

RICARDO FERNÁNDEZ ANTONIO

PERSONAL INFORMATION

Name: Ricardo Fernández-Antonio
Birth date: 22-10-1959, in Vigo (Pontevedra).
Address: José Alguero Penedo, N°1, 15300 A Coruña, Spain.
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Web site: www.nupevet.com
Civil status: Divorced.
Nationality: Spanish
Hobbies and interests: Trekking, reading.
Contribution to charitable organizations: Action against hunger.

ACADEMIC DEGREE

DOCTOR IN VETERINARY MEDICINE, León University, 1983, Zootechnia and Animal Production speciality.

I am currently ending my PhD work: "Detection by PCR Real Time of Aleutian Mink Disease Virus in environmental samples and its application in eradication programs".

PROFESSIONAL ACTIVITY (CRONOLOGICALLY)

Multidisciplinary experience in the farm production of mink: laboratory operation and laboratory direction, quality control, nutrition and feed formulation, acid silage of animal by-products, farm-management, health plans and Aleutian Disease control and eradication, mink pathology.

- 1982/83
 - Two academic works about mink farming in the last year of my veterinary degree studies:
 - ✓ Mink Production.
 - ✓ Project for installation of a mink farm.
- 1983
 - Work as veterinarian in a veterinary clinic of small animals (Vigo).
- 1984/85
 - SODIGA's grant for incorporation of new graduates into the business world (incorporation into the company **Visonos del Noroeste S.A.** feed factory and mink/fox farms).
 - Working in farm
 - ✓ Blood sampling for CIEP test.
 - ✓ Vaccination.
 - ✓ Semen test.
 - ✓ Routine necropsies.
 - Aleutian Disease programs monitoring.
 - Quality control (chemistry and microbiology): design and operation of a laboratory for microbiology in the feed factory. Cooperation with an external chemical laboratory.
 - Feed formulation

- 1986
- Military service (Marine infantry).
- 1987/89
- **Zeltifur, S.A.** (feed factory and mink/fox farms): **Technical Director.**
 - **Direction of a technical multidisciplinary team for development of:**
 - ✓ Computer systems for farm management and genetical improvement.
 - ✓ Research farm focused in testing new raw materials for feed.
 - ✓ Design, start-up and direction of new laboratories for microbiological and chemical feed quality control. Training of laboratory technicians.
 - ✓ Health monitoring of mink farms using clinical pathology, routine necropsies and histopathology.
 - **Feed formulation and quality control** in the feed factory.
 - **Mink farms adviser.**
 - Development of **Aleutian Disease** programs for feed factory customers (Galicia). Cleaning and disinfection procedures.
- 1990/97
- Technical Direction of **Tecnicas de Nutricion S.A.** (Feed factory)
 - **Nutrition:**
 - ✓ Direction of the laboratory for feed quality control (chemical and microbiological).
 - ✓ Feed quality control.
 - ✓ Feed formulation (linear programming system software).
 - **Health programs:**
 - ✓ Direction, control and eradication programs against Aleutian Disease (feed factory customers). Direction of cleaning and disinfection procedures.
 - ✓ Farm veterinarian.
 - **Research and Development of new products:**
 - ✓ Development of wet feed for fish farming (turbot and salmon). Laboratory, pilot plant and production stages.
 - ✓ Research and development of enzymatic digestion of poultry intestines and other by-productos (*Digest* production line for pet food). Laboratory and pilot plant stages.
 - ✓ Research with hydrocolloids for reconstitution of crushed fish paste intended for fisheries. Laboratory and pilot plant stages.
- 1997 until present:
 - **Creation of my own consulting company, NUPE, S.L.U.**
 - **SILAGE PLANTS AND RAW MATERIALS:**
 - ✓ 1997/2008: Design, installation, operation and commercialization of two plants for fish silage in two trout fish farms (Grupo Tres Mares and Grupo Isidro de la Cal).
 - ✓ 2004: Design, installation and operation of a silage plant in Tecnicas de

Nutrición S.A. (fish and poultry offal).

- ✓ 2005: Design and installation of a plant for dead fish silage for disposal purposing (Grupo Tres Mares).
- ✓ 1997/2016: Commercialization of raw materials for mink feed.

