DDMoRe WP9: Training Survey

Dear Participant,

the purpose of this survey is to assist the DDMoRe WP9 team create a landscape of technical and conceptual requirements and verify priorities for training and education in Drug/Disease Modelling & Simulation (DD M&S).

Please complete this survey on an INDIVIDUAL basis (NOT on behalf of your organisation, NOR your function, NOR your peers).

The responses of completed surveys will be collated, analysed and documented in a report to share with the DDMoRe community.

Questions 1-5 are compulsory and common to all taking the survey. Your contact details will be kept confidential; they are collected to only allow WP9 to identify which functions/organisations have completed the questionnaire, and clarify any answers if required.

According to your answer in Q5 you will be prompted into one of the four different environments of the survey. Questions marked with an asterisk are compulsory fields. All questions allow multiple selections as apply.

The time needed to complete the survey is less than 10 minutes.

DDMoRe WP9 would like to thank you in advance for taking this survey!

*1. Please complete the following details:

Name:

Title:

Organisation:

City Town:

Country:

Email address:

*2. Please indicate your area within drug research & development and drug utilisation process:

(multiple answers are possible)

- [ ] Academic research
- [ ] Discovery
- [ ] Development (Preclinical)
- [ ] Development (Clinical)
- [ ] Therapeutic Use Optimisation
- [ ] Regulatory authorities
- [ ] No specific area
- [ ] Other (please specify)

*3. Therapeutic areas you are involved: (multiple answers are possible)

- [ ] Diabetes
- [ ] Oncology
- [ ] Alzheimer's
- [ ] Infectious diseases
- [ ] Safety (QTc interval, hepatotoxicity, neurotoxicity)
- [ ] Others (please specify)

*4. How do you collect information related to M&S: (multiple answers are possible)

- [ ] Internal research teams
- [ ] Publications
- [ ] Technical reports
- [ ] Regulatory documentation
- [ ] Other (please specify)

*5. What is your primary experience in Modelling & Simulation (M&S): (choose ONE option)

- [ ] Develop Models / Perform M&S activities
- [ ] Apply/Interpret published results from M&S or produce data without developing/performing M&S
- [ ] Review M&S results
- [ ] Being involved with all the above (answer the following questions based on your primary role)

Questions for those who perform M&S activities

6. Which modelling & simulation applications do you use:

	Never	Occasionally	Frequently
AcslX	◯	◯	◯
Bio-SPICE	◯	◯	◯
Berkeley Madonna	◯	◯	◯
CellML	◯	◯	◯
JDesigner	◯	◯	◯
Matlab	◯	◯	◯
Medici	◯	◯	◯
Monolix	◯	◯	◯
NONMEM	◯	◯	◯
OpenBUGS	◯	◯	◯
PK-Sim/MoBi	◯	◯	◯
PopED	◯	◯	◯
PsN	◯	◯	◯
R	◯	◯	◯
SBML	◯	◯	◯
SBTOOLBOX	◯	◯	◯
SPlus	◯	◯	◯
Stata	◯	◯	◯
WinBUGS	◯	◯	◯
WinNonlin	◯	◯	◯
Other	◯	◯	◯

Other (please specify)

7. Your modelling & simulation activities. Please select as appropriate:

	Never	Occasionally	Frequently
Population analysis	◯	◯	◯
Methodology development	◯	◯	◯
Methodology evaluation	◯	◯	◯
Drug model development	◯	◯	◯
Disease model development	◯	◯	◯
Optimal design	◯	◯	◯
Clinical trial simulation	◯	◯	◯
Systems Biology	◯	◯	◯
Other	◯	◯	◯

Other (please specify)

8. What was the nature of the models you have developed: (multiple answers are possible)

- [ ] Efficacy
- [ ] Toxicity
- [ ] No drug
- [ ] Single drug
- [ ] Combination
- [ ] Linear
- [ ] Nonlinear
- [ ] Mixed-effect
- [ ] Classical regression
- [ ] Naïve pool approach
- [ ] ODE
- [ ] Analytical solutions
- [ ] Presence of covariates
- [ ] Mechanistic
- [ ] Empirical
- [ ] PK
- [ ] PBPK
- [ ] PBPKPD
- [ ] Disease progression
- [ ] Preclinical
- [ ] Clinical
- [ ] Systems biology
- [ ] In vitro
- [ ] Continuous
- [ ] Non-continuous
- [ ] Categorical
- [ ] Time to event
- [ ] Other (please specify)

