

CONSENSUS EVALUATION REPORT

GENERAL OVERVIEW

Open Call Collection	OC-2015-2
Proposal Reference	OC-2015-2-19984
Proposal Title	<i>Mitochondrial mapping: Evolution - Age - Gender - Lifestyle - Environment</i>
Proposal Acronym	MITOEAGLE
Review Panel	<i>RP5 - S&T Advances for the Benefit of Citizens: Healthcare Management, Biomedical and Environmental Research</i>
Evaluation Status	<i>Final</i>

EVALUATION

SUMMARY TABLE

S&T EXCELLENCE					IMPACT				IMPLEMENTATION				Marks
Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Total
5	5	5	5	5	5	4	4	4	4	4	5	4	59

COMMENTS

S&T EXCELLENCE

Soundness of the challenge

Q1 - Is the challenge relevant and timely?	Mark
<p>The proposal addresses this question in an excellent manner.</p> <p>The main strengths are That the proposal addresses a real problem in a comprehensive and inclusive manner. The very nature of the proposal requires co-operation from a wide range of researchers working across a spectrum of disciplines. The large number of proposers spread across many EU countries and employed in a range of sectors is an early indication of the relevance and timeliness of this study. The formation of the COST action will be the fundamental enabler towards the achievement of the aims and objectives of the proposal. The proposal addressees an important question which is scientifically relevant as well as timely. The main strengths are - The idea of establishing a standardized database of mitochondrial data, with continuous monitoring and updating of SOPs; - The set up of data sets for mt-function for different tissues in a standardized format.</p>	5

Q2 - Are the objectives presented clear and pertinent to tackle the challenge?	Mark
<p>The proposal addresses this question in an excellent manner.</p> <p>The main strengths are That the proposal, whilst ambitious, has a clear set of aims and objectives that will bring together a wide range of groups and experts working in the very diverse field of mitochondrial physiology. The workplan is sub-divided into four clearly-defined work packages. Each WP has a set of milestones and deliverables that map to the overall aims and objectives of the action. The action will include a range of formats (network meetings, workshops, working groups, STSMs and web-based discussion fora) in order to maximise the interaction amongst participants and aid in dissemination of the outputs of the action. The main strength of this action are: - the ambition to coordinate researchers whose research activity is focused on mitochondria physiology, but that work in different fields - the will to go beyond the spirit of strong competition that characterized research on mitochondria.</p>	5

Progress beyond the state-of-the-art and innovation potential

Q3 - Does the proposal advance the state-of-the-art and introduce an innovative approach to the challenge?	Mark
<p>The proposal addresses this question in an excellent manner.</p> <p>The main strengths are that the proposal addresses the considerable lack of uniformity and consensus on standard operating procedures in the design and implementation of research protocols involving mitochondrial physiology. This is a very real problem that can only be solved through networks on a scale such as this Action, that will work to harmonise experimental protocols across research groups. There is a real risk that data will be lost and important conclusions not drawn, due to the absence of standardised procedures and harmonisation of protocols. Therefore, by seeking to achieve consensus, this proposal provides an innovative and realistic approach to solve the problem. The advantage would be the involvement of many European countries which are presently not involved in such platforms. The main strengths are: -the will to reach standardized protocols and and ways of data presentation, that will allow an easy cross comparison of data; this aim has been reached in many other fields of research (e.g flow cytometry data, microarray analysis) - the ambition to pool together data from different groups, in order to get the statistical power that could not reached by single, small research groups.</p>	5

Added value of networking

Q4 - Is networking the best approach to tackle the challenge?	Mark
<p>The proposal addresses this question in an excellent manner.</p> <p>The main strengths are that networking is the only way to solve the problem. Networking is definitely the best approach to tackle the challenge. The aims proposed in this Action (standardization of protocols and methods, common repositories for samples and data, scaling up of datasets) can be reached exclusively by networking.</p>	5

Q5 - What is the added value of the proposed network in relation to former and existing efforts at European and/or international level?	Mark
<p>The proposal addresses this question in an excellent manner.</p> <p>The main strengths are that the membership of the network will be inclusive and as broad as possible. This is a large consortium that incorporates 24 COST country institutions, has both experienced scientists and early career investigators, is close to being gender-balanced and includes a range of different institution types and organisations. To the best of my knowledge, I cannot remember similar networks in Europe, in terms of dimensions and ambition.</p>	5

