

# **Global BioImaging Project**

# D5.1 Report on strategy for an international shadowing program in imaging infrastructure facility management

Project N.	653493
Project Title	Global Biolmaging
Project Acronym	GBI
<b>Associated Work Package</b>	WP5
Associated Task	Task 5.1
Lead Beneficiary (short name)	UNITO
Nature	Report
Dissemination Level	Public
<b>Estimated Delivery Date</b>	31/08/2016
(Grant Agreement, Annex I)	31/08/2010
<b>Actual Delivery Date</b>	08/09/2016
Task leader	Silvio Aime (WP5 Lead)
	Alessandra Viale
Contributors	John Eriksson (WP5 Co-Lead)
	Inga Pukonen



Funded by the Horizon 2020 Framework Program of the European Union



#### **Abstract**

Work Package 5 (WP5) of the Global Biolmaging (GBI) project is aimed at setting up a shadowing program for exchange of people and experience within imaging communities across the globe. Thanks to such program European and international imaging facility operational staff, such as laboratory managers or specialized technical personnel, will be able to visit other infrastructure sites across Europe, India and Australia and learn from the exposure to different experiences. Australian, Indian and European imaging facilities interested in hosting visiting staff within the GBI project have been identified. Euro-Biolmaging Node Candidates have been asked to indicate their availability to host facility staff by a short survey and 11 Node Candidates have responded positively. The shadowing program will consist of 2-3 rounds of people exchange. The first call for shadowing has been set up and will be published in September 2016 to select the first 3 European and 3 Indian-Australian facilities participating in the exchange, which is foreseen for the beginning of 2017.

#### **Table of Contents**

1.	General Strategy for an international shadowing program in imaging infrastructure facility management (Task 5.1)	Page 3
2.	Identification of imaging facilities from Europe and India/Australia	Page 3
	interested in the program for the first round of shadowing	
3.	Call for shadowing	Page 4
4.	The shadowing practicalities	Page 4
5.	General guidelines for shadowing in imaging infrastructure facility	Page 5
	management	
6.	Annex 1: summary tables of information about hosting expectations from	Page 7
	EuBI Node Candidates	
7.	Annex 2: Online form used to collect expressions of interest in	Page 10
	participating in the program as hosting facilities from EuBI Node	
	Candidates	
8.	Annex 3: Shadowing program application form for a visiting staff	Page 12
9.	Annex 4a: Feedback form for hosting facility	Page 16
10.	Annex 4b: Feedback form for visiting staff	Page 19

2



# 1- General strategy for an international shadowing program in imaging infrastructure facility management (task 5.1)

The proposed strategy for the international shadowing program foresees:

- 1) Identification of imaging facilities from Europe and India/Australia interested in the program as hosting facilities;
- 2) An open call for shadowing to select facilities which will send their staff to the hosting partners (with access to limited amount of travel grants);
- 3) Evaluation of the applications received from interested facilities;
- 4) Coordinating communication and assisting with agreements between the selected host and guest facilities for organizing the visits;
- 5) Evaluation of the shadowing program after the exchange has taken place by collecting feedback from both hosts and guests.

A draft of general guidelines for the shadowing program and the forms for registering as interested host facilities, applying to the call, and giving feedback after the visit are attached to the present report.

#### 2- Identification of Imaging facilities from Europe and India/Australia interested in the program

The Global BioImaging Project proposal was built on three existing collaboration agreements for successful operation of imaging infrastructures, which Euro-BioImaging had signed with its international counterparts, namely the Australian Microscopy and Microanalysis Research Facility (AMMRF), the National Imaging Facility (NIF, Australia) and India-BioImaging to support imaging-based research in the areas of biological and medical sciences.

During the first Exchange of Experience (EoE I) workshop (Heidelberg, 8-10/6/2016), discussion about the shadowing program among the project leaders and Indian/Australian Imaging facilities evidenced a great interest by all the involved partners. In particular, NIF, AMMRF and India BioImaging would like to participate with one facility each. Therefore, it is foreseen that two biological imaging facilities (one from AMMRF and the National Center for Biological Sciences in Bangalore) and one medical imaging facility (from NIF) will participate in the first round of exchange, which should take place at the beginning of 2017.

