

American Veterinary Medical History Society

"Devoted to the Diffusion of Veterinary History"

INTERIM NEWS & COMMENT

February 2019

Susanne Whitaker, reporter

CONTENTS of this issue:

Donaldson Charitable Trust Grant Award
Matching Gift to AVMHS
Public Health Impact of Milk Pasteurization
Poster Proposals for 2019 AVMA
Dr. Pat Arrington Receives Distinguished Alumni Award
Dr. Charles Allen Cary Biography
Public Health Impact of Milk Pasteurization
Dr. Douglas Cohn Spoke at the Albany Institute of History & Art
Detroit Practice to Celebrate 175 Years
Historical Methods for Revealing Data
17th Century Perspective on Strangles
Missouri Veterinary Museum Highlighted
Veterinary History Trivia Corner
New Registry of Heritage Veterinary Practices
New Members
Meeting and Event Calendar
New Books
Recent Journal Articles

Donaldson Charitable Trust Grant Award

We are very pleased to report that the Society received extended funding last fall from the Donaldson Charitable Trust for the Smithcours Veterinary Student History Essay Contest now in its 28th year. This most welcome grant will enable the Society to continue offering prizes for another five years through 2024. Initiated by Dr. Robert R. Shomer and later named to honor Dr. J.F. Smithcours, AVMHS has conducted an annual Veterinary Student History Essay Contest since 1991.



With generous support from the Donaldson Trust since 2012, the prizes of \$1200, \$1000, \$800, and \$500 have been designated to acknowledge contest judge and two-time AVMHS Past President Dr. Elizabeth Atwood Lawrence for her scholarly work in veterinary history and her contributions to the Society's mission.

This year's contest is in full swing according to current contest committee chair Dr. Jessica Zeiger (jzeigerDVM@gmail.com). 2019 essay submissions are due by April 15. All DVM students enrolled at veterinary colleges in the United States, Canada, and Caribbean are encouraged to research, write and submit an essay on a topic of their choice. A brochure, poster, guidelines and submission form are available on the AVMHS Web site at <https://www.avmhs.org/essay-contest>. It would be wonderful to receive one or more essays from every veterinary college!

Matching Gift to AVMHS

In the November 2018 issue of *Veterinary Heritage*, Dr. James L. Bittle presented a historical summary of the development and contributions of The Pitman-Moore Company since its founding in 1899. First appointed as a virologist, Dr. Bittle served as CEO of this important veterinary pharmaceutical firm for many years and worked closely with its parent company, Johnson & Johnson.

Given Dr. Bittle's strong interest in preserving and promoting history as well as his connection with J&J, he recently made arrangements to participate in Johnson & Johnson's matching grant program. We are delighted to announce receipt of \$10,000, half of which has been generously contributed by Dr. Bittle himself and the other portion from the corporation. As per Dr. Bittle's recommendations, AVMHS will utilize about half of this grant to make the Society more well-known, encourage membership, and promote an understanding of veterinary history in general. The remainder of the gift will help offset costs for *Veterinary Heritage* and other ongoing expenses.

In this regard, President Russ Currier and the Board are asking you, our members, to brainstorm and submit any and all suggestions for how we can raise the visibility of history within the veterinary profession, primarily in the U.S. and Canada. Kindly submit your ideas as soon as possible for taking best advantage of this incredible opportunity to President Russ Currier (ruscurreier@yahoo.com) or Secretary-Treasurer Susanne Whitaker (skw2@cornell.edu).

We are honored by Dr. Bittle's generosity, insights, and support for history. Yet, it also goes without saying that all of the individual gifts made by members in support of the Society's activities continue to be sincerely appreciated. Thank you to all.