■ **NUTRITION, MANAGEMENT AND HEALTH:**

- ✓ External technical consultant for the mink sector in Spain (also Portugal and South of France).
 - Aleutian Disease control and eradication programs.
 - Prevention and health programs.
 - Farm veterinarian.
 - Farm management.
 - Feed formulation and quality control.
- ✓ 2000 until present: **Veterinary director of the Common Sanitary Program of the Galician Fur Breeders Association (AGAVI).**
 - ✓ Aleutian Disease control and eradication programs.
 - ✓ Sanitary farm management.
 - ✓ Vaccination.
 - ✓ Interlocution with livestock departments of the Regional and State Administration.

OTHERS

- ✓ 2004: official authorization to provide training in food safety and hygiene (training courses for food handlers). Xunta de Galicia; Department of Health.
- ✓ 2018: official authorization to provide training in Animal Welfare.
- ✓ 1984 until present: annual training courses for mink farmers. Visones del Noroeste, Zeltifur, Técnicas de Nutrición, Galician Mink Breeders Association and NUPE, S.L.U.
- ✓ 2004 until present: training courses in food safety and hygiene.

LENGUAGES

- ✓ Inglés.
- ✓ Galician language.
- ✓ Spanish.

COMPUTING

- ✓ Windows Operative Systems; Office suite; linear programming system software for feed formulation; handling and programing of databases.

COURSES

- Between others it can be remarked:

- ✓ Hygiene, Technology and Quality Control of Fish products. General Council of Spanish Veterinary Colleges, in collaboration of the Institute of Industrial Freezing. Madrid, December 1, 1990.
- ✓ Food additives and its utilization in the alimentary industry. AFCA (Association of Manufacturers and Marketers of Food Additives and Supplements). Lugo, 26, 27 y 28 of May 1997.
- ✓ V Symposium bioMérieux of Industrial Microbiological Analysis. Barcelona, March 1998
- ✓ International Scientific Congresses in Fur Animal Production: IV (Toronto 1988), VIII (Amsterdam 2004), IX (Halifax 2008), X (Copenhagen 2012) and XI (Helsinki 2018).
- ✓ NJF Seminars (Nordic Association of Agricultural Scientists), Autumn Meeting in Fur Animal Research. Years 2015-2014-2013-2011-2010-2009.
- ✓ Annual International Health Meeting of Veterinarians Specialist in Fur Animals. Years 2009-2010-2013-2014-2015-2016-2017-2018.

SCIENTIFIC MEETINGS: POSTERS AND ORAL PRESENTATIONS

- ✓ Fernández-Antonio, R.; Prieto, A.; Díaz-Cao, J.M.; López, G.; Panadero, R.; Díaz, P.; Morrondo, P.; Fernández, G. 2016. **Study of distribution of AMDV load in infected mink farms environment.** XIth International Scientific Congress in Fur Animal Production. Helsinki, Finland. Fur Animal Scientific Association. 23 al 28 de agosto.
- ✓ Fernández-Antonio, R.; Prieto, A.; Díaz-Cao, J.M.; López, G.; López, C.; Pérez-Creo, A.; Díez-Baños, P.; Fernández, G. 2016. **Evaluation by qPCR of personal protective equipments for visitors against AMDV.** XIth International Scientific Congress in Fur Animal Production. Helsinki, Finland. Fur Animal Scientific Association. 23 al 28 de agosto.
- ✓ Prieto, A.; Díaz-Cao, J. M.; Fernández-Antonio, R.; Panadero, R.; Díaz, P.; López, C.; Morrondo, P.; Díez-Baños, P.; Fernández, G. (2014). **Application of real time PCR to detect Aleutian Mink Disease Virus (AMDV) on environmental farm sources.** NJF-veterinary meeting in Levi, Finland. 24-26 of January 2014.
- ✓ Fernández-Antonio, R.; Prieto, A.; Díaz-Cao, J. M. & Fernández, G.. (2015). **Real time qPCR to detect Aleutian Mink Disease Virus (AMDV) on environmental farm sources: one year of application on the farms in Spain.** NJF-veterinary meeting in A Coruña, Spain. 30 of January to 1 of February 2015.
- ✓ Prieto, A.; Fernández-Antonio, R., Díaz-Cao, J. M. and Fernández, G. (2015). **qPCR detection and quantification of AMDV on environmental samples.** NJF-veterinary meeting in A Coruña, Spain. 30 of January to 1 of February 2015.
- ✓ Fernández-Antonio, R.; Prieto, A.; Díaz-Cao, J. M. & Fernández, G.. (2016). **qPCR to evaluate on farm biosecurity measures against amdv (for visitors).** NJF-veterinary meeting in Oslo, Norway. 21-22 of January, 2016.
- ✓ Fernández-Antonio, R.; Prieto, A.; Díaz-Cao, J. M. & Fernández, G.. (2016). **Variation in spleen virus load using qPCR.** NJF-veterinary meeting in Oslo, Norway. 21-22 of January, 2016
- ✓ **Mercury Levels in Mink Feed in Spain.** NJF Seminars (Nordic Association of Agricultural Scientists), Autumn Meeting in Fur Animal Research. Reikiavik 2013.
- ✓ **New Findings in the Pathogenesis of Paralysis-Paresis of Mink.** NJF Seminars (Nordic Association of Agricultural Scientists), Autumn Meeting in Fur Animal Research. Oslo 2011.
- ✓ **Microsporidia Linked to Systemic Inflammatory Lymphoplasmacellular**

