

## PUBLICATIONS

### 2005:

Wagner B, Robeson J, McCracken M, Wattrang E and Antczak DF. 2005. Horse cytokine/IgG1 fusion proteins – mammalian expression of biologically active cytokines and a system to verify antibody specificity to equine cytokines. *Vet Immunol Immunopathol.* 105: 1-14.

### 2006:

Hong, YH, Lillehoj HS, Lee, SH, Park DW, Lillehoj EP. 2006. Molecular cloning and characterization of chicken polysaccharide-induced TNF- $\alpha$  factor (LITAF). *Dev Comp Immunol.* 30: 919-929.

Hong, YH, Lillehoj HS, Dalloul RA, Min W, Miska KB, Tuo W, Lee, SH, Han JY, Lillehoj EP., Molecular cloning and characterization of chicken NK-lysin. *Vet Immunol Immunopathol.* 110: 339-347.

Milev-Milovanovic I, Long S, Wilson M, Bengtén E, Miller NW, Chinchar VG. 2006. Identification and expression analysis of interferon gamma genes in channel catfish. *Immunogenetics.* 58: 70-80.

Stafford JL, Wilson M, Nayak D, Quiniou S, Clem LW, Miller NW, Bengtén E. 2006. Identification of an Fc-receptor homolog in channel catfish, *Ictalurus punctatus*. *J Immunol.* 177: 2505-2517

Stafford JL, Bengtén E, Du Pasquier L, McIntosh RD, Quiniou SM, Clem LW, Miller NW, Wilson M. 2006. A novel family of diversified immunoregulatory receptors in teleosts is homologous to both mammalian Fc receptors and molecules encoded within the leukocyte receptor complex. *Immunogenetics.* 58: 758-773.

Wagner B, Hillegas JM and Antczak DF. 2006. A monoclonal antibody to equine interleukin 4. *Vet Immunol Immunopathol.* 110: 363-367.

### 2007:

Edholm E-S, Stafford JL, Quiniou SM, Waldbieser G, Miller NW, Bengtén E, Wilson M. 2007. Channel catfish, *Ictalurus punctatus*, CD4-like molecules. *Dev Comp Immunol.* 31:172-187.

Laing KJ, Dutton S, Hansen JD. 2007. Molecular and biomechanical analysis of rainbow trout LCK suggests a conserved mechanism for T-cell signalling in gnathostomes, *Mol Immunol.* 44: 2737-2748.

Park SS, Lillehoj HS, Hong YH, Lee SH. 2007. Functional characterization of tumor necrosis factor superfamily 15 (TNFSF15) induced by lipopolysaccharides and *Eimeria* infection. *Dev Comp Immunol.* 31: 934-944.

Sopp P, Werling D, Baldwin C. 2007. Cross-reactivity of mAbs to human CD antigens with cells from cattle. *Vet Immunol Immunopathol.* 119: 106-114

Stafford JL, Bengtén E, Du Pasquier L, Miller NW, Wilson M. 2007. Channel catfish leukocyte immune-type receptors contain a putative MHC class I binding site. *Immunogenetics.* 59: 77-91.

**2008:**

- Hamza E, Wagner B, Jungi TW, Mirkovitch J, Marti E. 2008. Reduced incidence of insect-bite hypersensitivity in Icelandic horses is associated with a down-regulation of interleukin-4 by interleukin-10 and transforming growth factor- $\beta$ 1. *Vet Immunol Immunopathol.* 122: 65-75.
- Hong YH, Lillehoj HS, Siragusa GR, Bannerman D, Lillehoj E. 2008. Antimicrobial activity of chicken NK-lysin against *Eimeria* sporozoites. *Avian Diseases.* 52: 302-305.
- Hong YH, Lillehoj HS, Park DW, Lee SH, Han JY, Shin JH, Park SM, Kim JK. 2008. Cloning and functional characterization of chicken proinflammatory cytokine IL-17D. *Vet Immunol Immunopathol.* 126: 1-8
- Moulana M, Evenhuis J, Kountikov EI, Wilson M, Bengtén E, Miller NW, McConnell T. 2008. Characterization of anti-channel catfish MHC class II monoclonal antibodies. *Vet Immunol Immunopathol.* 126: 120-130.
- Sahoo M, Edholm ES, Stafford JL, Bengtén E, Miller NW, Wilson M. 2008. B cell accessory molecules in channel catfish, *Ictalurus punctatus*. *Dev Comp Immunol.* 32: 1385-1397.
- Wagner B, Hillegas JM, Brinker DR, Horohov DW, Antczak DF. 2008. Characterization of monoclonal antibodies to equine interleukin-10 and detection of T regulatory 1 cells in horses. *Vet Immunol Immunopathol.* 122: 57-64.
- Wagner B, Hillegas JM, Flaminio MJBF, Watrang E. 2008. Monoclonal antibodies to equine interferon- $\alpha$  (IFN- $\alpha$ ): New tools to neutralize IFN activity and to detect secreted IFN- $\alpha$ . *Vet Immunol Immunopathol.* 125: 315-325.
- Yoo JM, Chang HH, Bae YH, Seoung CN, Lillehoj HS, Min WG. 2008. Monoclonal antibodies reactive with chicken IL-17. *Vet Immunol Immunopathol.* 121: 359-363.

