

Figure S1

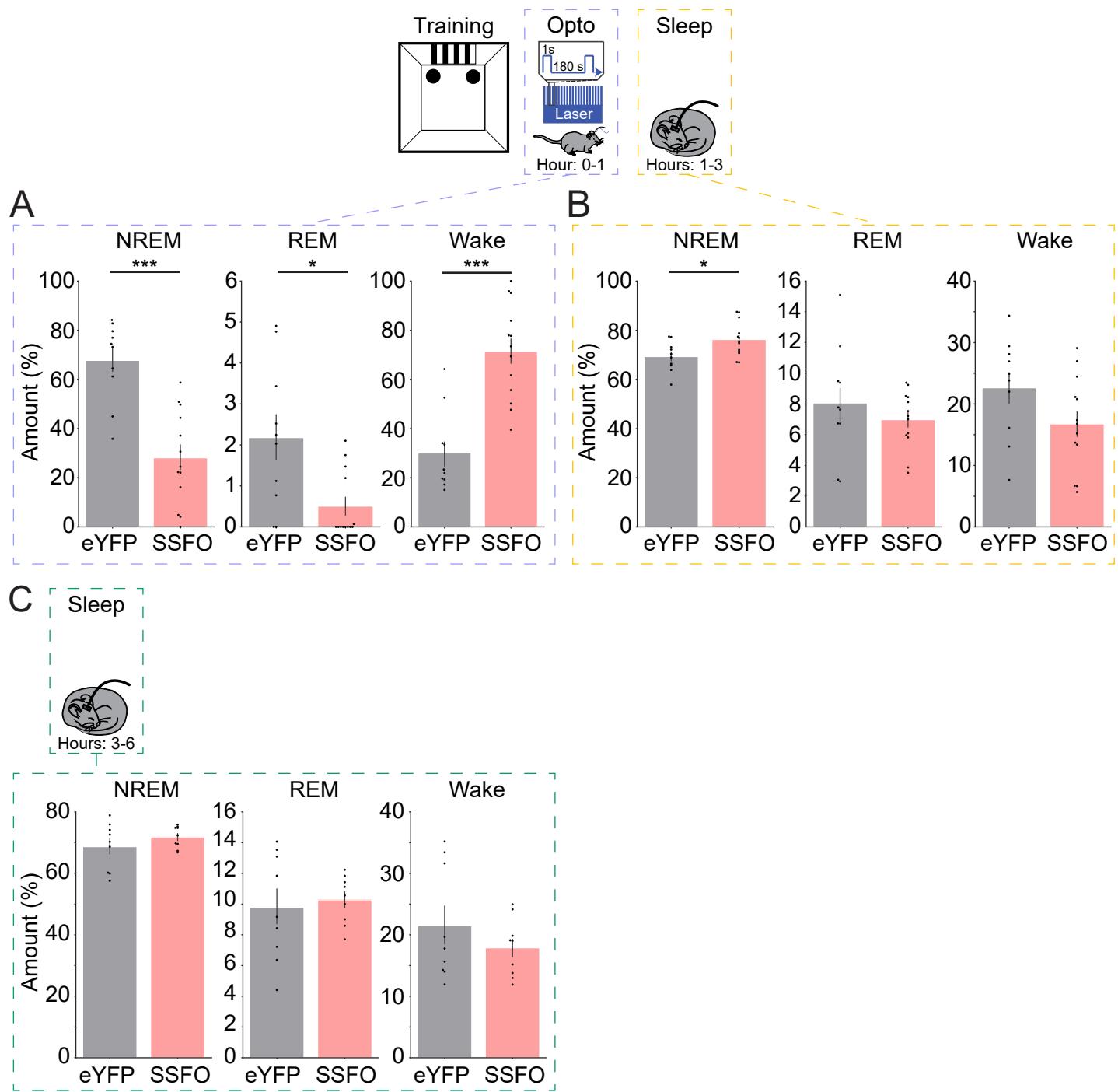


Figure S2

