

Winn Feline Foundation Report of FIP Funded Projects through May 6, 2018

Key: W- Winn MT- Miller Trust MTW- Special Cycle Bria Fund Financed

The Bria Fund Projects to date:

Note: The Bria Fund was founded in November of 2005. Donations were sufficient to support its first study in 2008.

W18-010 (Bria Fund and New Feline Investigator Award) Understanding genetic differences in immunity to feline infectious peritonitis (FIP). Principal Investigator: Drs. Emi Barker and Christopher Helps; Langford Vets, University of Bristol, UK. Although feline infectious peritonitis (FIP) is caused by a coronavirus, only some infected cats get the disease. This study will examine how genetic differences in a cat's immune system play a role in this disease, and how common these differences are in the general cat population. Grant amount \$6,400.

MTW 17-022 Generating an attenuated feline infectious peritonitis (FIP) vaccine by creating a protective immune response. Principal Investigator: Gary Whittaker, PhD; Cornell University, Susan Baker, PhD; Loyola University-Chicago. Feline infectious peritonitis (FIP) is a common and deadly disease of cats. Previous attempts at developing a vaccine were ineffective and increased the likelihood of the disease. New information shows that mutation of a specific gene in the virus can protect against this infection without causing disease. This study attempts to develop a new live-attenuated vaccine for FIP. Grant amount \$35,000.

MTW17-020 Developing a Safe and Effective Combined Anticoronaviral Therapy (CACT) for Cats with FIP. Principal Investigators: Brian Murphy, DMV, PhD, Niels Pedersen PhD, University of California-Davis. Feline infectious peritonitis (FIP) is a common and deadly disease of cats with previously no effective treatment. This study uses compounds developed for antiviral therapy in humans to treat this disease, with promising early results. Combination anticoronaviral therapy, used successfully in humans, will be evaluated for enhanced treatment of this otherwise fatal disease. Grant amount \$20,500.

W17-021 Analysis of Plasma to Identify Biomarkers for the Diagnosis and Prognosis of FIP. Principal Investigators: Gregg Dean, DVM, PhD, DACVP, Kelly Santangelo, DVM, PhD, DACVP; Colorado State University. Feline infectious peritonitis (FIP) is a fatal disease of cats that causes vague symptoms and currently defies diagnosis. This study uses a novel approach to develop a simple test using plasma biomarkers for this devastating disease, Grant Amount \$25,000.

W16-024 Exploring Humoral Responses to Non-Structural Proteins of Feline Coronaviruses, Principal Investigator: Magdalena Dunowska, BVSc, PhD; Massey University, New Zealand, Grant Amount \$25,000.

W16-023 Mefloquine's Potential To Inhibit FIPV Infection In The Cat, Principal Investigator: Merran Govendir, BVSc, PhD, Jacqueline Norris, BVSc, PhD; The University of Sydney, Australia, Grant Amount \$11,750.

W16-022: Evaluating New Drug Compounds For Treating Feline Coronavirus, A Continuation Study, Principal Investigator: Brian Murphy, DVM, PhD, ACVP; Niels Pedersen, DVM, PhD; University of California, Davis, Grant Amount \$12,175.

W15-030: Using Small Interfering RNA For Treatment of Feline Infectious Peritonitis, Principal Investigator: Emin Anis, PhD; Rebecca Wilkes, DVM, PhD; The University of Tennessee, Grant Amount \$16,500.

W15-026: Systemic Feline Coronavirus and Its Relationship to FIP, Principal Investigator: Gary R. Whittaker, PhD; Cornell University, Grant Amount \$24,967.

W15-013 A Feline Tumor Necrosis Factor Inhibitor for FIP. Principal Investigator: Yunjeong Kim, DVM, PhD, ACVIM; Kansas State University, Grant Amount \$23,758.