**2009:**

- Chen C, Herzig CTAH, Baldwin CL. 2009. Expressed gene sequence of bovine IL-23p19 and IL-23 receptor. *Vet Immunol Immunopathol.* 128: 425-430.
- Chen K, Xu W, Wilson M, He B, Miller NW, Bengtén E, Edholm E-S, Santini PA, Rath P, Vhiu A, Cattalini M, Facchetti F, Litzman J, Bussel J, Huang B, Riesbeck K, Cunningham-Riddles C, Plebani A, Cerutti A. 2009. Immunoglobulin D enhances immune surveillance by activating antimicrobial and immunostimulating programs in basophils. *Nature Immunol.* 10: 889-898.
- Edholm E, Wilson M, Sahoo M, Miller NW, Pilstrom L, Wermestam NE, Bengtén E. 2009. Identification of IgL  $\sigma$  and IgL  $\lambda$  isotypes in channel catfish, *Ictalurus punctatus*, and an IgL  $\lambda$  isotype in Atlantic cod, *Gadus morhua*. *Immunogenetics.* 61:353-370.
- Entrican G, Lunney JK, Rutten VP, Baldwin CL. 2009. A current perspective on availability of tools, resources, and networks for veterinary immunology (A workshop report). *Vet Immunol Immunopathol.*, 128: 24-29.
- Merant C, Breathnach CC, Kohler K, Rashid C, VanMeter P, Horohov DW. 2009. Young foal and adult horse monocyte-derived dendritic cells differ by their degree of phenotypic maturity. *Vet Immunol Immunopathol.* 131: 1-8
- Purcell MK, Laing KJ, Woodson JC, Thorgaard GH, Hansen JD. 2009. Characterization

of the interferon genes in homozygous rainbow trout reveals two novel genes, alternate splicing and differential regulation of duplicated genes. *Fish Shellfish Immunol.* 26: 293-304.

Wagner B and Freer H. 2009. Development of a bead-based multiplex assay for simultaneous quantification of cytokines in horses. *Vet Immunol Immunopathol.* 127: 242-248.

Yoo JM, Jang SI, Kim S, Cho JH, Lee HJ, Rhee MH, Lillehoj HS, Min WG. 2009. Molecular cloning and characterization of duck interleukin-17. *Vet Immunol Immunopathol.* 132:318-322.

## **2010:**

Boyd P, Hudgens E, Loftus JP, Tompkins D, Wysocki M, Kakach LT, Labresh J, Baldwin CL, Lunney JK. 2010. Expressed gene sequence and bioactivity of the IFN $\gamma$ -response chemokine CXCL11 of swine and cattle. *Vet Immunol Immunopathol.* 136: 170-5.

De Mestre A, Noronha L, Wagner B and Antczak D. 2010. Split immunological tolerance to trophoblast. *Int J Dev Biol.* 54: 445-455.

Edholm ES, Bengtén E, Stafford JL, Sahoo M, Taylor EB, Miller NW, Wilson M. 2010. Identification of two IgD<sup>+</sup> B cell populations in channel catfish, *Ictalurus punctatus*, *J Immunol.* 185: 4082-4094.

Edholm ES, Hudgens ED, Tompkins D, Sahoo M, Burkhalter B, Miller NW, Bengtén E, Wilson M. 2010. Characterization of anti-channel catfish IgL sigma monoclonal antibodies. *Vet Immunol Immunopathol.* 135: 325-328.

Hong YH, Lillehoj HS, Lee SH, Park MS, Min W, Labresh J, Tompkins D, Baldwin C. 2010. Development and characterization of mouse monoclonal antibodies specific for chicken interleukin 18. *Vet Immunol Immunopathol.* 138:144-8.

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Li G, Zeng Y, Lillehoj H, Xiaofeng R. 2010. Cloning, prokaryotic expression and biological analysis of recombinant chicken IFN- $\gamma$ . *Hybridoma.* 29:1-6.

Lawson S, Lunney J, Zuckermann F, Osorio F, Nelson E, Welbon C, Clement T, Fang Y, Wong S, Kulas K, Christopher-Hennings J. 2010. Development of an 8-plex Luminex assay to detect swine cytokines for vaccine development: assessment of immunity after porcine reproductive and respiratory syndrome virus (PRRSV) vaccination. *Vaccine.* 28: 5356-64.

Tompkins D, Hudgens E, Horohov D, Baldwin CL. 2010. Expressed gene sequences of the equine cytokines interleukin-17 and interleukin-23 p19. *Vet Immunol Immunopathol.* 133: 309-313.

Wagner B, Stokol T, Ainsworth DM. 2010. Induction of interleukin-4 production in neonatal IgE<sup>+</sup> cells after crosslinking of maternal IgE. *Dev Comp Immunol.* 34: 436-444.

Wagner B, Burton A, Ainsworth DM. 2010. Interferon-gamma, interleukin-4 and interleukin-10 production by T helper cells reveals intact Th1 and regulatory T<sub>R</sub>1 cell activation and a delay of the Th2 cell response in equine neonates and foals. *Vet Res.*, 41: 47.

