



APRIL 2011 - MARCH 2012

ANNUAL REPORT FY 2011



THE INTERNATIONAL
HUMAN FRONTIER SCIENCE PROGRAM
ORGANIZATION

HUMAN FRONTIER SCIENCE PROGRAM

The Human Frontier Science Program is unique, supporting international collaboration to undertake innovative, risky, basic research at the frontier of the life sciences. Special emphasis is given to the support and training of independent young investigators, beginning at the postdoctoral level. The Program is implemented by an international organisation, supported financially by Australia, Canada, France, Germany, India, Italy, Japan, the Republic of Korea, New Zealand, Norway, Switzerland, the United Kingdom, the United States of America, and the European Union. Since 1990, over 6000 awards have been made to researchers from more than 70 countries. Of these, 18 HFSP awardees have gone on to receive the Nobel Prize.





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ANNUAL REPORT



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The following documents are available on the HFSP web site
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Joint Communiqués
(Tokyo 1992, Washington 1997, Berlin 2002, Bern 2004, Ottawa 2007, Canberra 2010):
<http://www.hfsp.org/about-us/governance/intergovernmental-conference>

Statutes of the International Human Frontier Science Program Organization:
<http://www.hfsp.org/about-us/governance/statutes>

Guidelines for the participation of new members in the HFSP:
<http://www.hfsp.org/about-us/new-membership>

General Reviews of the HFSP (1996, 2001, 2006-2007, 2010):
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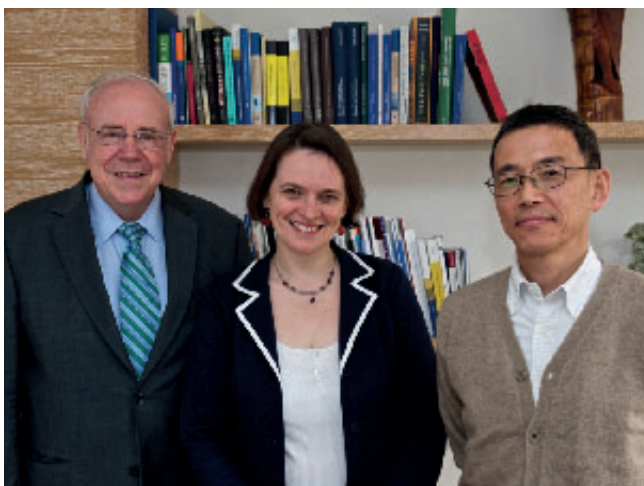


INTRODUCTION



Introduction

Highlights in FY 2011
Message of the Secretary General
Board of Trustees
Council of Scientists
Secretariat



*Ernst-Ludwig Winnacker (Secretary General),
Toru Nakahara (Deputy Secretary General) and Jill Husser*

INTRODUCTION

The Human Frontier Science Program (HFSP) promotes fundamental research in the life sciences with special emphasis on novel and interdisciplinary research, international and in particular intercontinental collaboration and support for young investigators. Since its establishment in 1989, HFSP has demonstrated the value of creating a framework for competitive, collaborative, international research of the highest caliber and of providing young scientists with the opportunity to emerge as talented researchers capable of shaping the science of the future.

The International Human Frontier Science Program Organization (HFSP/O) implements the Program through the following mechanisms of research support, details of which can be found in Chapters 1 and 2 of this report:

- Long-Term Fellowships – for young scientists within three years of obtaining their Ph.D who wish to broaden their scientific experience in a foreign laboratory.
- Cross-Disciplinary Fellowships – modeled on the Long-Term Fellowships but specifically for scientists with Ph.Ds in non-biological disciplines who seek training in the life sciences.
- Career Development Awards – for former HFSP Fellows to help them set up their own independent laboratories in the home country or another HFSP member country.
- Young Investigator Grants – grants for interdisciplinary teams of young researchers who are within the first five years of their first independent positions and located in different countries.
- Program Grants – for interdisciplinary teams of researchers in different countries at any stage of their careers.

Since 1990, 898 Research Grants involving 3,388 scientists, 2,600 Long-Term, 73 Cross-Disciplinary Fellowships and 173 Career Development Awards have been awarded. Researchers from more than 70 countries have received HFSP funding so far.

The focus of research supported by HFSP is on the complex mechanisms of living organisms, ranging from the biomolecular level to that of behaving organisms. The life sciences have undergone a revolution in recent years, emerging as a leading scientific area with a convergence of interest from other disciplines such as physics, mathematics, chemistry, computer science and engineering on solving biological questions. HFSP aims to stay at the forefront of research by involving scientists from outside the life sciences as part of research collaborations and as postdoctoral fellows. To this end, the Young Investigator and Program Grants are specifically geared to fostering interactions between scientists from different disciplines and this is a major factor in the review of applications in these programs. In addition, HFSP has extended its commitment to interdisciplinary research by introducing Cross-Disciplinary Fellowships to equip young scientists from outside biology with the skills needed to tackle problems in the life sciences.

A program dedicated to the frontiers of science must support the next generation of researchers, who are in the strongest position to open new avenues of research. Several of the HFSP programs are specifically targeted towards early career scientists: the Fellowship programs, Career Development Award and Young Investigator Grant. In addition, Program Grant teams are encouraged to include young scientists with the result that a significant number of scientists under the age of 40 participate in this program. Taking these researchers together, approximately 70% of annual HFSP funds are awarded to early career researchers.

The HFSP/O is financed and managed by representatives of the Management Supporting Parties (MSPs). The MSPs are those countries that directly fund the HFSP Programs plus the European Union, which represents the EU countries that do not contribute directly. The MSPs are: Australia, Canada, France, Germany, India, Italy, Japan, the Republic of Korea, New Zealand, Norway, Switzerland, the United Kingdom, the United States of America and the European Union. Japan provided about 45 % of MSPs' contributions for FY 2011.

The HFSP/O is governed by a Board of Trustees (Board) consisting of representatives of the MSPs. The Board is advised by a scientific advisory body, the Council of Scientists (Council) and the Organization is run from the Secretariat in Strasbourg, France.

HIGHLIGHTS IN FY 2011



*Left to right:
Ernst-Ludwig Winnacker, Akito Arima and Nobutaka Hirokawa*



- Nobutaka Hirokawa accepted to take up the position of President of HFSP on 1 April 2012.
- Ernst-Ludwig Winnacker will continue as Secretary General of HFSP for a further term of three years from 1 July 2012.
- The recipient of the HFSP Nakasone Award 2011 was Michael Elowitz, California Institute of Technology, USA.
- Gina Turrigiano, Brandeis University, USA was selected as the recipient of the HFSP Nakasone Award 2012.
- The 2011 Awardees Meeting was held at McGill University, Montreal, Canada, on 5-8 June 2011.
- A Career Day was held at the University of Tokyo, Japan, on 4 July 2011.
- An Alumni Meeting was held in Vienna, Austria, on 9 September 2011.

MESSAGE FROM the Secretary General

PASSING THE BATON



*Ernst-Ludwig Winnacker,
Secretary General of HFSP*

Transition in leadership

The Board of Trustees and members of the Secretariat assembled on March 23rd, 2012, in the City Hall of Strasbourg, by invitation of the mayor of Strasbourg. They were joined by a number of distinguished scientists from the University of Strasbourg, led by its President, Professor Alain Beretz. The occasion was the transition of the Presidency of HFSP from Professor Akito Arima to Professor Nobutaka Hirokawa. In her address to the festive audience, Mme Catherine Trautmann, Vice-president of the City of Strasbourg and Mayor at the time of HFSP's establishment and a staunch supporter of HFSP ever since, spoke of the presence of HFSP in the City as being a mark of its scientific reputation. She thanked the two presidents for their important efforts for HFSP.

Both the past and the new president addressed the audience. They could not be more different. Professor Arima, a nuclear physicist, "Mr Former" as he likes to call himself, former President of the University of Tokyo, former President of RIKEN, former Minister of Higher Education (MEXT), and other distinguished positions, spoke of his fondness for Strasbourg, mentioning his delight in the violation of symmetry which characterises the Cathedral of Strasbourg with its missing second tower as well as his long-standing contacts with researchers in Strasbourg and in France in general. Professor Hirokawa, an active neuroscientist and cell biologist at the University of Tokyo and one of the most distinguished researchers in Japan, used the occasion to thank his predecessor for his leadership. As a member of the Board for Japan, Professor Hirokawa is already very familiar with HFSP and, in addition to his unique scientific credentials, is known worldwide as a strong defender of basic research and of international collaboration. Considering the challenges ahead for HFSP, the choice of the new President could not have been better.

As Secretary-General, I would like to thank Professor Arima for his invaluable and innumerable contributions to HFSP as president between April 2009 and April 2012. At the same time I welcome Professor Hirokawa, looking forward to a smooth transition and a close and fruitful period of collaboration.

Transition in the Secretariat

Another transition is brought about by the impending retirement of Dr. Martin Reddington in August 2012. It is a significant, even moving event because he has been employed in the office since 1996, further back than most people involved with HFSP today can remember. With his long memory, his feel for scientific quality, his common sense and diplomacy, he has, over the years, interacted with almost everyone dealing with this Organization, scientists, members of the Board and members of the Secretariat alike. We not only wish him well for the time after HFSP but also hope that he may continue to treasure HFSP as an institution worth his efforts. We are also happy to have an accomplished successor for Martin already in the office and to welcome a new director of Fellowships from outside. They will both develop what he has begun, bringing their own skills and talents to the Secretariat and to HFSP.

Transition in funding

A final challenge for HFSP will be the transition from a financial scenario in which Japan has generously provided by far the largest proportion of resources for the last two decades to a more balanced budget. Japan has contributed 722 Mio USD over the years to HFSP as compared to some 370 Mio USD for all other participating countries together. Japan intends to remain a fully committed member of HFSP in the future, but at a somewhat lower level of support than in previous years.

This situation raises the question of the future of a global funding organization like HFSP. Does the world need a research funding organization which funds frontier research in the life sciences at the highest possible level? And, even more importantly, does it make sense to threaten the very existence of such an institution for lack of funds?

There is little doubt that both the challenges facing our societies and their solution are global in nature. It is also true that many governments and funding organizations that support HFSP find themselves in the grip of tremendous financial pressures and constraints. These require a considerable amount of

self scrutiny so as to focus on the essentials of any program, including our own. HFSP is well aware of this issue since it has had to reduce program costs by around 10% over the last three years. However, further reductions would threaten the Program entirely.

Fortunately, HFSP is comparatively small and has a proven record of success not only in financial terms but also in the kudos for its awardees. A fellowship or a grant obtained in an international competition is valued far more highly in a researcher's CV's than a national fellowship, at least for those who are really ambitious and innovative. This is true for their host laboratories as well. In addition, tri- or multilateral grants are almost impossible to organize except via an organization like HFSP.

I am sure that countries and organizations participating in HFSP have long realized these and the many other advantages which it has to offer. Most recently, the EU, one of its current members, had to decide on whether and how to support HFSP in its future Framework Program, Horizon 2020, to be implemented in 2014 and continuing until 2020. The Commissioner for Research and Innovation was kind enough to invite HFSP's partners as well as potential new members to a high level intergovernmental conference planned for late 2012 or early 2013, which would define its vision for the future and seek to stabilize and strengthen its financial base. Preparations for this conference are ongoing. The Secretariat of HFSP views this initiative as an excellent opportunity to optimize its mandate and to reinvigorate HFSP after its first quarter century of existence. To initiate and formulate this will be our task for the year to come.



Handwritten signature in red ink: Erich-Ludwig Winnauer

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CHAPTER 1



Fellowship Program



Left to right: Marie-Claude Perdigues, Guntram Bauer and Carine Schmitt

- 1.1 Introduction
- 1.2 Long-Term and Cross-Disciplinary Fellowships
- 1.3 Fellowship Awards in 2012
- 1.4 The 2012 Review Committee for Fellowships
- 1.5 Career Development Awards
- 1.6 Career Development Awards in 2012
- 1.7 The 2012 Review Committee for Career Development Awards

1.1

INTRODUCTION

One of the pillars of HFSP's mission is to support frontier research in the basic life sciences by offering international opportunities for postdoctoral researchers. These young scientists seek experience in the world's best laboratories through the HFSP Fellowship program. However, the HFSP Fellowships demand more than a personal readiness for global mobility. The increased complexity of biology and of scientific methodology often requires quantitative and system-level approaches to advance our understanding of fundamental mechanisms. Therefore applicants for HFSP Fellowships are encouraged to propose innovative and transformative projects in new fields in order to broaden their scientific experience.

Initial postdoctoral support from HFSP funds three years of research in a new country. The option to defer the third fellowship year offers maximum flexibility at a critical stage of career advancement. Upon completion of the fellowship, these well-trained scientists are expected to promote truly frontier research in the life sciences as independent young investigators. A follow-up mechanism allows HFSP fellows to establish their own independent laboratories by means of the HFSP Career Development Award.

1.2

LONG-TERM AND CROSS-DISCIPLINARY FELLOWSHIPS

Long-Term Fellowships are intended to encourage young researchers with a background in the life sciences to seek additional research expertise and training in other fields within biology. Applicants who propose a significant change in research direction and whose research project is original and represents a departure from their Ph.D work or previous research are particularly encouraged. Statistics relating to applications to this program are shown in Fig. 1-1.

Cross-Disciplinary Fellowships are intended for postdoctoral fellows with a Ph.D degree in the physical sciences, chemistry, mathematics, engineering, computer sciences etc. who wish to receive training in the life sciences. The first awards in this category were made in 2005 and since then the applications for this program have accounted for about 7-10% of the annual fellowship submissions (Table 1-1). Applicants for this program are encouraged to propose a significant change in discipline (e.g. from physics to cell biology) but should demonstrate how their specific expertise will bear on the biological question under study and how the host laboratory will benefit from their particular skills.

The program mainly attracts applicants from chemistry and physics. Applications from engineers, biophysicists, mathematicians and computer scientists are also regularly submitted. This range of expertise is exceptional for a fellowship program that supports research in fundamental biological research. The broad acceptance of the Cross-Disciplinary Fellowships outside the life sciences shows that HFSP's aim to provide a bridge across disciplinary boundaries is indeed being fulfilled.

Awardees in both programs are required to be within three years of receiving their Ph.D at the time of application. They are expected to have at least one first author publication and must not have worked in the host institution for more than 12 months at the start of their fellowship.

Fellows in both programs receive identical support for three years, and those who wish to extend their research training have the possibility to defer the start of their third year for up to two years while being supported through other funding sources. The third and final year of support can either be used in the host laboratory or for a final year of postdoctoral training in a laboratory in the home country or any HFSP member country. The fellowship provides an annual stipend and a research and travel allowance. HFSP fellows with children also qualify for a child allowance.

The lists of Long-Term and Cross-Disciplinary Fellows who started their project in FY 2011 are given in Appendix 4.

Fig. 1-1:
Long-Term Fellowship applications, awards and success rates 1990-2012.

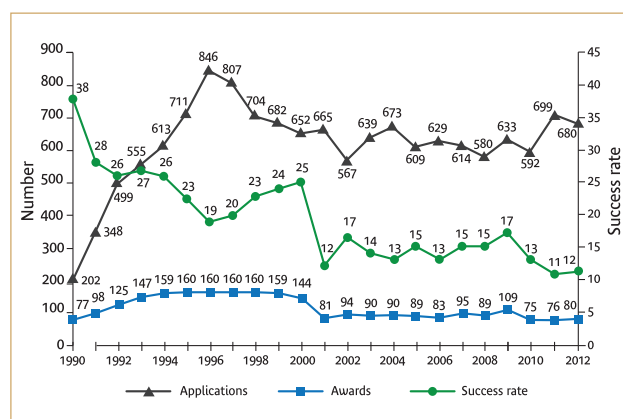


Table 1-1:
Annual number of reviewed fellowship applications and awards (Numbers for award year 2012 may still be subject to change).

Long-Term Fellowships (since 2002)

Award year	Number of applications	Number of awards	Success rate (%)	Female awardees Number	%
2002	567	94	17	27	29
2003	639	90	14	29	32
2004	673	90	13	29	32
2005	609	89	15	22	25
2006	629	83	13	29	35
2007	614	95	15	32	34
2008	580	89	15	32	36
2009	633	109	17	39	36
2010	592	75	13	32	43
2011	699	76	11	20	26
2012	680	80	12	22	28
TOTAL	6915	970	14	313	32

Cross-Disciplinary Fellowships (since 2005)

Award year	Number of applications	Number of awards	Success rate (%)	Female awardees Number	%
2005	65	12	18	1	8
2006	55	10	18	2	20
2007	54	5	9	0	0
2008	56	11	20	1	9
2009	39	10	26	2	20
2010	55	11	20	1	9
2011	63	9	14	2	22
2012	67	5	7	0	0
TOTAL	454	73	16	9	12



1.3

FELLOWSHIP AWARDS IN 2012

At its meeting in March 2012, the Board recommended 85 awards for the coming fiscal year. Of the 747 applications for award year 2012, 37 % of the applications were made by female candidates. Table 1-2 gives an overview of the distribution of the 2012 applicants and fellows according to their nationality and Fig. 1-2 an overview of the distribution of the 2012 awardees according to their host country.

The call for applications is announced annually in major scientific journals and through the HFSP web site. The deadline for the electronic submission of fellowship applications was 8 September 2011. All applications were screened by the Secretariat for compliance with formal criteria and with the scientific scope of the Program. Each application was assigned to two members of the Review Committee for a first evaluation during which the committee members each ranked around 50-60 applications. Some applications for which the expertise was not available within the Review Committee were also sent to external mail reviewers. The Secretariat then ranked the applications on the basis of this evaluation. In the discussions during the Review Committee meeting on 16-18 January 2012, the top applications were scored again by the entire committee and the most highly qualified candidates were recommended for funding.

