

## 7. Literaturverzeichnis

**Alberts, B., Johnson, A., Lewis, J., Raff, M., Roberts, K., Walter, P. (2004)**

Wie Zellen ihre Energie gewinnen

In Alberts, B., Johnson, A., Lewis, J., Raff, M., Roberts, K., Walter, P.(eds.):

Molekularbiologie der Zelle.

Willey-VCH Verlag GmbH&Co, KGaA, Weinheim, 120-140

**Ames, A. (2000)**

CNS energy metabolism as related to function.

Brain Res Brain Res Rev. 34(1-2), 42-68

**Arellano, C., Philibert, C., Lacombe, O., Woodley, J., Houin, G. (2004)**

Liquid chromatographic-mass spectrometric method to assess cytochrome P450-mediated metabolism of testosterone by rat everted gut sacs.

J Chromatogr B Analyt Technol Biomed Life Sci. 5, 807(2), 263-270

**Auterhoff, H., Knabe, J., Höltje, H.-D. (1994)**

Vitamine

In Auterhoff, H., Knabe, J., Höltje, H.-D. (eds.): Lehrbuch der Pharmazeutischen Chemie

Wissenschaftliche Verlagsgesellschaft Stuttgart, 697-740

**Azzam, R.M., Notarianni, L.J., Ali, H.M. (1998)**

Rapid and simple chromatographic method for the determination of diazepam and its major metabolites in human plasma and urine.

J Chromatogr. 708: 304-309,

**Barrientos, A., Moraes, C.T. (1999)**

Titrating the Effects of Mitochondrial Complex Impairment in the Cell Physiology.

J Biol Chem. 274 (23), 4, 16188-16197

**Barthe, L., Woodley, J.F., Kenworthy, S., Houin, G. (1998)**

An improved everted gut sac as a simple and accurate technique to measure paracellular transport across the small intestine.

Eur J Drug Metab Pharmacokinet. 23(2), 313-23

**Benet, L.Z., Mitchell, J.R., Sheiner, L.B. (1990)**

Farmacocinética: dinámica de la absorción, distribución y eliminación de los fármacos

In Goodmann Gilman, A., Rall, T.W., Nies, A.S., Taylor, P. (eds.): Las Bases Farmacológicas de la Terapéutica.

Editorial Medica Panamericana, Bogota/ Buenos Aires/ Caracas/ Madrid/ Santiago de Chile/ Sao Paulo, 21-48

**Bergmeyer, H.U., Bernt, E. (1974)**

Laktat Dehydrogenase: UV-Test mit Pyruvat und NADH

In Bergmeyer, H.U., Gawehn,K. (eds.): Methoden der enzymatischen Analyse.

Verlag Chemie Weinheim/Bergstr. 607-623

**Bermejo Pareja, F., Perez, A., Vallejo, J.A.R. (1991)**

Enfermedades abiotróficas o degenerativas.

In Bermejo Pareja, F. (ed.): Neurología Clínica Básica.

Ediciones Diaz de Santos, S.A., 567-606

**Beal, M.F., Hyman, B.T., Koroshetz, W. (1993)**

Do defects in mitochondrial energy metabolism underlie the pathology of neurodegenerative diseases?  
Trends Neurosci. 16(4), 125-131.

**Beal, M.F. (1995)**

Aging, energy, and oxidative stress in neurodegenerative diseases.  
Ann Neurol. 38(3), 357-366.

**Bellantuono, C., Regí, V., Tognoni, G., Garattini, S. (1980)**

Benzodiazepines: Clinical pharmacology and therapeutic use.  
Drugs 19, 195-219

**Beuthan, J., Zur C., Fink, F., Müller, G. (1990)**

Laser Fluorescence spectroscopic experiments for metabolism monitoring.  
Laser. Med. Surg. 6, 72-75

**Beyer, H., Walter, W. (1991)**

Aromatische Verbindungen. Heterozyklische Verbindungen. Enzyme  
In Beyer, H., Walter, W., (eds.): Lehrbuch der Organischen Chemie  
S.Hirzel Verlag, Stuttgart, 469-661, 703-820, 885-900

**Birkmayer, W., Neumayer, E. (1969)**

Neue Vorstellungen über die biochemischen Ursachen der Depression.  
Therap Berichte, 41,146-152

**Birkmayer, G.J.D., Birkmayer, W. (1989)**

Stimulation of endogenous L-Dopa biosynthesis - a new principle for the therapy of Parkinson's disease. The clinical effect of nicotinamide adenine dinucleotide (NADH) and nicotinamide adenine dinucleotidephosphate (NADPH).  
Acta Neurol Scand. 126, 183-187

**Birkmayer, W., Birkmayer, G.J.D., Vrecko, K., Mlekusch, W., Paletta, B., Ott, E. (1989)**

The coenzyme nicotinamide adenine dinucleotide (NADH) improves the disability of Parkinsonian patients.  
J Neural Transm Dis Dement Sect. 1(4), 297-302

**Birkmayer, G.J.D., Birkmayer, W. (1991)**

The coenzyme Nicotinamide adenine diculeotide ( NADH ) as biological antidepressive Agent.  
Experience with 205 Patients .  
New Trens Clin Neurpharmacol. 75-86.

**Birkmayer, G.J.D., Vrecko, C., Volc, D., Birkmayer, W. (1993)**

Nicotinamide adenine dinucleotide (NADH) – a new therapeutic approach to Parkinson's disease.  
Comparison of oral and parenteral application.  
Acta Neurol Scand. 87, Suppl. 146, 32-35.