**2011:**

- Edholm ES, Wilson M, Bengtén E. 2011. Immunoglobulin light (IgL) chains in ectothermic vertebrates (review). *Dev Comp Immunol.* 35: 906-915.
- Edholm ES, Bengtén E, Wilson M. 2011. Insights into the function of IgD (review). *Dev Comp Immunol.* 35: 1309-1316.
- Entrican G, Lunney JK. 2011. Veterinary Immunology Committee Toolkit Workshop 2010: Progress and Plans. *Vet Immunol Immunopathol.* 148: 197 - 201..
- Hudgens E, Tompkins D, Boyd P, Lunney JK, Horohov D, Baldwin CL. 2011. Expressed gene sequence and bioactivity of the IFN $\gamma$ -response chemokine CXCL9 of cattle, horses and swine. *Vet Immunol Immunopathol.* 141: 317-21.
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- Lee JJ, Yoo J, Koh PO, Kim YH, Chang HH, Choe NH, Lillehoj HS, Min W. 2011. Molecular identification of duck and quail common cytokine receptor  $\gamma$  chain genes. *Vet Immunol Immunopathol.*, 140: 159-165.
- Lee, SH, Lillehoj, HS, Park, MS, Baldwin, C, Tompkins, D, Wagner, B, Del Cacho, E, Babu, U, Min, W. 2011. Development and characterization of mouse monoclonal antibodies reactive with chicken CD80. *Comp Immunol Microbiol Infect Dis.* 34: 273-279.
- Quiniou S, Sahoo M, Edholm ES, Bengtén E, Wilson M. Channel catfish CD8a and CD8b co-receptors: characterization, expression and polymorphism. 2011. *Fish Shellfish Immunol.* 30: 894-901.
- Robbin MG, Wagner B, Noronha LE, Antczak DF, de Mestre AM. Subpopulations of equine blood lymphocytes expressing regulatory T cell markers. *Vet Immunol Immunopathol.* 140: 90-101.
- Soboll Hussey G, Hussey SB, Wagner B, Horohov DW, Van de Walle GR, Osterrieder N, Goehring LS, Rao S, Lunn DP. 2011. Evaluation of immune responses following infection of ponies with an EHV-1 ORF1/2 deletion mutant. *Vet Res.* 42:23.
- Lee SH, Lillehoj HS, Jang SI, Baldwin C, Tompkins D, Wagner B, Parcels M, Sel Cacho E, Hong YH, Min W, Lillehoj EP. 2011. Development and characterization of mouse monoclonal antibodies reactive with chicken interleukin 2 receptor  $\alpha$  chain (CD25). *Vet Immunol Immunopathol.* 144: 396-404.
- Wagner B, Wimer C, Freer H, Osterrieder N, Erb HN. 2011. Infection of peripheral blood mononuclear cells with neuropathogenic equine herpesvirus type-1 strain Ab4 reveals intact interferon- $\alpha$  induction and induces suppression of anti-inflammatory interleukin-10 responses in comparison to other viral strains. *Vet Immunol Immunopathol.* 143: 116-124.
- Wimer CL, Damiani A, Osterrieder N, Wagner B. 2011. Equine herpesvirus type-1 modulates CCL2, CCL3, CCL5, CXCL9, and CXCL10 chemokine expression. *Vet Immunol Immunopathol.*, 140: 266-274.

## 2012

- Boardman T, Warner C, Ramirez-Gomez F, Matrisciano J, Bromage E. 2012. Characterization of anti-rainbow trout (*Oncorhynchus mykiss*) CD3 $\epsilon$  monoclonal antibody. *Vet Immunol Immunopathol.*, 145: 511-515.
- Chase C, Lunney JK. 2012. Swine Immune System. Chapter 16 In: Diseases of Swine (10th Edition) Editors: Zimmerman J, Karriker L, Ramirez A, Schwartz K, Stevenson G. John Wiley & Sons, Inc., Hoboken, NJ. Chp.16. p.227-250.
- Goodman LB, Wimer C, Dubovi EJ, Gold C, Wagner B. 2012. Immunological correlates of vaccination and infection for equine herpesvirus type 1. *Clin Vacc Immunol.* 19: 235-241.
- Groenen MAM, Archibald AL, Uenishi H, Tuggle CK, Takeuchi Y, Rothschild MF, Rogel-Gaillard C, Park C, Milan D, Megens HJ, Li S, Larkin DM, Kim H, Frantz LAF, Caccamo M, Ahn H, Aken BL, Anselmo A, Anthon C, Auvil L, Badaoui B, Beattie CW, Bendixen C, Berman D, Blecha F, Blomberg J, Bolund L, Mirte Bosse1, Botti S, Bujie Z, Bystrom M, Capitanu B, Carvalho-Silva D, Chardon P, Chen C, Cheng R, Choi S-H, Chow W, Clark RC, Clee C, Crooijmans RPMA, Dawson HD, Dehais P, De Sapio F, Dibbits B, Nizar Drou13, Zhi-Qiang Du4, Kellye Eversole26, Fadista J, Fairley S, Faraut T, Faulkner GJ, Fowler KE, Fredholm M, Fritz E, Gilbert JGR, Giuffra E, Gorodkin J, Griffin DK, Harrow JL, HaywardA, Howe K, Hu Z-L, Humphray SJ, Hunt T, Jensen HH, Jeon JT, Jern P, Jones M, Jurka J, Kanamori H, Kapetanovic R, Kim J, Kim J-H, Kim K-W, Kim T-H, Larson G, Lee K, Lee K-T, Leggett R, Lewin HA, Li Y, Liu W, Loveland JE, Lu Y, Lunney JK, Ma J, Madsen O, Mann K, Matthews L, McLaren S, Morozumi T, Murtaugh M, Narayan J, Nguyen DT, Ni P, Oh S-J, Onteru S, Panitz F, Park E-W, Park HS, Pascal G, Paudel Y, Perez-Enciso M, Gonzalez RR, Reecy JM, Rodriguez-Zas S, Rohrer GA, Rund L, Sang Y, Schachtschneider K, Schraiber JG, Schwartz J, Scobie L, Scott C, Searle S, Servin B, Southey BR, Sperber G, Stadler P, Sweedler J, Tafer H, Thomsen B, Wali R, Wang J, Wang J, White S, Xu X, Yerle M, Zhang G, Zhang J, Zhang J, Zhao S, Rogers J, Churcher C, Schook LB. 2012. Analyses of pig genomes provide insight into porcine demography and evolution. *Nature.* 491: 393-8.
- Jeong J, Kim WH, Yoo J, Lee C, Kim S, Cho JH, Jang HK, Kim DW, Lillehoj HS, Min W. 2012. Identification and comparative expression analysis of interleukin 2/15 receptor  $\beta$  chain in chickens infected with *E. tenella*. *PLoSOne* 5: e37704.
- Lavoie-Lamoureux A, Leclère M, Lemos K, Wagner B, Lavoie J-P. 2012. Markers of systemic inflammation in horses with heaves. *J Vet Intern Med.* 26: 1419-1426.
- Lee SH, Lillehoj HS, Jang SI, Lee KW, Baldwin C, Tompkins D, Wagner B, Del Cacho E, Lillehoj EP, Hong YH. 2012. Development and characterization of mouse monoclonal antibodies reactive with chicken CD83. *Vet Immunol Immunopathol.*, 145: 527-533.
- Noronha LE, Harman RM, Wagner B, Antczak DF. 2012. Generation and characterization of monoclonal antibodies to equine CD16. *Vet Immunol Immunopathol.* 146: 135-142.
- Noronha LE, Harman RM, Wagner B, Antczak DF. 2012. Generation and characterization of monoclonal antibodies to equine NKp46. *Vet Immunol*

