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Coiled-coil mediated liposomal fusion: Asymmetric behaving peptide fusogens

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LIST OF ABBREVIATIONS

CD	Circular dichroism
CDCl ₃	Deuteriochloroform
CHOL	Cholesteryl-4-amino-4-oxobutanoic acid
CP _n	Cholesteryl-4-amino-4-oxobutanoic acid-poly(ethylene glycol) with <i>n</i> repeating ethylene glycol units (only used for lipopeptides)
D ₂ O	Deuterium oxide
DCM	Dichloromethane
DIC	N,N'-Diisopropylcarbodiimide
DIPEA	Diisopropylethylamine
DLS	Dynamic light scattering
DMF	N,N-dimethylformamide
DOPC	1,2-Dioleoyl- <i>sn</i> -glycero-3-phosphatidylcholine
DOPE	1,2-Dioleoyl- <i>sn</i> -glycero-3-phosphatidylethanolamine
DOPE-LR	1,2-Dioleoyl- <i>sn</i> -glycero-3-phosphatidylethanolamine-lissamine-rhodamine B
DOPE-NBD	1,2-Dioleoyl- <i>sn</i> -glycero-3-phosphatidylethanolamine -N- (7 nitro-2-1,3-benzoxadiazol-4-yl) (ammonium salt)
EDT	1,2-Ethanedithiol
ESI	Electrospray Ionization
Fmoc	Fluorenylmethoxycarbonyl
FRET	Fluorescence resonance energy transfer
HCTU	O-(1H-6-Chlorobenzotriazole-1-yl)-1,1,3,3-tetramethyl-uronium hexafluorophosphate
IRRAS	Infrared Reflection Absorption Spectroscopy
LC-MS	Liquid chromatography-mass spectrometry
LiCl	Lithiumchloride
MALDI-TOF	Matrix assisted laser desorption/ionization time-of-flight detector
MeCN	Acetonitrile
MHz	Megahertz
NaN ₃	Sodium azide

LIST OF ABBREVIATIONS

NMP	N-methylpyrrolidine
NMR	Nuclear magnetic resonance
PBS	Phosphate buffered saline
PEG	Poly(ethylene glycol)
PMe ₃	trimethylphosphine
PyBOP	(1H-benzotriazol-1-yloxy)tripyrrolidinophosphonium hexafluorophosphate
RT	Retention time
rt	Room temperature
RP-HPLC	Reversed-phase high-pressure liquid chromatography
SNARE	Soluble NSF attachment protein receptor
SPPS	Solid phase peptide synthesis
TEA	Triethylamine
TFA	Trifluoroacetic acid
TFE	Trifluoroethanol
TIS	Triisopropylsilane

Aminoacids

A	Alanine	L	Leucine
C	Cysteine	N	Asparagine
E	Glutamic acid	Q	Glutamine
G	Glycine	W	Tryptophan
I	Isoleucine	Y	Tyrosine
K	Lysine		

CURRICULUM VITAE

Geert Arend Daudey was born on October 4th, 1988 in Rijssen, the Netherlands. He obtained his Bachelor in Applied Sciences from Hogeschool Utrecht, specialized in 'Research and Development in Organic Chemistry'. He conducted his Bachelor internship at Radboud University Nijmegen and combined this internship with a premaster in theoretical chemistry. Next, Geert obtained his MSc degree in Synthetic Organic Chemistry under the guidance of Dr. Floris van Delft. During his MSc internship, he developed the total synthesis of the fluorescent dye Singapore Green, and became experienced in the use of the synthetic toolbox of Organic Chemists. In 2011, he obtained his MSc degree in Organic Chemistry.

In 2012, Geert joined the Supramolecular and Biomaterials Chemistry group of Prof.dr. Alexander Kros at the University of Leiden, the Netherlands, where he started his PhD research on a ChemThem grant from the Netherlands Organisation for Scientific Research. He explored the mechanisms and dynamics of molecular recognition of peptide decorated liposomes and particles, as described in this PhD thesis. He is currently working as a Peptide Chemist in the group of Dr. Javier Montenegro at the University of Santiago de Compostela, Spain, on the rational development of cell penetrating peptides.

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