Anal.* 8, 541-545 (1990)
18. Binding affinities of rimexolone (ORG 6216), flunisolide and their putative metabolites for the glucocorticoid receptor of human synovial tissue. G. Hochhaus, H. Möllmann. *Agents and Actions.* 30, 377-380 (1990)
19. Absorption and transfer of water-soluble glucocorticoids through pulmonary membranes. J. Barth, A. Möllmann, G. Hochhaus, H. Derendorf, H.W. Möllmann. *Atemw.-Lungenkrkh.* 15, 412-416 (1989)
20. Oral bioavailability of triamcinolone tablets and a triamcinolone diacetate suspension. G. Hochhaus, M. Pörtner, J. Barth, H. Möllmann, P. Rohdewald. *Pharm. Res.* 7, 558-560 (1990)
21. Pharmaceutical biotechnology: A new graduate course at the University of Florida College of Pharmacy. H. Schreier, G. Hochhaus, R.J. Pranker, H. Derendorf, M.E. Brewster, R.A. Baughman. *Am. J. Pharm. Educ.* 54, 46-50 (1990)
22. Pharmacodynamic aspects of systemic glucocorticoid action (German). J. Barth, H. Möllmann, H. Derendorf, G. Hochhaus. In: Willert, Heuck (eds.), *New Results in Osteology*, Springer, Heidelberg, 533-541(1989)
23. Pharmacokinetic aspects of intra-articular glucocorticoid administration (German). H. Derendorf, H. W. Möllmann, P. Rohdewald, D. Strohsand, J. Barth, G. Hochhaus. In Willert, Heuck (eds.), *New Results in Osteology*, Springer, Heidelberg, 474-481, (1989)
24. Glucocorticoids for the intra-articular therapy: Pharmacodynamic characterization via receptor binding studies. G. Hochhaus, H. Möllmann, J. Barth. *Akt. Rheumatol.* 15, 66-69 (1990)
25. Distribution and aggregation of crystals in glucocorticoid suspensions (German). H.W. Möllmann, B. Armbruster, J. Barth, H. Derendorf, O.W. Flörke, G. Hochhaus, C.R. Möllmann, P. Rohdewald, E.W. Schmidt. *Akt. Rheumatol.* 15, 101-124 (1990)

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27. cAMP accumulation in opioid sensitive SH-SY5Y neuroblastoma cells is modified by estradiol and progesterone. A. Ratka, G. Hochhaus, R.N. Wissler, J.W. Simpkins. Mol. Cell. Endo. 78, 155-162 (1991)
28. Soft drugs 10: blanching activity and receptor binding affinity of a new type of glucocorticoid: loteprednol etabonate. P. Druzgala, G. Hochhaus, N. Bodor. J. Steroid Biochem. 38, 149-154 (1991)
29. Glucocorticoid activity and structure activity relationships in a series of some novel 17 \square ether-substituted steroids: influence of 17 \square substituents. G. Hochhaus, P. Druzgala, R. Hochhaus, M-J. Huang, N. Bodor. Drug Design and Discovery. 8, 117-125 (1991)
30. Pharmacokinetic/pharmacodynamic correlation of pulmonary and cardiac effects of fenoterol in asthmatic patients after different routes of administration. G. Hochhaus, E.W. Schmidt, K.L. Rominger, H.W. Möllmann. Pharm. Res. 9, 291- 297 (1992)
31. A selective LC/RIA for dexamethasone and its prodrug dexamethasone-21-isonicotinate in biological fluids. G. Hochhaus, H. Derendorf, H. Möllmann, J. Barth. J. Pharm. Biomed. Anal. 9, 761-767 (1991)
32. A new fluorogenic assay for tyrosine-containing peptides. M. Tellier, R.J. Pranker, G. Hochhaus. J. Pharm. Biomed. Anal. 9, 557-563 (1991)
33. Pharmacokinetic evaluation of a new glucocorticoid soft drug: loteprednol etabonate. G. Hochhaus, L.S. Chen, A. Ratka, P. Druzgala, J. Howes, N. Bodor, H. Derendorf. J. Pharm. Sci. 81, 1210-1215 (1992)
34. A selective HPLC/RIA for dexamethasone and its prodrug dexamethasone-21-sulfobenzoate in biological fluids. G. Hochhaus, R. Hochhaus, G. Werber, H. Derendorf, H. Möllmann. Biomed. Chromatog. 6, 283-286 (1992)

35. Analysis of shape, particle size distribution and aggregation of the crystals of intal aerosol, sodium cromoglycate, tilade aerosol and nedocromil sodium. J. Barth, H.W. Möllmann, W. Floerke, B. Armbruster, G. Hochhaus, H. Derendorf. Eur. J. Hosp. Pharm. 3, 20-28 (1993)
36. Receptor-based pharmacokinetic-pharmacodynamic analysis of corticosteroids. H. Derendorf, G. Hochhaus, H. Möllmann, J. Barth, M. Krieg, S. Tunn, C. Möllmann. J. Clin. Pharmacol. 33, 115-123 (1993)
37. Generic and alternative brand name pharmaceutical equivalents; substitute with caution! L. Hendeles, G. Hochhaus, S. Kazerounian. Am. J. Hosp. Pharm. 50, 323-329 (1993)
38. Studies on the pharmacokinetics and metabolism of prednicarbate after cutaneous and oral administration. J. Barth, H. Möllmann, K.H. Lehr, T. Höhler, H. Derendorf, G. Hochhaus. Skin Pharmacol. 6, 179-186 (1993)
39. Pharmacokinetics and pharmacodynamics of prednisolone after intravenous and oral administration. J. Barth, M. Damoiseaux, H. Möllmann, K.H. Brandis, G. Hochhaus, H. Derendorf. Int. J. Clin. Pharmacol. Ther. Toxicol. 30, 317-324 (1992)
40. PK/PD analysis of albuterol action: application to a comparative assessment of beta-2-adrenergic drugs. G. Hochhaus, L. Hendeles, E. Harmon, H. Möllmann. Eur. J. Pharm. Sci. 1, 73-80 (1993)
41. Pharmacokinetic/pharmacodynamic characteristics of the beta-2-agonists terbutaline, salbutamol and fenoterol . G. Hochhaus, H. Möllmann. Int. J. Clin. Pharmacol. Ther. Toxicol. 30, 342-362 (1992)
42. Prednicarbate after different forms of administration: plasma levels of drug and metabolites and effects on endogenous cortisol levels in humans. J. Barth, G. Hochhaus, H. Derendorf, K.H. Lehr, T. Hoehler, H. Möllmann. Curr. Probl. Dermatol. 21, 147-156 (1993)
43. Topical use of steroids in gastroenterology. H.W. Möllmann, G. Hochhaus, A. Tromm, J. Barth, C. Bigalke, B. May, A.C. Möllmann, U. Schwegler, H. Derendorf, S. Tunn. In: Schoelmerich, W. Kruis, H. Goebell, W. Hohenberger, V. Gross (eds.), Inflammatory Bowel Diseases-Pathophysiology as Basis of Treatment, Kluwer Academic Publishers, London, 343-349 (1993)

44. Immunoassay. H.T. Karnes, M. A. Sarkar, G. Hochhaus, S.G. Schulman. In: J. Swarbrickand, J.C. Boylan (eds.), Encyclopedia of Pharmaceutical Technology, Volume 8, Marcel Dekker, New York, 31-52 (1993)
45. Clinical pharmacology of pancreatic enzymes in patients with cystic fibrosis and in-vitro performance of microencapsulated formulations. M. Kraisinger, G. Hochhaus, A. Stecenko, E. Bowser, L. Hendeles. J. Clin. Pharmacol. 34, 158-166 (1994)
46. Bioavailability of hydrocortisone after single und multiple dosing of hydrocortisone foam in patients with distal chronic inflammatory diseases and healthy volunteers. T. Wagner, J. Barth, C. Bigalke, S. Tunn, M. Krieg. H. Derendorf, H. Möllmann, B. May, G. Hochhaus. Aktuelle Koloproktologie 10, 223-226 (1993)
47. Leucine enkephalin-tyrosinase reaction products: Identification by mass spectrometry and biological activity. V. Larsimont, L. Prokai, G. Hochhaus. Biochim. Biophys. Acta 1222, 95-100 (1994)
48. Pharmacokinetics of triamcinolone acetonide after IV, oral & inhaled administration . H. Derendorf, G. Hochhaus, S. Rohatagi, H. Möllmann, J. Barth, M. Erdmann. J. Clin. Pharmacol. 35, 302-305 (1995)
49. Response to commentary on pharmacokinetic characterization and tissue distribution of a new glucocorticoid soft drug loteprednol etabonate in rats and dogs. G. Hochhaus, P. Druzgala, J. Howes, N. Bodor, H. Derendorf. J. Pharm. Sci. 83, 1067-1068 (1994)
50. Assessment of glucocorticoid lung targeting by ex-vivo receptor binding studies. G. Hochhaus, R. Gonzales-Rothi, A. Lukyanov, H. Derendorf, H. Schreier, T. Dalla Costa. Pharm. Res. 12, 134-137 (1995)
51. Dose optimization based on pharmacokinetic/pharmacodynamic modeling. G. Hochhaus, H. Derendorf. In: H. Derendorf, G. Hochhaus (eds.), Handbook of pharmacokinetic/ pharmacodynamic correlations, CRC, New York, 79-120 (1995)
52. Pharmacokinetic-pharmacodynamic correlations of glucocorticoids, H. Möllmann, S. Balbach, G. Hochhaus, J. Barth, H. Derendorf. In: H. Derendorf, G. Hochhaus (eds.), Handbook of pharmacokinetic/ pharmacodynamic correlations, CRC, New York, 323-362 (1995)