Immunopathol. 147: 60-68.

- Purcell MK, Bromage ES, Silva J, Hansen JD, Badil SM, Woodson JC, Hershberge PK. 2012. Production and characterization of monoclonal antibodies to IgM of Pacific herring (*Culpea pallasii*). *Fish Shellfish Immunol.*, 33: 552-558.
- Ramirez-Gomez F, Greene W, Rego K, Hansen JD, Costa G, Kataria P, Bromage ES. 2012. Discovery and characterization of secretory IgD in rainbow trout: secretory IgD is produced through a novel splicing mechanism. *J Immunol.* 188: 1341-1349.
- Wagner B, Hillegas J, Babasyan S. 2012. Monoclonal antibodies to equine CD23 identify the low-affinity receptor for IgE on subpopulations of IgM<sup>+</sup> and IgG1<sup>+</sup> B-cells in horses. *Vet Immunol Immunopathol.* 146: 125-134.
- Wattrang E, Palm AK, Wagner B. 2012. Cytokine production and proliferation upon in vitro oligodeoxyribonucleotide stimulation of equine peripheral blood mononuclear cells. *Vet Immunol Immunopathol.* 146: 113-124.

## 2013

- Butler JE, Wertz N, Sun XZ, Lunney JK, Muyltermans S. 2013. Resolution of an immunodiagnostic dilemma: Heavy chain chimeric antibodies. *Molec Immunol.* 53: 140-148.
- Christopher-Hennings J, Araujo KPC, Souza CJH, Fang Y, Lawson S, Nelson E, Lunney JK. 2013. Opportunities for bead based multiplex assays in veterinary diagnostic laboratories. *J Vet Diagnostic Investigation.* Submitted.
- Dawson H, Loveland JE, Pascal G, James GR, Gilbert JGR, Uenishi H, Mann KM, Sang Y, Zhang J, Carvalho-Silva D, Hunt T, Hardy M, Hu Z-L, Zhao S, Anselmo A, Shinkai H, Chen C, Badaoui B, Berman D, Amid C, Kay M, Lloyd D, Snow C, Morozumi T, Cheng YP; Bystrom M, Kapetanovic R, Schwartz JC, Kataria R, Astley M, Fritz E, Steward C, Thomas M, Wilming L, Toki D, Archibald AL, Bed'Hom B, Beraldi D, Ait-Ali T; Blecha F; Botti S, Freeman TC, Giuffra E, Hume DA, Lunney JK, Murtaugh MP; Reecy JM, Harrow JL, Rogel-Gaillard C, Tuggle CK. 2013. Structural and Functional Annotation of the Porcine Immunome. *BMC Genomics.* In revision 3/28/13.
- Hamza E, Akdis C, Wagner B, Steinbach F, Marti E. *In vitro* induction of functional allergen-specific CD4<sup>+</sup>CD25<sup>high</sup> Treg cells in horses affected with insect bite hypersensitivity. *Clin Exp Allergy.* In press.
- Keggan A, Freer H, Rollins A, Wagner B. Production of seven monoclonal equine immunoglobulins isotyped by multiplex analysis. *Vet Immunol Immunopathol.* In press.
- Wagner B, Hillegas J, Kabithe E, Boyd P, Zarlenga D, Zagorski B, Dawson H, Lunney, JK. 2013. Development and characterization of a monoclonal antibody to porcine interleukin 4 receptor alpha (CD124). *Vet Immunol Immunopathol.* In revision.

## PRESENTATIONS

### 2005:

- Baldwin, C.L. US Veterinary Immune Reagents Network, 25th Anniversary of the American Association of Veterinary Immunologists special session, CRWAD, St. Louis, MO, December 2005 (oral presentation).
- Baldwin, C., Lunney, J.K., Lillehoj, H.S., LaBresh, J., Horohov, D., Hansen, J.D., Miller, N.W., Bengten, E., Chinchar, G., Wilson, M., Wagner, B. 2005. US Veterinary Immune Reagents Network. In: R. Ellis Ed., Proceedings of the Conference of Research Workers in Animal Diseases (CRWAD) Meeting, Dec. 2005, Blackwell Publishing. (poster).