W15-010: Evaluating New Drug Compounds For Treating Feline Coronavirus, Principal Investigator: Brian Murphy, DVM, PhD, ACVP; Niels Pedersen, DVM, PhD; University of California, Davis, Grant Amount, \$14, 970.

W14-018: Characterizing how FIP Virus Binds and Enters Cells. Principal Investigator: Gary Whittaker; Cornell University, Grant Amount \$24,851.

W13-020: In Vivo Efficacy Study of Virus Protease Inhibitors Against Feline Coronaviruses in a Mouse Model, Principal Investigator: Yunjeong Kim; Kansas State University, Grant Amount \$19,920.

W13-019: Host Immune Response of Feline Kidney Cells to Pathogenic and Non-Pathogenic Feline Coronavirus Strains: Developing Biomarkers for FIP, Principal Investigator: Yvonne Drechsler, PhD and Pedro Diniz, DVM, PhD; Western University of Health Sciences, Grant Amount \$25,000.

W12-026: Anti-Immune Evasive Therapy in the Treatment of FIP - Randomized, Controlled Clinical Trial, Hans Nauwynck & Sabine Gleich; Ghent University, Grant Amount \$24,962.

W11-008: Evolution of Feline Infectious Peritonitis Virus Within FIP Cats and Tissue-specific Adaptation of the Virus to Activating Proteases, Gary R. Whittaker, Professor, Cornell University, Grant amount \$23,986.

W10-039: Development of a Novel Treatment Strategy to Inhibit the Immune Evasion Mechanism of Feline Infectious Peritonitis Virus (FIPV), Sabine Gleich, DVM; Hannah Dewerchin, DVM; Hans Nauwynck, DVM; Ghent University, Grant amount \$12,700.

W10-038: Polyprenyl Immunostimulant for the Treatment of the Dry Form of Feline Infectious Peritonitis, Alfred Legendre, DVM, MS, DACVIM; University of Tennessee, Grant Amount \$14,825.

W10-037: Development of Feline Infectious Peritonitis Therapeutics in a Mouse Model, Gary R. Whittaker, BSc (Hon), PhD; Cornell University, Grant amount \$15,000.

W10-036: Molecular Prevalence and Viral Load of Replicating Feline Coronavirus in the Bloodstream of Healthy Shelter Cats in Southern California, Pedro Paulo Diniz, DVM, PhD; Yvonne Drechsler, PhD; Linda Kidd, DVM, PhD, DACVIM; Frank Bossong, DVM; Ellen Collisson, MS, PhD; Western University of Health Sciences, Grant Amount \$10,000.

W09-027: Determining Genetic Correlates of FIP Susceptibility, Jacqueline Norris, BVSc, MVS, MASM, PhD; Steven A. Holloway BVSc, MVS, MACVSc, DACVIM, PhD; Craig McLure, BSc, PhD; The University of Sydney, Australia, Grant Amount \$12,240.

W08-036: Blood Parameters Potentially Associated with Susceptibility to Feline Coronavirus in Birman cats: Saverio Paltrinieri, DVM, PhD, DECVCP; University of Milan, Grant amount \$14,780.

W08-006: Identification of the Cellular Receptor for Feline Coronaviruses: H.F. Egberink, DVM, PhD and P.J.M. Rottier, PhD; Utrecht University, Grant Amount \$15,000.

W08-004: Molecular Basis of Feline Coronavirus Pathogenesis and Development of FIP in Cats, Phase One, Principal Investigator: Gary R. Whittaker, PhD; Cornell University, Grant Amount: \$15,000.

Miller Trust Awards: Reviewed and Selected by Winn's Grant Review Committee and Board of Directors

MT16-014: Structure-based design of a novel subunit immunogen for development as a feline infectious peritonitis (FIP) vaccine, Principal Investigator: Gary Whittaker, PhD; Cornell University, Grant Amount \$30,273.

