LIST OF PUBLICATIONS

A) Original Publications


The Binding of Myoglobin and Hemoglobin to Hydrophobically Substituted Sepharoses.  

Mh. Chem. 110, 823-830

Sporulation of Mitochondrial oxi3 Mutants of Saccharomyces cerevisiae. A Correlation with the Genetic Map.  
Curr. Genet. 1, 97-102

The Metabolism of myo-Inositol During Sporulation of myo-Inositol-Requiring Yeast.  
J. Bacteriol. 146, 775-783

The Role of the Mitochondrial Genome in Yeast Differentiation.  

Isolation and Characterization of Yeast Mitochondrial Mutants Defective in Spore Germination.  
Curr. Genet. 4, 29-36

J. Chromatogr. 215, 211-228

Mitochondrial Circular RNAs Are Absent in Sporulating Cells of Saccharomyces cerevisiae.  
Nucl. Acid. Res. 11, 1735-1746


RAS2 of Saccharomyces cerevisiae is Required for Gluconeogenic Growth and proper Response to Nutrient Limitation.  
Proc. Natl. Acad. Sci. 82, 3785-3789
Dityrosine is a Prominent Component of the Yeast Ascospore Wall. A Proof for its Structure.
J. Biol. Chem. 261, 4288-4294

Chemical Composition of the Yeast Ascospore Wall. The Second Outer Layer Consists of Chitosan.
J. Biol. Chem. 263, 11569-11574

21. Breiteneder H., Haßfeld W., Jarolim E., Pettenburger K., Breitenbach M.,
Isolation and Characterization of mRNA from Male Inflorescences and Pollen of the White Birch (Betula verrucosa)
Int. Arch. Allergy Appl. Immunol. 87, 19-24

IgE- und IgG-Antikörperantwort bei Patienten mit Typ-I-Allergie gegen Birkenpollen.
Wien, Klin. Wochenschr. 101, 107-110

23. Breiteneder H., Pettenburger K., Bito A., Kraft D., Rumpold H., Valenta R.,
The Gene Coding for the Major Birch Pollen Allergen, Bet v I, is Highly Homologous to a Pea Disease Resistance Response Gene.
EMBO J. 8, 1935-1938

Kraft D. (1989)
IgE and IgG Antibodies of Patients with Allergy to Birch Pollen as Tools to Define the Allergen Profile of Betula verrucosa.
Allergy 44, 385-395

Monoclonal Antibodies Against Birch Pollen Allergens: Characterization by Immunoblotting and Use for Single Step Purification of the Major Allergen Bet v I.
Int. Archs. Allergy Appl. Immun. 90, 54-60

Evaluation of Immunotherapy-Induced Changes of Specific IgE, IgG, and IgG Subclasses in Birch Pollen-Allergic Patients by means of Immunoblotting. Correlation with Clinical Response.
Allergy 45, 418 - 426

Temporal Program of Gene Expression During Sporulation in Saccharomyces cerevisiae.


e-(g-Glutamyl)lysine cross-links in Litomosoides carinii microfilarial sheaths. 
Parasitol. Res., 78, 623-624

55. Ferreira F., Hoffmann-Sommergruber K., Breiteneder H., Pettenburger K., Ebner C., 
Sommergruber W., Steiner R., Bohle B., Sperr W., Kungl A., Breitenbach M., Kraft D., 
Scheiner O. (1993) 
Purification and characterization of recombinant Bet v I, the major birch pollen allergen. 
Immunological equivalence to natural Bet v I. 
J. Biol. Chem., 268, 19574-19580

56. Breiteneder H., Ferreira F., Hoffmann-Sommergruber K., Ebner C., Breitenbach M., 
Rumpold H., Kraft D., Scheiner O. (1993) 
Four recombinant isoforms of Cor a I, the major allergen of hazel pollen, show different IgE- 
binding properties. 
Eur. J. Biochem., 212, 355 - 362

The sporulation-specific enzymes encoded by the DIT1 and DIT2 genes catalyze a two-step 
reaction leading to a soluble LL-dityrosine-containing precursor of the yeast spore wall. 