Fig. 1-2:
Host country distribution of Long-Term and Cross-Disciplinary Fellowship awardees for FY 2012 as decided by the Board in March 2012

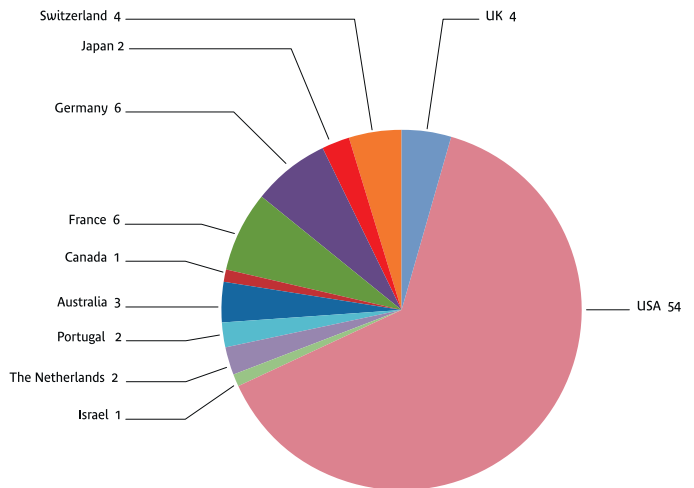


Table 1.2:
Nationality of Long-Term (LTF) and Cross-Disciplinary Fellowship (CDF) applicants and awardees for FY 2012

Nationality	Total applicants	Total awardees	LTF applicants	LTF awardees	CDF applicants	CDF awardees
Australia	16	0	15	0	1	0
Canada	29	4	27	3	2	1
EU	165	14	153 (a)	13 (a')	12 (c)	1 (c')
France	61	7	57	6	4	1
Germany	71	14	67	14	4	0
India	46	3	37	1	9	2
Italy	40	3	34	3	6	0
Japan	52	12	51	12	1	0
Korea	6	1	6	1	0	0
New Zealand	0	0	0	0	0	0
Norway	2	1	2	1	0	0
Switzerland	7	2	6	2	1	0
UK	29	1	26	1	3	0
USA	30	9	26	9	4	0
Others	193	14	173 (b)	14 (b')	20 (d)	0
TOTAL	747	85	680	80	67	5

Long-Term Fellowship applicants:

(a) EU:

Austria 10, Belgium 3, Czech Republic 4, Estonia 2, Finland 3, Greece 4, Hungary 8, Ireland 5, The Netherlands 15, Poland 11, Portugal 16, Romania 1, Slovakia 2, Spain 61, Sweden 8

(b) Others:

Argentina 14, Armenia 2, Bangladesh 1, Brazil 10, Cameroon 1, Chile 3, China 19, Taiwan 4, Colombia 2, Croatia 1, Cuba 2, Israel 39, Lebanon 1, Malaysia 2, Mexico 7, Nepal 1, Peru 1, Russia 6, Serbia 1, Singapore 4, Sri Lanka 1, Thailand 1, Turkey 3, Vietnam 2, dual nationality 45

Long-Term Fellowship awardees:

(a') EU:

Austria 2, Belgium 1, Finland 1, Hungary 1, The Netherlands 1, Poland 1, Spain 6

(b') Others:

China 1, Israel 7, Mexico 2, Brazil/Portugal 1, Canada/USA 1, Israel/Switzerland/USA 1, Italy/Uruguay 1

Cross-Disciplinary Fellowship applicants:

(c) EU:

Greece 2, Hungary 1, The Netherlands 3, Poland 1, Portugal 1, Slovenia 1, Spain 2, Sweden 1

(d) Others:

Argentina 1, China 1, Costa Rica 1, Iran 1, Israel 5, Russia 2, Turkey 2, Ukraine 1, dual nationality 6

Cross-Disciplinary Fellowship awardees:

(c') Others:

The Netherlands 1

1.4

THE 2012 REVIEW COMMITTEE FOR FELLOWSHIPS



*Suzanne Eaton, Chair of the
Fellowship Review Committee*

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Other

Wanjin HONG, Institute of Molecular and Cell Biology, Singapore
Orly REINER, Weizmann Institute, Rehovot, Israel

Delegate of the Council of Scientists

Young-Joon KIM, Yonsei University, Seoul, Republic of Korea

1.5

CAREER DEVELOPMENT AWARDS

For most postdoctoral researchers, it is increasingly difficult to obtain independent funding to start their own research laboratory. HFSP offers support to its fellows after the postdoctoral period to provide further opportunities for becoming an established investigator. Through this mechanism, HFSP builds a global culture of independent young researchers who are open to new ideas and international collaboration. HFSP fellows aspiring to become independent scientists can apply for the Career Development Award. Applicants are expected to intensify their international collaborations and experimental endeavours in frontier areas of the life sciences by drawing on their experience during their HFSP fellowship.

The Career Development Award supports former Long-Term or Cross-Disciplinary fellows after they have moved back to their home country or gone on to another HFSP member country. The award provides 300,000 USD of support over three years and is open only to HFSP fellows who have completed at least two years of tenure in the host laboratory. Awardees must either be in the process of obtaining, or already hold, a position in a research institution which enables them to conduct independent research.

The first Career Development Awards were made in March 2003. Reviews were carried out by the Council of Scientists until 2011. For the competition in 2012, a new Review Committee was created. It is composed of 8 members most of whom have had previous experience on HFSP Review Committees.

Since the inception of this award, 457 applications from 30 different countries have been submitted and 173 young scientists have received the award. Each year this network expands as more and more fellows seek to establish their independent laboratories (Table 1-3). The list of award recipients for FY 2011 is given in Appendix 6.

Table 1-3:
CDA applications and awards since the beginning of the program

Award year	Number of		Success rate (%)	Female awardees	
	applications	awards		Number	%
2003	22	8	36		
2004	41	17	41	5	29
2005	47	18	38	2	11
2006	51	29	57	6	21
2007	48	24	50	6	25
2008	57	20	35	5	25
2009	49	24	49	2	8
2010	47	16	34	2	13
2011	40	9	23	1	11
2012	55	8	15	2	25
TOTAL	457	173	38	31	18

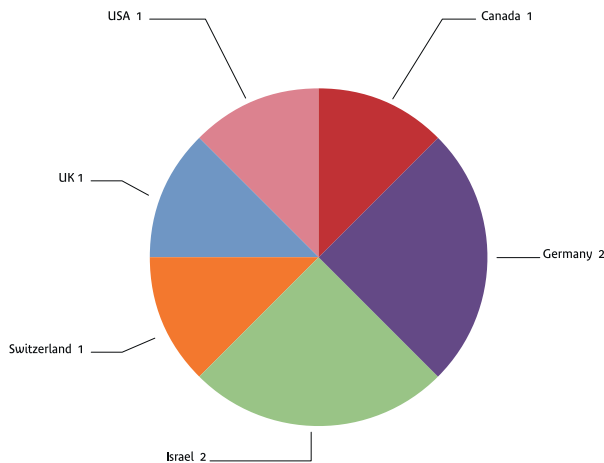


1.6

CAREER DEVELOPMENT AWARDS IN 2012

Current fellows receive the information about the call for applications by email. By the deadline on 15 November 2011, a total of 55 applications were received. Former fellows from award years 2004-2009 were eligible to apply. Applications were assigned for review to two members of the Review Committee who ranked and commented according to the selection criteria set out in the application guidelines. Each application was also sent to at least two external mail reviewers who were asked to provide written comments. After initial ranking by the Review Committee members and further discussions during the meeting on 17 February 2012, 8 applications were recommended for funding. These were approved by the Board.

Fig. 1-4:
Distribution of host country of CDA awardees for FY 2012



1.7

THE 2012 REVIEW COMMITTEE FOR CAREER DEVELOPMENT AWARDS



*Daniel Kiehart, Chair of the Career
Development Award Review
Committee*

Chair

Daniel KIEHART, Duke University, Durham, USA

Vice-Chair

Frederick MACKINTOSH, Free University, Amsterdam,
The Netherlands

Canada

Emil PAI, University of Toronto

European Union

Michael KIEBLER, Medical University of Vienna,
Austria

Frederick MACKINTOSH, Free University, Amsterdam,
The Netherlands

France

Eric VIVIER, Université de la Méditerranée, Marseille

Italy

Marco BIANCHI, San Raffaele University, Milano

Japan

Ko SAKAI, University of Tsukuba

United Kingdom

Iain HAGAN, University of Manchester

United States of America

Daniel KIEHART, Duke University, Durham

Delegate of the Council of Scientists

Judith ARMITAGE, University of Oxford, UK



CHAPTER 2

Research Grant

Program



*Left to right: Geoffrey Richards,
Armelle Koukouï and Carole Asnaghi*

- 2.1 Overview of the Grant Program
- 2.2 Young Investigator Grants
- 2.3 Program Grants
- 2.4 Research Grant Awards in 2012
- 2.5 The 2012 Review Committee
for Research Grants

2.1

OVERVIEW OF THE GRANT PROGRAM

Research Grants are awarded for innovative collaborative projects of fundamental biological research carried out by an international, and preferably intercontinental, team of two to four scientists having their laboratories in different countries. In fact, over the last 5 years, 97% of the awards have gone to intercontinental teams. Successful teams with five members are rare as the majority of larger teams have a weak link or show a redundancy in expertise so that the overall research plan is not convincing. Grants are awarded for a period of three years to teams who propose to combine their expertise to approach problems in the life sciences that could not be answered by the individual laboratories. So as to help break down traditional barriers between disciplines, from 2001 to 2008 HFSP emphasized the importance of interdisciplinarity in the grants program. By 2008 this had become widespread and that year the Review Committee asked for more freedom in weighting the innovative, international and interdisciplinary components when assessing applications. Currently most emphasis is placed on the

innovative nature of the collaboration although this often involves novel combinations of expertise. Particular attention is given to collaborations that bring together scientists from different disciplines (e.g. biology, chemistry, physics, mathematics, computer science and engineering). Applicants are expected to develop new lines of research, rather than continuing their ongoing program, and so as to encourage novel ideas and innovative approaches, preliminary results are not required. The Principal Applicant's laboratory must be located in one of the member countries while the other team members may be situated anywhere in the world.

There are two categories of grant: Young Investigator Grants for groups of young scientists establishing their research groups, and Program Grants for scientists at any stage of their careers. The applications are processed in parallel but the Grant Review Committee in January examines and ranks each category separately.

Where are the frontiers?

The biggest challenge for the Review Committee is to identify novel frontier research applications often incorporating diverse expertise from both the biological and physical sciences. For this the committee must include members familiar with disciplines such as chemistry, physics, mathematics and engineering in addition to the more traditional biological sciences. The range of applications is such that the committee may lack the expertise necessary to assess the contribution of some of the team members. In these cases we solicit opinions from mail reviewers working in departments that may be unfamiliar with the Program. Fortunately, not only do we observe the same willingness to help in the review process from such experts as those in more traditional biological departments, but also we often receive spontaneous remarks confirming the originality and interest of the project. However these same specialist reviewers sometimes point out that the 'innovative' approach is routine in their discipline and that furthermore the applicants grasp of the approach is superficial.

The concept of novelty is related to the development of certain fields or techniques. A novel technology (microscopy, protein labelling, transgenic models, computational programs etc.) may become widely available within two or three years of its first appearance in the HFSP competition and will start to appear as a tool in a large number of applications. Similarly a project considered cutting-edge one year may be considered as routine a couple of years later. In fact, in the absence of technological breakthroughs, fields can appear to stagnate for a year or two while teams concentrate on exploiting the last wave of innovation. This may well be high quality science destined for major journals, but the committee members must have sufficient stature so as to decide whether an approach has become standard or is truly innovative.

Face to face collaborations

While teams now have every opportunity to exchange on a daily basis via the web, we observe that to collaborate effectively, successful teams are increasingly inclined to organize regular meetings to discuss problems face to face, or to visit each others' laboratories for a few weeks so as to understand the scope of their partners contributions. The flexibility in the use of HFSP funds allows the reactivity that is essential for such collaborations – notably for travel and team meetings when critical decision points are reached. The overall impression is that scientists are learning the interest of making such collaborations a reality (rather than continuing their ongoing projects in parallel). The Review Committee gives considerable importance to the details of interactions between the team members envisaged in the full application. With the expansion of HFSP membership in recent years the possible combinations have increased considerably (notably because of the role of the Principal Applicant in choosing team members) and we are seeing changes in the profiles of collaborations.

2.2

YOUNG INVESTIGATOR GRANTS

The Young Investigator Grant scheme was introduced in the 2001 award year to encourage collaboration between young scientists who are within five years of obtaining their first independent positions. Young Investigator Grant teams receive 250 thousand USD per year for two members, 350 thousand USD for three members, and 450 thousand USD for four or more. Local collaborations in the same country are permitted but teams only receive funds equivalent to 1.5 team members and then only if the collaboration is truly interdisciplinary. This measure aims to facilitate the formation of teams involving scientists with different expertise since it is often difficult for scientists, especially younger investigators, to find appropriate partners internationally. In the 2012 award year, applications from Young Investigators represented about 23% of the letters of intent received. While in 2011 these applications were notably more successful than the applications to the Program Grants, in 2012 (as in 2009 and 2010) they had a similar success rate to those submitted for Program Grants.

2.3

PROGRAM GRANTS

These are awarded to teams of independent researchers at any stage of their careers. The research team is expected to develop new lines of research through the collaboration. Applications including independent investigators early in their careers are encouraged. Funding is based on team size and is the same as for the Young Investigators including the rules concerning team members from the same country. The quality of applications in this competition has been boosted by the arrival of a cohort of younger investigators who have acquired expertise in several areas of research during their doctoral and post-doctoral training. As many of these have now established their laboratories more than five years ago they are no longer eligible for the Young Investigator competition. In 2012 it was noticeable that a large percentage of Program Grants teams were led by investigators under 40 years old.

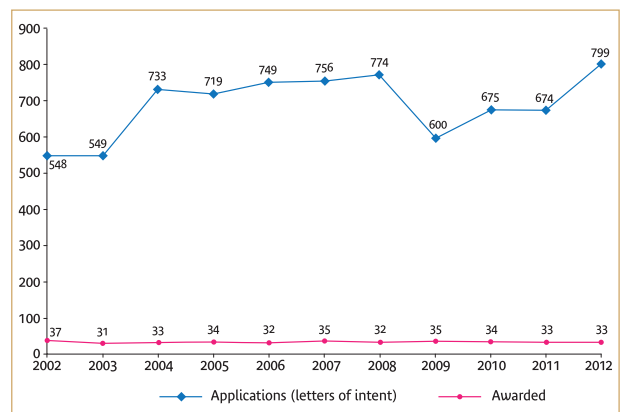
2.4

RESEARCH GRANT AWARDS IN 2012

Awardees for FY 2012 were selected among the applications received in reply to the call published in the journals Science and Nature, on the HFSP web site and the web sites or newsletters of relevant scientific societies. A two-step review process was used. Guidelines and application forms for both the letter of intent (the first step) and for full applications (the second step) were provided on the web, and the submission and review of applications were entirely electronic.

The deadline for letters of intent was 31 March 2011. Interest in the 2012 cycle was higher than in the 2011 cycle (Fig. 2-1) and a record number of letters of intent was received.

Fig. 2-1:
Research Grant applications and awards



The 799 letters of intent were initially screened for formal eligibility. This included 7 renewal applications from Young Investigator teams (a trial initiative authorised by the Board of Trustees in December 2009). Only a few letters of intent were rejected on the grounds of eligibility. Since 2005, triage has been introduced; a small scientific committee including the Chair and Vice-Chair of the Review Committee screened the letters of intent and those that did not meet the scientific aims of the Program, 64 applications in all, did not enter the full review process. The Principal Applicant was informed as soon as possible so that the team might apply for funding elsewhere. Each remaining letter of intent was evaluated by two Review Committee members. The top-scoring projects were examined by a Selection Committee consisting of previous and past members of the Review Committees. The Selection Committee met from 20 June to 22 June to discuss some 35% of the original submissions (273 new applications and the 7 Young Investigator renewal applications) and following these discussions, 96 applicants were invited to submit a full application including 2 Young Investigator renewal applications. Teams that were not asked to submit full applications were given brief feedback concerning the selection procedure, the evaluation criteria and the general classification of their application.

Invitations were sent out immediately after the Selection Committee meeting with the deadline for submission of full applications as 15 September 2011. All but one of the invited teams submitted full applications which were reviewed. Each full application was evaluated by mail (external) reviewers who

submitted a written report and by two members of the Review Committee for Research Grants. Scientific merit, innovation and interdisciplinarity were the most important criteria in the evaluation of the projects. Internationality, and especially intercontinentality, and the participation of researchers early in their careers also ranked highly, not only in the case of Young Investigator but also in Program Grant applications. The Young Investigators' applications were reviewed separately in the same manner as Program Grants. The Review Committee met on 23-25 January 2012 in Strasbourg to discuss the 95 full applications and recommended 33 for awards, 8 Young Investigator and 25 Program Grants, with a reserve list of 1 Young Investigators' Grant (a renewal application) should funds be available. The selection of awards was monitored by the Council and financial considerations (budgetary restrictions) were taken into account by the Board before the recommendations were approved. Both awardees and unsuccessful applicants received feedback from the committee in the form of a short summary.

Fig. 2-1 shows the number of applications and awards between award years 2002 and 2012. Between 1990 and 2001 there was a single step procedure with an average success rate of c.13%. This was simplified from 2002 onwards by the introduction of shorter Letters of Intent where applicants outline their collaboration and project. Following an initial review by members of the grant review committee, a smaller Selection Committee invites full applications for the more promising proposals. The numbers of applications and awards using this two step procedure from 2002 onwards are shown in Table 2-1.

