Systematic reviews and meta-analyses in animal research - an introduction

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PRE-COURSE PREPARATIONS & READING MATERIAL		The e-learning module must be completed by 23 Nov 2021, and selected reading material will be provided prior to the beginning of this course.
TUESDAY 23 Nov 2021	9:00 – 9:30	**Introduction to the course.** *Rafael Frías*
	9:30 – 10:00	**Introduction to systematic reviews of animal studies.** *Explanation of the concept of a systematic review, the differences compared to a narrative review, the standard steps and usefulness of systematic reviews of animal studies.*
	10:00 – 10:30	**Identification of "all" relevant animal studies.** *Introduction to the principles of designing a comprehensive search.*
	10:30 – 11:30	**Computer practical - Development of comprehensive search strategies.** *Designing a comprehensive search in PubMed yourself.*
	11:30 – 12:00	**Practical - Inclusion/exclusion of studies.** *Performing a title & abstract screening based on explicit selection criteria.*
	12:00 – 13:00	**Break**
	13:00 – 13:30	**Group discussion - Extract study characteristics.** *Designing the outline of a table of study characteristics.*
	13:30 – 14:00	**Criteria of study validity.** *Introduction to the concept of internal validity, different types of bias and tools to assess risk of bias.*
	14:00 – 14:45	**Practical - Risk of bias assessment.** *Assessing the methodological quality of a study yourself.*
	14:45 – 17:00	**Home study.**
WEDNESDAY 24 Nov 2021	9:00 – 9:15	**Recap.**
	9:15 – 10:00	**Introduction to a review protocol** *Explanation of the importance and elements of a protocol; registration vs. publication.*
	10:00 – 11:30	**Practical protocol.** *Writing a protocol for the topic of your own systematic review.*
	11:30 – 12:00	**Plenary discussion protocol** *Discussion of issues encountered during practical protocol.*
	12:00 – 13:00	**Break**
	13:00 – 13.45	**Introduction data extraction and meta-analysis.** *Explanation of different types of outcome data synthesis and the main steps of conducting a meta-analysis including subgroup analysis.*
	13:45 – 14:45	**Practical data extraction and meta-analysis.** *Extracting outcome data from studies yourself and a demonstration of how to conduct a meta-analysis in Review Manager.*
	14:45 – 16:00	**Home study.**
	16:00 – 17:00	**Final examination.**