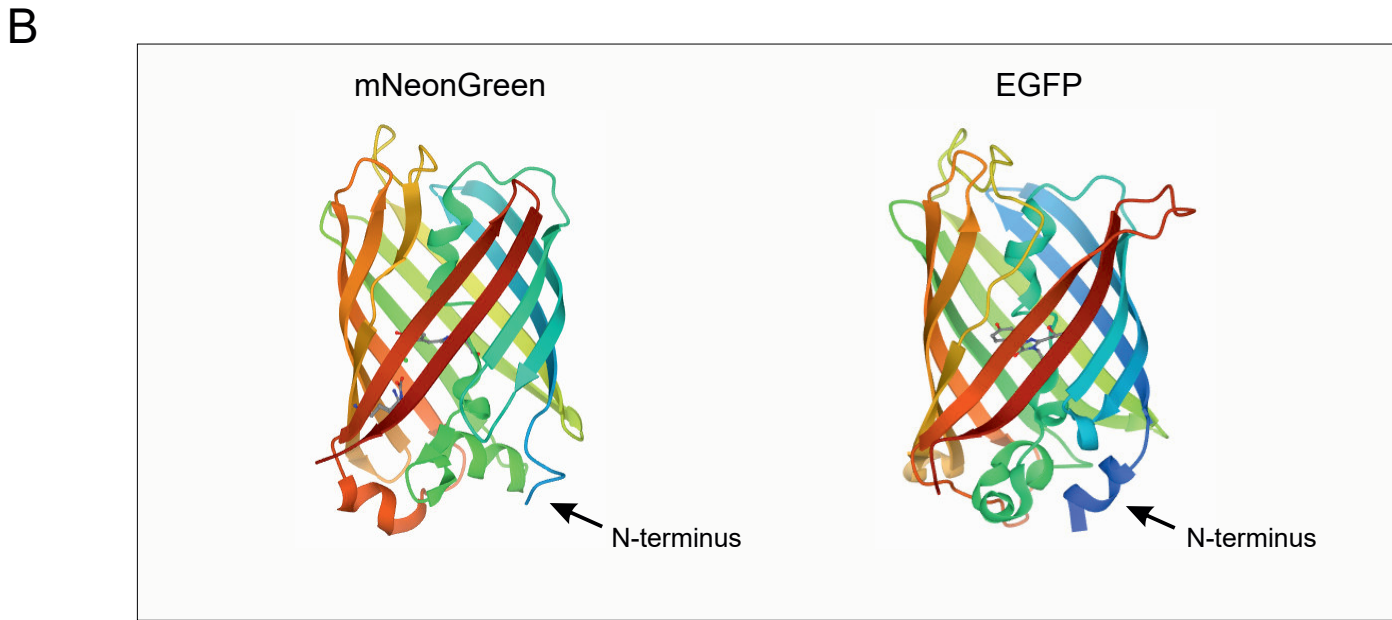


A

CLUSTAL O(1.2.4) multiple sequence alignment

mNeonGreen	MVSKGEE	DNMASL	PATHELHIF	GSINGV	DFDMVG	QGTGNP	NDGYEEL	NLKSTK	GD	LQFSP	60	
EGFP	MVSKGEE	LFTGVVP	IL--VELD	GDVNGH	KFSVSG	EGEGDATY	GKLT	LKFICT	TTGKL	PVPW	58	
	*****	.	:*	::	*:*	*:	*	.	*	*::	.*.*.*	
mNeonGreen	WILVPHIG	YGFHQYLP	YPDGM	SFPQAA	-MVDGS	GYQVHRT	MQFED	GASLTV	NYRYTY	EGS	119	
EGFP	PTLVTTLT	YGVCFSR	YPDHMK	QHDFFK	SAMPEGY	VQERTIF	FKDDG	NYKTRA	EVKFEG	D	118	
	**	:	**::	:	***	*	.	:	.	**	.*::	
mNeonGreen	HIKG	EAQVKGT	GFPA	DGPVMTNSL	TAADW	CRSKKTY	PN---	DKT	IIST	FKWSYTTGN	CK	175
EGFP	TLVNRIEL	KGIDFKE	DGNILGH	KLEYNYNSH	--NV	YIMADKQ	KNGIKAN	FKIRHN	IEDCG			176
	:	..	::**	.	*	**	::	::*	.	:	*	::**
mNeonGreen	RYRSTART	TYTFAKP	MAAN	-YLNQPMY	VFRKTEL	----	KHSKTEL	NFKEWQ	KAFTD	VMG		230
EGFP	V--QLADH	YQQNTPI	GDGPVLL	PDNHYL	STQSALS	KDPNEK	RDHMVLL	EFVTA	AAGITLG			233
		*	.	*:	.	*	:	*	:	:	*	.*
mNeonGreen	MDELYK											236
EGFP	MDELYK											239
	*****											



C

		palmNeonGreen	palmGFP
Construct	Promoter	CMV	
	Vector	CSCGW2 lentivirus	pLNCX retrovirus
EVs characterisation	EVs purification method	Size exclusion chromatography	Sucrose gradient centrifugation
	EVs size	40 to 240 nm; mean 118.6 $\pm$ 1.4 nm	Various (not provided in details); EVs detected in 0.22 $\mu$ m and 0.8 $\mu$ m - filtered sample
	EVs markers	Alix, Flotillin-2, CD9, CD63, DR $\alpha$	Alix
EVs uptake	EVs donor cells	MelJuSo	HEK 293T; primary glioblastoma cells
	EV recipient cells	Huh7	HEK 293T; primary glioblastoma cells
Fluorescent reporter	Organism	<i>Aequorea Victoria</i>	<i>Branchiostoma lanceolatum</i>
	Excitation	506 nm	488 nm
	Emission	517 nm	509 nm
	Brightness	92.8	33.54
	Maturation	25 minutes	10 minutes
	Sequence identity	20-25%	

**Supplementary Figure S2. Comparison of mNeonGreen and EGFP reporters.** A. Amino acid sequence alignment of mNeonGreen (GenBank accession number AGG56535.1) and EGFP (Addgene expression vector 14757). B. X-ray structure of mNeonGreen (RCSB PDB accession number 5LTR) and EGFP (RCSB PDB accession number 2YGD). C. The properties of mNeonGreen and EGFP and the comparison of methodological details between this study using palmNG and the report by Lai *et al.* [20] using palmGFP.