

Published Intellectual Contributions – Journal Articles

Peer-Reviewed

- Holl, H., Lear, T., Nolen-Walston, R., Slack, J., Wade, C., *BROOKS, S.* (2013). Detection of two equine trisomies using SNP-CGH. *Mammalian Genome*, 2013 Jun;24(5-6):252-6. doi: 10.1007/s00335-013-9450-6. Epub 2013 Mar 21.
- Makvandi-Nejad, S., Allen, J., Chu, E., Gu, E., Chandler, A., Loredó, A., Bellone, R., Mezey, J. G., *BROOKS, S.*, Sutter, N. (2012). Four Loci Explain 83% of Size Variation in the Horse. *PLoS One*, 7 (e39929), 6pp.
- Gabreski, N., Haase, B., Armstrong, C., Distl, O., *BROOKS, S.*(2012). Investigation of allele frequencies for Lavender foal syndrome in the horse.. *Animal Genetics*, 43 (5), 650.
- Hauswirth, R., Haase, B., Blatter, M., *BROOKS, S.A.*, Burger, D., Drögemüller, C., Gerber, V., Henke, D., Janda, J., Jude, R., Magdesian, K. G., Matthews, J. M., Poncet, P. A., Svansson, V., Tozaki, T., Wilkinson-White, L., Penedo, M. C., Rieder, S., Leeb, T. (2012). Mutations in MITF and PAX3 Cause "Splashed White" and Other White Spotting Phenotypes in Horses. *PLoS Genetics*, 4 (e1002653), 9pp.
- Staiger, E. A., Sutter, N. B., Bellone, R., *BROOKS, S.*(2011). Morphometric Traits in Gaited Breeds of Horse: Potential Future Targets for Mapping. *Journal of Equine Veterinary Science*, 31 (5), 242.
- Holl, H., *BROOKS, S.*, Bailey, E. (2010). De novo mutation of KIT discovered as a result of a non-hereditary white coat color pattern.. *Animal Genetics*, 41, 196-198.
- Brosnahan, M. M., *BROOKS, S.*, Antczak, D. F. (2010). Equine Clinical Genomics: A clinician's primer. *Equine Veterinary Journal*, 42 (7), 658-670.
- BROOKS, S.*, Makvandi-Nejad, S., Chu, E., Allen, J., Streeter, C., Gu, E., McCleery, B., Murphy, B., Bellone, R., Sutter, N. (2010). Morphological variation in the horse: defining complex traits of size and shape.. *Animal Genetics*, 41, 159-165.
- BROOKS, S.*, Bailey, E. (2010). RT-qPCR Comparison of mast cell populations in whole blood from healthy horses and those with laminitis. *Animal Genetics*, 41, 16-22.
- BROOKS, S.*, Gabreski, N., Miller, D., Brisbin, A., Brown, H., Streeter, C., Mezey, J. G., Cook, D., Antczak, D. (2010). Whole Genome SNP Association in the Horse: Identification of a Deletion in Myosin Va Responsible for Lavender Foal Syndrome. *PLoS Genetics*, 6 (4), e1000909.
- Haase, B., *BROOKS, S.*, Tozaki, T., Burger, D., Poncet, P., Reider, S., Hasegawa, T., Penedo, C., Leeb, T. (2009). Seven novel KIT mutations in horses with white coat color phenotypes. *Animal Genetics*, 40 (5), 623-9.
- Murphy, B. A., Merant, C., Vick, M., Cook, R. F., *BROOKS, S.*, Horohov, D., Fitzgerald, B. (2008). Equine neutrophils respond to PGE2 by activating expression of core circadian clock genes. *The Open Veterinary Science Journal*, 2, 94-101.

