

## Abkürzungen/Abbreviations

2CA	Typ 2CA-amakrine Zellen der Retina	DD	Dauerdunkel
5-MCA-NAT	5-Methoxycarbonylamino-N-Azetyltryptamin	DFG	Deutsche Forschungsgemeinschaft
a-, b- und c-Wellen	Retinale elektrische Wellen	DMBA	7,12-Dimethylbenz(a)anthrazen
AANAT	Arylalkylamin-N-Azetyltransferase	DNA	desoxyribonucleic acid
<i>aanat</i> -mRNA	Transkript des <i>aanat</i> -Gens	DOPAC	Abbauprodukt des Dopamins
AC	Adenylatcyclase	E-Box	Promotor-Erkennungssequenz (CACGTG) für Uhren-gen-Proteine
ACh	Acetylcholin	ERG	Ether-a-go-go-related-gene (Protein)
ACTH	Adrenocorticotropes Hormon	<i>Erg 1,2,3</i>	Isoformen des <i>ether-a-go-go-related-gene</i>
Agl	Außenglieder	FGF2	fibroblast growth factor 2 (Fibroblasten-wachstumsfaktor)
AHA	Area hypothalamica anterior	GABA	gamma aminobutyric acid (Neurotransmitter)
AII-Zellen	Typ AII-amakrine Zellen der Retina	GCL	ganglion cell layer (Ganglienzellschicht der Retina)
alpha-MSH	alpha-Form des Melanocyten stimulierenden Hormons	GCMS	Gas-Chromatographie-Massenspektroskopie
ARNT	arylhydrocarbon receptor nuclear translocator	GFAP	glial fibrillary acid protein (saures Gliafibrillenprotein)
ARNT-like Protein 1	arylhydrocarbon receptor nuclear translocator-like protein 1	Gglz	Ganglienzellen
AvaII	Restriktionsenzym AvaII	GH	growth hormone (Wachstumshormon)
Az	amakrine Zellen	Gi	inhibitorisches GTP-bindendes Protein
BclI	Restriktionsenzym BclI	GIP	gastric inhibitory polypeptide (gastrointestinales Hormon)
BfII	Restriktionsenzym BfII	GK-Ratte	Goto-Kakizaki-Ratte (Typ2-diabetisches Rattenmodell)
BMAL1	brain and muscle arylhydrocarbon receptor nuclear translocator-like protein 1 (Uhren-gen-Protein)	GLP	glucagon like peptide (gastrointestinales Hormon)
<i>Bmal1</i> -mRNA	Transkript von <i>Bmal1</i> (Uhren-gen)	Glu21-	
BPH	benigne Prostatahyperplasie	Glukagon	Glu21-Form des Glukagons
cAMP	cyclisches Adenosinmonophosphat	GLUC	Glukagon
CCK	Cholecystokinin	GlutR3	Glutamat-Rezeptor 3
cGMP	cyclisches Guanosinmonophosphat	GnRH	gonadotropin releasing hormone
CGRP	calcitonin gene related polypeptide	GPx	Glutathione peroxidase
CKII $\epsilon$	Kaseinkinase 1 $\epsilon$	Gq	GTP-bindendes Protein q
CKI $\delta$	Kaseinkinase $\delta$	GSH	reduced glutathione, Glutathion (reduziert)
CLOCK	circadian locomotor output cycles kaput (Uhren-gen-Protein)	GSSG	oxidized glutathione, Glutathion (oxidiert)
<i>Clock</i> -mRNA	Transkript des <i>Clock</i> -Gens	GTP	Guanosintriphosphat
CLSM	Konfokale Laser-Scanning Mikroskopie	HALO	hours after lights on
CMZ	circumferential marginal zone	HERG	human ether-a-go-go-related-gene (Protein)
CRE	cAMP-response element	HIF1a	hypoxia-inducible factor 1, alpha subunit
CREB	CRE-binding protein	HIOMT	Hydroxyindol-O-methyltransferase
CRH	corticotropin releasing hormone	HPLC	high performance liquid chromatography
<i>Cry1</i> -mRNA	Transkript von <i>Cryptochrome 1</i> (Uhren-gen)	Hz	Horizontalzelle der Retina
<i>Cry2</i> -mRNA	Transkript von <i>Cryptochrome 2</i> (Uhren-gen)	ICER	inducible cAMP early repressor
D2/D4	Dopamin-Rezeptoren	IGF-1	insulin-like growth factor 1 (Insulin-ähnlicher Wachstumsfaktor)
DAG	Diacylglycerin	Igl	Innenglieder der Retina
dbp	albumin-D-element binding protein		