9. For data-driven modelling, which estimation methods do you use:

	Never	Occasionally	Frequently
Linear regression	◯	◯	◯
NonLinear regression	◯	◯	◯
Two-stage approach	◯	◯	◯
FO	◯	◯	◯
FOCE	◯	◯	◯
LAPLACE	◯	◯	◯
SAEM	◯	◯	◯
BAYES	◯	◯	◯
Non-parametric	◯	◯	◯
Other	◯	◯	◯

Other (please specify)

10. How do you communicate your results: (multiple answers are possible)

- ☐ Power Point Presentation
- ☐ Manuscript/Publication
- ☐ Technical Report
- ☐ Other (please specify)

11. Which are the gaps you have identified while performing M&S (in the current modelling setting):

	None	Minor	Major
Lack of common modelling & simulation applications/tools	◯	◯	◯
Too little high-performance computing capacities	◯	◯	◯
Lack of available resources	◯	◯	◯
Lack of sufficient education	◯	◯	◯
Lack of sufficient training	◯	◯	◯
Lack of suitable modelling tools	◯	◯	◯
Other	◯	◯	◯

Other (please specify)

12. Which are the major challenges you have faced (as a modeller/Systems biologist):

	None	Minor	Major
Complex mathematical functions	◯	◯	◯
Hard to understand the model's assumptions	◯	◯	◯
Hard to understand the estimation method	◯	◯	◯
Hard to understand the ODE solvers and optimisers	◯	◯	◯
Unable to produce my own scripts	◯	◯	◯
Other	◯	◯	◯

Other (please specify)

13. How did you deal with those challenges: (multiple answers are possible)

- ☐ I proceeded without fully understanding some concepts
- ☐ I ignored some of the model's assumptions
- ☐ I asked someone else to help me
- ☐ I took some training
- ☐ I developed a model with limitations which I further listed
- ☐ Other (please specify)

14. Would you attend training in other M&S activities than you have used:

- ◯ Yes
- ◯ No

15. If Yes: which are these M&S activities:

16. Indicate the types of models/methods/other areas where training would assist you meeting those challenges:

17. Which are the areas of impact of M&S in your organisation/projects/collaborations:

	Never	Occasionally	Frequently
Understand drug characteristics	◯	◯	◯
Understand disease characteristics	◯	◯	◯
Understand system characteristics	◯	◯	◯
Dose selection	◯	◯	◯
Decision making	◯	◯	◯
Methodological aspects	◯	◯	◯
Approval of new drugs	◯	◯	◯
New trial designs	◯	◯	◯
(New) treatment adjustments for patients	◯	◯	◯
Hypothesis generation	◯	◯	◯
Individualisation therapy/Personalised medicine	◯	◯	◯
Translational modelling	◯	◯	◯
Line extension modelling	◯	◯	◯
Other	◯	◯	◯

Other (please specify)

18. What is the benefit of modelling & simulation activities in your organisation/projects/collaborations:

*19. For training & education purposes are you willing to share published data:

◯ Yes

◯ No

*20. For training & education purposes are you willing to share unpublished data:

◯ Yes

◯ No

*21. For training & education purposes are you willing to share published models:

◯ Yes

◯ No

***22. For training & education purposes are you willing to share unpublished models:**

- ◯ Yes
- ◯ No

***23. If you have answered YES to one of the above questions, under what conditions would you be willing to consider sharing data/models**

***24. Regarding M&S activities, do you collaborate with other stakeholders / organisations / partners (please include the three most important collaborations you have on a regular basis):**

- ☐ Academic groups
- ☐ Clinicians/Clinical Pharmacists
- ☐ Pharmaceutical industry
- ☐ CROs
- ☐ Other non-profit research organisations
- ☐ Regulatory agencies
- ☐ Patient organisations
- ☐ Other (please specify)

Questions for those who apply/interpret M&S results

25. What type of models have you used or been involved with:

	Never	Occasionally	Frequently
Population (developed in NONMEM)	◯	◯	◯
Population (developed in WinBUGS/Bayesian analysis)	◯	◯	◯
Optimal dosing	◯	◯	◯
Other	◯	◯	◯

Other (please specify)

26. What is your primary application of Modelling & Simulation (M&S): (multiple answers are possible)

- ☐ Clinical trial design
- ☐ Evaluation of safety
- ☐ Evaluation of efficacy
- ☐ Risk benefit ratio
- ☐ Therapeutic drug monitoring
- ☐ Dose selection/adjustment
- ☐ Other (please specify)