- Cook, D., *BROOKS, S.*, Bellone, R., Bailey, E. (2008). Missense mutation in exon 2 of SLC36A1 responsible for champagne dilution in horses. *PLoS Genetics*, 4 (9), e1000195.
- Bellone, R., *BROOKS, S.*, Murphy, B. A., Sandmeyer, L., Grahn, B., Forsythe, G., Archer, S., Bailey, E. (2008). Differential gene expression of TRMP1: the likely cause for both coat spotting pattern (LP) and congenital stationary night blindness in the Appaloosa horse. *Genetics*, 179 (4), 1861-1870.
- Haase, B., Jude, R., *BROOKS, S.*, Leeb, T. (2008). Equine Chromosome 3 inversion is associated with the Tobiano spotting pattern in German horse breeds. *Animal Genetics*, 39 (3), 306-309.
- BROOKS, S.*, Lear, T. L., Adelson, D., Bailey, E. (2007). A Chromosome Inversion near the KIT gene and the Tobiano Spotting Pattern in Horses. *Cytogenetic and Genome Research*, 119, 3.
- Haase, B., *BROOKS, S.*, Schlumbaum, A., Azor, P., Bailey, E., Alaeddine, F., Mevissen, M., Burger, D., Poncet, P., Rieder, S., Leeb, T. (2007). Evidence for allelic heterogeneity at the equine KIT locus in dominant white (W) horses from several populations. *PLoS Genetics*, 3 (11), e195.
- Steiner, J., Antczak, D. F., Wolfsdorf, K., Saville, K., *BROOKS, S.*, Miller, D., Bailey, E., Zent, W. (2006). Persistent Endometrial Cups. *Animal Reproduction Science*, 94, 274-275.
- BROOKS, S.*, Bailey, E. (2005). Exon skipping in the KIT gene causes a Sabino spotting pattern in horses. *Mammalian Genome*, 16, 893-902.
- Terry, R. B., Archer, S., *BROOKS, S.*, Bernoco, D., Bailey, E. (2004). Assignment of the appaloosa coat color gene (LP) to equine chromosome 1. *Animal Genetics*, 35, 134-137.
- BROOKS, S.*, Terry, R. B., Bailey, E. (2002). A PCR-RFLP for KIT associated with the tobiano spotting pattern in horses. *Animal Genetics*, 33, 301-3.

Published Intellectual Contributions – Other Publications

Juried Conference Proceedings

- Neuendorf, L., *BROOKS, S.*, Staniar, W.B. (2011). Changes in fecal microbial populations in Morgan horses maintained on various diets. *Proceedings of the National Conference on Undergraduate Research, 2011*.
- Armstrong, C., Streeter, C., *BROOKS, S.* (2009). Identification of SNPs within MC4R as a Candidate for Obesity in the Horse. *Journal of Equine Veterinary Science*, 29, 322-323.
- Gabreski, N., *BROOKS, S.*, Miller, D., Antczak, D. (2009). Mapping of Lavender Foal Syndrome using the EquineSNP50 Chip. *Journal of Equine Veterinary Science*, 29, 321-322.
- Chu, E., Allen, J., Streeter, C., Sutter, N., *BROOKS, S.* (2009). Skeletal Size and Shape Diversity in the Horse. *Journal of Equine Veterinary Science*, 29, 323-324.
- Salter, C., Riggs, L., *BROOKS, S.* (2009). Expression of genes associated with mast cell inflammation and tissue degradation in lamellar tissue from horses with laminitis. *American College of Veterinary Pathologists, 2009*.