IMPACT

Scientific, technological and/or socio-economic impact

Q6 - Does the proposal clearly identify relevant, and realistic short-term/long-term impacts?	Mark
<p>The proposal addresses this question in an excellent manner.</p> <p>The main strengths are that the Action will build capacity and trans-national collaboration in the arena of European Research. The short- and long-term impact of the Action is clearly stated and realistic. Importantly, networking will be established with emerging groups, through inclusion of early career researchers, as well as with established consortia. A promising output will be the establishment of a quality management system that will have a positive impact on both basic and clinician researchers in the field.</p> <p>Both short-term and long-term impacts are clearly identified and are realistic. In the long term, the network should have very positive impact on the quality of the research and on the possibility to share data; In the short term the most important impact will be on the possibility to perform STSMs.</p>	5

Measures to maximise impact

Q7 - Does the proposal identify the most relevant stakeholders and present a clear plan to involve them as Action's participants?	Mark
<p>The proposal addresses this question in a very good manner.</p> <p>The main strengths are that the Action has identified the main stakeholders (established European and international networks of mitochondrial researchers and scientific societies) and has identified ways to engage effectively with these stakeholders. For example, open conferences and workshops that include participants from outside the Action will be organised. Also, as mentioned already, care has been taken to include early career investigators as participants, in order to aid in promoting achieving the long-term goals of the Action. Many possible stakeholders have been identified, and they fit perfectly with the aims of the Action.</p> <p>The proposal would benefit from certain improvements as more personalized and directed approach plan for relevant stakeholders, as well as a more extensive description on the actions planned for disseminating conceptions should be included.</p>	4

Q8 - Is there a clear and attainable plan for dissemination and/or exploitation of results?	Mark
<p>The proposal addresses this question in a very good manner.</p> <p>The main strengths are that the plan is according to the standard plan of data dissemination. No particular strengths or weaknesses.</p> <p>The workshop and training camps are an excellent idea, as they fit perfectly with the aims of the action, and in particular with the will to standardize methods and protocols.</p> <p>The proposal would benefit from certain improvements such as the inclusion of a clearer dissemination plan. For example, a statement of how web-based dissemination might be achieved. The inclusion of a WP with specific responsibility for dissemination and training could be considered.</p> <p>The proposers have identified the key targets for dissemination, but have not clearly stated how they expect to achieve this. The dissemination plan should be better detailed; a description of the role of website in the dissemination plan lacks.</p>	4

Level of risk and level of potential innovation/breakthroughs

Q9 - How well does the proposal succeed in putting forward potential innovation/ breakthroughs with a convincing risk/return trade-off?	Mark
<p>The proposal addresses this question in a very good manner.</p> <p>The main strengths are that the proposal recognises that achieving an 'absolute' gold standard for adoption of common procedures and quality control standards across a wide spectrum of researchers will be difficult. The proposers have a realistic expectation of the likely outcomes of the Action and have identified a number of risk factors. The potential risks are addressed and a realistic contingency plan exists.</p> <p>The risk of failing is relatively high although this is hard to judge without knowing the exact participants.</p> <p>The Action will give a secure return, as it will provide a standardized platform of methods, data sets, protocols, banks that will be of great importance not only for the researcher involved, but also for future studies and analyses by other groups.</p> <p>The proposal would benefit from certain improvements as the risk of failing is relatively high although this is hard to judge without knowing the exact participants. The socioeconomic aspect is not analyzed; this Action will benefit from a more comprehensive analysis of its long term impact on European society; as an example, the proponents say that this Action will help to distinguish noise from truth in the field of mitochondrial biology: many "noisy data" on mitochondria and the process of aging, which has a crucial impact on the society and economies of Europe</p>	4