53. Beta-agonists: terbutaline, albuterol, and fenoterol. G. Hochhaus, H. Möllmann. In: H. Derendorf, G. Hochhaus (eds.), Handbook of pharmacokinetic/ pharmacodynamic correlations, CRC, New York, 299-322 (1995)
54. Metabolism of dynorphin A1-13 in blood and plasma. S. Mueller, G. Hochhaus. Pharm. Res. 12, 1165-1170 (1995)
55. Pharmacokinetic/pharmacodynamic evaluation of deflazacort in comparison to methylprednisolone and prednisolone. H. Möllmann, G. Hochhaus, S. Rohatagi, J. Barth, H. Derendorf. Pharm. Res. 12, 1096-1100 (1995)
56. Problems with the equivalency of glucocorticoids. A comparison of the pharmacokinetics and pharmacodynamics of prednisolone and methylprednisolone (German). J. Barth, H. Möllmann, G. Hochhaus, H. Derendorf. Dtsch. Med. Wschr. 119, 1671-1676 (1994)
57. Thermodynamic and kinetic aspects of the interaction of triamcinolone acetonide with liposomes. H. Schreier, A.N. Lukyanov, G. Hochhaus, R.J. Gonzalez-Rothi. Proceed. Intern. Symp. Control. Rel. Bioact. Mater. 21, 228-229 (1994)
58. Pulmonary targeting of liposomal triamcinolone acetonide phosphate. R. Gonzales-Rothi, S. Suarez, G. Hochhaus, H. Schreier, A. Lukyanov, H. Derendorf, T. Dalla Costa. Pharm. Res. 13, 1699-1703 (1996)
59. Pharmacokinetic interaction between endogenous cortisol and exogenous corticosteroids. S. Rohatagi, G. Hochhaus, H. Möllmann, J. Barth, H. Derendorf. Pharmazie 50, 610-613 (1995)
60. Concepts of corticosteroid therapy of chronic inflammatory bowel disease: topical vs. systemic administration H. Möllmann, J. Barth, G. Hochhaus, A. Möllmann, H. Derendorf, A. Tromm In "Corticosteroid therapy of chronic inflammatory bowel disease", B. May and H. Möllmann (eds.), Falk Foundation, 69-90 (1996)
61. Pharmacodynamic aspects of corticosteroid effects. G. Hochhaus, H. Derendorf, H. Möllmann, J. Barth, R. Hochhaus In "Corticosteroid therapy of chronic inflammatory bowel disease", B. May and H. Möllmann (eds.), Falk Foundation, 91-117 (1996)
62. Wechselseitige beziehungen zwischen pharmakokinetik und pharmakodynamik als grundlage einer rationalen therapie, H. Derendorf, H. Möllmann, G. Hochhaus, J. Barth, In

- “Glukokortikoidtherapie chronisch entzündlicher Darmerkrankungen” B. May and H. Möllmann (eds.), Falk Foundation, 119-135 (1996)
63. Pharmacokinetics and pharmacodynamics of budesonide-pH-modified release capsules, H. Möllmann, G. Hochhaus, A. Tromm, P. Froehlich, A. Möllmann, M. Krieg, H. Weisser, H. Derendorf, J. Barth In “Corticosteroid therapy of chronic inflammatory bowel disease”, B. May and H. Möllmann (eds.), Falk Foundation, 149-167 (1996)
 64. Pharmacodynamic aspects of glucocorticoid action, G. Hochhaus, H. Derendorf, H. Möllmann, J. Barth, R. Hochhaus. Kongressband, IV International Symposium of Inflammatory Bowel Diseases, Kluwer Academic Publishers Dordrecht, Boston, London, 61-79 (1996)
 65. Pharmacokinetics and pharmacodynamics of cloprednol, H. Möllmann, G. Hochhaus, S. Rohatagi, J. Barth, H. Derendorf, M. Krieg, H. Weisser, A. Möllmann. *Int. J. Clin. Pharmacol. Ther.* 34, 1-5 (1996)
 66. Kinetic/dynamic interrelationships as basis for rational therapy, H. Derendorf, H.W. Möllmann, G. Hochhaus, J. Barth, Kongressband, IV International Symposium of Inflammatory Bowel Diseases, B. May and H. Möllmann (eds.), Kluwer Academic Publishers, Dordrecht, Boston, London, 80-98 (1996)
 67. Principles of topical versus systemic corticoid treatment in inflammatory bowel disease, H.W. Möllmann, J. Barth, G. Hochhaus, IV International Symposium of Inflammatory Bowel Disease, B. May and H. Möllmann (eds.), Kluwer, Academic Publishers, Dordrecht, Boston, London, 42-60 (1996)
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 69. Pharmacokinetic and pharmacodynamic evaluation of triamcinolone acetonide after intravenous, oral and inhaled administration, S. Rohatagi, G. Hochhaus, H. Möllmann, J. Barth, E. Galia, M. Erdmann, H. Sourgens, H. Derendorf. *J. Clin. Pharmacol.* 35, 1187-1193 (1996)

70. Interspecies comparison of in-vitro plasma degradation of dynorphin A1-13. S. Mueller, R. Dunker, G. Hochhaus. *Die Pharmazie*, 51, 581-585 (1996)
71. Metabolism of dynorphin A1-13 in human CSF, S. Mueller, B.L. Grundy, G. Hochhaus. *Neurochem. Res.* 21, 1213-1219 (1996)
72. Pharmacokinetic/pharmacodynamic aspects of aerosol therapy using glucocorticoids as a model, G. Hochhaus, H. Derendorf, H. Möllmann, R. Gonzalez-Rothi. *J. Clin. Pharmacol.* 37, 881-892 (1997)
73. Pharmacokinetic/pharmacodynamic evaluation of systemic effects of flunisolide after inhalation, H. Möllmann, H. Derendorf, J. Barth, B. Meibohm, M. Wagner, M. Krieg, J. Knoeller, and G. Hochhaus. *J. Clin. Pharmacol.* 37, 893-903 (1997).
74. An HPLC/RIA method for dynorphin A1-13 and its main metabolites in human blood, S. Müller, B. Ho, P.L. Gambus, W. Millard, G. Hochhaus. *J. Pharm. Biomed. Anal.* 16, 101-109 (1997)
75. A selective HPLC/RIA for the determination of budesonide, G. Hochhaus, P. Froehlich, R. Hochhaus, A. Möllmann, H. Derendorf, H.W. Möllmann. *J. Pharm. Biomed. Anal.* 17, 1235-1242 (1998)
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77. The pharmacokinetics of i.v. dynorphin A (1-13) in opioid naive and opioid tolerant human volunteers, P.L. Gambus, T.W. Schnider, C.F. Minto, E. Youngs, V. Billard, G. Hochhaus, W.L. Brose, S.L. Shafer. *Clin. Pharmacol. Therapeutics.* 64, 27-38 (1998)
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79. Pharmacokinetic and pharmacodynamic evaluation of fluticasone after inhaled administration, H. Möllmann, M. Wagner, B. Meibohm, G. Hochhaus, J. Barth, C. Falcoz, M. Wagner, H. Derendorf. *Eur. J. Clin. Pharmacol.* 53, 459-467 (1998)