MT11-007: Effectiveness of Small Interfering RNA (siRNA) to Inhibit Feline Coronavirus Replication Principle Investigators Rebecca P. Wilkes, DVM, PhD, Assistant Professor; Eman Anis, BS, MS; Alfred Legendre, MS, DVM, Professor; Stephen Kania, BS, MS, PhD; The University of Tennessee College of Veterinary Medicine, Grant Amount \$23,600.

MT13-006: Pharmacokinetic and toxicity testing of novel feline coronavirus protease inhibitors in laboratory cats. Principal Investigator: Neils Pedersen, DVM University of California – Davis, Grant Amount \$22,464.00.

MT13-008: Transduction of hematopoietic stem cells to stimulate RNA interference for treatment of feline infectious peritonitis. Principal Investigator: Rebecca P. Wilkes, DVM, PhD, University of Tennessee, College of Veterinary Medicine, Grant Amount \$19,453.04.

MT08-004: Molecular basis of feline coronavirus pathogenesis and development of FIP in cats, phase two, Principal Investigator: Gary R. Whittaker; Cornell University, Grant Amount: \$35,514.

MT06-015: Screening for FCoV to the 7b protein of Feline Coronavirus in cats for detection of persistent infection, Principal Investigator: Melissa Kennedy, DVM, PhD, University of Tennessee, Grant Amount: \$14,750.

MT05-005: Phase II studies on the heritability resistance/susceptibility to FECV infection in randomly-bred, colony-reared, domestic cats, Principal Investigator: Niels Pedersen, Leslie Lyons; University of California-Davis, Grant Amount: \$15,000.

MT04-015: Phase II studies on the heritability resistance/susceptibility to FECV infection in randomly-bred, colony-reared, domestic cats, Principal Investigator: Niels Pedersen, Leslie Lyons; University of California-Davis, Grant Amount: \$15,000.

Note: The following FIP research projects were funded by the Winn Feline Foundation before Susan E. Gingrich founded the Bria Fund for FIP Research:

W04-005: Post transcriptional changes of Alpha-1-Acid Glycoprotein during Feline Coronavirus infections, Principal Investigator: Saverio Paltrinieri, DVM, PHD, DECVCP;

Fabrizio Ceciliani, DVM, PhD; Alessia Giordano, DVM and Vanessa Pocacqua; University of Milan, Italy, Grant Amount: \$14, 489.

W02-025: Screening for FCoV 7b antibodies for diagnosis of FIP, Principal Investigator: Melissa Kennedy, Stephen Kania, University of Tennessee, Grant Amount: \$15, 000.

W02-023: Immunopathogenesis of systemic FIP and prospects of intervention, Principal Investigator: Janet Foley, University of California-Davis, Grant Amount: \$15,000.

W01-015: Immunopathogenesis and medical intervention in neurological FIP, Principal Investigator: Janet Foley, University of California-Davis, Grant Amount: \$14, 500.

W03-024: Healthy carriers of feline coronavirus, Principal Investigator: Diane D. Addie, Department of Veterinary Pathology, University of Glasgow, Grant Amount: \$15, 000.

W97-FOLEY: The influence of age and passive systemic immunity on the severity and duration of Feline Enteric Coronavirus infection, Principal Investigator: J.E. Foley, DVM, MS, PhD; N.C. Pedersen, DVM, PhD; University of California, Davis, Grant Amount: \$10, 000.

W98-ADDIE: Virus excretion in Feline Coronavirus excretion, Principal Investigator: Diane D. Addie, PhD; Oswald Jarrett, BVMS, PhD; University of Glasgow, Scotland, Grant Amount: \$15, 000.

W97-ADDIE: Feline Coronavirus excretion, Principal Investigator: Diane D. Addie, BVMS, RCVS, PhD; Oswald Jarrett, BVMS, RCVS, PhD; University of Glasgow, Scotland, Grant Amount: \$15, 000.

NOTE: There are earlier FIP studies funded by Winn. Information was not available at the time this document was prepared.

More information about specific studies can be found on www.winnfelinefoundation.com