

Addressing Review Burdens

- ❖ **How AI / Automations Help:**
 - ❖ Smart Search turns Research Questions to Boolean queries,
 - ❖ Smart Screening finds relevant studies with no training needed,
 - ❖ Extraction: AI builds and adapts to extract qualitative evidence;
 - ❖ Meta-analysis: AI can also build and perform meta-analysis!
- ❖ **Output: Synthesis** enables drill-down on key concepts, viewing of summary data, and 'living' analytics.

External Validations

- ❖ **Tested by *Grys et al.*:**
 - ❖ Achieved $\geq 89\%$ accuracy in all review stages,
 - ❖ Total time savings of **>85%!**
 - ❖ AI *outperformed* experts in Critical Appraisal & extracting safety data.

Stage	AI Tool	Accuracy	Time saved
Search	Smart Search, validated against Cochrane reviews	80%	95%
Screening	Criteria-based Screening, validated against experts	94%	87%
Data Extraction	Adaptive Smart Tags (qualitative & quantitative)	90%	85%
Critical Appraisal	Adaptive Smart Tags (on RoB systems)	99%	85%
Across all stages:	Full Rapid Review performed by AI	91%+	85%