Poster Proposals for 2019 AVMA

After two successful AVMA CE Program posters presented by AVMHS members Drs. Howard Erickson and Shannon Greeley in Denver last year, we want to alert members that it is not too late for a poster proposal for the Washington, D.C. convention this summer. After review by the Convention Education Program Committee, notification will be made in April. The deadline is March 15 for "Hot Topic Session or Poster" submissions. (For more information, see <https://www.avma.org/Events/Convention/Pages/default.asp>)

Posters are an excellent means of conveying historical information to a broad audience of AVMA attendees. So far, we are aware of two proposals: Dr. Howard Erickson with Dr. Philip Teigen anticipate describing C. Barnwell Robinson's activity as D.C. Fire Department Veterinarian and founder of the United States College of Veterinary Surgeons; while Dr. Russell Currier plans to tell the story of the District of Columbia veterinary schools begun by Daniel Salmon, that included the National Veterinary College and George Washington University College of Veterinary Medicine.

Early registration for the AVMA Convention opens online February 15.

Dr. Pat Arrington Receives Distinguished Alumni Award from Auburn

We always look forward to reporting a high honor given to one of our members. In this case, Patricia Kennedy Arrington, DVM '71 received the Wilford S. Bailey Distinguished Alumni Award from Auburn University's College of Veterinary Medicine at ceremonies held this past October.

She is one of only 5 women out of a total of 60 recipients over the years to be so honored for her service and contributions. "The award is the highest honor given to College of Veterinary Medicine alumni to recognize their accomplishments in veterinary medicine, outstanding contributions to his or her community and the advancement of animal and human health."



Dr. Pat Kennedy Arrington. Photo courtesy Auburn University.

Dr. Arrington is co-founder, owner, and hospital director of two top practices, Jefferson Animal Hospitals, which includes the Fern Creek Wellness & Surgery Center, and the Outer Loop Regional 24 hour Emergency Center, based in Louisville, Kentucky.

In addition to her commitment to animal care and the human-animal bond, she is actively interested in history and has generously given a number of gift guest memberships in the Society in recent years. With the help of Dr. Fred Born, she was instrumental in "rescuing" all of the historical instruments and other materials assembled by the now closed American Museum of Veterinary Medicine, formerly in Birdsboro, Pennsylvania.

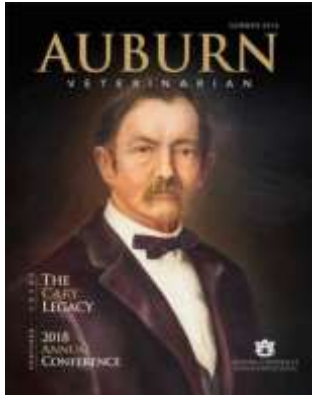
Congratulations, Dr. Arrington, for your well-deserved accomplishments and award recognition.

Read more about her honor in an Auburn University press release at: http://ocm.auburn.edu/newsroom/news_articles/2018/10/261402-vetmed-alumni-awards.php

Dr. Charles Allen Cary Biography

Also, unveiled and recognized at the annual meeting in Auburn, Alabama in October was a new book by AVMHS member Sam Hendrix entitled, *The Cary Legacy: Dr. Charles Allen Cary: Father of Veterinary Medicine at Auburn and the South*. It is the definitive biography of this important early veterinarian and first dean at Auburn University.

A superb write-up about the book appeared in the summer 2018 issue of the *Auburn Veterinarian* on pages 4-14. This article is accessible online at: https://issuu.com/aucollegeofveterinarianmedicine/docs/au_vet_magazine_summer_2018_issue



Public Health Impact of Milk Pasteurization

AVMHS president Russell W. Currier recently authored an article in the *Journal of Food Protection*. He writes, "After chlorination of water, milk pasteurization has probably had the greatest impact on the public's health especially for infants and children. One of the common waterborne diseases was typhoid fever and a number of pre-pasteurization era disease milk-borne outbreaks also included typhoid fever. This occurred even after pasteurization technology was available to dairies. Two other common human contaminants of milk were streptococcal infections and diphtheria both facilitated by hand milking. Dairies were reluctant, even opposed, to install pasteurization equipment for market milk due to the effect on costs; most physicians influenced by the prevalence of common rickets and scurvy also opposed pasteurization perceiving it would reduce nutrient content."



