

## Editorial

# The AALAS Journals: 2020 in Review

Linda A Toth, Susan R Compton, Ravi J Tolwani, Virginia K Dawson, and John D Farrar

The November 2020 issue of the Journal of the American Association for Laboratory Animal Science (*JAALAS*) volume 59 and the December 2020 issue of *Comparative Medicine (CM)* volume 70 mark the end of another year for the AALAS journals. As always, we are incredibly fortunate to have a talented and conscientious support team - graphic artists Brenda Johnson

and Zara Garza, scientific editors Amy Frazier and Nick Van De Velde, and editorial production coordinator, Virginia Dawson. This team together continues to sustain a timely flow of well-edited and professionally presented information through the entire process from manuscript submission to publication. We also thank members of the Editorial Review Board (ERB) for

**Table 1.** Publication Data for *Comparative Medicine*, 2011 to 2020

<i>CM</i>	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Total submissions	162	171	167	135	155	140	129	142	119	117
International submissions	73	76	86	67	85	59	73	71	58	71
Rejected	54	75	72	75	71	54	62	65	61	77
Withdrawn	4	3	6	1	1	3	3	1	0	1
Transferred to <i>JAALAS</i>	34	29	23	13	14	12	15	14	9	6
Total R-W-T	92	107	101	89	86	69	80	80	70	84
Accepted manuscripts	57	64	64	45	72	53	58	52	59	27
Total accepted and rejected	111	139	136	120	143	107	120	117	120	104
Acceptance rate	51%	46%	47%	38%	50%	50%	48%	44%	49%	26%
Manuscripts printed	60	68	60	58	59	62	60	57	54	55
Total pages printed	576	568	548	516	552	512	540	502	588	556
Manuscripts pages printed			542	506	545	502	477	435	521	487
Average pages per manuscript			9	9	9	8	8	8	10	9
Submission to 1st decision (wks)	4.0	3.5	3.5	4.0	4.1	4.2	3.8	3.9	3.6	4.4
Submission to final decision (wks)	7.6	6.6	6.0	6.9	7.0	8.0	7.9	6.6	6.9	6.4
Acceptance to online publication (wks)	NA	NA	NA	NA	NA	NA	NA	NA	22.6	23.6
Impact factors	1.052	1.120	NA	0.742	1.000	0.832	0.585	0.702	1.067	TBD

NA, not yet available; TBD, to be determined

their support in providing timely thorough reviews and solid feedback and suggestions for the improvement of the journals.

Publication statistics for the journals remain steady (Tables 1 and 2). Acceptance rates were 26% for *CM* and 63% for *JAALAS* (Tables 1 and 2). These percentages are consistent with previous years for *JAALAS* but have fallen considerably for *CM*. We attribute this in part to the declining number of submissions to *CM* over the past 2 years. Part of this decline is due to the policy of no longer publishing case reports in *CM*. Previous to 2019, case reports contributed to a large proportion of the content for each issue. Because case reports are rarely cited, this seemed likely to contribute to the falling impact factor for *CM*. Indeed, the impact factor has risen since this change was initiated. Case studies continue to be published in *CM*. However, because these generally include a scientific or investigative component, case studies are more likely to be cited.

The intervals between submission and the first and final decisions on manuscripts are 4.4 and 6.4 weeks, respectively for *CM* and 6.2 and 13.9 weeks, respectively, for *JAALAS*. The higher processing time for *JAALAS* this year was in some cases due to

authors being unable to access their files as a result of COVID-related shut-downs. COVID-related shut-downs also delayed some reviews and responses to critiques. A few unusually long values also contributed to those higher numbers.

We have now also started tracking the time interval between acceptance and online publication. When we started immediate online publication as soon as an article was in final form, we had a considerable backlog of articles awaiting tooling and editing. This backlog has now been essentially eliminated, and so we anticipate that this interval will decrease in 2021. For the past 2 years, this process has required, on average, 22 weeks. We consider this to be unacceptably long. However, some factors contributing to delays are in the hands of authors, who may take considerable time to make corrections or require a second round of editing due to unanswered queries. We therefore ask for and indeed depend on timely responses from editors, reviewers and authors to speed the review and publication processes.