### 2006:

- Baldwin, C., Lunney, J.K., Lillehoj, H.S., LaBresh, J., Horohov, D., Hansen, J.D., Miller, N.W., Bengten, E., Chinchar, G., Wilson, M., Wagner, B. 2006. The U.S. Veterinary Immune Reagents Network. In: R. Ellis Ed., Proceedings of the Conference of Research Workers in Animal Diseases (CRWAD) Meeting. Blackwell Publishing. p.71.
- Baldwin, C., Hansen, J.D., Horohov, D., LaBresh, J., Lillehoj, H.S., Lunney, J.K., Miller, N.W., Wilson, M., Bengten, E., Chinchar, G., Wagner, B., 2006. The U.S. veterinary immune reagents network. In: Proceedings of the International Veterinary Vaccines and Diagnostics Conference, June 25-29, 2006, Oslo, Norway. p.34.
- Baldwin, C.L. S.J. Black, J. Lunney, H. Lillehoj, J. LaBresh, D. Horohov, J. Hansen, N. Miller, E. Bengten, G. Chinchar and M. Wilson, B. Wagner. US Veterinary Immune Reagent Network. NRI-USDA PD Workshop, Chicago, IL, December 2006.
- Edholm, E.-S., Stafford, J.L., Bengtén, E., Miller N.W., Wilson M. Characterization of anti-channel catfish (*Ictalurus punctatus*) T-cell receptor  $\beta$  monoclonal antibodies, 10th Congress of International Society for Developmental and Comparative Immunology (ISDCI), Charleston, SC, July 1-6, 2006. (poster presentation)

### 2007:

- Baldwin, C.L. US Veterinary Immune Reagent Network", 8<sup>th</sup> International Veterinary Immunology Symposium, Ouro Preto, Brazil, August 2007 (oral presentation).
- Baldwin, C., S.J. Black, J. Lunney, H. Lillehoj, J. LaBresh, D. Horohov, J. Hansen, N. Miller, E. Bengten, G. Chinchar and M. Wilson, B. Wagner. US Veterinary Immune Reagent Network: Prioritization and Progress. 8<sup>th</sup> International Veterinary Immunology symposium, Ouro Preto, Brazil, August 2007 (poster).
- Baldwin, C.L. S.J. Black, J. Lunney, H. Lillehoj, J. LaBresh, D. Horohov, J. Hansen, N. Miller, E. Bengten, G. Chinchar and M. Wilson, B. Wagner. US Veterinary Immune Reagent Network. NRI-USDA PD Workshop, Chicago, IL, December 2007.
- Edholm, E.-S., Stafford, J.L., Sahoo, M., Bengtén, E., Miller N.W., Wilson M. Characterization of three different IgD<sup>+</sup> cell populations in channel catfish, *Ictalurus punctatus*, ISDCI symposium of the 94th annual AAI meeting, Miami FL, May 20, 2007 (oral presentation).

- Hansen, J.D. Detecting the enemy within: genomic aspects of the NLR family in teleosts. International Symposium on Animal Genomics for Animal Health. World Organization for Animal Health (OIE) Paris, France. 2007.
- LaBresh J, Steffens CS, Baldwin C, Lunney JK. 2007. Gene Sequence Homology of Chemokines Across Species. In: R. Ellis Ed., Proceedings of the Conference of Research Workers in Animal Diseases (CRWAD) Meeting, Dec. 2007, Blackwell Publishing. (poster).
- Lillehoj HS, Hong YH, Lunney J, Baldwin C, LaBresh J, Horohov D, Hansen J, Miller N, Bengten Em Chinchar G, Wilson M, Wagner B. 'U.S. Veterinary Immune Reagent Network'. 8<sup>th</sup> International Veterinary Immunology Symposium, Ouro Preto, Brazil, August 15-19, 2007.
- Lunney JK, Boyd P, Zarlenga D, Zuckermann F, Schnitzlein W, LaBresh J, Wagner B, Baldwin C. 2007. Swine Toolkit Plans and Progress for the US Veterinary Immune Reagent Network. 8<sup>th</sup> International Veterinary Immunology symposium, Ouro Preto, Brazil, August 2007 (poster). [http://www.8ivis.org/final\\_program.pdf](http://www.8ivis.org/final_program.pdf) p.15
- Lunney JK, Baldwin C, Black SJ, Boyd P, Lillehoj H, LaBresh J, Horohov D, Hansen J, Miller N, Bengten E, Chinchar G, Wilson M, Wagner B. 2007. US Veterinary Immune Reagent Network: Prioritization & Progress. International Symposium on Animal Genomics for Animal Health, Paris, France, October 2007 (poster).
- Lunney JK, Boyd P, Zarlenga D, Zuckermann F, Schnitzlein W, LaBresh J, Wagner B, Baldwin C. 2007. Swine Toolkit progress for US Veterinary Immune Reagent Network. In: R. Ellis Ed., Proceedings of the Conference of Research Workers in Animal Diseases (CRWAD) Meeting, Dec. 2007, Blackwell Publishing. (poster).
- Wagner B, Hilegas JM, Icom R, Lunney JK, Bengten E, Miller N, Lillehoj H, Hansen J, Baldwin C. 2007. Expression of Recombinant Immunoglobulins and Cell Surface Molecules for Six Species: Cattle, Pig, Horse, Chicken, Catfish And Trout. 8<sup>th</sup> International Veterinary Immunology symposium, Ouro Preto, Brazil, August 2007 (poster). [http://www.8ivis.org/final\\_program.pdf](http://www.8ivis.org/final_program.pdf) p.17
- Wagner B. Development of new reagents in veterinary species. Havemeyer Workshop on Equine Allergy, Holar, Iceland, June 18-21, 2007.

Wilson, M. Progress in channel catfish, *Ictalurus punctatus*, genomics. Coordinator Report (NRSP-8) Aquaculture Session, Plant & Animal Genome XV, San Diego CA, January 12-17, 2007.