Poster

- Kowalski, E., Staiger, E. A., *BROOKS, S.*, Bellone, R. (2012). *A Genome-Wide Association Study Identifies Locus for Eye Color Variation in Puerto Rican Paso Fino Horses*. San Diego, CA: International Plant and Animal Genomes XX Conference.
- Staiger, E. A., Miller, D., Tseng, C., Cassano, J., Nasir, L., Garrick, D. J., *BROOKS, S.*, Antczak, D. F. (2012). *Genome wide association of sarcoid tumors in horses*. San Diego, CA: International Plant and Animal Genomes XX Conference.
- Holl, H., Archer, S., Bellone, R., *BROOKS, S.*(2012). *Whole Transcriptome Analysis of a Pattern Modifier (PATNI) of Leopard Complex Spotting (LP)*. San Diego, CA: International Plant and Animal Genomes XX Conference.
- Nelson, J., Holl, H., Archer, S., Sandmeyer, L., Adelson, D., Haase, B., Engensteiner, M., Leeb, T., Forsyth, G., Grahn, B., *BROOKS, S.*, Bellone, R. (2011). *Association Of An Insertion In TRPM1 With Leopard Complex (LP) Spotting And Congenital Stationary Night Blindness (CSNB) In Horses*. San Diego, CA: International Plant and Animal Genomes XIX Conference.
- Shane, S., Staniat, W. B., *BROOKS, S.*, Neuendorf, L., Ballard, K., Lassel, K., Klaiber, L. (2011). *Changes in fecal microbial populations and associated blood variables in Morgan horses maintained on pasture or dry lot*. Timonium, MD: Proceedings of the 9th Annual Mid-Atlantic Nutrition Conference.
- Holl, H., Lear, T., Nolen-Walston, R., Slack, J., Wade, C., *BROOKS, S.*(2011). *Detection of Two Equine Trisomies Using SNP-CGH*. Chaska, MN: 9th Havemeyer International Equine Gene Mapping Workshop.
- Staiger, E. A., Bellone, R., Sutter, N., *BROOKS, S.*(2011). *Genome-wide association of polymorphic gait in the horse*. New Orleans, LA: 2011 ADSA-ASAS Joint Annual Meeting.
- Holl, H., *BROOKS, S.*, Archer, S., Adelson, D., Sandmeyer, L., Forsyth, G., Grahn, B., Bellone, R. (2011). *Next-Generation Transcriptome Sequencing In The Horse: Deciphering The Genetic Cause Of Leopard Complex Spotting (LP) And Congenital Stationary Night Blindness*. San Diego, CA: International Plant and Animal Genomes XIX Conference.
- Salter, C., Riggs, L., *BROOKS, S.*(2009). *Expression of genes associated with mast cell inflammation and tissue degradation in lamellar tissue from horses with laminitis*. American College of Veterinary Pathologists.
- BROOKS, S.*, Bailey, E. (2008). *RT-qPCR to Compare Mast Cell Populations in Whole Blood from Healthy Horses and those with Laminitis*. San Diego, CA: International Plant and Animal Genome Conference.
- BROOKS, S.*, Murphy, B., Bailey, E. (2007). *Changes in Expression of Mast Cell Related Genes in Response to IV LPS: Preliminary Findings*. Lake Tahoe, CA: Havemeyer Equine Gene Mapping Workshop.

BROOKS, S., Adelson, D., Murphy, B., Bailey, E. (2007). Characterization of the Breakpoints for a Chromosomal Inversion on ECA3 Associated with the Tobiano White Spotting Pattern. San Diego, CA: International Plant and Animal Genome Conference.

BROOKS, S., Bailey, E. (2005). Exon skipping in the KIT gene causes the Sabino-White spotting pattern in Tennessee Walking horses. San Diego, CA: International Plant and Animal Genome Conference.

BROOKS, S., Bailey, E. (2004). CHEF Studies of the Equine Chromosome Region Encoding the Tobiano Coat Color Pattern. San Diego, CA: International Plant and Animal Genome Conference.

Presentations Given

BROOKS, S. (Presenter & Author), International Symposium on Equine Infectious, Genetic and Metabolic Diseases, "Equine Medical Genetics: Current and Future Applications for Horse Health", Universidade Federal de Minas Gerais, Belo Horizonte, Brazil. (August 25, 2012).

BROOKS, S. (Presenter & Author), Havemeyer Foundation 30th Anniversary Workshop, "Emergence of Genetics from the Black Box: Applications to Lavender Foal and Laminitis", Havemeyer Foundation, Saratoga Springs, NY. (August 18, 2011).

Lear, T. (Author Only), Holl, H. (Presenter & Author), BROOKS, S. (Author Only), 9th Havemeyer Foundation International Equine Genome Mapping Workshop, "Detection of a 1Mb Chromosome Deletion in Horses using SNP-CHG: A potential cause for Choanal Atresia", Havemeyer Foundation, Chaska, MN. (July 28, 2011).

Staiger, E. A. (Presenter & Author), Sutter, N. (Author Only), Bellone, R. (Author Only), BROOKS, S. (Author Only), 22nd Symposium of the Equine Science Society, "Morphometric Traits in Gaited Breeds of Horse: Potential Future Targets for Mapping", Equine Science Society, Murfreesboro, TN. (June 1, 2011).

BROOKS, S. (Presenter & Author), Department of Animal and Dairy Science Seminar Series, "And They're Off! Galloping in to the future of Equine Genomics.", Virginia Tech, Blacksburg VA. (April 26, 2011).

