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NMR studies of protein-small molecule and protein-peptide interactions

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Rear cover: Oudenhofmolen, landmark of Oegstgeest, the Netherlands.

2013, Jia-Ying Guan

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*To my beloved families
who always support me in my decisions*

Table of Contents

List of Abbreviations.....	4
Chapter 1.....	6
General introduction	
Chapter 2.....	20
NMR characterization of the binding behavior of FKBP12 ligands	
Chapter 3.....	38
Structure determination of a protein-ligand complex by NOE	
Chapter 4.....	50
Structure determination of a protein-ligand complex by paramagnetic NMR spectroscopy	
Chapter 5.....	70
An ensemble of rapidly interconverting orientations in electrostatic protein-peptide complexes characterized by NMR spectroscopy	
Chapter 6.....	92
Concluding remarks	
References	97
Appendices	
A: 1D- ¹ H NMR spectra of FKBP12 ligand titrations	106
B: XPLOR-NIH script for NOE- and PCS-based structure calculations.....	111
C: XPLOR-NIH script for PRE-based ensemble docking.....	119
D: Backbone and side chain assignments of Zn-substituted PoPc	123
E: Backbone assignments of Zn-substituted DPc	125
F: Supplementary figures for Chapter 5	126
Summary	132
Samenvatting	134
List of Publications.....	136
Curriculum vitae	137
Acknowledgements.....	138

List of Abbreviations

CLaNP	Caged Lanthanide NMR Probe
CPMG	Carr-Purcell-Meiboom-Gill
CSP	chemical shift perturbations
Cyt <i>f</i>	Cytochrome <i>f</i>
DNase	deoxyribonuclease
DTT	dithiothreitol
EPR	electron paramagnetic resonance
FBDD	fragment-based drug discovery
FKBP12	FK506-binding protein 12
HSQC	heteronuclear single-quantum correlation spectroscopy
IPTG	isopropyl β -D-1-thiogalactopyranoside
K _D	dissociation constant
LBP	lanthanide-binding peptide
LBT	lanthanide-binding tag
MC	Monte Carlo
NMR	nuclear magnetic resonance
NOE	nuclear Overhauser enhancement
NOESY	nuclear Overhauser enhancement spectroscopy
Pc	plastocyanin
PCS	pseudocontact shift
PMSF	phenylmethylsulfonyl fluoride
PRE	paramagnetic relaxation enhancement
RDC	residual dipolar coupling
SAR	structure-activity relationship
SDS-PAGE	sodium dodecyl sulfate polyacrylamide gel electrophoresis
TFA	trifluoroacetic acid
TINS	target-immobilized NMR screening
TOAC	2,2,6,6-tetramethylpiperidine-1-oxyl-4-amino-4-carboxylic acid
TOCSY	total correlation spectroscopy