Table 2-1:
Research Grant applications and awards each year since 2002 (2 step procedure)

Award year	Letters of intent	Full applications received	Awards		Success rate* (%)	Total cost in their 1 st year (USD million)
			PG	YI		
2002	548	72	26	11	51.4	12.35
2003	549	80	22	9	39.0	10.85
2004	733	67	27	6	49.2	11.75
2005	719	86	27	7	39.5	12.75
2006	749	80	20	12	40.0	11.05
2007	756	80	25	10	44.3	12.70
2008	774	88	18	14	36.8	10.65
2009	600	88	26	9	39.8	12.1
2010	675	84	25	9	40.5	11.25
2011	674	88	22	11	37.5	11.40
2012	799	95	25	8	34.7	11.75
TOTAL			865**			

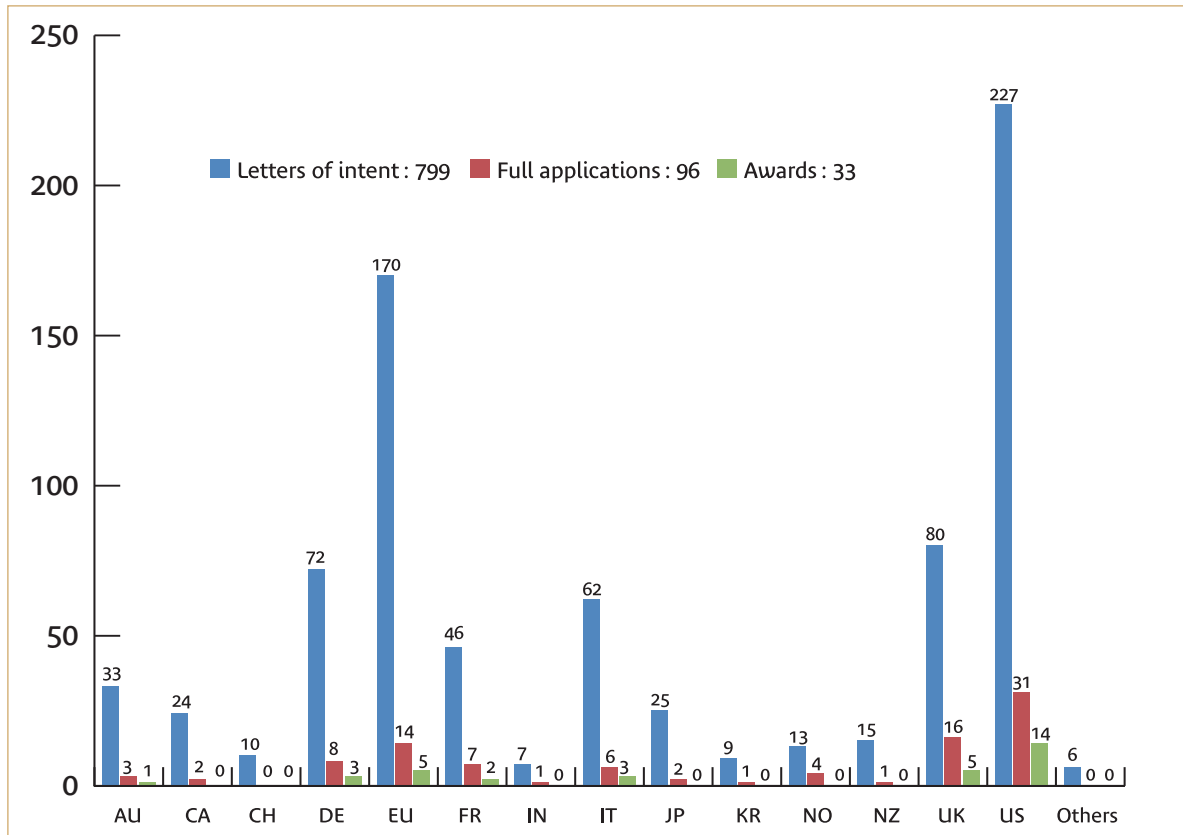
* based on full applications ** Grand total of awards (1990-2012)

Table 2-2:
Gender distribution in award year 2012

		Letter of Intent		Invited	
		Program	Young	Program	Young
Female	No. Scientists	376	132	48	16
	%	19.2%	26.1%	21.3%	19.7%
Male	No. Scientists	1575	373	177	65
	%	80.5%	73.9%	78.7%	80.3%
TOTAL	No. Scientists	1956*	505	225	81

* Program: 5 information refused

Fig. 2-2:
Countries in which Principal Investigators are working



(a) EU Letters of Intent

PG: Austria 8, Belgium 6, Bulgaria 1, Czech Republic 1, Denmark 6, Estonia 1, Finland 4, Greece 5, Hungary 4, Ireland 7, The Netherlands 21, Poland 1, Portugal 7, Romania 1, Slovenia 4, Spain 39, Sweden 19
 YI: Belgium 1, Czech Republic 1, Denmark 2, Finland 1, Greece 2, Ireland 2, The Netherlands 6, Portugal 4, Spain 9, Sweden 3

(b) EU Invited

PG: Austria 1, The Netherlands 3, Portugal 1, Spain 3, Sweden 1
 YI: Austria 2, The Netherlands 1, Portugal 2

(c) EU awarded

PG: Austria 1, The Netherlands 1, Spain 1
 YI: Austria 1, Portugal 1

Others: CDA awardees not in a MSP

Letter of Intent: Israel 4 (3 PG and 1 YI), Taiwan 1 (PG) and China 1 (PG)

Table 2-3:

The distribution of female scientists in awarded applications is the following:

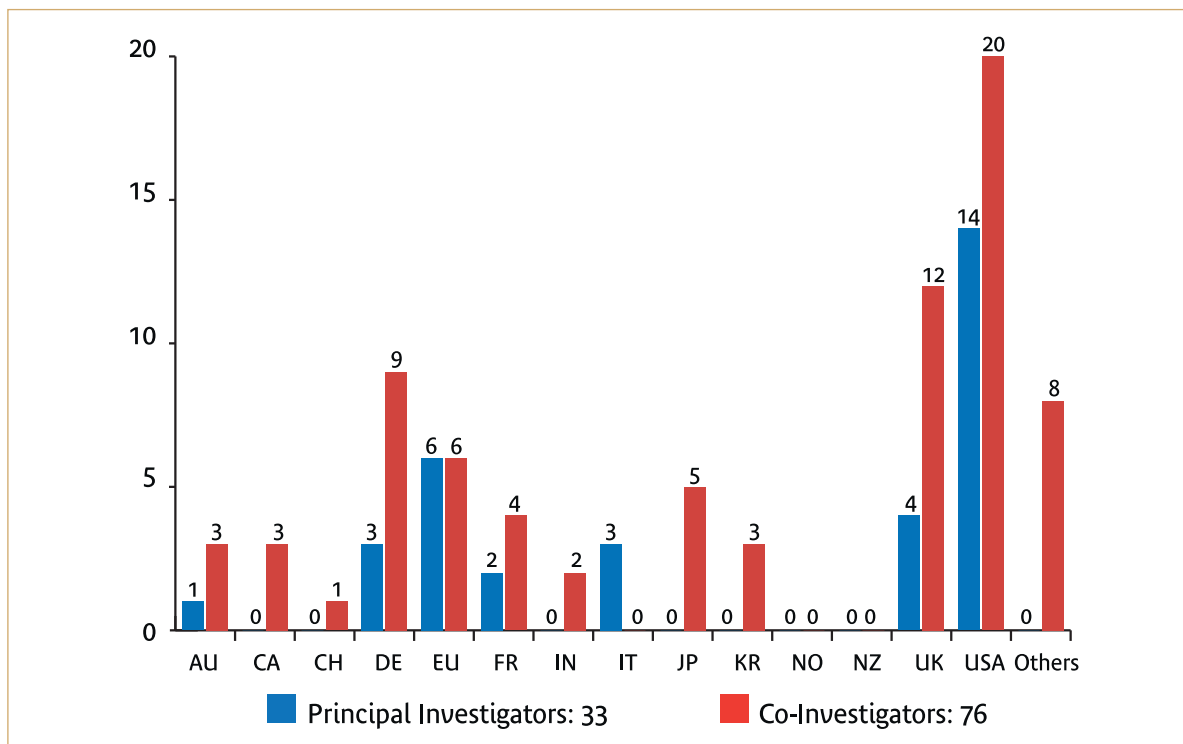
	Total	Female	% Female	(2011)	Female PI	(2011)
Program	86	21	24.4	17.8	6	1
Young	23	4	17.4	9.4	2	0
TOTAL	109	25	22.9	15.2	8	1

Distribution of awards per country

(Figs. 2-2, 2-3, Table 2-4) Fig 2-2 shows the distribution of Principal Investigators for the 2012 awards among various countries and Fig. 2-3 shows the total number of scientists in different countries participating in the international teams. The largest number of applications came from Principal Investigators in the USA and nearly one third of successful applicants (all team members) were working in the USA.

Fig. 2-3:

Countries in which awardees are working



Principal Investigators

EU: Austria 2, Denmark 1, The Netherlands 1, Portugal 1, Spain 1

Co-Investigators

EU: Austria 1, Denmark 1, The Netherlands 2, Ireland 1, Portugal 1
 Non MSPs: Israel 6, Namibia 1, Singapore 1

Table 2-4:
Number of applicants and awardees listed by country of institution

PG=Program Grants YI=Young Investigators	Letter of Intent			Invited			Awarded			Total 2*
	PG	YI	Total	PG	YI	Total	PG	YI	Total	
Australia	86	17	103	7	3	10	1	2	3	4
Canada	58	23	81	6	3	9	2	1	3	3
EU	320(a)	82(a)	402(a)	28(b)	12(b)	40(b)	8(c)	3(c)	11(c)	12
France	104	22	126	14	5	19	5	1	6	6
Germany	166	44	210	19	5	24	8	3	11	12
India	11	6	17	5	1	6	2	0	2	2
Italy	111	21	132	6	1	7	2	1	3	3
Japan	120	28	148	15	1	16	5	0	5	5
Korea	18	12	30	3	1	4	2	1	3	3
New Zealand	28	6	34	2	2	4	0	0	0	0
Norway	18	4	22	4	1	5	0	0	0	0
Switzerland	37	10	47	5	1	6	1	0	1	1
UK	197	48	245	31	16	47	12	6	18	16
USA	505	141	646	69	27	96	30	5	35	34
Non MSPs	177(a')	41(a')	218(a')	11(b')	2(b')	13(b')	8(c')	0(c')	8(c')	8
TOTAL	1956	505	2461	225	81	306	86	23	109	109

*this column takes into account movements of team members (3) since the application.
These numbers are used for the individual countries summaries.

(a) EU Letter of Intent

PG: Austria 27, Belgium 17, Cyprus (EU part only) 1, Czech Republic 4, Denmark 23, Estonia 3, Finland 10, Greece 10, Hungary 11, Ireland 13, Latvia 2, The Netherlands 49, Poland 13, Portugal 14, Romania 2, Slovakia 1, Slovenia 4, Spain 76, Sweden 40

YI: Austria 7, Belgium 2, Czech Republic 2, Denmark 4, Finland 5, Greece 6, Hungary 2, Ireland 2, The Netherlands 16, Poland 1, Portugal 6, Romania 1, Spain 23, Sweden 5

b) EU Invited

PG: Austria 5, Denmark 1, Estonia 1, Hungary 1, Ireland 1, The Netherlands 7, Poland 1, Portugal 2, Spain 8, Sweden 1

YI: Austria 2, Czech Republic 1, Denmark 2, The Netherlands 3, Portugal 2, Spain 2

(c) EU Awarded

PG: Austria 2, Ireland 1, The Netherlands 3, Portugal 1, Spain 1

YI: Austria 1, Denmark 1, Portugal 1

(a') Non MSPs Letter of Intent

PG: Argentina 11, Azerbaijan 1, Brazil 8, Bulgaria 2, Cambodia 1, Chile 3, China (China includes Hong Kong) 17, Croatia 3, Cuba 1, Ecuador 1, Iran 1, Israel 64, Kazakhstan 1, Kenya 1, Malaysia 1, Mexico 4, Namibia 1, Panama 1, Peru 2, Puerto Rico 1, Russia 10, Saudi Arabia 1, Serbia 1, Singapore 17, South Africa 9, Sri Lanka 1, Taiwan 3, Thailand 1, Turkey 2, Ukraine 2, United Arab Emirates 1, Uruguay 2, Venezuela 1, Vietnam 1

YI: Argentina 3, Brazil 11, Chile 3, China (China includes Hong Kong) 5, Israel 12, Malaysia 2, Singapore 4, Taiwan 1

(b') Non MSPs Invited

PG: Israel 8, Namibia 1, Panama 1, Singapore 1

YI: Israel 2

(c') Non MSPs Awarded

PG: Israel 6, Namibia 1, Singapore 1

2.5

THE 2012 REVIEW
COMMITTEE FOR
RESEARCH GRANTS



*Jyotsna Dhawan, Chair of the
Research Grant Review Committee*

Chair

Jyotsna DHAWAN, National Center for Biological Sciences, Bangalore, India

Vice-Chair

Declan BATES, University of Exeter, United Kingdom

Australia

Robert SAINT, University of Melbourne, Victoria

Canada

TBA

European Union

Maria SANCHEZ-VIVES,
Hospital Clínic of Barcelona, Spain

France

Cécile SYKES, Institut Curie, Paris

Germany

Michael BRECHT, Humboldt-University, Berlin
Jan LOHMANN, University of Heidelberg
Christoph SCHMIDT, Georg-August-Universität,
Goettingen

India

Jyotsna DHAWAN, National Center for Biological Sciences, Bangalore

Italy

Lucia BANCI, University of Florence, Sesto Fiorentino

Japan

Masataka KINJO, Hokkaido University, Sapporo
Naoki SUGIMOTO, Konan University, Kobe

Republic of Korea

Yunje CHO, Pohang University of Science and Technology, Hyoja Dong

New Zealand

John David FRASER, University of Auckland School of Medicine

Norway

Aurora MARTINEZ, University of Bergen

Switzerland

Carl PETERSEN, Brain Mind Institute (EPFL), Lausanne

United Kingdom

Declan BATES, University of Exeter
Thomas DUKE, University College London
Rose ZAMOYSKA, Research University of Edinburgh

United States of America

Cheng-Ming CHIANG,
UT Southwestern Medical Center, Dallas
Mary DICKINSON,
Baylor College of Medicine, Houston
Boris SHRAIMAN,
University of California, Santa Barbara
Wendy SUZUKI, New York University
Elizabeth SZTUL,
University of Alabama at Birmingham
Claire E. WALCZAK,
Indiana University, Bloomington

Other

Misha TSODYKS,
Weizmann Institute of Science, Rehovot, Israel

Delegate from the Council of Scientists

Satyajit RATH,
National Institute of Immunology, New Delhi, India



CHAPTER 3



Outreach and Networking



*Left to right: Martin Reddington, Rosalyn Huie (Communications)
and Xavier Schneider (IT manager and webmaster)*

- 3.1 HFSP Nakasone Award
- 3.2 Awardees Meeting
- 3.3 Communications
- 3.4 Honours and prizes

3.1

HFSP NAKASONE AWARD



Gina Turrigiano, Brandeis University, USA, recipient of the HFSP Nakasone Award 2012 for her key studies on homeostatic synaptic plasticity.

The 2012 HFSP Nakasone Award for Gina Turrigiano of Brandeis University

The idea to establish the prestigious HFSP Nakasone Award was proposed in July 2009 during the HFSP 20th anniversary celebrations in Tokyo in the presence of former Prime Minister Nakasone. The award honours the vision of former Prime Minister Nakasone for his efforts to launch a program of support for international collaboration and to foster early career scientists in a global context.

The HFSP Nakasone Award is designed to honour scientists who have undertaken frontier-moving research in biology, encompassing conceptual, experimental or technological breakthroughs. Both senior and junior scientists are eligible and peer-recognised excellence is the major criterion for selection. Awardees receive an unrestricted research grant of USD 10,000, a medal and a personalised certificate. The award ceremony is held at the annual HFSP Awardees Meeting where the awardee delivers the HFSP Nakasone Lecture. The prize is open to all scientists, not only those who have received funding within the HFSP.

The 2012 HFSP Nakasone Award was conferred upon Gina Turrigiano of Brandeis University, for introducing the concept of “synaptic scaling”. In this, homeostatic mechanisms allow balancing the need for plasticity to enable learning and development while maintaining the stability and integrity of the circuits that drive behaviour. Gina Turrigiano is a full Professor

in the Department of Biology, the Volen Center for Complex Systems and the Center for Behavioral Genomics at Brandeis University in Waltham, Massachusetts, USA. Her work has been honoured in the past by prestigious awards including the McArthur Foundation Fellowship and the NIH Director’s Pioneer Award.

The concept of “synaptic scaling” was introduced to resolve an apparent paradox: how can neurons and neural circuits maintain both stability and flexibility? The number and strength of synapses shows major changes during development and in learning and memory. Such changes could potentially lead to massive changes in neuronal output that could have deleterious effects on the stability of neuronal networks and memory storage. Homeostatic mechanisms are therefore required to control neuronal output within certain limits while still maintaining the relative weights of synaptic inputs that underlie information storage. The work of Gina Turrigiano’s laboratory has shown that neurons can “tune” themselves by responding to an increase in firing rate by scaling down all excitatory synaptic strengths and vice versa. Such global changes in synaptic input limit the rate of firing (output) while maintaining changes in the relative strengths of individual synapses (input). She continues to explore the mechanisms that underlie such scaling phenomena and their function in vivo using a variety of molecular, electrophysiological, imaging and computational approaches.

3.2

AWARDEES MEETING

Eleventh HFSP Awardees Meeting, Montreal, Canada, 5-8 June 2011

The HFSP Awardees Meetings have become an important event in the HFSP calendar. Their aim is to bring together Grant, Fellowship and Career Development Awardees from all over the world and from different scientific disciplines to present and discuss their work. These interactions have become a source of new inspiration for awardees and have led to new collaborations. The meetings have thus become a key integrative element in HFSP's programs, creating an international network of scientists at all stages of their careers who are working on all aspects of the biological frontiers.

The 11th HFSP Awardees Meeting was held in the renowned academic environment of McGill University in Montreal, Canada. All current awardees were invited, as well as the newly awarded Young Investigator Grant and Career Development Awardees to encourage these young laboratory leaders to make new contacts in the HFSP community.

