

Editorial

The AALAS Journals: 2016 in Review

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The November 2016 issue of the *Journal of the American Association for Laboratory Animal Science (JAALAS)* volume 55 and the December 2016 issue of *Comparative Medicine (CM)* volume 66 mark the end of another year for the AALAS journals. Our sincere

thanks go again to the talented support the journals receive from art director Amy Tippett and scientific editor Amy Frazier, as well as to the AALAS staff, John Farrar and Virginia Dawson. This team together continues to sustain a timely flow of well-edited

Table 1. Journal statistics

JAALAS	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Total submissions	119	132	172	167	191	170	179	158	148	162
International	31	52	61	52	71	57	74	75	54	60
% international	26	39	35	31	37	34	41	59	36	37
Disposition of submissions										
Referred to <i>CM</i>	4	11	15	18	31	16	17	25	23	36
Withdrawn	7	6	4	8	5	5	3	4	4	0
Rejected	37	35	41	43	55	64	75	62	44	60
Accepted	61	73	93	91	90	75	80	91	62	75
Total number reviewed*	98	108	134	134	145	139	155	153	106	135
% reviewed	82	82	78	80	76	82	87	97	72	83
% accepted of those reviewed	62	68	69	68	62	54	52	59	58	56
Days from submission to										
first decision	32	28	28	28	28	28	28	32	34	36
final decision	55	66	64	62	62	50	56	75	60	66
Manuscripts printed**	65	62	68	90	96	79	71	88	67	90
Manuscript pages printed	756	732	840	916	993	872	810	727	446	828
Average pages per manuscript	6.3	5.7	5.9	5.8	6.4	6.8	11.4	8.3	6.7	9.2
Impact factor	0.52	0.53	0.95	0.80	0.71	1.14	***	1.12	0.96	NA
<i>CM</i>	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Total submissions	136	126	158	138	162	171	169	135	127	140
International	42	50	86	55	73	76	89	80	66	59
% international	31	40	54	40	45	44	53	59	52	42
Disposition of submissions										
Referred to JAALAS	27	24	39	36	31	29	23	12	9	12
Withdrawn	7	8	6	6	4	3	6	1	0	3
Rejected	34	37	51	35	54	75	69	75	54	54
Accepted	57	56	47	61	57	64	63	45	56	53
Total number reviewed*	91	93	98	96	111	139	132	120	110	107
% accepted of those reviewed	63	60	48	64	51	46	48	38	51	50
Days from submission to										
first decision	40	32	28	28	28	24	24	28	24	29
final decision	66	62	53	61	53	46	42	45	47	56
Manuscripts printed**	63	63	59	55	60	68	60	58	59	62
Pages published, articles	614	623	613	520	576	568	547	436	401	502
Average pages per article	7.2	7.4	7.7	6.9	7.0	6.7	9.1	7.5	6.8	8.1
Impact factor	1.15	1.09	1.09	1.20	1.05	1.12	***	0.74	1.00	NA

*, some articles submitted in 2016 were still under review in 2017

** , some of the articles published in 2016 were accepted in 2015

***, impact factors for 2013 were calculated based on 3 issues, rather than 6, for each journal and as a result were inaccurate.

