***Reference***

**The Moonshot Research and Development Program**

**R&D Proposal**

**Title of the R&D project**

*xxxxxx*

**Principal institution**

*xxxxx*

**Project manager**

*xxxx*

## Notes for Preparation of Proposal Documents

In preparing proposal documents, please also refer to Chapter 5 of the Application Guidelines.

If not completed correctly, proposal documents may not be accepted.

Please be careful with regard to the following items when inputting information into the Proposal Form.

(a) As a general rule, the R&D Proposal (Form 1) is to be prepared in Japanese, but the abstract must be prepared in both Japanese and English. In the case that information required on the Research Proposal is missing, the application may be ineligible for review.

(b) With regard to formats prescribing word limits or page limits, please be sure to comply with the set limits.

(c) With regard to letter/character size when inputting information, please use 10.5 point as a general rule.

(d) As a general rule, please use half-width letters when inputting alphanumeric characters. (E.g. post codes, telephone numbers, and numbers of people.)

(e) Please number the pages of proposal documents with numbers placed centrally at the bottom of each page.

(f) Proposal documents may be prepared in color, but please ensure that the documents’ content can be understood even when the documents are photocopied in black-and-white.

(g) Remove this page and delete the examples and explanations (highlighted in italics in light blue) before submission.

**(Form 1)**

**The Moonshot Research and Development Program of the Japan Agency for Medical Research and Development (AMED)**

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Title of the R&D project  (in English) | |  | | | | | | | |
| Title of public solicitation program | | Moonshot Research and Development Program | | | | | | | |
| R&D targets | | (Target 1) Realization of a society where everyone can prevent diseases spontaneously in daily life  (Target 2) Realization of a medical network accessible for anyone from anywhere in the world  (Target 3) Realization of drastic improvement of QoL without feeling load (realization of an inclusive society without health disparity)  (Check the boxes for applicable responses; multiple selections permitted) | | | | | | | |
| Application assignment | | The research and development on Target 2  The research and development towards novel approach (Example; Intestinal flora, etc.)  (Check the boxes for applicable responses) | | | | | | | |
| R&D expenses | | *XXX thousand yen:* total from the start of the R&D to fiscal year 2027\*1  *XXX thousand yen:* total for required research period from fiscal year 2026 (to end in fiscal year 2030 at the latest)\*2 | | | | | | | |
| Keywords for e-Rad research field (main) | | *Enter keywords for e-Rad research field (main).* | | | | | | | |
| Name of project manager | |  | | | | | Age | |  |
| Affiliate institution and position\*3 | | *XXX Department, XXX Faculty, XXXXX University XX* | | | | | | | |
| Address | | *XXX,XXX City, XXXXX Prefecture, Postal Code* | | | | | | | |
| Contact information | | *TEL:XX-XXXX-XXXX　　FAX：XX-XXXX-XXXX　　　E-mail：YYY@YY.jp* | | | | | | | |
| Principal institution and position\*4 | | *XXX Department, XXX Faculty, XXXXX University XX* | | | | | | | |
| Address | | *XXX,XXX City, XXXXX Prefecture, Postal Code* | | | | | | | |
| Contact information | | *XX-XXXX-XXXX　　FAX：XX-XXXX-XXXX　　　E-mail：YYY@YY.jp* | | | | | | | |
| Name of accounting representative\*5 | |  | | Name of accounting section/contact, etc. | *XX Section, XXX Department, XXXXX University*  *TEL:XX-XXXX-XXXX FAX：XX-XXXX-XXXX*  *E-mail：YYY@YY.jp* | | | | |
| Information regarding contributing participants (personal names, subsidiary institutions’ names, positions, R&D work assigned)\*6 | | | | | | | | | |
| Number of  Contributing  participants | Name | | Institution’s name | | | Department | | Position | |
| 1 | *XX XX* | | *XX University* | | | *Department of XX* | | *XX* | |
| *2* |  | |  | | |  | |  | |
| *3* |  | |  | | |  | |  | |
| *4* |  | |  | | |  | |  | |
| Information regardin*g Subsidiary institution* (institution name)\*7 | | | | | | | | | |
| Number of Subsidiary Institution | | | Subsidiary Institution’s name | | | | | | |
| 1 | | | *XX Univeritsity* | | | | | | |
| *2* | | |  | | | | | | |
| *3* | | |  | | | | | | |
| *4* | | |  | | | | | | |

\*1 Enter the total direct expenses excluding indirect expenses from the start of R&D to 5th year. Note that, the research in this application will begin partway through FY2022, so the fifth year of the research will end partway through FY2027.

\*2 Enter the total direct expenses excluding indirect expenses from the 6th year after the start of R&D up to 1 fiscal year 2030 at the latest.

\*3 Enter the name of the PM’s affiliate institution as of the date of the proposal and application.

\*4 Enter the name of the principal institution expected to hire the PM and support PM activities if the proposal is selected. Enter the name of the principal institution even if it is the affiliate institution.

\*5 The accounting representative is the individual responsible for supervising all accounting work for R&D activity at the principal institution.

\*6 Enter all contributing participants. Always assign a co-investigator number. If the PM also serves as a co-investigator, assign the PM co-investigator 1. Enter co-investigators in e-Rad in the order of their co-investigator number. Add lines, if necessary.

\*7 Enter all contributing participants. Always assign a co-investigator institution number. If the PM also serves as a co-investigator, enter the name of the representative institution for co-investigator institution 1. Add lines, if necessary.

