

Sørensen M, Mikkelsen KS, Frisch K, **Bass L**, Bibby BM, Keiding S. Hepatic galactose metabolism quantified in humans using 2-[¹⁸F]fluoro-2-deoxy-D-galactose PET/CT. *J Nucl Med* 2011; 52:1566–1572.

Bass L, Sørensen M, Munk OL, Keiding S. Analogue tracers and lumped constants in capillary beds. *J Theor Biol* 2011; 285: 177–181.

Bass L, Nimmo JJC, Rogers C, Schief WK. Electrical structures of interfaces: a Painlevé II model. *Proceedings of the Royal Society* 2010; 466: 2117–2136.

Bass L, Keiding S, Munk OL. Benefits and risks of transforming data from dynamic positron emission tomography, with an application to hepatic encephalopathy. *J Theor Biol* 2009; 256: 632–636.

Munk OL, Keiding S, **Bass L**. A method to estimate catheter dispersion and to calculate dispersion-free blood time-activity curves. *Med Phys* 2008; 35: 3471–3481.

Sørensen M, Munk OL, Mortensen FV, Olsen AaK, Bender D, **Bass L**, Keiding S. Hepatic uptake and metabolism of galactose can be quantified in vivo by 2-[¹⁸F]Fluoro-2-deoxy-galactose positron emission tomography. *Am J Physiol Gastrointest Liver Physiol* 2008; 295: G27–G36.

Bass L. How to predict everything: Nostradamus in the role of Copernicus. *Reports on Mathematical Physics* 2006; 57: 13–15.

Keiding S, Munk OL, Vilstrup H, Nielsen DT, Roelsgaard K, **Bass L**. Hepatic microcirculation assessed by PET of first-pass ammonia metabolism in porcine liver. *Liver Int* 2005; 25: 171–176.

Munk OL, **Bass L**, Feng H, Keiding S. Determination of regional flow by use of intravascular PET tracers: microvascular theory and experimental validation for pig livers. *J Nucl Med* 2003; 44: 1862–1870.

Munk OL, Keiding S, **Bass L**. Capillaries within compartments: microvascular interpretation of dynamic positron emission tomography data. *J Theor Biol* 2003; 225: 127–141.

Munk OL, Keiding S, **Bass L**. Impulse-response function of splanchnic circulation with model-independent constraints: theory and experimental validation. *Am J Physiol Gastrointest Liver Physiol* 2003; 285: G671–G680.

Keiding S, Munk OL, Roelsgaard K, Bender D, **Bass L**. Positron emission tomography of hepatic first-pass metabolism of ammonia in pig. *Eur J Nucl Med* 2001; 28: 1770–1775.

Munk OL, **Bass L**, Roelsgaard K, Bender D, Hansen SB, Keiding S. Liver kinetics of glucose analogs measured in pigs by PET: importance of dual-input blood sampling. *J Nucl Med* 2001; 42: 795–801.

Ott P, **Bass L**, Keiding S. Hepatic ICG removal in the pig depends on plasma protein and hematocrit: evidence of sinusoidal binding disequilibrium and unstirred water layer effects. *Hepatology* 1997; 26: 679–690.

Ott P, **Bass L**, Keiding S. The kinetics of continuously infused indocyanine green in the pig. *J Pharmacokinet Biopharm* 1996; 24: 19–44.

Pond SM, Gordon RA, **Bass L**. Sex differences in initial clearance of palmitate by human hepatocytes. *Eur J Clin Invest* 1996; 26: 76–81.

Ott P, Keiding S, Johnsen AH, **Bass L**. Hepatic removal of two fractions of indocyanine green after bolus injection in anesthetized pigs. *Am J Physiol* 1994; 266: G1108vG1122.

Pond SM, Gordon RA, Wu ZY, Weisiger RA, **Bass L**. Effects of gender and pregnancy on hepatocellular uptake of palmitic acid: facilitation by albumin. *Am J Physiol* 1994;267:G656–662.

Ott P, Keiding S, **Bass L**. Plasma elimination of indocyanine green in the intact pig after bolus injection and during constant infusion: comparison of spectrophotometry and high-pressure liquid chromatography for concentration analysis. *Hepatology* 1993;18:1504v1515.

