

1. Publishable summary

1a. Summary description

The European Molecular Biology Laboratory (EMBL) has a strong tradition in promoting interdisciplinary basic research in molecular biology. With over 85 laboratories in eight Research Units at five facilities in four European countries, working on topics ranging from structural to organismal biology and from computing and biophysics to chemical biology, the EMBL is one of the top research institutions in the world*. The EMBL Interdisciplinary Postdoc (EIPOD) fellowship programme makes use of this unique international, multidisciplinary research environment to broaden the interdisciplinary education and expertise of Experienced Researchers (ERs). The scheme is based upon EMBL inviting young researchers to propose interdisciplinary projects of their choice to EMBL faculty of their preference. Candidates are asked to contact at least two group leaders, preferably from different Research Units, to discuss and shape projects that bring together separate scientific disciplines or transfer techniques to new usage. Scientific excellence of applicants and interdisciplinarity of the proposed work are evaluated by an independent selection committee composed of EMBL Heads of Units and other internationally renowned external scientists in a two-step procedure, involving a pre-selection followed by an interview meeting. Besides high-level interdisciplinary research training, EIPODs receive additional vocational training, special career development support and can join the EMBL dual mentorship scheme. An active alumni network facilitates reintegration into national research environments. EIPOD Fellowships last three years.

* EMBL ranks as top European institute and fifth worldwide in molecular biology and genetics [Scimago Institutions world report 2013 (period 2007-2011); downloaded September 5th, 2013]

1b. Work carried out to achieve objectives

Calls for Applications

Under the COFUND grant four fellowship calls were executed. The preparatory work associated with a call opening included devising and implementing an advertising strategy to attract top level researchers on a global scale (web and print advertising, attendance at conferences and job fairs, updating EMBL web pages with appropriate call details). Contact information for the EIPOD office was provided on the programme web pages and on all advertising material (posters, brochure, flyers). Appropriate logos (EU flag and Marie Curie Cofund logo) recognizing the financial support from the EU were also included on all advertising material and on the web site (see uploaded documents). Table 1 shows the increase in the number of submitted applications during the progression of the grant consistent with the advertising efforts to increase the visibility of the programme.

Table 1: Total number of applications per EIPOD call

EIPOD Recruitment	Total number of applications
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2009	184
2010	211
2011-call 1	227
2011-call 2	308

Following the closing of a call the EIPOD office co-ordinated the processing and evaluation of all applications by faculty and externals needed for the ranking of applicants and establishment of a shortlist for interview. The programme administrator, under the direction of the Academic Co-ordinator, was responsible for the logistics of the interview meeting which included helping candidates, external scientists and in some cases faculty with their travel and accommodation needs, answering any questions invited applicants had and helping them prepare for the interview meeting.

Starting with the 2011 call the EIPOD office also introduced a “Welcome information event” held just prior to the official interviews. The purpose of the event was to provide candidates with detailed information on EMBL, the postdoctoral programme and employment conditions. This was accommodated in a series of short talks from the EMBL Academic Co-ordinator, the EIPOD programme administrator and a representative from the Human Resources department and also provided candidates with the opportunity to ask any questions they may have. Furthermore, the information was provided in writing in a Welcome pack that candidates received prior to the official interviews as with past calls.

Support and Training for EIPODs at EMBL

The EIPOD programme administrator is the main contact point for EIPODs at EMBL and assists them with all queries they have when joining EMBL and during their fellowship time. The fellowships come with a limited number of administrative obligations on the part of the fellows that is monitored by the programme administrator. These included preparing a one-year report on the status of the project and completing an exit questionnaire at the end of the fellowship. EIPODs shared between more than one EMBL site also had access to funds to support their travel and accommodation to visit their partner labs. The funds were administered by the EIPOD office. EIPOD fellows took part of the Second mentorship programme and were encouraged to meet regularly with their second mentor.