***Delete the examples and explanations (highlighted in italics in light blue) before submission.***

# 1. Proposal Overview

|  |
| --- |
| 1. Present a scenario leading up to the achievement of the Moonshot Goal in 2040, and outline, in specific and clear terms, the issues to be overcome to achieve the Moonshot Goal, the solutions for them, conventional approaches and their problems, the validity of the present proposal, and the socioeconomic impact of the achievement of the Moonshot Goal, including 2 through 6 below and citing relevant literature as appropriate.  2. Make sure that there are clear explanations for a valid scenario (success theory) from a technical viewpoint and from the viewpoint of social implementation, including the division of roles between the public and private sectors, toward the achievement of the Moonshot Goal in 2040.  3. Mention that the present proposal is challenging and based on adventurous ideas, and is so innovative that it is expected to have great industrial and social impacts in the future.  4. Mention that the present proposal is a combination of top-level R&D capabilities, knowledge, and ideas, whether from Japan or from the rest of the world.  5. This FY2022 2nd Applications is primarily soliciting applications for projects about Target 2 and projects about novel approach (example; intestinal flora). Please indicate how the project relates to Target 2 or novel approach.  6. If you are considering some initiatives to promote the acceleration and social implementation of the R&D (for example multidisciplinary initiatives with ELSI (ethics, legal and social issues) and mathematical sciences, etc.), describe the initiatives.  Note: Do not delete this page, but write the proposal in no more than four pages, starting from the following page. |

**Describe (1) through (5) below using no more than four A4-size pages in total.**

## (1) Scenario leading up to the achievement of the Moonshot Goal in 2040

🞍 Discuss the scenario leading up to the achievement of the Moonshot Goal in 2040, presenting the target years (e.g., years 3, 5, and 8 from the start of the R&D, fiscal year 2030, and any other target years set as appropriate before 2040) and the targets in concrete terms.

🞍 Explain how the proposal addresses the Moonshot Goal and related concepts.

Example:

202A: Develop XX technology and achieve XXX.

202X: Demonstrate that XX is more than XXX.

## (2) Issues and solutions

🞍 Present the challenges that must be overcome to achieve the Moonshot Goal. Describe the proposed solutions (approaches and ideas).

🞍 In addition to science and technology issues, present and discuss social issues related to the dissemination and social implementation of the proposed solution.

Example:

Science and Technology Issue 1: Develop XX technology to enable XXX.

Solution:

Science and Technology Issue 2: Develop an XX system with a sensitivity of XXX or greater.

Solution:

Social Issue 1: Establish a government licensing system for XX.

Solution:

## (3) Conventional approaches and associated problems

🞍 Specify to what degree the issues presented in (2) above have been elucidated through research in Japan and abroad and in what respects they remain unaddressed. Explain why you believe the Moonshot Goal is difficult to achieve via these R&D projects. Cite the literature and other sources as appropriate.

Example:

Issue:

Conventional approach: XX University: According to the XXX method, it is XXXX until XX; XXX has yet to be verified.

Reason for difficulty: The XXX method is XXXX; XXXX poses major challenges.

## (4) Validity of the present proposal

🞍 Explain why you believe the present proposal can be successfully applied to achieve the Moonshot Goal, which would otherwise be difficult to achieve by 2040 by conventional approaches. Compare conventional approaches and the scenario presented in the proposal in question.

🞍 Explain why you believe the present proposal will prove successful—not simply from the science and technology viewpoint, but from the social perspective.

## (5) Socioeconomic impact of achieving the goal

🞍 Describe the envisioned socioeconomic impact of achieving the Moonshot Goal via the proposed scenario. Present data to support your perspective.

🞍 Mention research project policies related to the social implementation of achievements generated by the proposed research activities.

## (6) Relevance to “Target 2” or “novel approach”

*・In this application, the main issue is about Target 2 or novel approach (example; intestinal flora). Please briefly describe the relevance of Target 2 or novel approach.*

# 2. R&D details

|  |
| --- |
| 1. Describe specific research activities to be conducted during the R&D period, which may continue until fiscal 2030 at the latest, toward the achievement of the Moonshot Goal in 2040, including 2 through 6 below, in relation to the setting of milestones and the reasons therefor, the issues to be overcome to achieve the goal and solutions for them, the details of the R&D activities, research systems, and expected accomplishments.  2. Outside evaluations are scheduled for years 3 and 5 from the start of the R&D. Key milestones (verifiable quantitative targets) should be set for these years. If continuation beyond year 5 is determined based on the evaluation results, outside evaluations will be performed in years 8 and fiscal year 2030. Set milestones so that these evaluations can be performed.  3. Present scientifically supported solutions for the issues, and describe in concrete and concise terms how you intend to reach the milestones.  4. The descriptions must indicate that the present proposal is a combination of top-level R&D capabilities, knowledge, and ideas, whether from Japan or from the rest of the world.  5. If you are considering collaboration with overseas research institutions, in order to promote the R&D, describe the details of the collaboration.  7. The 2nd application seeks proposals with the potential to produce synergistic effects for whole MS Goal #7 projects and to maximize the results of MS Goal #7. Please indicate what kind of synergistic effects will be produced and how the results of MS Goal #7 will be maximized.  6. If you are considering some initiatives to promote the acceleration and social implementation of the R&D (for example multidisciplinary initiatives with ELSI (ethics, legal and social issues) and mathematical sciences, etc.), describe the initiatives.  (Note) Do not delete this page, but write the proposal in no more than six pages, starting from the following page. |

**Describe (1) through (5) below using no more than six A4-size pages in total.**

## (1) Target years and milestones and justification for their selection

🞍 Within the framework of the scenario leading up to the achievement of the Moonshot Goal in 2040, present the milestones envisioned for years leading up to fiscal year 2030. Give detailed reasons for setting these milestones and the corresponding dates.

🞍 Explain the reasons for setting the milestones. In particular, clarify their position and necessity within the larger scenario.

Example:

Fiscal year Milestone Reason for setting (including relevance to the scenario)

202X: Achieve XX.

## (2) Issues that must be overcome to achieve the targets and proposed solutions

🞍 Present the issues that must be overcome to achieve the targets at the milestones. Specify the reasons for selecting these specific issues. Explain their importance and the proposed scientifically-grounded solutions in detail, citing literature, data, and other supporting evidence.

🞍 Also indicate the nature of the challenges posed by these issues and how the solutions rely on adventurous new ideas.

🞍 If you are considering applying several solutions to solve the issues and to achieve the targets, explain them in detail.

## (3) R&D details

🞍 Present the processes, procedures, and techniques for preparing and acquiring the solutions presented in (2) above in concrete and easy-to-understand terms. Provide figures and tables, where appropriate.