Molecular dynamics simulation of the rare amino acid LL-dityrosine and a dityrosine-
containing peptide: comparison with time-resolved fluorescence. 
Biochim. Biophys. Acta, 1201, 345-352

Time-resolved fluorescence studies of dityrosine in the outer layer of intact yeast ascospores. 
Biophys. J., 67, 309 - 317

60. Swoboda, I., Scheiner, O., Kraft, D., Breitenbach, M., Heberle-Bors, E., Vicente, O. 
(1994) 
A birch gene family encoding pollen allergens and pathogenesis-related proteins. 
Biochim. Biophys. Acta, 1219, 457-464

61. Achatz, G., Oberkofler, H., Lechenauer, E., Simon, B., Unger, A., Kandler, D., Ebner, C., 
Molecular cloning of major and minor allergens of Alternaria alternata and Cladosporium 
herbarum. 
Mol. Immunol., 32, 213-227

62. Swoboda, I., Jilek, A., Ferreira, F., Engel, E., Hoffmann-Sommergruber, K., Scheiner, O., 
Kraft, D., Breiteneder, H., Pittenauer, E., Schmid, E., Vicente, O., Heberle-Bors, E., Ahorn, 
Isoforms of Bet v I, the major birch pollen allergen, analyzed by liquid chromatography, 
mass spectrometry and cDNA cloning.
Molecular characterization of Allergens of Cladosporium herbarum and Alternaria alternans.

Strain-dependent occurrence of functional GTP:AMP phosphotranferase (AK3) in Saccharomyces cerevisiae.
J. Biol. Chem., 270, 31103-31110

The yeast growth control gene GRC5 is highly homologous to the mammalian putative tumour suppressor gene QM.
Yeast, 12, 53-65

Dissection of IgE and T lymphocyte reactivity of isoforms of the major birch pollen allergen Bet v 1: potential use of hypoallergenic isoforms for immunotherapy.
J. Exp. Med., 183, 599-609

High level expression of tree pollen isoallergens in Escherichia coli.

Biological and immunological importance of Bet v 1 isoforms.

Modulation of IgE-binding properties of tree pollen allergens by site-directed mutagenesis.

Molecular characterization of Alternaria alternata and Cladosporium herbarum allergens.

Evidence for an alpha-helical T-cell epitope in the C-terminus of the main birch pollen allergen Bet v 1.


NMR spectroscopy reveals common structural features of the birch pollen allergen Bet v 1 and the cherry allergen Pru a 1.

Images in Experimental Gerontology: A senescent yeast mother cell.
Exp. Gerontol., 34, 895-896

Heterologous expression, purification, and kinetic comparison of the cytoplasmic and mitochondrial glyoxalase II enzymes, Glo2p and Glo4p, from Saccharomyces cerevisiae.
Protein Expr. Purif. 17, 456-464

Improvement of the immune response against plasmid DNA encoding OspC of Borrelia by an ER-targeting leader sequence.
Vaccine, 18, 815-824

The influence of oxygen toxicity on yeast mother cell-specific aging.
Exp. Gerontol., 35, 63-70

IgE-binding epitopes of enolases, a class of highly conserved fungal allergens.

Structure of an IgE-binding peptide from fungal enolases.

The IgE antigen receptor: a key regulator for the production of IgE antibodies.
Int. Arch. Allerg. Immunol., 124, 31-34

Aged mother cells of Saccharomyces cerevisiae show markers of oxidative stress and apoptosis.
Molecular Microbiology, 39, 1166-1173

Quantitative differences between specific allergen levels in allergenic products derived from fungi (Alternaria and Aspergillus).
J. Allergy Clin. Immunol., 107, 641-646
Somatic diversity of the immunoglobulin repertoire is controlled in an isotype-specific manner.  

Brix from Xenopus laevis and Brx1 from yeast define a new family of proteins involved in the biogenesis of large ribosomal subunits.  
Biol. Chem., 382, 1637-1647.

