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Lateral organization of proteins and lipids in the plasma membrane and the kinetics and lipid-dependence of lysine transport in *Saccharomyces cerevisiae*

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Joury van 't Klooster

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**Lateral organization of proteins and lipids in the plasma
 membrane and the kinetics of lysine transport in
 *Saccharomyces cerevisiae***

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List of abbreviations

AAPs	Amino Acid Permeases
APC	Amino acid-Polyamine-organoCation
ARTs	Arrestin Related Trafficking adaptors
BATs	Bacterial Amino acid Transporters
DIBMALP	Di-Iso-Butylene Maleic Acid Lipid Particles
DAG	DiAcylGlycerol
DNA	DeoxyRibonucleicAcid
DOPx	Di-Oleoyl- <i>sn</i> -PhosphatidylX
DPPx	Di-Palmitoyl- <i>sn</i> -PhosphatidylX
DRMs	Detergent Resistant Membranes
EL	Extracellular Loop
EM	Electron Microscopy
ER	Endoplasmic Reticulum
ERAD	ER-Associated Degradation
ESCRT	Endosomal Sorting Complex Required for Transport
ESI	ElectroSpray Ionization
FCCP	cyanide-p-trifluoromethoxyphenylhydrazone
FSEC	Fluorescent Size Exclusion Chromatography
GAAC	General Amino Acid Control
GABA	Gamma-Amino-Butyric-Acid
GBP	Green fluorescent protein Binding Protein
GFP	Green Fluorescent Protein
HPLC	High Performance Liquid Chromatography
IL	Intracellular loop
IPC	Inositol-Phospho-Ceramide
ITC	Isothermal Titration Calorimetry
KM	Michaelis Menten constant
LCB	Long Chain (sphingoid) Base
LTPs	Lipid Transfer Proteins
MCC	Micro Compartment of Can1
MCP	Micro Compartment of Pma1
MCT	Micro Compartment of TORC
MCS	Membrane Contact Sites
MFS	Major Facilitator Superfamily
MIPC	Mannosyl-Inositol-Phospho-Ceramide
M(IP) ₂ C	Mannosyl-di-Inositol-Phospho-Ceramide

MS	Mass Spectrometry
MVB	Multi-Vesicular Bodies
NCR	Nitrogen Catabolite Repression
PA	Phosphatidic-Acid
PC	Phosphatidyl-Choline
PE	Phosphatidyl-Ethanolamine
PG	Phosphatidyl-Glycerol
PI	Phosphatidyl-Inositol
PKA	Protein Kinase A
PS	Phosphatidyl-Serine
PM	Plasma Membrane
PMF	Proton Motive Force
POPx	Palmitoyl-Oleoyl- <i>sn</i> -PhosphatidylX
QToF	Quantitative Time of Flight
SD	Standard Deviation
SDS-PAGE	Sodium-Dodecyl-Sulfate-Poly-Acrylamide-Gel-Electrophoresis
SEC	Size Exclusion Chromatography
SEM	Standard Error of the Mean
SMA	Styrene Maleic Acid
SMALP	Styrene Maleic Acid Lipid Particle
TGN	Trans Golgi Network
T _m	Transition temperature
TMD	Trans Membrane Domain
TORC1/2	Target Of Rapamycin Complex 1/2
Ub	Ubiquitin
WB	Western Blotting
WT	Wild-Type
YATs	Yeast Amino acid Transporters