Ethical evaluation: A parallel process in every stage of model building/development

Scientific evaluation: Use criteria from consensus stage

Can the discomfort be justified?

Reduce discomfort, or abandon development

Singular, or ‘idiosyncratic’ findings

Lack of face validity
Note: this doesn’t *per se* invalidate a model

Model with face validity

Reliability? Replicability?

Descriptive similarity with what is modeled?

Model with predictive validity

Homologous structures and/or processes?

No model

Model suffers from lack of relevance

Model with construct validity

Sound theoretical rationale?

Model with external validity

Generalizability?

Model with biological and/or clinical relevance

Does model answer (a) specific purpose(s)?

Model may have limited applicability