Makvandi-Nejad, S. (Author Only), BROOKS, S. (Author Only), Allen, J. (Author Only), Streeter, C. (Author Only), Gu, E. (Author Only), Chu, E. (Author Only), Bellone, R. (Author Only), Sutter, N. (Presenter & Author), International Plant and Animal Genomes XIX Conference, "Identification of Body Size QTL in the Horse", San Diego CA. (January 16, 2011).

BROOKS, S., (Presenter & Author), Animal and Dairy Science Monthly Seminar, "Galloping in to the Future: Current and future applications of the equine genome.", The Pennsylvania State University, State College, PA. (October 30, 2010).

- BROOKS, S.*, (Presenter & Author), Cornell Nutrition Conference, "A brief review of Nutrigenomics in the horse", Cornell University, Syracuse, NY. (October 21, 2010).
- BROOKS, S.*, (Presenter & Author), Cornell VERGE Monthly Seminar, "Identification of a Deletion in Myosin Va Responsible for Lavender Foal Syndrome", Center for Vertebrate Genomics, Cornell. (April 13, 2010).
- BROOKS, S.*, (Presenter & Author), International Plant and Animal Genome Conference, "Quantification Of Skeletal Variation In The Horse: Preliminary Work Towards Mapping Of QTLs For Morphometric Traits", San Diego, CA. (January 10, 2010).
- BROOKS, S.* (Presenter & Author), Masterclass: Laminitis in the Horse, "The Cornell laminitis Genetics Project", Animal Health Foundation, Eureka, Missouri. (November 21, 2009).
- BROOKS, S.* (Presenter & Author), 60th Annual Meeting of the European Federation of Animal Science, "Genomic Tools for Horse Health", European Association of Animal Production, Barcelona, Spain. (August 22, 2009).
- BROOKS, S.* (Presenter & Author), Gabreski, N. (Author Only), Miller, D. (Author Only), Brisbin, A. (Author Only), Mezey, J. G. (Author Only), Streeter, C. (Author Only), Antczak, D. (Author Only), 8th International Equine Genome Mapping Workshop, "Mapping of lavender foal syndrome using the EquineSNP50 chip", Havemeyer Foundation, Newmarket, UK. (July 23, 2009).
- BROOKS, S.* (Presenter & Author), CUHA, Large Animal Monthly Seminar, "Genomics tools for horse health: gene expression studies in laminitis", Accepted, CUHA, CUHA. (December 2008).
- BROOKS, S.* (Presenter & Author), Professional Horse Farm Managers Seminar, "What can the genome do for you: current and future applications of equine genomics", Accepted, SUNY Cobleskill, Saratoga, NY. (August 2008).
- BROOKS, S.* (Presenter & Author), 2008 Joint ASAS-ADSA Annual Meeting, "Let the equine genome give your project a leg-up: Real-time qPCR strategies in equine research", Accepted, American Society of Animal Science, Indianapolis. (July 2008).
- BROOKS, S.* (Presenter & Author), Kentucky International Equine Summit, "Tools from the Equine Genome: Gene Expression", Accepted, University of Kentucky/ University of Louisville, Lexington, KY. (May 2008).

BROOKS, S., "'Spotting' Variation at the KIT Locus in the Horse", Truman State University. (April 2008).

Media Contributions

Internet

Bloomberg News. Interview in: "Ancestral Mother of All Horses Galloped 160,000 Years Ago".
<http://mobile.bloomberg.com/news/2012-01-30/ancestral-mother-of-all-horses-galloped-160-000-years-ago-scientists-say>. (February 2012)

Wired.com. Interview in: "Could a Mini Horse be Bred Small Enough to Fit in Your Palm?".
<http://www.wired.com/wiredscience/tag/samantha-brooks/>. (May 2010)

Horse Genome Project. PR site for horse genome research.
<http://www.uky.edu/Ag/Horsemap/northamerica.html>. (2009)

Horsetalk. Interview in: Researchers exploring Lavender Foal Syndrome.
www.horsetalk.co.nz/news/2009/03/016.shtml. (March 2009)