Russell Currier, DVM, MPH, retired Iowa State Public Health Veterinarian, and John Widness, MD, retired University of Iowa neonatologist, have studied this history and published a review paper, entitled "A Brief History of Milk Hygiene and Its Impact on Infant Mortality from 1875 to 1925 and Implication for Today: A Review," in the *Journal of Food Protection* (Vol 81,

No. 10, 2018, Pages 1713-1722.) This review includes details on human as well as bovine diseases transmitted through milk. It concludes with an epilogue section detailing the importance of breast feeding infants as well as current pathogens associated with unpasteurized milk e.g. *E. coli* O157, campylobacter, and salmonella. For a PDF reprint of this paper, please contact Dr. Currier at russcurrier@yahoo.com.

Dr. Douglas Cohn Spoke at the Albany Institute of History & Art

Last fall, AVMHS member Douglas L. Cohn, DVM gave two talks at the Albany Institute of History & Art in Albany, New York (<http://www.albanyinstitute.org/>)

His first lecture was entitled, "The Albany Medical Center: History & Architecture," held on Sunday, November 5, 2018 from 2-3pm. He covered the history of medicine and architecture in the region from the 1830s to 2016 and highlighted several prominent individuals in those fields. Among them was Theobald Smith, perhaps the most illustrious graduate of Albany Medical College. He is widely known for having made significant contributions to animal health research, including the elucidation of the cause of Texas cattle fever.



Dr. Cohn's second talk was given on Sunday, December 2 from 2-3pm entitled, "The Beginnings of Modern Veterinary Medicine: From France to New York State." His December lecture explored "the beginning of modern veterinary medicine with the creation of the first veterinary schools in France in the 18th century, followed by the establishment of veterinary education in Great Britain. Attention was also given to French and British-educated veterinarians who emigrated to the United States in the 19th century and sowed the seeds of the American veterinary medical field that we know today."

Dr. Cohn (veterinaire@nycap.rr.com) is director of Animal Resources Facilities at the Albany Medical

Center which is comprised of the Albany Medical Center Hospital and Albany Medical College founded in 1839.

Detroit Practice to Celebrate 175 Years

2019 is a special year for the Patterson Dog and Cat Hospital which celebrates 175 years of continuous operation. Originally from England and as the city's only veterinarian, Dr. James William Patterson established a large animal practice in downtown Detroit in 1844. In 1909, his son, Dr. Elijah Patterson, relocated it to the now historic Woodbridge neighborhood. Elijah's son, Dr. James Patterson, continued to operate it from 1926 until 1966 when sold to Dr. Eugene Miller.

Listed in the Society's Registry of Heritage Veterinary Practices, it may be the "oldest known animal hospital in the U.S. dating to the horse-and-buggy era" and probably the oldest in Michigan. Dr. Glynes Graham has been the fifth proud owner since taking over the practice in 1985.



Without knowing the exact date on which Dr. Patterson began his practice, Dr. Graham indicates the celebration will take place on July 20 this summer.

Please read more about the background of this remarkable practice in a recent news item by Edie Lau from the VIN News Service dated January 14, 2019 at: <https://news.vin.com/vinnews.aspx?articleId=51700>

More history about this practice is available at: <https://www.pattersondogandcat.com/about-us/history.html>, or, find a virtual photo tour of the current Hospital facilities at: <https://www.pattersondogandcat.com/>

We extend our very best wishes to Dr. Graham and her staff for many more successful years ahead!

Historical Methods for Revealing Data

Vicki Croft (croft@wsu.edu) from Washington State University pointed out a November 16, 2018 series post

on *Circulating Now: From the Historical Collections of the National Library of Medicine*. Titled, "Revealing Data: Close Reading and Textual Analysis as Historical Methods," Professor Thomas Ewing and others reveal how useful epidemiological information can be obtained from carefully studying the text of historical articles.

This and other posts of potential interest are at:

<https://circulatingnow.nlm.nih.gov/2018/11/16/revealing-data-close-reading-and-textual-analysis-as-historical-methods/>

17th Century Perspective on Strangles

After highlighting his article on a historical review and modern recommendations concerning heart murmurs in the October issue of this newsletter, Dr. Mark Rishniw has brought to our attention another paper—this time on strangles. Published in the *Equine Veterinary Journal* in 2017, the authors provide "a translation and a contemporary interpretation of Jacques de Solleysel's report on strangles" from the 17th century. Solleysel (1617-1680) was Escuyer du Roy to King Louis XVI and had established an equestrian school in Clapier.