The meeting attracted 237 members of the HFSP community for three full days of talks, posters and discussions. The meeting was generously co-funded by the Canadian Institutes of Health Research (CIHR) and the National Sciences and Engineering Research Council (NSERC). It featured 24 talks from HFSP awardees and 158 additional presentations in the form of posters.

The meeting opened with a ceremony during which the second HFSP Nakasone Award was conferred upon Michael Elowitz of the California Institute of Technology. He then gave the HFSP Nakasone Lecture in which he discussed his pioneering work on noise in biological systems and the way in which the concept continues to inform our understanding of cell signalling at a single cell level.

The program was rounded off by a provocative lecture by Paul Lasko, Director of the CIHR Institute of Genetics, on the importance of international collaboration and open access to data for progress in genetics, and a talk by CIHR President Alain Beaudet on Canadian science and technology policy.

In addition, in response to requests by participants at previous meetings, HFSP Directors gave talks on Career Development and on applying for HFSP grants.

"The organization was excellent. The sessions of career planning and writing grants were really clear and helpful. The diversity of speakers in the fields gave an opportunity to increase my scientific background and introduce new ideas which could lead to future collaborations. The quality and level of the participants was really impressive."
Feedback from participant at the 2011 Awardees Meeting.



Michael Elowitz receives the 2011 HFSP Nakasone Award from HFSP President Akito Arima at the Eleventh HFSP Awardees Meeting in Montreal, Canada.

3.3

COMMUNICATIONS

The new web site was launched in February 2011 and we have placed special emphasis on promoting the science funded by HFSP. We have significantly increased the number of recent awardees' articles featured on the home page. The web statistics show that these summaries are being read by hundreds of visitors. In addition, we have commissioned articles on various issues concerning HFSP successes and international and frontier science issues, which have also proved successful. For instance, an article by former HFSP Long-Term Fellow Christine Vogel, called "How many proteins do we have in our cells" has been viewed over 1000 times since it was posted in September 2011. News items are also read frequently, especially those relating to major prizes such as the 2011 Nobel Prizes to HFSP Alumni Jules Hoffmann and Ralph Steinman. The news section documents regularly the extensive awards and honours received by the HFSP community. Over 800 HFSP alumni have signed up to the Alumni section on the site.

The occasional HFSP newsletter on the new web site currently has 1300 subscribers. This has been sent at irregular intervals to announce calls for applications and events such as alumni meetings. To enhance our outreach we are developing a more attractive newsletter that will compile recent items from the web site with other material and provide links to extended information on the site. This will initially be sent quarterly to all members of the HFSP community (awardees, reviewers, Council, Board, etc.) as well as to others who sign up for the newsletter



via our web site. With the new newsletter we hope to reach members of the HFSP community who are too busy to visit the web site regularly.

News and alerts to new material on the web site are distributed via the HFSP Facebook and Twitter feeds, which now have more than 750 and 300 followers, respectively, and are growing steadily.

We had an information booth at The EMBO Meeting in Vienna in September 2011, which attracted a lively stream of scientists interested in applying for grants and fellowships. HFSP was also represented with a special symposium featuring HFSP awardees during the annual meeting of the Molecular Biology Society of Japan in Yokohama in December. At this occasion, HFSP shared booth space with colleagues from MEXT, Tokyo.

A meeting of HFSP alumni was held in Vienna the day before The EMBO Meeting to which Austrian alumni and participants at The EMBO Meeting were invited. As with other alumni meetings, participants made new contacts in their local communities. A lively discussion with the participants provided important feedback to us in developing future strategies for reaching HFSP alumni.

We have been collaborating with colleagues in Japan to address specific Japanese issues such as the decline in the number of young Japanese scientists going abroad. To this effect, we organized a Career Day in July at the University of Tokyo with other international and national funders, which attracted around 150 participants interested in career opportunities abroad. In addition, a Japanese web site about HFSP was revamped this year following launch of our new web site. This contains information about news and events relevant to the Japanese scientific community. We have increased our collaboration with the Japanese sister site to ensure an increased flow of topical and accurate information.

HFSP participation in scientific meetings and science policy meetings:

2011

Lecture at Wits Medical School
4 April, Parktown, South Africa
Lecture at University of Cape Town
5 April, Cape Town, South Africa
Lecture at University of the Western Cape
6 April, Bellville, South Africa
Lecture at Stellenbosch University
7 April, Cape Town, South Africa
Lecture at University of KwaZulu-Natal
11 April, Durban, South Africa
Richard R. Ernst lecture
13 May, Zurich, Switzerland
Lecture by Secretary General on receiving honorary degree from University of Würzburg
27 May, Würzburg, Germany
61st Lindau Nobel Laureate Meeting
26 June – 1 July, Lindau, Germany
HFSP-JSPS Career Day
4 July, University of Tokyo, Japan
Presentation at Korean Advanced Institute of Science and Technology (KAIST)
7 July, Daeduck Science city, Republic of Korea
Presentation at Max-Planck Institute for Plant Breeding Research
8 September, Cologne, Germany
HFSP Alumni Meeting at Research Institute of Molecular Pathology (IMP)
9 September, Vienna, Austria
Booth at The EMBO Meeting 2011
10-13 September, Vienna, Austria
Presentation at Annual Meeting of the Society for Biochemistry and Molecular Biology (GBM)
27 September, Frankfurt, Germany
Presentation at Deutsches Zentrum für Neurodegenerative Erkrankungen (DZNE)
20 October, Bonn, Germany
Science Europe Launch Event
21 October, Berlin, Germany

Keynote speech at Annual meeting of Danish National Research Foundation
28 October, Copenhagen, Denmark
Presentation at Korean Institute of Science and Technology (KIST)
7 November, Seoul, Republic of Korea
Presentation at Yonsei University
9 November, Seoul, Republic of Korea
Presentation at Pohang University of Science and Technology (POSTECH)
10 November, Pohang, Republic of Korea
Presentation at Daegu-Gyeongbuk Institute of Science and Technology (DGIST)
11 November, Daegu, Republic of Korea
ESF 2011 Symposium 'From Scientists to Science Policy for Science'
23 November, Strasbourg, France
Presentation at ETH Zurich
29 November, Zurich, Switzerland
34th Annual Meeting of the Molecular Biology Society of Japan
13-16 December, Yokohama, Japan

2012

Lecture at RIKEN
7 February, Wako Campus, Japan
Opening speech at European Research Council, 'Celebrating 5 years of excellent ideas'
29 February – 1 March, Brussels, Belgium
Presentation at University of Bergen
12 March, Bergen, Norway
Presentation at Norwegian University of Science and Technology
13 March, Trondheim, Norway
Presentation at University of Oslo
14 March, Oslo, Norway

3.4

HONOURS AND AWARDS



Ernst-Ludwig Winnacker, Secretary General of HFSP, with 2011 Nobel Laureate Jules Hoffmann at the HFSP New Year Reception in January 2012.

HFSP GRANTEES AWARDED THE NOBEL PRIZE

	Grant awarded	Nobel Prize
Christiane NÜSSLEIN-VOLHARD	1993	1995 (Physiology or Medicine)
Rolf ZINKERNAGEL	1994	1996 (Physiology or Medicine)
Stanley PRUSINER	1994	1997 (Physiology or Medicine)
John WALKER	1996	1997 (Chemistry)
Steven CHU	1993	1997 (Physics)
Paul NURSE	1994	2001 (Physiology or Medicine)
Tim HUNT	1992/1997	2001 (Physiology or Medicine)
John SULSTON	1991	2002 (Physiology or Medicine)
Peter AGRE	2000	2003 (Chemistry)
Linda BUCK	1995	2004 (Physiology or Medicine)
Avram HERSHKO	1998	2004 (Chemistry)
Roger KORNBERG	1990/1993/1997/2000	2006 (Chemistry)
Roger TSIEN	1995	2008 (Chemistry)
Jack SZOSTAK	2000	2009 (Physiology or Medicine)
Venkatraman RAMAKRISHNAN	2000/2009	2009 (Chemistry)
Ada YONATH	2003	2009 (Chemistry)
Jules HOFFMANN	1995	2012 (Physiology or Medicine)
Ralph STEINMAN	1996, 2006	2012 (Physiology or Medicine)



The following section lists awards and prizes to HFSP awardees that have come to our attention in FY 2011*.

Name	Nationality	Current affiliation	Year of HFSP award
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AGENCE NATIONALE DE LA RECHERCHE

PROGRAMME RETOUR POST-DOCTORANTS

Angélique DELERIS	France	École Normale Supérieure, Paris, France	Long-Term Fellowship 2008
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AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE

MEMBERS

Carlo CROCE	Italy	Ohio State University, Columbus, USA	Research Grant 1996
Michael DOEBELI	Canada	University of British Columbia, Vancouver, Canada	Program Grant 2007
Andrew FEINBERG	USA	Johns Hopkins University School of Medicine, Baltimore, USA	Program Grant 2007
Marie FILBIN	Ireland	Hunter College, City University of New York, USA	Research Grant 1998
Stuart FIRESTEIN	USA	Columbia University, New York, USA	Research Grant 1994, 1998
Michael HASSELMO	USA	Columbia University, New York, USA	Research Grant 1996
Daniel KIEHART	USA	Duke University, Durham, USA	Program Grant 1993
Liqun LUO	USA	Stanford University, USA	Program Grant 2001, 2007
Jaan NOOLANDI	Canada	Xerox Research Center of Canada, Mississauga, Canada	Research Grant 1993
Steven REPERT	USA	University of Massachusetts Medical School, Worcester, USA	Program Grant 1997
Patricia SIMPSON	France/UK	University of Cambridge, UK	Research Grant 1997
Ned WINGREEN	USA	Princeton University, USA	Program Grant 2005

AMERICAN ACADEMY OF ARTS AND SCIENCES

MEMBERS

Scott FRASER	USA	California Institute of Technology, Pasadena, USA	Research Grant 2000
Okihide HIKOSAKA	Japan	National Eye Institute, Bethesda, USA	Research Grant 1991
Todd Joseph MARTINEZ	USA	Stanford University, USA	Program Grant 2006
Richard MORIMOTO	USA	Northwestern University, Evanston, USA	Program Grant 2011
Rodney ROTHSTEIN	USA	Columbia University, New York, USA	Program Grant 2001
Eric SELKER	USA	University of Oregon, Eugene, USA	Research Grant 1995
Shigeyuki YOKOYAMA	Japan	RIKEN, Yokohama, Japan	Research Grant 1990, 2000

BIOPHYSICAL SOCIETY

FELLOWS (2012)

Carlos BUSTAMANTE	USA	University of California, Berkeley, USA	Program Grant 2004, 2011
Tamar SCHLICK	USA	New York University, USA	Program Grant 2003
Klaus SCHULTEN	USA	University of Illinois at Urbana-Champaign, USA	Research Grant 2000
Toshio YANAGIDA	Japan	Osaka University Graduate School of Frontier Biosciences, Japan	Program Grant 2003

* It should also be noted that Research Grants were awarded up until 2001 when Program Grants and Young Investigator Grants were introduced.

CNRS

GOLD MEDAL

Jules HOFFMANN	France	University of Strasbourg, France	Research Grant 1995
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SILVER MEDAL

Giacomo CAVALLI	Italy	CNRS - University of Montpellier, France	Research Grant 2000, Program Grant 2003
Bruno GOUD	France	Institut Curie, Paris, France	Research Grant 1992, 1996

EUROPEAN MOLECULAR BIOLOGY ORGANISATION

MEMBERS

Gregers Rom ANDERSEN	Denmark	University of Aarhus, Denmark	Program Grant 2002
Claudia BAGNI	Italy	Tor Vergata University, Rome, Italy	Program Grant 2001
Yohanns BELLAICHE	France	Institut Curie, Paris, France	Program Grant 2007
Alexander BORST	Germany	Max-Planck-Institute of Neurobiology, Martinsried, Germany	Program Grant 2006
Santiago ELENA	Spain	Institute for Plant Molecular and Cell Biology, University of Valencia, Spain	Program Grant 2008
Patrick LEMAIRE	France	CNRS, University of Provence, Aix-Marseille, France	Research Grant 1998
Mark MARSH	UK	University College London, UK	Program Grant 2006
Andrew MILLAR	UK	University of Edinburgh, UK	Research Grant 1999
Keith GULL	UK	University of Oxford, UK	Program Grant 2004
Botond ROSKA	Hungary	Friedrich Miescher Institute, Basel, Switzerland	Short-Term Fellowship 2000, Young Investigator 2003
Dietmar SCHMUCKER	Germany	VIB and Catholic University Leuven, Belgium	Long-Term Fellowship 1996
Andreas TRUMPP	Germany	Germany Cancer Research Centre, Heidelberg, Germany	Long-Term Fellowship 1994

ASSOCIATE MEMBERS

Cornelia BARGMANN	USA	The Rockefeller University, New York, USA	Research Grant 1992, 1997, Program Grant 2001
Susan LINDQUIST	USA	Whitehead Institute for Biomedical Research, Cambridge, USA	Research Grant 1992
Norbert PERRIMON	USA	Harvard Medical School, Boston, USA	Research Grant 1996, 2000

GOLD MEDAL

Simon BOULTON	UK	Cancer Research UK London Research Institute, UK	Long-Term Fellowship 1998
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YOUNG INVESTIGATOR

Rut CARBALLIDO-LOPEZ	Spain	Institut National de la Recherche Agronomique, Jouy-En-Josas, France	Long-Term Fellowship 2003, Young Investigator 2009
Niko GELDNER	Germany	University of Lausanne, Switzerland	Long-Term Fellowship 2004, Young Investigator 2011
Sophie JARRIAULT	France	IGBMC, University of Strasbourg, France	Long-Term Fellowship 1999
Esben LORENTZEN	Denmark	Max Planck Institute of Biochemistry, Martinsried, Germany	Long-Term Fellowship 2007
Frank SCHNORRER	Germany	Max Planck Institute of Biochemistry, Martinsried, Germany	Long-Term Fellowship 2003, Career Development Award 2009
Maya SCHULDINER	Israel	Weizmann Institute of Science, Rehovot, Israel	Long-Term Fellowship 2002, Career Development Award 2008

EUROPEAN RESEARCH COUNCIL

ADVANCED GRANTS			
Peter BECKER	Germany	Ludwig Maximilians University, Munich, Germany	Research Grant 1997
Antonius BISSELING	Netherlands	Agricultural University Wageningen, The Netherlands	Research Grant 1992, 1998
Michael BOUTROS	Germany	German Cancer Research Center (DKFZ), Heidelberg, Germany	Program Grant 2005
Chris BOWLER	UK	École Normale Supérieure, Paris, France	Research Grant 1995
Elena CONTI	Italy	Max Planck Institute of Biochemistry, Munich, Germany	Long-Term Fellowship 1997, Program Grant 2002
Chris DE ZEEUW	Netherlands	Erasmus University Medical Center, Rotterdam, The Netherlands	Research Grant 1999
Mathew DIAMOND	Italy	International School for Advanced Studies (SISSA), Trieste, Italy	Program Grant 2004, 2009
Tamas FREUND	Hungary	Hungarian Academy of Sciences, Budapest, Hungary	Research Grant 1991, 1995
Kristian HELIN	Denmark	University of Copenhagen, Denmark	Research Grant 1996, 1999
Matthias HENTZE	Germany	European Molecular Biology Laboratory, Heidelberg, Germany	Research Grant 1999
Michel LABOUESSE	France	IGBMC, University of Strasbourg, France	Long-Term Fellowship 1991, Research Grant 1993
Susana MARCOS	Spain	CSIC, Madrid, Spain	Long-Term Fellowship 1997
Kim NASMYTH	UK	Oxford University, UK	Research Grant 1992, 1998
Zoltan NUSSER	Hungary	Hungarian Academy of Sciences, Budapest, Hungary	Research Grant 2000
Carl PETERSEN	UK	Brain Mind Institute, Faculty of Life Science, EPFL, Lausanne, Switzerland	Program Grant 2009
Christine PETIT	France	Pasteur Institute, Paris, France	Research Grant 1999
Daniela RHODES	Italy	MRC Laboratory of Molecular Biology, Cambridge, UK	Program Grant 2003
Rosario RIZZUTO	Italy	University of Ferrara, Italy	Program Grant 2001
Helen SAIBIL	Canada/UK	University of London, Birkbeck College, UK	Program Grant 2003
Wolfram SCHULTZ	Germany	University of Cambridge, UK	Program Grant 2004
Ricard SOLE	Spain	ICREA-Pompeu Fabra University, Barcelona, Spain	Program Grant 2008
Viktor SOURJIK	Belarus	University of Heidelberg, Germany	Program Grant 2005
Ioannis TALIANIDIS	Greece	Biomedical Sciences Research Center, Vari, Greece	Program Grant 2001
Elly Margaret TANAKA	USA	Dresden University of Technology, Germany	Program Grant 2010
Jan TRAAS	Netherlands	École Normale Supérieure, Lyon, France	Program Grant 2005
Bas VAN STEENSEL	Netherlands	Netherlands Cancer Institute, Amsterdam, The Netherlands	Long-Term Fellowship 1995, Program Grant 2003
Joachim WITTBRODT	Germany	University of Heidelberg, Germany	Program Grant 2001
Marat YUSUPOV	France/Russia	IGBMC, University of Strasbourg, France	Program Grant 2006

