



Annual Award Report to HFSPo Members

United States of America FY 2024-2025

(1 April 2024 - 31 March 2025)

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1 Executive summary

General

The HFSP Board of Trustees approved the following awards for 2024:

- 34 Research Grants out of a total of 711 eligible Letters of Intent and 100 Full Proposals (34%). Of those awarded, 25 were Research Grants-Program and 9 were Research Grants-Early Career. The success rate of HFSP Research Grants in 2024: 4.8%
- 59 Postdoctoral Fellowships out of a total of 535 Letters of Intent and 107 Full Proposals (55%). Of those awarded, 48 were Long-Term Fellowships and 11 were Cross-Disciplinary Fellowships. The success rate of HFSP Fellowships in 2024: 11%

United States of America

With awards starting in 2024, HFSP will support:

- Twenty-seven US based scientists who are involved in 23 out of the 34 HFSP Research Grants awarded in 2024. Seven scientists are Research Grants-Early Career, of which one is principal investigator. Twenty scientists were awarded Research Grants-Program, of which five are principal investigators.
- Three US scientists who were awarded Long-Term Fellowships. They will work in Germany, Switzerland and the UK.
- Nineteen Long-Term Fellows and five Cross-Disciplinary Fellows who will work in US research institutions.

For awards in previous years, see *Chapter 4 United States of America 1990-2024*

2 Introduction to HFSP programs

The International Human Frontier Science Program Organization (HFSP) funds an international program of research support for frontier research on the complex mechanisms of living organisms through the Human Frontier Science Program (HFSP). Research is funded at all levels of biological complexity from biomolecules to the interactions between organisms.

Key elements of HFSP's mission are to support innovative, cutting edge research at the frontiers of the life sciences, to encourage high risk research, to promote international collaboration in the spirit of science without borders, and to support early career researchers.

HFSP schemes are highly competitive, but also highly prestigious. This prestige, together with the fact that the schemes provide researchers with unique opportunities to work collaboratively across all countries and disciplines, attracts many outstanding applications each year.

HFSP Research Grants (Research Grants-Program and Research Grants-Early Career) provide 3 years of support for international teams involving at least two countries. Preference is given to intercontinental collaborations (rather than all N. American or all European teams). All team members are expected to broaden the character of their research compared to their ongoing research programs and interact with teams bringing expertise that is very different from their own so as to create novel approaches to problems in fundamental biology. All members of a Research-Grant Early Career team must be within 5 years of establishing their independent research group and no more than 10 years from their doctoral degree. Research Grant-Program teams may consist of team members at any stage of their career as independent investigators. Each grant is an award to at least two researchers from different countries. Furthermore, HFSP expects that by creating new exchanges, these international interactions will lead to innovative projects.

There is a single annual competition for HFSP Research Grants and a full description of the review process is available at:

https://www.hfsp.org/funding/hfsp-funding/research-grants#review_procedures

HFSP Fellowships support innovative, ground-breaking projects that have the potential to advance knowledge in the applicants' field of study or open a new approach to a research problem. High risk research is supported.

Long-Term Fellowships support applicants with a degree in the life science to obtain training in a new area of research in an outstanding laboratory of their choice in another country. *Cross-Disciplinary Fellowships* are intended for postdoctoral fellows with a degree outside the life sciences (e.g. physical sciences, chemistry, mathematics, engineering or computer sciences) who wish to receive training in biology. HFSP Fellows receive 3 years of support to obtain training in an outstanding laboratory of their choice in another country. The annual competition for HFSP Fellowship awards is explained in detail at <http://www.hfsp.org/funding/postdoctoral-fellowships>.

3 Awards in 2024 for the United States of America

HFSP support provided to US and non-US scientists working in US laboratories, and US scientists working abroad.

3.1. Overview

Research Grants

Number of grants awarded to leaders of international teams working in the United States of America (principal investigators):

Research Grants-Program 5

Research Grants-Early Career 1

Scientists working in the United States of America who will collaborate in HFSP international research teams (co-investigators):

Research Grants-Program 15

Research Grants-Early Career 6

Fellowships

Number of fellowships awarded to US applicants:

Long-Term Fellowships 3

Number of fellowships awarded to foreign scientists who wish to work in the United States of America:

Long-Term Fellowships 19

Cross-Disciplinary Fellowships 5

3.2 Research Grants 2024

Grants awarded to leaders of international teams working in the United States of America (principal investigators)

Research Grants-Program

BOTERO Carlos	Dept. of Integrative Biology The University of Texas at Austin	Probing the evolutionary ecology of cognition through High-Density Diffuse Optical Tomography
CLEAVES Henderson	Dept. of Chemistry The Howard University Washington	Unambiguous Biosignatures for Life Detection
ENTCHEVA Emilia	Dept. of Biomedical Engineering The George Washington University Washington	Optogenetic control of organelle “chatter” and effects on calcium dynamics in human cardiomyocytes
HWA Terence	Physics & Biology University of California, San Diego La Jolla	Elucidating physico-chemical forces setting the limit of bacterial growth
LI Chen	Dept. of Mechanical Engineering Johns Hopkins University JHURA Baltimore	Cognitive convergence: Vertebrate carnivore-like predatory planning behaviors in jumping spiders

Research Grants-Early Career

MANHART Michael	Dept. of Biochemistry and Molecular Biology Rutgers Biomedical and Health Sciences Piscataway	How predictable is evolution? Eco-evolutionary dynamics of fungi across biological scales
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Scientists working in the United States of America who will collaborate in HFSP international research teams (co-investigators)

Research Grants-Program

<i>PI: BABIN Marcel, Canada</i>		
PRAKASH Manu (India)	Dept. of Bioengineering Stanford University	Trapped in ice
<i>PI: BOTERO Carlos, USA</i>		
CULVER Joseph	Dept. of Radiology Washington University in St. Louis	Probing the evolutionary ecology of cognition through High-Density Diffuse Optical Tomography
<i>PI: BUSCH Karin, Germany</i>		
JONAS Elizabeth	Dept. of Internal Medicine Yale University New Haven	Deciphering the role of ion distribution in mitochondria for long-term memory formation
<i>PI: DEL BENE Filippo, France (Italy)</i>		
JOHNSEN Sonke	Dept. of Biology Duke University Durham	Decoding invisibility: from genome evolution to tissue optical properties in transparent fish

PI: DI GIOVANNI Simone, UK (Italy)

