
**A Psychobiological Perspective
on the Association
of Common Glucocorticoid Receptor
Gene Polymorphisms with
Hypothalamus-Pituitary-Adrenal Axis Regulation**

Robert Kumsta



Cuvillier Verlag Göttingen

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by Raj S Ramesar
Professor of Human Genetics
Faculty of Health Sciences
University of Cape Town
South Africa

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Abbreviations

A	adenine
ACTH	adrenocorticotrophic hormone
AF-1	activating function 1
ANOVA	analysis of variance
AP1	activator protein 1
AUC	area under the curve
AVP	arginine-vasopressin
Bp	basepair
BMI	body mass index
BNST	bed nucleus of the stria terminalis
C	cytosine
CAR	cortisol awakening response
CBG	corticosteroid binding globulin
CRH	corticotrophin-releasing hormone
DBD	DNA binding domain
Dex	Dexamethasone
DNA	deoxyribonucleic acid
DST	Dexamethasone Suppression Test
ELISA	Enzyme Linked Immunosorbent Assay
fMRI	functional magnetic resonance imaging
G	guanine
GABA	γ -aminobutyric acid
GC	glucocorticoid
GLM	general linear model
GR	glucocorticoid receptor
GRE	glucocorticoid response element
GRIP1	glucocorticoid receptor interacting protein-1
h	hours
HPA	hypothalamus-pituitary-adrenal
Hsp	heat shock protein
IFN- γ	interferon- γ
IL	interleukin
K	lysine

Abbreviations

Kb	kilobase
LBD	ligand binding domain
LPS	lipopolysaccharid
mRNA	messenger RNA
min	minutes
MR	mineralocorticoid receptor
ms	milliseconds
nGRE	negative glucocorticoid response element
NGFI-A	nerve growth factor-induced protein A
NF κ B	nuclear factor κ B
OC	oral contraceptives
PET	positron emission tomography
POMC	pro-opiomelanocortin
PTSD	post traumatic stress disorder
PVN	paraventricular nuclei
R	arginine
RFLP	restriction fragment length polymorphism
RNA	ribonucleic acid
SAGE	serial analysis of gene expression
SEM	standard error of the mean
SNP	single nucleotide Polymorphism
SRp30c	serine-arginine-rich protein 30c
Stat5	signal transducer and activator of transcription 5
T	thymine
TAD	transactivating domain
TNF- α	tumor necrosis factor
TSST	Trier Social Stress Test
UTR	untranslated region
WHR	waist-to-hip ratio
5-HT	serotonin
5-HTT	serotonin transporter
11 β -HSD	11 β -hydroxysteroid dehydrogenase

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CHAPTER 1

Introduction and Outline