On the European side, Euro-Biolmaging Node Candidates have been invited to fill in an on-line form to express their interest in hosting visiting staff in the shadowing program. 7 Biological Imaging Node Candidates representing 8 imaging facilities, 3 Biomedical Imaging Node Candidates representing 5 imaging facilities and 1 Mixed Advanced Light Microscopy (ALM)/Medical Imaging Node Candidate have responded to the survey. The information collected about available hosting facilities, preferred hosting periods, types of shadowing work, preferred positions of hosted staff and specific expectations are summarized in Table 1.

The same information is being (also) collected from Australian/Indian facilities and overall these data will be used to compile a complete list of all the hosting facilities and of what they are offering to visiting staff. This complete list will be provided to the facilities, which will be selected

3



for the exchange program, in order to allow their staff to choose the partner facility that best fits its shadowing expectations/goals.

### 3- Call for shadowing

The first open call for the shadowing is currently being prepared. The call will be managed via an will survey and it be published on the GBI Project (http://www.eurobioimaging.eu/global-bioimaging) in September 2016 (Annex 3). Interested facilities (both European and international) will have an opportunity to apply for the travel grants for one of their members of staff to enable the exchange of people in the shadowing program. 3 grants for Australian/Indian facilities staff and 3 for EuBI Node Candidates staff are foreseen for the first call, most likely for exchanging 4 people among the biological imaging facilities and 2 among the medical imaging ones. Deadline for applications submission will be in the end of September.

Applications will be reviewed by a panel of external evaluators. The panel will be composed of three members: one member will be selected among the current list of Euro-BioImaging reviewers of user access applications, and the other two will be selected among a list of suitable candidates provided by Indian and Australian partners. They have been invited to provide their suggestions by e-mail before the 20/09/2016 to ensure there will be enough time to contact the suggested candidates and to set-up the panel before the deadline for the presentation of the applications.

The evaluators will be invited to review the application, to classify it as belonging to the biological or bio-medical imaging fields (in order to assign it appropriate hosting facility), and to score it on the basis of conformity between the position and CV of the candidate to the requested type of shadowing.

The results will be communicated to the applicants before the end of November 2016, in order to allow the staff plan their visits by the beginning of 2017.

#### 4- The shadowing practicalities

Once the 6 facility staff members admitted to the exchange program have been selected, they will receive a confirmation message indicating the hosting center/destination facility assigned to them according to reciprocal interests/requests/hosting solutions. At the same time each participating facility will be provided with the contact details of their shadowing partners to agree about the details and the arrangements of the visits. After the shadowing has taken place, a feedback form will be compiled by all the involved facilities – both hosting and visiting – to get information about their satisfaction/success of the shadowing, issues to be solved (if any), possible comments for the improvements to the entire process to be introduced in the next call and any other suggestion from the directly involved people which may be of help in optimizing/developing the strategy for an international shadowing program in the future (see feedback forms in Annexes 4a and 4b).

4



# 5- General guidelines for an international shadowing program in imaging infrastructure facility management

Job shadowing in imaging infrastructure facility management is a program where an imaging facility hosts a person coming from an international partner imaging facility to share with him/her experience and knowledge on a certain type of work related to the facility itself. This is accomplished by providing the guest with an experienced local worker who accompanies him/her while performing the job.

This allows facilities to establish or strengthen collaboration and to learn from each other on issues such as how to improve their efficiency in various aspects of their work functionality. This is of course very important for newly built facilities, but also the most established and experienced ones may benefit from the exchange of best practices among the facilities staff.

The following types of job shadowing are foreseen:

- Aspects related to user access and open access provision
- Quality management and quality control
- Software tools
- Image data analysis, storage and management
- Facility organization and management
- Latest technologies (hands-on training will be possible)

The general procedure to organize international shadowing sessions is as follows:

- 1) Imaging facilities interested in the program as hosts are identified by an on-line registration form;
- 2) A list of available hosting facilities, including details of what they plan to offer during the shadowing (number of accepted persons, types of shadowing, length of shadowing periods etc.) is published and kept up-to-date;
- 2) Periodical open calls for shadowing are published: imaging facility staff members interested in visiting one of the available hosting facilities apply to the call by filling in an on-line form, where they are asked to indicate some personal professional information and what kind of expectations they have for the upcoming shadowing;
- 3) Received applications are evaluated and scored by a panel of international external technical experts on the basis of the compliance between the position and CV of the candidate to the requested type of shadowing. The number of admitted people exchanges can vary depending on the hosts availability and on the travel funding opportunities: applicants are admitted to the program according to the score they have obtained from the reviewers. The excluded applicants (if any) may be contacted at a later time if resources become available.