Yakovlev AYu, Tsodikov AD, **Bass L**. A stochastic model of hormesis. *Math Biosci* 1993; 116: 197v219.

Tyurin YuN, Yakovlev AYu, Shi J, **Bass L**. Testing a model of aging in animal experiments. *Biometrics* 1995; 51: 363–372.

Keiding S, Ott P, **Bass L**. Enhancement of unbound clearance of ICG by plasma proteins, demonstrated in human subjects and interpreted without assumption of facilitating structures. *J Hepatol* 1993; 19: 327v344.

Ott P, Keiding S, **Bass L**. Intrinsic hepatic clearance of indocyanine green in the pig: dependence on plasma protein concentration. *Eur J Clin Invest* 1992; 22: 347–357.

Pond SM, Davis CK, Bogoyevitch MA, Gordon RA, Weisiger RA, **Bass L**. Uptake of palmitate by hepatocyte suspensions: facilitation by albumin? *Am J Physiol* 1992; 262: G883vG894.

Fink AM, **Bass L**. The likely antecedents of improbable events: optimal search strategies. *J Aust Math Soc B* 1993; 34: 257–273.

Weisiger RA, Pond S, **Bass L**. Hepatic uptake of protein-bound ligands: extended sinusoidal perfusion model. *Am J Physiol* 1991; 261: G872–G884.

Bass L. Schrödinger: a philosopher in Planck's Chair. *British Journal for the Philosophy of Science*. 1992; 43: 111–127.

Green HS, Bracken AJ, **Bass L.** Harmonic functions satisfying a radiation boundary condition. *Computers & Math. Applic* 1991; 22: 23v28.

Fink AM, **Bass L.** Hidden variables of longevity under almost periodic influences. *J Differential Equations* 1991; 94: 292–314.

McNabb A, **Bass L.** A diffusion-reaction model for the cellular uptake of protein-bound ligands. *SIAM J Appl Math* 1991; 51: 124–149.

Bass L, Green HS, Boxenbaum H. Gompertzian mortality derived from competition between cell-types: congenital, toxicologic and biometric determinants of longevity. *J Theor Biol* 1989; 140: 263–278.

Weisiger RA, Pond SM, **Bass L.** Albumin enhances unidirectional fluxes of fatty acid across a lipid-water interface: theory and experiments. *Am J Physiol* 1989; 257: G904–G916.

Greenway CV, **Bass L.** Derecruitment in cat liver: extension of undistributed parallel tube model to effects of low hepatic blood flow on ethanol uptake. *Can J Physiol Pharmacol* 1989; 67: 1225–1231.

McNabb A, **Bass L.** Flux ratios theorems for linear multi-component diffusion. *IMA J Appl Math* 1990; 44: 155–161.

McNabb A, **Bass L.** Flux ratios theorems for nonlinear equations of generalized diffusion. *IMA J Appl Math* 1989; 43: 1v9.

Bass L, Maloney LV, Young MO. Heterogeneity of membrane transport quantified by the analysis of a unidirectional flux transient of charged tracer. *Math Biosci* 1989; 94: 31–44.

Bracken AJ, Holmaker K, Maloney L, **Bass L.** Flux ratios for biological membranes and reciprocity theorems for linear operators. *J Aust Math Soc B* 1989; 30: 278–297.

Bass L, McNabb A. Flux ratio theorems for nonlinear membrane transport under nonstationary conditions. *J Theor Biol* 1988; 133: 185–191.

Robinson PJ, **Bass L,** Pond SM, Roberts MS, Wagner JG. Clinical applicability of current pharmacokinetic models: Splanchnic elimination of 5-fluorouracil in cancer patients. *J Pharmacokinet Biopharm* 1988; 16: 229v249.

Bracken AJ, Green HS, **Bass L.** Groups defined on images in fluid diffusion. *J Aust Math Soc B* 1988; 30: 101–119.

Bass L, Bracken AJ, Green HS. Boundary layers and images in dispersed flow reactors: A Green's function approach. *Chem Eng Sci* 1988; 43: 1583–1590.

Bass L, Keiding S. Physiologically based models and strategic experiments in hepatic pharmacology. *Biochem Pharmacol* 1988; 37: 1425–1431. Review.

