

### Work And Budget Plan CA15203 Grant Agreement Period 3 01/05/2018 to 30/04/2019

01/03/2010 10 30/04/2019

# **Section I: Action Profile**

### **Action General Information**

Action Code	CA15203	MC Chair	Prof Erich Gnaiger
Action Title	CA15203 - Mitochondrial mapping: Evolution - Age - Gender - Lifestyle - Environment		
MOU	003/16	Draft MOU	OC-2015-2-19984
CSO Approval Date	2016-02-26		
Action Start Date	2016-09-12	Action End Date	2020-09-11
Science Officer	Dr Federica Ortelli	Administrative Officer	Mr Christophe Peeters

### Participating COST Members:

	ITC		Non-ITC		Total
accepted the MoU	Number	14	Number	16	30
	% of ITC in Action	46.67%	% of non- ITC in Action	53.33%	
	% of all ITC	70%	% of all non- ITC	94.12%	
Number of Action MC members	23		33		56

COST Member and Acceptance Date		
AT 23/03/2016	HU 22/03/2016	PT 28/04/2016
BE 02/05/2016	IE 29/03/2016	RO 23/03/2016
HR 06/04/2016	IL 09/03/2016	RS 01/04/2016
CZ 12/05/2016	IT 23/06/2016	SK 12/09/2016
DK 31/03/2016	LV 07/03/2016	SI 04/04/2016
EE 04/03/2016	LT 07/06/2016	ES 03/05/2016
FI 08/09/2016	MT 07/05/2016	SE 26/08/2016
FR 11/03/2016	NL 26/02/2016	CH 19/04/2016
DE 22/03/2016	NO 04/05/2016	TR 16/06/2016
EL 09/03/2016	PL 14/03/2016	UK 11/03/2016

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Register of legal Entities Brussels: 0829090573



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### International cooperation

	NNC	IPC	Specific Organis ation	Total
Number of entities formally approved to join Action	1	1	0	2
Number of countries	1	1	0	2

### **Working Groups**

	WG Title	WG Leader	Number of WG members
WG1	Standard operating procedures and user requirement document: Protocols, terminology, documentation	Dr Kathrin Renner-Sattler	70
WG2	MITOEAGLE data repository in muscle and other tissues	Dr Pablo M. Garcia-Roves	55
WG3	MITOEAGLE data repository on fat tissues and other tissues	Prof Jan Nedergaard	30
WG4	MITOEAGLE data repository for blood cells and cultured cells	Dr Nicoleta Moisoi	70



# Section II: MoU objectives and Grant Agreement Period Goals and Activities

### **Action Objectives from MoU**

#### Aim/primary Objective

include Evolution, Age, Gender, Lifestyle and Environment (EAGLE) in studies of mitochondrial function. MITOEAGLE develops harmonisation protocols towards generating a data repository on mitochondrial respiratory function. A data management system will interrelate various study-results and set them into a multidimensional context, to better diagnose mitochondrial respiratory defects

#### Secondary objectives

- 1. Intensify the dissemination of updated knowledge and know-how among the partners.
- 2.Build and improve collaborative relationships among the participating groups of the Action and interested end-users.
- 3. Optimally harmonise protocols across research groups.
- 4. Foster coordinated research activities of scientific proposals in the European Research Area.
- 5. Increase the number of active participants in the course of the COST Action.
- 6. Form a unique well-coordinated network of senior researchers and young investigators.
- 7. Include well established stakeholders.
- 8. Establish a spirit of mentorship and collaboration in contrast to fierce competition which characterised early decades of bioenergetics.
- 9. Initiate applications for funding to support international collaborative research projects.
- 10. Present and publish results of collaborative research projects within the COST Action, particularly related to STSMs supported by the Action.
- 11.MITOEAGLE recommendations: The goal is to increase the value and reduce the noise in mitochondrial research. Prespecified and time-stamped protocols are needed in practice, and researchers need to be introduced into adhering to publicly deposited protocols in practice. MITOEAGLE recommendations will provide practical guidelines for students, scientists and stakeholders.
- 12.A monitored database centres of excellence: The MITOEAGLE database will provide an invaluable tool for mitochondrial studies in the transition from exploratory preclinical research to clinical and pharmacological applications. Centres of excellence will emanate from the project?s working groups providing training programmes and diagnostic services.
- 13. Training: Enhance the rigorous training activities particularly for PhD students and young researchers (STSMs, Schools, Workshops, Conferences) in order to establish the practical guidelines introduced by MITOEAGLE and to enhance research results in the long term.



