Eight years of the EACVI’s grant programme: existing developments, impact, and steps forward

Elena Surkova1,2*, Denisa Muraru1, Julia Grapsa3, Erwan Donal4, Patrizio Lancellotti5,6, Gilbert Habib7,8, and Luigi P. Badano1

1Department of Cardiac, Thoracic and Vascular Sciences, University of Padua, Padua, Italy; 2Department of Internal Medicine, Samara State Medical University, Samara, Russian Federation, Russia; 3Hammersmith Hospital, Imperial College NHS Trust, London, UK; 4Cardiologie – CHU Rennes et LTSI INSERM 1099 – Université Rennes-1, France; 5Departments of Cardiology, University of Liège Hospital, GIGA Cardiovascular Sciences, Heart Valve Clinic, CHU Sart Tilman, Liège, Belgium; 6GVM Care and Research, E.S. Health Science Foundation, Lugo, Italy; 7Aix-Marseille Université, Marseille, France; and 8Department of Cardiology, APHM, La Timone Hospital, Marseille, France

The European Society of Cardiology (ESC) and its branches have been offering a variety of grants/fellowships, providing opportunities for young doctors to conduct a high-quality research and get trained in novel diagnostic or therapeutic techniques in leading European institutions. The European Association of Cardiovascular Imaging (EACVI, formerly European Association of Echocardiography (EAE)) is a registered branch of the ESC and takes an active part in this initiative. Between 2008 and 2015, EACVI funded a total of 19 one-year research projects (25 000 € each). The need for practical skills in cardiovascular imaging was acknowledged by EACVI Club 35 and has led to the development of Training Grant Programme launched in 2014. Within this programme, training fellowships for a period 3–6 months with a financial support of 2000 € per month also became available since 2014. The first report on the EAE research grant programme demonstrating its success and positive impact on young professionals’ careers was published in 2012.1 On the seventh anniversary of the programme, we carried out a survey aimed to evaluate its benefits and identify common problems experienced by applicants to better adapt the grant scheme to the real needs and expectations of the young doctors.

During the 8-year period, a total of 234 application forms were requested and sent to 196 candidates. The number of the requested forms varied substantially in different years from 4 to 119, and the number of eligible applications has increased from 4 in 2009 to 36 in 2014. A large proportion of applicants failed to finalize the application process, resulting in increasing numbers of application forms requests which never materialized in applications (Supplementary data online, Figure S1). In 2014 (for Grant competition round 2015), 66 doctors did not return their application forms, 10 applications arrived after the deadline, and 5 were received from non-eligible candidates. The survey was conducted using a structured questionnaire comprising a total of 47 questions in English (Supplementary data online, Table S1). An e-mail invitation containing a link to the online questionnaire was sent to all individuals who requested application forms for 2008–15 competition rounds. Potential respondents comprised the following three main categories: EACVI training and research grant winners (hereinafter referred to as ‘grant winners’); those who submitted an application, but failed in competition (hereinafter referred to as ‘unsuccessful applicants’), and those who requested the grant application forms, but did not participate in competition (hereinafter referred to as ‘potential applicants’).

Filled in questionnaires were received from 54 respondents representing 14 EU/EEA countries as well as 12 countries outside the EU. The overall response rate was 27.6%. However, it varied significantly across the different categories of respondents being the highest among the grant winners (81.8%) (Table 1). More than 75% of responses were received from those who submitted an application in the last 2 years (Supplementary data online, Figure S2).

Characteristics of the applicants

Fifty-three per cent of participants were 31–35 years of age at the time of application, and only 13.7% were older than 35. The majority of the respondents (88.2%) already had some research experience, and 15 (29.4%) responses were received from those holding a PhD degree. For 37 (72.6%) participants, it was the first attempt to apply for a grant funded by ESC or its branches.