NA, not yet available

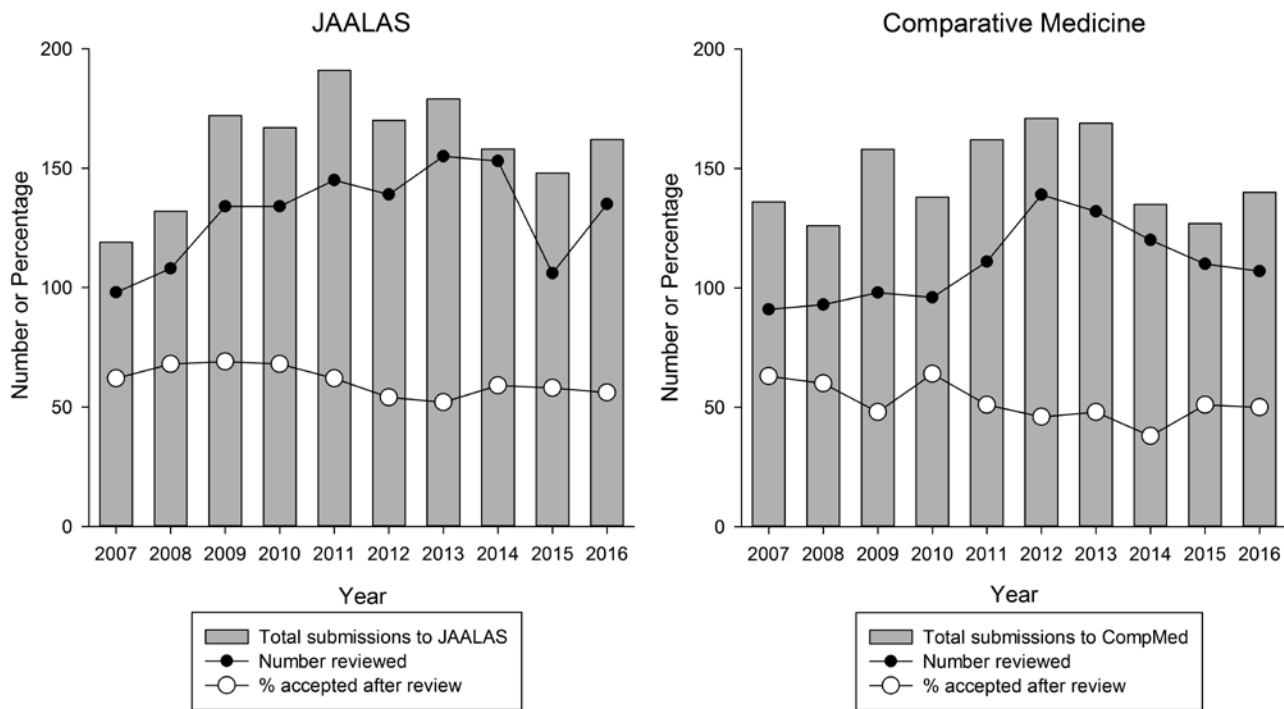


Figure 1. Manuscript submissions and acceptances in 2016.