5



- 4) Selected guest candidates are supported by the shadowing program coordinator in contacting the preferred/suitable hosting facilities: the host and the visitor agree about all the practical issues related to the visit;
- 5) The visit takes place at agreed time period;
- 6) Both the host and the visitor give their feedback on the shadowing after the visit is completed by filling-in on-line feedback forms which will be made available to all the involved parties (host, guest, organizer).

Some points must be respected both by the host and by the visitor.

#### The guest should:

- Provide the host with an outline of what they expect from the shadowing before the shadowing takes place;
- Provide information of the background and expertise of the visiting staff so that the shadowing can be structured in most productive manner;
- Maintain confidentiality at all times during and after the visit.

#### The host should:

- Agree with the guest about the type of job shadowing that will take place and the related modalities (timetables, access to laboratories/instruments etc.) prior to the visit;
- Assist the visitor in travel and lodging arrangements, if needed;
- Provide the visitor with information on the host facility at their arrival (infrastructure description, local rules, safety issues etc.).

Any other practical arrangement is at the host/guest discretion.

6



#### Annex 1.

# Table 1a: Summary of information about hosting expectations of EuBI Node Candidates collected by the on-line survey

### **BioMedical Imaging Node Candidates/Facilities**

Country	Name of the EuBl Node Candidate	Name and location of participating facility(ies)	How many places for visitors would you like to offer?	Type of work shadowing you plan to offer (aspects related to user access, quality management, software tools, image data storage and analysis, core facility management, hands-on training on specific technology, other)?	Preferred position of the person participating in the exchange (manager, imaging specialist, other)?	For how long would you host the visitor?	Specific expectations about the GBI exchange programme (if any)?
Italy	Molecular Imaging Italian Node	University of Torino	One	Hands-on training		Up to two weeks	
		University of Antwerp (Molecular Imaging Center Antwerp (MICA); https://www.uantwerpe n.be/en/rg/mica/	Up to two	Insights (and hands-on training) in translational and integrated PET/SPECT Molecular Imaging research covering all aspects:  1. Radiotracer development and quality assurance  2. Small animal PET imaging in neurosciences or oncology (experience in managing challenging longitudinal industry projects).  3. Clinical PET studies in neurosciences (Alzheimer, neuro-inflammation)  4. Data processing and kinetic modelling	Person with an imaging background	Up to two weeks	Exchange of best practices     Initiating new international collaborations     Stimulate mobility of our staff as well
Belgium	FLAMINGO	University of Antwerp (Bio-Imaging Lab); https://www.uantwerpe n.be/en/rg/bio-imaging- lab/	Up to two	Small animal MRI imaging core facility (broad coverage from general core facility management to hand-on training on MRI acquisition, data processing (software tools), archiving etc.).	Imaging scientist (rather than general manager)	Up to two weeks	Exchange of best practices     Expand our network of international collaborations and setting-up future collaborations
		KU Leuven	Up to two	Hands-on training on human PET-MR/PET-CT and micro PET-MR/PET-CT imaging and data analysis with state of the art software	Imaging specialist/technologist	Up to three weeks	Preferably someone with some experience so that a bilateral win-win can be foreseen
The Netherlands	Preclinical Imaging Centre (PRIME) Molecular Imaging Dutch Node	Radboud University Medical Center, Nijmegen	Up to two	Hands-on training on specific technology	Researcher	One week	None

#### Mixed Biological-Biomedical Node Candidates/Facilities

Country	Name of the EuBI Node Candidate	Name and location of participating facility(ies)	How many places for visitors would you like to offer?	Type of work shadowing you plan to offer (aspects related to user access, quality management, software tools, image data storage and analysis, core facility management, hands-on training on specific technology, other)?	Preferred position of the person participating in the exchange (manager, imaging specialist, other)?	For how long would you host the visitor?	Specific expectations about the GBI exchange programme (if any)?
The Netherlands	Excellence in Imaging Maastricht	Maastricht University	Up to three	All aspects, also in terms of discussion to learn from our side	Lab manager/Node leader	Up to two weeks	Interactions and learning from each other