One of the main missions of EMBL is to provide training at all career levels. By the nature of the projects with which EIPODs join EMBL they receive interdisciplinary training in their chosen areas. Outside of the lab they also have access to a vast array of courses covering career development, language courses, IT courses and soft skills courses incorporated in the General Training and Development Programme administered by the EMBL Human Resources department. EIPODs are made aware of training opportunities when they first join EMBL and reminded periodically of

these opportunities during their fellowship time. EMBL also has a very active seminar and conference programme which EIPODs are encouraged to participate in.

At the end of their fellowship time, EIPODs are asked to complete an exit survey so that their experiences and feedback from their EIPOD training can be captured and used in the future developments of the programme. The EMBL Alumni Relations department is available to all staff including EIPODs and can provide contacts helping with reintegration back in the home country or a third country following a stay at EMBL.

Development for the programme

During the course of the grant the EIPOD office worked together with the EMBL IT services on a project to replace the various databases needed to carry out a call for applications. The strategy was to replace components of the existing software in a modular fashion such that new components were put in to use as they were ready and tested. The new software was developed based upon the needs and feedback from all players in the application process (applicants, referees, programme administrator, faculty). The first module prepared was to handle the evaluation of candidate application by faculty and was put into production in 2012. Modules to replace the applicant and referee databases were prepared and put into use in 2014.

The programme also invested considerable resources in the development of the programme website (www.embl.org/eipod). A google analysis of the old pages to see what was most useful to visitors was used as the starting point to completely redesign the programme pages. The new pages went live in 2012.

The programme also developed the first ever postdoctoral brochure for the programme which was printed in the second half of 2013. The brochure provides an overview of postdoctoral life at EMBL and includes a detailed section covering the EIPOD fellowship programme and the Cofunding received with appropriate EU logos. The brochure is used to promote the programme at job fairs, meetings and is also available to the vast number of conference participants we welcome to EMBL each year for the numerous conferences organized by our Course and Conference department.

1c. Main Results

i) One of the major results of the project was the successful welcoming of 66 fellows who received interdisciplinary training at EMBL. An overview of the statistics of the four calls that took place under the grant is provided in Table 2.

Table 2: Call Statistics

		Total applications				Invited candidates				Recruited fellows			
Career	Ph.D.	56%	60%	55%	60%	45%	57%	52.5	50%	56%	72%	59%	56%

Stage	Ph.D.	56%	60%	55%	60%	45%	57%	%	50%	56%	72%	59%	56%
	1 st Postdoc	24%	30%	32%	25%	27%	31%	40%	38%	25%	22%	41%	16.7 %
	2nd Postdoc	20%	10%	13%	15%	27%	12%	7.5 %	12%	19%	6%	0%	27.8 %
EMBL member and associate state		39%	29.8 %	31.3 %	28.3 %	45%	53.1 %	58%	50%	44%	61%	53%	56%
EU member state		43%	37%	33%	31.5 %	60%	61%	60%	57%	75%	67%	53%	56%
% Female		39%	38%	38%	38%	48%	41%	45%	38%	38%	37%	76%	33%

2009

2010

2011: Call 1

2011: Call 2

Of special note is that the 66 fellows supported by the project come from 29 different countries in line with the project objectives of promoting the programme on an international level. The majority of the fellows who profited from the training opportunity were at the Ph.D. stage of their career when they joined EMBL and the programme saw excellent gender balance. Forty-six percent of the fellows who were supported by the grant were female.

ii) Training

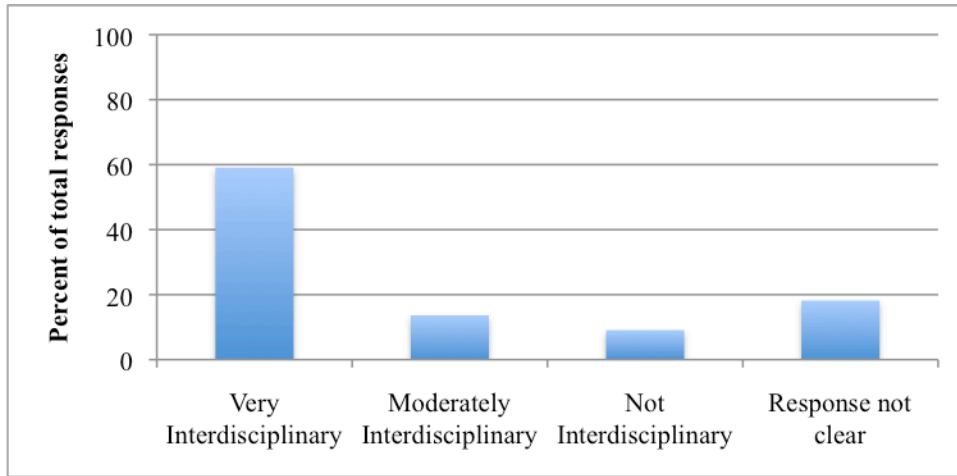
One of the main missions of EMBL is to provide training to scientists at all career stages. EIPOD fellows benefit from a) interdisciplinary training received when carrying out their projects and b) the availability of training courses and workshops on offer to them at EMBL