Bass L. Saturable drug uptake by the liver: models, experiments and methodology. *Pharmacokinetics: Mathematical Approaches to Metabolism and Distribution of Chemicals and Drugs* (A. Pecile & A. Rescigno, eds.), Plenum Publishing Corp., New York & London, 1988; pp. 151–190.

Bass L, Pond SM. The puzzle of rates of cellular uptake of protein-bound ligands. *Pharmacokinetics: Mathematical Approaches to Metabolism and Distribution of Chemicals and Drugs* (A. Pecile & A. Rescigno, eds.) pp. 245-269, Plenum Publishing Corp., New York & London, 1988.

Bass L, Bodsch W, Robinson PJ, Young MO. Metabolites of 2-deoxyglucose in rat brain at 12-24 h: Bounds on kinetic constants. *Am J Physiol* 1987; 253: E453–E460.

Bass L, Bracken AJ, Holmaker K, Jefferies B. Integro-differential equations for the self-organisation of liver zones by competitive exclusion of cell-types. *J Aust Math Soc* 1987; 29B: 156–194.

Bass L, Roberts MS, Robinson PJ. On the relation between extended forms of the sinusoidal perfusion and of the convection-dispersion models of hepatic elimination. *J Theor Biol* 1987; 126: 457–482.

Bass L, Bracken AJ, Hilden J. Flux ratio theorems for nonstationary membrane transport with temporary capture of tracer. *J Theor Biol* 1986; 118: 327–338.

Bass L. Convection-dispersion modeling of hepatic elimination. *J Pharm Sci* 1986; 75:321–322.

Bass L. Heterogeneity within observed regions: physiologic basis and effects on estimation of rates of biodynamic processes. *Circulation* 1985; 72: IV47–IV52.

Bass L. The unidirectional flux transient as a tool for quantifying parallel diffusional pathways through membranes. Exact solution for two pathways. *Bull Math Biol* 1985; 47: 425–434.

Bass L, Aisbett J. Extended theory of the early diffusion of multiple indicators: bounds on permeability ratios, with applications to intestinal capillaries. *Clin Exp Pharmacol Physiol* 1985; 12: 387–406.

Bass L, Aisbett J, Bracken AJ. Asymptotic forms of tracer clearance curves: theory and applications of improved extrapolations. *J Theor Biol* 1984; 111: 755–785.

Bass L, Mc'Anally D. The ratios of nonstationary tracer fluxes into and out of a hollow circular cylinder. *J Membrane Biol* 1984; 81: 263.

Bass L, Bracken AJ, Vyborny R. Minimisation problems for implicit functionals defined by differential equations of liver kinetics. *J Aust Math Soc* 1984; 25B: 538–562.

Bass L, Bracken AJ. The flux-ratio equation under nonstationary boundary conditions. *Math Biosci* 1983; 66: 87–92.

Bass L, Bracken AJ, Burden CJ. New approaches to uptake by heterogeneous perfused organs: from linear to saturation kinetics. Tracer Kinetics and Physiologic Modelling (Lambrecht & Rescigno, eds.) *Lecture Notes in Biomathematics*, Vol. 48, pp. 120–201, Springer 1983.

Bass L. Models of hepatic drug elimination. *J Pharm Sci* 1983; 72: 1229–1230.

Bass L, Winkler K et al. Arterial-venous concentration differences and the quantification of intrahepatic shunts. Microcirculation of the Alimentary Tract (Koo, Lam and Smaje, Eds.) *World Sci Publ* 1983, pp. 157–165.

Winkler K, **Bass L**, Henriksen J, Larsen OA, Ring P, Tygstrup N. Heterogeneity of splanchnic vascular transit times in man. *Clin Physiol* 1983; 3: 537–544.

Keiding S, **Bass L**. Galactose clearance as a measure of hepatic blood flow. *Gastroenterology* 1983; 85: 986–988.

Bass L. When is there kinetic evidence for recruitment of capillaries? Microcirculation of the Alimentary Tract (Koo, Lam and Smaje, Eds.) *World Sci Publ* 1983, pp. 211–233.

Bass L. Estimates and implications of co-operativity for enzyme kinetics in the intact liver: method of flow invariants. *J Theor Biol* 1983; 100: 113–121.