**Bowling, A.C., Beal, M.F. (1995)**

Bioenergetic and oxidative stress in neurodegenerative diseases.  
Life Sci. 56(14), 1151-1171.

**Brenner, O., De Lahunta, A., Cummings, J.F., Summers, B.A., Monachelli, M. (1997)**

A canine encephalomyopathy with morphological abnormalities in mitochondria.  
Acta Neuropathol. 94(4),390-397

- Breschi, C., Carelli, V., Di Colo, G., Nannipieri, E. (1981)**  
Effect of tissue degeneration on drug transfer across in vitro small intestine  
*Farmaco [Sci].* 36(3), 166-80
- Browne, T.R., Penry, J.K. (1973)**  
Benzodiazepines in the treatment of epilepsy.  
*Epilpsia,* 14, 277-310
- Burdon, R.H. (1995)**  
Superoxide and hydrogen peroxide in relation to mammalian cell proliferation.  
*Free Rad Biol Med.* 18, 775-794
- Bushehri, N., Taylor Jarrell, S., Liebermann, S., Mirdamadi-Zonozi, N., Birkmayer, G., Preuss, H.G. (1998)**  
Oral reduced B-nicotinamide adenine dinucleotide (NADH) affects blood pressure, lipid peroxidation, and lipid profil in hypertensive rats (SHR).  
*Geriatr Nephrol Urol.* 8, 95-100.
- Byrne, E. (2002)**  
Does mitochondrial respiratory chain dysfunction have a role in common neurodegenerative disorders?  
*J Clin Neurosci.* 9(5), 497-501
- Carreno-Gómez, B., Woodley, J.F., Florence, A.T. (1999)**  
Studies of the uptake of tomato lectin nanoparticles in everted gut sacs.  
*Int J Pharm.* 183(1), 7-11
- Cassarino, D.S., Bennett, J.P. Jr. (1999)**  
An evaluation of the role of mitochondria in neurodegenerative diseases: mitochondrial mutations and oxidative pathology, protective nuclear responses, and cell death in neurodegeneration.  
*Brain Res Brain Res Rev.* 29(1), 1-25
- Chance, B., Cohen, P., Jöbsis, F., Schoener, B. (1962)**  
Intracellular oxidation-reduction states in vivo.  
*Science,* 137, 499-507
- Cori, C.F. (1925)**  
The fate of sugar in the animal body. 1. The rate of absorption of hexoses and pentoses from the intestinal tract.  
*J Biol Chem.* 66, 691-715
- Cryan, J.F., Markou, A., Lucki, I. (2002)**  
Assessing antidepressant activity in rodents: recent developments and future needs.  
*Trends Pharmacol Sci.* 23, 238-245
- De Angelis, I., Hoogenboom, L.A.P., Huvveneers-Oosprong, M.B.M., Zucco, F., Stammati, F., (1994)**  
Established cell lines of safety assessment of food contaminants: Differing furazolidone toxicity to V 79, HEp-2 and Caco-2 cells.  
*Food Chem Toxicol.*, 32 (5), 481- 488

- Di Colo, G., Manzi, S., Nannipieri, E. (1980)**  
Outcome of the *in vitro* studies on drug absorption employing the isolated rat small intestine  
*Farmaco*, 36(8), 692-704
- Dizdar, N., Kågedal, B., Lindvall, B. (1994)**  
Treatment of Parkinson's disease with NADH.  
*Acta Neurol Scand.* 90, 345-347,
- Dora, E., Gyulai, L., Kovach, A.G. (1984)**  
Determinants of brain, activation-induced cortical NADH/NADH responses in vivo.  
*Brain Res.* 299, 61-72
- Enns, G.M. (2003)**  
The contribution of mitochondria to common disorders.  
*Mol Genet Metab.* 80(1-2), 11-26.
- Erecinska, M., Wilson, D.F. (1982)**  
Regulation of cellular energy metabolism.  
*J Membr Biol.* 70, 1-14
- Farthing, M.J., Vinson, G.P., Edwards, C.R., Dawson, A.M. (1982)**  
Testosterone metabolism by the rat gastrointestinal tract, *in vitro* and *in vivo*.  
*Gut*, 23(3), 226-34.
- Feinroth, M., Feinroth, M.V., Berlyne, G.M. (1982)**  
Aluminum absorption in the rat everted gut sac.  
*Miner Electrolyte Metab.* 8(1), 29-35.
- Fichtl, B. (2005)**  
Allgemeine Pharmakologie und Toxikologie.  
In Aktorier, Förstermann, Hofmann und Starke (eds.): Allgemein und spezielle Pharmakologie und Toxikologie.  
Urban und Fischer, München, Jena, 64-67
- Fink, F., Pfarrherr, P. (1993)**  
Laser fluorescence spectroscopic experiments for monitoring molecules in brain.  
In Dirnagel, U. (ed.): Optical imaging of brain function and metabolism,  
Plenum Press, New York, USA: Plenum Press, 233-243
- Fisher, R.B., Gardner, M.L.G. (1974)**  
Dependence of intestinal glucose absorption on sodium, studied with a new arterial infusion technique.  
*J Physiol.* 241, 235-260
- Fisher, R.B., Parsons, D.S. (1949)**  
A preparation of surviving rat small intestine for the study of absorption  
*J Physiol.* 110, 36-46
- Forth, W., Rummel, W. (1968)**  
Vergleichende Untersuchungen der intestinalen Resorption von  $^3\text{H}$ -markierten Herzglykosiden *in vitro* und *in vivo*.  
*Naunyn-Schmiedebergs Arch. Exp. Pathol. Pharmakol.* 260(2), 112-114