- Lesions in Farmed Mink (Neovison vison). A preliminary study.** NJF Seminars (Nordic Association of Agricultural Scientists), Autumn Meeting in Fur Animal Research. Años Vantaa, 2009.
- ✓ **Encephalitozoonosis in Spanish Farmed Mink.** IX International Scientific Congress in Fur Animal Production. Halifax, agosto 2008.
 - ✓ **Diskospondylitis in Mink (Mustela vison): a Preliminary Study in Spanish Mink Farms.** IX International Scientific Congress in Fur Animal Production. Halifax, agosto 2008.
 - ✓ **Pododermatitis in Farmed Mink (Mustela vison) in Spain.** IX International Scientific Congress in Fur Animal Production. Halifax, agosto 2008.

SCIENTIFIC PUBLICATIONS

- ✓ Prieto, A., Díaz, Cao, J.M., Fernández-Antonio, R., Panadero, R., Díaz, P., López, C., Morrondo, P., Díez-Baños, P., Fernández, G. 2014. **Application of real time PCR to detect Aleutian Mink Disease Virus on environmental farm sources.** Vet. Microbiology. 173, 355-359.
- ✓ Prieto, A., Fernández-Antonio, R., Díaz-Cao, J.M., López, G., Díaz, P., Alonso, J.M., Morrondo, P., Fernández, G. 2017. **Distribution of Aleutian mink disease virus contamination in the environment of infected mink farms.** Vet. Microbiol. 204, 59-63.
- ✓ Prieto, A., Díaz-Cao, J.M., Fernández-Antonio, R., Panadero, R., López-Lorenzo, G., Díaz, P., Pérez-Creo, A., Morrondo, M.P., & G. Fernández (2018), **Lesser housefly (Fannia canicularis) as possible mechanical vector for Aleutian mink disease virus.** Veterinary Microbiology 221 (2018) 90–93.
- ✓ Díaz-Cao, J.M., Prieto, A., Gonzalo López, G., Fernández-Antonio, R., Díaz, P., López, C., Remesar, S., Díez-Baños, P. & Fernández, G. (2018). **Molecular assessment of visitor personal protective equipment contamination with the Aleutian mink disease virus and porcine circovirus-2 in mink and porcine farms.** PLoS ONE 13(8): e0203144.
- ✓ Nieto, J.M., Fernández-Antonio, R. & Barreiro, B. (1988) **Studies of kidney lesions of aleutian disease of mink.** 9th Autumn Meeting of the European Society of Veterinary Pathology; 10-11.
- ✓ Nieto, J.M., Peña, M.L., Vázquez, S., Fernández-Antonio, R. & Quiroga, M.I. (1993) **Dual infection with aleutian disease virus and distemper virus in mink.** Scientifur 17:148-151.