EUROPEAN RESEARCH COUNCIL

STARTING GRANTS

Giuseppe BATTAGLIA	Italy	University of Sheffield, UK	Young Investigator 2010
Joshua EDEL	UK	Imperial College London, UK	Young Investigator 2009
Avigdor ELDAR	Israel	Tel Aviv University, Israel	Cross-Disciplinary Fellowship 2005, Career Development Award 2010
Friedrich FRISCHKNECHT	Germany	University of Heidelberg Medical School, Germany	Long-Term Fellowship 2001, Young Investigator 2011
Piotr GARSTECKI	Poland	Polish Academy of Sciences, Warsaw, Poland	Young Investigator 2008
Jochen GUCK	Germany	University of Cambridge, UK	Program Grant 2009
Eloisa HERRERA	Spain	Universidad Miguel Hernández-CSIC, San Juan De Alicante, Spain	Long-Term Fellowship 2000, CDA 2004
Roy KISHONY	Israel	Technion Israel Institute of Technology, Haifa, Israel	Young Investigator 2005
Claudia KOHLER	Germany	Swedish University of Agricultural Sciences, Uppsala, Sweden	Long-Term Fellowship 2000
Jan LOHMANN	Germany	University of Heidelberg, Germany	Long-Term Fellowship 2000, CDA 2003
Zoi LYGEROU	Greece	University of Patras, Greece	Young Investigator 2002
Fabio MARTINON	Italy	University of Lausanne, Switzerland	Long-Term Fellowship 2006, CDA 2011
Kathy MCCOY	Canada/New Zealand	University of Bern, Switzerland	Long-Term Fellowship 1998
Wijbrand MEDENDORP	Netherlands	Radboud University Nijmegen, The Netherlands	Long-Term Fellowship 2001, CDA 2005
Maarten MERKX	Netherlands	Eindhoven University of Technology, The Netherlands	Long-Term Fellowship 1999, Young Investigator 2006
Eran MESHORER	Israel	The Hebrew University of Jerusalem, Israel	Program Grant 2011
Hans OP DE BEECK	Belgium	University of Leuven (K.U.Leuven), Belgium	Long-Term Fellowship 2004, CDA 2008
Luca SCORRANO	Italy	University of Geneva, Switzerland	Long-Term Fellowship 2000, CDA 2004
Jan-Erik SIEMENS	Germany	Max-Delbrück-Center for Molecular Medicine, Berlin, Germany	Long-Term Fellowship 2005, CDA 2009
Björn SIEMERS	Germany	Max Planck Institute for Ornithology, Seewiesen, Germany	Program Grant 2009
Gilad SILBERBERG	Israel/Sweden	Karolinska Institute, Stockholm, Sweden	Long-Term Fellowship 2005
Michael SIXT	Hungary	Institute of Science and Technology Austria, Klosterneuburg, Austria	Program Grant 2011
Nachum ULANOVSKY	Israel	Weizmann Institute of Science, Rehovot, Israel	Program Grant 2009
Antoine VAN OIJEN	Netherlands	University of Groningen, The Netherlands	Long-Term Fellowship 2002
Assaf VARDI	Israel	Weizmann Institute of Science, Rehovot, Israel	Young Investigator 2011
Gaël YVERT	France	École Normale Supérieure, Lyon, France	Long-Term Fellowship 2002
Manuel ZIMMER	Germany	Research Institute of Molecular Pathology, Vienna, Austria	Long-Term Fellowship 2004

FEBS/EMBO

WOMEN IN SCIENCE AWARD

Carol ROBINSON	UK	Cambridge University, UK	Program Grant 2002
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FONDATION ALLIANZ/FONDATION DE L'INSTITUT DE FRANCE

2011 PRIZE

Olivier POURQUIE	France	IGBMC, University of Strasbourg, France	Research Grant 1999
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FONDATION RECHERCHE MÉDICALE

2011 PRIZE

Stéphane GASMAN	France	CNRS, University of Strasbourg, France	Long-Term Fellowship 1999, Young Investigator 2003
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FYSICUM

GOTHENBURG LISE MEITNER PRIZE

Stefan HELL	Germany	Max-Planck-Institute for Biophysical Chemistry, Göttingen, Germany	Program Grant 2010
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GAIRDNER FOUNDATION

CANADA GAIRDNER INTERNATIONAL AWARD

Adrian BIRD	UK	University of Edinburgh, UK	Research Grant 1995
Howard CEDAR	Israel	Hebrew University-Hadassah Medical School, Jerusalem, Israel	Research Grant 1995
Jules HOFFMANN	France	University of Strasbourg, France	Research Grant 1995

GERMAN RESEARCH COUNCIL

LEIBNIZ PRIZE

Michael BRECHT	Germany	Humboldt University, Berlin, Germany	Program Grant 2004
Anthony HYMAN	UK	Max Planck Institute of Cell Biology and Genetics, Dresden, Germany	Research Grant 1993, 1998
Matthias MANN	Germany	Max-Planck Institute for Biochemistry, Martinsried, Germany	Program Grant 2001

LOUIS JEANTET FOUNDATION

LOUIS JEANTET PRIZE FOR MEDICINE

Stefan JENTSCH	Germany	Max Planck Institute of Biochemistry Martinsried, Germany	Research Grant 1992
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GRETE LUNDBECK EUROPEAN BRAIN RESEARCH FOUNDATION

BRAIN PRIZE

Gyorgy BUZSAKI	USA/ Hungary	Rutgers University, Newark, USA	Short-Term Fellowship 1997, Research Grant 1991, 1995
Tamas FREUND	Hungary	Hungarian Academy of Sciences, Budapest, Hungary	Research Grant 1991, 1995

HOWARD HUGHES MEDICAL INSTITUTE

INTERNATIONAL EARLY CAREER SCIENTIST

Chun TANG	China	Wuhan Institute of Physics and Mathematics, Chinese Academy of Sciences, Wuhan, People's Republic of China	Young Investigator 2011
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HHMI-GBMF

PLANT SCIENCE PROGRAM INVESTIGATORS

Philip BENFEY	USA	Duke University, Durham, USA	Research Grant 1995
Jeffrey DANGL	USA	University of North Carolina at Chapel Hill, USA	Program Grant 2007
Eliot MEYEROWITZ	USA	California Institute of Technology, Pasadena, USA	Research Grant 1991, 1998, Program Grant 2005

INSTITUTE OF MEDICINE

MEMBER

Carlo CROCE	Italy	Ohio State University, Columbus, USA	Research Grant 1996
Mark DAVIS	USA	Stanford University School of Medicine, USA	Research Grant 1993
Michael KARIN	USA	University of California, San Diego, USA	Research Grant 1996
Marc TESSIER-LAVIGNE	Canada	The Rockefeller University, New York, USA	Research Grant 1995, 2000

FOREIGN ASSOCIATE

Tomas HÖKFELT	Sweden	Karolinska Institute, Stockholm, Sweden	Research Grant 1994
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JAPAN SOCIETY FOR THE PROMOTION OF SCIENCE

INTERNATIONAL PRIZE FOR BIOLOGY

Eric DAVIDSON	USA	California Institute of Technology, Pasadena, USA	Research Grant 1996
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JUNG FOUNDATION

ERNST JUNG PRIZE FOR MEDICINE

Elisa IZAURRALDE	Switzerland/ Uruguay	Max Planck Institute for Developmental Biology, Tübingen, Germany	Research Grant 1998, Program Grant 2003
Peter WALTER	Germany/ USA	UCSF, San Francisco, USA	Research Grant 1992

KEIO UNIVERSITY MEDICAL SCIENCE FUND

KEIO MEDICAL SCIENCE PRIZE

Keiji TANAKA	Japan	The Tokyo Metropolitan Institute of Medical Science, Japan	Research Grant 1995
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KÖRBER FOUNDATION

EUROPEAN SCIENCE PRIZE

Stefan HELL	Germany	Max-Planck-Institute for Biophysical Chemistry, Göttingen, Germany	Program Grant 2010
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LASKER FOUNDATION

ALBERT LASKER BASIC MEDICAL RESEARCH AWARD

Franz-Ulrich HARTL	Germany	Max-Planck-Institute for Biochemistry, Martinsried, Germany	Program Grant 2011
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LINNEAN SOCIETY

BICENTENARY MEDAL

Beverly GLOVER	UK	University of Cambridge, UK	Young Investigator 2005
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NATIONAL ACADEMY OF SCIENCES

MEMBERS

Harry DIETZ	USA	Johns Hopkins University, Baltimore, USA	Research Grant 1999
Michael GAZZANIGA	USA	University of California, Santa Barbara, USA	Research Grant 1992
Michael GOLDBERG	USA	Columbia University, New York, USA	Research Grant 1999
John HEUSER	USA	Washington University, School of Medicine, St Louis, USA	Research Grant 1994
Robert MALENKA	USA	Stanford University, USA	Research Grant 1996
J. Andrew McCAMMON	USA	University of California at San Diego, La Jolla, USA	Research Grant 1993
Susan McCONNELL	USA	Stanford University, USA	Research Grant 1999
Ira MELLMAN	USA	Genentech Inc., South San Francisco, USA	Research Grant 1995
Michel NUSSENZWEIG	USA	The Rockefeller University, New York, USA	Research Grant 1996
Boris SHRAIMAN	USA	University of California, Santa Barbara, USA	Program Grant 2010

NATIONAL ACADEMY OF SCIENCES

FOREIGN ASSOCIATES

Anders BJÖRKLUND	Sweden	Lund University, Sweden	Research Grant 1990, 1994
Franz-Ulrich HARTL	Germany	Max-Planck-Institute for Biochemistry, Martinsried, Germany	Program Grant 2011

NATIONAL INSTITUTES FOR HEALTH

NEW INNOVATOR AWARD

Douglas WEIBEL	USA	University of Wisconsin-Madison, Madison, USA	Young Investigator 2008
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PIONEER AWARD

Florian ENGERT	Germany	Harvard University, Cambridge, USA	Long-Term Fellowship 1999
Andrew FEINBERG	USA	Johns Hopkins University School of Medicine, Baltimore, USA	Program Grant 2007
Sharad RAMANATHAN	India	Harvard University, Cambridge, USA	Program Grant 2004

TRANSFORMATIVE RESEARCH AWARD

Richard CERIONE	USA	Cornell University, Ithaca, USA	Research Grant 1996
Markus MEISTER	USA	Harvard University, Cambridge, USA	Research Grant 1994
Sebastian SEUNG	USA	Massachusetts Institute of Technology, Cambridge, USA	Program Grant 2010

PEW CHARITABLE TRUST

PEW SCHOLAR IN THE BIOMEDICAL SCIENCES

Sharad RAMANATHAN	India	Harvard University, Cambridge, USA	Program Grant 2004
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ROSENSTIEL BASIC MEDICAL SCIENCES RESEARCH CENTER

LEWIS ROSENSTIEL AWARD FOR DISTINGUISHED WORK IN BASIC MEDICAL SCIENCE

C. David ALLIS	USA	The Rockefeller University, New York, USA	Research Grant 1997
Michael GRUNSTEIN	USA	UCLA School of Medicine, Los Angeles, USA	Research Grant 1996

ROYAL SOCIETY

FELLOW

Doreen CANTRELL	UK	University of Dundee, UK	Research Grant 1995
John MORTON	UK	University College London, UK	Research Grant 1995
Patrick TAM	Australia	University of Sydney, Australia	Research Grant 1996

FOREIGN MEMBER

Joanne CHORY	USA	The Salk Institute, La Jolla, USA	Research Grant 1992, 2000
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ROSALIND FRANKLIN LECTURE

Francesca HAPPE	UK	Institute of Psychiatry, London, UK	Long-Term Fellowship 1995
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ROYAL SWEDISH ACADEMY OF SCIENCES

AMINOFF PRIZE

Marat YUSOPOV	France/Russia	IGBMC, University of Strasbourg, France	Program Grant 2006
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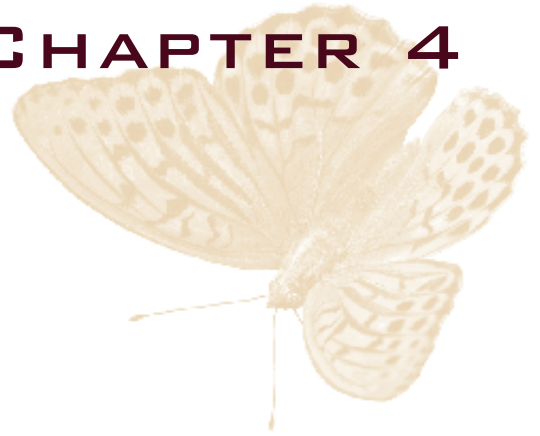
SHAW PRIZE FOUNDATION

SHAW PRIZE

Jules HOFFMANN	France	University of Strasbourg, France	Research Grant 1995
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CHAPTER 4



Budget and Finance



Left to right: Sarah Naett, Isabelle Coquard, Akihiko Tanaka and Jennifer Sayol,

- 4.1 Guidelines for HFSP0 funding
- 4.2 Key financial figures for FY 2011
- 4.3 FY 2011 Financial Summary
- 4.4 Budget for program activities FY 2012

4.1

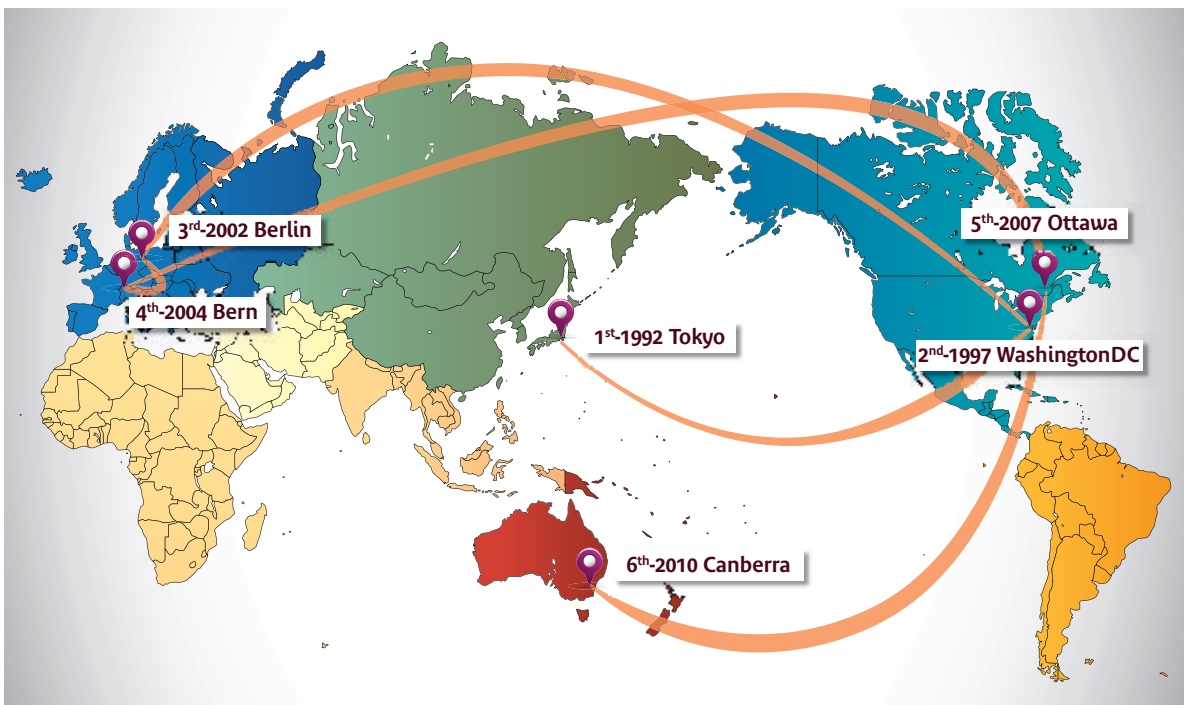
GUIDELINES FOR HFSPO FUNDING

HFSP is supported by voluntary contributions from its MSPs: Australia, Canada, France, Germany, India, Italy, Japan, Republic of Korea, New Zealand, Norway, Switzerland, the United Kingdom, the United States of America and the European Union.

MSPs hold regular Intergovernmental Conferences (IGC) at which the intended level of contribution for the next budgetary period is established as a guideline for the Board. The last IGC in Canberra in May 2010 established a three-year indicative budgetary guideline for the period FY 2011 to FY 2013.

In principle, the Canberra guideline is based on a 4% annual increase of MSPs' contributions. The Canberra IGC guideline was established in local currency (LC). USD reference rates were set for the next three years (Table 4-1).

HFSP Intergovernmental Conferences



4.2

KEY FINANCIAL FIGURES FOR FY 2011

At HFSP0, the fiscal year (FY) extends from 1 April in one year to 31 March the following year.

Figures are reported in million USD unless stated otherwise. Different exchange rates are used in this report for different purposes:

- IGC Canberra reference rates: these are used to monitor the implementation of the IGC budgetary guideline in USD over extended periods and avoid the risk of distortion arising from variations in the exchange rate. Reference rates may differ from actual rates.
- FY 2011 budget rate: the exchange rate used for the budget.
- FY 2011 daily accounting rates: these are used for HFSP0's legal accounts and their consolidation in EUR or in USD. They are updated daily on the basis of data published by the European Central Bank.

The average actual exchange rates governing transactions between the USD and the main currencies used by HFSP0 in FY 2011 were close to those used in the budget (except for Switzerland).

Table 4-1:
Exchange rates used in FY 2011 report

Exchange rates 1 USD =	CAD	CHF	EUR	GBP
Canberra IGC for 2011 to 2013	1.00	1.14	0.75	0.65
Budget FY 2011	1.00	1.14	0.75	0.65
Actual FY 2011 (average)	0.99	0.88	0.73	0.65



4.2.1

CONTRIBUTIONS

Contributions received from MSPs during FY 2011 are shown in Table 4-2 below. Actual payments were made in the agreed currencies, as shown in the first column. The second column shows them in USD, exchanged at the daily accounting rate. The total contribution amounted to 94.4% of the Canberra goal shown in the third column. Failure to achieve the goal was mainly due to a decrease in the Japanese contribution and difficulties in the USA to increase beyond the 2010 level.