The Horse. Featured in: "Tobiano Gene Discoveries Mean Better Tests" by Erin Ryder. Video feature @ <http://www.thehorse.com/video/brooks120307.wmv>.
<http://www.thehorse.com/video/brooks120307.wmv>. (January 2008)

Magazine

The Horse. Comment in: 2012 Horse Genome Workshop a Success.
<http://www.thehorse.com/ViewArticle.aspx?ID=19603>. (February 2012)

Equine Journal. Comment in: Stallions Decoded. <http://www.equinejournal.com/articles/stallions-decoded>. (February 2011)

Nature News. Comment in: Racehorses came from European stock.
<http://www.nature.com/news/2010/101005/full/news.2010.516.html>. (October 2010)

The Horse. Comment in: A Gene for Speed?.
<http://www.thehorse.com/ViewArticle.aspx?ID=17077>. (October 2010)

The Horse. Interview in: Cornell University Offers Test for Lavender Foal Syndrome.
<http://www.thehorse.com/ViewArticle.aspx?ID=16939>. (September 2010)

The Horse. Interview in: Mutation Causing Lavender Foal Syndrome Identified.
<http://www.thehorse.com/ViewArticle.aspx?ID=16377&src=LN>. (May 2010)

Equus. Featured in: "How you can help equine genetics researchers". (July 2009)

The Horse. Featured in: Big Horse? Small Horse? Help Scientists Study Size Genes.
<http://www.thehorse.com/ViewArticle.aspx?ID=13892>. (April 2009)

The Horse. Featured in: Lavender Foal Study Needs Participants.
<http://www.thehorse.com/ViewArticle.aspx?ID=13706>. (March 2009)

Animal Health Foundation Newsletter. Featured in: Can My Horse Eat Grass?. (January 2009)

Equus. Interview in: "Unlocking the mystery of white coats" by Christine Barakat. (February 2008)

Paint Horse Journal. Interview in: "Framed Again: just what is the right genetic combination to produce a colorful frame overo?" by Tracy Gantz. (December 2007)

Paint Horse Journal. Interview in: "The Science of Sabino" by Irene Stamatelakys. (August 2007)

American Saddlebreed. Guest Contributor: Mapping the Path to Success: Equine gene mapping and emerging tools for today's horse breeder. (March 2007)

Newspaper

The Washington Examiner. Interview in: The science behind Einstein, the littlest mini-horse that could. <http://www.washingtonexaminer.com/lifestyle/The-littlest-mini-horse-that-could-94256949.html#ixzz0oVGsFcxx>. (May 2010)

St. Louis Examiner. Mentioned in: Laminitis: Seeking an end to a painful disease. <http://www.examiner.com/examiner/x-18592-St-Louis-Equestrian-Examiner~y2009m8d24-Laminitis-Seeking-an-end-to-a-painful-disease>. (August 2009)

The Times. Featured in: "The mutant gene that makes horses white: Scientists have discovered the defective DNA that causes fast ageing". <http://www.timesonline.co.uk/tol/news/science/article4364169.ece>. (July 2008)

Editorships and Reviewer

Book Chapters

BROOKS, S.A. and Bellone, R. R. (2013). "Chapter 9: Coat color genomics." In: *Equine Genomics*, CHOWDHARY, B. P. (ed.) First ed.: Wiley-Blackwell, Hoboken, NJ.

Book

Bailey, E. and *BROOKS, S.A.* 2013. *Horse Genetics*, Second ed.: CABI Int., Oxfordshire, UK.

Journal

Reviewer, Journal Article

"American Journal of Veterinary Research". (August 2012 - Present).

"Journal of Animal Science". (January 2012 - Present).

"The Journal of Veterinary Diagnostic Investigation". (August 2011 - Present).

"The Veterinary Journal". (August 2011 - Present).

"PLOS One". (July 2010 - Present).

"Animal Genetics", 2 reviews. (January 1, 2010 - Present).

"BMC Genetics", 2 reviews. (January 1, 2010 - Present).

"Equine Veterinary Journal". (2010 - Present).

"BMC Genomics", 1 reviews. (January 1, 2009 - Present).

"Journal of Equine Veterinary Science". (2008 - Present).

"Journal of Heredity", 3 reviews. (2007 - Present).

Editor, Guest Associate Editor

"PLOS Genetics", 3 reviews. (February 2011 - Present).

