

# **Outcome of the 2022 Analysis of Non-Clinical GNAs for FIH Clinical Trials & Take-home messages**

**A hitchhiker's guide to the mind of a non-clinical assessor**

FAMHP

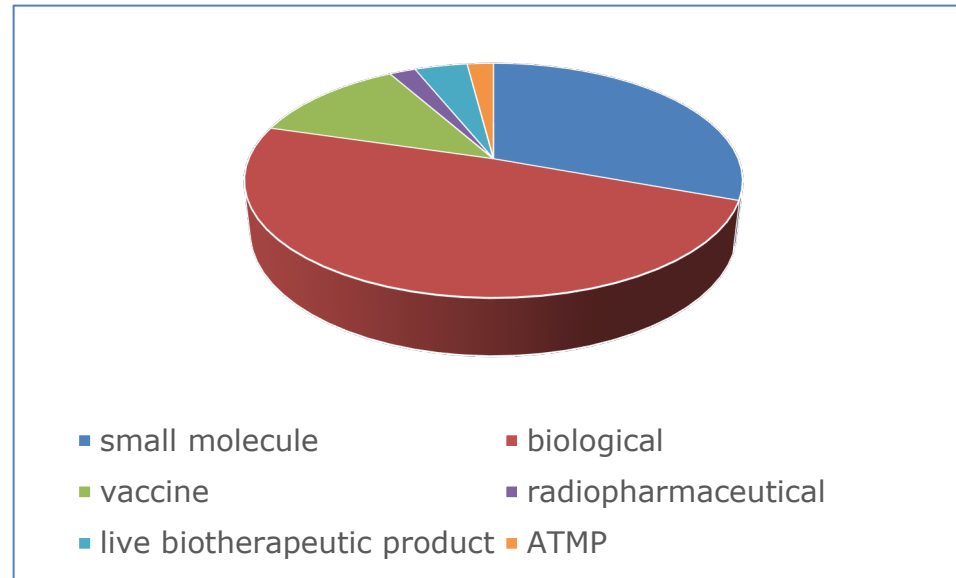
BRUSSELS

15.09.2023

**Sonja BEKEN**

# Analysis of First-in-Human Clinical Trials submitted for review at the FAMHP in 2022

**Total number of CTAs: 49**



## Outcome non-clinical evaluation:

### First Round

- 5 approvals without recommendations;
- 6 approvals with recommendations;
- 38 CTAs with Grounds for Non-Acceptance (with and without recommendations);
- 2 CTAs with Grounds for Non-Acceptance withdrawn by the Sponsor.

### Second Round

- 20 approvals without recommendations;
- 6 approvals with recommendations;
- 10 conditional approvals.



# Analysis of First-in-Human Clinical Trials submitted for review at the FAMHP in 2022

## Non-clinical GNAs were related to (1/2):

- lack of **sufficient detail** in the IB to allow for a proper non-clinical evaluation;
- lack of information related to **clinical relevance** of non-clinical pharmacological study results (proof-of-concept, dose setting, selection of patient population, etc.);
- incomplete overview of (exposure-based) **safety and exposure margins** for all (pivotal) non-clinical studies;
- disagreement with **interpretation of non-clinical studies** (e.g. NOAEL setting, clinical relevance);
- lack of information/**mechanistic insight** in non-clinical safety findings impacting the appraisal of clinical relevance;
- lack of information related to demonstration of compliance with **Good Laboratory Practices (GLP)** of non-clinical studies;



# Analysis of First-in-Human Clinical Trials submitted for review at the FAMHP in 2022

## Non-clinical GNAs were related to (2/2)

- **protocol:**
  - insufficient/unclear rationale for **dose setting** in line with non-clinical data (starting dose, dose increments, maximum dose);
  - insufficient/unclear rationale for **risk mitigation measures** in line with non-clinical data;
  - recommendations for **contraception and pregnancy testing** not in line with the CT(C)G “Recommendations related to contraception and pregnancy testing in clinical trials”;
  - **concomitant medications** not in line with non-clinical DDI assessment.



# Analysis of First-in-Human Clinical Trials submitted for review at the FAMHP in 2022

## Responses to grounds for non-acceptance – main categories:

- new non-clinical information;
- clarification/justification related to interpretation of non-clinical data including clinical relevance assessment;
- clarification/justification/further information related to the clinical protocol (study design, dose rationale, monitoring, stopping rules, ... );
- protocol changes in line with non-clinically identified issues.