## 2008:

- Baldwin, C.L., T. Hudgens, D. Tompkins, J. Labresh, C. Steffens, B. Wagner, J. Hope. Toolkit progress for US Veterinary Immune Reagent Network. In: R. Ellis Ed., Proceedings of the Conference of Research Workers in Animal Diseases (CRWAD) Meeting, Dec. 2008, Blackwell Publishing.
- Bengten, E., Identification of an Fc receptor homolog in the channel catfish, *Ictalurus punctatus*", 8th International Congress on the Biology of Fish, Portland Oregon. July 28-August 1, 2008. (Oral Presentation)
- Edholm, E.-S., Stafford, J.L., Sahoo, M., Bengtén, E., Miller N.W., Wilson M. 'Three different IgD cell populations in channel catfish, *Ictalurus punctatus* ', Experimental Biology Conference, San Diego, CA, April 5-9, 2008. (Poster presentation)



- Lunney, J.K., P Boyd, e. Prucnal, D. Zarlenga, J. Labresh, C. Steffens, B. Wagner, D. Tompkins, T. Hudgens, C. Baldwin. Swine toolkit progress for US Veterinary Immune Reagent Network. In: R. Ellis Ed., Proceedings of the Conference of Research Workers in Animal Diseases (CRWAD) Meeting, Dec. 2008, Blackwell Publishing.
- Nayak D., Stafford, J.L., Miller N.W., Wilson M., Bengtén, E. An IgM binding soluble Fc Receptor in channel catfish, *Ictalurus punctatus*', Experimental Biology Conference, San Diego, CA, April 5-9, 2008. (Poster presentation)
- Sahoo, M., Edholm, E.-S., Stafford, J.L., Bengtén, E., Miller N.W., Wilson M. Identification of CD79a and CD79b homologs in channel catfish, *Ictalurus punctatus*. Experimental Biology Conference, San Diego, CA, April 5-9, 2008. (Poster presentation)
- Wagner B. The US Veterinary Immune Reagent Network. The second Havemeyer EHV-1 Workshop, Steamboat Springs, Colorado, September 21-26, 2008.
- Wagner B. Multiplex analysis of equine cytokines. The second Havemeyer EHV-1 Workshop, Steamboat Springs, Colorado, September 21-26, 2008.
- Wagner B, Hillegas J, Kabithe E, Horohov DW, Baldwin C. Monoclonal antibodies to equine IL-4 and CD23 derived from a recombinant IL-4/CD23 fusion protein. Annual conference of research workers in animal diseases (CRWAD), Chicago, Illinois, December 7-9, 2008.

## 2009:

- Baldwin, C.L. , E. Bengten, E. Bromage, S.J. Black, D. Horohov, J. Hansen, J. Labresh, H. Lillehoj, J. Lunney, N. Miller, B. Wagner and M. Wilson. 2009. US Veterinary Immune Reagent Network Updates. Poster and Oral, 5<sup>th</sup> International Veterinary Vaccines and Diagnostics Conference, July 19-24, Madison, Wisconsin.
- Bengtén, E. Identification of IgL  $\square$  and IgL $\square\square$  isotypes in channel catfish, *Ictalurus punctatus*, and Atlantic cod, *Gadus morhua*", 11<sup>th</sup> Congress of International Society for Developmental and Comparative Immunology (ISDCI), Prague Czech Republic. July 1, 2009. (Oral Presentation)
- Edholm, E.-S., Stafford, J.L., Sahoo, M., Bengtén, E., Miller N.W., Wilson M. IgD+ cell populations in channel catfish, *Ictalurus punctatus*', American Association of Immunologists conference, Seattle, WA, June 19-25, 2009. (Poster presentation)
- Hansen, J. S.J. Black, J. Lunney, H. Lillehoj, J. LaBresh, D. Horohov, N. Miller, E. Bengten, G. Chinchar and M. Wilson, B. Wagner and Baldwin, C.L. 2009. US Veterinary Immune Reagent Network—trout update. 8<sup>th</sup> International Congress on the Biology of Fish, Portland, Oregon.
- Lee SH, Lillehoj HS, Kim D, Park M, Tompkins D, Baldwin C, LaBresh J, Wagner B. U.S. Veterinary Immune Reagent Network. Council for Research Workers in Animal Disease, Chicago, IL, December 6-8, 2009.
- Lunney JK, Boyd P, LaBresh J, Kakach L, Wagner B, Tompkins D, Hudgens E, Baldwin C. 2009. Swine Toolkit progress for the US Veterinary Immune Reagent Network. 2009 Intl PRRS Symp. and CRWAD 12/09.
- Nayak, D., Wilson M., Miller N.W., Bengtén, E. Characterization of an IgM linear epitope involved in interaction with the catfish soluble FcRI receptor', American

- Association of Immunologists conference, Seattle, WA, June 19-25, 2009 (poster presentation)
- Sahoo, M., Bengtén, E., Edholm, E.-S., Wilson, M. Development and characterization of monoclonal antibodies to channel catfish, *Ictalurus punctatus*. Conference of Research Workers in Animal Diseases (CRWAD), Chicago IL. December 6-8, 2009. (poster presentation)
- Wagner B, Freer H. Development of a bead-based multiplex assay for simultaneous quantification of cytokines in horses. European Congress of Immunology, Berlin, Germany, September 13-16, 2009.
- Wagner B. – invited speaker – Immunological aspects of skin hypersensitivity in the horse: roles of IgE and cytokines. University of Iceland, Reykjavik, Keldur 10/8/2009.
- Wagner B. – invited speaker – Immunological aspects of skin hypersensitivity in the horse: roles of IgE and cytokines. Workshop on Insect-bite hypersensitivity in horses. University of Wageningen, The Netherlands 10/12/2009.
- Wagner B. – invited speaker – Cytokines as indicators of cellular immunity. Seminar series at the Maxwell H. Gluck Equine Research Center, University of Kentucky, Lexington, Kentucky, USA. 11/3/2009.
- Wilson, M. IgD<sup>+</sup> cell populations in channel catfish, *Ictalurus punctatus*." 11th International Congress of International Society of Developmental and Comparative Immunology, Prague, Czech Republic June 2009. (Oral Presentation)