🞍 The descriptions must indicate that the R&D activities will be carried out with a combination of top-level R&D capabilities, knowledge, and ideas, whether from Japan or elsewhere.

🞍 If you are considering some initiatives to promote the acceleration and social implementation of the R&D (for example multidisciplinary initiatives with ELSI (ethics, legal and social issues) and mathematical sciences, etc.), discuss their necessity and specifics.

## (4) Research system

🞍 Present the roles of the principal institution and subsidiary institutions in the research project. Explain in concrete terms how the research results will be applied, linked, and integrated to achieve synergistic effects and achieve the goals.

🞍 If your plans may include international joint efforts and multidisciplinary initiatives, explain how the joint efforts will function.

## (5) For the maximization of the results of Moonshot Goal 7

🞍 Describe how you will achieve the synergistic effects of whole MS Goal #7 and the maximization of the results of MS Goal #7.

## (6) Expected achievement

🞍 Present the research results anticipated in three, five, and eight years from the start of research, and fiscal year 2030. Explain their positions within the framework of the scenario and their relevance to achieving the Moonshot Goal in 2040.

# 3. R&D schedule

|  |
| --- |
| 1. List the R&D items to be addressed to achieve the Moonshot Goal, set milestones for each such item\*1, indicate the timing of each milestone as, for example, “MS1” and “MS2,” and make additions if necessary.  2. Describe the schedule, contributory participants, and research expenses (direct expenses) for each R&D item. If there is an R&D item in which two or more institutions are involved, describe the total for relevant research expenses in each institution’s R&D item.  3. The maximum research period is 10 years (until fiscal year 2030), but the schedule should be created for your required period (fiscal 202X).  4. Outside evaluations are scheduled for years 3 and 5 from the start of the R&D. Key milestones should be set for these years. If continuation beyond year 5 is determined based on the evaluation results, outside evaluations will be performed in years 8 and 10, too. Set milestones so that these evaluations can be performed.  5. Describe the timing of each milestone and the target to be achieved at each in “(2) Target to be achieved at each milestone” in an organized way.  \*1 A milestone is an important point or item to be reached or achieved in the course of working for the R&D goal and should be expressed in quantitative terms so that it can be verified.  (Note) Do not delete this page. |

## (1) R&D schedule

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| R&D item | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 to 20XX |
| *Example:*  *1. Develop XXX.*  *(1) Analyze YYY.*  *(2) Verify XXX.*  *(Contributory participant) X from XXX University*  *(Research expenses) XXX,000 yen* |  | **MS1** |  |  |  |  |  |
| *2. Develop an evaluation technique for XXX.*  *(1) Verify the XXX principle.*  *(2) Prototype YYY. (Contributory participant) Y from XXX Corporation*  *(Research expenses) XXX,000 yen* |  |  |  | **MS2** |  |  |  |
| *3.○○〇〇*  *(1)○○○* |  |  |  |  | **MS3** |  |  |
|  |  |  |  |  |  |  |  |

(Add or delete lines as appropriate.)

*(Please write the total amount of research expenses from the start of R&D to 5th year.)*

## (2) Target to be achieved at each milestone

🞍 Add sections if necessary, in light of the number of milestones set.

🞍 Describe the target for fiscal 2024 in clear and concrete terms.

|  |  |  |  |
| --- | --- | --- | --- |
| **Milestone** | **Timepoint** | **Subsidiary institution(s)** | **Target** |
| *MS1* | *End of [month] [year]* | *University A* | *🞍 Verify that XXX is at least YYY.*  *○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○* |
| *MS2* | *End of [month] [year]* | *University A* | *🞍 Achieve the target value of XX by method YYY.*  *○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○* |
| *MS3* | *End of [month] [year]* | *B Corporation* |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |

# 4. Schematic diagram of the research project implementation system

|  |
| --- |
| 1. Create a schematic diagram of the implementation system (on one A4-size sheet, whether in portrait or landscape orientation) that shows the principal institution’s and subsidiary institutions’ organizational structures (if the principal place of research is different from the affiliate institution, the principal place of research should be shown, too), systems, collaboration and cooperation systems, etc.  2. The diagram should show the relationships between the PM (principal institution) and each research institution, and the process of project management (such as data, expenses management, information regarding research management).  3. The diagram should show that the implementation system ensures collaborative R&D under the PM’s management, presenting the roles of each research institution and the flow of its accomplishments.  4. AMED will conclude a contracted R&D agreement with the principal institution, which will in turn conclude a subcontract with each subsidiary institution.  (Note) Do not delete this page. |

(One A4 sheet)

[Example of schematic diagram of the system]

Quadrangles with rounded corners for universities, other academic institutions, or companies; rectangles for AMED

Dotted line arrows for flow of agreement, double-line arrows for flow of samples, information, etc. or division of labor

*Contributing participant’s name*

*Subsidiary institution’s name*

*(and principal place of research)*

*Role*

Contracted R&D work

*Sample provision*

*PM’s name*

*Principal institution’s name*

*(and principal place of research)*

*Role*

*Contributing participant’s name*

*Subsidiary institution’s name*

*(and principal place of research)*

*Role*

*Contributing participant’s name*

*Subsidiary institution’s name*

*(and principal place of research)*

*Role*

*AMED*

*Evaluation results*

Subcontract

Subcontract

Subcontract

# 5. Research project members and roles

1. Enter the names of the project participants—i.e., the PM and contributing participants—and their respective affiliate institutions, R&D assignments, roles, and effort.

2. If the principal place of research differs from the affiliate institution, also describe the principal place of research.

3. If the PM will also serve in the role of contributing research participant, list the PM as a contributing participant in this section. (Name the PM as a contributing participant in 7. Information on contributing participants, 8. Status of R&D fund application/acceptance and effort, and 9. Annual R&D expense planning.)