## Conditional approval due to:

- absence of critical non-clinical data;
- disagreement with NOAEL selection and impact on clinical dose setting;
- need for revision of starting dose;
- need for revision of maximum dose / dose increments / PK exposure cap;
- inappropriate clinical safety monitoring in line with non-clinical signals;
- inappropriate contraception and pregnancy testing recommendations;
- need for evaluation of clinical data at transition moments (e.g. SAD → MAD, Part 1 → Part 2).



# The Non-Clinical Assessment Report Template

**A practical guide for non-clinical assessors.**

**Used for the non-clinical assessment of all clinical trial applications (CTR).**

## **Availability of:**

- key questions to be reflected upon by the non-clinical assessor;
- possibilities for interaction with clinical assessment team;
- standardised non-clinical questions.

**Dynamic document that is updated in line with accumulating experience.**

**Basis for multidisciplinary discussions (non-clinical/clinical).**



#### 4. NON-CLINICAL ASSESSMENT

##### Summary boxes

##### NA box

##### Trials with more than one IMP

#### 4.1 Introduction

##### Note for IMPs with MA

##### Note for previously assessed IMPs without MA

##### **Workspace:**

XXX is a YYY intended for the treatment of .

##### Protocol (Phase ):

Primary objectives:

Secondary objectives:

Exploratory objectives:

##### Study design:

##### Dosing regimen:

IMP: max mg/kg per day for months

##### Dose justification:

For FIH, go to [section 4.5.1](#)

##### Population:

patients, male & female, adults & elderly

- Contraception/Pregnancy testing: Go to [section 4.4.6.3](#)  
 Patients:

##### Clinical experience:

Regulatory status of the imp and of comparator:

SA  Go to [section 4.6](#)

Provided version protocol=

Provided Version IB=

Provided Version IMPD=

Key  
questions for  
non-clinical  
assessor

Possibility for  
interaction  
with clinical  
team

Standardised  
questions to  
the Sponsor

##### *Please address following key questions:*

- IMP - intended indication
- Study design
- Dosing regimen and treatment duration (IMP: max x mg/kg per day for x months)
- Dose justification (For FIH, go to section 4.5.1)
- Population - patients, male & female, adults & elderly
  - Contraception/Pregnancy testing: Go to section 4.4.6.3
  - Patients: please specify
- Clinical experience
- Regulatory status of the imp and of comparator:
- Scientific advice - Go to section 4.6
- Previously identified major issues/concerns that are relevant to the assessment of the non-clinical data for this clinical trials should be addressed. Same check is being done for clinical issues in the clinical assessment report:
  - Was there a previous refusal/recall/unresolved recommendation/condition etc.?
  - Are reasons for major issues resolved?

##### *Please, in case of identified issues, consider consulting the clinical team for input on:*

- Clinical rationale for (combination) therapy, if clinical data are provided in this context
- Inclusion and/or exclusion criteria
- Identification of potential overlapping toxicities for combination therapies and risk mitigation measures

##### *Please, in case of identified issues, consider consulting the CTM team for input on:*

- Data safety monitoring board
- Discontinuation and stopping criteria
- Study plan and design

##### *Please, in case of identified issues, consider consulting the clinical and the R&D safety team for input on:*

- Safety monitoring

##### *Responsible team FIH: Non-clinical team (see also section 4.4.6.3)*

##### **Assessor's comment:**

*The applicant is requested to provide an adequate clinical trial protocol that is in compliance with current GCP guidance (ICH E6R2) and CTFG guidance (specifically "Recommendations related to contraception and pregnancy testing in clinical trials"). Reference is also made to the CTR (EU regulation No 536/2014), Annex I (application dossier for the initial application, section D. Protocol) (RFI).*

*The applicant provided an IB which is not following the standard template. As described in EU Regulation No 536/2014, the applicant is recommended to provide an IB prepared in accordance with international guidance. Non-clinical pharmacology and toxicology data shall be submitted in a logical structure, such as that of Module 4 of the ICH Common Technical Document format (RFI).*



**4. NON-CLINICAL ASSESSMENT**Summary boxesNA boxTrials with more than one IMP**4.1 Introduction**Note for IMPs with MANote for previously assessed IMPs without MA**Workspace:**

XXX is a YYY intended for the treatment of .