Bass L. Saturation kinetics in hepatic drug removal: a statistical approach to functional heterogeneity. *Am J Physiol* 1983; 244: G583–G589.

Robinson PJ, Pettitt AN, Zornig J, **Bass L**. A Bayesian analysis of capillary heterogeneity in the intact pig liver. *Biometrics* 1983; 39: 61–69.

Bass L, Robinson PJ. Capillary permeability of heterogeneous organs: a parsimonious interpretation of indicator diffusion data. Review. *Clin Exp Pharmacol Physiol* 1982; 9: 363–388.

Bass L. The variance of transit times of indicators through a vascular bed. *J Theor Biol* 1982; 95: 81–87.

Bass L. Functional zones in the liver. *Gastroenterology* 1981; 81: 976–977.

Bass L, Robinson PJ. Effects of capillary heterogeneity on rates of steady uptake of substances by the intact liver. *Microvasc Res* 1981; 22: 43–57.

Bass L. Functional zones in rat liver: The degree of overlap. *J Theor Biol* 1981; 89: 303-319.

Bass L. Flow dependence of first-order uptake of substances by heterogeneous perfused organs. *J Theor Biol* 1980; 86: 365v376.

Bass L, Winkler K. A method of determining intrinsic hepatic clearance from the first-pass effect. *Clin Exp Pharmacol Physiol* 1980; 7: 339–343.

Bass L. On the location of cellular functions in perfused organs. *J Theor Biol* 1980; 82: 347–351.

Bass L, Bracken AJ. The problem of the thrown string. *Nature (Lond.)* 1979; 277: 153–154.

Bass L, Bracken AJ. The problem of the thrown string. *Nature (Lond.)* 1978; 275: 205–206.

Winkler K, **Bass L,** Keiding S, Tygstrup N. The physiologic basis for clearance measurements in hepatology. *Scand J Gastroenterol* 1979; 14: 439–448.

Bass L. Current models of hepatic elimination. *Gastroenterology* 1979; 76: 1504–1505.

Bass L, Robinson P. How small is the functional variability of liver sinusoids? *J Theor Biol* 1979; 81: 761–769.

Bracken AJ, **Bass L.** Statistical mechanics of hepatic elimination. *Math Biosci* 1979; 44: 97–120.

Bass L, Robinson P, Bracken AJ. Hepatic elimination of flowing substrates: the distributed model. *J Theor Biol* 1978; 72: 161–184.

Bass L, Bracken AJ. Time-dependent elimination of substrates flowing through the liver or kidney. *J Theor Biol* 1977; 67: 637–652.

Bass L. Biological replication by quantum mechanical interactions. *Foundations of Physics* 1977; 7: 221–231.

Winkler K, **Bass L,** Keiding S, Tygstrup N. The regimes of hepatic clearance: definitions and clinical significance. In: *The Liver* (R. Preisig and G. Paumgartner, eds.), Editio Cantor, Aulendorf (1976), pp. 128–129.

Keiding S, **Bass L,** Winkler K, Tygstrup N. Elimination of substrates in the intact liver. In: *The Liver* (R. Preisig and G. Paumgartner, eds.), Editio Cantor, Aulendorf (1976), pp. 26-127.

Bass L, Keiding S, Winkler K, Tygstrup N. Enzymatic elimination of substrates flowing through the intact liver. *J Theor Biol* 1976; 61: 393–409.

Bass L. A quantum mechanical mind-body interaction. *Foundations of Physics* 1975; 5: 159–172.

Bass L. Current-voltage relations in nerve membranes. *J Theor Biol* 1974; 48: 133–140.

Winkler K, **Bass L**, Keiding S, Tygstrup T. The effect of hepatic perfusion on the assessment of kinetic constants. In: *Regulation of Hepatic Metabolism* (F. Lundquist and N. Tygstrup, Eds.), Copenhagen (Munksgaard) 1974, pp. 797–807.

Bass L. Current theories of permeability changes during the action potential. *Proc Austral Physiol Pharmac Soc* 1974; 5: 23–31.

Bass L, Moore WJ. A simplified cooperative model of excitable membranes. *J Membr Biol* 1973; 12: 361-366.