### Grant Agreement Period

Grant Agreement Period Start	01/05/2018	Grant Agreement Period End	30/04/2019
Date		Date	

# **Grant Agreement Period Goals**

Publication of paper on concepts and terminology:	· O · · · · · · · · · · · · · · · · · ·
Dissemination of preprint and journal submission of final manuscript	<ul> <li>Secondary objective 1</li> <li>Secondary objective 2</li> <li>Secondary objective 3</li> <li>Secondary objective 5</li> <li>Secondary objective 6</li> <li>Secondary objective 8</li> <li>Secondary objective 10</li> <li>Secondary objective 11</li> </ul>
Upload of datasets generated through WG 2 and 4 in internal lab developments, results of the proficiency ring test, and during application module developments.	<ul> <li>Secondary objective 2</li> <li>Secondary objective 3</li> <li>Secondary objective 5</li> <li>Secondary objective 6</li> <li>Secondary objective 8</li> <li>Secondary objective 9</li> <li>Secondary objective 10</li> <li>Secondary objective 11</li> <li>Secondary objective 12</li> </ul>
Reports with specific results on muscle fibres in comparison with an anonymous data summary, and joint publication.	<ul> <li>Secondary objective 1</li> <li>Secondary objective 2</li> <li>Secondary objective 3</li> <li>Secondary objective 4</li> <li>Secondary objective 6</li> <li>Secondary objective 7</li> <li>Secondary objective 8</li> <li>Secondary objective 10</li> <li>Secondary objective 11</li> <li>Secondary objective 12</li> </ul>
Muscle sample selection, ring test experiments including MitoEAGLE-proficiency training, data analysis by experimenters and MitoEAGLE- proficiency test manager.	<ul> <li>Secondary objective 2</li> <li>Secondary objective 3</li> <li>Secondary objective 4</li> <li>Secondary objective 6</li> <li>Secondary objective 7</li> <li>Secondary objective 8</li> <li>Secondary objective 9</li> <li>Secondary objective 10</li> <li>Secondary objective 11</li> <li>Secondary objective 12</li> <li>Secondary objective 13</li> </ul>
Testing of newly developed software modules regarding functionality and usability during proficiency tests and experimental optimization of OXPHOS protocols.	<ul> <li>Secondary objective 2</li> <li>Secondary objective 3</li> <li>Secondary objective 4</li> <li>Secondary objective 6</li> <li>Secondary objective 7</li> <li>Secondary objective 8</li> <li>Secondary objective 11</li> <li>Secondary objective 13</li> </ul>
	Upload of datasets generated through WG 2 and 4 in internal lab developments, results of the proficiency ring test, and during application module developments.         Reports with specific results on muscle fibres in comparison with an anonymous data summary, and joint publication.         Muscle sample selection, ring test experiments including MitoEAGLE-proficiency training, data analysis by experimenters and MitoEAGLE-proficiency test manager.         Testing of newly developed software modules regarding functionality and usability during proficiency tests and experimental optimization of



	data sharing beyond the published record	<ul> <li>Secondary objective 3</li> <li>Secondary objective 5</li> <li>Secondary objective 6</li> <li>Secondary objective 8</li> <li>Secondary objective 11</li> </ul>
GAPG 7	Provide a summary on education programme for MitoEAGLE	<ul> <li>Secondary objective 1</li> <li>Secondary objective 2</li> <li>Secondary objective 4</li> <li>Secondary objective 5</li> <li>Secondary objective 6</li> <li>Secondary objective 7</li> <li>Secondary objective 8</li> <li>Secondary objective 13</li> </ul>
GAPG 8	Guidelines for future research and recommendations for the evaluation of respiratory characteristics in human blood samples	<ul> <li>Secondary objective 2</li> <li>Secondary objective 3</li> <li>Secondary objective 5</li> <li>Secondary objective 6</li> <li>Secondary objective 8</li> <li>Secondary objective 11</li> </ul>
GAPG 9	Guidelines for future research and recommendations for the evaluation of respiratory characteristics in human muscle biopsies	<ul> <li>Secondary objective 2</li> <li>Secondary objective 3</li> <li>Secondary objective 5</li> <li>Secondary objective 6</li> <li>Secondary objective 8</li> <li>Secondary objective 11</li> </ul>
GAPG 10	Training of researchers towards improved reproducibility of sample preparation and respirometric evaluation	<ul> <li>Secondary objective 2</li> <li>Secondary objective 4</li> <li>Secondary objective 5</li> <li>Secondary objective 6</li> <li>Secondary objective 8</li> <li>Secondary objective 11</li> <li>Secondary objective 13</li> </ul>