4. Indicate in tabular form the number of young researchers expected to participate in the project.

## (1) R&D assignments and roles of members (PM and contributing participants)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| １６ | Name  Date of birth  (Age \*2)  Researcher ID number | Affiliate research institution \*1  Department \*1  Position \*1 | Current area of expertise  Academic degree (academic background)  Year of academic degree | R&D assignment and role in present project  (effort) |
| *PM’s name* |  | *XX University* | *△* | *🞍 Research project supervision and implementation management*  *🞍 Managing XX*  *(Effort: %)* |
| *Faculty of XX*  *XXX Department* | *Doctorate in XXX*  *(XX University)* |
|  | *[year]* |
|  |  | *(Principal place of research) XXX University* |  |  |
| *Faculty of XX*  *XXX Department* |  |
|  |  |
| *Name of contributing participant 1* |  | *XX University* | *🌕* | *Develop XXX technology and create a prototype for XXX.*  *(Effort: %)* |
| *Faculty of XX*  *XXX Department* | *Doctorate in XXX*  *(XX University)*  *5* |
|  | *[year]* |
| *Name of contributing participant 2* |  | *XXX Corporation* | *🌕* | *Perform functional evaluations of XXX prototype.*  *(Effort: %)* |
| *XX Research Institute*  *XX Division* | *Doctorate in XXX*  *(XX University)*  *[year]* |
|  | *[year]* |
|  |  |  |  |  |
|  |  |
|  |  |
| Total: *\*\** *persons* | | | | |

(Add or delete lines as appropriate.)

\*1 If the principal place of research differs from the affiliate institution, also describe principal place of research.

\*2 Enter age as of April 1, 2022.

## (2) Young researchers expected to participate in the present project

AMED encourages the advancement of a wide range of researchers who will serve as driving forces in Japan, as well as initiatives to plow back into society the research results achieved by such individuals. This is a significant aspect of all publicly funded research programs. In this Program it is also expected that young researchers with adventurous ideas and a flexible outlook on the future will take active roles in moonshot R&D projects.

Submit the table below, complete with the number of such young researchers expected to participate in the present project. This information will be used for review purposes.

🞍 Refer to AMED rules for young researchers (see below). Age is as of April 1, 2022.

Young researchers refer to male researchers under 40 years of age, female researchers under 43 years of age, or researchers having earned a doctorate in the past 10 years. Individuals who have taken maternity or child care leave may add the span of such leave to the age limit of 40/43 years.

|  |  |  |
| --- | --- | --- |
| Name of institution | Total number of project researchers  (number of female researchers in parentheses) | Number of young researchers  (number of female researchers in parentheses) |
| Subsidiary institution 1  *XXX Corporation* | *10 (2)* | *4 (2)* |
| *Subsidiary institution 2*  *XX University* | *4 (3)* | *1 (1)* |
|  |  |  |
|  |  |  |
|  |  |  |

(Add or delete lines as appropriate.)

# 6. Project manager (PM)

## (1) Suitability as PM for this Program

For the items below, explain why you believe you are qualified to manage the ambitious and challenging long-term research efforts needed to achieve the Moonshot Goal by 2040. Describe other qualifying grounds you believe are pertinent.

1. The PM has expert knowledge and a wide human network such as relevant researchers inside and outside Japan, to promote cutting-edge research.

2. The PM has management and leadership skills such as the ability to establish an optimal R&D system, and nimbly review the system according to the status of progress.

|  |
| --- |
|  |

(Add or delete lines as appropriate.)

## (2) Ideas about the R&D project management

In light of the candidate’s research and management experiences, present the aspects that may need to be strengthened to manage the proposed R&D project. Discuss in detail these aspects and what measures are to be taken, if any. If no such aspects apply, enter “None.”

|  |
| --- |
| Examples:  🞍 Research data management: Perform XXXX.  🞍 Industry/academia collaboration, intermediation  🞍 International collaboration  🞍 Dialogue with citizens on science and technology  🞍 Intellectual property management  🞍 Promoting wider adoption and social implementation  🞍 Add more lines if the examples above do not cover all aspects that need to be strengthened. |

(Add or delete lines as appropriate.)

**(3) PM information**

### 🞍 PM’s background

|  |  |
| --- | --- |
| Name |  |
| Academic background | *[Year]: Completed XXX graduate program within XX Department/Faculty at XXX University* |
| Degree | *[Year]: Received doctorate (in xx) (from XX University).* |
| Major employment and research history | *Examples:*  *🞍 From [year] to [year]: XX Development Division, XXX Corporation (engaged in the development of XXXX)*  *🞍 From [year] to [year]: Associate professor at XXXX University (engaged in research on XX)* |

(Add or delete lines as appropriate.)

### 🞍 PM’s research

🞍 Provide a list of up to five projects relevant to the present proposal.

🞍 Underline the candidate’s name in cases involving multiple authors/researchers.

|  |  |
| --- | --- |
| Research papers, books, guest lectures, presentations at international conferences | *Example:*  *(1) M.Marusankaku, J.Aaaa, H.Bbbbb, A.Ccccc, Treatment of　Hepatic……,*  *Nature, 2015, 1,10-20*  *(2)* *M.Marusankaku* *, J.Aaaa, H.Bbbbb, A.Ccccc, Study of　……,*  *Nature, 2018, 2,30-40*  *(3)*  *(4)*  *(5)* |
| Patents | *Example:*  (1) Title of invention:  *Application number: XXXX-XXXXXX*  *Inventors: (name all)*  *Applicants (patent holders): XXX University, XX Corporation (name all)* |

(Add or delete lines as appropriate.)

### 🞍 PM project experience

If the PM served as a representative researcher for other research funding projects, give project names, research theme names, research periods, scope of research funding involved, roles, and results for major projects.

If the PM has experience in commercializing research results, present an overview of the program(s) and the candidate’s roles and contributions.

|  |
| --- |
| Examples:  (1) Project name: AMED XXX Program (name of participating research institution)  Research period: From [year] to [year]  Research theme: “Research on XXXX”  Scope of research funding: XXX,000 yen  Roles and accomplishments: As primary investigator, carried out XX and achieved results far exceeding the target in XXXX.  (2) Project name: Basic research on XXXX (name of participating research institution)  Research period: From [year] to [year]  Research theme: “Research on XXXX”  Scope of research funding: XXX,000 yen  Roles and accomplishments: As primary investigator, carried out XX and achieved XXX. The accomplishments were commercially applied by XX Corporation.  (3) Program specifics: Practical application of XXX (names of company and participating research institution)  Sales records (XX million yen in [year])  Development period: From [year] to [year]  Roles and accomplishments: As project leader, directed the development and commercialization of XX technology and achieved practical applications for XX. |

### 🞍 Effort

🞍 Effort refers to the ratio/percentage (%) of hours required to manage the proposed R&D project to the total annual work hours (100%).