FAN Rong Dept. of Biomedical Engineering
Yale University
New Haven

Cross-talk between the skin microbiome, immunity and sensory innervation in neurophysiology

PI: LESMAN Ayelet, Israel

GENIN Guy McKelvey School of Engineering
Washington University in St. Louis

Vibrational information transfer between living cells in the extracellular matrix

PI: LI Chen, USA

MACIVER Malcolm (Canada) Dept. of Biomedical Engineering
Northwestern University
Evanston

Cognitive convergence: Vertebrate carnivore-like predatory planning behaviors in jumping spiders

PI: MALIK Ashish, UK (India)

ANANTHARAMAN Karthik Dept. of Bacteriology
University of Wisconsin-Madison

Scaling the impact of viruses from single cells to the global methane cycle

PI: MALIK Ashish, UK (India)

EMERSON Joanne Dept. of Plant Pathology
University of California Davis

Scaling the impact of viruses from single cells to the global methane cycle

PI: SCHAPIRO Igor, Israel (Germany)

MERLIN Christine (France) Dept. of Biology
Texas A&M University
College Station

UV opsin as the sensor for magneto-sensation in animals

PI: TESSMAR-RAIBLE Kristin, Austria (Germany)

PELEG Orit (Israel) Dept. of Computer Science &
BioFrontiers Institute
University of Colorado Boulder

Temporal structures in complex deep-sea versus surface marine life: from molecules to communities

PI: TESSMAR-RAIBLE Kristin, Austria (Germany)

OAKLEY Todd Dept. of Ecology Evolution and
Marine Biology
University of California, Santa Barbara

Temporal structures in complex deep-sea versus surface marine life: from molecules to communities

PI: VIANA Felix, Spain

SOBOLEVSKY Alexander (Russia) Dept. of Biochemistry and
Molecular Biophysics
Columbia University in the City of New York

Understanding the molecular basis of animal cold thermosensation

PI: XAVIER Karina, Portugal

NEEDHAM Brittany Stark Neurosciences Institute;
Anatomy Dept.
Indiana University
Indianapolis

Hormone-like Bacterial Signaling Molecules as Mediators of Gut-Brain Dialogues

PI: ZAIDEL-BAR Ronen, Israel

DUNN Alexander Dept. of Chemical Engineering
Stanford University

Mechanoradicals as a novel form of mechanosensing: from protein stretching to animal aging

Research Grants-Early Career

PI: BISHOP Tom, UK

DAVIES Andrew
(South Africa)

Dept. of Organismic and Evolutionary
Biology, Harvard University
Cambridge

Quantifying the 4-dimensional
microenvironment to explain the
coexistence of social insects

PI: CREIXELL Pau, UK (Spain)

METZGER Brian

Dept. of Biological Sciences
Purdue University
West Lafayette

Resurrecting the Multiple Origins of
Tyrosine Kinase Activity and
Phosphotyrosine Recognition

PI: DUNNING Luke, UK

WENGROVE Meagan

School of Civil and Construction Engineering
Oregon State University
Corvallis

S3: Securing shifting sands – from genes to
geoengineering

PI: HUSNIK Filip, Japan (Czech Republic)

BEINART Roxanne

Graduate School of Oceanography
University of Rhode Island
Narragansett

Deciphering the evolution, cellular biology
and biogeochemistry of symbioses in
anaerobic eukaryotes

PI: MONGERA Alessandro, UK (Italy)

SERRA Mattia
(Italy)

Dept. of Physics
University of California, San Diego

Mechanical control of hidden embryonic
boundaries

PI: RUIZ-GARCIA Miguel, Spain

TEICH Erin

Dept. of Physics
Wellesley College

The Emergence of Collective Intelligence:
Understanding Human Behavior through
AI Agents

3.3 Fellowships 2024

Fellowships awarded to US applicants

Long-Term Fellowships

DAHL Kristin USA	From	University of Colorado Aurora USA	<i>Analysis of molecular changes of the nervous system in <i>C. elegans</i> upon circadian rhythm entrainment</i>
	To	Biozentrum University of Basel Basel Switzerland	Supervisor: SPANG Anne
GABEL Clinton USA	From	Purdue University West Lafayette USA	<i>Uncovering the secret world of microbial enzymatic decorated nanowires</i>
	To	Philipps-Universität Marburg Marburg Germany	Supervisor: SCHULLER Jan
HERSH Taylor USA	From	Dalhousie University Nova Scotia Canada	<i>Vocal communication and the evolution of hyper-cooperative societies</i>
	To	University of Bristol Bristol UK	Supervisor: KING Stephanie

Fellowships awarded to foreign scientists who wish to work in the United States of America

Long-Term Fellowships

ABDULLA Amith Zafal India	From	Ecole Normale Supérieure de Lyon Lyon France	<i>Design and build a synthetic single cell epigenetic oscillator</i>
	To	Brandeis University Waltham USA	Supervisors: KONDEV Jane RAGUNATHAN Kaushik
ANSIL B. R. India	From	National Centre for Biological Sciences Bangalore India	<i>Why do stressed bats shed more viruses?</i>
	To	University of Oklahoma Norman USA	Supervisors: BANERJEE Arinjay BECKER Daniel
BIGLARI Nasim Germany/Iran	From	Max Planck Institute for Metabolism Research Cologne Germany	<i>Investigating the effects of chronic stress on gut-brain interactions</i>
	To	Massachusetts Institute of Technology Cambridge USA	Supervisor: ANIKEEVA Polina
CHIBA Kosuke Japan	From	Osaka University Osaka Japan	<i>Targeted epigenome editing using induced proximity-based small molecules</i>
	To	University of California, Berkeley Berkeley USA	Supervisor: NOMURA Daniel

DORON Adi Israel	From	The Hebrew University of Jerusalem Jerusalem Israel	<i>The neuronal mechanisms underlying state-dependent odor preference</i>
	To	Harvard Medical School Boston USA	Supervisor: LIBERLES Stephen
FINK Justus Wilhelm Germany	From	ETH Zurich Zurich Switzerland	<i>Microbial consortia with direct electron transfer: in situ visualization of community robustness</i>
	To	California Institute of Technology Pasadena USA	Supervisor: ORPHAN Victoria
HSU Sheng-Chieh Taiwan	From	National Tsing Hua University Hsinchu Taiwan	<i>Unmasking the role of nuclear antioxidant systems in human disease</i>
	To	University of Texas Southwestern Medical Center Dallas USA	Supervisors: DEBERARDINIS Ralph GARCIA-BERMUDEZ Javier
MEHDIRATTA Kritee India	From	CSIR-Institute of Genomics and Integrative Biology New Delhi India	<i>Unraveling spatial landscape of Mycobacterium tuberculosis transcriptome and its role in TB pathology</i>
	To	Harvard T. H. Chan School of Public Health Boston USA	Supervisor: RUBIN Eric
MIEHL Christoph Austria	From	Technical University Munich Munich Germany	<i>Reward-based learning of assemblies in olfaction</i>
	To	The University of Chicago Chicago USA	Supervisors: DOIRON Brent OSWALD Anne-Marie