Table 4-2:
Contributions received in FY 2011 in currencies (1st April 2011 to 31 March 2012)

	Payments		Comparison with Canberra Goal	
	Actual payment LC (Local Currency)	Actual payment in USD (at accounting rate)	Canberra budgetary plan for 2011 USD	Difference with Canberra goal USD
Australia	,622 000 USD	\$ 622 000	\$ 622 000	0
Canada	1 611 000 CAD	\$ 1 614 058	\$ 1 611 000	3 058
EU	4 319 000 EUR	\$ 6 253 932	\$ 5 759 000	494 932
France	2 041 720 EUR	\$ 2 700 906	\$ 2 071 000	629 906
Germany	3 795 000 EUR	\$ 5 035 561	\$ 5 060 000	-24 439
India*	EUR	\$ 914 000	\$ 914 000	0
Italy	1 071 000 EUR	\$ 1 408 154	\$ 1 089 000	319 154
Japan	24 773 000 USD	\$ 24 773 000	\$ 29 523 000	-4 750 000
Korea	722 000 USD	\$ 722 000	\$ 722 000	0
New-Zealand	118 000 USD	\$ 118 000	\$ 118 000	0
Norway	563 000 USD	\$ 563 000	\$ 563 000	0
Switzerland	757 000 CHF	\$ 922 988	\$ 664 000	258 988
UK	1 258 000 GBP	\$ 2 010 320	\$ 1 936 000	74 320
USA	9 930 320 USD	\$ 9 930 320	\$ 10 327 000	-396 680
		\$ 57 588 239	\$ 60 979 000	-3 390 761 94.4%

*not yet received

Goal compared to real payment

- Eleven MSPs have settled their confirmed contribution in full.
- There were again fluctuations in the exchange rate from the Canberra IGC reference rate. This explains the difference between the amount planned and actual payment in USD.
- After some negotiation, the French Ministry of Research increased its contribution by approximately 500 thousand EUR, paying 2.700 million USD instead of 2.071 million USD as planned.
- Japan decreased its contribution by 16 %, contributing 4.75 million USD less than the amount indicated in the Canberra budgetary plan.
- The US paid 9.930 million USD, the same amount as last year. This is 0.397 million USD less than the Canberra goal for FY 2011.
- As of 31 March 2011, the Indian contributions for FY 2010 and FY 2011 remained unpaid.

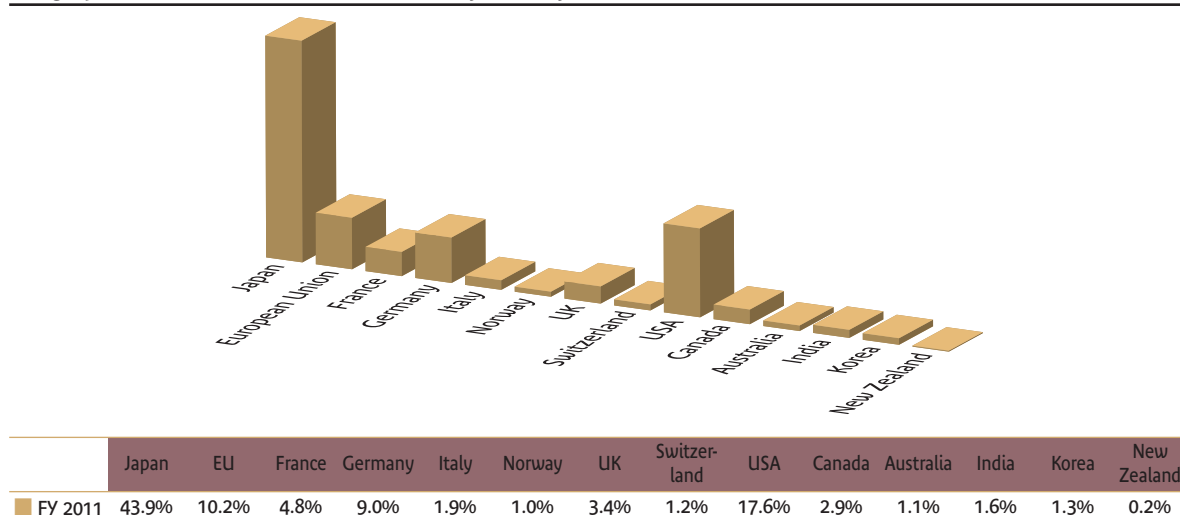
At end of FY 2011, the total contributions received by the MSPs since the beginning of the Program will have amounted to 1.151 billion USD. Japan, the founder of the Program, has provided 746 million USD, representing 64.8% of the total. All the other MSPs have contributed 405 million USD together. After Japan, the next most significant contributors are the USA (12.6 %), the European Union (5.6 %) and Germany (5.3 %).

GEOGRAPHICAL DISTRIBUTION

The Asia Pacific region, which includes the Japanese contribution, remains the main source of funding, contributing 48.1 % of the total in FY 2011, as compared with 53.2 % in FY 2010 and 53.5 % in FY 2009. Next year, this percentage will fall to 46.2 %.

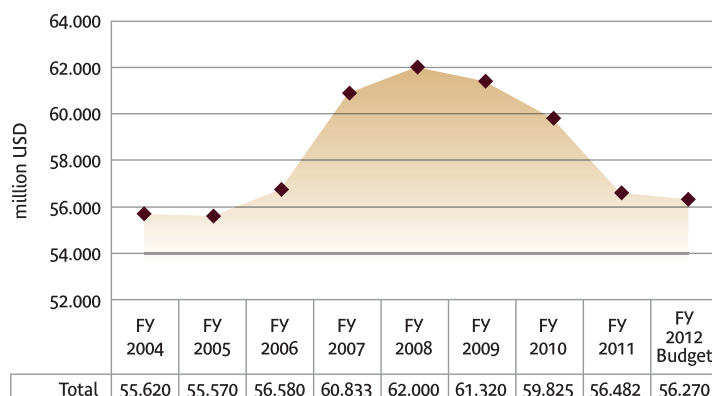
After the Asia Pacific region, Europe contributed 31.5% (as compared with 27.8 % in FY 2010) and North America contributed 20.6 % (as compared with 19 % in FY 2010).

Fig. 4-1:
Geographical distribution of contribution by country in FY 2011



TOTAL CONTRIBUTION

With regard to the total contribution, this reached a peak in FY 2008, with 62 million USD. Since then, it has decreased so that the level in FY 2011 is the same as in FY 2006. The decrease is expected to continue in FY 2012 and after and may possibly lead to the reduction of grants and fellowships to such an extent as to impede HFSP's competitiveness and endanger the reputation of its programs.



4.2.2

PAYMENT OF AWARDS

HFSP0 paid 56.177 million USD to its awardees during FY 2011. Fig. 4-3 shows the breakdown of the amount by activity:

- Research Grant payments amounted to 34.719 million USD. This constitutes 61.80 % of payments made in FY 2011.
- Payments to Long-Term and Cross-Disciplinary Fellows correspond to 29.30 % of payments in FY 2011. Actual payments were slightly below budget for two reasons observed every year:
 - Some payments planned for FY 2011 were postponed for reasons such as parental leave or deferral of the third year in the event of repatriation. These payments were transferred to the following fiscal years.
 - Some fellows terminated earlier than scheduled eg. to take up a permanent position.
- Payments to CDA holders amounted to 5 million USD and constitute 8.9 % of FY 2011 payments.
- Resources allocated to the Awardees Meeting in Montreal, Canada, and other outreach activities, including Program meetings, the Nakasone Award or Alumni meetings, amounted to approximately 600 thousand USD.

Fig. 4-3:
Payments made in FY 2011 by type of award/activity

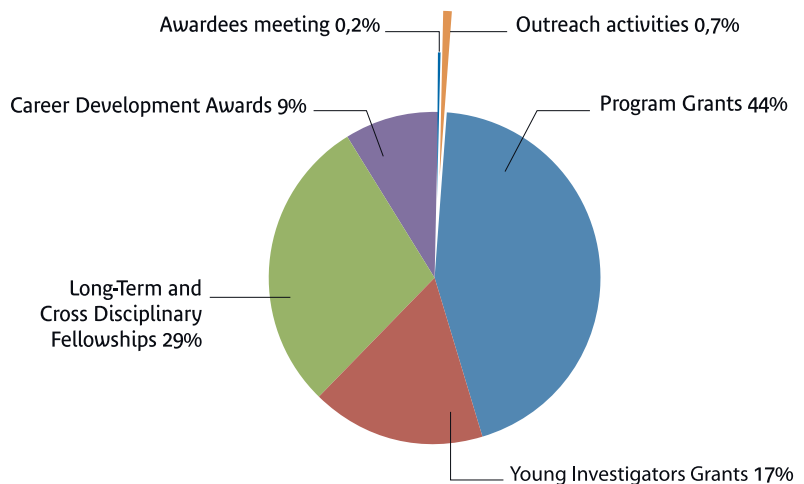


Table 4-3:
Geographical distribution of award payments per MSP for the major programs in FY 2011 (million USD)

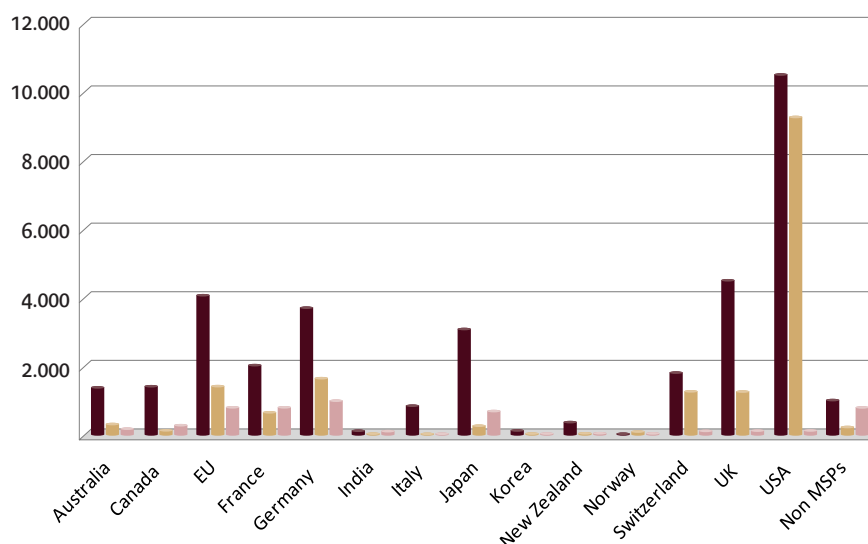
MSP	Research Grants	%	Long-Term+ Cross-Disciplinary Fellowships	%	Career Development Awards	%	Total	% Total
Australia	1.378	3.97%	0.285	1.73%	0.200	4.00%	1.863	3.32%
Canada	1.400	4.03%	0.119	0.72%	0.300	6.00%	1.819	3.24%
EU	4.045	11.65%	1.409	8.56%	0.800	16.00%	6.254	11.13%
France	2.020	5.82%	0.658	4.00%	0.800	16.00%	3.478	6.19%
Germany	3.693	10.64%	1.661	10.09%	1.000	20.00%	6.354	11.31%
India	0.100	0.29%	-	0.00%	0.100	2.00%	0.200	0.36%
Italy	0.833	2.40%	0.034	0.21%	-	0.00%	0.867	1.54%
Japan	3.054	8.80%	0.261	1.58%	0.700	14.00%	4.015	7.15%
Korea	0.117	0.34%	0.004	0.02%	-	0.00%	0.120	0.21%
New Zealand	0.367	1.06%	0.001	0.00%	-	0.00%	0.368	0.65%
Norway	-	0.00%	0.082	0.50%	-	0.00%	0.082	0.15%
Switzerland	1.790	5.16%	1.266	7.70%	0.100	2.00%	3.157	5.62%
UK	4.483	12.91%	1.258	7.64%	0.100	2.00%	5.841	10.40%
USA	10.436	30.06%	9.191	55.85%	0.100	2.00%	19.727	35.12%
Non MSPs	1.002	2.89%	0.229	1.39%	0.800	16.00%	2.032	3.62%
Grand Total	34.719	100.0%	16.458	100.0%	5.000	100.0%	56.177	100.0%
	61.80%		29.30%		8.90%			

Table 4-3 and Fig. 4-4 show the geographical distribution of award payments.

46.3 % of the total amount of awards paid in FY 2011 went to awardees in Europe (cf. 45.7 % in FY 2010), 38.4 % was allocated to awardees in North America (cf. 41.1 % in FY 2010), 11.7 % went to awardees in

the Asia-Pacific region (cf. 9.2 % in FY 2010) and 3.6 % to non MSPs (cf. 4 % in FY 2010).

Fig. 4-4:
Geographical distribution of total awards over all programs paid by HFSP in FY 2010



In FY 2011, 13 out of 14 MSPs benefited from HFSP Research Grant programs, highlighting their efforts to participate in international collaborations.

4.3

FY 2011 FINANCIAL SUMMARY

The accounting summary (Table 4-4) provides an overview of income and expenditures. Together, these result in the cash net financial position.

Contributions paid in currencies other than the USD are consolidated at the exchange rate of the date of payment.

Table 4-4:
HFSP0 accounting summary FY 2011 (budget and actual rates) - Income

Income/ current commitments		Budget 2011 in m LC	Report FY 201 in m LC (budget rate)	Budget 2011 in m USD	Report FY 2011 in m USD(actual rate)
1. Contributions				55.830	57.588
Australia	USD	0.622	0.622	0.622	0.622
Canada	CAD	1.611	1.611	1.611	1.614
European Union	EUR	4.319	4.319	5.759	6.254
France	EUR	1.553	2.042	2.071	2.701
Germany	EUR	3.795	3.795	5.060	5.036
India*	USD	0.914	0.914	0.914	0.914
Italy	EUR	0.816	1.071	1.088	1.408
Japan	USD	24.773	24.773	24.773	24.773
Korea	USD	0.722	0.722	0.722	0.722
New Zealand	USD	0.118	0.118	0.118	0.118
Norway	USD	0.563	0.563	0.563	0.563
Switzerland	CHF	0.757	0.757	0.664	0.923
UK	GBP	1.258	1.258	1.935	2.010
USA	USD	9.930	9.930	9.930	9.930
* not yet received					
2. Interest and capital gain (estimate)				0.500	0.401
3. Miscellaneous reimbursements				0.000	0.423
4. Treasury				62.417	59.457
EMTN				29.021	35.957
UCITS in USD				18.547	16.499
UCITS in EURO				10.037	4.080
CURRENT BANK ACCOUNTS				4.812	2.921
Total income				118.747	117.868
Balance (negative)					
GRAND TOTAL				118.747	117.868

Table 4-4 (continued):

HFSP0 accounting summary FY 2011(budget and actual rates) - Expenditures

Expenditures/ new commitments	Budget 2011 in m USD	Report FY 2011 in m USD
1. Administrative expenses	4.469	4.021
2. Program activities	57.888	56.782
Program Grants	25.200	25.151
Young Investigators	9.550	9.568
Fellowships	17.506	16.458
Career Development Awards	4.800	5.000
Awardees meetings and outreach activities	0.832	0.605
3. Committed funds beyond fiscal year	55.398	55.060
Committed funds from previous year	1.250	
Program Grants	23.950	25.900
Young Investigators	10.150	9.000
Fellowships	16.848	17.660
Career Development Awards	3.200	2.500
Total Expenses	117.755	115.863
Annual balance	0.992	2.005
GRAND TOTAL	118.747	117.868

As regards the FY 2011 budget, the Indian contribution has been included in the accounting summary since payment has been confirmed, even though not received. France has increased its contribution by about 500 thousand EUR more than the budget. Overall financial income is estimated to be slightly lower than expected due to the underperformance of long-term investments made in FY 2007.

Expenditure has been closely monitored and was lower than expected. The expenses of the Secretariat for FY 2011 amounted to 4.021 million USD as compared to 4.84 million USD in FY 2010. These include meeting and travel costs for the Board of Trustees, office costs and salaries. Other meeting costs for the Review Committees, Council and Selection Committee are included under "Awardees meeting and outreach activities".

All Research grant, Fellowship and Career Development Award payments for FY 2011 have been made in full. Program expenses reached 56.782 million USD, one million less than expected. Some fellows terminated before the scheduled date mainly because they were either offered a permanent position or because they opted for another fellowship. Taking into account both the cash flow and commitments to awardees (i.e. commitments from previous years at the beginning of the year and those still to be paid at closing), there should be a positive balance of around 2 million USD at the end of FY 2011. Outstanding contributions to be received from India amount to 1.793 m USD (FY 2010 and FY 2011).

4.4

BUDGET FOR PROGRAM ACTIVITIES FY 2012

CONTRIBUTIONS

The budgetary guideline adopted at the HFSP IGC in Canberra in May 2010 for the period FY 2011-FY 2013, in the currencies of contribution and converted into USD, served as the basis for budgetary planning for FY 2012, as shown in Annex A.2.

All MSPs confirmed their contribution for FY 2012 at the Board meeting in March 2012.

The FY 2012 budget will fall short of the Canberra goal (62.24 million USD) by 5.966 million USD, mainly due to reductions in the Japanese contribution and difficulties in the US to increase beyond the FY 2010 level of funding

PROGRAM ACTIVITIES

- The Program activity plan was adopted by the Board on 23 March 2012. Taking into account the limits of the projected budget, it decided to make the following awards:
 - 25 Program Grants
 - 8 Young Investigators
 - 85 Long-Term and Cross-Disciplinary Fellowships,
 - 8 Career Development Awards
- Program activities in FY 2012 will cost 55.23 million USD. Table 4-5 shows the nature of these activities. Out of this amount, payments to awardees in FY 2012 will amount to 54.35 million USD as compared to 58.95 million USD last year and 60.3 million USD in FY 2009.
- Program activities for FY 2012 include the 12th HFSP Awardees meeting in Daegu, Republic of Korea, the Nakasone Award 2012, two Alumni network meetings, a Career Day in Japan, attendance at scientific meetings and travel for Council and Review Committee members. These expenses will amount to 877 thousand USD.

OVERVIEW OF HFSP0 2012 BUDGET

HFSP0 has committed 117.35 million USD for Program activities in FY 2012 and beyond, and for operational costs in FY 2012. HFSP0 expects to receive 56.27 million USD in MSPs' contributions for FY 2012. Together with resources from past contributions, interest and income from investments, the total amount available for FY 2012 and beyond will be over 119.87 million USD, assuming that outstanding contributions from India and Italy are received. The balance between income and expenditure is positive and amounts to about 2.5 million USD. This shows that HFSP0 is operated on a sound financial basis.

