

**Table 1.** Therapeutic relevant opsins (opsins currently involved in clinical trials)

Opsin	Species	Peak $\lambda$	Permeability	Clinical Trial #	Size
Channelrhodopsin2	<i>Chlamydomonas reinhardtii</i>	470 nm	Cation	NCT02556736	945 bp
Chronos	<i>Stigeoclonium helveticum</i>	500 nm	Cation	NCT04278131	978 bp
ChrimsonR	<i>Chlamydomonas noctigama</i>	590 nm	Cation	NCT03326336	1056 bp