A highlight of every year are the overview articles (Table 3), as these are valued highly by readers and often cited. Unfortunately, no overviews were published in *CM* in 2020. We urge

**Table 2.** Publication Data for *JAALAS*, 2011 to 2020

<i>JAALAS</i>	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Total submissions	191	170	179	186	187	162	163	144	170	160
International submissions	71	57	74	74	81	60	64	62	70	55
Rejected	55	64	80	62	62	60	50	43	60	54
Withdrawn	5	5	3	4	5	0	3	1	2	2
Transferred to <i>JAALAS</i>	40	16	17	25	31	36	19	23	17	25
Total R-W-T	100	85	100	91	98	96	72	67	79	81
Accepted manuscripts	90	75	80	92	75	75	77	84	74	90
Total accepted and rejected	145	139	160	154	137	135	127	127	134	144
Acceptance rate	62%	54%	50%	60%	55%	56%	61%	66%	55%	63%
Manuscripts printed	96	79	70	75	82	90	82	68	76	78
Total pages printed	993	872	816	742	820	844	807	737	843	757
Manuscripts pages printed			465	512	581	590	581	517	559	618
Average pages per manuscript			7	7	7	7	7	8	7	8
Submission to 1st decision (wks)	4.0	4.0	4.0	4.6	4.8	5.2	5.0	4.8	4.1	6.2
Submission to final decision (wks)	8.9	7.1	8.0	10.7	8.4	9.4	9.7	9.1	7.9	13.5
Acceptance to online publication (wks)	NA	NA	NA	NA	NA	NA	NA	NA	23.8	19.8
Impact factors	0.708	1.145	NA	1.118	0.906	1.195	1.218	1.017	1.235	TBD

NA, not yet available; TBD, to be determined

**Table 3.** Overviews published in 2020

<i>JAALAS</i> , volume 59, 2020	Authors	Pages
Power to the people: Power, negative results and sample size	Gaskill & Garner	9–16
PCR and RT-PCR in the diagnosis of laboratory animal infections and in health monitoring	Compton	458–468
Importance of systemic reviews and meta-analyses of animal studies: Challenges for animal-to-human translation	Bahadoran, Mirmiran, Kashfi & Ghasemi	469–477
Anesthesia protocols used to create ischemia reperfusion myocardial infarcts in swine	Cobo, Margallo, Diaz, Blazquez, Bueno & Crisostomo	478–487
Evaluating IACUCs: Previous research and future directions	Budda & Pritt	656–664
Noise and vibration in the vivarium: Recommendations for developing a measurement plan	Turner	665–672
<i>Comparative Medicine</i> , volume 70, 2020		
None		

readers to consider writing and submitting these important articles to the journals, as they perform an important function of summarizing what is known about a topic for readers in a concise and critical manner. One suggestion is for those of you who have presented overviews of various topics at AALAS national meetings is to convert that presentation into an overview, as Associate Editor Susan Compton did for her AALAS presentation on PCR and RT-PCR in diagnosis and health monitoring. Doing this provides double rewards for the time invested in preparing the presentation and preserves that information for others who were unable to hear the presentation or who would like to refer back to the information, including for citations.

The high number of downloaded articles for the 2 journals truly underscores the value of the AALAS publications (Figure 1, Tables 4 through 7). Articles from the 2 journals are downloaded hundreds of thousands of times each year, and many articles have been 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, despite an unexplained blip in 2019 (Figure 1). The list of top 10 cited articles has several new additions this year (Tables 6 and 7). The notable lack of overlap between the citation and download top ten lists suggests that different audiences are using these publications, some with focus on publishing new research (the cited articles) and others on information (the downloaded articles).

Several topics of potential interest were discussed at the staff and Editorial Review Board meetings conducted by phone and email at the annual AALAS meeting in November. First, an additional AALAS staff member, Colton McKenzie, is now assisting with copyediting. Colton earned his BS in biochemistry from Earlham College and completed his PhD in genetics bio-