Protocol (Phase ):

Primary objectives:

Secondary objectives:

Exploratory objectives:

Study design:

Dosing regimen:

IMP: max mg/kg per day for months

Dose justification:

For FIH, go to [section 4.5.1](#)

Population:

patients, male & female, adults & elderly

- Contraception/Pregnancy testing: Go to [section 4.4.6.3](#)  
 Patients:

Clinical experience:

Regulatory status of the imp and of comparator:

SA  Go to [section 4.6](#)

Provided version protocol=

Provided Version IB=

Provided Version IMPD=

**Please address following key questions:**

- *IMP - intended indication*
- *Study design*
- *Dosing regimen and treatment duration (IMP: max x mg/kg per day for x months)*
- *Dose justification (For FIH, go to section 4.5.1)*
- *Population - patients, male & female, adults & elderly*
  - *Contraception/Pregnancy testing: Go to section 4.4.6.3*
  - *Patients: please specify*
- *Clinical experience*
- *Regulatory status of the imp and of comparator:*
- *Scientific advice - Go to section 4.6*
- *Previously identified major issues/concerns that are relevant to the assessment of the non-clinical data for this clinical trials should be addressed. Same check is being done for clinical issues in the clinical assessment report:*
  - *Was there a previous refusal/recall/unresolved recommendation/condition etc.?*
  - *Are reasons for major issues resolved?*

**Assessor's comment:**

*The applicant is requested to provide an adequate clinical trial protocol that is in compliance with current GCP guidance (ICH E6R2) and CTFG guidance (specifically "Recommendations related to contraception and pregnancy testing in clinical trials"). Reference is also made to the CTR (EU regulation No 536/2014), Annex I (application dossier for the initial application, section D. Protocol) (RFI).*

*The applicant provided an IB which is not following the standard template. As described in EU Regulation No 536/2014, the applicant is recommended to provide an IB prepared in accordance with international guidance. Non-clinical pharmacology and toxicology data shall be submitted in a logical structure, such as that of Module 4 of the ICH Common Technical Document format (RFI).*





## 4.2 Pharmacology

### 4.2.1 Primary pharmacodynamics

#### Summary

These pharmacology studies provide support for the pharmacological basis for the proposed trial	Yes <input type="checkbox"/> No <input type="checkbox"/> NA <input type="checkbox"/>
Were relevant in vitro and/or in vivo models studied?	Yes <input type="checkbox"/> No <input type="checkbox"/> NA <input type="checkbox"/>
Is the intended pharmacological effect expected/ possible at clinical exposure?	Yes <input type="checkbox"/> No <input type="checkbox"/> NA <input type="checkbox"/>
Were pharmacologically active major metabolites identified?	Yes <input type="checkbox"/> No <input type="checkbox"/> NA <input type="checkbox"/>
Is the IMP a first-in-class compound?	Yes <input type="checkbox"/> No <input type="checkbox"/> NA <input type="checkbox"/>
<b>Workspace:</b>	
<b>Assessor's comment:</b>	

Please address following key question:

#### Please address following key question:

- Adequacy of inclusion criteria in line with primary pharmacology

### 4.2.2 Secondary pharmacodynamics

#### Summary

The studies described in this section identified off-target effects	Yes <input type="checkbox"/> No <input type="checkbox"/> NA <input type="checkbox"/>
Are off-target effects expected/possible at clinical exposure?	Yes <input type="checkbox"/> No <input type="checkbox"/> NA <input type="checkbox"/>
<b>Workspace:</b>	
<b>Assessor's comment:</b>	

Please address following key questions:

#### Please address following key questions:

- Adequacy of safety monitoring (type, extent, schedule, etc) in line with identified clinically relevant secondary pharmacology findings
- Adequacy of inclusion/exclusion criteria in line with identified clinically relevant secondary pharmacology findings
- Adequacy of discontinuation/stopping criteria in line with identified clinically relevant secondary pharmacology

Please, in case of identified issues, consider consulting the clinical team for input on:

safety team for input on:

- Safety monitoring

#### 4.2.3 Safety pharmacology

##### Summary

System	Study type	Issues identified	Major Findings
Cardiovascular		Yes <input type="checkbox"/> No <input type="checkbox"/> NA <input type="checkbox"/>	
Respiratory		Yes <input type="checkbox"/> No <input type="checkbox"/> NA <input type="checkbox"/>	
CNS		Yes <input type="checkbox"/> No <input type="checkbox"/> NA <input type="checkbox"/>	
Other		Yes <input type="checkbox"/> No <input type="checkbox"/> NA <input type="checkbox"/>	
Did the safety pharmacology studies identify significant concerns?			Yes <input type="checkbox"/> No <input type="checkbox"/> NA <input type="checkbox"/>
Do sufficient margins of exposure exist for planned clinical exposure?			Yes <input type="checkbox"/> No <input type="checkbox"/> NA <input type="checkbox"/>
<b>Workspace:</b>			
<b>Assessor's comment:</b>			

#### Please address following key questions:

- Adequacy of safety monitoring (type, extent, schedule, etc) in line with identified clinically relevant safety pharmacology findings
- Adequacy of inclusion/exclusion criteria in line with identified clinically relevant safety pharmacology findings
- Adequacy of discontinuation/stopping criteria in line with identified clinically relevant toxicities

- Discontinuation and stopping criteria

Please, in case of identified issues, consider consulting the clinical team and the R&D safety team for input on:

- Safety monitoring

#### 4.2.4 Pharmacodynamic drug interactions

##### Summary

Have potential pharmacodynamics drug interactions been identified?	Yes <input type="checkbox"/> No <input type="checkbox"/>
<b>Workspace:</b>	
<b>Assessor's comment:</b>	

Please, in case of identified issues related to pharmacodynamic interactions, consider consulting the clinical team for input.



### 4.3 Pharmacokinetics

#### 4.3.1 Methods of analysis

Are the methods of analysis and their sensitivities adequate? Yes  No  NA

*The applicant is recommended to provide information on the methods of analysis of the IMP (and/or its metabolites) in animal blood/plasma (validation and sensitivity). (recommendation for future clinical trials)*

#### 4.3.2 Absorption, Distribution, Metabolism & Excretion

##### Summary

System	Issues identified	Findings
Absorption	Yes <input type="checkbox"/> No <input type="checkbox"/> NA <input type="checkbox"/>	
Distribution	Yes <input type="checkbox"/> No <input type="checkbox"/> NA <input type="checkbox"/>	
Metabolism	Yes <input type="checkbox"/> No <input type="checkbox"/> NA <input type="checkbox"/>	
Excretion	Yes <input type="checkbox"/> No <input type="checkbox"/> NA <input type="checkbox"/>	
Do the ADME studies identify significant concerns?		Yes <input type="checkbox"/> No <input type="checkbox"/> NA <input type="checkbox"/>
Major human metabolites were identified		Yes <input type="checkbox"/> No <input type="checkbox"/> NA <input type="checkbox"/>
Unique human metabolites were identified		Yes <input type="checkbox"/> No <input type="checkbox"/> NA <input type="checkbox"/>
<b>Workspace:</b>		
<b>Assessor's comment:</b>		

*(For further clinical development) The applicant is invited to provide a detailed qualitative and quantitative overview of human metabolites and metabolites formed in test species, preferably in a tabulated format. (RFI or recommendation for future clinical trials)*

#### 4.3.3 Pharmacokinetic drug interactions (Enzymes, Transporter, other)

##### Summary

Target evaluated	Interaction identified	Findings
Enzyme inhibition	Yes <input type="checkbox"/> No <input type="checkbox"/> NA <input type="checkbox"/>	
Enzyme induction	Yes <input type="checkbox"/> No <input type="checkbox"/> NA <input type="checkbox"/>	
Transporter	Yes <input type="checkbox"/> No <input type="checkbox"/> NA <input type="checkbox"/>	
Co-pathways	Yes <input type="checkbox"/> No <input type="checkbox"/> NA <input type="checkbox"/>	
Potential for PK drug interactions is indicated at therapeutic dose		Yes <input type="checkbox"/> No <input type="checkbox"/> NA <input type="checkbox"/>
The potential interactions have been highlighted to investigators and relevant information is included in the IB/study protocol		Yes <input type="checkbox"/> No <input type="checkbox"/> NA <input type="checkbox"/>
<b>Workspace:</b>		

*Please, in case of identified issues related to pharmacokinetic interactions, consult the clinical team and the PK coordinator (or back-up) in case of questions about DDI.*

*Responsible team: clinical team*

#### 4.3.4 Other pharmacokinetic studies (e.g. PK of metabolite, novel excipients, genomic integration and inadvertent germline transmission of gene transfer vectors)