27. Select models from which you have applied/interpreted results: (multiple answers are possible)

- [ ] Efficacy
- [ ] Toxicity
- [ ] No drug
- [ ] Single drug
- [ ] Combination
- [ ] Linear
- [ ] Nonlinear
- [ ] Mixed-effect
- [ ] Classical regression
- [ ] Naïve pool approach
- [ ] ODE
- [ ] Analytical solutions
- [ ] Presence of covariates
- [ ] Mechanistic
- [ ] Empirical
- [ ] PK
- [ ] PBPK
- [ ] PBPKPD
- [ ] Disease progression
- [ ] Preclinical
- [ ] Clinical
- [ ] Systems biology
- [ ] In vitro
- [ ] Continuous
- [ ] Non-continuous
- [ ] Categorical
- [ ] Time to event

Other (please specify)

28. How do you communicate your results: (multiple answers are possible)

- [ ] Power Point Presentation
- [ ] Manuscript/Publication
- [ ] Technical Report
- [ ] Other (please specify)

29. Which are the gaps you have identified while applying/interpreting M&S results to your area of interest:

	None	Minor	Major
Lack of clarity on models' assumptions	◯	◯	◯
Lack of understanding of PKPD/statistical concepts	◯	◯	◯
Lack of sufficient education/training	◯	◯	◯
Lack of alternative models and results to explore	◯	◯	◯
Missing parameters	◯	◯	◯
Missing parameters'uncertainty	◯	◯	◯
Poor description of models' parameters	◯	◯	◯
Difficulties to reproduce the results obtained by others	◯	◯	◯
Other	◯	◯	◯

Other (please specify)

30. Which are the major challenges you have faced when applying/interpreting M&S results:

	None	Minor	Major
Limitations of the model	◯	◯	◯
Hard to understand the model's assumptions	◯	◯	◯
Hard to understand the estimation method	◯	◯	◯
Difficulties in communicating the rationale of my methods	◯	◯	◯
Lack of trained staff	◯	◯	◯
Other	◯	◯	◯

Other (please specify)

31. How did you deal with those challenges:
(multiple answers are possible)

- [ ] I proceeded without fully understanding some concepts
- [ ] I ignored some of the model's assumptions
- [ ] I asked someone else to help me
- [ ] I took some training
- [ ] Other (please specify)

32. Would you attend training in other M&S activities than you have used:

- ◯ Yes
- ◯ No

33. If Yes: which are these M&S activities:

34. Indicate the types of models/methods/other areas where training would assist you meeting those challenges:

35. How does M&S assist you in your daily activities:

	Never	Occasionally	Frequently
Understand drug characteristics	◯	◯	◯
Understand disease characteristics	◯	◯	◯
Understand system characteristics	◯	◯	◯
Dose selection	◯	◯	◯
Decision making	◯	◯	◯
Approval of new drugs	◯	◯	◯
New trial designs	◯	◯	◯
(New) treatment adjustments for patients	◯	◯	◯
Hypothesis generation	◯	◯	◯
Individualisation therapy/Personalised medicine	◯	◯	◯
Translational modelling	◯	◯	◯
Line extension modelling	◯	◯	◯
Other	◯	◯	◯

Other (please specify)

*36. For training & education purposes are you willing to share published data:

◯ Yes

◯ No

*37. For training & education purposes are you willing to share unpublished data:

◯ Yes

◯ No

*38. For training & education purposes are you willing to share published models:

◯ Yes

◯ No

*39. For training & education purposes are you willing to share unpublished models:

◯ Yes

◯ No

***40. If you have answered YES to one of the above questions, under what conditions would you be willing to consider sharing data/models**

***41. Regarding M&S activities, do you collaborate with other stakeholders / organisations / partners (please include the three most important collaborations you have on a regular basis):**

- [ ] Academic groups
- [ ] Clinicians/Clinical Pharmacists
- [ ] Pharmaceutical industry
- [ ] CROs
- [ ] Other non-profit research organisations
- [ ] Regulatory agencies
- [ ] Patient organisations
- [ ] Other (please specify)