### **Biological Imaging Node candidates/Facilities**

Country	Name of the EuBl Node Candidate	Name and location of participating facility(ies)	How many places for visitors would you like to offer?	Type of work shadowing you plan to offer (aspects related to user access, quality management, software tools, image data storage and analysis, core facility management, hands-on training on specific technology, other)?	Preferred position of the person participating in the exchange (manager, imaging specialist, other)?	For how long would you host the visitor?	Specific expectations about the GBI exchange programme (if any)?
EMBL	ALM Node	Advanced Light Microscopy (ALM) Facility, EMBL, Heidelberg, Germany	We are flexible depending on the aims and available resources	In general open to accept job shadowing visitors in all areas we cover ( <a href="www.embl.de/almf">www.embl.de/almf</a> ) as long as the visit makes sense for the visitor and we have capacity for the visit at the projected time.		We are open to anything fitting to our availability and financial resources of the visitor	
Czech Republic	Prague Node: AL and EM Multi Modal Multi Sited Node	Microscopy Center, Institute of Molecular Genetics ASCR, Prague	Up to two	Super-resolution microscopy Live-cell imaging and FRAP	CF manager, technical specialist	Up to two weeks	
Finland	Finnish ALM Node	Turku Biolmaging - Turku, Finland www.bioimaging.fi	Up to two	Software tools, Image analysis and hands-on training on the technologies we offer for Euro-Biolmaging	Imaging specialist	Up to two weeks	
Bulgaria	Sofia EuBl Node	LMF, Institute of Molecular Biology BAS, Sofia 1113, Bulgaria	One	Hands-on training on live cell imaging and image data analysis	Imaging specialist	Up to two weeks	
France	France Biolmaging	MARS (Montpellier) PICsL (Marseille)	Two for MARS Three for PICsL	Hands-on training on specific technologies: High resolution microscopy with 3 D STED and PALM / STORM, Light sheet microscopy, for both technics we start from the sample preparation to reach the analysis.  We train beginners on Image treatment using ImageJ-FIJI and for writing automatisation's treatment with macro commands. In the field of electron microscopy, we offer training on Serial Block Face – scanning EM microscope, sample preparation, new techniques such as high-pressure freezing, immunocytochemistry by Tokoyasu or electron tomography with TEM microscopy.  Methods and analysis of constraints to the development of a provision of scientific equipment service. Quality management.  Training on how to develop a contributory model for managing a scientific platform.  Know how to read and write a technical specification within the framework of a tender  Law, regulations of the tendering, billing service  Relationship to the environment, mounting a local competence network, human relations at work, motivation in a group.  Establish and improve its working organization with IT tools (Mind Mapping, Gantt Chart)  Target the instrument you need and manage its obsolescence  Evaluate the performance of the instrument and make it visible.  Implementation of indicators (downstream and upstream) to well manage a platform and to give wide overview of it's operating.	Manager and imaging specialists	Up to two weeks	Establish long terms links and share competencies and technical solutions.
		Paris Centre: Imagopole-Pasteur Paris Centre: PICT-Curie Bordeaux: BIC; IdF Sud: Imagerie Gif, BioEmergences, LOB	Up to two for Paris Centre Imagopole Pasteur Up to three for Paris Centre PICT- Curie Up to two to Bordeaux BIC Up to Three in IdF Sud	Paris Centre Imagopole Pasteur: We can basically offer all of the above with the proviso that our local expert on the particular item is available. We can also offer more specific insights on imaging on infectious biology  Paris Centre PICT-Curie: aspects related to user access, image data storage and analysis  Hands-on training on CLEM, Light Sheet Microscopy, 3D Multi-angle TIRFM, double STORM Multi Focus Microscopy.  Small animal longitudinal studies (in oncology)  Bordeaux BIC: user access, quality management, software tools, image analysis, core facility management, hands-on training on super resolution microscopy STED/STORM/PALM, two photon Imaging, FLIM, video-microscopy IdF Sud: quality management, core facility management in Imagerie Gif; software tools, image data storage and analysis in BioEmergences; Hands-on training on specific technology: at LOB (new contrasts, in depth in vivo imaging, MLSM & SPIM); At BioEmergences (3D+time in vivo in to multiscale imaging – MLSM & SPIM), at ImagerieGif (CLEM)	Any at Paris Centre Imagopole Pasteur & Idf Sud: Core F Managers or Imaging specialists Paris Centre PICT-Curie & Bordeaux-BIC	Flexible in all cases from 4 weeks to 2 months depending on the topic	Enlarging our international network of interactions; Exchange on practices, international visibility, Facilitating further common actions or joined programme, with core F staff and Core F users from other countries. Eventually helping research team collaborations between different countries