**Forth, W., Furukawa, E., Rummel, W., Andres, H. (1969a)**

Intestinale Resorption von Herzglykosiden in vitro und in vivo.  
Naunyn-Schmiedebergs Arch. Pharmak. exp. Path. 262,53-72

**Forth, W., Furukawa, E., Rummel, W. (1969b)**

Vergleichende Untersuchungen von Resorption und Ausscheidung tritium-markierter Herzglykoside  
Naunyn-Schmiedebergs Arch. Exp. Pathol. Pharmakol. 263(1), 206-208

**Forth, W., Rummel, W. (1996)**

Vitamine und Spurenelemente. Therapie des Vitamin und Spurenelementmangels  
In Forth, W.,Henschler,D., Rummel, W. und Stark, K. (eds.): Allgemein und spezielle Pharmakologie und Toxikologie.  
Heidelberg, Berlin, Oxford, Spektrum Akademischer Verlag GmbH, 639-663

**Friedman, H., Greenblatt, D.J., Peters, G.R., Metzler, C.M., Charlton, M.D., Harmatz, J.S., Antal, E.J., Sanborn, E.C., Francom, S.F. (1992)**

Pharmacokinetics and pharmacodynamics of oral diazepam: effect of dose, plasma concentration, and time.  
Clin Pharmacol Ther. 52(2), 139-150

**Gandia, P., Lacombe, O., Woodley, J., Houin, G. (2004)**

The perfused everted intestinal segment of rat. 1st communication: absorption kinetics of markers of different permeation mechanisms.  
Arzneimittelforschung, 54(8), 467-73.

**Gardner, A., Pagani, M., Wibom, R., Nenesmo, I., Jacobsson, H., Hällström, T. (2003a)**

Alterations of rCBF and mitochondrial dysfunction in major depressive disorder: a case report  
Acta Psychiatr Scand. 107, 233-239

**Gardner, A., Johansson, A., Wibom, R., Nenesmo, I., von Dobeln, U., Hagenfeldt, L., Hällström, T. (2003b)**

Alterations of mitochondrial function and correlations with personality traits in selected major depressive disorder patients.  
J Affect Disord. 76(1-3), 55-68

**Greeff, K. (1977)**

Zur Pharmakokinetik des g-Strophanthins.  
Dtsch Med Wochenschr. 102(4), 135-139.

**Greenburg, S., Frishmann, W.H. (1990)**

Co-enzym Q<sub>10</sub>: A new drug for cardiovascular disease.  
J Clin Pharmacol. 30,596-608

**Guyton, A.C., Hall, J.E. (1996)**

Transport of ions and molecules through the cell membrane.

**Guyton, A.C., Hall, J.E. (1996)**

Transport of ions and molecules through the cell membrane.

In: Guyton, A.C., Hall, J.E. (eds.): Textbook of Medical Physiology

W.B. Saunders Company Philadelphia/London/Toronto/Montreal/Sydney/Tokyo, 43-55

**Hageman, G.J., Stierum, R.H. (2001)**

Niacin, poly(ADP-ribose)polymerase-1 and genomic instability.  
Mutat Res. 475, 45-56

**Harbig, K., Chance, B., Kovach, A., Reivich, M. (1976)**

In vivo measurement of pyridine nucleotide fluorescence from cat brain cortex.  
J Appl Physiol. 41(4), 480-488

**Hashimoto, M., Takeda, Y., Sato, T., Kawahara, H., Nagano, O., Hirakawa, M. (2000)**

Dynamic changes of NADH fluorescence images and NADH content during spreading depression in the cerebral cortex of gerbils.  
Brain Res. 872, 294-300

**Heard, G.S., Annison, E.F. (1986)**

Gastrointestinal absorption of vitamin B-6 in the chicken (*Gallus domesticus*).  
J Nutr. 116(1), 107-20.

**He, X.Y., Schulz H., Yang S.Y. (1998)**

A human brain L-3-hydroxyacyl-coenzyme A dehydrogenase is identical to an amyloid beta-peptide-binding protein involved in Alzheimer's disease.  
J Biol Chem. 273(17), 10741-6.

**Hogben, C.A.M. (1971)**

Routes of Drug Administration: Biological Membranes and their Passage by drugs  
In Eichler,O., Farah,A., Herken,H., Welch, A.D. (eds.): Handbuch der experimentellen  
Pharmakologie, Vol XXVIII/1  
Springer-Verlag Berlin, Heidelberg, New York, 1-8

**Hollander, D., Rin, E. (1976)**

Vitamin K absorption by rat everted small intestinal sacs.  
Am J Physiol, 231 (2), 415-419

**Houin, G., Woodly, J. (2002)**

Gastrointestinal absorption of drugs through the digestive barrier.  
Ann Pharm. 60(6), 365-71.