Questions for those who review M&S reports

42. Which modelling & simulation applications have you reviewed:

	Never	Occasionally	Frequently
AcslX	◯	◯	◯
Bio-SPICE	◯	◯	◯
Berkeley Madonna	◯	◯	◯
CellML	◯	◯	◯
JDesigner	◯	◯	◯
Matlab	◯	◯	◯
Medici	◯	◯	◯
Monolix	◯	◯	◯
NONMEM	◯	◯	◯
OpenBUGS	◯	◯	◯
PK-Sim/MoBi	◯	◯	◯
PopED	◯	◯	◯
PsN	◯	◯	◯
R	◯	◯	◯
SBML	◯	◯	◯
SBTOOLBOX	◯	◯	◯
SPlus	◯	◯	◯
Stata	◯	◯	◯
WinBUGS	◯	◯	◯
WinNonlin	◯	◯	◯
Other	◯	◯	◯

Other (please specify)

43. The modelling & simulation activities you have reviewed. Please select as appropriate:

	Never	Occasionally	Frequently
Population analysis	◯	◯	◯
Methodology development	◯	◯	◯
Methodology evaluation	◯	◯	◯
Drug model development	◯	◯	◯
Disease model development	◯	◯	◯
Optimal design	◯	◯	◯
Clinical trial simulation	◯	◯	◯
Systems Biology	◯	◯	◯
Other	◯	◯	◯

Other (please specify)

44. What was the nature of the models you have reviewed: (multiple answers are possible)

- [ ] Efficacy
- [ ] Toxicity
- [ ] No drug
- [ ] Single drug
- [ ] Combination
- [ ] Linear
- [ ] Nonlinear
- [ ] Mixed-effect
- [ ] Classical regression
- [ ] Naïve pool approach
- [ ] ODE
- [ ] Analytical solutions
- [ ] Presence of covariates
- [ ] Mechanistic
- [ ] Empirical
- [ ] PK
- [ ] PBPK
- [ ] PBPKPD
- [ ] Disease progression
- [ ] Preclinical
- [ ] Clinical
- [ ] Systems biology
- [ ] In vitro
- [ ] Continuous
- [ ] Non-continuous
- [ ] Categorical
- [ ] Time to event
- [ ] Other (please specify)

45. For data-driven modelling, which estimation methods were included in the report:

	Never	Occasionally	Frequently
Linear regression	◯	◯	◯
NonLinear regression	◯	◯	◯
Two-stage approach	◯	◯	◯
FO	◯	◯	◯
FOCE	◯	◯	◯
LAPLACE	◯	◯	◯
SAEM	◯	◯	◯
BAYES	◯	◯	◯
Non-parametric	◯	◯	◯
Other	◯	◯	◯

Other (please specify)

46. How do you communicate your results: (multiple answers are possible)

- ☐ Power Point Presentation
- ☐ Manuscript/Publication
- ☐ Technical Report
- ☐ Other (please specify)

47. Which are the gaps you have identified while reviewing M&S (in the current modelling setting):

	None	Minor	Major
Lack of common modelling & simulation applications/tools	◯	◯	◯
Too little high-performance computing capacities	◯	◯	◯
Lack of available resources	◯	◯	◯
Lack of sufficient education	◯	◯	◯
Lack of sufficient training	◯	◯	◯
Lack of suitable modelling tools	◯	◯	◯
Other	◯	◯	◯

Other (please specify)

48. Which are the major challenges you have faced (as a reviewer):

	None	Minor	Major
Complex mathematical functions	◯	◯	◯
Hard to understand the model's assumptions	◯	◯	◯
Hard to understand the estimation method	◯	◯	◯
Other	◯	◯	◯

Other (please specify)

49. How did you deal with those challenges: (multiple answers are possible)

- ☐ I proceeded without fully understanding some concepts
- ☐ I ignored some of the model's assumptions
- ☐ I asked someone else to help me
- ☐ I took some training
- ☐ Other (please specify)

50. Would you attend training in other M&S activities than you have used:

- ◯ Yes
- ◯ No

51. If Yes: which are these M&S activities:

52. Indicate the types of models/methods/other areas where training would assist you meeting those challenges:

53. Which are the areas of impact of M&S in your organisation/projects/collaborations:

	Never	Occasionally	Frequently
Understand drug characteristics	◯	◯	◯
Understand disease characteristics	◯	◯	◯
Understand system characteristics	◯	◯	◯
Dose selection	◯	◯	◯
Decision making	◯	◯	◯
Methodological aspects	◯	◯	◯
Approval of new drugs	◯	◯	◯
New trial designs	◯	◯	◯
(New) treatment adjustments for patients	◯	◯	◯
Hypothesis generation	◯	◯	◯
Individualisation therapy/Personalised medicine	◯	◯	◯
Translational modelling	◯	◯	◯
Line extension modelling	◯	◯	◯
Other	◯	◯	◯