##### Summary

Were other PK studies performed?	Yes <input type="checkbox"/> No <input type="checkbox"/> NA <input type="checkbox"/>
Do these studies identify concerns?	Yes <input type="checkbox"/> No <input type="checkbox"/> NA <input type="checkbox"/>
<b>Workspace:</b>	
<b>Assessor's comment:</b>	

#### 4.4 Toxicology

##### Summary

##### 4.4.1 Animal species selection/Study design

Toxicologically relevant animal species studied	Yes <input type="checkbox"/> No <input type="checkbox"/> NA <input type="checkbox"/>
The studied species show similar pharmacology to humans	Yes <input type="checkbox"/> No <input type="checkbox"/> NA <input type="checkbox"/>
The studied species show similar PK to humans	Yes <input type="checkbox"/> No <input type="checkbox"/> NA <input type="checkbox"/>
The studies were sufficiently well-designed	Yes <input type="checkbox"/> No <input type="checkbox"/> NA <input type="checkbox"/>
<b>Workspace:</b>	
<b>Assessor's comment:</b>	

##### 4.4.2 Single dose toxicity

##### Summary

Species	Dose/ Route	NO(A)EL/LOEL /MNTD (delete as required)	Major findings
Were significant toxicities identified?			Yes <input type="checkbox"/> No <input type="checkbox"/> NA <input type="checkbox"/>
Do sufficient margins of exposure exist for planned clinical exposure?			Yes <input type="checkbox"/> No <input type="checkbox"/> NA <input type="checkbox"/>
<b>Workspace:</b>			
<b>Assessor's comment:</b>			

##### 4.4.3 Repeat-dose toxicity

##### Summary

Study duration	Species	Dose/ Route	NO(A)EL/LOEL /MNTD (delete as required)	Major findings
Were significant toxicities identified?				Yes <input type="checkbox"/> No <input type="checkbox"/> NA <input type="checkbox"/>
Do sufficient margins of exposure exist for planned clinical exposure?				Yes <input type="checkbox"/> No <input type="checkbox"/> NA <input type="checkbox"/>
Does the duration of treatment support the proposed trial duration?				Yes <input type="checkbox"/> No <input type="checkbox"/> NA <input type="checkbox"/>
<b>Workspace:</b>				
<b>Assessor's comment:</b>				

Please address following key questions:

#### Please address following key questions:

- Adequacy of safety monitoring (type, extent, schedule, etc) in line with identified clinically relevant toxicities
- Adequacy of inclusion/exclusion criteria in line with identified clinically relevant toxicities
- Adequacy of discontinuation/stopping criteria in line with identified clinically relevant toxicities

Please, in case of identified issues, consider consulting [the clinical team and the R&D safety team](#) for input on:

- Safety monitoring

## 4.4.4 Genotoxicity

Type of test/study	Test system	Results
Gene mutations in bacteria		Positive <input type="checkbox"/> Negative <input type="checkbox"/> Equivocal <input type="checkbox"/>
In vitro mammalian assay		Positive <input type="checkbox"/> Negative <input type="checkbox"/> Equivocal <input type="checkbox"/>
In vivo genotoxicity test		Positive <input type="checkbox"/> Negative <input type="checkbox"/> Equivocal <input type="checkbox"/>
Additional assays		Positive <input type="checkbox"/> Negative <input type="checkbox"/> Equivocal <input type="checkbox"/>
Do the submitted data indicated genotoxic potential?		Yes <input type="checkbox"/> No <input type="checkbox"/> NA <input type="checkbox"/>
<b>Workspace:</b>		
<b>Assessor's comment:</b>		

## 4.4.5 Carcinogenicity

**Summary**

Do studies identify potential for carcinogenicity?	Yes <input type="checkbox"/> No <input type="checkbox"/> NA <input type="checkbox"/>
Do sufficient margins of exposure exist for planned clinical exposure?	Yes <input type="checkbox"/> No <input type="checkbox"/> NA <input type="checkbox"/>
<b>Workspace:</b>	
<b>Assessor's comment:</b>	