80. Pharmacokinetics of methylprednisolone and prednisolone after single and multiple oral dosing, S. Rohatagi, J. Barth, H. Möllmann, G. Hochhaus, A. Soldner, H. Derendorf. *J. Clin. Pharmacol.* 37, 916-925 (1997)
81. Dependency of cortisol suppression on the administration time of inhaled corticosteroids, B. Meibohm, G. Hochhaus, S. Rohatagi, H. Möllmann, J. Barth, M. Wagner, M. Krieg, R. Stöckmann, H. Derendorf. *J. Clin. Pharmacol.* 37, 704-710 (1997)
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83. Pharmacokinetics and pharmacodynamics of inhaled corticosteroids. H. Derendorf, G. Hochhaus, B. Meibohm, H. Möllmann, J. Barth. *J. Allergy Clin. Immunol.* 101 S440-446 (1998)
84. Effect of dose and release rate pulmonary targeting of inhaled on pulmonary targeting of liposomal triamcinolone acetonide. S. Suarez, R.J. Gonzales-Rothi, H. Schreier, G. Hochhaus. *J. Pharm. Res.* 15, 461-465 (1998)
85. Pulmonary selectivity of glucocorticoids: How is it influenced by formulation? G. Hochhaus, S. Suarez, R.J. Gonzales-Rothi, H. Schreier, *Respiratory Drug Delivery VI*, R. Dalby, P. Byron, S.J. Farr, eds, Interpharm Press, Buffalo Grove, IL, 45-52 (1998)
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87. The clinical pharmacology of fluticasone propionate. B. Meibohm, H. Möllmann, M. Wagner, G. Hochhaus, A. Möllmann, H. Derendorf. *Rev. Contemp. Pharmacother.* 8, 535-549 (1998)
88. Salmeterol, langwirkendes inhalatives β_2 -Sympathomimetikum, G. Hochhaus, Amy Buchwald, M. Schulz. *Pharmz. Zeit.* 143, 2318-2324 (1998)
89. Formoterol, langwirkendes inhalatives β_2 -Sympathomimetikum, G. Hochhaus, Amy Buchwald, M. Schulz. *Pharmz. Zeit.* 143, 4354-4361 (1998)

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94. Kinetic modeling of plasmid DNA degradation in rat plasma. B.E. Houk, G. Hochhaus, J.A. Hughes. *AAPS PharmSci.* 1, issue 4 (1999)
95. Pharmacokinetic considerations in the design of pulmonary drug delivery systems for glucocorticoids. C. Mobley, G. Hochhaus. In: H. Schreier (ed.), *Drug Targeting Technology*, Marcel Dekker, New York, 51-83 (2001)
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152. Ultra-high dosed methylprednisolone in acute spinal cord injury (SCI) - pharmacokinetics and effects on cortisol, potassium, glucose and blood cells. J. Barth, H. Möllmann, A. Möllmann, M. Krieg, U. Bötzel, G. Hochhaus, H. Derendorf. VI World Conference on Clinical Pharmacology and Therapeutics, Buenos Aires, (1996)
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155. Pharmacokinetic/pharmacodynamic relationships relevant for optimizing the effect/risk ratios after topical administration - Pulmonary delivery as an example. G. Hochhaus, R. Gonzalez-Rothi, H. Derendorf, H. Schreier, H. Möllmann. 6th Annual Meeting of the German Society for Clinical Pharmacology and Therapeutics, Dresden, (1996)
156. Pharmacokinetics and -dynamics after application of budesonide pH-modified-release capsules in patients with Crohn's disease and healthy volunteers. A. Tromm, H. Möllmann, S.V. Heymann, J. Barth, B. May, G. Hochhaus, H. Derendorf. 6th Annual Meeting of the German Society for Clinical Pharmacology and Therapeutics, Dresden, (1996)

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159. Pharmacokinetic/pharmacodynamic evaluation of budesonide after oral delivery. G. Hochhaus, H. Möllmann, M. Krieg, A. Möllmann, A. Tromm, H. Derendorf, J. Barth. 25th Annual Meeting of the American College of Clinical Pharmacology, Philadelphia, Pennsylvania (1996)
160. The effect of dose and release rate on pulmonary targeting of glucocorticoids using liposomes as a model dosage form. S. Suarez, R. Gonzalez-Rothi, G. Hochhaus. 11th Annual Meeting of the American Association of Pharmaceutical Scientists, Seattle, Washington (1996)
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166. Pharmacokinetics and pharmacodynamics of soft corticosteroids for inhalation. H. Derendorf, G. Hochhaus, B. Meibohm, H. Möllmann, J. Barth. 1st Drug Optimization via

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 172. Predictive power of PK/PD –modeling for inhaled glucocorticoids. B. Meibohm, G. Hochhaus, H. Möllmann, J. Barth, H. Derendorf. American College of Clinical Pharmacology. 16th Annual Meeting, Phoenix, (1997)
 173. Advanced PK/PD model for the modulation of lymphocyte count by glucocorticoids and endogenous cortisol. B. Meibohm, G. Hochhaus, H. Möllmann, J. Barth, H. Derendorf. American College of Clinical Pharmacology. 16th Annual Meeting, Phoenix, Arizona (1997)
 174. Algebraic solutions for non-linear protein binding interactions. S. Rohatagi, G. Hochhaus, A. Kovar, H. Derendorf. American College of Clinical Pharmacology. 16th Annual Meeting, Phoenix, Arizona (1997)
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 187. Pulmonary targeting of inhaled glucocorticoids: How is it influenced by formulation? G. Hochhaus, S. Suarez, R.J. Gonzalez-Rothi, H. Schreier. Respiratory Drug Delivery VI. Hilton Head, South Carolina (1998)
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 189. Pharmacokinetic-Pharmacodynamic modeling of cumulative cortisol suppression by inhaled corticosteroids. H. Derendorf, B. Meibohm, H. Moellmann, J. Barth, M. Wagner, M. Krieg, R. Stoeckmann. 8th International conference on Pharmaceutical Technology, Paris (1998)
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 191. Effect of clearance and volume of distribution on pulmonary targeting of inhaled glucocorticoids. G. Hochhaus, H. Derendorf, B. Meibohm. Measurement and Kinetics of in vivo drug effects Advances in simultaneous pharmacokinetic/pharmacodynamic modeling. Noordwijkerhout, The Netherlands (1998)
 192. Interaction between endogenous and exogenous corticosteroids and blood lymphocytes: The buffering capacity of cortisol suppression. G. Hochhaus, B. Meibohm, J. Stark, H. Moellmann, H. Derendorf, M. Wagner. Measurement and Kinetics of in vivo drug effects Advances in simultaneous pharmacokinetic/pharmacodynamic modeling. Noordwijkerhout, The Netherlands (1998)
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 198. Dynorphin A1-13 derivatives with enhanced metabolic stability. S. I. Al-Fayoumo, E. Mulder, G. Hochhaus, 13th Annual Meeting of the American Association of Pharmaceutical Scientists, San Francisco, November (1998). Pharm Sci. 1, S-38 (1998)
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 203. Investigations on the pulmonary effect-time profile after inhalation of fluticasone propionate. M. Wagner, G. Hochhaus, A.C. Moellmann, M. Krieg, H. Derendorf, H.W. Moellmann. 171th Meeting of the 'Rheinisch Westfaelische Gesellschaft fuer Innere Medizin" Duesseldorf (November 1998)
 204. Rectal Application of Budesonide foam: A therapeutic advantage?. M. Koelsch, M. Wagner, H. Dimova, G. Hochhaus, A.C. Moellmann, H. Derendorf, H.D. Tauschel, B. May, A. Tromm, H.W. Moellmann. 171th Meeting of the 'Rheinisch Westfaelische Gesellschaft fuer Innere Medizin" Duesseldorf (November 1998)
 205. Pharmacokinetic/pharmacodynamic evaluation of inhaled glucocorticoids. MUSC, College of Pharmacy, Charleston (October 1998)
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 207. A physiological Pharmacokinetic (PK) model for beclomethasone dipropionate (BDP) delivered via conventional metered dose inhaler (MDI) and Spiros, an investigational dry powder inhaler (DPI). G. Hochhaus, S. Scranton, LM Vaughan, M. Hill. AAAAI 55th Annual Meeting, Orlando (1999), J. Allergy Clin. Immunol. 103, S135 (1999)
 208. Synthesis of Biodegradable Poly(lactic-co-glycolic acid) Films by Pulsed Laser Deposition. J. Talton, G. Hochhaus, J. Fitz-Gerald, R. Singh, Presentation, Materials Research Society, Spring (1999)
 209. Factors Influencing Pulmonary Targeting. G. Hochhaus, Boehringer Ingelheim, Ridgefield CT, (May 1999)
 210. Pulmonary Targeting of commercially Inhaled glucocorticoids. G. Hochhaus, Retrometabolism Based Drug Design and Conference, Amelia Island Plantation, FL (May 1999)