Application process

In general, the application for the EACVI grants was reported as transparent and straightforward with the majority of participants (85.4%) not experiencing any difficulties during the application process. Small number of respondents (n = 7) found it difficult and reported problems associated with the lack of support from their current or future supervisor, requesting grant forms, or slow communication with the host institution. Nearly all (90.2%) respondents learnt about the grant programme from the ESC/EACVI website, and 87.5% indicated that EACVI staff was helpful during the application process.
The majority of participants (91.7%) were happy to choose the host institution and get in contact with their future supervisor themselves. Notably, 29 (60.4%) respondents considered the possibility of separate competition between institutions to host EACVI fellows co-ordinated by EACVI as a promising initiative. Almost 30% of respondents noted that they needed assistance in communication with host institution. All the participants, who used the online directory of European labs available on the EACVI website, found it helpful in selecting the most suitable centre for their training/research project.

Most respondents considered the prestige of their future supervisor in the clinical/research community and the feasibility of the proposed project as the factors playing a major role in choosing the host institution. Other factors are summarized in Supplementary data online, Figure S5.

Only two respondents failed to get support from the host institution, which prevented them from finalizing the application process. It is worth noting that a category of potential applicants was under-represented in our survey, and subsequently factors that prevented young doctors to finalize their application process remain largely unknown, which constitutes one of our study limitations.

### Feedback from unsuccessful applicants

Twenty-one of 32 respondents falling in this category noted that despite their failure to secure funding, the application process for EACVI (EAE) grant was helpful/stimulating for their project development and future career progression. Eleven of them applied for other grant(s) afterwards and 5 were awarded. Twenty-three respondents indicated that they have got feedback from the grading committee upon the results announcement and 10 (34.5%) reported it was helpful, allowing them to improve the project and apply for other grant(s).

### Feedback from grant winners

The most important aims and reasons for application listed by the majority of respondents included dedicated practical training, new research experience, establishing new professional relationships, and publishing results in peer-reviewed journals that were mentioned by 36 (70.6%), 34 (66.7%), 30 (58.8%), and 27 (52.9%) respondents, respectively. In general, the main achievements of grant winners were in agreement with their expectations (Supplementary data online, Figure S4), and all but one were satisfied or very satisfied with the research/training activities. Thirteen grant winners were also involved in more than one research project during the grant period.

The issue of the grants’ impact on research productivity of awardees is another important marker of the programme’s effectiveness. Grant winners participating in our survey published between 0 and 15 papers in peer-reviewed journals [median 3 (1; 7) per person]. Number of published or accepted papers during the grant period was smaller and varied from 0 to 4 (average 1.6 ± 1.4 per person).

Upon completion of the grant period, all grant winners continued the scientific collaboration with their supervisor/host institution and almost 70% of them initiated new research projects and/or applied for new grants jointly. Importantly, doctors successfully implemented new skills and knowledge at their home institutions, including new imaging techniques—6 (46.1%)—and/or new methods/protocols in imaging modalities they have used before—5 (38.5%).

Career progression is another important objective indicator of the effectiveness of grants (Supplementary data online, Figure S5). In our study, 92.3% of grant winners were promoted to more senior positions in either their home or other institutions compared with 51.6% of those who failed in competition (P = 0.026). Nearly, all respondents considered their EACVI (EAE) grant as a major factor, which increased their chances to obtain more senior position. Three grant winners applied for other research/training grants after termination of the EACVI (EAE) grant period and all of them were awarded.

To conclude, the results of this survey demonstrate the effectiveness of the EACVI activities and initiatives to promote education and research, as well as to create an international network for scientific collaboration. The programme has a positive impact on the grant winners’ career progression, research and clinical activities at their home institutions, and elsewhere. An overwhelming demand for training projects suggests that EACVI training programme scheme should continue and probably expand in future strategically addressing existing needs from the countries where modern imaging modalities and/or multimodality imaging are poorly developed. Our data about the benefits of the EACVI grant programme should motivate more young doctors to apply for grants in future and draw attention from the industry and non-profit organizations to encouraging them to support EACVI activities.

**Conflict of interest:** E.S. received the EACVI Training Grant 2015; other co-authors have no conflicts of interest to disclose.

**Reference**