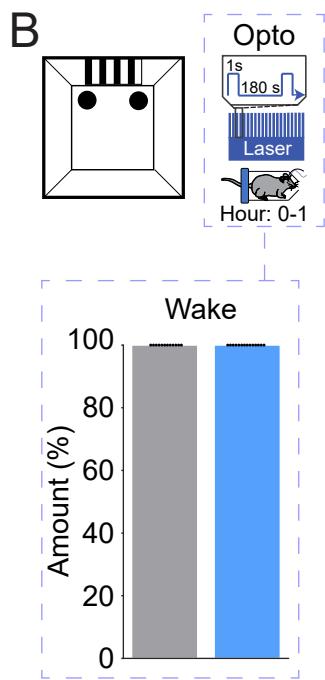
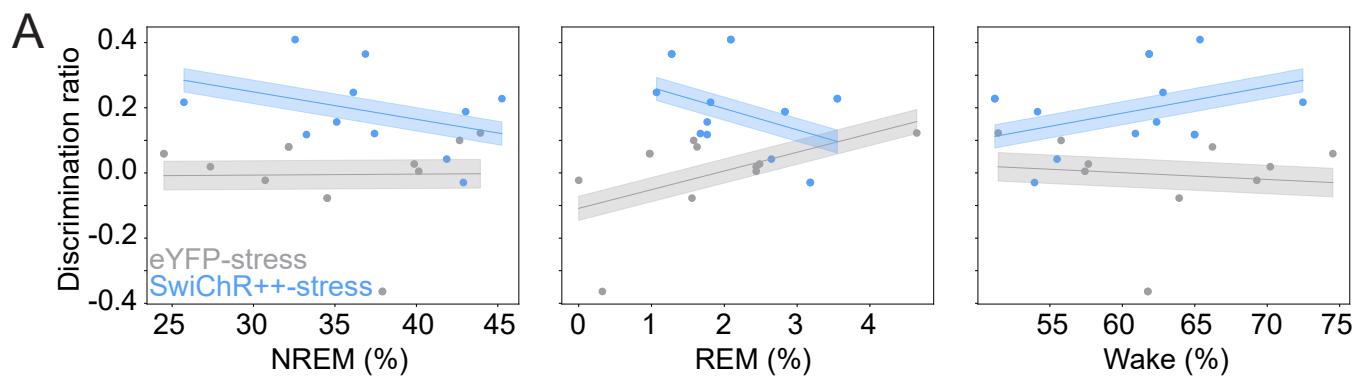