a) Interdisciplinary Research Projects

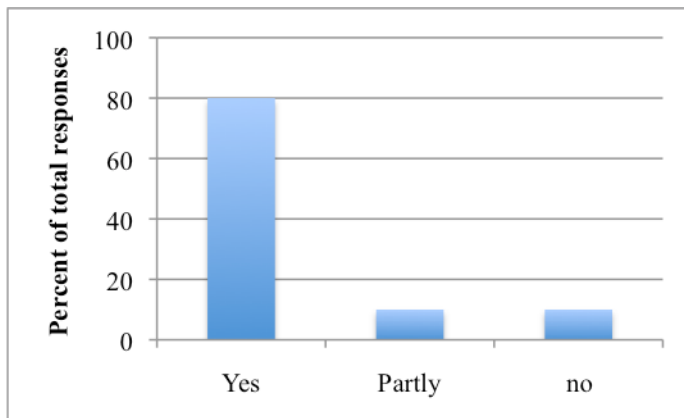
The premise of the EIPOD fellowship programme is to support interdisciplinary research. As such all fellows who take part in the programme are expected to receive interdisciplinary research training via their research project. The success of this objective was monitored by the programme in the form of an exit survey. A summary of the responses to the relevant questions from the survey are shown below. A free text field was provided with each question to allow for comments.

Survey Results:

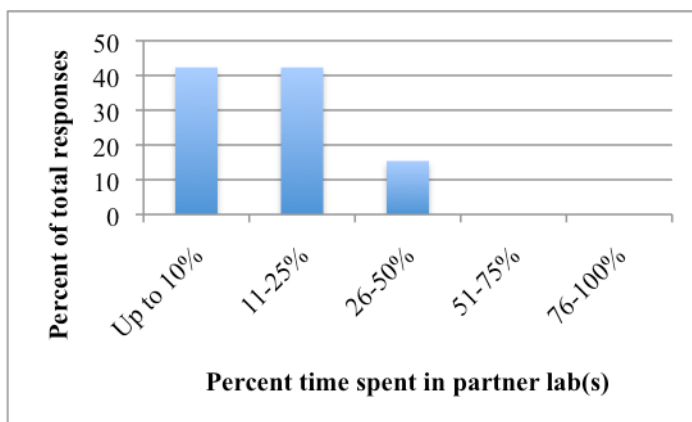
1. How interdisciplinary was your project?



2. Did you benefit from the interdisciplinary nature of your project?



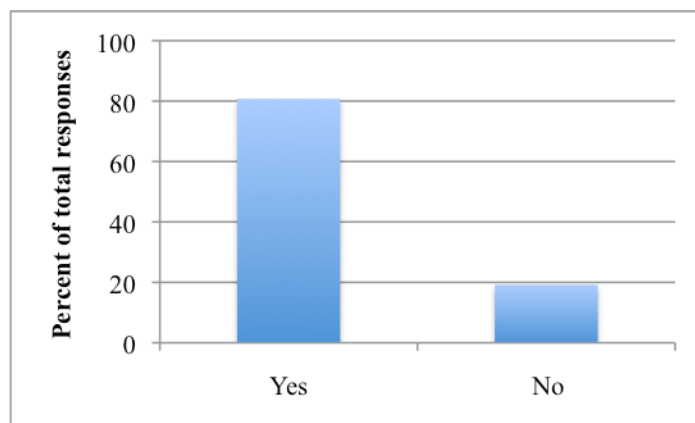
3. How much time did you spend in the partner lab(s)?