**Houlton, J.E.F., Herrtage, M.E. (1980)**

Mitochondrial myopathy in the Sussex spaniel  
Vet Rec. 106, 206

**Ince, C., Coremans, J.M., Bruining, H.A. (1992)**

In vivo NADH Fluorescence.  
Adv. Exp. Med. Oxygen Transport to Tissue XIV, 317, 277-296

**Jacobs, R.W., Farivar, N., Butcher, L.L. (1985)**

Alzheimer dementia and reduced nicotinamid adenine dinucleotide ( NADH) – diaphorase activity in senile plaques and the basal forebrain.  
Neurosci Lett. 7, 39-44

**Jöbsis, F., O'Connor, M., Vitale, A., Vreman, H. (1972)**  
Intracellular Redox Changes in Functioning Cerebral Cortex I Metabolic Effects of Epileptiform Activity.  
J Neurophysiol. 34, 735-749

**Kahle, W. (1991)**

Gefäße

In Kahle, w. (ed.): Taschenatlas der Anatomie: Band 3: Nervensystem und Sinnesorgane.  
Georg Thieme Verlag Stuttgart, New York Deutscher Taschenbuch Verlag, 40

**Kelber, O., Maidonis, P., Kroll, U., Weiser, D., Okpanyi, S.N. (2001)**

Concentration dependency of the absorption of several plant extracts and their phytomedicinal combination (STW 5) in the ex vivo/in vitro model of the everted gut sac.  
42. Frühjahrstagung der Deutschen Gesellschaft für experimentell und klinische Pharmakologie und Toxikologie e.V. (DGPT), Mainz, 13.-15.3.2001

**Kilic, F.S. Batu, O., Srimagul, B., Yildirim, E., Erol, K. (2004)**

Intestinal absorption of digoxin and interaction with nimodipine in rats.  
Pol J Pharmacol. 56(1), 137-141

**Kish, S.J., Bergeron, C., Rajput, A., Dozic, S., Mastrogiacomo, F., Chang, L.J., Wilson, J.M., DiStefano, L.M., Nobrega, J.N. (1992)**  
Brain cytochrome oxidase in Alzheimer's disease.  
J Neurochem. 59(2), 776-9.

**Klaidman, L.K., Leung, A.C., Adams, J.D. (1995)**

High-Performance Liquid Chromatography Analysis of Oxidized and Reduced Pyridine Dinucleotides in Specific Brain Regions,  
Ana Biochem. 228, 312-317

**Klaidman, L.K., Mukherjee, S.K., Hutchin, T.P., Adams, J.D. (1996)**

Nicotinamide as a precursor for NAD<sup>+</sup> prevents apoptosis in the mouse brain induced by tertiary-butylhydroperoxide.  
Neurosci Letters, 206, 5-8

**Klaidmann, L.K., Mukherjee, S.K., Adams, J.D. (2001)**

Oxidative changes in brain pyridine nucleotides and neuroprotection using nicotinamide. Biochim Biophys Acta, 1525, 136-148

**Klee, S., Ungemach, F.R., Kroker, R. (1990)**

Secondary bioavailability of furazolidone. Studies in isolated perfused gut, intestinal and liver cells.  
In: Residues of veterinary drugs in food: Proceedings of the Euro-Residue conference  
Noordwijkerhout, The Netherlands, 240-245

**Klingenberg, M. (1974)**

Nicotinamid-adenin-dinucleotide. Spektrophotometrische und fluorimetrische Verfahren.  
In Bergmeyer, H.U., Gaweh, K. (eds.): Methoden der enzymatischen Analyse.  
Verlag Chemie Weinheim Bergstr., 2094-2108

**Kolb, E. (1974)**

Allgemeine Physiologie

In Kolb, E.(ed.): Lehrbuch der Physiologie der Haustiere.

VEB Gustav Fischer Verlag, Jena,35-74

**König, F. (1995)**

Die Bedeutung der Laserinduzierten Autofluoreszenz für die Früherkennung des Harnblasenkarzinoms.

Dissertation Humboldt-Universität Berlin

**Kraut, A., Barbiro-Michaely, E., Mayevsky, A. (2004)**

Differential effects of norepihephrine on brain and other less vital organs detected by a multisite multiparametric monitoring system.

Med Sci Monit. 10(7), 215-220

**Kuhn, W., Müller, Th., Winkel, R., Danielczik, S., Gerstner, A., Häcker, R., Mattern, C., Przuntek, H. (1996)**

Parenteral application of NADH in Parkinson`s disease: clinical improvement partially due to stimulation of endogenous levodopa biosynthesis.

J Neural Trans. 103, 1187-1193.

**Lakowicz, J.R., Szmacinski, H., Nowaczyk, K., Johnson, M.L. (1992)**

Fluorescence lifetime imaging of free and proteinbound NADH.

Proc. Natl. Acad.Sci. USA 89, 1271-1275

**Lakowicz, J.R. (1999)**

Fluorophores.

In Lakowicz, J.R. (ed.): Principles of Fluorescence Spectroscopy.

Kluwer Academic/Plenum Publishers New York, Dordrecht, London, Moscow, 63-93

**Lance, C., Chauveau, M., Dizengremel, P. (1985)**

The cyanide-resistant pathway of plant mitochondria.

In Douce and Day (eds.): Encyclopedia of plant physiology, New Series, vol.18

Springer Verlag Berlin, 202-247

**Langguth, P., Bohner, V., Merkle, H.P., Biber, J. (1993)**

Bürstensaummembranvesikel zur Untersuchung des intestinalen Absorption und des Metabolismus von Arzneistoffen.

Dtsch Apoth Ztg. 50, 4766-4770

**Lauterbach, F., Gerber, C., Nitz, D., Presche, K. (1967)**

Über Unterschiede im Mechanismus der enteralen Resorption kardiotoner Steroide und anderer Pharmaka..

Naunyn-Schmiedebergs Arch. Pharmak. u. exp. Path. 257, 432-457

**Leal, K.W., Troupin, A.S. (1977)**

Clinical pharmacology of antiepileptic drugs: a summary of current information.