211. Loteprednol Etabonate - A Soft Steroid for the Treatment of Allergic Diseases of the Airways. S. Szelenyi, G. Hochhaus, H. Dimova, S. Krishnaswami and J. Engel, Retrometabolism Based Drug Design and Conference, Amelia Island Plantation, FL (May 1999)
212. Optimized therapeutic Ratio of Inhaled Corticosteroids Using Retrometabolism. H. Derendorf, G. Hochhaus, S. Krishnaswami, H. Moellman,, Retrometabolism Based Drug Design and Conference, Amelia Island Plantation, FL (May 1999)
213. Pharmacokinetics of plasmid DNA in vitro and after IV bolus administration in the rat. B.E. Houk, G. Hochhaus, J.A. Hughes, Southeast Regional Meeting of the American Association of Pharmaceutical Scientists, Durham, NC (1999)
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215. Pulmonary Targeting: What is important? G. Hochhaus, University of Halle, Halle, Germany (June 1999)
216. Pulmonary targeting of inhaled glucocorticoids. G. Hochhaus. 2nd Symposium on New Developments in Clinical Pharmacy and Clinical Pharmacology, Reims, France (June 1999)
217. Pharmacokinetics/Pharmacodynamics of budesonide foam after single and multiple dosing. H.W. Möllmann, M. Wagner, A.C. Möllmann, X Koelsch, H. Dimova, Y. Tang, A. Tromm, H.-D. Tauschel, M. Krieg, H. Weisser, H. Derendorf, G. Hochhaus, 28th Annual Meeting of the American College of Clinical Pharmacology, Washington (1999), J. Clin Pharmacol. 39, 985 (1999)
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229. Streamlining dosing requirements with mechanism-based PK/PD modeling. G. Hochhaus. Clinical pharmacokinetics and pharmacodynamics. Arlington, VA, February 28-29, (2000)
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264. Fundamental studies on nanoencapsulated pulmonary drug delivery systems. W.S. Kim, M. Ollinger, V. Craciun, R. Singh, , I. Coowanitong, G. Hochhaus, H. Hofmann, R. Houriet, N. Koshizaki. Presentation, Materials Research Society, Fall, Boston, November, (2001)
265. Pharmacokinetic data analysis via bootstrap resampling. V. Arya, A. Agarwal, G. Hochhaus. AAPS Short Course on Computer Simulation and its role in Drug Development Research. Arlington, Virginia, Jan 28-29, (2002)
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267. Population Pharmacokinetics/Pharmacodynamics of Ciclesonide. S. Rohatagi, V. Arya, K. Zech, J. Barrett, G. Hochhaus, B. Jensen. AAAAI, 58th Annual Meeting, New York. J Allergy Clin. Immunol., 716 (2002)
268. Clinical pharmacokinetics and pharmacodynamics. Building the foundation for optimal predictions of drug design, action and dose (Short course). Institute for International Research, Philadelphia, March 11-12 (2002)
269. Common valved holding chamber in-vitro performance with a beclomethasone HFA metered-dose inhaler. S.H. Kwon, M.J. Asmus, I. Coowanitong, N. Khorsand, G. Hochhaus. American Journal of Respiratory and Critical Care Medicine.165(5) (2002)
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274. The design and development of the optimal inhalation drug: A PK/PD based discussion. G. Hochhaus. Business and Clinical Developments in Aerosol Therapy. Institute for International Research. Boston, November (2002)
275. Inhaled Corticosteroids: Potency vs Efficacy-What really matters. G. Hochhaus. ACAAI. San Antonio, November (2002)
276. Pharmacokinetic/pharmacodynamic evaluations of inhalation drugs. G. Hochhaus. Rio De Janeiro, College of Pharmacology, November (2002)
277. Pharmacokinetic/pharmacodynamic modeling for streamlining drug development. G. Hochhaus. Brazilian Congress of Pharmacology, Aguas de Lindoia, November (2002)
278. Pharmacokinetic/dynamic aspects for targeting drugs to the lung. G. Hochhaus. College of Pharmacy, University of Sao Paulo, Ribeirao Preto, November (2002)
279. Role of p-glycoprotein transporters in the brain permeability of inhaled glucocorticoids. M. Issar, V. Arya, S. Shresta, G. Hochhaus. AAPS Annual Meeting, Toronto, Canada, November, (2002)
280. Pulmonary targeting of beclomethasone dipropionate in rats. Y. Wang, G. Hochhaus. AAPS Annual Meeting, Toronto, Canada, November, (2002)
281. Use of microdialysis to evaluate dexamethasone tissue distribution after oral and topical administration. M. Muller, V.A. Schuck, M. Grant, H. Derendorf, G. Hochhaus. AAPS Annual Meeting, Toronto, Canada, November, (2002)
282. Pulmonary targeting: What are the critical issues involved? G. Hochhaus. AstraZeneca, 17th December (2002)
283. Relative Amount of Inhaled Fluticasone Delivered to The Airways of Asthmatic Children by Two Similar MDI Chambers. Liang J, Asmus MJ, Hochhaus G, Chesrown SE, Hendeles L. *Journal of Allergy and Clinical Immunology*. 109(1):S242 (2002).

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285. Inhaled Corticosteroids: Pharmacokinetic and Pharmacodynamics. G. Hochhaus. ATS Annual Meeting, Seattle Washington, May (2003)
286. PK/PD of inhaled glucocorticoids-new developments. G. Hochhaus. 4th Retrometabolism based drug design and targeting conference, Palm Coast, May (2003)
287. New developments in corticosteroids. G. Hochhaus. Congress on inhaled Corticosteroids in the treatment of Asthma and COPD. New York July (2003)
288. An in-vitro comparison of two non-electrostatic valved holding chambers with a fluticasone metered-dose inhaler. M.J. Asmus, V. Arya, G. Hochhaus. Chest. 124(suppl 4) (2003)
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291. Is the binding of inhaled glucocorticoids to the glucocorticoid receptors specific? M. Issar, S. Sahasranaman, G. Hochhaus. Annual Meeting of the American Association of Pharmaceutical Scientists, October (2003)
292. Why does mometasone furoate exhibit low systemic exposure after oral inhalation? Sahasranaman, M. Issar, G. Hochhaus. Annual Meeting of the American College of Clinical Pharmacology, September (2003)
293. S. Sahasranaman, M. Issar, G. Toth, G. Horvath, G. Hochhaus. Degradation of mometasone furoate in the lung. Annual Meeting of the American Academy of Allergy, Asthma, and Immunology, March (2003)

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295. Optimizing pharmaceutical properties of inhalation drugs. G. Hochhaus. Respiratory Drug Delivery IX, Palm Springs, April (2004)
296. Impact of New Anti-Static valved-holding chamber on airway delivery of inhaled fluticasone propionate in asthmatic children. M.J. Asmus, G. Hochhaus, Y. Tang, L.T. Spencer, S.E. Chesrown, L. Hendeles. ATS 2004, Orlando, May (2004)
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298. Population Pharmacokinetics of Levofloxacin in a Medical Intensive Care Unit Z. R. Tayab, S. Kaufmann, G. Hochhaus, D. Jager, and J. Barth., American College of Clinical Pharmacology. Phoenix, Arizona. October, (2004)
299. A Sensitive and Specific LC/MS/MS Assay for the Detection of Mometasone Furoate in Human Plasma. Y. Tang, S. Sahasranaman, D. Biniasz, G. Hochhaus. AAPS Annual Meeting, Baltimore, November (2004)
300. Pharmacological Properties of the Metabolites of Mometasone Furoate. S. Sahasranaman, M. Issar, G. Hochhaus. AAPS Annual Meeting, Baltimore, November (2004)
301. Relative anti-inflammatory potency of corticosteroids measured by AP-1-inhibitory potency. N. Dirks, S. Li, C. Yates, G. Hochhaus, B. Meibohm. AAPS Annual Meeting, Baltimore, November (2004)
302. PK/PD of inhaled glucocorticoids. Las Vegas, Summit Speaker Education March (2005)
303. Nanothin Coatings for pulmonary delivery: A method to improve the local selectivity of inhalation drugs. G. Hochhaus. FDA Course: "The use of Nanotechnology in New Drug Development." Rockville, March (2005)
304. PK/PD Modeling as tool in per-clinical and clinical drug development. G. Hochhaus. 19th JSSX, Tokyo, April (2005)

305. Is the distribution of glucocorticoids affected by transporters. G. Hochhaus. 5th Retrometabolism Conference. Hakone, Japan, May (2005)
306. Pharmacokinetic Evaluation of dosage forms for colonic delivery. G. Hochhaus. 32 Annual meeting and exposition of the controlled release society. Miami, June (2005)
307. Glucocorticoid transrepression and transactivation potencies as measured by inhibition of AP-1, NF- κ B and activation of GRE. N.L. Dirks, S. Li, G. Hochhaus, C.R. Yates, B. Meibohm. AAPS, Nashville, TN Nov. (2005)
308. Effects of the administration time on the cumulative cortisol and lymphocytes suppression of inhaled corticosteroids. K. Wu, J. Stark, H. Derendorf, G. Hochhaus, AAPS, Nashville, TN, Nov. (2005)
309. A pharmacokinetic/pharmacodynamic evaluation of fluticasone propionate and mometasone furoate using adrenal suppression as a surrogate marker. Z.R. Tayab, T.C. Fardon, D.K.C. Lee, K. Haggart, L.C. McFarlane, B.J. Lipworth and G. Hochhaus, AAPS, Nashville, TN, Nov. (2005)
310. ICS Pharmacokinetics: the key for improving Safety and efficacy. Guenther Hochhaus. ACAAI, Annual Scientific meeting. Anaheim November (2005)
311. The Science: Advancing Inhaled Corticosteroid Pharmacology. Guenther Hochhaus. Southeastern Allergy Forum, Eastern Allergy Forum, Puerto Vallarta, January (2006)
312. PLGA microspheres of triamcinolone acetonide: in vitro release behavior. E. Pinto, G. Hochhaus 2006 SERIS (Southeastern Regional Interdisciplinary Symposium). Gainesville, FL, 2006
313. Tissue binding ciclesonide/budesonide, ERS, Stockholm, June, (2007)
314. In Vitro MIN6 -P. E. Pinto, B. Zhang, S. Song, N. Bodor, G. Hochhaus. Industrial Advisory Board Meeting. Gainesville, FL. (2007)
315. In Vitro MIN6 b-Pancreatic Cell Toxicity of Sustained Release Loteprednol Etabonate Encapsulated PLA Microspheres. E. Pinto, B. Zhang, S. Song, N. Bodor, G. Hochhaus. International Symposium on Microencapsulation. Lexington, KY, (2007)