Other (please specify)

54. What is the benefit of modelling and simulation activities in your organisation/projects/collaborations:

*55. For training & education purposes are you willing to share published data:

◯ Yes

◯ No

*56. For training & education purposes are you willing to share unpublished data:

◯ Yes

◯ No

*57. For training & education purposes are you willing to share published models:

◯ Yes

◯ No

***58. For training & education purposes are you willing to share unpublished models:**

- ◯ Yes
- ◯ No

***59. If you have answered YES to one of the above questions, under what conditions would you be willing to consider sharing data/models**

***60. Regarding M&S activities, do you collaborate with other stakeholders / organisations / partners (please include the three most important collaborations you have on a regular basis):**

- ☐ Academic groups
- ☐ Clinicians/Clinical Pharmacists
- ☐ Pharmaceutical industry
- ☐ CROs
- ☐ Other non-profit research organisations
- ☐ Regulatory agencies
- ☐ Patient organisations
- ☐ Other (please specify)

Questions for those who perform M&S, apply/interpret M&S results an...

61. Which modelling & simulation applications do you use/you have reviewed:

	Never	Occasionally	Frequently
AcslX	◯	◯	◯
Bio-SPICE	◯	◯	◯
Berkeley Madonna	◯	◯	◯
CellML	◯	◯	◯
JDesigner	◯	◯	◯
Matlab	◯	◯	◯
Medici	◯	◯	◯
Monolix	◯	◯	◯
NONMEM	◯	◯	◯
OpenBUGS	◯	◯	◯
PK-Sim/MoBi	◯	◯	◯
PopED	◯	◯	◯
PsN	◯	◯	◯
R	◯	◯	◯
SBML	◯	◯	◯
SBTOOLBOX	◯	◯	◯
SPlus	◯	◯	◯
Stata	◯	◯	◯
WinBUGS	◯	◯	◯
WinNonlin	◯	◯	◯
Other	◯	◯	◯

Other (please specify)

62. Your modelling & simulation activities. Please select as appropriate:

	Never	Occasionally	Frequently
Population analysis	◯	◯	◯
Methodology development	◯	◯	◯
Methodology evaluation	◯	◯	◯
Drug model development	◯	◯	◯
Disease model development	◯	◯	◯
Optimal design	◯	◯	◯
Clinical trial simulation	◯	◯	◯
Systems Biology	◯	◯	◯
Other	◯	◯	◯

Other (please specify)

63. What type of models have you used or been involved with:

	Never	Occasionally	Frequently
Population (developed in NONMEM)	◯	◯	◯
Population (developed in WinBUGS/Bayesian analysis)	◯	◯	◯
Optimal dosing	◯	◯	◯
Other	◯	◯	◯

Other (please specify)

64. What is your primary application of Modelling & Simulation (M&S): (multiple answers are possible)

- ☐ Clinical trial design
- ☐ Evaluation of safety
- ☐ Evaluation of efficacy
- ☐ Risk benefit ratio
- ☐ Therapeutic drug monitoring
- ☐ Dose selection/adjustment
- ☐ Other (please specify)

65. What was the nature of the models you have developed/applied/reviewed: (multiple answers are possible)

- [ ] Efficacy
- [ ] Toxicity
- [ ] No drug
- [ ] Single drug
- [ ] Combination
- [ ] Linear
- [ ] Nonlinear
- [ ] Mixed-effect
- [ ] Classical regression
- [ ] Naïve pool approach
- [ ] ODE
- [ ] Analytical solutions
- [ ] Presence of covariates
- [ ] Mechanistic
- [ ] Empirical
- [ ] PK
- [ ] PBPK
- [ ] PBPKPD
- [ ] Disease progression
- [ ] Preclinical
- [ ] Clinical
- [ ] Systems biology
- [ ] In vitro
- [ ] Continuous
- [ ] Non-continuous
- [ ] Categorical
- [ ] Time to event
- [ ] Other (please specify)