Clin Chem. 23,1964-1968

**Levine, R.R., McNary, W.F., Kornguth, P.J., LeBlanc, R. (1970)**

Histological re-evaluation of everted gut technique fro studying intestinal absorption.

Eur J Pharmacol. 9, 211-219

**Liu, F.Q., Zhang, J.R. (2002)**

Effect of NADH against liver cell line L02 apoptosis induced by UVB irradiation.  
Di Yi Jun Yi Da Xue Xue Bao. Mar. 22(3), 232-4.

**Lohmann, W., Mussmann, J., Lohmann, C., Kunzel, W. (1989)**

Native fluorescence of the cervix uteri as a marker for dysplasia and invasive carcinoma.  
Eur J Obstet Gynecol Reprod Biol. 31(3), 249-53.

**Löbert, V. (2003)**

Etablierung von Laktat- und Pyruvatmessung im Plasma und Liquor cerebrospinalis zur Diagnostik von mitochondrialen Erkrankungen beim Hund.  
Dissertation, Tierärztliche Hochschule Hannover

**Löscher, W., Frey, H.-H. (1981)**

Pharmacokinetics of Diazepam in the Dog  
Arch int Pharmacodyn. 254, 180-195

**Lowry, O.H., Passonneau, J.V., Schulz, D.W., Rock, M.K. (1961)**

The measurement of pyridine nucleotides by enzymatic cycling.  
J Biol. Chem. 236, 2746-2755

**Luft, R. (1997)**

Historical overview of Mitochondrial Diseases  
M.F. Beal, N. Howell (eds.) in: Mitochondria and free radicals in Neurodegenerative Diseases.  
Wiley-Liss, New-York, 3-14

**Lüllmann, H., Mohr, K., Ziegler, A. (1996)**

Herzglykoside.  
In Lüllmann, H., Mohr, H., Ziegler, A. (eds.): Taschenatlas der Pharmakologie.  
Georg Thieme Verlag Stuttgart New York, 130-132

**Mahler, H.R., Cordes, E.H. (1966)**

Coenzymes  
In Mahler, H.R., Cordes, E.H. (eds.): Biological Chemistry.  
Harper & Row John New York, 354-359

**Maiese, K. (2001)**

Elucidating neuronal and vascular injury through the cytoprotective agent nicotinamide.  
Curr Med Chem-Imm Endoc Metab Agents 1, 257-267

**Maiese, K., Chong, Z.Z. (2003)**

Nicotinamide: necessary nutrient emerges as a novel cytoprotectant for the brain.  
Trends Pharmacol Sci. 24, 5, 228-232

**Mandelli, M., Tognoni, G., Garattini, S. (1978)**

Clinical Pharmacokinetics of Diazepam.  
Clin Pharmacokinet. 3, 72-91

**Martilla, R.J., Roytta, M., Lorentz, H., Rinne, U.K. (1988)**

Oxygen toxicity protecting enzymes in the human brain.  
J Neural Trans. 74, 87-95

- Martin, E., Rosenthal, R.E., Fiskum, G. (2005)**  
 Pyruvate dehydrogenase complex: Metabolic link to ischemic brain injury and target of oxidative stress.  
*J Neurosci Res.* 79(1-2), 240-247
- Mayevsky, A. (1984)**  
 Brain NADH redox state monitored in vivo by fibre optic surface fluorometry.  
*Brain Res.* 319(1), 49-68
- Mayevsky, A., Doron, A. Manor, T., Meilin, S., Zarchin, N., Ouaknine, G.E. (1996)**  
 Cortical spreading depression recorded from the human brain using a multiparametric monitoring system.  
*Brain Res.* 740, 268-274
- Mayevsky, A., Manor, T., Meilin, S., Doron, A., Ouaknine, G.E. (1998)**  
 Real-time multiparametric monitoring of the injured human cerebral cortex – a new approach.  
*Acta Neurochir Suppl.* 71, 78-81
- Mayevsky, A., Barbiro-Mihaily, E., Ligeti, L., MacLaughlin, A.C. (2002a)**  
 Effects of euthanasia on brain physiological activities monitored in real-time.  
*Neurol Res.* 24(7), 647-51
- Mayevsky, A., Ornstein, E., Meilin, S., Razon, N., Ouaknine, G.E. (2002b)**  
 The evaluation of brain CBF and mitochondrial function by fiber optic tissue spectroscope in neurosurgical patients.  
*Acta Neurochir Suppl.* 81, 367-71
- Mayevsky, A., Manor, T., Pevzner, E., Deutsch, A., Etziony, R., Dekel, N., Jaronkin, A.(2004)**  
 Tissue spectroscope: a novel in vivo approach to real time monitoring of tissue vitality.  
*J Biomed Optics*, 9(5), 1028-45
- McGeer, K.G., McGeer, E.G., Wada, J.A. (1971)**  
 Glutamic acid decarboxylase in Parkinson's disease and epilepsy.  
*Neurology*, 21(10), 1000-1007
- Mitchell, P. (1961)**  
 Coupling of phosphorylation to electron and hydrogen transfer by a chemi-osmotic type of mechanism.  
*Nature*, 191, 144-191
- Montgomery, E.B. Jr. (1995)**  
 Heavy metals and the etiology of Parkinson's disease and other movement disorders.  
*Toxicol.* 31,97(1-3), 3-9.
- Mottin, S., Laporte, P., Jouvet, M., Cespuglio, R. (1997)**  
 Determination of NADH in the rat brain during sleep- wake states with an optic fibre sensor and time-resolved fluorescence procedures.  
*J Neurosci.* 79, 683-693
- Mottin, S., Laporte, P., Cespuglio, R. (2003)**  
 Inhibition of NADH oxidation by chloramphenicol in the freely moving rat measured by picosecond time-resolved emission spectroscopy.  
*J Neurosci.* 84, 633-642

**Mukherjee, S.K., Klaidman, L.K., Yasharel, R., Adams, J.D. Jr. (1997)**  
Increased brain NAD prevents neuronal apoptosis in vivo.  
Eur J Pharmacol. 2, 330(1), 27-34.