**2010:**

- Bengtén, E., Insights into teleost IgD function. American Association of Immunologists Meeting, May 10, 2010, Baltimore, MD. (Oral Presentation)
- Dawson HD, Chen C, Fendlay D, Chitko-McKown CG, Wagner B, Boyd P, Lunney JK, Urban JF. 2010. Retinoic acid modulates IL-4 receptor alpha chain expression and signaling pathways in intestinal epithelial cells and macrophages. 2010. Abstract for Am Assn Immunol. Meeting 5/10.
- Lee Sung Hyen, Lillehoj Hyun S, Park Myeong Seon, Jang Seung, Baldwin Cynthia, Wagner Bettina. Development And Characterization Of Mouse Monoclonal Antibodies Reactive With Chicken CD 80, American Association of Immunologists Meeting, May 7-11, 2010, Baltimore, MD
- Lee Sung Hyen, Lillehoj Hyun S, Park Myeong Seon, Hong Yeong Ho, Labresh Joanna, Baldwin Cynthia, Tompkins Danielle. Development of mouse monoclonal antibodies specific for chicken interleukin-18 (IL-18), Joint Meeting of the ADSA, AMSA, ASAS and PSA, Joint Annual Meeting July 11-15, 2010, Denver CO.
- Lillehoj Hyun S, Lee Sung Hyen, Kim Duk Kyung, Park Myeong Seon, Labresh Joanna, Baldwin Cynthia, Tompkins Danielle, Wagner Bettina. S. Veterinary Immune Reagent Network, Joint Meeting of the ADSA, AMSA, ASAS and PSA, Joint Annual Meeting July 11-15, 2010 Denver, CO.
- Lillehoj, Hyun S, Lee, Sung H., Kim, Duck K. U. S. Veterinary Immune Reagents Network: Progress with Poultry Immune Reagents, American Association of Avian Pathologists, July 31 – August 3, 2010, Atlanta, GA
- Lunney JK, Boyd P, Crossman A, LaBresh J, Kakach L, Sullivan Y, Wagner B, Tompkins D, Hudgens E, C Baldwin C. 2010. Swine Toolkit progress for the US

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Wagner B: New tools to investigate cellular immune responses in horses. New Bolton Center, University of Pennsylvania, Kenneth Square, PA, USA, 5/11/2010.

Wagner B: Update on immune reagents and cytokine multiplex assay development for the horse. AAEP Respiratory Disease Workshop, Salt Lake City, UT, USA, 7/20/2010.

Wagner B, Babasyan S, Hillegas J, Kabithe E, LaBresh J, Tompkins D, Baldwin C. The US Veterinary Immune Reagent Network: Update on reagents for the horse. 9<sup>th</sup> International Veterinary Immunology Symposium, Tokyo, Japan, August 16<sup>th</sup>-20<sup>th</sup> 2010.

Wagner B, Burton A, Ainsworth D. IFN- $\gamma$ , IL-4 and IL-10 production by Th cells reveals intact Th1 and TR1 activation and a delayed Th2 response in foals. 9<sup>th</sup> International Veterinary Immunology Symposium, Tokyo, Japan, August 16<sup>th</sup>-20<sup>th</sup> 2010.

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Wilson, M., What we know and what we don't know about fish immunoglobulins. Mississippi State University College of Veterinary Medicine, Starkville MS, April 12, 2010. (Oral Presentation)

Wilson, M., IgD-bearing cell populations in the channel catfish, *Ictalurus punctatus*." 2010 5th Aquatic Animal Models of Human Disease Conference, Corvallis OR, September 22, 2010. (Oral Presentation)

Woodson JC, Purcell M, Gregg J, Badil SM, Grady C, Hansen JD, Bromage E, Hershberge PK. Development of immunological tools for the study of disease in Pacific Herring. Western Fish Disease Workshop, Corvallis, OR, July 2010.

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Lee SH, Lillehoj H, Jang S, Lee KW, Kim D, Park M-S, Odonnell S, Chun J, Baldwin C, Tompkins D, Wagner B. U.S. Veterinary Immune Reagents Network: Progress with poultry immune reagents development. BARC Poster Day 2011, Beltsville, MD, April 27, 2011.

Lee SH, Lillehoj HS, Hong YH, Baldwin C, Tompkins D, LaBresh J, Sullivan Y, Wagner B. U.S. Veterinary Immune Reagents Network: Progress with poultry immune reagents. PSA Meeting, St. Louis, MO, July 16-19, 2011.