NAGANO Masahiro Japan	From	Kyoto University Kyoto Japan	<i>Dissecting long-range gene regulation of cell differentiation through biophysical approaches</i>
	To	Massachusetts Institute of Technology Cambridge USA	Supervisor: HANSEN Anders
NOGUCHI Asako Japan	From	The University of Tokyo Tokyo Japan	<i>Memory trace in a neuron: dissecting dendritic mechanisms of learning</i>
	To	Columbia University New York USA	Supervisor: LOSONCZY Attila
OKAMOTO Hiroyuki Japan	From	The University of Tokyo Tokyo Japan	<i>Illuminating orphan GPCR signaling by novel biochemical approaches</i>
	To	University of California, San Francisco San Francisco USA	Supervisor: MANGLIK Aashish
PARIKH Shivang India	From	Tel Aviv University Tel Aviv Israel	<i>Parasite immune evasion in a murine microcosm of the human immune system</i>
	To	Massachusetts General Hospital Boston USA	Supervisor: BATISTA Facundo
SANCHÍS CALLEJA Fátima Spain	From	ETH Zurich Zurich Switzerland	<i>Understanding the role of endometrial compartmentalization in menstruation</i>
	To	Harvard University Cambridge USA	Supervisor: MCKINLEY Kara

SILVA Marta Portugal	From	University of Barcelona Barcelona Spain	<i>The neural basis of naturalistic memory</i>
	To	Columbia University New York USA	Supervisor: JACOBS Joshua
SOUDIER Paul France	From	Paris-Saclay University Orsay France	<i>A quantitative in vitro approach to virus infection</i>
	To	University of Minnesota Minneapolis USA	Supervisor: NOIREAUX Vincent
SUTHERLAND Emmajay UK	From	University of St Andrews St Andrews UK	<i>Chemical glycobiology to investigate the cell surface glycode</i>
	To	University of Washington Seattle USA	Supervisor: RILEY Nicholas
VOITOV Ivan Canada	From	University of Basel Basel Switzerland	<i>The biophysics of causality – sensing and control of network dynamics by single neurons</i>
	To	Columbia University New York USA	Supervisor: POLLEUX Franck
WEGLAGE Moritz Germany	From	Karolinska Institutet Stockholm Sweden	<i>Does the striatum use cerebellar motor state predictions to guide rapid and complex movement?</i>
	To	Harvard University Cambridge USA	Supervisor: ÖLVE CZKY Bence

Cross-Disciplinary Fellowships

BAIKIE Tomi UK/Finland	From	University of Cambridge Cambridge UK	<i>Non-contact measurements of electrochemical potentials in skin</i>
	To	Massachusetts Institute of Technology Cambridge USA	Supervisors: AHN Andrew BALDO Marc
DAL CENGIO Sara Italy	From	Universitat de Barcelona Barcelona Spain	<i>Evolutionary dynamics and self-organization in active populations</i>
	To	Massachusetts Institute of Technology Cambridge USA	Supervisor: TAILLEUR Julien
KITZMANN Winald Germany	From	Johannes Gutenberg University of Mainz Mainz Germany	<i>Teaching excitons how to walk: spatial reorganization in an artificial light-harvesting system</i>
	To	Massachusetts Institute of Technology Cambridge USA	Supervisor: SCHLAU-COHEN Gabriela
PAVLIC Alen Slovenia	From	ETH Zurich Zurich Switzerland	<i>Ultrasound neuromodulation: search for the physical origin</i>
	To	California Institute of Technology Pasadena USA	Supervisor: SHAPIRO Mikhail
SHARMA Vinay India	From	Technion Israel Institute of Technology Haifa Israel	<i>Brain-wide mapping of neurochemical activity using liposomal nanoparticle reporters</i>
	To	Massachusetts Institute of Technology Cambridge USA	Supervisor: JASANOFF Alan

4 United States of America 1990-2024

This section summarizes United States of America's involvement in HFSP funded research projects in 2024 and integrates a historical perspective with running totals over the last 10 years.

4.1 HFSP Research Grants

The table below lists the number of US based scientists at the Letter of Intent (LI) stage and those scientists who participated in a Full Proposal. The data shown in the table express the status at the

	Letters of Intent (LI)		Full Proposals (FP)		Awardees (AW)	
Year	All team members	US based scientists	All team members	US based scientists	All team members	US based scientists
1990-2014	28944*	7811	17891+	5345	3607	1131
2015	3092	858	252	75	98	26
2016	2604	718	272	74	100	27
2017	3208	848	252	68	98	25
2018	2321	619	251	70	102	28
2019	2394	663	268	78	105	32
2020	2051	495	256	74	86	23
2021	2062	497	292	84	94	27
2022	2032	496	206	52	100	23
2023	1672	399	247	57	107	26
2024	1978	458	313	76	108	27
Total	52358	13862	20500	6053	4605	1395

*there were no Letters of Intent in the application process before 2001

+ for 1990/91, there is no information available on the number of applicants

The table below lists the number of teams including US based scientists in the last 10 years.

	Letters of Intent (LI)	Full Proposals (FP)	Awardees (AW)	Success rate based on LIs (%)	Success rate based on FPs (%)	Total Awarded teams
Year	Teams with member (s) in USA	Teams with member (s) in USA	Teams with member (s) in USA			
2015	720	66	24	3,3	36,4	31
2016	611	66	23	3,8	34,8	32
2017	722	56	20	2,8	35,7	30
2018	543	65	25	4,6	38,5	31
2019	584	69	29	5,0	42,0	34
2020	449	67	22	4,9	32,8	28
2021	459	79	26	5,7	32,9	28
2022	460	50	23	5,0	46,0	32
2023	371	52	23	6,2	44,2	34
2024	431	70	23	5.3	32.9	34

4.2 HFSP Postdoctoral Fellowships

The table below shows the number of fellowship applications reviewed and awards granted to US applicants and the number of fellowships applied for and carried out in the United States of America.