## 4.4.6 Reproductive and developmental toxicity

**Summary**

System	Toxicities identified	Findings
Fertility and early embryonic development	Yes <input type="checkbox"/> No <input type="checkbox"/> NA <input type="checkbox"/>	
Embryo-fetal development	Yes <input type="checkbox"/> No <input type="checkbox"/> NA <input type="checkbox"/>	
Prenatal and postnatal development, including maternal function	Yes <input type="checkbox"/> No <input type="checkbox"/> NA <input type="checkbox"/>	
Do sufficient margins of exposure exist for planned clinical exposure?		Yes <input type="checkbox"/> No <input type="checkbox"/> NA <input type="checkbox"/>
<b>Workspace:</b>		
<b>Assessor's comment:</b>		

## 4.4.6.1 Juvenile toxicity studies

**Summary**

The studies utilised animals in the appropriate age range	Yes <input type="checkbox"/> No <input type="checkbox"/> NA <input type="checkbox"/>
The studies identified additional/enhanced juvenile toxicities	Yes <input type="checkbox"/> No <input type="checkbox"/> NA <input type="checkbox"/>
Do sufficient margins of exposure exist for planned clinical exposure?	Yes <input type="checkbox"/> No <input type="checkbox"/> NA <input type="checkbox"/>
<b>Workspace:</b>	
<b>Assessor's comment:</b>	

Please, in case of identified issues, consider consulting [the clinical team](#) for input on:

- Inclusion and/or exclusion criteria

Please, in case of identified issues, consider consulting [the clinical team and the R&D safety team](#) for input on:

- Safety monitoring

## 4.4.6.2 Other studies (including enhanced PPND studies)

**Summary**

The studies identified potential toxicities	Yes <input type="checkbox"/> No <input type="checkbox"/> NA <input type="checkbox"/>
Do sufficient margins of exposure exist for planned clinical exposure?	Yes <input type="checkbox"/> No <input type="checkbox"/> NA <input type="checkbox"/>
<b>Workspace:</b>	
<b>Assessor's comment:</b>	

## 4.4.6.3 Recommendations for contraception measures

**Non-clinical data summary**

<b>IMP</b>	<i>(please all appropriate)</i>
	<p>Suspected/ demonstrated teratogenic or fetotoxic effects <input type="checkbox"/></p> <p>Genotoxic <input type="checkbox"/></p> <p>Insufficient data <input type="checkbox"/></p> <p>Demonstrated embryo-fetotoxic effects but which do not seem to be relevant to the CT subjects <input type="checkbox"/></p> <p>Sufficient data and no indication of risk <input type="checkbox"/></p>
<b>Comparator IMP/ auxiliary MP</b>	<i>(please all appropriate)</i>
	<p>NA <input type="checkbox"/></p> <p>Suspected or demonstrated teratogenic or fetotoxic <input type="checkbox"/></p> <p>Genotoxic <input type="checkbox"/></p> <p>Insufficient data <input type="checkbox"/></p> <p>Demonstrated embryo-fetotoxic effects but which do not seem to be relevant to the CT subjects <input type="checkbox"/></p> <p>Sufficient data and no indication of risk <input type="checkbox"/></p>
WOCBP/male partners of WOCBP are included in the proposed clinical trial Yes <input type="checkbox"/> No <input type="checkbox"/>	
According to the guidance "CTFG recommendations related to contraception and pregnancy testing in clinical trials" the risk of teratogenicity/ fetotoxicity based on the non-clinical data is considered <i>(please tick one)</i>	
<p>demonstrated/suspected <input type="checkbox"/></p> <p>possible <input type="checkbox"/></p> <p>unlikely <input type="checkbox"/></p>	

**Workspace:**

A decision table can be used for the more complicated cases, see document 'Criteria to request pregnancy testing during treatment and after the last dose for oncology products':



Criteria for decision making toward pregnancy testing-AMEdit3.DOC

Assessor's comment: [Note](#)

For the definition of postmenopausal state and highly effective birth control methods used in the protocol, the applicant is referred to the "Recommendations related to contraception and pregnancy testing in clinical trials" of the Clinical trial facilitation group (CTFG) available at the HMA website: [http://www.hma.eu/fileadmin/dateien/Human\\_Medicines/01-About\\_HMA/Working\\_Groups/CTFG/2014\\_09\\_HMA\\_CTFG\\_Contraception.pdf](http://www.hma.eu/fileadmin/dateien/Human_Medicines/01-About_HMA/Working_Groups/CTFG/2014_09_HMA_CTFG_Contraception.pdf) (RFI)

Please address following key questions:

- Adequacy of inclusion/exclusion criteria for WOCBP, male patients with WOCBP partners