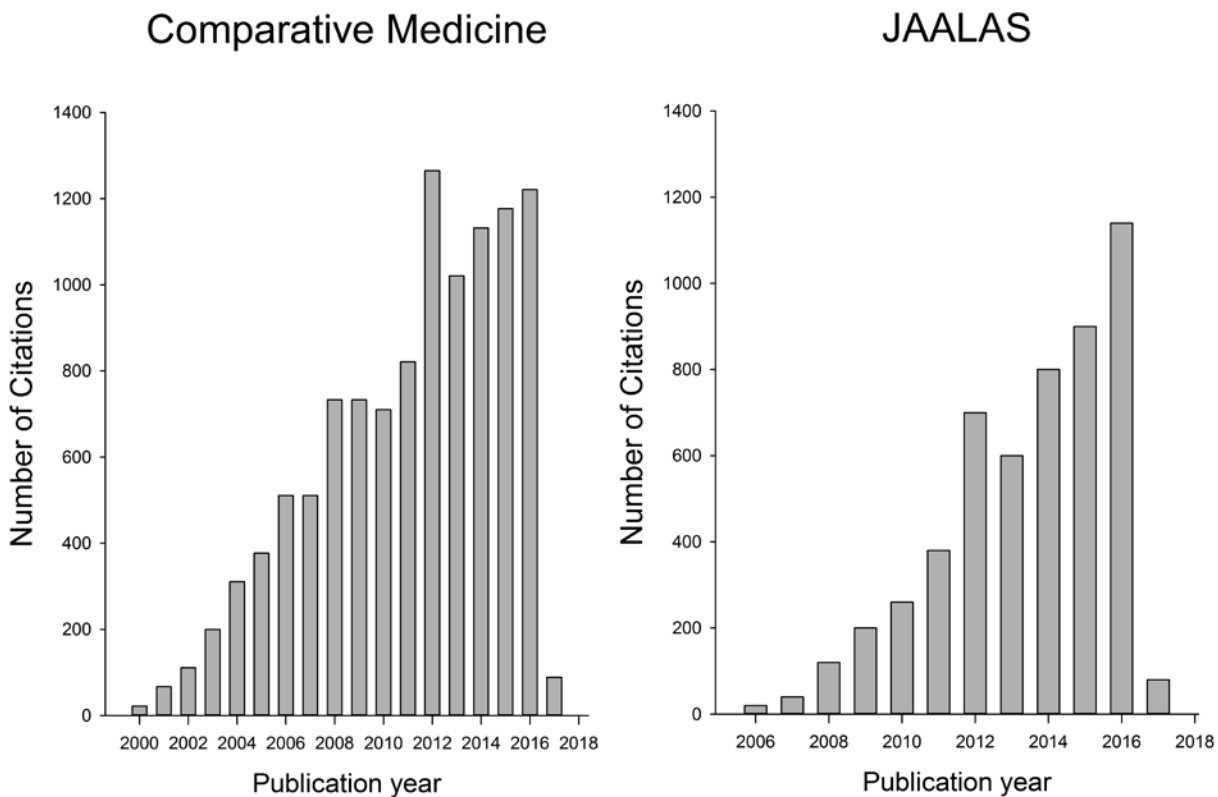


Figure 2. Total number of citations per year (Data taken from Web of Science, March 1, 2017).

Table 2. Comparative Medicine – Top 10 Downloaded Articles from PubMed Central

Article	Live in PMC	Total Requests			
		2013	2014	2015	2016
Novak MA, Meyer JS. Alopecia: possible causes and treatments, particularly in captive nonhuman primates. <i>59</i> :18–26, 2009	8/1/2009	14808	18992	16504	12492
Graham ML, Janecek JL, Kittredge JA, Hering BJ, Schuurman HJ. The streptozotocin-induced diabetic nude mouse model: differences between animals from different sources. <i>61</i> :356–360, 2011	2/1/2012	6785	5203	8759	9735
Lynch WJ, Nicholson KL, Dance ME, Morgan RW, Foley PL. Animal models of substance abuse and addiction: implications for science, animal welfare, and society. <i>60</i> :177–188, 2010	12/1/2010	3512	4039	6825	6504
Cray C, Zaias J, Altman NH. Acute phase response in animals: a review. <i>59</i> :517–526, 2009***	6/1/2010	4445	4467	6629	5378
Casals JB, Pieri NC, Feitosa ML, Ercolin AC, Roballo KC, Barreto RS, Bressan FF, Martins DS, Miglino MA, Ambrósio CE. The use of animal models for stroke research: a review. <i>61</i> :305–313, 2011	2/1/2012	2993	2932	4273	4391
Ericsson AC, Hagan CE, Davis DJ, Franklin CL. Segmented Filamentous bacteria: Commensal microbes with potential effects on research. <i>64</i> :90–8, 2014	10/1/2014	**	**	**	3700
Nemzek JA, Hugunin KM, Opp MR. Modeling sepsis in the laboratory: merging sound science with animal well-being. <i>58</i> :120–128, 2008	7/17/2009	3075	2530	3597	3645
Tartarov I, Panda A, Petkov D, Kolappaswamy K, Thompson K, Kavirayani A, Lipsky MM, Davis CC, Martin DS, DeTolla LJ. Effect of magnetic fields on tumor growth and viability. <i>61</i> :339–345, 2012	2/1/2012	**	2107	3083	3504
Lelovas PP, Xanthos TT, Thoma SE, Lyritis GP, Dontas IA. The laboratory rat as an animal model for osteoporosis research. <i>58</i> :424–430, 2008***	7/17/2009	4598	2960	3935	3364
Toth LA, Bhargava P. Animal models of sleep disorders. <i>63</i> :91–104, 2013	10/1/2013	**	**	**	3161