Award year	US fellowship applicants	Total applicants	US fellowship awardees	Total awards	The USA as proposed host country by fellowship applicants	The USA as host country of HFSP fellows
1990-2014*	618	16,150	151	2,844	8,201	1,817
2015	33	788	5	75	364	47
2016	24	697	3	75	325	50
2017	27	776	1	72	346	41
2018	21	588	7	90	270	46
2019	31	580	2	82	245	34
2020	20	544	2	65	251	33
2021	21	665	1	56	262	29
2022	17	493	2	65	183	30
2023	22	429	6	50	180	25
2024**	21	535	3	59	212	24
Total	855	22,245	183	3,533	10,839	2,176

* The number of candidates from and to the United States of America for award year 1990 to 1992 is not available.

** The figures for 2024 reflect the awards approved by the Board of Trustees in March 2024 and may be subject to change.

5 International distribution of 2024 awards

As last year, this section shows tabular breakdown according to country (location of laboratory), nationality and host country (of HFSP fellowship holders) for 2024 Awards.

In addition, this year, new figures present a country comparison for the complete record and the last 10 years of HFSP awards for MSP and a separate presentation for the awardees in or from European countries.

5.1 Research Grants 2024

34 grants were awarded (25 Research Grants-Program and 9 Research Grants-Early Career). Each grant is an award to at least two researchers from different countries. The Principal Investigator is responsible for submitting the application and coordinating the collaboration.

The countries in which the 34 Principal Investigators and the 74 co-applicants work are shown in Table I, together with the total number of applications. Their nationalities are shown in Table II.

Table I Applicants / Awardees listed by COUNTRY - Research Grants

	Letters of Intent*			Full Proposals			Awardees		
	RG-P	RG-EC	TOTAL	RG-P	RG-EC	TOTAL	RG-P	RG-EC	TOTAL
<i>RG-P= Program</i>									
<i>RG-EC= Early Career</i>									
Australia	67	5	72	8	1	9	3	0	3
Canada	76	18	94	10	2	12	3	1	4
EU	262(a)	66(a)	328(a)	40(b)	13(b)	53(b)	11(c)	5(c)	16(c)
France	105	6	111	20	1	21	9	0	9
Germany	148	28	176	21	3	24	7	2	9
India	41	9	50	5	0	5	0	0	0
Israel	69	14	83	19	1	20	8	0	8
Italy	64	10	74	5	1	6	1	0	1
Japan	95	12	107	13	3	16	4	2	6
Korea	8	5	13	1	0	1	0	0	0
New Zealand	6	0	6	1	0	1	1	0	1
Norway	22	3	25	2	1	3	0	1	1
Singapore	28	3	31	5	0	5	0	0	0
South Africa	10	7	17	2	1	3	0	1	1
Switzerland	45	5	50	6	1	7	1	0	1
UK	144	24	168	31	9	40	12	6	18
USA	371	87	458	62	14	76	20	7	27
Non MSPs	92(a')	23(a')	115(a')	8(b')	3(b')	11(b')	2(c')	1(c')	3(c')
TOTAL	1653	325	1978	259	54	313	82	26	108

*Eligible Letters of Intent

(a) EU Letters of Intent

RG-P: Austria 18, Belgium 15, Czech Republic 16, Denmark 20, Estonia 2, Finland 4, Greece 2, Hungary 3, Ireland 9, Malta 1, Netherlands 54, Poland 5, Portugal 17, Romania 2, Slovakia 1, Slovenia 3, Spain 60, Sweden 30.

RG-EC: Austria 5, Belgium 5, Czech Republic 1, Denmark 4, Estonia 1, Finland 1, Greece 2, Ireland 3, Netherlands 17, Portugal 5, Slovakia 1, Slovenia 1, Spain 14, Sweden 6.

(b) EU Full Proposals

RG-P: Austria 3, Belgium 4, Czech Republic 2, Denmark 3, Hungary 1, Ireland 2, Netherlands 8, Poland 2, Portugal 4, Slovenia 1, Spain 7, Sweden 3.

RG-EC: Austria 1, Belgium 1, Netherlands 6, Spain 4, Sweden 1.

(c) EU Awardees

RG-P: Austria 1, Belgium 1, Denmark 1, Netherlands 1, Portugal 1, Spain 5, Sweden 1.

RG-EC: Netherlands 2, Spain 2, Sweden 1.

(a') Non MSPs Letters of Intent

RG-P: Argentina 10, Brazil 14, Cameroon 1, Chile 10, China 14, Colombia 5, Costa Rica 1, Cuba 1, DR Congo 1, Ethiopia 1, Ghana 2, Malaysia 1, Mexico 4, Nigeria 1, Pakistan 2, Panama 1, Peru 1, Serbia 1, Taiwan 5, Tunisia 1, Turkey 6, Uganda 1, United Arab Emirates 3, Uruguay 4, Vietnam 1.

RG-EC: Argentina 1, Bangladesh 1, Botswana 1, Brazil 2, Cameroon 1, Chile 1, China 5, Ethiopia 1, Kenya 1, Lebanon 1, Mexico 1, Taiwan 2, Thailand 1, Uganda 1, United Arab Emirates 2, Zimbabwe 1.

(b') Non MSPs Full Proposals

RG-P: Argentina 2, Chile 1, China 4, Uruguay 1.

RG-EC: Ethiopia 1, Hong Kong 1, Taiwan 1.

(c') Non MSPs Awardees

RG-P: Argentina 1, China 1.

RG-EC: Ethiopia 1.