Images from:

https://commons.wikimedia.org/wiki/File:Solleysel_-_Parfait_mareschal_-_5%C3%A8_%C3%A9d.,_1680_-_tome_1.djvu

https://commons.wikimedia.org/wiki/File:Portrait_of_Jacques_de_Solleysel_Wellcome_L0049728.jpg

Based on direct quotations from chapters 24-26 of the book, *Le Parfait Mareschal*, Paillot and others suggest that, "We can learn much from the 17th century view of strangles. The manner in which the disease developed and resolved, coupled with an indication of its transmission and infectious nature were already recognized, albeit in the absence of knowledge of microbiology."

Paillot R, Lopez-Alvarez, Newton JR, Waller AS. Stangles: a modern clinical view from the 17th century. *Equine Vet J.* 2017;49:141-145. Doi: 10.1111/evj.12659

Solleysel J. *Le parfait mareschal qui enseigne a connoistre la beaute', la bonete', & les deffauts des chevaux.* Paris: Gervais Clousier, 1664.

"This handbook on equine health became a classic at the time and was translated into German and English in the late 17th (circa 1696) and early 18th centuries (circa 1717) respectively."

A 1717 English translation of the abridged 3rd ed. of *The Compleat Horseman, or Perfect Farrier, in two parts* by Solleysel is accessible online at: <https://hdl.handle.net/2027/mmet.ark:/13960/t7hq47n5z>

Missouri Veterinary Museum Highlighted

Traveling to or through Jefferson City, Missouri sometime soon? If so, you might want to make a stop at an excellent museum covering 500 years of veterinary medicine located at the headquarters of the Missouri Veterinary Medical Association.



Displaying over 1,000 artifacts, books, instruments, and so on, it is one of "only a handful of museums in North America ...dedicated to veterinary medical history, and Missouri is fortunate to have this educational and entertaining institution. Though small in appearance, every turn of a corner steers visitors to new comprehensive displays that are a breed apart."

Museum hours are Monday through Friday from 9:00 a.m. to 4:00 p.m. Read more and see pictures at: <https://www.atlasobscura.com/places/veterinary-museum-of-missouri>

AVMHS Veterinary History Trivia Corner

How much do you know about veterinary history? Dr. Fred Born (fjborn@att.net) has initiated a trivia question column to challenge our knowledge. See answers below.

- 1) In what year was the Bureau of Animal Industry (BAI) established in Washington, D.C.?
 - a. 1884
 - b. 1892
 - c. 1898
 - d. 1900
 - e. 1906
- 2) What is the name of General George Washington's favorite horse he is often shown with in artworks?
 - a. Cincinnati
 - b. Lindsay's Arabian
 - c. Ranger
 - d. Lexington
 - e. Blueskin
- 3) Which early private veterinary school was NOT located in Washington D.C.?
 - a. United States College of Veterinary Surgeons
 - b. American Veterinary College
 - c. George Washington University College of Veterinary Medicine
 - d. National Veterinary College
 - e. Columbian University Veterinary Department
- 4) In what year did the last early private veterinary college [NOT affiliated with a university] close?
 - a. 1898
 - b. 1908
 - c. 1918
 - d. 1927
 - e. 1947
- 5) Which of the following scientists were educated as veterinarians?

- a. Theobald Smith who successfully researched Texas cattle fever transmission by ticks.
 - b. Bernhard Bang, a professor at the Copenhagen vet college who isolated the organism later taxonomically identified as *B. abortus*.
 - c. Richard Shope at the Rockefeller Research Institute who was first to isolate a flu virus from a mammal [swine].
 - d. All of the above
 - e. None of the above
- 6) The first veterinary school established in the U.S. was?
- a. Veterinary College of Philadelphia
 - b. Harvard University
 - c. New York College of Veterinary Surgeons
 - d. Boston Veterinary Institute

New Registry of Veterinary Heritage Practices

We are pleased to welcome the following new Registry members:

Countryside Veterinary Clinic (Lowville, Carthage, Boonville, Otter Lake, New York), Estab. 1930s

Recipient of the NYS Agricultural Society's 2019 Business of the Year Award. "The clinic is the largest provider of veterinary services for pet owners, dairy/livestock farmers and horse owners throughout northern New York, serving over 250 clients."

