

## Multimedia Appendix 8

Year	Hashtag	Count	Sent	SD	Year	Hashtag	Count	Sent	SD
2013	genome	94	0.81	0.40	2017	geneediting	12,648	0.38	0.56
	dna	48	0.92	0.35		genomeediting	9747	0.36	0.55
	cas9	44	0.32	0.47		science	5190	0.60	0.56
	drosophila	41	0.41	0.50		biotech	3374	0.53	0.57
	crisp	38	1.00	0.00		tech	3322	0.63	0.53
	genetics	38	0.82	0.39		dna	2894	0.56	0.57
	synbio	38	0.42	0.64		genetics	2546	0.54	0.59
	btoty	34	1.00	0.00		genomics	2294	0.51	0.57
	science	31	0.74	0.44		cancer	2003	0.68	0.55
	rna	30	0.47	0.51		health	1883	0.79	0.49
	editas	28	0.96	0.19		news	1804	0.62	0.55
	genomics	28	0.43	0.50		ai	1743	0.47	0.53
	gblocks	23	0.00	0.00		technology	1679	0.58	0.56
cell	22	0.82	0.39	sntop10	1533	0.25	0.64		
biotech	20	0.50	0.51	gmo	1504	0.14	0.75		
2014	genomics	368	0.80	0.40	2018	geneediting	13,000	0.37	0.63
	dna	273	0.63	0.48		genomeediting	7765	0.40	0.58
	synbio	244	0.68	0.47		science	5210	0.52	0.64
	cas9	225	0.60	0.49		biotech	5052	0.41	0.60
	science	222	0.71	0.46		genetics	4468	0.52	0.58
	genome	195	0.77	0.42		dna	4206	0.49	0.63
	biotech	177	0.64	0.48		crisprbabies	4020	-0.30	0.65
	genetics	175	0.73	0.45		gmo	3886	0.09	0.61
	nbthighlight	165	0.35	0.48		cancer	3547	0.57	0.72
	sciwrri14	118	0.29	0.45		ai	3421	0.63	0.51
	ashg14	115	0.39	0.49		genomics	3272	0.43	0.60
	rna	110	0.53	0.50		geneeditsummit	2504	-0.01	0.46
	nbtinthenews	91	0.92	0.27		synbio	2289	0.58	0.58
genetherapy	90	0.54	0.50	gmos	2139	0.03	0.51		
drosophila	86	0.36	0.48	cas9	2009	0.45	0.65		
2015	geneeditsummit	3337	0.20	0.44	2019*	geneediting	10,764	0.42	0.62
	science	2096	0.56	0.58		genomeediting	5950	0.40	0.57
	crisprfacts	1322	0.36	0.59		biotech	4778	0.55	0.53
	dna	1148	0.33	0.73		science	4097	0.57	0.59
	geneediting	1088	0.34	0.54		dna	3734	0.54	0.62
	genetics	1045	0.23	0.70		genetics	3720	0.53	0.55
	genomeediting	963	0.49	0.52		technology	2657	0.68	0.53
	genome	962	0.55	0.59		genomics	2590	0.48	0.55
	biotech	938	0.49	0.53		cancer	2306	0.68	0.55
	genomics	848	0.47	0.55		gmo	2090	-0.11	0.76
	bioethics	797	-0.02	0.45		cas9	1841	0.61	0.53
	cas9	781	0.53	0.55		researchhighlight	1822	1.00	0.06
	synbio	722	0.51	0.54		ai	1793	0.56	0.56
gene	610	0.21	0.77	crisprbabies	1730	-0.13	0.63		
cancer	441	0.85	0.36	genetherapy	1637	0.62	0.54		
2016	science	4479	0.62	0.52	2019	geneediting	4485	0.42	0.62
	geneediting	3920	0.42	0.53		genomeediting	2479	0.40	0.57
	tech	2163	0.46	0.59		biotech	1991	0.55	0.53
	biotech	2132	0.45	0.55		science	1707	0.57	0.59
	genetics	1748	0.47	0.53		dna	1556	0.54	0.62
	cancer	1671	0.69	0.46		genetics	1550	0.53	0.55
	dna	1626	0.66	0.50		technology	1107	0.68	0.53
	news	1551	0.43	0.57		genomics	1079	0.48	0.55
	gmo	1518	0.24	0.57		cancer	961	0.68	0.55
	genomics	1496	0.50	0.53		gmo	871	-0.11	0.76
	hiv	1459	0.90	0.34		cas9	767	0.61	0.53
	obesity	1172	0.47	0.58		researchhighlight	759	1.00	0.06
	gene	1057	0.64	0.51		ai	747	0.56	0.56
patent	1038	0.02	0.28	crisprbabies	721	-0.13	0.63		
cas9	972	0.57	0.52	genetherapy	682	0.62	0.54		

**Table : Top hashtags' counts and sentiments.** List of top 15 hashtags, corresponding counts (Count), sentiments (Sent) and standard deviations (SD) by year. The extrapolated hashtag counts for 2019 are shown under 2019\*, the original counts for the first five months under 2019. The mean values of this table were used in Figure 4.