Table II Applicants / Awardees listed by NATIONALITY - Research Grants

	Letters of Intent*			Full Proposals			Awardees		
	RG-P	RG-EC	TOTAL	RG-P	RG-EC	TOTAL	RG-P	RG-EC	TOTAL
<i>RG-P= Program</i>									
<i>RG-EC= Early Career</i>									
Australia	52	6	58	3	1	4	1	0	1
Canada	74	22	96	11	5	16	2	2	4
EU	290(a)	65(a)	355(a)	49(b)	11(b)	60(b)	11(c)	6(c)	17(c)
France	91	13	104	16	1	17	7	0	7
Germany	153	24	177	21	2	23	9	1	10
India	59	24	83	14	4	18	3	0	3
Israel	74	16	90	19	1	20	8	0	8
Italy	106	18	124	12	5	17	4	2	6
Japan	101	10	111	16	2	18	5	1	6
Korea	10	4	14	1	0	1	0	0	0
New Zealand	10	0	10	3	0	3	2	0	2
Norway	7	2	9	0	1	1	0	1	1
Singapore	11	2	13	1	0	1	0	0	0
South Africa	8	6	14	1	2	3	0	2	2
Switzerland	28	4	32	3	0	3	1	0	1
UK	94	11	105	18	3	21	9	3	12
USA	317	57	374	51	12	63	15	6	21
Non MSPs	163(a')	41(a')	204(a')	19(b')	4(b')	23(b')	4(c')	2(c')	6(c')
TOTAL	1653**	325	1978**	259**	54	313**	82**	26	108**

*Eligible Letters of Intent, **Unknown nationalities: 5 RGP for letters of Intent and 1 RG-P for full proposals and awards

(a) EU Letters of Intent

RG-P: Austria 13, Belgium 17, Bulgaria 1, Croatia 3, Cyprus 1, Czech Republic 12, Denmark 13, Estonia 2, Finland 7, Greece 12, Hungary 10, Ireland 13, Malta 1, Netherlands 45, Poland 10, Portugal 20, Romania 5, Slovakia 4, Slovenia 3, Spain 76, Sweden 22.
RG-EC: Austria 3, Belgium 2, Croatia 2, Czech Republic 1, Denmark 3, Greece 6, Hungary 1, Ireland 5, Netherlands 9, Poland 1, Portugal 5, Slovakia 1, Slovenia 2, Spain 21, Sweden 3.

(b) EU Full Proposals

RG-P: Belgium 2, Croatia 1, Czech Republic 1, Denmark 3, Finland 2, Greece 4, Hungary 1, Ireland 4, Netherlands 8, Poland 2, Portugal 6, Slovenia 1, Spain 11, Sweden 3.
RG-EC: Czech Republic 1, Netherlands 3, Poland 1, Spain 6.

(c) EU Awardees

RG-P: Belgium 1, Denmark 2, Portugal 2, Spain 5, Sweden 1.
RG-EC: Czech Republic 1, The Netherlands 2, Spain 3.

(a') Non MSPs Letters of Intent

RG-P: Albania 1, Argentina 16, Belarus 1, Brazil 22, Cameroon 1, Chile 10, China 30, Colombia 8, Costa Rica 1, Cuba 1, DR Congo 1, Egypt 1, Ethiopia 1, Ghana 2, Iceland 1, Indonesia 1, Iran 1, Madagascar 1, Malaysia 5, Mexico 6, Nigeria 3, Pakistan 3, Panama 1, Papua New Guinea 1, Peru 2, Russia 7, Senegal 1, Serbia 1, Taiwan 5, Thailand 1, Tunisia 1, Turkey 13, Uganda 1, Ukraine 4, United Arab Emirates 1, Uruguay 3, Vietnam 4.
RG-EC: Algeria 1, Argentina 4, Bangladesh 1, Brazil 3, Cameroon 2, Chile 1, China 10, Ethiopia 1, Kenya 2, Lebanon 1, Macedonia 1, Malaysia 1, Mexico 2, Russia 2, Taiwan 3, Thailand 1, Uganda 1, Vietnam 1, Zimbabwe 3.

(b') Non MSPs Full Proposals

RG-P: Argentina 3, Chile 1, China 4, Colombia 1, Egypt 1, Madagascar 1, Malaysia 2, Russia 2, Turkey 1, Ukraine 2, Uruguay 1.
RG-EC: Algeria 1, Ethiopia 1, Russia 1, Taiwan 1.

(c') Non MSPs Awardees

RG-P: Argentina 2, Madagascar 1, Russia 1.
RG-EC: Ethiopia 1, Russia 1.

Fig. 1: Number of Research Grant applicants 1992-2024 and in the last ten years (2015-2024) (upper panel) and Research Grant awardees 1990-2024 and 2015-2024 (lower panel) by country where the research laboratory was located (until 2001 Research Grants were evaluated in single step of Full Proposals but as of 2002 the numbers represent submitted Letters of Intent).