**Navarro, A. (2004)**  
Mitochondrial enzyme activities as biochemical markers of aging.  
Mol Aspects Med. 25(1-2), 37-48.

**Nichol, C.A., Smith, G.K. , Duch, D.S. (1985)**  
Biosynthesis and metabolism of tetrahydrobiopterin and molybdopterin  
Ann Rev Biochem. 54, 729-764

**Orth, M., Schapira, A.H.V. (2002)**  
Mitochondrial involvement in Parkinson's disease.  
Neurochem Int. 40, 533-541

**Parker, W.D. Jr., Parks, J., Filley, C.M., Kleinschmidt-DeMasters, B.K. (1994)**  
Electron transport chain defects in Alzheimer's disease brain.  
Neurol. 44(6),1090-6.

**Paschen, W., Niebuhr, I., Hossmann, K.A. (1981)**  
A bioluminescence method for the demonstration of regional glucose distribution in brain slices.  
J Neurochem. 36, 513-517

**Passonneau, J.V., Lowry, O.H. (1974)**  
Nicotinamid-adenin-dinucleotide. Messung durch enzymatische cycling  
In Bergmeyer,H.U., Gaweh, K.(eds.): Methoden der enzymatischen Analyse.  
Verlag Chemie Weinheim/ Bergstr, 2108-2122

**Pellerin, L., Magistretti, R.J. (2004)**  
Let there be (NADH) Light.  
Science, 305, 50-52

**Perry, T.L., Godin, D.V., Hansen, S. (1982)**  
Parkinson's disease: a disorder due to nigral glutathione deficiency?  
Neurosci Lett. 13; 33(3), 305-10.

**Pfeifer, L., Paul, R., Yalcin, E., Marx, U., König, F., Fink, F. (1996)**  
A time-gated laser spectrometer using optical fibres for detecting fluorescent biomolecules in cells and tissue.  
In: Gonzales-Mora JL., Borges R., and Mas M. (Hrsg.): Monitoring Molecules in Neuroscience - 7<sup>th</sup> International Conference on *in vivo* Methods, Santa Cruz de Teneriffe/Spain; University of La Laguna, 42-43

**Plumb, J.A., Burston, D., Baker, T.G., Gardner, M.L.G. (1987)**  
A comparison of the structural integrity of several commonly used preparations of rat small intestine  
*in vitro*.  
Clin sci. 73, 53-59

**Porsolt, R.D., Le Pichon, M., Jalfre, M. (1977)**  
Depression: a new animal model sensitive to antidepressant treatments.  
Nature, 266, 730-732

**Rall, D.P. (1971)**

Drug entry into brain and cerebrospinal fluid.

In Eichler, O., Farah, A., Herken, H., Welch A.D (eds.) Handbuch der Experimentellen Pharmakologie XXVIII/1 Springer Verlag Berlin. Heidelberg. New York, 240-248

**Rall, T.W. (1991)**

Hipnóticos y sedantes; Etanol

In Goodmann Gilman, A., Rall, T.W., Nies, A.S., Taylor, P. (eds.): Las Bases Farmacológicas de la Terapéutica.

Editorial Medica Panamericana, Bogota/ Buenos Aires/ Caracas/ Madrid/ Santiago de Chile/ Sao Paulo, 345-380

**Rapoport, S.M. (1975)**

Pyridinnukleotide

In Rapoport, S.M.(ed.): Medizinische Biochemie

Verlag Volk und Gesundheit, Berlin, 218-228

**Renault, G., Raynal, E., Sinet, M., Bertier, J.P., Godard, B., Cornillault, J. (1982)**

A Laser fluorimeter for direct cardiac marabolism investigation.

Optics Laser Techn. 14, 143-148

**Rex, A., Pfeifer, L., Fink, F., Fink, H. (1999)**

Cortical NADH during pharmacological manipulations of the respiratory chain and spreading depression in vivo using laser induced fluorescence spectroscopy.

J Neurosci Res. 5, 57, 359-370

**Rex, A., Pfeifer, L., Fink, H. (2001)**

Determination of NADH in Frozen Rat Brain Sections by Laser-induced Fluorescence.

Biol Chem. 382, 1727-1732

**Rex, A., Hentschke, M-P., Fink, H. (2002)**

Bioavailability of Reduced Nicotinamide-adenin-dinucleotid (NADH) in the Central Nervous System of the anesthetized rat meausure by laser-induced fluorescence spectroscopy. Pharmacology and Pharmacol Toxicol. 90(4), 220-225

**Rex, A., Schickert, R., Fink, H. (2004a)**

Antidepressant-like effect of nicotinamide adenine dinucleotide (NADH) in the forced swim test in rats.

Pharmacol Biochem Behav. 74, 303-307

**Rex, A., Syphalla, M., Fink, H. (2004b)**

Treatment with reduced nicotinamide adenine dinucleotide (NADH) improves water maze performance in old wistar rats.