INL	inner nuclear layer (Stratum nucleare internum) der Retina	<i>Per2</i>	<i>Period 2</i> (Uhrengen)
IP3	Inositoltriphosphat	<i>Per3</i>	<i>Period 3</i> (Uhrengen)
IPL	inner plexiform layer (Stratum plexiforme internum) der Retina	Pin	Pinealorgan
ir/IR	Immunreaktive Zellen	PKA	Proteinkinase A
IUPHAR	Receptor nomenclature committee	PKC	Proteinkinase C
L : D	Licht : Dunkel-Zyklus	PLC	Phospholipase C
LH	Luteinisierendes Hormon	POMC	Proopiomelanocortin
LHRH	releasing hormone des luteinisierenden Hormons	PPAR $\alpha$	peroxisome proliferator activated receptor $\alpha$
LL	Dauerlicht	PRL	Prolaktin
Lys17,18	Glukagonagonist Lysin 17,18	PSP1	Protein-Serin/Threonin-Phosphatase 1
MBH	Mediobasaler Hypothalamus	PT	Pars tuberalis
MC1-6R	Melanocortin-Rezeptoren	PTX	Pertussistoxin
MEL	Melatonin	PVT	Nucleus paraventricularis (paraventricular nucleus of the hypothalamus)
MeIRR-1/		QR2	quinone reductase type 2
GPR 50	melatonin receptor-related receptor 1	RCS	Royal College of Surgeons
MNH	N-methyl-N-nitrosourea	rd-Mäuse	retinal dystrophische Mäuse
MRP	multidrug resistance proteins	<i>Rev-Erb<math>\alpha</math></i>	Gen des nucleären Rezeptors Rev-Erb $\alpha$
MSH	Melanozyten-stimulierendes Hormon	RHT	retino-hypothalamic tract
MT1	Mel <sub>1a</sub> -Rezeptor	RIA	Radioimmunoassay
MT2	Mel <sub>1b</sub> -Rezeptor	RNA	ribonucleic acid
MT1-/-	MT1-defizient	ROR	retinoic acid receptor related orphan receptor
MT2-/-	MT2-defizient	ROR $\alpha$	alpha-Isoform des ROR
MT3	quinone reductase type 2	ROR $\gamma$	gamma-Isoform des ROR
muscAChR	muskarinischer Acetylcholinreceptor	ROS	reactive oxygen species, reaktive Sauerstoffspezies
N	nervus	RPE	retinales Pigmentepithel
NA	Noradrenalin	RT-PCR	reverse transcription polymerase chain reaction
NAD <sup>+</sup>	nicotinamide adenine dinucleotide	RZR $\alpha$	alpha-Isoform des ROR
NADPH	nicotinamide adenine dinucleotide phosphate, Nikotinsäureamid-adenin-dinucleotidphosphat, reduziert	RZR $\beta$	beta-Isoform des ROR
NAT-AANAT	Serotonin-N-Azetyltransferase	SEM	standard error of mean (Standardabweichung des Mittelwertes)
NECA	A <sub>2b</sub> -Rezeptorantagonist	SOD	superoxide dismutase
nicAChR	nikotinischer Acetylcholinreceptor	SP	Substanz P
NIDDM	non insulin dependent diabetes mellitus (Typ2-Diabetes)	SRIF	somatotropin release inhibitory factor
NMH	N-Nitroso-N-methylharnstoff	SS	Serumschock
NO	nitric oxide (Stickstoffmonoxid)	sst (1-5)	Isoformen von SRIF-Rezeptoren
NPY	Neuropeptid Y	Stbz	Stäbchen-Bipolarzelle der Retina
NSC	Nucleus suprachiasmaticus (Nuclei suprachiasmatici)	STZ	Streptozotocin (experimentelles Diabetikum)
ONL	outer nuclear layer (Stratum nucleare externum) der Retina	SUR1	sulfonylurea-receptor 1 (Sulfonylharnstoff-rezeptor 1)
OPL	outer plexiform layer (Stratum plexiforme externum) der Retina	T/N-	
PACAP	pituitary adenylate cyclase activating polypeptide	Rhythmus	Tag/Nacht-Rhythmus
PARP	poly(ADP-ribose) polymerase	TBARS	Thiobarbiturat-reaktives Material
PAS	Per-Armt-Sim	TDO	Tryptophan-2,3-dioxygenase
PATA	Pineale Anti-Tumoraktivität	TH	Tyrosinhydroxylase
PC	Prostatacarcinom	TPH	Tryptophanhydroxylase
PCR	polymerase chain reaction (Polymerase-Kettenreaktion)	<i>TPH</i> -mRNA	Transkript des Tryptophanhydroxylase-Gens
<i>Per1</i>	<i>Period 1</i> (Uhrengen)	TRH	thyrotropin releasing hormone
<i>Per1</i> -mRNA	Transkript von <i>Per1</i>	TSH	Thyrotropin, Thyreoidea-stimulierendes-Hormon
		VEGF	vascular endothelial growth factor
		VIP	vasoactive intestinal polypeptide
		WT	Wildtyp
		Zbz	Zapfen-Bipolarzelle der Retina
		ZENK	immediate early gene-Protein
		ZT	Zeitgeberzeit (Zeitgeber time)