🞍 If the PM will participate as a contributing participant, enter the PM’s effort ratio as a contributing participant in 5. Research project members and their roles and 8. Status of R&D fund application/acceptance and effort as well.

|  |
| --- |
| *%* |

## (4) PM activities support system

Describe plans and proposals for the PM activities support system to be established within the principal institution to ensure effective and efficient research project administration.

If you believe an adequate PM activities support system is already in place within the principal institution, describe the system and explain why you believe it is adequate.

|  |
| --- |
| Examples:  🞍 Establishing a system for managing expenditures by subsidiary institutions  🞍 Assigning experts in international standardization  🞍 Support system for managing intellectual property and acquiring intellectual property rights  🞍 Assigning personnel with experience in outreach activities such as public relations (already available within principal institution) |

(Add or delete lines as appropriate.)

# 7. Information on contributing participants

Describe the roles of contributing participants in the proposed R&D project, why they are needed, why the specific individuals are the best candidates, and their track record in research and development relevant to the present proposal.

🞍 Include the candidate PM here if he or she will also participate as a contributing participant.

🞍 Copy the table below if you need more space to include all contributing participants.

|  |  |
| --- | --- |
| Name | *Contributing participant* |
| Affiliate institution and position | *Department of XX, XXXXX University XXX* |
| Address and contact | *Address: XXX, XX City, XXXXX Prefecture, Postal Code*  *Telephone:* |
| (1) Roles in the present project and necessity  *Explain the contributing participant’s roles and the need for his/her participation in clear and specific terms, based on R&D activities and systems for the present project.*  *(Role) Develop XXX.*  *(Necessity)*  (2) Why the contributing participant is the best choice  *Because he/she is XXXX.*  (3) The contributing participant’s R&D track record related to his/her assignment to support the foregoing  *Example: Provide a list including up to five examples of the contributing participant’s work, such as peer-reviewed papers, patents, guest lectures, and presentations at international conferences.* | |

(Add or delete lines as appropriate.)

# 8. Status of R&D fund application/acceptance and effort

In accordance with instructions ① and ② below, describe (1) research funding applications for which decisions are currently pending; (2) research funding already accepted (or due to be accepted); and (3) other activities of the project manager (PM) and contributing participants as of the time of application. Also include research personnel other than the PM and contributing participants who would participate in the present project if one or more of items (1) through (3) applies to such researcher.

1. Effort refers the ratio/percentage (%) of hours required for the relevant research to total annual work hours (100%).

2. At the beginning of the “Research funding applications for which decisions are currently pending” section in (1), enter the research theme covered by the present application.

🞍 If the candidate PM will participate as a contributing participant, name him/her as a contributing participant in the roles section and enter his/her effort.

🞍 Copy sections (1) through (3) if you need more space.

<Project manager: XXXX (principal institution’s name)>

## (1) Research funding applications for which decisions are currently pending

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| The name of the funding program or research funds (research period, name of funding agency, etc.) | Name of R&D theme  (representative’s name) | Roles  (principal or subsidiary institution) | Scope of research funding in FY2022 (direct expenses)  [Amount for the entire period]  (in 1,000 yen) | Effort (%) | Reasons for seeking funding under this Program in addition to other funding |
| [Moonshot research and development program]  (2022–2027, AMED) |  | (Principal) |  | *\*\*％* |  |
| *[Moonshot research and development program]*  *(2022–2027, AMED)* |  | *Contributing participant (\*1)*  *(Subsidiary)* |  | *\*\*％*  *(\*2)* |  |
| *Scientific research funding and/or subsidies/ seed grants for cutting-edge research  (2022–2023, the Japan Society for the Promoting Science)* | *Research on XXX* | *(Principal)* | *3,000*  *[9,000]* | *10％* | *Because of XXX* |
| *FY2022 XXXX Research Subsidy (2022, XXXX Foundation)* | *Research on XXX* | *(Subsidiary)* | *1,000*  *[1,000]* | *10％* | *Because of XXX* |

(Add or delete lines as appropriate.)

*\*1 Include the candidate in this section if he or she will participate as a contributing participant.*

*\*2 Specify the effort anticipated if the candidate will assume any research obligations under the Program as a contributing participant.*

## (2) Research funds already accepted (or due to be accepted)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Name of funding program or research funds (research period, name of funding agency, etc.) | Name of R&D theme  (representative’s name) | Roles (principal or subsidiary institution) | Scope of research funding in FY2022 (direct expenses)  [Amount for the entire period]  (in 1,000 yen) | Effort (%) | Reasons for seeking funding under this Program in addition to other funding |
| *FY2021 XXXX Research Subsidy (2021, XXXX Foundation)* | *Research on XXX* | *(Principal)* | *1,000*  *[1,000]* | *10％* | *Because of XXX* |
| *XX Program  (2021–2023, AMED)* | *Research on XXX* | *(Subsidiary)* | *1,000*  *[5,000]* | *10％* | *Because of XXX* |

(Add or delete lines as appropriate.)

## (3) Other activities

|  |  |  |  |
| --- | --- | --- | --- |
| Institution | Title | Description of activity | Effort (%) |
| *XXX Corporation* | *Technical advisor* | *Guidance on R&D* | *２％* |
|  |  |  |  |

(Add or delete lines as appropriate.)

🞍 Effort refers to the ratio/percentage (%) of hours required for the relevant research to total annual work hours (100%).

<Name of contributing participant: XXXXX (subsidiary institution’s name)>

🞍 Copy sections (1) through (3) if you need more space to include all contributing participants.