Behav Brain Res. 154, 149-153

**Richter-Cooberg, U. (1984)**

Resorption und Metabolismus von Dialkylnitrosaminen am Rattendarm in vitro.

Dissertation , Ludwig-Maximilian Universität München

( keine Journal-Nr im Original )

**Richter, E., Strugala, G.J. (1985)**

An all-glass perfusator for investigation of the intestinal transport and metabolism of foreign compounds in vitro.

J Pharmacol Meth. 14, 297-304

**Riederer, P., Sofic, E., Rausch, W.D., Schmidt, B., Reynolds, G.P., Jellinger, K., Youdim, M.B. (1989)**

Transition metals, ferritin, glutathione, and ascorbic acid in parkinsonian brains.

J Neurochem. 52(2),515-20.

**Riepe, M.W., Schmalzigaug, K., Fink, F., Oexle, K., Ludolph, A.C. (1996)**

NADH in pyramidal cell layer of hippocampal regions CA1 and CA3 upon selective inhibition and uncoupling of oxidative phosphorylation.

Brain Res. 710, 21-27

**Roche Fachinformation**

Valium ® 10mg (2004)

In: FachInfo-Servie, Fachinformationsverzeichnis Deutschland. Herausgeber BPI Service GmbH, Frankfurt/Main

**Rover, L. Jr., Fernández, J.C.B., de Oliveira Neto, G., Kubota, L.T., Katekawa, E., Serrano, S.H.P. (1998)**

Study of NADH Stability Using Ultraviolet-visible spectrophotometric Analysis and Factorial Design.  
Analyst Biochem. 260, 50-55

**Rummel, W., Stupp, H.F. (1960)**

Der Einfluss von Kalium und Calcium auf die Salz-, Glucose- du Wasserresorption des isolierten Dünndarms.

Naunyn-Schmiedeberg's Arch. Exp. Pathol. Pharmakol. 240, 79-92

**Sadanaga-Akiyoshi, F., Yao, H., Tanuma, S., Nakahara, T., Hong, JS., Ibayashi, S., Uchimura, H., Fujishima, M. (2003)**

Nicotinamide attenuates focal ischemic brain injury in rats: with special reference to changes in nicotinamide and NAD<sup>+</sup> levels in ischemic core and penumbra.

Neurochem Res. 28(8), 1227-34

**Sadoogh-Abasian, F., Evered, D.F. (1980)**

Absorption of Nicotinic acid and Nicotinamide from rat small intestine in vitro  
Biochimica et Biophysica Acta 598, 385-391

**Satoh, M., Poirier, G., Lindhal, T., (1993)**

NAD<sup>+</sup>- dependent repair of damaged DNA by human cell extracts.

J Biol Chem. 268, 5480-5487

**Schulz, J.B., Lindenau, J., Seyfried, J., Dichgans, J. (2000)**

Glutathione, oxidative stress and neurodegeneration,

Europ J Biochem. 267, 4904-4911

**Schneckenburger, H., Gschwend, M.H., Strauss, W.S., Sailer, R., Kron, M., Steiner, R. (1997)**

Energy transfer spectroscopy for measuring mitochondrial metabolism in living cells.

Photchem Photobiol. 66 (1), 34-41.

**Shulman, R.G., Rothman, D.L., Behar, K.L., Hyder, F. (2004)**

Energetic basis of brain activity: implications for neuroimaging.  
Trends Neurosci. 27(8), 489-495

**Silbernagl, S., Despopoulos, A. (1991)**

Grundlagen der Zellphysiologie.

Silbernagl, S., Despopopoulos, A. (eds.) In: Taschenatlas der Physiologie.  
Georg Thieme Verlag Stuttgart New York, Deutscher Taschenbuch Verlag. 1-8

**Skarda, R.T., Muir III, W.W., Hubbel, J.A.E., Bednarski, R.M. (1997)**

Farmacos anestésicos intravenosos específicos.

In Skarda, R.T., Muir III, W.W., Hubbel, J.A.E., Bednarski, R.M (eds.): Manual de Anestesia veterinaria.

Mosby/Doyma Libros, Times Mirror International Publishers División Iberoamericana, 113-132

**Slade, N., Storga-Tominc, D., Birkmayer, G.D., Pavelic, K., Pavelic, J. (1999)**

Effects of extracellular NADH on human tumor cell proliferation.

Anticaner Res. 19(6B), 5355-5360

**Sohal, R.S. (1993)**

The free radical hipótesis of aging: an appraisal of current status.

Aging (Milano), 5(1), 3-17

**Stratford, M.R., Dennis, M.F., Hoskin, P., Philips, Hodgkiss, R.J., Rojas, A. (1996)**

Nicotinamide pharmacokinetics in humans: effect of gastric acid inhibition comparison of rectal vs oral administration and the use of saliva for drug monitoring.

Br J Cancer, 74(1), 16-21

**Strong, A.J., Harland, S.P., Meldrum, B.S., Whittington, D.J. (1996)**

The use of in vivo Fluorescence Image Sequences to indicate the Occurrence and Propagation of Transient Focal Depolarizations in Cerebral Ischemia.

J Cereb Blood Flow Metab. 16(3), 367 -377

**Stryer, L. (1996)**

Obtención y almacenamiento de Energía metabólica. Glicólisis.

In Stryer, L. (ed.): Bioquímica.