Please address following key questions:

- Adequacy of inclusion/exclusion criteria for WOCBP, male patients with WOCBP partners
- Adequacy of contraceptive measures
- Adequacy of pregnancy testing requirements
- Adequacy of measures (if any) related to sperm or oocyte preservation

Responsible Team: clinical CTM team

#### 4.4.7 Local tolerance

##### Summary

Do the submitted studies indicate a potential for local toxicity? Yes  No  NA

Workspace:

Assessor's comment:

#### 4.4.8 Other toxicity studies

Dedicated Study	Toxicities identified	Findings
Phototoxicity	Yes <input type="checkbox"/> No <input type="checkbox"/> NA <input type="checkbox"/>	
Tissue cross reactivity	Yes <input type="checkbox"/> No <input type="checkbox"/> NA <input type="checkbox"/>	
Antigenicity	Yes <input type="checkbox"/> No <input type="checkbox"/> NA <input type="checkbox"/>	
Immunotoxicity	Yes <input type="checkbox"/> No <input type="checkbox"/> NA <input type="checkbox"/>	
Dependence	Yes <input type="checkbox"/> No <input type="checkbox"/> NA <input type="checkbox"/>	
Metabolites	Yes <input type="checkbox"/> No <input type="checkbox"/> NA <input type="checkbox"/>	
Impurities	Yes <input type="checkbox"/> No <input type="checkbox"/> NA <input type="checkbox"/>	
Other	Yes <input type="checkbox"/> No <input type="checkbox"/> NA <input type="checkbox"/>	
Workspace:		
Assessor's comment:		

In line with ICH M3 guideline and prior to phase 1, the Applicant should provide an initial assessment of the phototoxic potential of MP X based on the drug's photochemical properties and pharmacological/chemical class. If assessment of all the available data and the proposed clinical plan indicates a potential for a significant human phototoxicity risk, appropriate protective measures should be taken during outpatient clinical studies. If needed, the Applicant is advised to refer to the ICH S10 guideline (<https://www.ich.org/products/guidelines/safety/safety-single/article/photosafety-evaluation-of-pharmaceuticals.html>). (RFI)

**OR**

Before exposure of large numbers of subjects (Phase III), if appropriate, an experimental evaluation (nonclinical, in vitro or in vivo, or clinical) of phototoxic potential should be undertaken. (RFI)



## 4.5.1 First in Human Trials

**Summary**

Is the starting dose adequately justified?	Yes <input type="checkbox"/> No <input type="checkbox"/> NA <input type="checkbox"/>
Are the dose steps adequately justified?	Yes <input type="checkbox"/> No <input type="checkbox"/> NA <input type="checkbox"/>
Is the maximum dose adequately justified?	Yes <input type="checkbox"/> No <input type="checkbox"/> NA <input type="checkbox"/>
<b>Workspace:</b>	
<b>Assessor's comment:</b>	

Please address following key question:

**Please address following key question:**

- Need for sentinel dosing

**Please, if involved and in case of identified issues, consider consulting the clinical team for input on:**

- starting dose, dose escalation, maximum dose
- Sentinel dosing
- Modelling of human exposure (PBPK, other)

**Summary**

Are there any additional relevant concerns for this product?	Yes <input type="checkbox"/> No <input type="checkbox"/> NA <input type="checkbox"/>
<b>Workspace:</b>	
<b>Assessor's comment:</b>	

## 4.6 Scientific advice/ PIP

Scientific advice/PIP advice relating to non-clinical development was received	Yes <input type="checkbox"/> No <input type="checkbox"/>
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*Paediatric patients are included in this phase xx study, yet a PIP has not been submitted to EMA. According to the EU Paediatric regulation, a PIP application should be submitted as soon as possible after phase I clinical studies. The applicant is recommended to submit a PIP as soon as possible to seek feedback and approval from PDCO (Recommendation for future clinical trials).*

**Scientific Advice:****Scientific Advice:**

*Focus on direct or indirect non-clinical related questions of a national or EMA scientific advice.*

**PIP:**

- Check compliance to the key binding elements in the agreed PIP if there is one, or deviations from important PDCO comments if the PIP procedure is still ongoing.
- In case of a paediatric trial and if PIP would have been expected at this stage in development, a comment is made only in the non-clinical report. Not needed by the clinical team as the PDCO alternate is part of the NC team.