316. Pharmacokinetic and pharmacodynamic of nasal corticosteroids. International workshop on endoscopic surgery of the paranasal sinuses and anterior skull base. Berlin, December (2007)
317. Nanotechnology. Is it really that big? Schering-Plough Bullets. Munich, February (2008)
318. Preparation and characterization of polymeric microparticles containing triamcinolone acetonide for biological applications, A. Hassan, G. Hochhaus, J. Hughes. AAPS Annual Meeting, Atlanta, GA November (2008)
319. Inhaled Corticosteroid Nanoparticles for Asthma Management, G. Patel, G. Hochhaus, AAPS Annual Meeting, Atlanta, GA November (2008)
320. Bioequivalence of Inhaled Corticosteroids - A Pharmacokinetic Approach. N. Goyal, S. Sabarinath, G. Hochhaus, AAPS Annual Meeting, Atlanta, GA November (2008)
321. Bioequivalence of inhaled glucocorticoids. G. Hochhaus. PQRI Workshop on Demonstrating Bioequivalence of Locally Acting Orally Inhaled Drug Products. Bethesda, March, (2009)
322. The use of pharmacokinetics for the bioequivalence evaluation of inhaled glucocorticoids. G. Hochhaus. 7th Retrometabolism Based Drug Design and Targeting Conference, Orlando, Florida, May (2009)
323. Pharmacokinetics and pharmacodynamics of budesonide. G. Patel. G. Hochhaus. 7th Retrometabolism Based Drug Design and Targeting Conference, Orlando, Florida, May (2009)
324. Influence of low affinity protein binding on high affinity receptor binding. G. Patel. G. Hochhaus. 7th Retrometabolism Based Drug Design and Targeting Conference, Orlando, Florida, May 2009.
325. Effect of protein binding on pulmonary corticosteroid receptor occupancy. B. Weber, K. Wu, L. Blomgren, K. Ekholm, S. Edsbaecker, G. Hochhaus 7th Retrometabolism Based Drug Design and Targeting Conference, Orlando, Florida, May (2009)
326. Bioequivalence of inhaled glucocorticoids- a pharmacokinetic approach. N. Goyal, B.

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327. Integrated modeling of PANSS and dropout analysis in Patients with acute schizophrenia. N. Goyal, G. Hochhaus, D. Ouellet. 7th Retrometabolism Based Drug Design and Targeting Conference, Orlando, Florida, May (2009)
328. PK-PD considerations of inhaled agents — Corticosteroids as an Example Gunther Hochhaus, AAPS Annual Meeting, Los Angeles, November (2009)
329. A novel study design to evaluate bioequivalence of inhaled corticosteroids N. Goyal, G. Hochhaus AAPS Annual Meeting, Los Angeles, November (2009)
330. Do Pharmacologic/Pharmacokinetic Parameters differentiate one INS from another? Proceedings From an Expert Roundtable. G. Hochhaus . Inflammatory upper airway diseases: Pathophysiology treatment, and New Insights. Prague, January (2010)
331. Demonstrating bioequivalence with pharmacokinetics: Theoretical considerations across drug Classes. G. Hochhaus. Respiratory Drug Delivery 2010, Orlando, April (2010)
332. Pharmacological differences between intranasal steroids: are they clinically relevant? G. Hochhaus, EAACI, London, June (2010)
333. Clinical Trial Simulations Using an Improved Inhalation Model to Evaluate the Potential of Pharmacokinetic Studies in Establishing Bioequivalence of Inhaled Corticosteroids B. Kandala, B. Weber, G. Hochhaus; AAPS Annual Meeting, New Orleans November (2010)
334. Synthesis of a prodrug for intraocular drug delivery. I. Andueza, G. Hochhaus. AAPS Annual Meeting, New Orleans, November (2010)
335. Simulation based evaluation of tmax as a pharmacokinetic parameter to assess bioequivalence of inhalation drugs, B Weber, N. Goyal, G. Hochhaus. ACCP annual meeting, (2010)
336. Pharmacokinetics of fluticasone/formoterol combination therapy in a single inhaler compared with fluticasone and formoterol concurrently or alone in healthy subjects: results of two open label studies. G. Hochhaus, K. Kaiser. EAACI, Istanbul, June (2011)

337. Nonlinear pharmacokinetics of Visaginin in rats after intravenous administration. K. Haug¹, B. Weber¹, G. Hochhaus¹, V. Butterweck. AAPS Annual Meeting 2011, November (2011)
338. Bioequivalence for inhalation drugs: PK and its Role. G. Hochhaus. Invited lecture. Advances in Respiratory Innovation and Technology Symposium. Shanghai, September (2011)
339. PK/PD of inhaled Glucocorticoids. G. Hochhaus. Invited lecture at Southeast Asian Chapter of the ACCP. Annual Meeting Mumbai September (2011)
340. Short Course: Advanced PK/PD. Southeast Asian Chapter of the ACCP. G. Hochhaus. Annual Meeting, Mumbai, September (2011)
341. Evaluation of statistical methods for determining equivalence of aerodynamic particle size distribution. B. Webber, W. Adams, R. Lionberger, G. Hochhaus, and S. Lee. AAPS Annual Meeting, November (2011)
342. Evaluation of statistical methods for determining equivalence of aerodynamic particle size distribution. B. Weber, W. Adams, R. Lionberger, B. Li, Y.Tsong, G. Hochhaus, S. Lee. College of Pharmacy Research Day, Gainesville (2012)
343. Design and Analysis of Pharmacodynamic crossover studies conducted to establish Bioequivalence of Inhaled Corticosteroids. B. Kandala, S. Kim, W. Adams, R. Lionberger, L. Sau, G. Hochhaus. College of Pharmacy Research Day, Gainesville (2012)
344. Demonstrating Bioequivalence of Inhalation Drugs: Background and Future. G. Hochhaus. IPAC-RS Spring Board Meeting, Fort Lauderdale, FL, February (2012)
345. Understanding Transport of Nanoparticle-Drug Construct Following Fast Local Infusion in the Rat Brain: A MRI-based Computational Model. K.N. Magdoom, F.Delgado, H.Mahbub, Carney P. R., Hochhaus G. and M. Sarntinoranont. ASME conference, (2013)
346. How Can We Overcome Regulatory Challenges Associated with Non-Traditional Devices, Biosimilars & Cell Therapies? G. Hochhaus, BioFLorida, Miami, Oct 2012

347. Inhalation: What is going on in the research space?. AAPS Annual Meeting, INTFG Scientific Session. AAPS Annual Meeting. Chicago (Oct. 2012)
348. BE of Inhalation Drugs. Hochhaus G. PTR Departmental Seminar Series. Gainesville (February 2013)
349. Development of an *in vitro* test method for dissolution of inhaled corticosteroids. Baghwat S, Rohrschneider M, Alfadehl S, Hochhaus G. ISAM, Chapel Hill, NC (April 2013)
350. Evaluation of the feasibility of pharmacodynamics bioequivalence studies of inhaled corticosteroids through Monte Carlo Simulations. Kandala B, Weber B, Winner L, Hochhaus G. ISAM, Chapel Hill, NC; (April 2013); *J Aerosol Med Pulm D.* ; 26:A59 (2013)
351. Bioequivalence of Inhalation Drugs. Hochhaus G. Southeast Asian ACCP meeting. Mumbai (April 2013)
352. Generics for Orally Inhaled Drugs: Are there any news?. Hochhaus, G. INTFG scientific session at RDD 2013. Berlin, May 2013
353. Power calculations for pharmacodynamic crossover studies conducted to establish bioequivalence of inhaled corticosteroids through Monte Carlo simulations. Bhargava Kandala B, Weber B, Winner L, Hochhaus G. American Conference on Pharmacometrics (ACOP), Ft. Lauderdale, FL, May 2013; *J Pharmacokinet Phar.* 2013;40:S142-3.
354. Generics for orally inhaled Drugs: Is there light at the end of the tunnel? G. Hochhaus. Retrometabolism Conference, Orlando (June 2013)
355. Generics for orally inhaled drugs: Knowledge gaps for streamlining bioequivalence approval? Generic drug user fee amendments of 2012; Regulatory science initiatives part 15 Public Meeting; Request for Comments; FDA White Oak Campus (June 2013); <http://www.fda.gov/Drugs/NewsEvents/ucm344710.htm>; <https://collaboration.fda.gov/p8w368vj2bj?launcher=false&fcsContent=true&pbMode=normal>
356. Generics for orally inhaled drugs, challenges and potential solutions. G. Hochhaus. Global Gator Meeting, Clinical Pharmacology, Garmisch-Partenkirchen (July 2013)
357. *Dissolution Approaches for Inhalation Drugs: QC versus Clinical Relevance* . G. Hochhaus. AAPS Workshop on Inhaled Drug Products: Current Practices and the Future of In Vitro Testing Technologies and Regulation (Co-sponsored with FDA, USP, IPAC-RS). USP Meetings Center, Rockville, September, 2013