# Section IV: Work and Budget Plan for the Grant Agreement Period

# Work and Budget Plan Summary

A. COST Networking Tools	EUR
(1) Meetings	50,238.00
(2) Training Schools	43,400.00
(3) Short Term Scientific Missions (STSM)	34,650.00
(4) ITC Conference Grant	10,150.00
(5) COST Action Dissemination	2,200.00
(6) Other Expenses Related to Scientific Activities (OERSA)	250.00
B. Total Science Expenditure (sum of (1) to (6))	140,888.00
C. Financial and Scientific Administration and Coordination (FSAC) (max. of 15% of B)	21,133.20
Total Grant (B+C)	162,021.20



### Meetings

### Overview

Meeting Title	Meeting Type	Dates	Location	ITC	Total Cost(EUR)
	Working Group Meeting	28/05/2018 - 30/05/2018	Lund (Sweden)	No	5,200.00
WG 1 and 2 human skeletal muscle workshop and retreat	Working Group Meeting	06/08/2018 - 10/08/2018	Copenhagen (Denmark)	No	6,240.00
MitoEAGLE WG and MC Meeting	Management Committee Meeting, Working Group Meeting, Worksh ops/Conferences	18/09/2018 - 21/09/2018	Jurmala (Latvia)	Yes	38,798.00
	-	-	-	Total	50,238.00

### Details

Meeting Type	Working Group Meeting	Working Group Meeting		
Title of the Meeting	WG 4 blood cell workshop and retreat			
Grant Period Goal(s) it will address	Upload of datasets generated through WG 2 and 4 in internal lab developments, results of the proficiency ring test, and during application module developments.,Develop recommendations for data reporting and data sharing beyond the published record,Guidelines for future research and recommendations for the evaluation of respiratory characteristics in human blood samples,Training of researchers towards improved reproducibility of sample preparation and respirometric evaluation			
Description	Working Group 4 meeting. Continuation of the WG4 meeting in Poznan			
Output(s)	Collection of primary data for databank on respirometry in blood cells. Comparison and optimization of protocols for blood cell preparation.Preparation of joint manuscript for publication.			
Location	Lund (Sweden)	ITC	No	
Start Date	2018-05-28 09:00:00	End Date	2018-05-30 17:00:00	
Duration	3 days			
Number of expected total participants	20	Number of participants to be reimbursed from COST funds	6	
Average reimbursement(per participant)(EUR)	700.00	Total Reimbursement costs (EUR)	4,200.00	
Local Organiser Support (EUR)	1,000.00		·	
Total cost of the meeting (EUR)	5,200.00			

Meeting Type	Working Group Meeting
	A



Title of the Meeting	WG 1 and 2 human skelet	tal muscle workshop and re	treat			
Grant Period Goal(s) it will address	Upload of datasets generated through WG 2 and 4 in internal lab developments, results of the proficiency ring test, and during application module developments.,Testing of newly developed software modules regarding functionality and usability during proficiency tests and experimental optimization of OXPHOS protocols.,Develop recommendations for data reporting and data sharing beyond the published record,Guidelines for future research and recommendations for the evaluation of respiratory characteristics in human blood samples,Training of researchers towards improved reproducibility of sample preparation and respirometric evaluation					
Description	Working Group 2 meeting	Working Group 2 meeting on muscle fibres				
Output(s)	Collection of primary data for databank on respirometry in human muscle biopsies. Comparison and optimization of protocols for muscle fibres preparation.Preparation of joint manuscript for publication.					
Location	Copenhagen (Denmark)	ITC	No			
Start Date	2018-08-06 09:00:00	End Date	2018-08-10 17:00:00			
Duration	5 days					
Number of expected total participants	20	Number of participants to be reimbursed from COST funds	6			
Average reimbursement(per participant)(EUR)	840.00 Total Reimbursement 5,040.00 costs (EUR)					
Local Organiser Support (EUR)	1,200.00					
Total cost of the meeting (EUR)	6,240.00					