Editorial Reverté, S.A. Barcelona-Bogotá-Buenos Aires-Caracas-Mexico, 319-335, 355-377,

**Sundt, T.M., Anderson, R.E. (1975)**

Reduced Nicotinamide Adenine Dinucleotide Fluorescence and Cortical Blood Flow in Ischemic and Nonischemic Squirrel Monkey Cortex. 1. Animal Preparation, Instrumentation, and Validity of Model.  
Stroke, 6, 270-278

**Swerdlow, R.H. (1993)**

Is NADH effective in the treatment of Parkinson's Disease

Drugs Aging, 13(4), 263-268

**Swerdlow, R.H., Parks, J.K., Miller, S.W., Tuttle, J.B., Trimmer, P.A., Sheehan, J.P., Bennett, J.P. Jr., Davis, R.E., Parker, W.D. Jr. (1996)**

Origin and functional consequences of the complex I defect in Parkinson's disease.

Ann Neurol. 40(4), 663-71

**Thorniley, M.S., Lane, N.J., Manek, S., Green, C.J. (1994)**  
Non-invasive measurement of respiratory chain dysfunction following hypothermic renal storage and transplantation.  
Kidney Int. 45(5), 1489-96

**Vallejo Ruiloba, J. (1991)**  
Trastornos depresivos.  
In Vallejo Ruiloba, J. (ed.): Introducción al Psicopatología y la psiquiatría  
Masson, S.A. Salvat Medicina, 449-481

**Verzár, F., McDougall, E.J. (1936)**  
Absorption from the intestine.  
Longman, London

**Vijayasarathy, C., Giger, U., Prociuk, U., Patterson, D.F., Breitschwerdt, E.B., Avadhani, N.G. (1994)**  
Canine mitochondrial myopathy associated with reduced mitochondrial mRNA and altered cytochrome c oxidase activities in fibroblasts and skeletal muscle.  
Comp Biochem Physiol A Physiol. 109(4), 887-94

**Vrecko, K., Birkmazer, J.G.D., Krainz, J. (1992)**  
Stimulation of dopamine biosynthesis in cultured PC 12 phaeochromocytoma cells by the coenzyme nicotinamide adeninedinucleotide (NADH)  
J Neural Transm [P-D Sect] (1993) 5:147-156

**Vrecko, K., Storga, D., Birkmayer, J., Möller, R., Tafeit, E., Horejsi, Reibnegger, G. (1997)**  
NADH stimulates endogenous dopamine biosynthesis by enhancing the recycling of tetrahydrobiopterin in rat phaeochromocytoma cells.  
Biochim Biophys Acta, 1361, 59-65

**Warburg, O., Christian W. (1934)**  
Co-Fermentproblem  
Biochem. Z. 274, 112-116

**Wilson, T.H., Wiseman, G. (1954)**  
The use of sacs of everted small intestine for the study of the transference of substances from the mucosal to the serosal surface.  
J Physiol. 123, 116-125

**Williams, G.H. (1991)**  
Vasculopatía hipertensiva  
In Wilson, J.D., Braunwald, E., Isselbacher, K.J., Petersdorf, R., Martin, J.B., Fauci, A.S., Root, R.K (eds.): Harrison Principios de Medicina Interna.  
Interamericana McGraw -Hill, 1160-1162

**Windmüller, H.G., Späth, A.E. (1981)**  
Vascular autoperfusion of rat small intestine in situ.  
Methods Enzymol. 77, 120-129

**Yan, S.D., Soto, C., Chen, X., Zhu, H., al Mohanna, F., Collison, K., Zhu, A., Stern, E., Saido T., Tohyama M., Ogawa S., Roher A., Stern D. (1997)**

An intracellular protein that binds amyloid-beta peptide and mediates neurotoxicity in Alzheimer's disease.

Nature, 389, 689-695

**Yang, J., He, L., Wang, J., Adams, J.D. Jr. (2004)**

Early administration of nicotinamide prevents learning and memory impairment in mice induced by 1-methyl-4-phenyl-1,2,3,6-tetrahydropyridine.

Pharmacol Biochem Behav. 78(1), 179-183

**Ying, W., Alano, C.C., Garnier, P., Swason, R.A. (2004)**

NAD<sup>+</sup> as a metabolic link between DNA damage and cell death.

J Neurosci Res. 79(1-2), 216-223

**Yong, G.C., Schwartz, J.A., Gardner, C.M., Sawaya, R.E., Steven, L.J. (1996)**

Diagnostic potential of laser-induced autofluorescence emission in brain tissue.

**Zarchin, N., Meilin, S., Rifkind, J., Mayevsky, A. (2002)**

Effect of aging on brain energy-metabolism.

Comp Biochem Physiol A Mol Integr Physiol. 132(1), 117-20.

**Zhang, J.R., Vrecko, K., Nadlinger, K., Storga, D., Birkmayer, G.D., Reibnegger, G. (1998)**

The reduced Coenzyme Nicotinamide Adenine Dinucleotide (NADH) rescues PC 12 Cells from Apoptosis.

J Tumor Marker Onkol. 13 (3), 11-18

**Zubenko, G.S. (1989)**

Endoplasmic reticulum abnormality in Alzheimer's disease: selective alterations in platelet NADH – Cytochrome C reductase activity.

J Geriatr Psychiatry Neurol. 2, 3-10

**Zubenko, G.S., Moossy, Y., Claasen, D. Martinez A.J., Rao, G.R. (1990)**

Brain regional analysis of NADH- cytochrome C reductase activity in Alzheimer's disease

J Neuropathol Exp Neurol. 49(3), 206-214