358. A simulation tool for evaluating EMA's regulatory PK limits for bioequivalence testing of inhaled corticosteroids. L. Zhao, B. Weber and G. Hochhaus. *American College of Clinical Pharmacology Annual Meeting*, Bethesda, September 2013
359. New Simulation Model to Assess the Power of Pharmacodynamic Crossover Studies Conducted to Establish Bioequivalence of Orally Inhaled Drug Products. B. Weber, B. Kandala, G. Hochhaus. *American College of Clinical Pharmacology Annual Meeting*, Bethesda, September 2013
360. Global Clinical Regulatory Requirements for Inhalation Products: The role of PK to determine BE of inhalation drugs. AAPS Annual Meeting, San Antonio (November 2013)
361. Generics for orally inhaled drugs: Role of Pharmacokinetics. G. Hochhaus. FIP Congress, Melbourne, April 2014
362. Modified Chi-Square Ratio for Comparing Aerodynamic Particle Size Distribution Profiles. Benjamin Weber, Guenther Hochhaus, S. Lee. UF-IPAC-RS, *Orlando Inhalation Conference: Approaches in International Regulation*, Orlando (March 2014)
363. A Panel on New In Vitro Approaches. Moderator: Craig Davies-Cutting, Catalent and Mike Hindle, VCU, Panelists: B. Forbes; G. Hochhaus, W. Longest, R. Price, R. Delvadia, P. Peri, FDA; L. Lee. UF-IPAC-RS, *Orlando Inhalation Conference: Approaches in International Regulation*, Orlando (March 2014)
364. Evaluation of the Feasibility of Pharmacodynamic BE Studies of OIPs through Monte Carlo Simulations. B. Kandala, G. Hochhaus. UF-IPAC-RS, *Orlando Inhalation Conference: Approaches in International Regulation*, Orlando (March 2014)
365. A Regulatory Panel. Moderator: G. Hochhaus, Panelists: E. Agurell, A. García Arieta, G. Mendes Lima Santos, R. Lionberger, B. Li. UF-IPAC-RS, *Orlando Inhalation Conference: Approaches in International Regulation*, Orlando (March 2014)
366. Pulmonary bioequivalence of suspension based inhalation drugs. Bioequivalence Summit, Cambridge, MA, September 2014
367. Role of Pharmacometrics in Drug Development. *2014 Conference on Regulatory Strategy for New Drug Research and Development*. November 2014, Taipie, Taiwan,
368. Biopharmaceutical Classification Study for Local Lung Delivery: Small Molecule Case Study, Example #2. *AAPS/USP/FD Workshop on Inhalation Product Biopharmaceutical Classification System Development: Challenges and Opportunities*. Baltimore (March 2015)

369. Pharmacokinetics as tool for assessment of generic MDI's. Guenther Hochhaus. GDUFA/FDA project update, Silver Spring MD, March 2015.
370. Pulmonary Targeting. G. Hochhaus, Astrazeneca, Goeteburg, Sweden, April 2015
371. Pharmacokinetic/pharmacodynamics correlations for improving inhalation therapy. G. Hochhaus. Virginea Commonwealth University, Richmond, VA, February 2016.
372. Determining the Bioequivalence of generic inhalers: FDA requirements. G. Hochhaus. AAAAI 2016, Los Angeles, March 2016
373. Determining the Bioequivalence of generic inhalers: Pharmacokinetics. G. Hochhaus. AAAAI 2016, Los Angeles, March 2016
374. Correlating the In Vitro Dissolution Behavior of Inhalation and Nasal Drug products with In Vivo Performance: Pitfalls and Potential Solutions using the Transwell® System. G. Hochhaus. RDD/IPAC/RS, Phoenix, April 2016.

GRADUATE STUDENTS

Chair, Ph.D. Committee	Andueza-Galeno, Isabel	Drug Delivery for the eye.	Pharmaceutics	6/5/2012
	Alalaiwe, Ahmed		Pharmaceutics	
	Al Fayoumi Suliman	Pharmacokinetics and Pharmacodynamics of Dynorphin A1-13	Pharmaceutics	8/1/1994
	AM Mahbub, Hassan	Development of Valproic acid/PLGA microspheres	Pharmaceutics	12/2012
	Arya, Vikram	Biopharmaceutical aspects of corticosteroid therapy in preterm infants	Pharmaceutics	12/2003
	Bhagwat, Sharvari	New inhalation dosage forms	Pharmaceutics	
	Coowanitwong, Intira	Characterization of sustained release formulations of inhaled rifampin for tuberculosis therapy	Pharmaceutics	12/2003
	Dimova, Hristina	Pharmacokinetics/pharmacodynamics of budesonide	Pharmaceutics	12/2001
	Froehlich, Pedro	Pharmacokinetics of Budesonide after oral administration	Pharmaceutics	Fall 2003
	Goyal, Navinkumar	Predictive population pharmacokinetic simulations to assess the bioequivalence of inhaled corticosteroids	Pharmaceutics	6/30/2009
	Kandala, Bhargava	New Approaches for Bioequivalence Assessment of Inhalation Drugs	Pharmaceutics	TBA
	Larsimont, Veronica	Intravitreal Delivery of Corticosteroid Nanoparticles	Pharmaceutics	8/1/1994
	Mueller, Stefan	Analysis, metabolism and pharmacokinetics of dynorphin A1-13	Pharmaceutics	8/1/1995
	Mudunuri, Keerti	Intravitreal Delivery of Corticosteroid Nanoparticles	Pharmaceutics	1/25/2006
	Patel, Gina	Inhalable corticosteroid nanoparticles for asthma therapy	Pharmaceutics	8/10/2010
	Pinto, Elanor	PLA Microspheres for the Sustained	Pharmaceutics	12/2008

		Local Delivery of a Soft Immunosuppressant.		
	Rohrschneider, Marc	Dissolution Tests for Inhalation drugs	Pharmaceutics	12/2012
	Sahasranaman, Srikumar	Pharmacokinetic and pharmacodynamic evaluation of mometasone furoate	Pharmaceutics	8/2004
	Schilling, Uta	Bioequivalence of Inhalation Drugs		
	Stark, Jeffrey	Biopharmaceutics/Pharmacokinetic Factors on Pulmonary Targeting	Pharmaceutics	5/1/1994
	Suarez, Sandra	Biopharmaceutical aspects relevant to pulmonary targeting of inhaled glucocorticoids: application to liposomes and dry powders	Pharmaceutics	1/1/1994
	Sun, Wan	Disease Model for Huntington Disease	Pharmaceutics	12/2012
	Talton James	Nanothin Coatings for Dry Powders	Pharmaceutics	9/1/2001
	Tayab, Zia	The role of P-glycoprotein and plasma protein binding on the pharmacokinetics and pharmacodynamics of inhaled corticosteroids	Pharmaceutics	Left program 2006
	Wang, Nasha	PgP of glucocorticoids	Pharmaceutics	2008
	Waters, Chad	Drug Delivery to the Lung	Pharmaceutics	
	Wang, Yaning	Pharmacokinetic and pharmacodynamic evaluation of beclomethasone dipropionate	Pharmaceutics	12/2003
	Weber, Benjamin	Bioequivalence of inhaled corticosteroids	Pharmaceutics	Spring 2013
	Wu, Kai	Factors affecting pulmonary targeting of inhaled corticosteroids	Pharmaceutics	Fall 2006
	Zaedi, Syedsaoud	TBA	Pharmaceutics	
	Zhao, Li	In vitro/in vivo correlations	Pharmaceutics	
	Zhou, Di	Disease Modelling	Pharmaceutics	
Co-Chair, PhD Committee				