**Table 4. JAALAS - Top 10 Downloaded Articles from PubMed Central in 2020**

Article	Live in PMC	Total downloads			
		2017	2018	2019	2020
<b>Gao P, Dang CV, Watson J.</b> 2008. Unexpected antitumorigenic effect of fenbendazole when combined with supplementary vitamins. <i>47</i> :37–40.	6/12/2009	**	7666	137397	101538
<b>Turner PV, Brabb T, Pekow C, Vasbinder MA.</b> 2011. Administration of substances to laboratory animals: routes of administration and factors to consider. <i>50</i> :600–613.	3/1/2012	48836	45195	43891	46910
<b>Lieberman MT, Madden CM, Ma EJ, Fox JG.</b> 2018. Evaluation of 6 methods for aerobic bacterial sanitization of smartphones. <i>57</i> :24–29.	7/1/2018	**	**	**	17674
<b>Ray MA, Johnston NA, Verhulst S, Trammell RA, Toth LA.</b> 2010. Identification of markers for imminent death in mice used in longevity and aging research. <i>49</i> :282–288.	11/1/2010	**	**	**	11859
<b>Turner PV, Pekow C, Vasbinder MA, Brabb T.</b> 2011. Administration of substances to laboratory animals: equipment considerations, vehicle selection, and solute preparation. <i>50</i> :614–627.	3/1/2012	13568	8685	8721	9782
<b>Tannenbaum JT, Bennett BT.</b> 2015. Russell and Burch's 3Rs then and now: The need for clarity in definition and purpose. <i>54</i> :120–132.	9/1/2015	**	**	**	7212
<b>Duran-Struuck R, Dysko RC.</b> 2009. Principles of bone marrow transplantation (BMT): providing optimal veterinary and husbandry care to irradiated mice in BMT studies. <i>48</i> :11–22.	7/1/2009	10265	8758	7655	7179
<b>Keen JN, Austin MK, Huang LS, Messing S, Wyatt JD.</b> 2010. 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.	5/1/2011	**	**	**	6896
<b>Boivin GP, Hickman DL, Creamer-Hente MA, Pritchett-Corning KR, Bratcher NA.</b> 2017. Review of CO2 as a euthanasia agent for laboratory rats and mice. <i>56</i> :491–499.	3/1/2018	**	**	**	6842
<b>Campagna MV, Faure-Kumar E, Treger JA, Cushman JD, Grogan TR, Kasahara N, Lawson GW.</b> 2016. Factors in the selection of surface disinfectants for use in a laboratory animal setting. <i>55</i> :175–188.	9/1/2016	**	**	**	6790

\*\* Not on top ten downloaded list for indicated year

**Table 5. Comparative Medicine - Top 10 Downloaded Articles from PubMed Central in 2019**

Article	Live in PMC	Total downloads			
		2017	2018	2019	2020
<b>Novak MA, Meyer JS.</b> 2009. Alopecia: possible causes and treatments, particularly in captive nonhuman primates. <i>59</i> :18–26.	8/1/2009	8621	6724	10766	14972
<b>O'Connell KE, Mikkola AM, Stepanek AM, Vernet A, Hall CD, Sun CC, Yildirim W, Staropoli JF, Lee JT, Brown DE.</b> 2015. Practical murine hematopathology: a comparative review and implications for research. <i>65</i> :96–113.	10/1/2015	**	8472	13109	13465
<b>Wafer LN, Whitney JC, Jensen VB.</b> 2015. Fish lice ( <i>Argulus japonicus</i> ) in goldfish ( <i>Carassius auratus</i> ) <i>65</i> :93–95.	10/1/2015	**	5675	7444	13263
<b>Graham ML, Janecek JL, Kittredge JA, Hering BJ, Schuurman HJ.</b> 2011. The streptozotocin-induced diabetic nude mouse model: differences between animals from different sources. <i>61</i> :356–360.	2/1/2012	10205	10941	11035	10308
<b>Lynch WJ, Nicholson KL, Dance ME, Morgan RW, Foley PL.</b> 2010. Animal models of substance abuse and addiction: implications for science, animal welfare, and society. <i>60</i> :177–188.	12/1/2010	9679	7544	8052	8670
<b>Autieri CR, Miller CL, Scott KE, Kilgore A, Papscoe VA, Garner MM, Haupt JL, Bakthavatchalu V, Muthupalani, S, Fox JG.</b> 2015. Systemic coronaviral disease in 5 ferrets. <i>65</i> :508–516.	6/1/2016	**	**	**	7083
<b>Tartarov I, Panda A, Petkov D, Kolappaswamy K, Thompson K, Kavirayani A, Lipsky MM, Elson E, Davis, CC, Martin SS, DeTolla LJ.</b> 2012. Effect of magnetic fields on tumor growth and viability. <i>61</i> :339–345.	2/1/2012	4459	5332	7410	5618
<b>Bagi CM, Berryman E, Moalli MR.</b> 2011. Comparative bone anatomy of commonly used laboratory animals: Implications for drug discovery. <i>61</i> :76–85.	8/1/2011	**	**	**	5149
<b>Toth LA, Bhargava P.</b> 2013. Animal models of sleep disorders. <i>63</i> :91–104.	10/1/2013	4126	3939	4336	4768
<b>Collins DE, Reuter JD, Rush HG, Villano JS.</b> 2017. Viral vector biosafety in laboratory animal research. <i>67</i> :215–221.	12/1/2017	**	**	**	4471