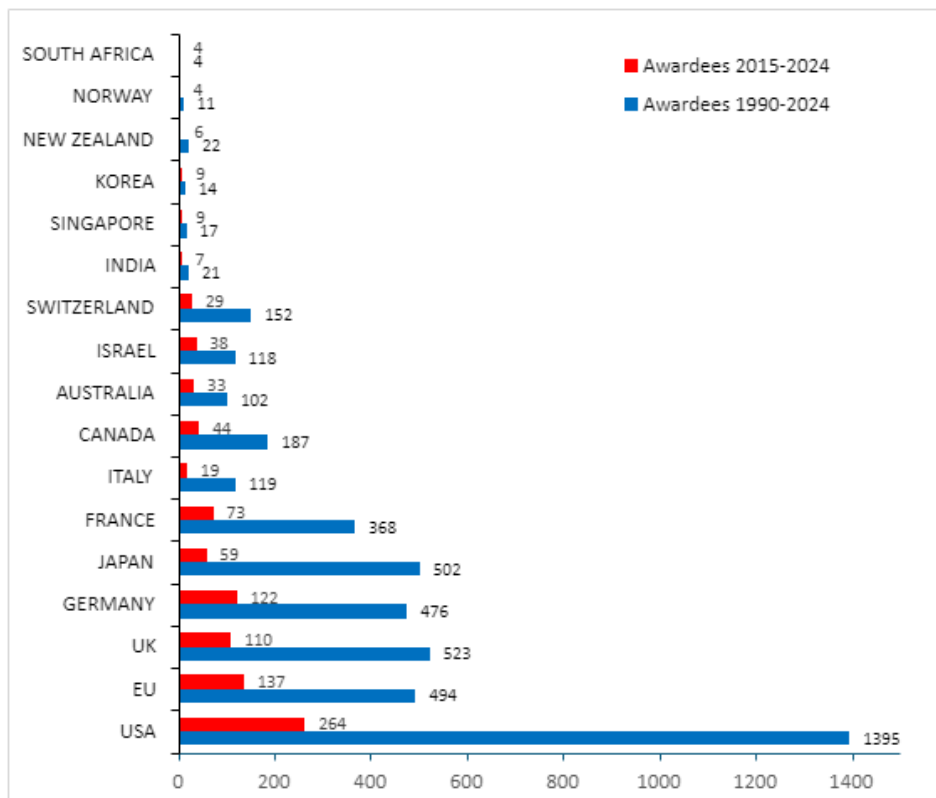
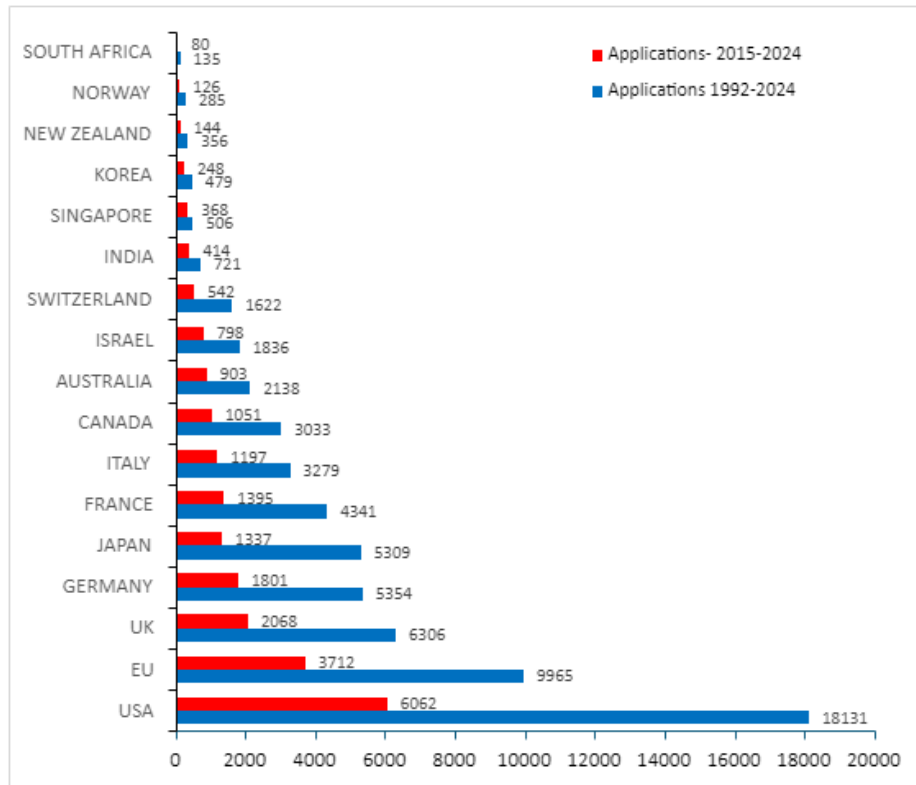
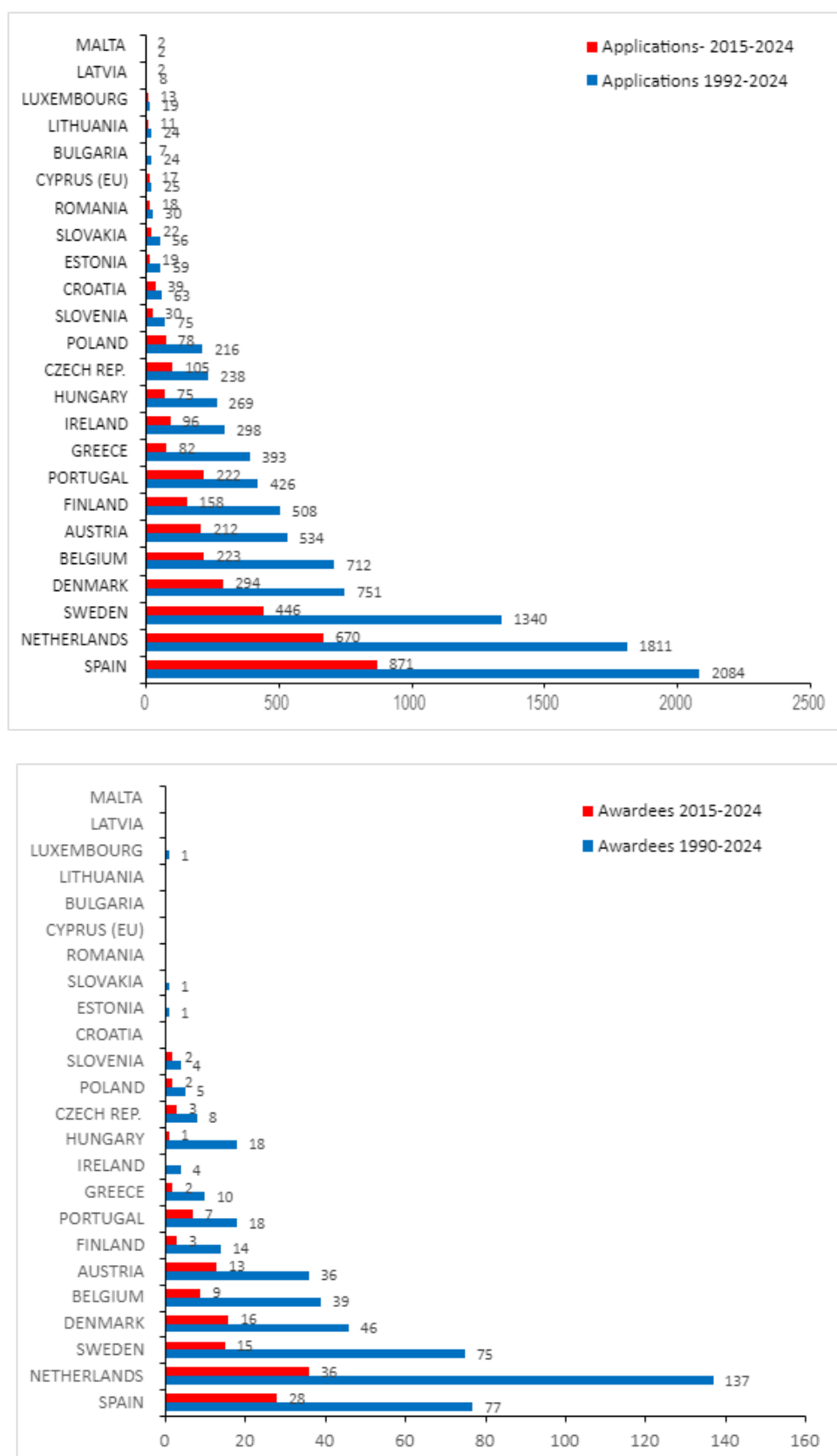


Fig. 2: Number of Research Grant applicants 1992-2024 and 2015-2024 (upper panel) and Research Grant awardees 1990-2024 and 2015-2024 (lower panel) in European countries (excluding Germany, France and Italy).



