Dr. Langebæk received her degree as Doctor of veterinary Medicine (DVM) from University of Copenhagen in 1986. She worked in companion animal private practice for a number of years before returning to the university as an assistant teacher in basic surgery in 1995. During the following years, her interest in teaching and learning increased considerably and her natural curiosity made her reflect on the traditional educational methods, which were still in use. Her experience was that the old-fashioned lectures resulted in unenthusiastic students that relied mostly on copying and memorization of facts. These experiences motivated her to implement educational methods that would engage students more. In 2006 she initiated the production of videos that could illustrate core surgical and medical themes and she ended up 'flipping' the classroom, so that the time consuming lectures were eliminated altogether and substituted with narrated on-line Power Point lectures. The time that had previously been spent on lecturing, and on passive passing on of information, could now be used for practical sessions in which students became actively involved in building up their own competencies. During the same year, Dr. Langebæk developed and implemented a surgical skills lab with 17 individual low-fidelity toy animal simulators, where students can practice basic surgical skills before proceeding to regular surgical procedures on live animals. One of Dr. Langebæk's pedagogical goals has been to implement educational methods that could support students' learning by providing them with a positive learning environment, reducing the stress that many students experience when faced with live-animal surgery. This motivated her to investigate the emotional effect of training on low-fidelity models in the surgical skills lab, and in 2011 she finished her PhD on this subject.

Since then Dr. Langebæk has developed and validated more simulators for The Companion Animal Teaching Hospital in Copenhagen and is now an associate professor at the university. In one of her more recent projects, she has been investigating a possible link between creativity and surgery, using a creative assignment/challenge to promote surgical learning and decision-making in veterinary students. Apart from her research in veterinary education, Dr. Langebæk is involved in a transdisciplinary research project on the Greenlandic sledge dog, investigating the health, genetics and cultural history of this iconic breed. She is also involved in nature conservation projects in The Mara North Conservancy in Kenya. Finally, Rikke Langebæk spends her spare time writing nature-related children's novels.