Highland Park Animal Hospital (Dallas, TX) Estab. 1964

McKillip Animal Hospital (Chicago, IL), Estab. 1920 by M.H. McKillip, founder of the McKillip Veterinary College.

Send information about any practices that are older than 50 years to Dr. Jerry M. Owens jowensdvm@aol.com

New AVMHS Members

We are pleased to welcome:

Sam Hendrix, PhD (Auburn, AL)

Justin Kastner, PhD (Manhattan, KS)

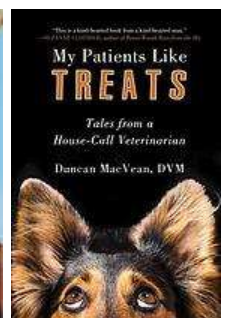
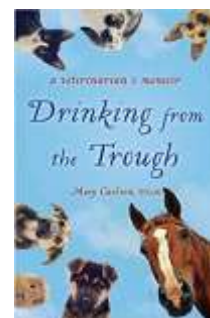
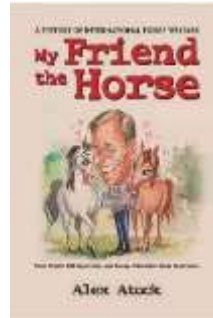
Meeting and Event Calendar

<u>2019</u>	
April 15	Student History Essay Contest deadline
Aug 2-6	AVMHS 42 nd Annual Business Meeting and Program, Washington, D.C.
<u>2020</u>	
tba	44 th International Congress, World Association for the History of Veterinary Medicine (WAHVM), South Africa

New Books

Albertus, Magnus Saint; Kenneth F Kitchell, Jr., Irven M Resnick. *On Animals: a Medieval Summa Zoological*. Columbus: The Ohio State University Press, 2018. 2 vols. 1833 pgs. ISBN: 9780814213599 "English translation and annotation of Albertus Magnus's mid-thirteenth-century study of animals, *De animalibus*."

Atock, Alex. *My Friend, The Horse: The History of International Equine Welfare*. London: Austin Mccauley Publishers, 2018. 190 Pgs. ISBN: 9781786937933



Barnhart, Matthew D. and Karl C. Maritato. *Locking Plates in Veterinary Orthopedics*. Hoboken, NJ: Wiley Blackwell, 2019. ?? pgs. ISBN: 9781119380139. Includes "A Brief History of Veterinary Locking Plates Applications" by Karl C. Maritato.

Carlson, Mary E. *Drinking from the Trough: A Veterinarian's Memoir*. Berkeley, CA: She Writes Press, 2018. 271 pgs. ISBN: 9781631524318

Guest, Kristen and Monica Mattfield. *Equestrian Cultures: Horses, Human Society, and the Discourse of Modernity*. Chicago ; London: University of Chicago Press, 2019. ?? pgs. ISBN: 9780226589657

Hendrix, Sam. *The Cary Legacy: Dr. Charles Allen Carey: Father of Veterinary Medicine at Auburn and the South*. Montgomery, AL: The Donnell Group, 2018. 374 pgs. ISBN: 9780998590424

MacVean, Duncan. *My Patients Like Treats: Tales from a House-call Veterinarian*. New York: Skyhorse Publishing, 2018. 222 pgs. ISBN: 9781510725676

McVety, Amanda Kay. *The Rinderpest Campaigns: A Virus, Its Vaccines, and Global Development in the Twentieth Century*. Cambridge, U.K.: Cambridge University Press, 2018. 294 pgs. ISBN: 9781108422741

Miller, P.J. *Designer Dogs, Awkward Hugs & a Pigeon: Veterinary Tales, Again*. [United States]: Thirty8Street Publishing, 2018. 215 pgs. ISBN: 9780692171370