5.2 Fellowships 2024

In 2024, 535 fellowship letters of intent were reviewed. 48 Long-Term Fellowships and 11 Cross-Disciplinary Fellowships were awarded to young post-doctoral scientists who wish to work in a laboratory abroad.

Table III Applications / Awards listed by NATIONALITY (as approved by the Board in March 2024)

	Letters of Intent			Full Proposals			Awards		
	LTF	CDF	TOTAL	LTF	CDF	TOTAL	LTF	CDF	TOTAL
<i>LTF = Long-Term</i>									
<i>CDF=Cross-Disciplinary</i>									
Australia	11	0	11	1	0	1	0	0	0
Canada	11	0	11	1	0	1	1	0	1
EU	74	9	83 (a)	16	2	18 (b)	8	2	10 (c)
France	35	0	35	7	0	7	3	0	3
Germany	23	6	29	5	4	9	3	3	6
India	76	15	91	11	1	12	6	1	7
Israel	12	4	16	4	0	4	2	0	2
Italy	24	3	27	4	2	6	1	2	3
Japan	34	2	36	9	1	10	7	1	8
Korea	17	3	20	2	1	3	0	0	0
New Zealand	0	0	0	0	0	0	0	0	0
Norway	0	0	0	0	0	0	0	0	0
Singapore	3	0	3	1	0	1	1	0	1
South Africa	0	0	0	0	0	0	0	0	0
Switzerland	2	1	3	0	0	0	0	0	0
UK	12	0	12	2	0	2	1	0	1
USA	20	1	21	5	1	6	3	0	3
Other	112	25	137 (a')	23	4	27 (b')	12	2	14 (c')
TOTAL	466	69	535	91	16	107	48	11	59

(a) EU Letters of Intent

LTF: Austria 4, Belgium 3, Bulgaria 1, Croatia 2, Cyprus, EU part 2, Czech Republic 1, Denmark 3, Estonia 2, Finland 1, Greece 11, Hungary 3, Ireland 1, Lithuania 1, The Netherlands 9, Poland 5, Portugal 4, Romania 1, Slovakia 2, Spain 17, Sweden 1

CDF: Austria 1, Greece 1, The Netherlands 3, Poland 1, Slovenia 1, Spain 2

(b) EU Full Proposals

LTF: Austria 1, Belgium 1, Cyprus, EU part 1, Finland 1, Greece 2, Hungary 1, Lithuania 1, The Netherlands 3, Portugal 1, Spain 4

CDF: Austria 1, Slovenia 1

(c) EU Awardees

LTF: Austria 1, Finland 1, Greece 1, Lithuania 1, The Netherlands 2, Portugal 1, Spain 1

CDF: Austria 1, Slovenia 1

(a') Letters of Intent from other nationalities

LTF: Algeria 1, Argentina 4, Bangladesh 2, Brazil 3, Cameroon 1, Chile 2, China 21, Colombia 1, Cuba 3, Egypt 1, Iran 3, Lebanon 2, Malaysia 4, Mexico 1, Morocco 1, Myanmar 1, Nigeria 3, Pakistan 6, Peru 1, Philippines 2, Russia 4, Serbia 1, Sudan 2, Taiwan 2, Turkey 4, Ukraine 1, Uruguay 1, Vietnam 1, dual nationalities 33

CDF: Argentina 1, Bangladesh 1, Brazil 3, Chile 1, China 5, Colombia 1, Indonesia 1, Iran 1, Jordan 1, Mexico 1, Nigeria 1, Pakistan 2, Turkey 2, dual nationalities 4

(b') Full Proposals from other nationalities

LTF: Argentina 2, China 2, Malaysia 3, Pakistan 1, Sudan 1, Taiwan 2, Turkey 1, Uruguay 1, dual nationalities 10

CDF: Brazil 1, China 1, Indonesia 1, dual nationality 1

(c') Awardees from other nationalities

LTF: Argentina 2, China 1, Sudan 1, Taiwan 2, Uruguay 1, dual nationalities 5

CDF: Indonesia 1, dual nationality 1

Fig. 3: Number of Fellowship applicants 1993-2024 and 2014-2024 (upper panel) and Fellowship awardees 1990-2024 and 2014-2024 (lower panel) by nationality