Figure S3

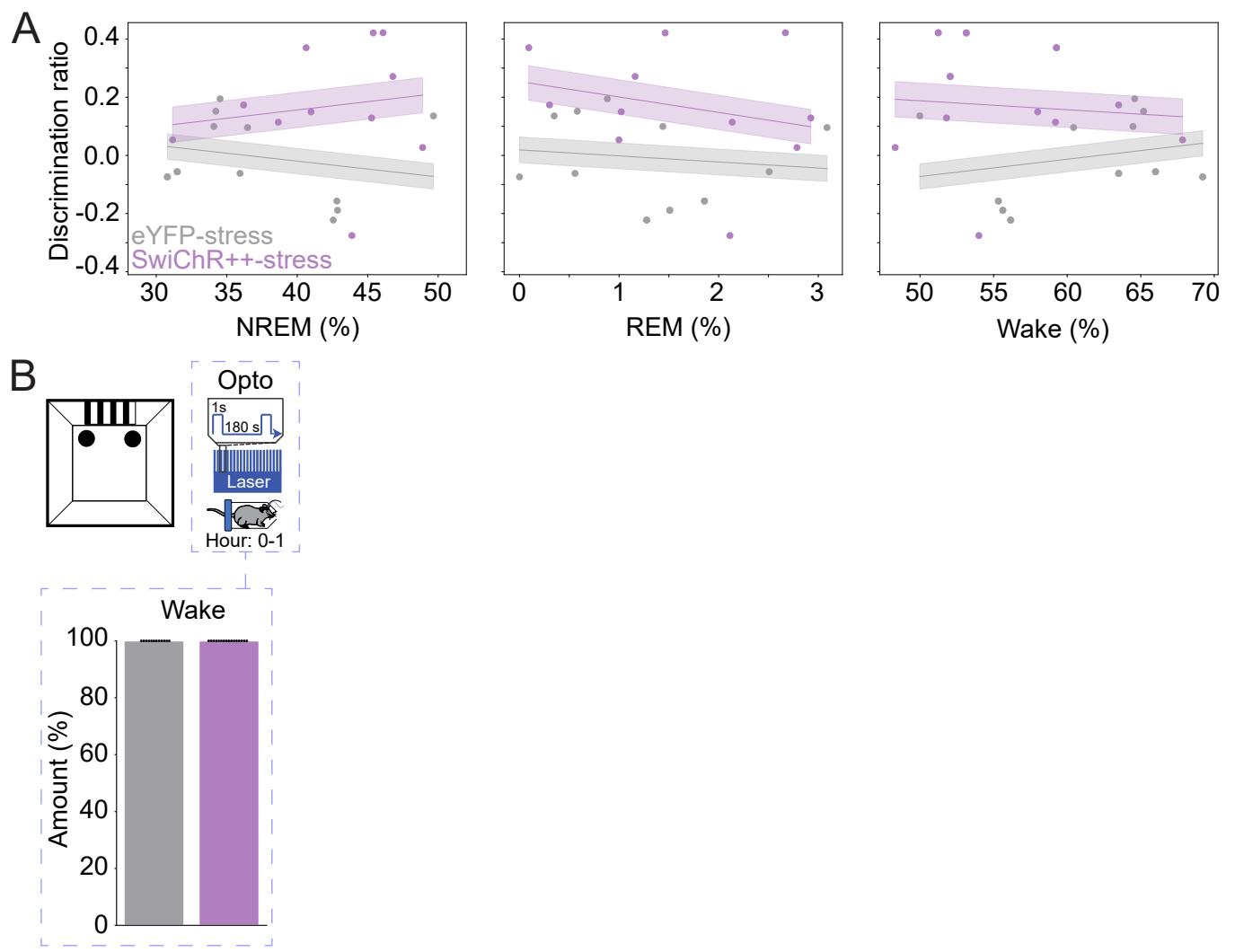


Figure	Statistical test	Values	Sample size
1D	Paired t-test	Test vs. Training eYFP: T(8) = 3.032, P = 0.0163 SSFO: T(9) = 0.1356, P = 0.8951	9 eYFP mice 10 SSFO mice
1E	T-test	SSFO vs. eYFP T(17) = 3.087, P = 0.0067	9 eYFP mice 10 SSFO mice
1G	T-test	eYFP vs. SSFO NREM: T(14.594) = 2.894, P = 0.011 REM: T(13.012) = 1.445, P = 0.172 Wake: T(15.109) = -2.900, P = 0.011	10 eYFP mice 13 SSFO mice
1H	Linear Mixed Model	NREM: Coef = 0.009, Std.Err = 0.006, z = 1.572, P = 0.116 Group: Coef = -0.152, Std. Err = 0.253, z = -0.603, P = 0.547 REM: Coef = 0.024, Std.Err = 0.020, z = 1.202, P = 0.230 Group: Coef = -0.203, Std. Err = 0.255, z = -0.794, P = 0.427 Wake: Coef = -0.009, Std.Err = 0.005, z = -1.716, P = 0.086 Group: Coef = -0.143, Std. Err = 0.250, z = -0.572, P = 0.567	9 eYFP mice 10 SSFO mice
2C	Paired t-test	Test vs. Training Control: T(11) = 2.493, P = 0.0299 Stress: T(8) = 0.5953, P = 0.5681	12 control mice 9 stress mice
2D	T-test	Stress vs. Control T(19) = 2.133, P = 0.0462	12 control mice 9 stress mice
2H	Paired t-test	Test vs. Training eYFP-stress: T(10) = 0.2191, P = 0.8309 SwiChR++-stress: T(10) = 5.342, P = 0.0003	11 eYFP-stress mice 11 SwiChR++-stress mice
2I	T-test	SwiChR++-stress vs. eYFP-stress T(20) = 3.352, P = 0.0032	11 eYFP-stress mice 11 SwiChR++-stress mice
2K	T-test	eYFP-stress vs. SwiChR++-stress NREM: T(23.311) = -1.775, P = 0.089 REM: T(18.324) = -1.263, P = 0.222 Wake: T(23.108) = 1.829, P = 0.080	12 eYFP-stress mice 14 SwiChR++-stress mice
3D	Paired t-test	Test vs. Training eYFP: T(9) = 3.213, P = 0.0106 SwiChR++: T(9) = 2.291, P = 0.0477	10 eYFP mice 10 SwiChR++ mice
3E	T-test	SwiChR++ vs. eYFP T(18) = 0.9133, P = 0.3731	10 eYFP mice 10 SwiChR++ mice
3G	T-test	eYFP vs. SwiChR++ NREM: T(24.888) = 0.628, P = 0.536 REM: T(18.307) = 0.565, P = 0.579 Wake: T(24.130) = -0.702, P = 0.490	13 eYFP mice 15 SwiChR++ mice
4C	T-test	Stress vs. Control T(4) = 9.725, P = 0.0006	3 control mice 3 stress mice (averaged 3 sections/mouse, bilateral)
4F	T-test	SSFO vs. eYFP T(7) = 2.762, P = 0.0280	4 eYFP mice 5 SSFO mice (averaged 2 sections/mouse, unilateral)
