



Marie Abitbol est vétérinaire (diplômée de l'École nationale vétérinaire d'Alfort en 1998) et docteur de l'Université Paris 7 (doctorat de Génétique humaine obtenu en 2004).

Elle a été Maître de Conférences en Génétique à l'École d'Alfort pendant plus de dix ans avant de rejoindre en 2016, toujours comme de Maître de Conférences en Génétique, l'École vétérinaire de Lyon (VetAgro Sup, Campus vétérinaire de Lyon, Marcy l'Etoile).

Elle a développé une Consultation de génétique, destinée aux propriétaires et éleveurs de carnivores domestiques.

Elle enseigne la génétique aux étudiants vétérinaires, assure les consultations de génétique et travaille en recherche à l'identification de gènes et de mutations impliqués dans des maladies héréditaires et dans des caractères d'intérêt (couleur, texture de pelage) chez les chiens, les chats et les équidés.

### Marie Abitbol

**Present position:** Associate professor, DVM, Ph.D. Alfort School of Veterinary Medicine

- Teaching in molecular and medical genetics
- Research in medical genetics

#### Current research topics

Dr. Abitbol obtained a permanent position of associate professor in clinical and medical genetics at the Alfort School of Veterinary Medicine, Paris, France in 2006. She first contributed in developing genetic tools, pedigrees and collaborations for mapping projects in companion animals.

Presently, Dr. Abitbol is working on the identification of molecular bases accounting for several inherited morphological or morbidity traits in animals. These include a feline myopathy, polydactylies in horses and cats and coat colour variants in cats and donkeys.

#### Past positions and scientific projects

Dr. Abitbol graduated in Human Genetics from the University of Paris 7, France in 2004. During that time, she worked in Pr. Jean-Louis Guénet's laboratory at the [Institut Pasteur](#), Paris, France where she worked with Dr. Xavier Montagutelli on mouse models for protoporphyria. In particular, she analyzed the effect of the genetic background on the ferrochelatase deficiency mouse mutation and searched for modifying genes using a quantitative genetic approach.

Dr. Abitbol was employed as an assistant professor in molecular and medical genetics at the Alfort School of Veterinary Medicine, Paris, France in 2001. In the laboratory successively headed by Pr. Panthier and Dr. Aubin-Houzelstein, she identified the molecular basis of the cerebellar ataxia of the American Staffordshire Terrier dog. A genetic test has then been developed which is presently used by veterinarians and breeders worldwide.

#### Publications

Lyoumi S, **Abitbol M**, Rainteau D, Karim Z, Bernex F, Oustric V, Millot S, Lettéron P, Heming N, Guillmot L, Montagutelli X, Berdeaux G, Gouya L, Poupon R, Deybach JC, Beaumont C, Puy H. Protoporphyrin Retention in Hepatocytes and Kupffer Cells Prevents Sclerosing Cholangitis in Erythropoietic Protoporphyrin Mouse Model. *Gastroenterology*. 2011 Jul 12. [Epub ahead of print].

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Carlos Sampedrano C, Chetboul V, Mary J, Tissier R, **Abitbol M**, Serres F, Gouni V, Thomas A, Pouchelon JL. Prospective echocardiographic and tissue Doppler imaging screening of a population of Maine Coon cats tested for the A31P mutation in the myosin-binding protein C gene: a specific analysis of the heterozygous status. *J. Vet. Intern. Med.* 2009 Jan-Feb ; 23 (1) : 91-9.

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**Abitbol M**, Lyoumi S, Andrieu V, Henin D, Robert E, Martin-Schmitt C, Gouya L, de Verneuil H, Deybach JC, Montagutelli X, Beaumont C, Puy H. Protoporphyrin IX regulates iron distribution by modulation of transferrin level: lessons from the erythropoietic protoporphyria mouse model. *Blood.* 2007 Jan 15; 109 (2) : 811-8.

**Abitbol M**, Puy H, Sabaté JM, Guénet JL, Deybach JC, Montagutelli X. Ursodesoxycholic acid and heme-arginate are unable to improve hematopoiesis and liver injury in an erythropoietic protoporphyria mouse model. *Physiol. Res.* 2006, 55 (Suppl2) : S93-101.

**Abitbol M**, Bernex F, Puy H, Jouault H, Deybach JC, Guénet JL, Montagutelli X. A mouse model provides evidence that genetic background modulates anemia and liver injury in erythropoietic protoporphyria. *Am. J. Physiol. Gastrointest. Liver. Physiol.* 2005, 288 (6) : G1208-16.

Navarro S, Del Hoyo P, Campos Y, **Abitbol M**, Moran-Jimenez M, J.Garcia-Bravo M, Ochoa P, Grau M, Montagutelli X, Frank J, Garesse R, Arenas J, de Salamanca R E, Fontanellas A. Increased mitochondrial respiratory chain enzyme activities correlate with minor extent of liver damage in mice suffering from erythropoietic protoporphyria. *Exp. Dermatol.* 2005, 14 (1) : 26-33.

Montagutelli, X. & **Abitbol, M**. Applications of congenic strains in the mouse. *Med. Sci.* (Paris) 2004. 20 (10) : 887-93.