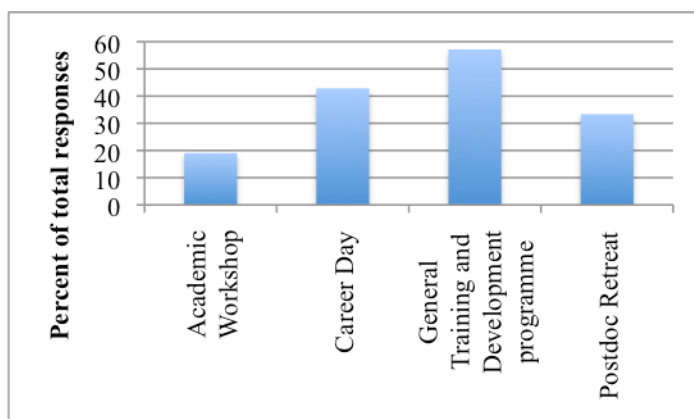
b) Training outside of the lab

Fellows also had access to a number of training activities and workshops designed to foster career development and prepare fellows for their next career steps after EMBL. The extent to which fellows took advantage of these opportunities and the types of course they found most interesting were monitored by way of the exit questionnaire. The relevant questions and responses are shown below.

Did you take advantage of any of the training activities or events available at EMBL (ie Academic Workshop, Career Day, Postdoc Retreat, General Training and Development Programme)?



The majority of EIPODs funded by the grant took part in one or more available training activity during their time at EMBL (see graph above). Participation at courses and workshops specifically mentioned by the fellows is shown in the graph below. Please note that fellows were not restricted in the number of courses they mentioned.



Many of the fellows took part in one or more of the courses on offer from the EMBL General Training and Development programme which includes courses on language training, IT courses, career development courses (ie. presentation skills, project management etc.) and soft skills courses (ie. time management, conflict resolution etc.)

iii) Potential impact

EMBL offers fixed term positions meaning that there is a constant turnover of staff. Postdocs may stay up to a maximum of five years provided that appropriate funds are available. They then leave EMBL returning to their home country or to a third country. As such, EIPODs act as ambassador's bringing their knowledge, training and expectations to the next institute/work place that they join. From our Alumni Relations department we know that approximately 80% of our postdocs remain active in research when leaving EMBL and about the same fraction take up a next position in an EU member state.

One measure of the output of the fellows is their publications. Table 3 provides an overview of the current number of publications (broken down as first and co-author publications) for fellows supported by the grant. It should be noted that at the time of this report many of the fellows from the last intake year onto the grant had not yet finished their fellowship and many from the previous intake years were still at EMBL on other funding sources. We thus expect that the number of publications from many of these fellows will increase with time as they finish up their projects and prepare for their next career steps.

Table 3: Publication summary until February 2015

Intake Year	Number of Fellows (Resignations or switched funding)	Total number of Co-author publications	Number of First author Publications

Total	66 (8)	59	32
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*Please note that fellows who resigned within the first four months (4) were not included in this calculation.

Other measures of the success of the projects supported by the grant include the number of patents, project results resulting in further funding (grants, awards) and the establishment of resources for the general scientific community. So far results from the work funded here has led to one submitted patent application and one approved patent that gave rise to a fully licensed technology to be commercially available in 2015. Three EIPOD fellows also received additional personal merit fellowships and several group leaders were successful in obtaining significant funding or grants for projects that arose out of the results from EIPOD projects funded by this grant. Finally, the work of two of the supported fellows led to the establishment of databases and resources freely available to the scientific community.

iv) Conclusions

The programme carried out 4 calls for applications under the Cofund grant. Collectively 66 fellows were welcomed into the programme as a result of the calls and 58 went on to finish their fellowships. With the receipt of a one-year cost neutral extension of the grant the EIPOD programme made use of 171 of the 180 fellowship years planned for under the Cofund grant.