4J	Paired t-test	Test vs. Training eYFP-stress: T(10) = 0.2768, P = 0.7876 SwiChR++-stress: T(10) = 2.974, P = 0.0139	11 eYFP-stress mice 11 SwiChR++-stress mice
4K	T-test	SwiChR++-stress vs. eYFP-stress T(20) = 2.320, P = 0.0310	11 eYFP-stress mice 11 SwiChR++-stress mice
4M	T-test	eYFP-stress vs. SwiChR++-stress NREM: T(20.024) = -2.381, P = 0.027 REM: T(24.157) = -0.664, P = 0.513 Wake: T(21.458) = 2.405, P = 0.025	12 eYFP-stress mice 16 SwiChR++-stress mice
S1A	T-test	eYFP vs. SSFO NREM: T(20.737) = 5.354, P = 0.000027 REM: T(11.830) = 2.766, P = 0.017 Wake: T(20.798) = -5.499, P = 0.000019	10 eYFP mice 13 SSFO mice
S1B	T-test	eYFP vs. SSFO NREM: T(20.591) = -2.546, P = 0.019 REM: T(12.551) = 0.851, P = 0.411 Wake: T(18.834) = 1.761, P = 0.094	10 eYFP mice 13 SSFO mice
S1C	T-test	eYFP vs. SSFO NREM: T(16) = -1.109, P = 0.284 REM: T(16) = -0.381, P = 0.708 Wake: T(16) = 1.046, P = 0.311	9 eYFP mice 9 SSFO mice
S2A	Linear Mixed Model	NREM: Coef = -0.004, Std.Err = 0.005, z = -0.724, P = 0.469 Group: Coef = 0.200, Std. Err = 0.201, z = 0.994, P = 0.320 REM: Coef = 0.022, Std.Err = 0.029, z = 0.765, P = 0.444 Group: Coef = 0.185, Std. Err = 0.200, z = 0.923, P = 0.356 Wake: Coef = 0.002, Std.Err = 0.005, z = 0.538, P = 0.591 Group: Coef = 0.198, Std. Err = 0.202, z = 0.981, P = 0.326	10 eYFP-stress mice 11 SwiChR++-stress mice
S2B	T-test	Wake: All mice recorded had 100% wake; variance = 0, preventing standard t-test calculation.	12 eYFP-stress mice 14 SwiChR++-stress mice
S3A	Linear Mixed Model	NREM: Coef = -0.000, Std.Err = 0.007, z = -0.065, P = 0.948 Group: Coef = 0.178, Std. Err = 0.272, z = 0.656, P = 0.512 REM: Coef = -0.038, Std.Err = 0.041, z = -0.909, P = 0.363 Group: Coef = 0.189, Std. Err = 0.265, z = 0.713, P = 0.476 Wake: Coef = 0.001, Std.Err = 0.007, z = 0.207, P = 0.836 Group: Coef = 0.183, Std. Err = 0.135, z = 1.355, P = 0.175	11 eYFP-stress mice 11 SwiChR++-stress mice
S3B	T-test	Wake: All mice recorded had 100% wake; variance = 0, preventing standard t-test calculation.	12 eYFP-stress mice 16 SwiChR++-stress mice

Table S1