## (1) Research funding applications for which decisions are currently pending

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Name of funding program or research funds (research period, name of funding agency, etc.) | Name of R&D theme  (representative’s name) | Roles  (principal or subsidiary institution) | Scope of research funding in FY2022 (direct expenses)  [Amount for the entire period]  (in 1,000 yen) | Effort (%) | Reasons for seeking funding under this Program in addition to other funding |
| [Moonshot research and development program]  (2022–2027, AMED) |  | *Contributing participant*  *(Subsidiary)* |  | *\*\*％* |  |
| *Scientific research funding and/or subsidies* *seed grants for cutting-edge research  (2022*–*2023, the Japan Society for the Promoting Science)* | *Research on XXX* | *(Principal)* | *3,000*  *[9,000]* | *10％* | *Because of XXX* |
| *FY2022 XXXX Research Subsidy (2022, XXXX Foundation)* | *Research on XXX* | *(Subsidiary)* | *1,000*  *[1,000]* | *10％* | *Because of XXX* |

(Add or delete lines as appropriate.)

## (2) Research funds already accepted (or due to be accepted)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Name of funding program or research funds (research period, name of funding agency, etc.) | Name of R&D theme  (representative’s name) | Roles (principal or subsidiary institution) | Scope of research funding in FY2022 (direct expenses)  [Amount for the entire period]  (in 1,000 yen) | Effort (%) | Reasons for seeking funding under this Program in addition to other funding |
| *FY2021 XXXX Research Subsidy (2021, XXXX Foundation)* | *Research on XXX* | *(Principal)* | *1,000*  *[1,000]* | *10％* | *Because of XXX* |
| *XX Program  (2021–2023, AMED)* | *Research on XXX* | *(Subsidiary)* | *1,000*  *[5,000]* | *10％* | *Because of XXX* |

(Add or delete lines as appropriate.)

## (3) Other activities

|  |  |  |  |
| --- | --- | --- | --- |
| Institution | Title | Description of activity | Effort (%) |
| *XXX Corporation* | *Technical advisor* | *Guidance on R&D* | *２％* |
|  |  |  |  |

(Add or delete lines as appropriate.)

🞍 Effort refers to the ratio/percentage (%) of hours required for the relevant research to total annual work hours (100%).

# 9. Annual R&D expense planning

1. Present annual R&D expense planning for the entire project ((1) annual R&D expense planning for the entire project) and a breakdown of annual research expenses for each research institution (principal institution and subsidiary institutions) ((2) a breakdown of each research institution’s R&D expenses).

In this section, present annual expenses for each year of the research period (from the start of R&D to FY2027), total estimated expenses from years 6 through fiscal 202X, and the grand total.

See Chapter 8 of the Application Guidelines when completing this section.

2. The maximum research period is until fiscal year 2030 at the latest.; however, complete this section in accordance with your projected timeframe (up to fiscal 202X).

3. Enter major equipment with a purchase price of at least one million yen, expenses related to the employment of young researchers, and subcontracted expenses of at least one million yen in “(3) Information on expenses for the entire project.”

## (1) Annual R&D expense planning for the entire project

🞍 Enter research expenses (direct expenses) for all research institutions that will participate in the project (principal institution and subsidiary institutions).

(Unit: 1,000 yen)

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Name of institution** | **FY2022** | **FY2023** | **FY2024** | **FY2025** | **FY2026** | **FY2027** | **Subtotal for FY2022 - FY2027** | **Estimated amount from 6th year to FY20XX** | **Grand total** |
| *Principal institution: XXX University* | *0* | *0* | *0* | *0* | *0* | *0* | *0* | *0* | *0* |
| *Subsidiary institution 1: XX Corporation*  *(name of contributing participant)* | *0* | *0* | *0* | *0* | *0* | *0* | *0* | *0* | *0* |
| *Subsidiary institution 2: X Corporation*  *(name of contributing participant)* | *0* | *0* | *0* | *0* | *0* | *0* | *0* | *0* | *0* |
|  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |

(Add or delete lines as appropriate.)

## (2) Breakdown of each research institution’s R&D expenses

🞍 The term Equipment and fittings expenses refers to goods with an acquisition price of 500,000 yen or more and a useful life of at least one year.

🞍 Other includes subcontracted expenses, expenses related to presentation of R&D results, equipment leasing expenses, and so forth. Enter subcontracted expenses and other expenses separately.

🞍 Indirect expenses are necessary expenses for R&D management at R&D institutions. Amounts corresponding to a maximum of 10% to 30% of the total direct expenses—30% for universities and 10% for private-sector companies (20% for SMEs)—may be recognized as indirect expenses.

Principal institution: *XXX University*

🞍 Enter activity expenses related to the PM’s management.

(Unit: 1,000 yen)

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Category** | | **Subcategory** | **FY2022** | **FY2023** | **FY2024** | **FY2025** | **FY2026** | **FY2027** | **Subtotal for FY2022 - FY2027** | **Estimated amount from 6th year to FY20XX** | **Grand total** |
| Direct expenses | Costs of goods | Equipment costs | *0* | *0* | *0* | *0* | *0* | *0* | *0* | *0* | *0* |
| Consumable costs | *0* | *0* | *0* | *0* | *0* | *0* | *0* | *0* | *0* |
| Travel costs | Travel costs | *0* | *0* | *0* | *0* | *0* | *0* | *0* | *0* | *0* |
| Personnel expenses | Personnel expenses | *0* | *0* | *0* | *0* | *0* | *0* | *0* | *0* | *0* |
| Services costs | *0* | *0* | *0* | *0* | *0* | *0* | *0* | *0* | *0* |
| Other | Subcontracts costs | *0* | *0* | *0* | *0* | *0* | *0* | *0* | *0* | *0* |
| Other | *0* | *0* | *0* | *0* | *0* | *0* | *0* | *0* | *0* |
| Subtotal | | *0* | *0* | *0* | *0* | *0* | *0* | *0* | *0* | *0* |
| Indirect expenses  *(30% max.)* | | | *0* | *0* | *0* | *0* | *0* | *0* | *0* | *0* | *0* |
| Total | | |  |  |  |  |  |  |  |  |  |

Subsidiary institution: Subsidiary institution 1 *XX Corporation (name of contributing participant)*

🞍 Provide a breakdown of research expenses for all subsidiary institutions expected to participate in the project.

