

Table S3: Excitation filter / beam splitter combinations used for photomorbidity measurements.

Excitation filter	Beam splitter	SpectraX LED	SpectraX power
Single color toxicity			
390/18 nm	HC-BS 520	violet	20 % (3.74 W cm ⁻²)
438/24 nm	HC-BS 458	blue	10 % (3.64 W cm ⁻²)
480/20 nm	T495 LPXR	cyan	20 % (3.57 W cm ⁻²)
504/12 nm	HC-BS 520	teal	100 % (2.91 W cm ⁻²)
542/20 nm	HC-BS 562	green	20 % (4.22 W cm ⁻²)
605/15 nm	HC-BS 660	green	100 % (4.50 W cm ⁻²)
Intensity comparison			
438/24 nm	HC-BS 458	blue	10 % (3.62 W cm ⁻²)
438/24 nm	HC-BS 458	blue	30 % (9.33 W cm ⁻²)
438/24 nm	HC-BS 458	blue	100 % (22.4 W cm ⁻²)
Bandwidth comparison			
480/20 nm	HC-BS 660	cyan	20 % (3.72 W cm ⁻²)
488/6 nm	HC-BS 660	cyan	34 % (3.69 W cm ⁻²)
494/41 nm	HC-BS 660	cyan	15 % (3.74 W cm ⁻²)

The light power setting and measured intensity of the epifluorescence excitation light source are indicated.