Newschwander, Fred. *A Day in the Life of a Country Vet*. [United States]: CreateSpace Independent Publ. Platform, 2018. 158 pgs. ISBN: 9781982080372

Roloff, James A. *Mending God's Creatures: True Stories of a Small-town Veterinarian*. Tulsa, OK: Yorkshire Pub., 2018. 453 pgs. ISBN: 9781948282901

Schott, Philipp. *Accidental Veterinarian: Tales from a Pet Practice*. [No place of publication given]: ECW Pr., 2019. ?? pgs. ISBN: 9781770414808

Straley, John and Ellen Frankenstein. *Animal Nature: A Portrait of Burgess Bauder*. Sitka, AK: J. Straley Investigations, 2018. 87 pgs. ISBN: 9780692094761
Vacchetta, Massimo, Antonella Tomaselli, Jamie Richards. *A Handful of Happiness: How a Prickly Creature Softened a Prickly Heart*. New York: Rodale, 2018. 184 pgs. ISBN 9781635652642

Answers to Trivia questions:

- 1.a, President Chester Arthur signed the Animal Industry Act on May 29, 1884. It replaced the Veterinary Division that had been created by the Commissioner of Agriculture in 1883.
- 2.e, Blueskin, a gray half-Arabian with a white hair coat, was one of Washington's primary riding horses often shown in paintings.
- 3.b, This school was located in New York City.
- 4.d, Established by Dr. C. Barnwell Robinson, United States College of Veterinary Surgeons operated for 33 years at 222 C. Street, NW, Washington, D.C. until closing in 1927.
- 5.e, All were M.D.'s who studied contagious animal diseases, but had not earned veterinary degrees.
- 6.a. Dr. Robert Jennings was granted a charter for the Veterinary College of Philadelphia on April 15, 1852.

* * *

Send news, comments, and suggestions for the next *News & Comment* to: AVMHS Secretary-Treasurer Susanne Whitaker, 23 Wedgewood Drive, Ithaca, NY 14850-1064, phone 607-257-9248 or email skw2@cornell.edu or avmhs.info@gmail.com.

"The farther backward you look, the farther forward you are likely to see."

Winston Churchill (1874-1965)

Contents of Recent Veterinary History Journal Issues

Copies of articles may be obtained through interlibrary loan services provided by your local college or public library, or from the AVMHS Secretary-Treasurer if unavailable from other sources.

Recent Journal Articles & Chapters Related to the History of Veterinary Medicine

Currier RW, Widness JA. A brief history of milk hygiene and its impact on infant mortality from 1875 to 1925 and implications for today: a review. *Journal of Food Protection*. 2018 Oct;81(10):1713-1722. doi: 10.4315/0362-028X.JFP-18-186.

Dominiczak MH. Cartoons: another long-standing bridge between science and the arts. *Clinical Chemistry*. 2017 Apr;63(4):934-935. doi: 10.1373/clinchem.2016.266783.

Heath T. Veterinary education: how we got to where we are. *Australian Veterinary Journal*. 2018 Jun;96(6):216-222. doi: 10.1111/avj.12702.

Heyman P, Cochez C, Hukić M. The English sweating sickness: out of sight, out of mind? *Acta Medica Academica*. 2018 May;47(1):102-116. doi: 10.5644/ama2006-124.221.

Hueffer K, Murphy M. Rabies in Alaska, from the past to an uncertain future. *International Journal of Circumpolar Health*. 2018 Dec;77(1):1475185. doi: 10.1080/22423982.2018.1475185.

Janeczek M, Chrószcz A, Onar V, Henklewski R, Skalec A. Proximal interphalangeal joint ankylosis in an early medieval horse from Wrocław Cathedral Island, Poland. *International Journal of Paleopathology*. 2017 Jun;17:18-25. doi: 10.1016/j.ijpp.2017.03.001

Jeffcott L. Fifty years of Equine Veterinary Journal. *Equine Veterinary Journal*. 2018 Jul;50(4):421-422. doi: 10.1111/evj.12838.