Meeting Type	Management Committee Meeting,Working Group Meeting,Workshops/Conferences				
Title of the Meeting	MitoEAGLE WG and MC I	Veeting			
Grant Period Goal(s) it will address	Reports with specific results on muscle fibres in comparison with an anonymous data summary, and joint publication.,Develop recommendations for data reporting and data sharing beyond the published record,Provide a summary on education programme for MitoEAGLE,Guidelines for future research and recommendations for the evaluation of respiratory characteristics in human blood samples,Guidelines for future research and recommendations for the evaluation of respiratory characteristics for the evaluation of respiratory characteristics in human blood samples,Guidelines for future research and recommendations for the evaluation of respiratory characteristics in human muscle biopsies,Training of researchers towards improved reproducibility of sample preparation and respirometric evaluation				
Description	Conference joint with the MiPsociety and MitoEAGLE working group meeting with MC meeting				
Output(s)	Discussion and dissemina	tion			
Location	Jurmala (Latvia)	ITC	Yes		
Start Date	2018-09-18 15:00:00	End Date	2018-09-21 17:00:00		
Duration	4 days				
Number of expected total participants	70Number of participants to be reimbursed from COST funds43				
Average	786.00	Total Reimbursement	33,798.00		



reimbursement(per participant)(EUR)		costs (EUR)	
Local Organiser Support (EUR)	5,000.00		
Total cost of the meeting (EUR)	38,798.00		



### **Training Schools**

### Overview

Title of the Training School	Dates	Location	ITC	Total Cost(EUR)
MitoEAGLE Training School - MiPschool 2018		Tromso-Bergen (Norway)	No	43,400.00
			Total	43,400.00

Details

Title of the Training School	MitoEAGLE Training Scho	ol - MiPschool 2018			
Grant Period Goal(s) it will address	Reports with specific results on muscle fibres in comparison with an anonymous data summary, and joint publication.,Develop recommendations for data reporting and data sharing beyond the published record,Provide a summary on education programme for MitoEAGLE,Guidelines for future research and recommendations for the evaluation of respiratory characteristics in human muscle biopsies,Training of researchers towards improved reproducibility of sample preparation and respirometric evaluation				
Description	Training school on OXPHOS protocols, mitochondrial pathways, protonmotive force and respiratory control, Mitochondrial physiology, cardiac and species-specific respiratory control, cardiovascular disease and mitochondrial medicine				
Output(s)	Enhance the rigorous training level particularly for PhD students and young researchers in order to establish the practical guidelines introduced by MitoEAGLE and to enhance research results in the long term.				
Location	Tromso-Bergen (Norway)	ITC	No		
Start Date	2018-10-21 09:00:00	End Date	2018-10-24 17:00:00		
Number of trainers	8	Number of trainees	70		
Number of trainers to be reimbursed	5	Number of trainees to be reimbursed	60		
Average trainer Reimbursement(EUR)	1,260.00	Average reimbursement per trainee(EUR)	535.00		
Total trainer Reimbursement(EUR)	6,300.00 Total trainee Grant(EUR) 32,100.00				
Local Organiser Support (EUR)	5,000.00				
Total cost of the Training School(EUR)	43,400.00				



# Short Term Scientific Missions (STSM)

Number	Average cost per STSM(EUR) Total cost(EUR)			
22	1,575.00 34,650.00			
Grant Period Goal(s) it will address	Publication of paper on concepts and terminology: Dis journal submission of final manuscript, Upload of datas 2 and 4 in internal lab developments, results of the pro- during application module developments., Reports with fibres in comparison with an anonymous data summar publication., Muscle sample selection, ring test experin MitoEAGLE-proficiency training, data analysis by expe- proficiency test manager., Testing of newly developed regarding functionality and usability during proficiency optimization of OXPHOS protocols., Develop recommen- and data sharing beyond the published record, Guidelii recommendations for the evaluation of respiratory cha blood samples, Guidelines for future research and recor evaluation of respiratory characteristics in human must researchers towards improved reproducibility of samp respirometric evaluation	sets generated through WG oficiency ring test, and a specific results on muscle ry, and joint nents including erimenters and MitoEAGLE- software modules tests and experimental endations for data reporting nes for future research and aracteristics in human ommendations for the scle biopsies,Training of		
Description	STSM			
Output(s)	1. Support individual mobility. 2. Specifical contribution objectives of MitoEAGLE. 3. Strengthen the MITOEAC collaborations by allowing researchers participating in MitoEAGLE to visit an institution/organisation in anoth Country; an approved Near Neighbour Country nstitut International Partner Country institution. 5. Learn new access to specific data, methods and instruments not institutions / organisations.	GLE network. 4. Foster the COST Action er participating COST ion; an approved techniques. 6. Gain		



