## EMA'S GUIDE ON ADVANCED THERAPY MEDICINAL PRODUCTS

## Clinical development checklist

Apply the same manufacturing process to the materials used in clinical studies as has been used in pivotal non-clinical studies
Route of administration should be similar in non-clinical and clinical studies
Investigate the feasibility of the route of administration
Standardize the administration procedure
Demonstrate that the drug reaches the site of action
Investigate pharmacokinetic characteristics
Determine the optimal dose regimen
Analyse the dose-response relationship
Demonstrate the mechanism of action
Investigate the off-target effects
Demonstrate efficacy
Investigate safety and tolerability
Fit the study population with the therapeutic indication and target population of the product
Include clinical endpoints relevant for the therapeutic indication and target population in pivotal trials
Distinguish the effects of concomitant medication from the ATMP effect
Determine sources of variability in drug response
Update the risk profile according to the risk based approach
Collect relevant data for the environmental risk assessment
Integrate post-authorisation studies in the development plan
Ask for Scientific Advice