Table 4-5:

Overview of HFSP0 budget for FY 2012 including all commitments for future years.

INCOME				Budget 2012 in m LC	Canberra IGC-USD in m USD	Budget 2011 in m USD	EXPENDITURES			Budget 2012 in m LC	Budget 2012 in m USD
1. Contributions				n.a.	62.24	56.27	1. HFSP Operations			EUR 3.35	USD 4.47
Australia	USD	0.65	0.65	0.65	2. Program Activities			USD		55.23	
Canada	CAD	1.68	1.68	1.68	Program Grants	25	25.25	25.25			
European Commission	EUR	4.49	5.99	5.99	Young Investigators	8	9.10	9.10			
France - unconfirmed	EUR	2.10	2.15	2.80	Long-Term Fellowships	85	16.70	16.70			
Germany	EUR	3.95	5.26	5.26	Career Development Awards	8	3.30	3.30			
India - unconfirmed	USD	0.95	0.95	0.95	Awardees meetings		0.25	0.33			
Italy - unconfirmed	EUR	0.85	1.13	1.13	Program meetings (RC, COS, SEL)		0.30	0.40			
Japan	USD	23.55	29.52	23.55	Outreach activities - Alumni network		0.08	0.11			
Korea	USD	0.75	0.75	0.75	Nakasone Award		0.03	0.04			
New Zealand	USD	0.12	0.12	0.12	3. Not yet paid as of			5/3/12		2.60	
Norway	USD	0.59	0.59	0.59	CDA 2009-2010-2011		1.10	1.10			
Switzerland	CHF	0.79	0.69	0.86	LT 2008-2009-2010-2011		0.85	0.85			
UK	GBP	1.31	2.01	2.01	Office costs to go for FY 2011			0.65			
USA 10 740\$ Canberra request	USD	9.93	10.74	9.93	4. Committed funds beyond fiscal year				55.06	55.06	
2. Interest and capital gain					0.25	Program Grants			25.90	25.90	
3. Miscellaneous (subsidies, reimbursements)					0.00	Young Investigators			9.00	9.00	
4. Treasury					59.46	Long-Term Fellowships			17.66	17.66	
EMTN								2.50	2.50		
UCITS in USD								Total expenses + Committed			
UCITS in EURO										117.35	
Current bank accounts								Balance (positive)			
										0.000	
Total Income + Assets (incl. 60kUSD in kind)					115.98	GRAND TOTAL				117.35	
Balance (negative)					1.376						
GRAND TOTAL					117.35						

The awarding capacity in FY 2012 will be as indicated below if we receive outstanding contributions from India and Italy

	India	FY 10-11	3.888		
	Italy	FY 09-11			
Total expenses + Committed			119.865	Total expenses + Committed	117.354
Balance (negative)			0.000	Balance (positive)	2.512
GRAND TOTAL			119.865	GRAND TOTAL	119.865

Note on FY 2011 accounts

Accounts for FY 2011, consolidated in EUR have been prepared by the chartered accountants KPMG-SEGEC. Price Waterhouse Coopers audited and certified these accounts. HFSP0's legal accounts are reported on an accrual basis.

They follow the French regulations (GAAP) applicable to not-for-profit organisations. Legal accounts are consolidated and stated in EUR. The currency of consolidation used for HFSP0's internal reporting, including this annual report, is the USD.



APPENDIX



- A. 1** History of the Program
- A. 2** Joint Communiqué of the
Intergovernmental Conference on the
Human Frontier Science Program, Canberra,
28 May 2010
- A. 3** Summary of decisions of the Board of
Trustees in 2011
- A. 4** Long-Term and Cross-Disciplinary
Fellowships awarded in 2011
- A. 5** Career Development Awards made in 2011
- A. 6** Research Grants awarded in 2011

A.1

HISTORY OF THE PROGRAM

A1.1 Beginnings

1986 A feasibility study was carried out by leading Japanese scientists under the auspices of the Japanese Prime Minister's Council for Science of Technology, to explore possible means to encourage international collaboration in basic research.

1987 Discussion was expanded to include scientists from the G7 summit nations and the European Union, resulting in the "London Wise Men's Conference" in April 1987, which endorsed the suggestion.

Prime Minister Nakasone of Japan proposed the Human Frontier Science Program at the Venice Economic Summit in June. The Economic Summit partners and the Chairman of the European Community welcomed the initiative and activities aimed at implementing it as soon as possible were started.

1988 Further international talks were held from November 1987 to March 1988 in the form of an International HFSP Feasibility Study Committee, which culminated in April 1988 in the "Bonn Wise Men's Conference" - this established an outline of the program activities and defined the general scientific areas and types of activity to be supported.

Prime Minister Takeshita of Japan reported the conclusions of the international feasibility study at the Toronto Economic Summit in June. The assembled Heads of State welcomed the proposal for implementation in the near future.

1989 An International Scientists Committee, which had started work in 1987, gave further shape to the Program, defining its organization and the details of its program activities, research areas and selection

procedures. Intergovernmental conferences were held in June and July 1989 in Tokyo and Berlin, respectively, which led to endorsement of the plan by the participating governments. It was agreed to implement the HFSP for an initial experimental phase of 3 years.

The Secretariat of the Program, the International Human Frontier Science Program Organization, was founded in October 1989 in Strasbourg, France. The first President of the Program was Ambassador Miyazaki (Japan), the first Chairman of the Council of Scientists was Dr. Edward Rall (US) and the first Secretary General was Sir James Gowans, former Secretary of the Medical Research Council, UK.

1990 The peer review process was established and the first awards were made in March.

A1.2 Further development of the Program

Intergovernmental Conferences bring together representatives of the Management Supporting Parties, i.e. those countries that support the Program directly, plus the European Union, representing the remaining EU countries, to discuss overall policy and strategy. Since 2004, they also establish an indicative financial framework for the following three years.

1st Intergovernmental Conference, Tokyo, Japan, January 1992: This conference recognised the achievements made in the initial phase of the Program and the desirability of continuing the HFSP. It was decided to carry out a general review of the program from both scientific and organisational standpoints.

2nd Intergovernmental Conference, Washington, DC, USA, May 1997: It was decided to continue the HFSP for another five years. The MSPs reaffirmed the goals of the Tokyo Joint Communiqué aimed at increased and equitable funding for the Program. A further review of the Program was requested for March 2001.

3rd Intergovernmental Conference, Berlin, Germany, June 2002: The MSPs agreed to the continuation of HFSP for a further five years on the basis of its scientific value and the implementation of a number of initiatives introduced by the Secretary General. A working group was set up to consider the future finances, status and scope of the Program.

4th Intergovernmental Conference, Bern, Switzerland, June 2004: The delegates agreed upon a general indicative financial framework for 2005-2007 in order to reach a total budget of 60 million USD and a 50:50 distribution of contributions from Japan and the other countries. An annual increase was recommended to maintain the awarding capacity of the Program.

5th Intergovernmental Conference, Ottawa, Canada, June 2007: The representatives agreed on an indicative three year budgetary plan 2008-2010 and endorsed the Board recommendation of March 2007 that an annual minimum contribution be required of any new MSP.

6th Intergovernmental Conference, Canberra, Australia, May 2010: The representatives recognised the success of HFSP in setting new paradigms for research and in funding excellent individual and collaborative projects over a 20 year period. As the Program enters a new phase of its development, representatives asked the Board to develop a new financial framework for consideration at the next IGC. For the period 2011-2013, an indicative financial framework was agreed.

A1.3 Membership of HFSP

HFSP was established at the initiative of the Japanese government, led by Prime Minister Nakasone. The founding MSPs were Canada, France, Germany, the European Union, Italy, Japan, the UK and the USA. Switzerland took up membership in 1990. At the 3rd Intergovernmental Conference (Berlin, 2002), MSPs agreed to take active steps to expand the membership of HFSP to enhance the intercontinental balance of the Program and promote international collaboration. The Guidelines for membership were subsequently revised and the Board accepted the following new members:

- 2004 Australia and Republic of Korea
- 2006 New Zealand and India
- 2008 Norway

A1.4 Reviews of HFSP

A number of reviews have been carried out at the request of the MSPs.

1996 General Review: a questionnaire based review, with comments by an expert scientific panel.

2001 Second General Review: a questionnaire based review, with a bibliometric analysis.

2006 Review of the Human Frontier Program's Initiatives 2000-2005: a questionnaire based review to evaluate the success of the initiatives introduced under the leadership of Secretary General, Torsten Wiesel.

2007 Report of the expert review panel on HFSP: an additional review by a panel of eminent scientists, who were invited to comment on the 2006 report and to identify issues for further evaluation.

2010 Review of the Human Frontier Science Program: a questionnaire based review to evaluate the success of the initiatives since 2000 and a bibliometric analysis of awardees' publications. A further study of commercialization resulting from HFSP funded research was carried out at the request of the Ministry of Trade, Economy and Industry, Japan.

A1.5 Leadership and management

The MSPs nominate representatives to the Board of Trustees to take responsibility for the management of the Program in collaboration with the Council of Scientists. A President and two Vice-Presidents are elected by the members from among the Trustees for a three-year term. The Board of Trustees appoints a Secretary General for a term of three years to execute the Program in accordance with the decisions of the Board of Trustees and the Council of Scientists.

President of the Board of Trustees

- | | |
|----------------------------|----------------------------|
| Hirohichi MIYAZAKI (Japan) | November 1989 – March 1995 |
| Kozo IIZUKA (Japan) | April 1995 – March 2000 |
| Masao ITO (Japan) | April 2000 – March 2009 |
| Akito ARIMA (Japan) | April 2009 to present |

Chair of the Council of Scientists

- Edward RALL (USA):
March 1990 (2nd meeting) to March 1993 (8th meeting),
- Klaus-Peter HOFFMANN (Germany)
November 1993 (9th meeting) to March 1995 (12th meeting)
- Pierre CHAMBON (France)
March 1996 (13th meeting) and March 1997 (14th meeting)
- Albert AGUAYO (Canada)
March 1998 (15th meeting) and March 1999 (16th meeting)
- Arturo FALASCHI (Italy)
March 2000 (17th meeting) and March 2001 (18th meeting)
- Pierre MAGISTRETTI (Switzerland)
March 2002 (19th meeting) and March 2003 (20th meeting)
- Heinrich BETZ (Germany)
March 2004 (21st meeting)
- Joachim SEELIG (Switzerland)
March 2005 (22nd meeting) and March 2006 (23rd meeting)
- Rudi BALLING (Germany)
March 2007 (24th meeting)
- Paul LASKO (Canada)
March 2008 (25th meeting) to March 2010 (27th meeting)
- Rae SILVER (USA)
March 2011 (28th meeting) to March 2012 (30th meeting)
–extraordinary meeting)

Secretary General

- | | |
|----------------------------------|----------------------------|
| James GOWANS (UK) | November 1989 – March 1993 |
| Michel CUÉNOD (Switzerland) | April 1993 – March 2000 |
| Torsten WIESEL (USA) | April 2000 – June 2009 |
| Ernst-Ludwig WINNACKER (Germany) | July 2009 to present |



JOINT COMMUNIQUÉ OF THE INTERGOVERNMENTAL CONFERENCE ON THE HUMAN FRONTIER SCIENCE PROGRAM, CANBERRA, 28 MAY 2010

Representatives of the Management Supporting Parties (MSPs) of Australia, Canada, France, Germany, Italy, Japan, the Republic of Korea, New Zealand, Switzerland, the United Kingdom of Great Britain and Northern Ireland, the United States of America and of the European Union met at an Intergovernmental Conference (IGC) on 28 May 2010 in Canberra, Australia, to review the progress made and to discuss the future of the Human Frontier Science Program (HFSP)¹.

Paragraph 1 : Continuation of the Human Frontier Science Program

a) Representatives recognise and applaud the success of the HFSP in setting new paradigms in international research and in supporting exceptional research and fellows over a 20-year period. They note with approval the recent positive external evaluation of the Program, in particular the clear success of the scientific programs in achieving their aim of stimulating interdisciplinary interactions and supporting early career scientists. The quality of the output is clearly well above other high impact comparators. The evaluation recognised that HFSP continues to provide opportunities to link knowledge areas in novel ways and that the Program is more than ever avant-garde among funding programs globally.

b) Representatives agree to commit to continue the support of the Program and to ensure the future success of HFSP by maintaining the competitiveness of its grants and support for exceptional scientists.

Paragraph 2 : Finances

- a) Representatives acknowledge and commend the lead role of Japan in supporting HFSP. Japan's vision and its financial support over the past 20 years have ensured that the Program continues to have profound impacts in extending the frontiers of the life sciences.
- b) Representatives agree to the proposed respective contributions for the period 2011-2013 as set out in the Annex.
- c) Representatives are pleased to note that an equal match between the contribution of Japan and that of other MSPs has been achieved.
- d) Representatives note that this Program, 20 years after its foundation, is now entering a new phase of its development. Therefore, representatives request the HFSP Board of Trustees to develop a new financial framework based on clearly defined principles. The IGC asks the Board to establish, as soon as possible, a small working group with clear Terms of Reference to develop such a framework. The IGC expects an IGC working party to consider the Board recommendations no later than March 2012.
- e) MSPs are encouraged to continue to increase their contributions so that the overall proportion of non-Japanese contributions rises steadily over the years.

Paragraph 3 : New membership

- a) Representatives welcome the membership of Norway as approved by the Board at its meeting in March 2008.
- b) Representatives agree that the organisation should continue to encourage potentially interested parties to apply for membership of HFSP, subject to the quality and capacity of fundamental biological research conducted by that country, and by its willingness and ability to support the HFSP financially.
- c) Negotiations with new countries regarding membership should be on the basis of the new funding framework.
- d) Representatives note that the contributions of any new members are to be added to the total amount contributed by the other MSPs.

Paragraph 4 : Next Meeting

- a) Representatives expect an IGC to be held in order to agree on the new financial framework before the end of 2012. MSP contributions under the new framework are to be negotiated in 2013.

ANNEX

Canberra budgetary guidelines 2011-2013 (in k local currencies)

MSP	Currency	Budget FY 2011	Budget FY 2012	Budget FY 2013
Australia	USD	622	647	673
Canada	CAD	1 611	1 675	1 742
EU	EUR	4 319	4 492	4 672
France**	EUR	1 553 **	1 615 **	1 679 **
Germany	EUR	3 795	3 947	4 105
India	USD	914	951	989
Italy	EUR	816	849	883
Japan*	USD	29 523 *	29 523 *	29 523 *
New Zealand	USD	118	123	128
Norway	USD	563	585	608
Republic of Korea	USD	722	751	781
Switzerland	CHF	757	787	818
UK	GBP	1 258	1 309	1 361
USA	USD	10 327	10 740	11 170

* Japan: a review of the program's performance in Japan will be conducted. This amount is subject to change, depending on its results.

** France: indicative figures

The percentage contribution of Japan is 48.4% (FY 2011), 47.4% (FY 2012) and 46.5% (FY 2013).

1 USD=0.75 EUR, 1 CAD, 1.14 CHF and 0.65 GBP

Australia
Prof Warwick ANDERSON (Chair of the Conference)

Canada
Dr Alain BEAUDET

European Union
Dr Bernard MULLIGAN

France
Dr Kaddour RAISSI

Germany
Dr Ulrich SCHLÜTER

K. VijayRaghavan

India
Prof Vijay RAGHAVAN

Italy
Prof Piergiorgio STRATA

Japan
Mr Itaru WATANABE

New Zealand
Prof Graeme FRASER

Norway
Director Anders HANNEBORG

Republic of Korea
Mr Kidong SONG

Switzerland
Dr Isabella BERETTA

United Kingdom
Dr Mark PALMER

United States of America
Ms Vanessa RICHARDSON



SUMMARY OF DECISIONS OF THE BOARD OF TRUSTEES IN FY 2011

45th BOARD MEETING (MARCH 2012)

The Board approved the appointment of Nobutaka Hirokawa as President of HFSPPO from 1 April 2012 (see Press release).

The Board noted its decision of March 2011 to re-appoint Ernst-Ludwig Winnacker as Secretary General for a further term of three years from 1 July 2012.

The Board approved the following awards for funding: 25 Program Grants, 8 Young Investigator Grants (with 1 on the reserve list), 80 Long-Term Fellowships, 5 Cross-Disciplinary Fellowships and 8 Career Development Awards (with 1 on the reserve list). The ability to award recommended applications on the reserve list depends on receiving outstanding contributions. The Secretariat was authorised to make the best use of funds received by 30 September 2012. The terms of reference of the Council of Scientists were approved.

It was agreed that the cost of future Awardees meetings should be included in the budget of HFSPPO and the meeting organization steered by the Secretariat.

The Program Activity Plan and Budget for FY 2012 was approved.

The Auditors' Report for FY 2010 was approved.

The Board approved the appointment of Patrick Pierrat (France), Phat Do (Canada) and Akira Hosaka (Japan) as internal auditors for the term of one year.



PRESS RELEASE

PROFESSOR NOBUTAKA HIROKAWA APPOINTED PRESIDENT OF THE HUMAN FRONTIER SCIENCE PROGRAM ORGANIZATION (HFSP)

The International Human Frontier Science Program Organization (HFSP) is pleased to announce the election of Professor Nobutaka Hirokawa as President and Chair of the Board of Trustees. He took office on April 1st 2012. He succeeds the eminent theoretical physicist, Professor Akito Arima, who has served as President since April 1st 2009.

Professor Hirokawa is a prominent neuroscientist and cell biologist at the University of Tokyo. After studying medicine and obtaining a Ph.D in neurobiology and cell biology in Tokyo, he spent 4 years in the USA, first as a postdoc at the University of California, San Francisco and then as Research Assistant Professor and Associate Professor at Washington University School of Medicine. On returning to Japan, he was appointed Professor and Chairman of Cell Biology and Anatomy at the Graduate School of Medicine, University of Tokyo, where he served as Dean from 2003-2007. He now holds the position of Distinguished Project Professor at the same institution.