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- Reagents (BARC posterday, ARS-USDA, Beltsville, April 27, 2011).
- Lillehoj, H. U. S. Veterinary Immune Reagents Network: Progress with Poultry Immune Reagents, PSA meeting, Convention Center, St. Louis, MO, July 16-19, 2011.
- Lunney JK, Boyd P, Crossman A, LaBresh J, Kakach L, Sullivan Y, Wagner B, Dawson H, Tompkins D, Hudgens E, C Baldwin C. (2011) Swine Toolkit progress for the US Veterinary Immune Reagent Network. Conference of Research Workers in Animal Diseases (CRWAD), Chicago IL. December 4 – 6, 2011; and the 2011 International PRRS Symposium, Chicago, IL, on December 2-3, 2011.
- Rego K, Ramirez-Gomez F, Greene W, Hansen J, Costa G, Bromage E. Trout utilize a novel 3' UTR splicing mechanism for the generation of secreted IgD. 2<sup>nd</sup> Annual Comparative Immunology and Pathology Conference, Edmonton, Canada, May 2011.
- Wagner B. Regulation of innate immune responses by EHV-1. The third Havemeyer EHV-1 Workshop, Steamboat Springs, Colorado, September 18-23, 2011.
- Wagner B. Neonatal cytokine production and how it may improve early-in-life vaccination. 3<sup>rd</sup> Annual Harry M. Zweig Memorial Fund for Equine Research Meeting. November 16, 2011.

## 2012

- Baldwin CL, Bromage E, Lunney J, Lillehoj H, LaBresh J, Hansen J, Bengten E, Wilson M, Wagner B. US Veterinary Immune Reagent Network. USDA-NIFA Project directors Workshop, Chicago, IL 12/2012.
- Tuggle CK, Rogel-Gaillard C, Loveland J, Uenishi H, Dawson H, Lunney J, Sang Y, Zhao S, Giuffra E, Botti S, Reecy J, Harrow J, Freeman T, Archibald AL, Murtaugh M, Hume D, Morozumi T, Shinkai H, Bed'hom B, Blecha F, Zhang G, Mann K, Zhang J, Chen C, Hu Z, Cheng R, Huang T, Rodriguez Y, Anselmo A, Badaoui B, Schwartz J, Kapetanovic R, Dario Beraldi D, and Immune Response Annotation Group (IRAG) and the Swine Genome Sequencing Consortium. (2012) Structural and functional annotation of immunity-related genes in the pig genome. Plant and Animal Genome Conference 2012, January 14-18, 2012, San Diego, CA. PAG P3622. <http://pag.confex.com/pag/xx/webprogram/Paper3622.html>
- Hong YH, Lee SH, Lillehoj HS. The  $\beta$ -defensin expression profile of necrotic enteritis in commercial broiler chickens. Poultry Science Association (PSA) Annual Meeting, Athens, GA, July 9-12, 2012.
- Jeong M, Lillehoj HS, Lee SH, Jang S, Kim DK, Park MS. Differential gene expression of avian beta-defensins in the crop, intestine, and spleen in commercial meat birds with necrotic enteritis disease. BARC Poster Day 2012, Beltsville, MD, April 12, 2012.
- Lee KW, Lillehoj HS, Jang SI, Lee SH. Identification and cloning of two immunogenic *Clostridium perfringens* proteins, elongation factor Tu and pyruvate: ferrdoxin oxidoreductase of *C. perfringens*. American Association of Avian Pathologists(AAAP)/AVMA Meeting, San Diego, CA, May 4-8, 2012.
- Lee, SH, Lillehoj H, Park M-S, Baldwin C, Tompkins D, Wagner B, Babu U, Del Cacho E. Development and characterization of mouse monoclonal antibodies reactive to chicken CD80. 99<sup>th</sup> Annual Meeting, The American Association of Immunologists, Boston, MA, May 4-8, 2012.

- Lee SH, Lillehoj H, Park M-S, Baldwin C, Tompkins D, Wagner B. Development and characterization of mouse monoclonal antibodies reactive with chicken CD83. American Association of Avian Pathologists(AAAP)/AVMA Meeting, San Diego, CA, August 4-7, 2012.
- Lillehoj HS. Characterization of chicken dendritic cell markers. The American Association of Immunologists Annual Meeting, Boston, MA, May 4-8, 2012.
- Park MS, Lillehoj HS, Lee SH, Jang SI, Kim DK, Jeong M. U.S. Veterinary Reagents Network: Progress in poultry immune reagents development. BARC Poster Day 2012, Beltsville, MD, April 12, 2012.
- Ramirez-Gomez F, Greene W, Rego K, Hansen JD, Bromage E. The expression of secretory IgD in rainbow trout gives clues towards its distribution and function. American Association of Immunologists Annual Meeting, Boston, MA, May 2012.
- Ramirez-Gomez F, Greene W, Rego K, Hansen JD, Bromage E. Secretory immunoglobulin D in Rainbow trout: How its incidental discovery is leading to an understanding of its distribution and function. 3<sup>rd</sup> North American Comparative Immunology Workshop, Rochester, NY, June 2012.
- Wagner B. – invited speaker – Multiplex technology – A new sensitive method to measure soluble analytes. Colorado State University. Orthopaedic Research Center, 4/23/2012.
- Wagner B. – invited speaker – Immune mechanisms that substitute T-helper cell responses in neonates and young foals. Havemeyer *Rhodococcus equi* Workshop, Deauville France, July 9-12, 2012.
- Wagner B. – invited speaker – Cellular immune responses to equine herpesvirus type 1 in foals and adult horses. Annual Meeting American College of Veterinary Pathologists. Seattle, WA, Dec. 1-5, 2012.
- Wilson, M., What we know and what we don't know about channel catfish B and T cells. College of Veterinary Medicine University of Georgia, Athens Georgia, March 26, 2012. (Oral Presentation)
- Wilson, M., What we know and what we don't know about channel catfish B and T cells; 3rd North American Comparative Immunology Workshop, University of Rochester, Rochester, New York, June 5-8, 2012 (Plenary lecture)