🞍 If the PM will participate as a contributing participant, include the research expenses the PM will need to fulfill R&D assignments at the subsidiary institution.

🞍 Copy the table if you need more space to include all research institutions.

(Unit: 1,000 yen)

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Category** | | **Subcategory** | **FY2022** | **FY2023** | **FY2024** | **FY2025** | **FY2026** | **FY2027** | **Subtotal for FY2022 - FY2027** | **Estimated amount from 6th year to FY20XX** | **Grand total** |
| Direct expenses | Costs of goods | Equipment costs | *0* | *0* | *0* | *0* | *0* | *0* | *0* | *0* | *0* |
| Consumables item cost | *0* | *0* | *0* | *0* | *0* | *0* | *0* | *0* | *0* |
| Travel costs | Travel costs | *0* | *0* | *0* | *0* | *0* | *0* | *0* | *0* | *0* |
| Personnel costs | Personnel costs | *0* | *0* | *0* | *0* | *0* | *0* | *0* | *0* | *0* |
| Services costs | *0* | *0* | *0* | *0* | *0* | *0* | *0* | *0* | *0* |
| Other | Subcontracts costs | *0* | *0* | *0* | *0* | *0* | *0* | *0* | *0* | *0* |
| Other | *0* | *0* | *0* | *0* | *0* | *0* | *0* | *0* | *0* |
| Subtotal | | *0* | *0* | *0* | *0* | *0* | *0* | *0* | *0* | *0* |
| Indirect expenses  *(30% max.)* | | | *0* | *0* | *0* | *0* | *0* | *0* | *0* | *0* | *0* |
| Total | | |  |  |  |  |  |  |  |  |  |

## (3) Information on expenses for the entire project

🞍 Enter equipment and fittings to be purchased for at least one million yen within the research period (from the start of R&D to FY2027) in the table below, together with purpose of use and need for purchase.

🞍 For the entire project, enter information on the personnel expenses expected to be incurred within the research period (from the start of R&D to FY2027) for the employment of young researchers in the table below.

Refer to AMED rules for young researchers (see below). Age is as of April 1, 2022.

(Young researchers refer to) male researchers under 40 years of age, female researchers under 43 years of age, or researchers having earned a doctorate in the past 10 years. Individuals who have taken maternity or child care leave may add the span of such leave to the age limit of 40/43 years.

🞍 With regard to subcontracted expenses of at least one million yen per subcontract expected to be incurred within the research period (from the start of R&D to FY2025), enter the subcontractors, subcontracted work, and reason/need for subcontracting in the table below.

**Information on equipment and fittings (from the start of R&D to FY2027)**

🞍 Include equipment with a purchase price of at least one million yen.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Name of equipment/fittings  (manufacturer, model, etc.) | Year of purchase (FY20XX) | Amount  (in thousands of yen) | Purposes of use and necessity | Installed at |
| *XXX analyzer* | *2022* |  |  | *XX Corporation* |
| Subtotal for FY2022 |  |  |  |  |
| *XX equipment* | *2023* |  |  | *XX University* |
| Subtotal for FY2023 |  |  |  |  |
|  |  |  |  |  |
| Total |  |  |  |  |

(Add or delete lines as appropriate.)

Information on employment of young researchers (from the start of R&D to FY2027)

🞍 Enter personnel expenses for the employment of young researchers in the table below.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | Number of persons | Period | Amount  (in thousands of yen) | Job description | Affiliate institution |
| *Postdoctoral* | *1* | *2021～2023* | *xxx* | 🞍 *Engaged in the development of XXXX .* | *XX University* |
| *Researcher* | *1* | *2021～2023* | *xxx* | 🞍 *Assigned to the development of XXX.* | *XX Corporation* |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
| Total |  |  |  |  |  |

(Add or delete lines as appropriate.)

Information on subcontracted expenses (from the start of R&D to FY2027)

🞍 For subcontracted expenses of at least one million yen, enter the subcontractors, subcontracted expenses, and subcontracted work in the table below.

|  |  |  |  |
| --- | --- | --- | --- |
| Fiscal year/subject | Amount  (in thousands of yen) | Subcontractor, subcontracted work, and necessity | Ordering party |
| *FY2022*  *Analysis of XXX* | *xxxx* | *Subcontractor: XX Corporation*  *Subcontracted work: XX analysis of XXXX materials*  *Necessity: Needed in XX in order to achieve R&D item XXXX.* | *XX Corporation* |
| Subtotal for FY2022 |  |  |  |
| *FY2023*  *Production of XX devices* | *xxxx* | *Subcontractor: XX Corporation*  *Subcontracted work: Design and production of XX devices for XXX experimentation*  *Necessity: Needed for XXX.* | *XX University* |
| Subtotal for FY2023 |  |  |  |
|  |  |  |  |
| Total |  |  |  |

(Add or delete lines as appropriate.)

# 10. Disclosure of conflicts of interest

## (1) Disclosing conflicts of interest involving the PD

Specify whether the relationship between the candidate PM and the PD poses any conflicts of interest.

If so, describe the conflict in concrete terms. In the interests of fair and transparent evaluations, if the relationship between the PD and candidate PM poses any conflicts of interest, the PD will abstain from the screening process.

A conflict of interest exists if any of ① through ⑦ below applies. (The cases presented below are based on the matters set forth in Chapter 4 of the Application Guidelines.)

*1. The candidate is a family member of the PD.*

*2. The candidate belongs to the same department or other organizational unit of a university, national research and development agency, national research institute, other research institution, or company as the PD.*

*3. The candidate has been involved in joint research worked in close cooperation with the PD within the past three fiscal years, including the current fiscal year.*

*4. The candidate has a close teacher-student relationship with the PD. For example, the candidate provided instructions to or received instruction/guidance from the PD for his or her doctoral dissertation.*

*5. The PD received economic gain exceeding one million yen from the candidate in any of the past three fiscal years, including the current fiscal year.*

*6. The candidate is involved in a direct competitive relationship with the PD.*

*7. Any other serious conflict of interests can be confirmed.*

AMED may reject or rescind approval for a project if it identifies conflicts of interest between the candidate and the PD before disclosure by the candidate.

|  |
| --- |
| (Information on conflicts of interest with the PD)  Potential conflict of interest between the candidate and the PD:  Yes  No  (\* Check the corresponding box.)  If “Yes,” specify: |

(Add or delete lines as appropriate.)