**Assessor's comment:****CTFG and EU CTR NO 536/2014 documents on GLP in clinical trials**

*In accordance with EU Directives, applicants are reminded that all pivotal nonclinical studies need to be carried out in accordance with the principles of good laboratory practice (GLP). As applications for CTAs do not include individual study reports, Sponsors should include a statement on the GLP status of the studies within the IMPD, unless properly justified. A summary table should be provided specifying the details of each study and Sponsors should also indicate if in that period the facility was part of an accepted GLP monitoring programme. For more detailed information, see [http://www.hma.eu/fileadmin/dateien/Human\\_Medicines/01-About\\_HMA/Working\\_Groups/CTFG/QAs\\_document\\_on\\_GLP\\_-\\_2017.pdf](http://www.hma.eu/fileadmin/dateien/Human_Medicines/01-About_HMA/Working_Groups/CTFG/QAs_document_on_GLP_-_2017.pdf)*

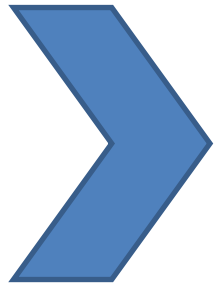
The non-clinical data provided are acceptable	<input type="checkbox"/>
Supplementary information needs to be provided (refer to the list of requests for additional information)	<input type="checkbox"/>



# Some special attention for GLP compliance requirements

## Recurring GNAs:

- In accordance with EU Directives, applicants are reminded that all pivotal non-clinical studies need to be carried out in accordance with the principles of Good Laboratory Practice (GLP). As applications for CTAs do not include individual study reports, Sponsors should include a statement on the GLP status of the studies within the IMPD, unless properly justified. A summary table should be provided specifying the details of each study and Sponsors should also indicate if in that period the facility was part of an accepted GLP monitoring programme. *For more detailed information, see [http://www.hma.eu/fileadmin/dateien/Human\\_Medicines/01-About\\_HMA/Working\\_Groups/CTFG/QAs\\_document\\_on\\_GLP\\_-\\_2017.pdf](http://www.hma.eu/fileadmin/dateien/Human_Medicines/01-About_HMA/Working_Groups/CTFG/QAs_document_on_GLP_-_2017.pdf) and see also Q1.17 from the draft Q&A to the CTR (version 4, July 2021): [https://ec.europa.eu/health/sites/default/files/files/eudralex/vol-10/regulation5362014\\_qa\\_en.pdf](https://ec.europa.eu/health/sites/default/files/files/eudralex/vol-10/regulation5362014_qa_en.pdf)*



- **A summary table should be provided, listing the non-clinical studies and indicating the following for each study:**
  - (1) study title,
  - (2) study code (Unique identifier assigned to the study),
  - (3) date of completion of the Final Report,
  - (4) test facility and test sites in which the study was conducted,
  - (5) complete address of the test facility (and test sites where applicable),
  - (6) period in which the test facility(ies) and/or test site(s) was (were) used
  - Sponsors should also indicate **if in that period** the facility was part of a European Union (EU) or an Organisation for Economic Co-operation Mutual Acceptance of Data (MAD) - accepted GLP monitoring programme.

- Special attention for pivotal non-clinical studies that are conducted in a test facility situated in a country which has not joined the OECD MAD system.

*Thorough GLP compliance check is carried out systematically!*





## Take home messages

- **The 'HOW' and 'WHY':** specific attention for the translation of non-clinical data to clinical protocol recommendations (e.g. dose setting, monitoring, design, etc.).
- **SCIENCE RULES:** availability of a detailed science-based non-clinical data-package avoids clarification questions.
- **QUICK WINS:** avoid recurring questions pertaining to (lack of) information (e.g. GLP, analytical method validation, etc.).
- **Scientific Advice** as tool to support clinical development.

- @ FAMHP



- @ EMA



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**Thank you for your attention!**

**Questions?**



# Contact

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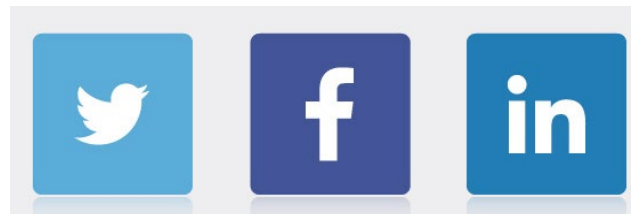
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