\*\* Not on top ten downloaded list for indicated year

**Table 6. JAALAS - Top 10 cited articles\***

Article	Publication year	Total number of citations as of			
		February, 2018	March, 2019	January, 2019	February, 2020
<b>Turner PV, Brabb T, Pekow C, Vasbinder MA.</b> Administration of substances to laboratory animals: routes of administration and factors to consider. <i>50</i> :600–613.	2011	135	194	264	366
<b>Portfors CV.</b> Types and functions of ultrasonic vocalizations in laboratory rats and mice. <i>46</i> :28–34.	2007	219	260	311	349
<b>Wilson JM, Bunte RM, Carty AJ.</b> Evaluation of rapid cooling and tricainemethanesulfonate (MS222) as methods of euthanasia in zebrafish ( <i>Danio rerio</i> ). <i>48</i> :785–789.	2009	89	113	135	163
<b>Tannenbaum J, Bennett BT.</b> Russell and Burch's 3Rs then and now: the need for clarity in definition and purpose. <i>54</i> :120–132.	2015	**	63	98	141
<b>Matsumiya LC, Sorge RE, Sotocinal SG, Tabaka JM, Wieskopf JS, Zaloum A, King OD, Mogil JS.</b> Using the mouse grimace scale to reevaluate the efficacy of postoperative analgesics in laboratory mice. <i>51</i> :42–49.	2012	68	86	96	118
<b>Heffner HE, Heffner RS.</b> Hearing ranges of laboratory animals. <i>46</i> :20–22.	2007	**	56	83	105
<b>Hess SE, Rohr S, Dufour BD, Gaskill BN, Pajor EA, Garner JP.</b> Home improvement: C57BL/6J mice given more naturalistic nesting materials build better nests. <i>47</i> :25–31.	2008	61	72	88	105
<b>Duran-Struuck R, Dysko RC.</b> Principles of bone marrow transplantation (BMT): Providing optimal veterinary husbandry care to irradiated mice in BMT studies. <i>48</i> :11–22.	2009	56	72	85	95
<b>Levolas PP, Kostomitsopoulos NG, Xanthos TT.</b> A comparative anatomic and physiologic overview of the porcine heart. <i>53</i> :432–438.	2014	**	**	66	82
<b>Fernandez I, Pena A, Del Teso N, Perez V, Rodriguez-Cuesta J.</b> Clinical biochemistry parameters in C57BL/6J mice after blood collection from the submandibular vein and retroorbital plexus. <i>49</i> :202–206.	2010	49	59	67	80

\*Data collected from Web of Science

\*\* Not on top ten downloaded list for indicated year

**Table 7. Comparative Medicine - Top 10 cited articles\***

Article	Publication year	Total number of citations as of			
		February, 2018	March, 2019	January, 2019	February, 2020
<b>Cray C, Zaias J, Altman NH.</b> Acute phase response in animals: a review. <i>59</i> :517–526.	2009	287	348	401	461
<b>Lelovas PP, Xanthos TT, Thoma SE, Lyritis GP, Dontas IA.</b> The laboratory rat as an animal model for osteoporosis research. <i>58</i> :424–430.	2008	203	247	282	313
<b>Mansfield K.</b> Marmoset models commonly used in biomedical research. <i>53</i> :383–392.	2003	175	194	209	229
<b>Abbott DH, Barnett DK, Colman RJ, Yamamoto ME, Schultz-Darken NJ.</b> Aspects of common marmoset basic biology and life history important for biomedical research. <i>53</i> :339–350.	2003	139	149	166	191
<b>Dyson MC, Alloosh M, Vuchetich JP, Mokelke EA, Sturek M.</b> Components of metabolic syndrome and coronary artery disease in female Ossabaw swine fed excess atherogenic diet. <i>56</i> :35–45.	2006	124	137	139	152
<b>Callicott RJ, Womack JE.</b> Real-time PCR for measurement of mouse telomeres. <i>56</i> :17–22.	2006	110	122	131	143
<b>Martini L, Fini M, Giavaresi G, Giardino R.</b> Sheep model in orthopedic research: a literature review. <i>51</i> :292–299.	2001	92	109	123	135
<b>Nemzek JA, Hugunin KM, Opp MR.</b> Modeling sepsis in the laboratory: merging sound science with animal well-being. <i>58</i> :120–128.	2008	**	98	115	128
<b>Arras M, Autenried P, Rettich A, Spaeni D, Rüllicke T.</b> Optimization of intraperitoneal injection anesthesia in mice: drugs, dosages, adverse effects, and anes-thesia depth. <i>51</i> :443–456.	2001	93	102	112	123
<b>Hufeldt MR, Nielsen DS, Vogensen FK, Midtvedt T, Hansen AK.</b> Variation in the gut microbiota of laboratory mice Is related to both genetic and environmental factors. <i>60</i> :336–347.	2010	**	**	**	123