IMPLEMENTATION

Overall Coherence and effectiveness of the work plan

Q10 - Is the work plan (WGs, tasks, activities, timeframe and deliverables) coherent, realistic and appropriate to ensure the achievement of the objectives?	Mark
<p>The proposal addresses this question in a very good manner.</p> <p>The main strengths are that this, whilst being an ambitious programme, is broken down into workpackages that have well-defined and coherent roles and responsibilities.</p> <p>The work plan is realistic and appropriate but it will very much depend on the quality of the participants.</p> <p>-The Action is organized into four WGs, which cover most of the aspects of mt-function analysis; -Each WG has clearly defined objectives and specific deliverables -WGs and are expected to greatly interact with each other; -The planned timeframe appears appropriate and achievable, with a good distribution over the duration of the Action.</p> <p>The proposal would benefit from certain improvements as the list of tasks for WP1, in particular, is extensive.</p> <p>Reducing the list of milestones and deliverables for WP1 or, some items could be managed by a dissemination and training WP. For example, the education programme for use of the MITOEAGLE data base could be the responsibility of the new WP.</p> <p>The work plan is realistic and appropriate but it will very much depend on the quality of the participants.</p>	4

Q11 - Does the proposal identify the main risks related to the work plan and have a plan for contingencies?	Mark
<p>The proposal addresses this question in a very good manner.</p> <p>The main strengths are that several significant risks to the successful completion of the Action have been identified. These include the difficulty in standardising experimental protocols, variability in quality control standards and failure of the consortium to agree on specific standards. However, the proposers recognise, quite rightly, that the group must be large if it is to achieve its objectives and that the attainment of 'absolute' standardisation is unlikely. Nonetheless, this consortium is poised to make a highly significant first step in this important area of research. Contingency plans have been described, for instance including flexibility in the form and aim of WP2 and 3, in the even that some data may not be sufficiently developed for inclusion in a repository, or to match a change in the emphasis of membership of the consortium.</p> <p>The proposal would benefit from certain improvements . The most relevant risk - the possibility that limited set of data will be available for some tissues, in particular for adipose tissue- has been identified and alternatives have been proposed to circumvent this issue.</p> <p>The proponents should be more specific on the different tissues of organisms that could be taken into account as possible alternatives to those proposed in the action: which "alternative" tissues are suitable for this action? which animal model?</p>	4

Appropriateness of management structures and procedures

Q12 - Are the management structure and procedures appropriate?	Mark
<p>The proposal addresses this question in an excellent manner.</p> <p>The main strengths are that the management structures are well defined and appropriate to the procedures. The frequency of meetings and workshops is also appropriate and will enable formation of new contacts and ongoing communication within the membership of the Action</p> <p>The management structure is well defined, and the tasks of the Management Committed defined in detail in any aspect of its activity.</p>	5

Network as a whole

Q13 - Does the proposed Network envisage the critical mass, expertise and geographical distribution for addressing the challenge and the objectives? If not, does the proposal identify the gaps in the Network and present a clear plan for overcoming the gaps? Are mutual benefits clearly ascertained in case of involvement of NNC and IPC institutions?	Mark
<p>The proposal addresses this question in a very good manner.</p> <p>The main strengths are that the network has an excellent geographical spread and contains a large number of proposers who are already engaged with the programme. A wide range of sub-fields of science are represented and the distribution between established experts and early career investigators is excellent. Whilst higher education institutions make up the bulk of the membership (as expected) there is representation from other governmental organizations, business enterprises, standards organization and NGOs. The breadth of membership that is already evident in this consortium underscores the importance and significance of the aims and objectives of this Action.</p> <p>The proposed network is wide and clearly reaches the critical mass necessary; the geographical distribution is well balanced; this aspect is particularly important when data influenced by genetics and lifestyle are collected and made available for further studies.</p> <p>The proposal would benefit from certain improvements :</p> <ul style="list-style-type: none"> - The geographical distribution is good. Without knowing the participants it is very difficult to judge if this network will be successful or it will fail. - The proposal fails to cite most of the seminal papers on mitochondrial physiology. This is in an indication that the selection of participants may not be ideal. 	4

SELECTION

COMMENT OF THE SCIENTIFIC COMMITTEE

SC	The proposed Action must develop and implement specific plans to increase the involvement of Early Career Investigators and for maintaining and monitoring gender balance.
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