

Collaborations within the DK

K.Gruber

His expertise in protein crystallography, X-ray structure analysis and protein modeling will be important to planned DK projects. He has already given us valuable advice and will help us develop appropriate strategies to perform experiments addressing structure and topology of lipid biosynthetic enzymes.

M.Oberer

Her expertise in structure analysis of lipid metabolic enzymes will be a valuable contribution to our work.

S. Schild

Planned collaboration between our groups is based on the mutual interest in lipids of microbial membranes. The expertise of our laboratory in lipid analysis will complement S. Schild's studies with pathogenic microorganisms.

K. Zangger

The group of K. Zangger will make use of our expertise in yeast organelle and membrane biology. We plan to support K. Zangger's mechanistic studies of enzymes in biological and model membranes by providing the respective subcellular fractions from yeast cells and performing lipid analyses of these samples.

Günther Zellnig (Non-DK, KFU Graz)

G. Zellnig from the Plant Science Institute is an expert in electron microscopy and has successfully collaborated with our lab in the past. The experience of G. Zellnig's group in visualization of yeast organelles will be important for various parts of the proposed projects. Our groups have published a number of collaborative papers.

Harald Köfeler (Non-DK; Med. Uni. Graz)

H. Köfeler is an expert in lipid mass spectrometry with a very well equipped laboratory. This method will be required for detailed lipid analysis of yeast subcellular fractions. Collaboration with H. Köfeler was very successful in the past and resulted already in joint publications.

Karl Lohner/ Dagmar Zweytick (Non-DK, KFU Graz)

K. Lohner and D. Zweytick are experts in biophysical investigations of membranes. These methods will be required to address function-structure relationship of subcellular fractions, especially of lipid droplets. This collaboration has already led to joint publications.

Collaborating research groups where PhD Students could perform their research stay abroad

Ivo Feussner

I. Feussner, Göttingen, Germany, is an internationally well-respected expert in plant and yeast lipid research. The specific expertise of this lab is application of proteomics and lipidomics for studies of lipid storage. During the next funding period of this DK we wish to make use of this knowledge and intensify our mutual interest in structure-function relationship of lipid metabolic enzymes. During a previous DK funding period one of my students (T. Czabany) spent 6 months in I. Feussner's lab resulting in a joint publication.

Nikolaus Pfanner

N. Pfanner, Freiburg, Germany, is one of the world's leading experts in molecular and cellular biology of mitochondria. During the last DK funding period the stay of one of my students (S. Horvath) in N. Pfanner's laboratory led to a most fruitful collaboration between our groups. A number of joint publications have resulted. The expertise of the Pfanner lab will be very important for performing structure-function relationship studies especially with mitochondrial phosphatidylserine decarboxylase Psd1p.

Roger Schneiter

R. Schneiter, Fribourg, Switzerland, is an expert in molecular biology and biochemistry of lipid metabolic enzymes in yeast. The expertise of our two groups form a perfect symbiosis to perform detailed studies of enzymes involved in non-polar lipid metabolism of the yeast and the link to lipid droplet biogenesis.