Kennedy S. 120 years of tuberculosis research: an historical perspective from the archive of the Journal of Comparative Pathology. *Journal of Comparative Pathology*. 2017 Feb-Apr;156(2-3):143-146. doi: 10.1016/j.jcpa.2016.12.002

Koch DA, Vezzoni A, Damur D, Pierre M, Montavon (1949-2018). *Veterinary and Comparative Orthopaedics and Traumatology*. 2018 Nov;31(6):495-496. doi: 10.1055/s-0038-1675553.

Le Get R. Contagious bovine pleuropneumonia within the 19th century miasmatic landscape. *Australian Veterinary Journal*. 2018 Aug;96(8):285-290. doi: 10.1111/avj.12722.

Liu GH, Zhang LX, Zou FC, Yuan ZG, Zhao GH, Hu M, Suo X, Zhu XQ. Veterinary parasitology teaching in China in the 21st century - Challenges, opportunities and perspectives. *Veterinary Parasitology*. 2018 Mar 15;252:70-73. doi: 10.1016/j.vetpar.2018.01.037.

McCormick JG, Ridgway SH. History of the development of anesthesia for the dolphin: a quest to study a brain as large as man's. *Anesthesiology*. 2018 Jul;129(1):11-21. doi: 10.1097/ALN.0000000000002213.

Morens DM, Taubenberger JK. Influenza cataclysm, 1918. *New England Journal of Medicine*. 2018 Dec 13;379(24):2285-2287. doi: 10.1056/NEJMp1814447.

Mühlemann B, Jones TC, Damgaard PB, et al. Ancient hepatitis B viruses from the Bronze Age to the Medieval period. *Nature*. 2018 May;557(7705):418-423. doi: 10.1038/s41586-018-0097-z. Erratum in: *Nature*. 2018 Oct;562(7726):E4.

Penzhorn BL. A century of teaching veterinary parasitology in South Africa - Lessons learnt. *Veterinary Parasitology*. 2018 Mar 15;252:62-66. doi:10.1016/j.vetpar.2018.01.032.

Prescott JF. History and current use of antimicrobial drugs in veterinary medicine. *Microbiology Spectrum*. 2017 Dec;5(6). doi: 10.1128/microbiolspec.ARBA-0002-2017.

Also published in: Aarestrup FM, Schwarz S, Shen J, Cavaco L, eds. *Antimicrobial Resistance in Bacteria from Livestock and Companion Animals*. Washington, DC: ASM Press, 2018; pp. 1-16.

"The introduction of antimicrobial drugs into agriculture and veterinary medicine shortly after the Second World War caused a revolution in the treatment of many diseases of animals. In the "wonder drug era" of the late 1940s and early 1950s, the effective treatment of many infections that were previously considered incurable astonished veterinarians, such that some even feared for their livelihoods. Not all use of antimicrobial drugs in food animals is yet under veterinary prescription globally, despite repeated recommendations by the World Health Organization and other responsible organizations, so that the term "veterinary medicine" is used here rather generically to suggest use in animals rather than just use by veterinarians."

Rivera D, Acosta M, Verde A, et al. Ethnopharmacological study of Sephardic remedies in the 19th century: The "Livro de Milizinas." *Journal of Ethnopharmacology*. 2019 Feb 10;230:20-73. doi:10.1016/j.jep.2018.10.009.

Sirard MA. 40 years of bovine IVF in the new genomic selection context. *Reproduction*. 2018 Jul;156(1):R1-R7. doi: 10.1530/REP-18-0008

Smith MF, Geisert RD, Parrish JJ. Reproduction in domestic ruminants during the past 50 years: discovery to application. *Journal of Animal Science*. 2018 Jun 29;96(7):2952-2970. doi: 10.1093/jas/sky139. *PubMed Central*

Stoffel MA, Humble E, Paijmans AJ, et al. Demographic histories and genetic diversity across pinnipeds are shaped by human exploitation, ecology and life-history. *Nature Communications*. 2018 Nov 16;9(1):4836. doi: 10.1038/s41467-018-06695-z. *PubMed Central*

van Weeren R. Fifty years of osteochondrosis. *Equine Veterinary Journal*. 2018 Sep;50(5):554-555. doi: 10.1111/evj.12821. [Editorial]