\*Data collected from Web of Science

\*\* Not on top ten downloaded list for indicated year

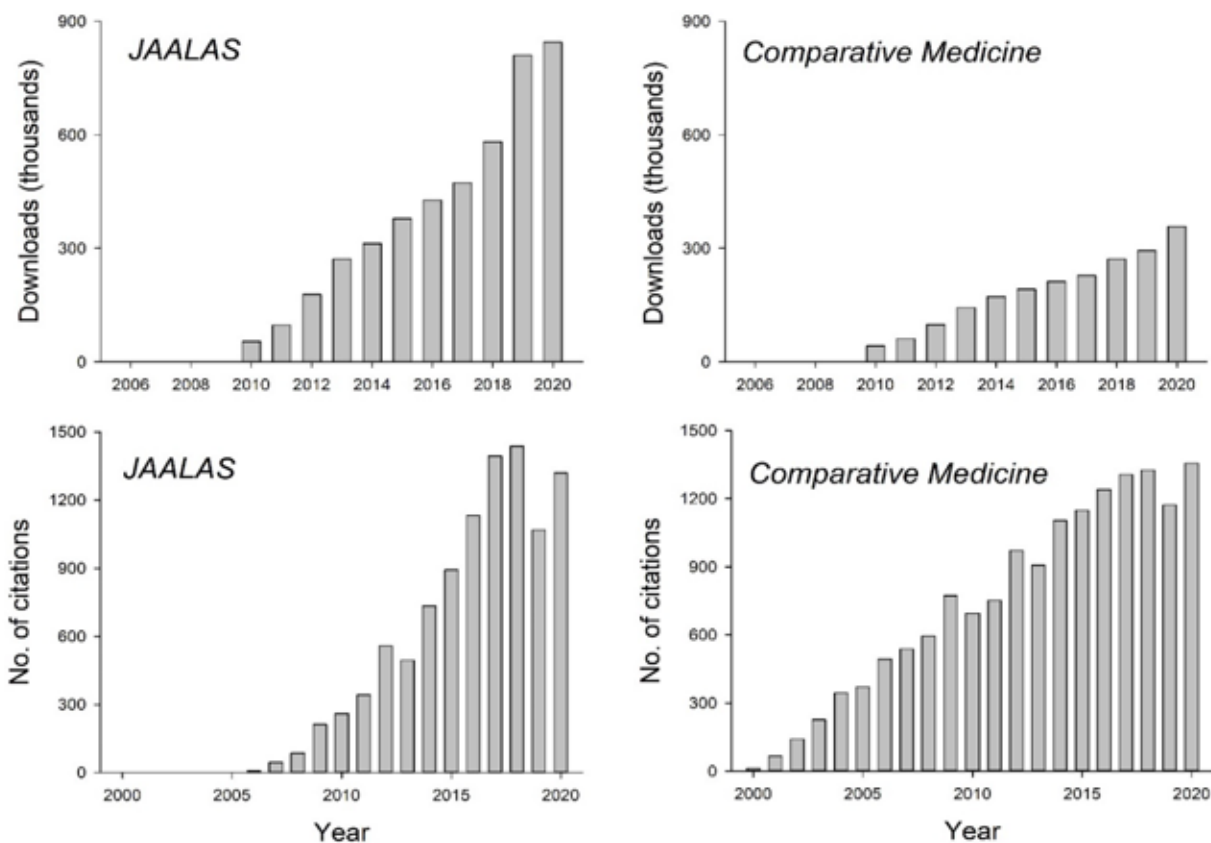


Figure 1. Number of citations and PMC downloads for JAALAS and *Comparative Medicine*.

chemistry at the University of Nebraska-Lincoln. Colton resides in Memphis and is currently pursuing an MBA in management from Indiana University. This additional help should accelerate the time from article acceptance to online publication.

Finally, Jason Villano is guest editor for a special topic issue on coronaviruses. Approximately 9 articles are in preparation, with anticipated publication sometime in 2021. Anyone with interest in contributing either an overview or original research to this issue should contact Jason through Virginia Dawson at the AALAS office. Volunteer editors for future special topic issues are welcome to contact Virginia as well. In addition, the jour-

nals would welcome submission of Cochrane-type structured reviews of key areas of interest to our readers. Topics could include, for example, bedding evaluation, treatment for mouse dermatitis, concentrations of CO<sub>2</sub> for euthanasia, trio and pair breeding success, and other similar topics.

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