	Houk, Bret	Pharmacokinetic Modeling of Gene Delivery	Pharmaceutics	5/1/2000
	Grundman, Oliver	Anxiolytic activity of Apocynum venetum and its proposed mechanisms of action	Pharmaceutics	12/18/2007
	Krishnaswami, Sriran	Pharmacokinetic/Pharmacodynamic Evaluation of Fluticasone Propionate After Inhaled Administration	Pharmaceutics	5/1/2001
	Liu, Jiang	PK/PD Study of the Development of Analgesic Tolerance and Physical Dependence of Fentanyl in Rats	Pharmaceutics	6/30/2009
	Persky, Adam	Pharmacokinetics of Creatinine (Working Title)	Pharmaceutics	5/2002
Member PhD Committee				
	Barbour, April	Pharmacokinetic/Pharmacodynamic characterization of Ceftobiprole: a new novel cephalosporin	Pharmaceutics	6/30/2009
	Buchwald, Annamaria	Soft Drugs of Cannaboids	Pharmaceutics	8/1/2001
	Conrado, Daniela		Pharmaceutics	8/1 2015
	Castro, Whocely	Evaluation of the effect of grapefruit juice on p-glycoprotein	Pharmaceutics	12/2006
	Chancham, Patravadee	Matrix attachment regions associated plasmid DNA as a facilitator in non-viral gene transfer	Pharmaceutics	12/2001
	Chen, Mong-Jen		Pharmaceutics	
	Dalla Costa, Teresa	Pharmacokinetic/pharmacodynamic modeling for piperacillin/tazobactam association	Pharmaceutics	8/1/1996
	De La Pena, Ampara	Pharmacokinetics and pharmacodynamics of cefaclor	Pharmaceutics	8/1/2000
	Dravid, Prajakta	Cytochrom P450 2C8 Reaction	Pharmaceutics	12/2008

		Phenotyping: Substrate Selection and Inhibition Profile		
	Ghobrial, Oliver	Pharmacokinetics and Pharmacodynamics of the Lantibiotic Mutacin 1140	Pharmaceutics	12/2008
	Haug, Karin	Preventive effects of ammi visnaga extracts and visnagin in nephrolithiasis	Pharmaceutics	8/1/2015
	Hirko, Aaron	Novel Gene Therapy for Alzheimer's Disease	Pharmaceutics	12/2006
	Huang Fenglei	NA	Pharmaceutics	12/1/1999
	Kaltenbach, Mathieu	Pharmacokinetic-pharmacodynamic modeling of the analgesic effect of ibuprofen and codeine	Pharmaceutics	
	Kim Kwang	NA	Nuclear Engineering	12/17/2005
	Khunvichai, Ariya	Pharmacokinetic/pharmacodynamic modeling of faropenem daloxate	Pharmaceutics	12/2003
	Kozikowski, Raymond	NA	Biomedical engineering	2015
	Kourounakis, Angeliki	NA	Pharmaceutics	8/1/1995
	Le, Huong	Effect of Gelsolin and AAT Therapy on Brain Injury Caused by Stroke	Pharmaceutics	2015
	Li, Hong	Adult stem cell-based gene therapy for Alpha1-antitrypsin deficiency	Pharmaceutics	8/30/2009
	Li, Yanjun	Pharmacokinetics/Pharmacodynamics of Voriconazole	Pharmaceutics	6/30/2009
	Liu, Ping	Pharmacokinetics and pharmacodynamics of cefpodoxime and cefixime	Pharmaceutics	12/2002
	Liu, Qi	Pharmacokinetic/pharmacodynamic modeling of antibiotics and resistance	Pharmaceutics	5/2004
	Miyawa Hohn	NA	Pharmaceutics	12/1/1995
+	Mobley, William	Freeze Drying of Liposomes	Pharmaceutics	5/1/1994

	Carey			
	Mohamed, Mohamed	Characterization of Herb-Drug Interactions through Glucuronidation	Pharmaceutics	8/10/2010
	Naik, Runa	Pharmacokinetics pharmacodynamics of NJN-32729463, a novel fluoroquinolone	Pharmaceutics	2011
	Nolting, Arno	Pharmacokinetic-pharmacodynamic modeling of piperacillin	Pharmaceutics	12/1/1994
	Phipps, Stephan	Neuropharmacological assessment of Salvia divinorum	Pharmaceutics	8/30/2009
	Potocka, Elizabeth	PK/PD Modeling of Insulin Following Different Routes of Administration in Healthy and Type 2 Diabetic Subjects	Pharmaceutics	6/30/2010
	Rohatagi, Shashank	Pharmacokinetic and pharmacodynamic modeling of corticosteroids after single and multiple administration.	Pharmaceutics	12/1/1995
	Rumpler, Marc	NA	Vet. Med	2001
	Sahre, Martina	Pharmacokinetic/Pharmacodynamic Characterization of TR-700	Pharmaceutics	2010
	Sarawek, Sasiporn	Xanthine Oxidase inhibition and antioxidant activity of artichoke leaves (<i>Cynara scolymus</i> L.) and its compounds.	Pharmaceutics	8/2007
	Schenstrup, Anzeela	Role of the Arachidonate 5-Lipoxygenase Pathway in Coronary Heart Disease	Pharmaceutics	8/11/2009
	Schmidt, Stephan	Pharmacokinetics and Pharmacodynamics of Oxazolidinones	Pharmaceutics	12/2008
	Schuck, Edgar	Pharmacokinetics and pharmacodynamics of ciprofloxacin in simulated microgravity	Pharmaceutics	12/2004
	Schuck, Virna	The use of microdialysis as a tool to determine tissue distribution of lipophilic & high molecular weight compounds	Pharmaceutics	12/2004

	Sun, Wan	TBD	Pharmaceutics	8/30/2012
	Suri, Ajit	Stereoselective pharmacokinetics-pharmacodynamic modelling of the analgesic effect of flurbipcofen and ibuprofen	Pharmaceutics	12/1/1995
	Tang, Fuxing	Disulfide compounds used in gene delivery	Pharmaceutics	8/1/2000
	Weide, Michael	NA	Pharmaceutics	6/30/2010
	Winkler, Julia	Pharmacokinetics and pharmacodynamics of corticosteroid Prodrugs and soft-drugs	Pharmaceutics	12/2004
	Xiao, Wu	Infectious entry pathway of adeno-associated virus 2	Pharmaceutics	8/1/2001
	Xu, Jian	Modeling and simulation of systemic and inhaled corticosteroid therapy	Pharmaceutics	8/2008
	Yadava, Preeti	Surfactant Based System for siRNA Delivery	Pharmaceutics	5/5/2007
	Yang, Hee Sun	NA	Pharmaceutics	5/1/1993
	Zdrojewski, Immo	Interactions Between Grapefruit Juice and HMG-CoA Reductase Inhibitors	Pharmaceutics	
Chair Masters Committee	Wang, Nasha	The role of P-glycoprotein and plasma protein binding on the pharmacokinetics and pharmacodynamics of inhaled corticosteroids	Pharmaceutics	12/2008
Member Masters Committee				
	Brunt, Elsbeth	NA	Pharmaceutical Science	5/1/1991
	Magee, Vallery	Tyrosinase reactions for sensitive detection of analytes	Pharmaceutics	8/1/1992
	Ward, James	TBD	Veterinary Medicine	8/30/2009

Research Group:

Research Scholars and Exchange Students		Lab Technicians	
Katayoun	Darakhshandeh	Diana	Biniasz
Eric	Galia	Brian S	Marlow
Esther	Mulder	Julie	Sans
Marrit	Sinnema	Yufei	Tang
Anica	Liero	Curtis	Kane
Patricia	Sidharta	Renate	Hochhaus
Benjamin	Weber	Maria A.B.	Seabra
Nakisa	Khorsand	Lopes	
van Ineke	Woerkom	Manuel	Perez
Marcus	Knöll	Hal	Smith
Isabel	Andueza	Nithya	Ramanathan
Bart	Metselaar	William Lee	Kellog
Judith	Vetten	Brian S	Marlow
Ingrid	Van Velzen	Diana	Biniasz
Cornelia (Iris)	van der Vorst	Qi	Wang
Gina	Patel	Faryda	Krynitskaya
Cindy	Pham	Jaime	Wiens
Sophie Delphine	Pommery	Ravindra	Behara
George	Kuster		
Victoria	Michler	PostDoc	
Stephan	Boerner	Manoj	Jadhav
Michel	Broos	Salman	Alfahl
Catharina	Clauss	Manish	Issar
Elsa-Marie	Treutlein	Boglarka	Brugos
Frank	Chang	James	Talton
Vanessa	Rolle	Klaus	Raith
Laurie	Bochatay	Katayoun	Darakhshandeh
Ruth	Tesfagaber		
Pooja P	Patel		
Raphael	Krampe		
Anica	Liero		
Tanja	Schaeuble		
Han	Coulen		
Anke	Czerwinski		
Markijn khe hien	Driessen		
Ruby Dorothy	Dunker		
Christian	Diestelhorst		
Tim	Tremmel		
Frank	Kerstin		
R	Vafarari		
Laiyen	Chen		