**New to top ten downloaded list

***Also on the top ten cited list for 2016

Table 3. JAALAS – Top 10 Downloaded Articles from PubMed Central

Article	Live in PMC	Total Requests			
		2013	2014	2015	2016
Turner PV, Brabb T, Pekow C, Vasbinder MA. Administration of substances to laboratory animals: routes of administration and factors to consider. <i>50</i> :600–613, 2011***	3/1/2012	22624	21404	31034	40670
Turner PV, Pekow C, Vasbinder MA, Brabb T. Administration of substances to laboratory animals: equipment considerations, vehicle selection, and solute preparation. <i>50</i> :614–627, 2011	3/1/2012	5533	8262	13013	13610
Duran-Struuck R, Dysko RC. Principles of bone marrow transplantation (BMT): providing optimal veterinary and husbandry care to irradiated mice in BMT studies. <i>48</i> :11–22, 2009***	7/1/2009	10623	8328	11634	10792
Turner DE, Daugherty EK, Altier C, Maurer KJ. Efficacy and limitations of an ATP-based monitoring system. <i>49</i> :190–195, 2010	9/4/2010	**	4112	7131	6614
Cray C, Rodriguez M, Zaias J, Altman NH. Effects of storage temperature and time on clinical biochemical parameters from rat serum. <i>48</i> :202–204, 2009	9/1/2009	4275	3822	5974	6273
Fernandez I, Pena A, Del Teso N, Perez V, Rodriguez-Cuesta J. Clinical biochemistry parameters in C57BL/6J mice after blood collection from the submandibular vein and retroorbital plexus. <i>49</i> :202–206, 2010	9/1/2010	3774	3109	6178	5861
Zaias J, Mineau M, Cray C, Yoon D, Altman NH. Reference values for serum proteins of common laboratory rodent strains. <i>48</i> :387–390, 2009	1/1/2010	3852	2490	4266	4929
Marx JO, Vudathala D, Murphy L, Rankin S, Hankenson FC. Antibiotic administration in the drinking water of mice. <i>53</i> :301–306, 2014	11/1/14	**	**	**	4059
Keen JN, Austin M, Huang L, Messing S, Wyatt JD. Efficacy of soaking in 70% isopropyl alcohol on aerobic bacterial decontamination of surgical instruments and gloves for serial mouse laparotomies. <i>49</i> :832–837, 2010	5/1/11	**	**	**	4059
Luo C, Zuniga J, Edison E, Palla S, Dong W, Parker-Thornburg J. Superovulation strategies for 6 commonly used mouse strains. <i>50</i> :471–478, 2011	1/1/2012	3861	3011	4008	3757

**New to top ten downloaded list

***Also a top ten cited article in 2016

Table 4. *Comparative Medicine* – Top 10 cited articles*

Article	Publication year	Total number of citations as of			
		Jan. 15, 2014	May 6, 2015	Apr. 4, 2016	Mar. 1, 2017
Cray C, Zaias J, Altman NH. Acute phase response in animals: a review. <i>59</i> :517–526***	2009	73	137	178	223
Lelovas PP, Xanthos TT, Thoma SE, Lyritis GP, Dontas IA. The laboratory rat as an animal model for osteoporosis research. <i>58</i> :424–430***	2008	86	134	162	164
Mansfield K. Marmoset models commonly used in biomedical research. <i>53</i> :383–392	2003	94	122	143	160
Abbott DH, Barnett DK, Colman RJ, Yamamoto ME, Schultz-Darken NJ. Aspects of common marmoset basic biology and life history important for biomedical research. <i>53</i> :339–350	2003	79	99	110	121
Dyson MC, Alloosh M, Vuchetich JP, Mokelke EA, Sturek M. Components of metabolic syndrome and coronary artery disease in female Ossabaw swine fed excess atherogenic diet. <i>56</i> :35–45	2006	75	93	104	113
Callicott RJ, Womack JE. Real-time PCR for measurement of mouse telomeres. <i>56</i> :17–22	2006	**	74	82	97
Arras M, Autenried P, Rettich A, Spaeni D, Rüllicke T. Optimization of intraperitoneal injection anesthesia in mice: drugs, dosages, adverse effects, and anesthesia depth. <i>51</i> :443–456	2001	58	67	79	86
Hsu CC, Riley LK, Wills HM, Livingston RS. Persistent infection with and serologic cross-reactivity of three novel murine noroviruses. <i>56</i> :247–251	2006	59	73	80	81
Garner JP, Weisker SM, Dufour B, Mench JA. Barbering (fur and whisker trimming) by laboratory mice as a model of human trichotillomania and obsessive-compulsive spectrum disorders. <i>54</i> :216–224	2004	64	70	76	80
Martini L, Fini M, Giavaresi G, Giardino R. Sheep model in orthopedic research: a literature review. <i>51</i> :292–299	2001	**	**	**	80