The nucle(ol)ar Tif6p and Efl1p are required for a late cytoplasmic step of ribosome synthesis.  
Molecular Cell, 8, 1363-1373

Phenotypic analysis of gene deletant strains for sensitivity to oxidative stress.  
Yeast, 19, 203-214.

Systematic analysis of sporulation phenotypes in 624 non-lethal homozygous deletion strains of Saccharomyces cerevisiae.  
Yeast, 19, 403-422.

Unfolding and double stranded DNA binding of the cold shock protein homologue Cla h 8 from Cladosporium herbarum.  
J. Biol. Chem., 277, 16512-16516

Phage display based cloning of proteins interacting with the cytoplasmic tail of membrane immunoglobulins.  
Dev. Immunol., 9, 127-134

Functional analysis of the Brix protein superfamily involved in the biogenesis of ribosomes.  
FEMS Yeast Res., 3, 35-43

Nuclear transport factor 2 represents a novel cross-reactive fungal allergen.  
Allergy, 58, 198-206
Yeast, 20, 281-294

Clin. Exp. Allergy, 33, 1419-1438

J. Biol. Chem., 278, 41849-41855

Microbes and Infections, 5, 939-946

FEMS Yeast Res., 5, 271-280

FEMS Yeast Res., 5, 157-167

FEMS Yeast Res., 5, 169-177

Steroid Biochem. Mol. Biol., 89-90, 261-267


120. Drakulic, T., Temple, M.D., Guido, R., Jarolim, S., Breitenbach, M., Attfield, P.V., Dawes, I.W. (2005) Involvement of oxidative stress response genes in redox homeostasis, the level of reactive oxygen species, and ageing in Saccharomyces cerevisiae. FEMS Yeast Res., 5, 1215 - 1228


Mitochondrial morphology is correlated with the effects of glucose concentration on chronological ageing in \textit{Saccharomyces cerevisiae}.

Submitted to Yeast


B) Review Articles

The Role of the Yeast Genome in Yeast Differentiation.
In: Bennet J.W., Ciegler A., eds., Secondary Metabolism and Differentiation in Fungi. Marcel Dekker, New York, pp. 307-374

Synthesis and Applications of Immobilized Phytic Acid.

Welchen Beitrag leistet die Hefegenetik zur Tumorbiologie und Tumordiagnostik?

Recent Advances in Identifying Sporulation Genes, Visualizing Synaptonemal Complexes and Large Scale Spore and Spore Wall Purification.


The importance of recombinant allergens for diagnosis and therapy of IgE-mediated allergies.
Int. Arch. Allergy Immunol., 118, 171-176


The impact of current genome projects on the study of pathogenic and allergenic fungi. In: Fungal allergy and pathogenicity. Breitenbach, M., Crameri, R., Lehrer, S., eds. Karger, Basel, Switzerland, pp. 3-9


Apoloptosis, ageing and redox homeostasis in yeast. 
FEMS Yeast Res. 5, 1191-1192

The actin cytoskeleton, the RAS/cAMP signalling pathways, mitochondrial ROS generation, and apoptosis: a complex network of interactions in yeast. 
Trends Cell Biol., 15, 637-639

Yeast as a model for chronological and reproductive aging – a comparison. 
Exp. Gerontol., 41, 1208-1212


The spectrum of fungal allergy. 
Int. Arch. Allergy Immunol. 145, 58 - 86

Yeast mother cell-specific aging, genetic (in)stability, and the somatic mutation theory of aging. 
Nucleic Acids Research 35, 7514-7526

Senescence and apoptosis in yeast mother cell-specific aging and in higher cells: a short review. 
Biophys. Biochim. Acta,1783, 1328 – 1334

Metabolic changes through hypoxia in humans and in yeast as a comparable cell model. 
Sleep Breath 14, 221 – 225


Sirtuins as regulators of the yeast metabolic network. 
Frontiers in Pharmacology, 3: 32

Oxidative stress, aging, and neurodegeneration: the yeast model system. 
Frontiers in Bioscience (submitted)
C) History, Bioethics and Philosophy