### **ITC Conference Grant**

Number	Average cost per Grant(EUR) Total cost(EUR)			
10	1,015.00	10,150.00		
Grant Period Goal(s) it will address	Develop recommendations for data reporting and data sharing beyond the published record,Provide a summary on education programme for MitoEAGLE			
Description	ITC Conference Grant			
Output(s)	1. Support individual mobility. 2. Strengthen the MitoE collaborations by allowing researchers participating in MitoEAGLE to participate in a conference			



### **COST Action Dissemination**

Title		Туре	Publisher/provider	Expected date of Release	Cost(EUR)
Website maintance		Action Website	BCOMM	01/10/2018	30.00
Grant Period Goal(s) it will address	Publication of paper on cor and journal submission of through WG 2 and 4 in inter test, and during application on muscle fibres in compar publication.,Develop recon beyond the published reco MitoEAGLE,Guidelines for evaluation of respiratory ch future research and recom		final manuscript,Uploa ernal lab development n module development rison with an anonymon mendations for data ord,Provide a summary future research and r haracteristics in huma	ad of datasets ge ts, results of the ts.,Reports with ous data summa reporting and da y on education p recommendation n blood samples	enerated proficiency ring specific results ary, and joint ata sharing rogramme for s for the s,Guidelines for
Description	Dissemination on project website				
Output(s)	Dissemina	ation on project v	vebsite		

Title		Туре	Publisher/provider	Expected date of Release	Cost(EUR)
Meeting material		Leaflet / Brochure	Studia	01/11/2018	70.00
Grant Period Goal(s) it will address	and journa	Publication of paper on concepts and terminology: Dissemination of preprint and journal submission of final manuscript,Provide a summary on education programme for MitoEAGLE			
Description	Programme and abstracts of training schools				
Output(s)	Programme and abstracts of training schools				

Title		Туре	Publisher/provider	Expected date of Release	Cost(EUR)
0		Leaflet / Brochure	not decided yet	01/10/2018	1,000.00
Grant Period Goal(s) it will address	and journa reporting a education recommer blood sam	Publication of paper on concepts and terminology: Dissemination of prepri and journal submission of final manuscript,Develop recommendations for reporting and data sharing beyond the published record,Provide a summa education programme for MitoEAGLE,Guidelines for future research and recommendations for the evaluation of respiratory characteristics in human blood samples,Guidelines for future research and recommendations for th evaluation of respiratory characteristics in human blood samples,Guidelines for future research and recommendations for th			ations for data a summary on arch and s in human ions for the
Description	Programme and abstracts of WG and MC Meeting				
Output(s)	Programm	e and abstracts	ts of WG and MC Meeting		

Title		Туре		Expected date of Release	Cost(EUR)
MitoEAGLE preprint		Electronic publication	METABOLISM	01/02/2019	1,000.00
Grant Period Goal(s) it will address	Publication of paper on concepts and terminology: Dissemination of preprint and journal submission of final manuscript,Reports with specific results on muscle fibres in comparison with an anonymous data summary, and joint			results on	



	publication.,Develop recommendations for data reporting and data sharing beyond the published record,Training of researchers towards improved reproducibility of sample preparation and respirometric evaluation
Description	Dissemination on website
Output(s)	Dissemination on website

Title		Туре	Publisher/provider	Expected date of Release	Cost(EUR)
Working Group contributions		Leaflet / Brochure	not decided yet	28/09/2018	100.00
Grant Period Goal(s) it will address	Publication of paper on concepts and terminology: Dissemination of preprint and journal submission of final manuscript, Develop recommendations for data reporting and data sharing beyond the published record, Guidelines for future research and recommendations for the evaluation of respiratory characteristics in human blood samples, Guidelines for future research and recommendations for the evaluation of respiratory characteristics in human muscle biopsies				
Description	Programme and abstracts				
Output(s)	Programme and abstracts				

Total Disseminations

2,200.00



# Other Expenses Related to Scientific Activities (OERSA)

Item	Cost(EUR)
Bank fees	250.00