



For Carole

Carole Moreno-Romieux was a research director at INRAE and was conducting work on the genetics of small ruminants – sheep and goats – at the INRAE Research Centre of Occitanie-Toulouse for more than 20 years, initially within the SAGA (Station d'Amélioration Génétique des Animaux), and subsequently GenPhySE (Génétique, Physiologie et Système d'Élevage).

She has developed high level research activities on various subjects such as disease resistance, the use of genomic tools, the capacity of adaptation and resilience of livestock to the challenges of climate change and the agro-ecological transition.

She was recruited by INRAE in 2003, after obtaining her PhD on the genetic determinism of resistance to scrapie and salmonellosis in sheep. Following that, the main topic of her research activity was the genetic resistance to gastrointestinal parasites. Another part of her research career was related to the use of genomic tools in the 2010s. She had committed herself with communicative energy in the dissemination of DNA chips in sheep and goats (she was a founding and active member of the international consortia) and their applications. She has often been at the forefront, with insight and intuition, to propose original works such as that on genetic determinism of the recombination rate or on lethal mutations in sheep, always with a view to the possible application of these at the scale of breeding.

Within the framework of her research, she has started and cultivated a dynamic international cooperation between many partners (Roslin Institute in Scotland, INIA in Uruguay, AgResearch in New Zealand, Agricultural Research Institute in Cyprus), as well as a rich national network with other INRAE teams, veterinary researchers and with field actors such as livestock organizations. An important part of her research was carried out using experimental data from INRAE farms, a key area of the institute for which she has invested a lot and which she has defended with strength and determination.

In addition to the high quality of her academic research, leading to more than 200 publications, she has also been involved with the same exceptional dynamism in various collective projects. In 2014, she took charge of the research team which focused on the genetics of small ruminants within GenPhySE at the INRAE Occitanie-Toulouse Centre. Among her emblematic projects, and to mention only the most recent one, she built and led the H2020 SMARTER project (2019-2023) on the genetics of resilience and efficiency in small ruminants. This project brings together a consortium of 27 partners from 13 countries. It embodies the image of Carole, who knew how to bring together groups and skills to face major challenges.

Carole also gave great importance to the dissemination and transmission of knowledge by participating actively in the training of students and doctoral students, but also in the popularization of her research work to the general public.

Her ability to convince, her enthusiasm and her vision of the decisive issues for our research have been her strength and allowed her to achieve great success throughout her career. Her great human qualities and her sympathy have made her a person that was loved by all.

During her career and through the various projects and groups she has led, she always promoted, with passion, a more agro-ecological and environmentally friendly production of small ruminants that is also respectful of the environment.