D5.1 Report on strategy for an international shadowing program in imaging infrastructure facility management



Country	Name of the EuBI Node Candidate	Name and location of participating facility(ies)	How many places for visitors would you like to offer?	Type of work shadowing you plan to offer (aspects related to user access, quality management, software tools, image data storage and analysis, core facility management, hands-on training on specific technology, other)?	Preferred position of the person participating in the exchange (manager, imaging specialist, other)?	For how long would you host the visitor?	Specific expectations about the GBI exchange programme (if any)?
Belgium	LIMBO	University of Antwerp, Core facility for microscopy	Up to two	All aspects of managing a core facility as well as hands-on expertise with advanced microscopy techniques and automated analyses.	No preference	Up to two weeks	Exchange of experiences     Mobility of staff     Network / collaboration opportunities
The Netherlands	Erasmus MC OIC ALM Rotterdam Node	Erasmus MC OIC - Advanced Light Microscopy Rotterdam Node	Up to two	Aspects related to user access, quality management, software tools, image data storage and analysis, core facility management, hands-on training on specific technology	Imaging specialist	Up to two weeks	



Annex 2. Online form used to collect expressions of interest in participating in the program as hosting facilities from EuBI Node Candidates

GLOBAL BIOIMAGING growing collaboration	
Registration for Global Biolmaging shadowing programme	
* Name of the EuBl Node Candidate  * Name and location of participating facility(ies)	
* Contact person	
Name  Email Address	
Phone Number	
* How many places for visitors would you like to offer?  One  up to two  up to three  Other (please specify)	



		is, core facility management, hands-on training on
specific technolog		, core recently management, management and entire an
Preferred position	of the person participating i	in the exchange (manager, imaging specialist, other)?
For how long wou	ld you host the visitor?	
	•	
Up to two weeks		
Up to three week	S	
Other (please spe	ecify)	
Do you have nose	ibilities to support the visite	r in finding affordable accommodation (existing guest
-	al with hotels close by, etc)?	
nouse, opesiur usi		

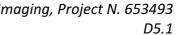


# Annex 3. Shadowing program application form for a visiting staff

	GLOBAL BIOIMAGING growing collaboration
;	Shadowing program application form for a visiting staff
* Personal informatio  Name  Address	n
City/Town State/Province ZIP/Postal Code	
Country  Email Address  Phone number	
	g facility / Node Candidate
* Country	
* Research infrastruc  Euro-BioImaging  AMMRF  NIF  India-BioImaging	ture



* Address of the fac	cility sending a staff member
Contact person	
Title	
Address	
City/Town	
State/Province	
ZIP/Postal Code	
Country	
Email Address	
Phone Number	
* Danitian.	
* Position:	
Core facility man	ager
Technical staff	w.)
Other (please sp	ecity)
* Field of expertize:	
Biological imagin	g
Molecular imagir	g
Medical imaging	



Multi-modal advanced light	PET, SPECT	Dual PET (or SPECT)/MRI
microscopy	MRI/MRS	Phase contrast imaging
Super resolution microscopy	СТ	Population imaging
In vitro functional Imaging (Fluorescence and Raman	Ultrasound	Image and data analysis
spectroscopy)	Optical imaging	Animal models
High-throughput microscopy	Photoacoustic imaging	Imaging probes
EM	Dual PET (or SPECT)/CT	Cell culture
CLEM		
Mesoscopic imaging		
Other (please specify)		
'		
how long have you been v	vorking at your imaging facility?	
	vorking at your imaging facility?	
ease describe in few words	(max. 200) your current tasks at	your imaging facility:
ease describe in few words		your imaging facility:
ease describe in few words	(max. 200) your current tasks at	your imaging facility:
ease describe in few words	(max. 200) your current tasks at	your imaging facility:
ease describe in few words	(max. 200) your current tasks at	your imaging facility:
ease describe in few words	(max. 200) your current tasks at	your imaging facility:
ease describe in few words	(max. 200) your current tasks at	your imaging facility:
ease describe in few words	(max. 200) your current tasks at	your imaging facility:

growing collaboration

14



* What kind of job shadowing are you most interested in?
Aspects related to user access
Quality management
Software tools
Image data analysis
Image data storage and management
Facility organization and management
Latest imaging technologies
Other (please specify)
* Upload your CV using this <u>link</u>
* Please describe in few words (max. 200) your expectations about this shadowing program:
* Place unlead a letter of annual of the application along the property of the sility manager
* Please upload a letter of approval of the application signed by your supervisor/facility manager using this <u>link</u>



# Annex 4a. Feedback form for hosting facility

GLOBAL BIOIMAGING growing collaboration				
\$	Shadowing program: Feedba	ck form for hosting facility		
* Name of the hosting	facility / Node Candidate			
* Country				
* Research infrastruct	ture			
AMMRF				
○ NIF				
India-BioImaging				
* Address of the hosti	ing facility			
Contact person				
Title				
Address				
City/Town				
ZIP/Postal Code				
Country				
Email Address				
Phone Number				

16



*	Name of the vising person
*	Facility he/she comes from
*	Person assigned as a supervisor for the visiting staff:
	Name
	Title
	Email Address
	Phone Number
	Trong Namber
*	Position of the supervisor of visiting staff
	Core facility manager
	Technical staff
	Other (please specify)
	Cariot (product speeding)
•	When did the job shadowing take place?
*	Duration of the shadowing?
	2



* Which type of job shadowing has taken place?					
Aspects related to user access					
Quality managemer	Quality management				
Software tools	Software tools				
Image data analysis	3				
Image data storage	and management				
Facility organization	and management				
Latest imaging tech	nologies				
Other (please speci	fy)				
* In a scale from 1 to a (1: negative; 5 highl		ou evaluate the job s	hadowing program?	5	
	2	3	4	5	
(1: not at all, 5 yes o	ompletely)  2	3	4	5	
* Has this job shadowing been useful for your facility? Please describe how.  * Did you encounter any issues during the shadowing? Please describe shortly.  Would you have some suggestions on how the program could be improved?					



# Annex 4b. Feedback form for visiting staff

GLOBAL BIOIMAGING growing collaboration						
	Shadowing program: Feedback form for visiting staff					
* Personal information	1					
Name						
Title						
Address						
City/Town						
ZIP/Postal Code						
Country						
Email Address						
Phone Number						
Name of the facility / Node Candidate coming from						
* Name of the visited i	* Name of the visited imaging facility / Node Candidate					
* Address of the visited facility						
Contact person						
Title						
City/Town						
Country						
Email Address						

D5.1 Report on strategy for an international shadowing program in imaging infrastructure facility management



* Your position					
	Core facility manager				
$\bigcirc$	Technical staff				
	Other (please specify)				
* Pe	riod and duration	of the job shadowin	g:		
* Wh	nich type of job sh	adowing has taken	place?		
	Aspects related to u	ser access			
	Quality managemen	t			
	Software tools				
	Image data analysis				
	Image data storage	and management			
	Facility organization	and management			
	Latest imaging tech	nologies			
	Other (please specif	y)			
	a scale from 1 to 5 negative; 5 highly		d you evaluate the jo	b shadowing progra	ım?
(	1	2	3	4	5
		5: Were you satisfied	on hosting and guid	lance by hosting fac	ility and
	pervisor? not at all, 5: yes o	completely)			
	1	2	3	4	5
					2



* In a scale from 1 to 5: How did the experience responded your expectations?					
	1: it did not respond	l at all; 5: it respond	ed very well)		
	1	2	3	4	5
				U	
*	Do you think this job	shadowing will enh	nance your personal	/career development?	If yes, how?
*	Do you think this job	shadowing will affe	ect your facility's per	formance? If yes, how	?
	Did you encounter a	ny issues during vo	ur stay at the host fa	acility? Please describe	e shortly.
		3,7		•	
	Would you have som	ne suggestions on h	ow the program cou	ld he improved?	
	vvould you have son	e suggestions on n	——————————————————————————————————————	na be improvea :	
					3