Nobutaka Hirokawa is a world leader in studies of the molecular mechanisms involved in transporting

materials within nerve cells, in particular in his discovery of many of the functions of the kinesin superfamily of molecular motors. In his research he has employed multidisciplinary approaches including molecular cell biology and genetics, electron microscopy, structural biology and biophysics. In recognition of his scientific achievements he was elected as an Associate Member of EMBO in 2003 and a Member of the Japan Academy in 2004. He has served on editorial boards of international journals such as Cell, Science, Neuron, Developmental Cell, Journal of Cell Biology and EMBO Journal.

Professor Ernst-Ludwig Winnacker, Secretary General of HFSP comments "I am delighted that Nobutaka Hirokawa has been elected as President of HFSP. Through his previous participation as a member of the grant review committee and the HFSP Council of Scientists he has a profound knowledge and appreciation of HFSP's mission. He has been an active member of the Board of Trustees since 2009 and it is a great pleasure to know that he will be steering the HFSP in the coming years."



LONG-TERM AND CROSS-DISCIPLINARY FELLOWSHIPS AWARDED IN 2011²

1. Long-Term Fellowships

Name	Nationality	Host institute	Host country
ABREU RIBEIRO Susana	PORTUGAL	University of California, San Francisco	USA
AKIYOSHI Bungo	JAPAN	University of Oxford	UK
BIENKO Marzena	POLAND	Massachusetts Institute of Technology, Cambridge	USA
BOERSMA Ykelien	THE NETHERLANDS	CSIRO, Melbourne	AUSTRALIA
BOYLE Patrick	CANADA	Cornell University, Ithaca	USA
BUNNIK Evelien	THE NETHERLANDS	University of California, Riverside	USA
CAGGIANO Vittorio	ITALY	Massachusetts Institute of Technology, Cambridge	USA
CAMBRAY Guillaume	FRANCE	University of California, Berkeley	USA
CARLSON Lars-Anders	SWEDEN	NIDDK, Bethesda	USA
CHEETHAM Claire	UK	NINDS, NIH, Bethesda	USA
COLLINET Claudio	ITALY	Université de la Méditerranée, Marseille	FRANCE
DE LUCAS Miguel	SPAIN	University of California, Davis	USA
DERIVERY Emmanuel	FRANCE	University of Geneva	SWITZERLAND
DI MICCO Raffaella	ITALY	New York University School of Medicine	USA
DONLEA Jeffrey	USA	University of Oxford	UK
DRESCHER Knut	GERMANY	Princeton University	USA
DU Dan	CHINA	University of California, San Francisco	USA
DURHAM William	USA	University of Oxford	UK
EICHNER Timo	GERMANY	Brandeis University, Waltham	USA
FREEMAN Michael	USA	University of Bonn	GERMANY
GARCIA Fernando	SPAIN	University of Oxford	UK
GELBARD-SAGIV Hagar	ISRAEL	California Institute of Technology, Pasadena	USA
GENDREL Marie	FRANCE	Columbia University, New York	USA
GUEDES DE MELO Sónia	PORTUGAL	Harvard Medical School, Boston	USA
GÜELL Marc	SPAIN	Harvard University, Boston	USA
GUETTLER Thomas	GERMANY	Harvard Medical School, Boston	USA
GUSCHANSKI Katerina	GERMANY	University of Lausanne	SWITZERLAND
HAGN Franz	GERMANY	Harvard Medical School, Boston	USA
HAITIN RUBINSTEIN Jhonathan	ISRAEL	University of Washington, Seattle	USA

Name	Nationality	Host institute	Host country
HAYER Arnold	AUSTRIA	Stanford University Medical Center	USA
HILGERS Valerie	FRANCE/GERMANY	University of California, Berkeley	USA
HIRAKAWA Yuki	JAPAN	Monash University, Melbourne	AUSTRALIA
HSU Chieh	TAIWAN	University of Basel	SWITZERLAND
IRIMIA Manuel	SPAIN	University of Toronto	CANADA
JAGLIN Xavier	FRANCE	New York University	USA
KARRAS Georgios	GREECE	Whitehead Institute for Biomedical Research, Cambridge	USA
KEDDE Martijn	THE NETHERLANDS	University of New York	USA
KIHARA Yasuyuki	JAPAN	University of California, San Diego	USA
KIYOMITSU Tomomi	JAPAN	Whitehead Institute for Biomedical Research, Cambridge	PORTUGAL
KRIEG Michael	GERMANY	Stanford School of Medicine	USA
KUNZ Hans-Henning	GERMANY	University of California, San Diego	USA
LEE Daniel Yenhong	CANADA	Beth Israel Deaconess Medical Center, Boston	USA
LEE Kenneth	CANADA	The Rockefeller University, New York	USA
LIAO Jing	CHINA	Harvard University, Cambridge	USA
LOPEZ ARANDA Manuel	SPAIN	University of California, Los Angeles	USA
LOTTEM Eran	ISRAEL/USA	Instituto Gulbenkian de Ciencia, Oeiras	PORTUGAL
MATSUI Toshiyuki	JAPAN	Broad Institute of MIT and Harvard, Cambridge	USA
MOHN Fabio	SWITZERLAND	Austrian Academy of Sciences, Vienna	AUSTRIA
MOLAWI Kaaweh	GERMANY	Université Aix-Marseille	FRANCE
MOLD Jeffrey	USA	Karolinska Institute, Stockholm	SWEDEN
MOORE Darcie	USA	ETH Zurich	SWITZERLAND
MOSCOU Matthew	USA	John Innes Centre, Norwich	UK
NURY Hugues	FRANCE	École Polytechnique Fédérale de Lausanne	SWITZERLAND
OJOSNEGROS Samuel	SPAIN	California Institute of Technology, Pasadena	USA
OSMAN Christof	GERMANY	University of California, San Francisco	USA
PARK Hyun Jung	KOREA	University of Cambridge	UK
PEYRACHE Adrien	GREECE	Harvard University, Cambridge	USA
POULOPOULOS Alexandros	DENMARK	University of Lausanne	SWITZERLAND
PREGER-BEN NOON Ella	FRANCE/ISRAEL	Princeton University	USA
PRUSZYNSKI Jędrzej	CANADA/ POLAND	University of Umea	SWEDEN
RAUZI Matteo	ITALY/USA	EMBL, Heidelberg	GERMANY
ROMANI Sandro	ITALY	University of Amsterdam	THE NETHERLANDS
ROSAS Ulises	MEXICO	New York University	USA
SADA Aiko	JAPAN	Cornell University, Ithaca	USA
SALAZAR GARCIA Hector	MEXICO	Leibniz-Institut für Molekulare Pharmakologie, Berlin	GERMANY
SAWAMIPHAK Suphansa	THAILAND	University of California, San Francisco	USA
SCHNEIDER Robert	GERMANY	Institut de Biologie Structurale, Grenoble	FRANCE
SCHOLVINCK Marieke	THE NETHERLANDS	Ernst Strüngmann Institute, Frankfurt	GERMANY
SHULMAN Ziv	ISRAEL	Rockefeller University, New York	USA
SORRE Benoît	FRANCE	Rockefeller University, New York	USA
TAM Oliver	AUSTRALIA	Hospital for Sick Children, Toronto	CANADA
VAN WOLFSWINKEL Josien	THE NETHERLANDS	Massachusetts Institute of Technology, Boston	USA
WANG Shu-Ping	TAIWAN	The Rockefeller University, New York	USA
YOGEV Shaul	ISRAEL	University of Stanford	USA
YOSHIDA Yamato	JAPAN	Michigan State University, East Lansing	USA
ZAGORSKA Anna	POLAND	The Salk Institute, La Jolla	USA

² These awards were initiated during FY 2011.

For a list of fellowships awarded in 2012, see the HFSP web site (<http://www.hfsp.org/>).

2. Cross-Disciplinary Fellowships

Name	Nationality	Host institute	Host country
BORN Benjamin	GERMANY	Weizmann Institute of Science, Rehovot	ISRAEL
CARMİ Shai	ISRAEL	Columbia University, New York	USA
FAKHRI Nikta	IRAN/USA	Georg-August-Universität, Göttingen	GERMANY
GABDANK Idan	ISRAEL	Stanford University School of Medicine	USA
HAUERT Sabine	SWITZERLAND/ USA	Massachusetts Institute of Technology, Cambridge	USA
MEHTA Shalin	INDIA	Marine Biological Laboratory, Woods Hole	UK
RIEDEL Clément	FRANCE	University of California, Berkeley	USA
SEO Daeha	KOREA	University of California, San Francisco	USA
SRINIVASAN Prasanna	INDIA	La Jolla Institute for Allergy and Immunology	USA
ABREU RIBEIRO Susana	PORTUGAL	University of California, San Francisco	USA





CAREER DEVELOPMENT AWARDS MADE IN 2011³

Name	Nationality	Institute of CDA	Country of CDA
AMIT Ido	ISRAEL	Weizmann Institute of Science, Rehovot	ISRAEL
BLANCHARD Nicolas	FRANCE	INSERM, Toulouse	FRANCE
HANAYAMA Rikinari	JAPAN	Osaka University	JAPAN
JONKER Johan	THE NETHERLANDS	University Medical Centre Groningen	THE NETHERLANDS
MARTINON Fabio	ITALY	University of Lausanne	SWITZERLAND
MUKAMEL Roy	ISRAEL	Tel-Aviv University	ISRAEL
NORDEN Caren	GERMANY	Max-Planck Institute, Dresden	GERMANY
SALMENA Leonardo	CANADA	Ontario Cancer Institute, Toronto	CANADA
TANAKA Hirokazu	JAPAN	Osaka University	JAPAN

³ These awards were initiated during FY 2011. For a list of the CDAs awarded in 2012, see the HFSP web site (<http://www.hfsp.org/>).



RESEARCH GRANTS AWARDED IN 2011⁴

Note that nationality is given in brackets if different from country of laboratory

1. YOUNG INVESTIGATORS

From genes to circuits: the evolution of species-specific communication in *Drosophila*

ALBERT Joerg, (Germany), UK
AERTS Stein, Belgium
KAMIKOUCHI Azusa, Japan
MURTHY Mala, USA

Dissecting cytoskeletal dynamics across the malaria parasite lifecycle

BAUM Jacob, Australia
FRISCHKNECHT Friedrich, Germany
KOVAR David, USA

Structural and functional characterization of ligand recognition by chemosensory receptors

BENTON Richard, (UK), Switzerland
JIN Rongsheng, (China), USA
TANG Chun, China

Visualization and identification of bone marrow niches by imaging and computational technology

ISHII Masaru, Japan
KLAUSCHEN Frederick, Germany

Multi-level conflicts in evolutionary dynamics of restriction-modification systems

KUSSELL Edo, USA
GUET Calin, (Romania), Austria
WAKAMOTO Yuichi, Japan

Dynamics of cell state transitions in reprogramming: a live imaging, probabilistic modeling approach

MEISSNER Alexander, (Germany), USA
NACHMAN Iftach, Israel

Excited-state structure of the emitter and color-tuning mechanism of the firefly bioluminescence

NAUMOV Pance, (Macedonia), Japan
DIDIER Pascal, France
HINTERMANN Lukas, (Switzerland), Germany
SLIWA Michel, France

Adaptive behavior of *C. elegans* in complex sensory environments

RYU William, (USA), Canada
BARTUMEUS Frederic, Spain
NEMENMAN Ilya, USA

Network merging analysis of duplicate genome function in recently hybridized species

SHIMIZU Kentaro, (Japan), Switzerland
HAY Angela, (New Zealand), UK
SESE Jun, Japan

A microfabricated coral to unravel the microbial ecology of coral disease

STOCKER Roman, (Italy), USA
SEYMOUR Justin, Australia
VARDI Assaf, Israel

Molecular dissection of Casparian strip function in nutrient homeostasis in higher plants

TAKANO Junpei, Japan
GELDNER Niko, (Germany), Switzerland

2. PROGRAM GRANTS

Mechanical properties of reconstituted actin stress fibers

BLANCHOIN Laurent, France
DE LA CRUZ Enrique M., USA
FLETCHER Daniel, USA

Coherent diffractive imaging of viruses

BOGAN Mike, (Canada), USA
SCHLICHTING Ilme, Germany
SPENCE John, USA

Characterization of conformational space in prion proteins using single-molecule techniques

BUSTAMANTE Carlos J., USA
LEGNAME Giuseppe, Italy
SAMORÌ Bruno, Italy
TANAKA Motomasa, Japan

⁴ These awards were initiated during FY 2011.

For a list of grant teams awarded in 2012, see the HFSP web site (<http://www.hfsp.org/>).

Deconstructing avian cone photoreceptors: a system of self-organizing optical microdevices

CORBO Joseph, USA
KELBER Almut, (Germany), Sweden
MEYER-HERMANN Michael, Germany
ROBERTS Nicholas, UK

Oscillations and synchronization in signaling: a synthetic biology approach

DI BERNARDO Diego, Italy
HASTY Jeff, USA
PICCOLO Stefano, Italy

Plasticity of non-centrosomal microtubule networks

GOSHIMA Gohta, Japan
JANSON Marcel, The Netherlands
KRUSE Karsten, Germany

The dark side of a bright molecule: determinants of glycogen-induced cell dysfunction

GUINOVART Joan J, Spain
DUSZYNSKI Jerzy, Poland
GODZIK Adam, USA

The birth of the circadian clock

KADENER Sebastian, (Argentina), Israel
MESHORER Eran, Israel
REGEV Aviv, (Israel), USA

Origin and functionality of extracellular brain activity

KOCH Christof, USA
BUZSAKI György, USA
MARKRAM Henry, (Israel), Switzerland

Structural and functional assembly of ribbon synapses in the retina

LAGNADO Leon, UK
SCHMITZ Frank, Germany
WONG Rachel O., (Australia), USA

Ancient ibis mummies from Egypt: DNA evolution

LAMBERT David, Australia
HOLLAND Barbara, (New Zealand), Australia
IKRAM Salima, Egypt
WILLERSLEV Eske, Denmark

How to build a kidney: quantitative modeling of kidney morphogenesis across time and space

LITTLE Melissa Helen, Australia
BYRNE Helen, UK
MCMAHON Andrew, (UK), USA
SMYTH Ian, Australia

Cell cooperation in cancer

LYONS James Guy, Australia
GUTKIND Jorge Silvio, USA
MYERSCOUGH Mary, Australia

Conformational changes of chromosomes during the cell cycle

MARTI-RENOM Marc A., Spain
BYSTRICKY Kerstin, (Germany), France
DEKKER Job, (Netherlands), USA

Cell stress and proteostasis dysfunction in aging and disease

MORIMOTO Richard, USA
HARTL Franz-Ulrich, Germany
NAGATA Kazuhiro, Japan

4D analysis of haematopoietic stem cell – niche interactions in vivo, in vitro, in silico

POMPE Tilo, Germany
LO CELSO Cristina, (Italy), UK
ROEDER Ingo, Germany
ZANDSTRA Peter W., Canada

Cell migration in complex environments: from in vivo experiments to theoretical models

SENS Pierre, France
ARANDA-ESPINOZA Helim, (Mexico), USA
RAZ Erez, (Israel), Germany
SIXT Michael, (Hungary), Austria

Cellular information processing and decision making: from noise to robust phenotypes

STUMPF Michael, (Germany), UK
KHAMMASH Mustafa, (USA), Switzerland
KLUG David, UK
KURODA Shinya, Japan

Substrate recognition by MARCH ubiquitin ligases: a paradigm of membrane-associated immunoregulation

VILLADANGOS José A., (Spain), Australia
CALL Matthew, (USA), Australia
IM Wonpil, (Korea), USA
ISHIDO Satoshi, Japan

Deciding and revising: a unifying framework for decision making and motor control

WOLPERT Daniel, UK
SHADLEN Michael N., USA

Photo-controlled transcription factors for probing how mice form memories

WOOLLEY Andrew, Canada
ARNDT Katja, Germany
JOSSELYN Sheena, (USA), Canada
KARANICOLAS John, (Canada), USA

Visualizing nanometer-scale structural plasticity of synapses in real time using AFM

YASUDA Ryohei, (Japan), USA
ANDO Toshio, Japan



eurostratège*

HFSP
Registre des Associations de Strasbourg
Volume 58- Folio 99
Achévé d'imprimé en juillet deux mille douze
sur les presses de Faber

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© Photos: HFSP thanks Rae Silver (p.14), Jyotsna Dhawan (p.37) and Gina Turrigiano (p.40) for supplementary photos in addition to those provided by Sandro Weltin (p.7,9,10,15,17,27,39), Musashi University (p.12), Owen Egan (p.41), Martin Reddington (p.44) and those taken from the website of the Max Planck Institute of Molecular Cell Biology and Genetics, Dresden (p.22), Duke University (p.25), shutterstock/ David Lee (p.1), shutterstock/ Vaclav Volrab (p.2), shutterstock/ irin-k (p.3), shutterstock/ vblinov (p.6), shutterstock/ FotoVeto (p.7), shutterstock/ pandapaw (p.16), shutterstock/ Kesu (p.26), shutterstock/ Cuiphoto (p.38), shutterstock/ panda3800 (p.52), shutterstock/ Eric Isselée (p.64), shutterstock/ Wallenrock (p.74).

Acknowledgements

HFSP/O is grateful for the support of:



Australia
National Health and Medical Research Council (NHMRC)



Canada
Canadian Institute of Health Research (CIHR)
Natural Sciences and Engineering Research Council (NSERC)



European Union
European Commission -
Directorate General Information Society (DG INFSO)
European Commission -
Directorate General Research (DG RESEARCH)



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Communauté Urbaine de Strasbourg (CUS)
Ministère de l'Enseignement Supérieur et de la Recherche (MESR)
Région Alsace



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Federal Ministry of Education and Research (BMBF)



India
Department of Biotechnology (DBT)
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Ministry of Education, Science and Technology (MEST)



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Health Research Council (HRC)



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Switzerland
State Secretariat for Education and Research (SER)



United Kingdom
Biotechnology and Biological Sciences Research
Council (BBSRC)
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United States of America
National Institutes of Health (NIH)
National Science Foundation (NSF)



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