Funding					
PI NAME	COPI NAME	TITLE	START	SPONSOR	AWARD
HOCHHAUS G		STABILITY OF DPI FORMULATIONS FOR USE IN BIOEQUIVALENCE STUDIES	9/2013	FDA	\$ 188,996.00
HOCHHAUS G		USE OF PHARMACOKINETICS FOR NASAL BIOEQUIVALENCE	9/2013	FDA	\$1,418,088.00
HOCHHAUS G		A DISSOLUTION SYSTEM FOR ORALLY INHALED DRUGS	9/2013	FDA	\$140,583.00
HOCHHAUS G		STABILITY OF METHACHOLINE SOLUTIONS AT -80°C (SUBMITTED)	5/2012	FORREST PHARMA	\$ 90,000.00
HOCHHAUS G		METHACHOLINE STABILITY TESTING UNDER GLP	1/2013	COMPLE WARE CORPORA TION	\$ 61,687.5
HOCHHAUS G		COLLABORATION WITHIN THE EU PULMONARY DRUG DELIVERY PROJECT	2/2013	UNIVERSI TY OF LISBON	\$ 20,000.00
HOCHHAUS G		PHARMACOKINETIC COMPARISON OF LOCALY ACTING INHALED DRUG PRODUCTS PT II	6/2012	FEFA INC	\$309,202.00
HOCHHAUS G		PGP-PROTECTION OF FETUS FROM CORTICOSTEROIDS	1/2012	ASTRAZEN ECA	\$ 80,000.00
HOCHHAUS G		EFFECT OF PROTEIN BINDING ON PULMONARY EFFECTS AFTER INHALATION	1/2012	ASTRAZEN ECA	\$ 80,000.00

HOCHHAUS G		DEVELOPMENT OF DISEASE PROGRESSION MODELS FOR HUNTINGTON'S DISEASE	11/2011	CHDI FOUNDATION	\$ 28,271.00
					\$ 275,000.00
Hochhaus G		DENGUE VIRUS CLUSTER GRANT	11/2010	STATE OF FLORIDA	(+200,000.00)
HOCHHAUS G		STABILITY OF METHACHOLINE SOLUTIONS AT ROOM TEMPERATURE	5/2011	WATSON PHARMACEUTICALS	\$ 87,060.33
HOCHHAUS G		STABILITY OF METHACHOLINE SOLUTIONS	1/2011	CLINRESEARCH GMBH	\$ 34,654.06
HOCHHAUS G		RESPIRATORY RESEARCH PROJECT AND STUDY: GRADUATE STUDENT FELLOWSHIP	1/2011	BOEHRINGER INGELHEIM PHARM INC	\$ 100,000.00
HOCHHAUS G	HENDELES L S	PHARMACOKINETIC COMPARISON OF LOCALLY ACTING ORALLY INHALED DRUG PRODUCTS	9/2010	FOOD AND DRUG ADMINISTRATION	\$ 500,000.00
HOCHHAUS G		LIGHT-TRIGGERED CARRIER DRUG RELEASE FOR TREATMENT OF DISSEMINATED CANCER	7/2009	FL DEPT OF HLTH	\$ 109,581.00
HOCHHAUS G		HUPERZINE A IN HUMAN PLASMA	1/2009	OSMOPHARM USA	\$ 15,000.00
DERENDORF H C	HOCHHAUS G	MICRODIALYSIS VALIDATION STUDY OF A NEW	9/2008	JOHNSON AND	\$ 43,950.00

		<i>FLOUROQUINOLONE</i>		JOHNSON	
HOCHHAUS G		<i>EXPLORATORY STUDY TO EVALUATE THE PENETRATION OF J&J</i>	9/2008	JOHNSON AND JOHNSON	\$ 12,000.00
DERENDORF H C	HOCHHAUS G	<i>MICRODIALYSIS VALIDATION STUDY - TR700</i>	11/2007	TRIUS THERAPE UTICS	\$ 362,850.00
HOCHHAUS G		<i>DRUG ANALYSIS FOR RFE PHARMA INC COMPOUNDS</i>	10/2006	RFE PHARMA	\$ 2,925.00
DERENDORF H C	HOCHHAUS G	<i>MICRODIALYSIS VALIDATION OF CEFTOBIPROLE (BAL9141)</i>	7/2006	JOHNSON AND JOHNSON	\$ 316,495.00
HOCHHAUS G		<i>DETERMINATION OF GLY-230 USING HPLC/MS/MS</i>	12/2005	GLYCADIA	\$ 22,680.00
HOCHHAUS G		<i>COLLABORATIVE SAMPLE ANALYSUS/ASTHMA RESEARCH PROJECT</i>	10/2004	NOTTING HAM CITY HOSP CHARITY	\$ 25,963.00
HOCHHAUS G		<i>COLLABORATIVE SAMPLE ANALYSIS/ASTHMA RESEARCH PROJECT</i>	10/2004	NOTTING HAM CITY HOSP CHARITY	\$ 24,388.00
DERENDORF H C	HOCHHAUS G	<i>GRAPEFRUIT JUICE-DRUG INTERACTION</i>	9/2003	U S DEPT OF AGRICULT URE	\$ 232,180.00

HOCHHAUS G		ANALYSIS OF QUANTIFICATION OF FLUTICASONE PROPIONATE (FP) FOR NASAL BIOEQUIVALENCE	5/2003	WEST PHARMACEUTICAL SERVICES	\$ 32,000.00
HOCHHAUS G		ASSESSMENT OF GLUCOCORTICOID LUNG TARGETING OF A NEWSEPRACOR GLUCOCORTICOID AND ITS COMPARISON WITH BUDESONIDE A	10/2002	SEPRACOR INC	\$ 45,000.00
HOCHHAUS G	DERENDORF	SERVICE AGREEMENT FOR FANS PK STUDY	10/2001	IVAX CORP	\$ 547,585.00
HOCHHAUS G		SLOW-RELEASE COATINGS FOR INHALED DYNORPHINS	9/2001	NANOCOAT TECHNOLOGIES	\$ 49,487.00
HOCHHAUS G	PERSKY A M	STEADY STATE PHARMACOKINETICS OF CREATINE MONOHYDRATE	7/2001	AM COLL OF SPORTS MEDICINE	\$ 5,000.00
HOCHHAUS G	DERENDORF	STABILITY STUDY IN FRESH HUMAN PLASMA IN VITRO - SCHWARZRESEARCH CONTRACT	5/2000	SCHWARZ PHARMA AG	\$ 32,325.00
HOCHHAUS G		ASSESSMENT OF GLUCOCORTICOID LUNG TARGETING OF BECLOMETHASONEDIPROPIONATE AND BECLOMETHASONE MONOPROPIONATE BY EX-VITRO	10/1999	3M COMPANY	\$ 30,000.00
HOCHHAUS G		STABILITY AND DRUG CONTENT OF PHARMACEUTICALLY RELEVANT	7/1999	EON LABORATORIES	\$ 422,083.00

*DRUG FORMULATIONS OF
GENERIC DRUGS*

HOCHHAUS G		<i>DETERMINATION OF NEW GLUCOCORTICOIDS IN BIOLOGICAL MATERIALS</i>	11/1998	ASTA MEDICA	\$ 146,488.00
HOCHHAUS G		<i>ENGINEERED PARTICULATES</i>	9/1998	NATIONAL SCIENCE FOUNDAT ION	\$ 118,812.52
HOCHHAUS G	DERENDORF	<i>PHARMACOKINETIC & PHARMACODYNAMIC EVALUATION OF FLUTICASONE PROPIONATE & BUDESONIDE AFTER SINGLE & BIDAILY INHALED...</i>	4/1997	GLAXO WELLCOM E INC	\$ 125,200.00
HOCHHAUS G		<i>ASSESS GLUCOCORTICODI LUNG TARGETING BY EX-VIVO BINDING STUDIES IN RATS</i>	5/1996	GLAXO WELLCOM E INC	\$ 60,995.00
HOCHHAUS G	DERENDORF	<i>PHARMACOKINETIC EVALUATION OF THE STEROIDAL ANTIFLAMMATORYDRUGS CICLESONDIDE & BUDESONIDE IN DOGS</i>	1/1996	BYK GULDEN	\$ 3,450.00
TEBBETT I R	HOCHHAUS G		9/1995	MERCK & COMPANY	\$ 4,360.00

METHACHOLINE ASSAY

INC

*PHARMACOKINETIC EVALUATION
OF THE STEROIDAL
ANTIFLAMMATORYDRUGS
CICLESONIDE &*

HOCHHAUS G	DERENDORF	<i>BUDESONIDE IN DOGS</i>	7/1995	BYK GULDEN	\$ 49,566.00
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Consulting Activities (selection)

Advice to Regulatory Agencies

FDA (US)

ANVISA (Brazil)

EMA (Europe)

TGA (Australia)