*Data collected from Web of Science

**New to top ten cited list

***Also on the top ten downloaded list for 2016

and professionally presented information through the entire process from manuscript submission to publication.

Publication statistics for the journals remain strong, with the number of submissions to both journals rebounding somewhat after decreases in the last two years, although not to record numbers (Table 1, Figure 1). Acceptance rates were 50% for *CM* and 56% for *JAALAS* (Table 1). These percentages are consistent with previous years and allow us to obtain an adequate amount of high-quality content for each issue. Prospective authors should be aware that as more submissions are received, standards for acceptance will be higher. For example, manuscripts that contain relatively little data (only 1 table or figure) will be viewed as less desirable than articles that present a substantive and comprehensive investigation of a research question.

The tables of top 10 downloaded articles for the two journals really highlight the value of the AALAS publications (Tables 2 and 3). As you can see, many articles are downloaded thousands of times a year for many years after the publication date. These data show that even though the journal impact factors are not high, the articles are used by the community we serve and are durable in terms of content. The number of citations from both journals also continues to grow annually (Figure 2). The list of top 10 cited articles has several new additions this year (Tables 4 and 5). An interesting feature of this information is that for both *JAALAS* and *CM*, only 2 articles from each made both the top ten cited and downloaded lists. This suggests that different audiences are using most of the publications in the lists, some focused on publishing (the cited articles) and others on information (the download articles).

Two of the articles published in *JAALAS* in 2016 were discussed

in the general media. First, the article entitled “Factors in the selection of surface disinfectants for use in a laboratory animal setting,” published in *JAALAS* 55:175–188 by Campagna, Faure-Kumar, Treger, Cushman, Grogan, Kasahara, and Lawson, was discussed by Dr. Robert M. Sapolsky in an opinion article published the August 11 issue of the *Wall Street Journal*. Dr. Sapolsky’s article, entitled “The effect of environment on genes: lab experiments show how sensitive genes can be to small differences in the environment,” discussed how seemingly small differences in the animal environment (for example, the odor from disinfectants) may influence research results and lead to poor reproducibility of findings among different laboratories.

The second article, entitled “Evaluation of euthanasia techniques for an invertebrate species, land snails (*Succinea putris*)”, published in *JAALAS* 55:577–581 by Gilbertson and Wyatt, was discussed on the web site Newswise (<http://www.newswise.com/articles/beer-eases-final-moments-for-euthanized-invertebrates-study-finds>). This article focused on finding humane ways to euthanize or sedate endangered and invasive snail species. The Newswise article also notes that this was the first time in *JAALAS* history that the cover photograph featured a snail.

Several issues of note were discussed at the staff and Editorial Review Board (ERB) meetings held at the AALAS National Meeting in November. First, the journals have now implemented an article-based workflow, as opposed to an issue-based workflow. This means that accepted papers will no longer be assigned to a specific future issue. Rather, printed issues would be comprised of the first 10 completed articles for *CM* and the first 15 for *JAALAS*. This approach will allow individual articles to get online