Bass L, Moore WJ. The role of protons in nerve conduction. *Progress in Biophys & Mol Biol* 1973; 27: 145-171.

Bass L, Simons R. Ionic reaction equilibria in electrical double-layers. *J Chem Soc (Faraday Transactions II)* 1972; 68: 1872-1874.

Bass L. The mind of Wigner's friend. *Hermathena* (Dublin) CXII. 1971: 52-68.

Bass L. Discrete steady states of neuronal membranes consistent with an evolutionary principle. *J Theor Biol* 1971; 33: 577-597.

Bass L, Moore WJ. A proteolytic memory element based on the integrating function of the neuron. *Brain Res* 1971; 33: 451-462.

Bass L, Moore WJ. Theory of rate processes at synapses. *Adv Chem Physics* 1971; 21: 619-632.

Bass L, Moore WJ. An electrochemical model for depolarization of a retinula cell of *Limulus* by a single photon. *Biophys J* 1970; 10: 1-19.

Bass L. Prospects for Mathematics in the life science. *Hermathena* (Dublin) 1968; CVIII: 31-44.

Bass L. Wien dissociation as a rate process. *Trans Faraday Soc* 1968; 64: 2153-2159.

Bass L, McIllroy DK. Enzyme activities in polarised membranes. *Biophys J* 1968; 8: 99-108.

Bass L, Moore WJ. A model of nervous excitation based on the Wien dissociation effect. *Structural Chemistry and Molecular Biology* 1968 (A. Rich and N. Davidson, eds.), W.H. Freeman, pp. 356-369.

Bass L, Moore WJ. Electric fields in perfused nerves. *Nature* 1967; 214: 393-394.

Bass L, Weiler G. Kant's lucky accident. *Hermathena* (Dublin) CIII 1966: 46-58.

Bass L, Moore WJ. Electrokinetic mechanism of miniature postsynaptic potentials. *Proc Natl Acad Sci* 1966; 55: 1214-1217.

Bass L. Weak electrolytes at equilibrium interfaces. *Trans Farad Soc* 1966; 62: 1900-1906.

Bass L, Greenhalgh WJ. Rates of fast reactions between ions in solutions. *Trans Farad Soc* 1966; 62: 715-722.

Bass L, Grainger JNR. Model of a growing steady-state system. *J Theor Biol* 1966; 10: 387-398.

Bass L. Theory of liquid junction potentials. *Proc Phys Soc* 1965; 85: 1045-1046.

Bass L. Potential of liquid junctions. *Trans Farad Soc* 1964; 60: 1914-1919.

Bass L. Electrical structures of interfaces. *Trans Farad Soc* 1964; 60: 1656-1663.

Bass L. Interaction of alkali earth metals with water. *Nature* 1964; 202: 1003.

Bass L. Irreversible interactions between metals and electrolytes. *Proc Roy Soc* 1964; 277: 125-136.

Bass L. Spontaneous dissolution of metals in polar electrolytes. *Nature* 1963; 198: 982-983.

Bass L. Heat balance of the earth. *Nature* 1963; 198: 980.

Bass L. Fibre-reinforced composite. *Aircraft Production* 1963: 2-7.

Bass L. Dimensional analysis and the use of models. *Machine Tool Res* 1962; 2: 103-109.

Bass L. Motion of charges in rapidly oscillating electromagnetic fields. *Proc Phys Soc* 1962; 80: 634-639.

Bass L. Radiation with finite rest-mass and the heat balance of the earth. *Nuovo Cimento* 1956; 3: 1204-1212.

Bass L. Stochastic equation for energy loss of fast electrons in matter. *Proc Indian Acad Sci* 1956; 44: 423-427.

Bass L, Schrodinger E. Must the photon mass be zero? *Suppl Nuovo Cim* 1956: 850-856.

Bass L, Pirani FAE. Gravitational effects of distant rotating masses. *Phil Mag* 1955; 46: 850-856.

Bass L, Schrodinger E. Must the photon mass be zero? *Proc Roy Soc A* 1955; 232: 1-6.

Bass L. Zur Theorie der Mahlvorgange. *Z Angew Math Phys* 1954; 5: 283-292.