Translation of animal studies to humans – What is important to consider?

Background
Translating findings from animal studies into effective clinical treatments remains a major challenge, especially for complex neurological diseases such as multiple sclerosis (MS). Even though the methodological and reporting quality of animal research has improved through the increasing use of systematic reviews (SRs), the overall success rate of translating preclinical results into clinical applications is still low. Moreover, there is no comprehensive overview of which considerations researchers most often take into account, nor how these are applied when interpreting bodies of animal evidence.
We are working on a project aiming to understand how researchers justify their choice of animal models and how they address variations in study design, and the implications of those variations for clinical translatability, when interpreting the data of the animal models.

Department
You will primarily work under supervision of Raven van der Vegt at the Radboudumc' s department of Anaesthesiology, in close collaboration Dr. Carlijn Hooijmans. It is possible to partially work from home, but we welcome you to (also) work at the department.

Duration: flexible, we can accommodate both BSc and MSc internships

Research question: What.elements.relevant.to.clinical.translation.are.considered.in.the. existing.peer_reviewed.literature.that.discusses.potential.underlying .reasons.for.translational. failure.in.multiple.sclerosis¡

Research objectives ("what will I be doing?")
Depending on the duration and start date of your internship, you will:

1. Screen the result of a comprehensive search for articles discussing translational failure of animal studies using MS models.
2. Extract arguments of authors used to explain translational failure.
3. Interpret the results and formulate directions for future research based on your findings
4. Write your report in publication format, prepare and give an oral presentation

Learning objectives ("what will I learn from this?")
You'll join a specialist group of worldwide experts on evidence synthesis of animal studies, and will acquire unique knowledge about what important elements are to consider when talking about translational science! In more detail, you'll learn e.g.:

1. To use systematic review techniques to collect and assess what researchers find important in relation to translational science.
2. To critically reflect on what makes an animal study translatable.
3. To organise your tasks and manage a collaborative research project.
4. To interpret the results and present these, in English, in a draft manuscript and presentation.

If you are interested, please sent an e-mail to raven.vandervegt@radboudumc.nl to schedule an introductory meeting.