Table 5. JAALAS – Top 10 cited articles*

Article	Publication year	Total number of citations as of			
		Jan. 15, 2014	May 6, 2015	Apr. 4, 2016	Mar. 1, 2017
Portfors CV. Types and functions of ultrasonic vocalizations in laboratory rats and mice. 46:28–34.	2007	101	138	172	191
Turner PV, Brabb T, Pekow C, Vasbinder MA. Administration of substances to laboratory animals: routes of administration and factors to consider. 50:600–613***	2011	**	**	48	81
Wilson JM, Bunte RM, Carty AJ. Evaluation of rapid cooling and tricainemethanesulfonate (MS222) as methods of euthanasia in zebrafish (<i>Danio rerio</i>). 48:785–789.	2009	20	34	49	63
Matsumiya LC, Sorge RE, Sotocinal SG, Tabaka JM, Wieskopf JS, Zaloum A, King OD, Mogil JS. Using the mouse grimace scale to reevaluate the efficacy of postoperative analgesics in laboratory mice. 51:42–49	2012	**	28	44	56
Hess SE, Rohr S, Dufour BD, Gaskill BN, Pajor EA, Garner JP. Home improvement: C57BL/6J mice given more naturalistic nesting materials build better nests. 47:25–31	2008	**	**	43	52
Duran-Struuck R, Dysko RC. Principles of bone marrow transplantation (BMT): Providing optimal veterinary husbandry care to irradiated mice in BMT studies. 48:11–22***	2009	**	**	**	44
Buitrago S, Martin TE, Tetens-Woodring J, Belicha-Villanueva A, Wilding GE. Safety and efficacy of various combinations of injectable anesthetics in BALB/c mice. 47:11–17	2008	**	**	**	41
Probst RJ, Lim JM, Bird DN, Pole GL, Sato AK, Claybaugh JR. Gender differences in the blood volume of conscious Sprague–Dawley rats. 45:49–52	2006	21	30	35	39
Hayward R, Hydock DS. Doxorubicin cardiotoxicity in the rat: an in vivo characterization. 46:20–32.	2007	22	32	35	38
Foley PL, Liang H, Crichlow AR. Evaluation of a sustained release formulation of buprenorphine for analgesia in rats. 50:198–204	2011	**	**	**	37

*Data collected from Web of Science

**New to top ten cited list

***Also a top ten downloaded article in 2016

and in print as quickly as possible. The ERB also discussed the topic of self-plagiarism. The website <http://ori.hhs.gov/ori-policy-plagiarism> provides information on this important topic. Finally, the value of and need for special topic issues was discussed. Currently 2 special topic issues are under development: animal models of infectious disease, guest edited by Jason Villano, and avian models of human disease, guest edited by Sherrill Green. We invite all readers to suggest or volunteer to guest-edit special issues on other topics that are important to our readership. Other

topics that have been suggested include pain variation in mouse strains, a review of husbandry-associated “stress” (particular in comparison with genuine stress such as foot shock, restraint, or aggression), gnotobiotics, the microbiome, and management of chemical hazards.

As always, we welcome your suggestions for improvements in the journals and encourage you to give us your opinions, perspective, concerns, and suggestions. You have our continued thanks for your support in the development and growth of the journals.

Table 6. Journals with greatest number of citations of and citations in AALAS journals in 2015

Rank	Cited <i>Comp Med</i> articles	Cited in <i>Comp Med</i> articles	Cited JAALAS articles	Cited in JAALAS articles
1	PLoS One (92)	J Virol (74)	JAALAS (158)	JAALAS (158)
2	Comp Med (48)	Comp Med (51)	PLoS One (46)	Lab Anim – UK (135)
3	JAALAS (47)	Blood (40)	Comp Med (39)	Comp Med (47)
4	Lab Anim - UK (23)	JAALAS (39)	Lab Animal - UK (37)	Non-traditional (46)
5	Exp Amin (17)	PNAS (33)	Lab Animal (22)	Lab Animal (41)
6	Vet Pathol	Vet Pathol*	Exp Neurol	CTLAS*
		Lab Anim Sci*		Physiol Behav*
7	Sci Rep UK		Exp Animal	Guide Care Use Lab Anim
8	ILAR J*	Transplantation	J Zoo Wildlife Med*	Regul Toxicol Pharm
9	JAVMA*	J Exp Med*	Front Behav Neurosci*	Am J Primatol*
10	Brain Behav Immun*	PLoS One*	Physiol Behav*	ILAR J*
	Eur J Pharmacol*		Sci Rep UK*	
	Lab Animal			
	Physiol Behav*			
	Vet Res*			

*Tied rank