66. For data-driven modelling, which estimation methods do you use:

	Never	Occasionally	Frequently
Linear regression	◯	◯	◯
NonLinear regression	◯	◯	◯
Two-stage approach	◯	◯	◯
FO	◯	◯	◯
FOCE	◯	◯	◯
LAPLACE	◯	◯	◯
SAEM	◯	◯	◯
BAYES	◯	◯	◯
Non-parametric	◯	◯	◯
Other	◯	◯	◯

Other (please specify)

67. How do you communicate your results: (multiple answers are possible)

- ☐ Power Point Presentation
- ☐ Manuscript/Publication
- ☐ Technical Report
- ☐ Other (please specify)

68. Which are the gaps you have identified while performing/applying/reviewing M&S (in the current modelling setting):

	None	Minor	Major
Lack of common modelling & simulation applications/tools	◯	◯	◯
Lack of clarity on models' assumptions	◯	◯	◯
Lack of understanding of PKPD/statistical concepts	◯	◯	◯
Too little high-performance computing capacities	◯	◯	◯
Lack of available resources	◯	◯	◯
Lack of sufficient education	◯	◯	◯
Lack of sufficient training	◯	◯	◯
Lack of suitable modelling tools	◯	◯	◯
Lack of alternative models and results to explore	◯	◯	◯
Missing parameters	◯	◯	◯
Missing parameters' uncertainty	◯	◯	◯
Poor description of models' parameters	◯	◯	◯
Difficulties to reproduce the results obtained by others	◯	◯	◯
Other	◯	◯	◯

Other (please specify)

69. Which are the major challenges you have faced (as a modeller/Systems biologist/applier/reviewer):

	None	Minor	Major
Limitations of the model	◯	◯	◯
Complex mathematical functions	◯	◯	◯
Hard to understand the model's assumptions	◯	◯	◯
Hard to understand the estimation method	◯	◯	◯
Hard to understand the ODE solvers and optimisers	◯	◯	◯
Unable to produce my own scripts	◯	◯	◯
Difficulties in communicating the rationale of my methods	◯	◯	◯
Lack of trained staff	◯	◯	◯
Other	◯	◯	◯

Other (please specify)

70. How did you deal with those challenges: (multiple answers are possible)

- ☐ I proceeded without fully understanding some concepts
- ☐ I ignored some of the model's assumptions
- ☐ I asked someone else to help me
- ☐ I took some training
- ☐ I developed a model with limitations which I further listed
- ☐ Other (please specify)

71. Would you attend training in other M&S activities than you have used:

- ◯ Yes
- ◯ No

72. If Yes: which are these M&S activities:

73. Indicate the types of models/methods/other areas where training would assist you meeting those challenges:

74. Which are the areas of impact of M&S in your organisation/projects/collaborations:

	Never	Occasionally	Frequently
Understand drug characteristics	◯	◯	◯
Understand disease characteristics	◯	◯	◯
Understand system characteristics	◯	◯	◯
Dose selection	◯	◯	◯
Decision making	◯	◯	◯
Methodological aspects	◯	◯	◯
Approval of new drugs	◯	◯	◯
New trial designs	◯	◯	◯
(New) treatment adjustments for patients	◯	◯	◯
Hypothesis generation	◯	◯	◯
Individualisation therapy/Personalised medicine	◯	◯	◯
Translational modelling	◯	◯	◯
Line extension modelling	◯	◯	◯
Other	◯	◯	◯

Other (please specify)

75. What is the benefit of modelling & simulation activities in your organisation/projects/collaborations:

*76. For training & education purposes are you willing to share published data:

◯ Yes

◯ No

*77. For training & education purposes are you willing to share unpublished data:

◯ Yes

◯ No

***78. For training & education purposes are you willing to share published models:**

- ◯ Yes
- ◯ No

***79. For training & education purposes are you willing to share unpublished models:**

- ◯ Yes
- ◯ No

***80. If you have answered YES to one of the above questions, under what conditions would you be willing to consider sharing data/models**

***81. Regarding M&S activities, do you collaborate with other stakeholders / organisations / partners (please include the three most important collaborations you have on a regular basis):**

- ☐ Academic groups
- ☐ Clinicians/Clinical Pharmacists
- ☐ Pharmaceutical industry
- ☐ CROs
- ☐ Other non-profit research organisations
- ☐ Regulatory agencies
- ☐ Patient organisations
- ☐ Other (please specify)

Submit your results

On behalf of DDMoRe we would like to thank you for taking the time to complete this survey.

Please submit your input.