## (2) Information on conflicts of interest involving contributing participants

Specify any conflicts of interest between the PM and contributing participants.

If “Yes,” provide details of the conflict of interest and present reasons the contributing participant’s participation is needed for the project and/or why apparent conflict(s) of interest poses no concerns.

A conflict of interest exists if any of ① through ⑤ below applies. (The cases presented below are based on the matters set forth in Chapter 4 of the Application Guidelines.)

*1. The contributing participant is a family member of the PM.*

*2. The contributing participant belongs to the same department or other organizational unit of a university, national research and development agency, national research institute, other research institution, or company as the PM.*

*3. The contributing participant is engaged in joint research in close cooperation with the PM.*

*4. The contributing participant has a close teacher-student relationship with the PM or gains financially from the PM.*

*5. Any other serious conflict of interest is confirmed.*

AMED may reject or rescind approval for a project if it identifies conflict of interest issues before disclosure by those involved, unless otherwise determined by AMED based on reasonable grounds.

The purpose of this Program is to assemble leading R&D knowledge and capabilities from across Japan. Thus, conflicts of interest between the PM and contributing participants will be assessed not by monolithic standards, but based on case-by-case principles, taking into account needs, rational grounds to disregard an apparent conflict of interest, and justifiable conditions.

|  |
| --- |
| (Information on conflicts of interest potentially affecting contributing participants)  Potential conflict of interest between the candidate and contributing participant:  Yes  No  (\* Check the corresponding box.)  If “Yes,” provide details of the conflict of interest and present reasons the contributing participant’s participation is needed for the project and/or why apparent conflict(s) of interest do not pose concerns.  🞍 Contributing participant XX: Potential conflict of interest related to XXXX. This individual’s participation in the present project is necessary for reason XXXX. |

(Add or delete lines as appropriate.)

🞍 Additional information may be requested to evaluate conflicts of interest.

# 11. Confirming laws, regulations, and guidelines to be observed

Check the box to indicate that you have read Chapter 11 and 12 of the Application Guidelines; that you understand all applicable laws, regulations, and guidelines and that you have formulated your proposed project accordingly.

Guidelines on Handling Improprieties in Research Activities in Programs Funded by Cabinet Office Budgets at the Japan Agency for Medical Research and Development  
(established March 1, 2017; AMED office within the Cabinet Office)

Guidelines on Handling Inappropriate Use of Research Expenses for Programs Funded by Cabinet Office Budgets at the Japan Agency for Medical Research and Development  
(established March 1, 2017; AMED office within the Cabinet Office)

Laws, regulations, ministerial ordinances, notices, etc. established by ministries and agencies for security export control (handling of technology leaks to foreign entities), including the Foreign Exchange and Foreign Trade Act, which are intended to prevent cutting edge research results from falling into the hands of those seeking to develop weapons of mass destruction, terrorist groups, and others likely to engage in activities of concern, including diversion to military use

Check the box below to indicate that you have confirmed applicable laws, regulations, and guidelines during proposal formulation.

We have duly confirmed all applicable laws, regulations, and guidelines.

# 12. Ethical considerations

## (1) Provide information on your policies on protecting human rights, eliminating adverse impacts and dangers, ensuring informed consent, and measures to ensure the ethical handling of experimental animals.

🞍  Applicable  Not applicable (\* Check the corresponding box.)

🞍 If “Applicable,” specify:

## (2) Guidelines to be observed in connection with the research

(Check the boxes for all that apply in connection with your research.)

Not applicable

Act Concerning the Securing of Safety in Regenerative Medicine

Ethical Guidelines on Medical Research Involving Human Subjects

Ethical Guidelines for Human Genome/Gene Analysis Research

Guidelines on Gene Therapy Clinical Research

Basic Guidelines on Animal Experimentation

Other guidelines (name: )

🞍 Involvement of epidemiology and biostatistics specialists Yes/No/ Other ( )

If “Yes,” enter the specialist’s name, affiliation (institute and department), and title below.

(XXXX Research Institute, XXX Department, Head of XX)

🞍 Planned registration of clinical research Yes/No/ Other ( )

Appendix: Summary of Proposal

**Summary of Proposal**

\* Please limit this “Summary of Proposal” form to two (2) pages.

1. Project title

*Study of ･･･*

2. Project manager (PM)

* Name *Hanako Iryou*
* Gender Male Female Other Rather not say
* Researcher ID（8 digits） *XXXXXXXX*
* Date of birth（Age） *19XX / XX / XX (XX：As of April 1,2022)*
* Affiliation *ZZZZZZ University*
* Department *Department of YYYYYY*
* Position title *Professor*
* E-mail address *ZZZZZZ@YY.jp*

3. Abstract (400 words maximum)

*Outline your research proposal, mentioning the anticipated results, in 400 words or less.*

*○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○.○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○.*

*○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○.○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○.*

4. Relevance to “Target 2” or “novel approach”

*Since this FY2022 2nd application is about Target 2 or novel approach (example; intestinal flora), please briefly describe the relevance of Target 2 or novel approach.*

5. Keywords (10 items maximum)

*List as many as 10 terms that most likely represent the essence of the proposed research.*

1. 　　　　　　 2. 　　　　　　 3. 　　　　　　　4.

5. 　　　　　　 6. 　　　　　　 7. 　　　 　　　 8.

9. 　　　　　　 10.

6. Publication list (10 items maximum)

*List as many as 10 peer-reviewed articles published in English in reverse chronological order (most recent first), and specify the most relevant one(s) with an asterisk(s) (\*).*

1.

2.

3.

4.

5.

6.

7.

8.

9.

10.