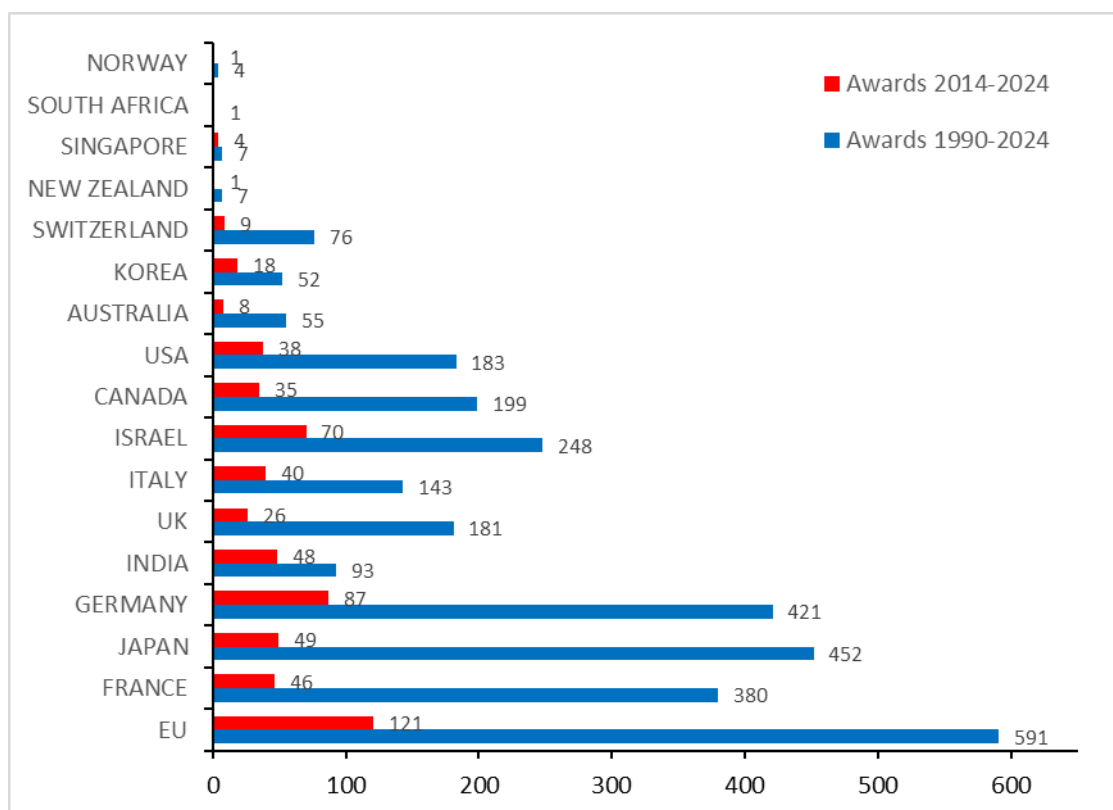
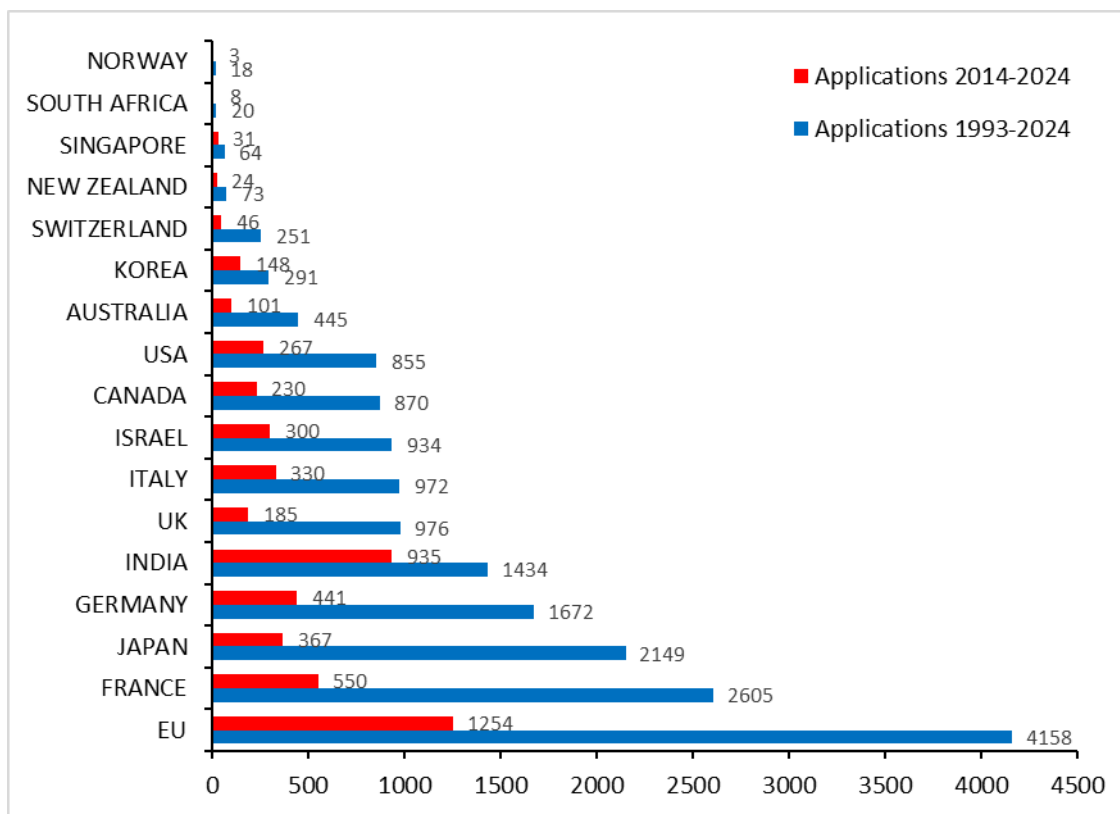


Fig. 4: Number of European Fellowship applicants 1993-2024 and 2014-2024 (upper panel) and Fellowship awardees 1990-2024 and 2014-2024 (lower panel) by nationality

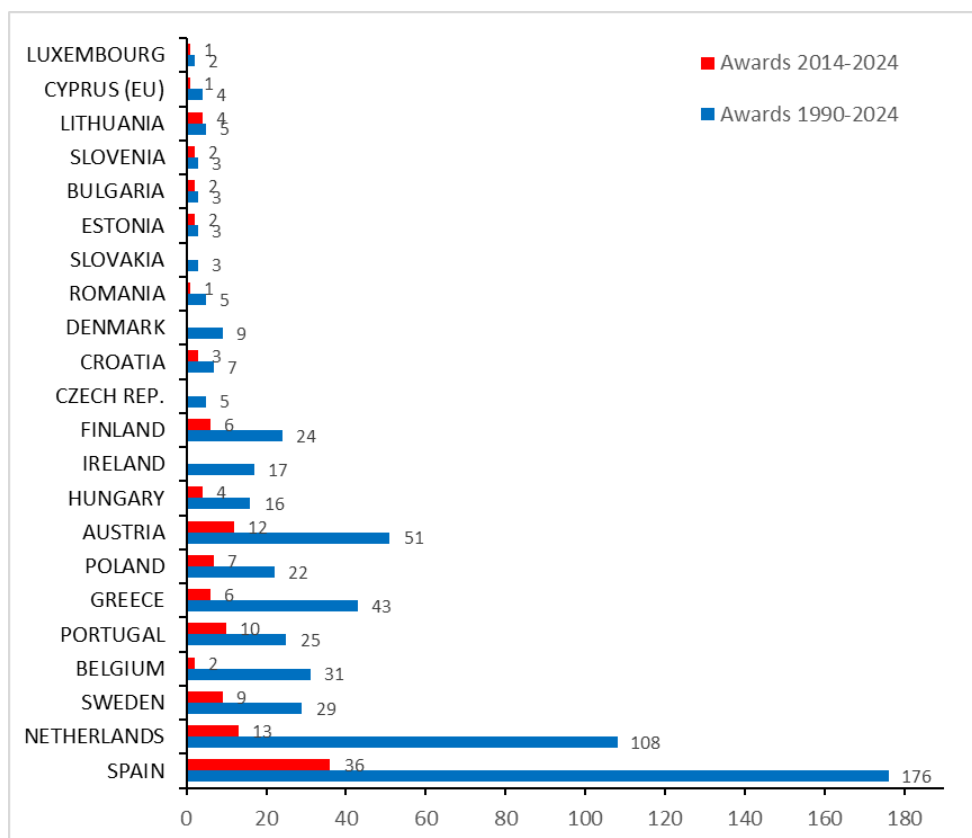
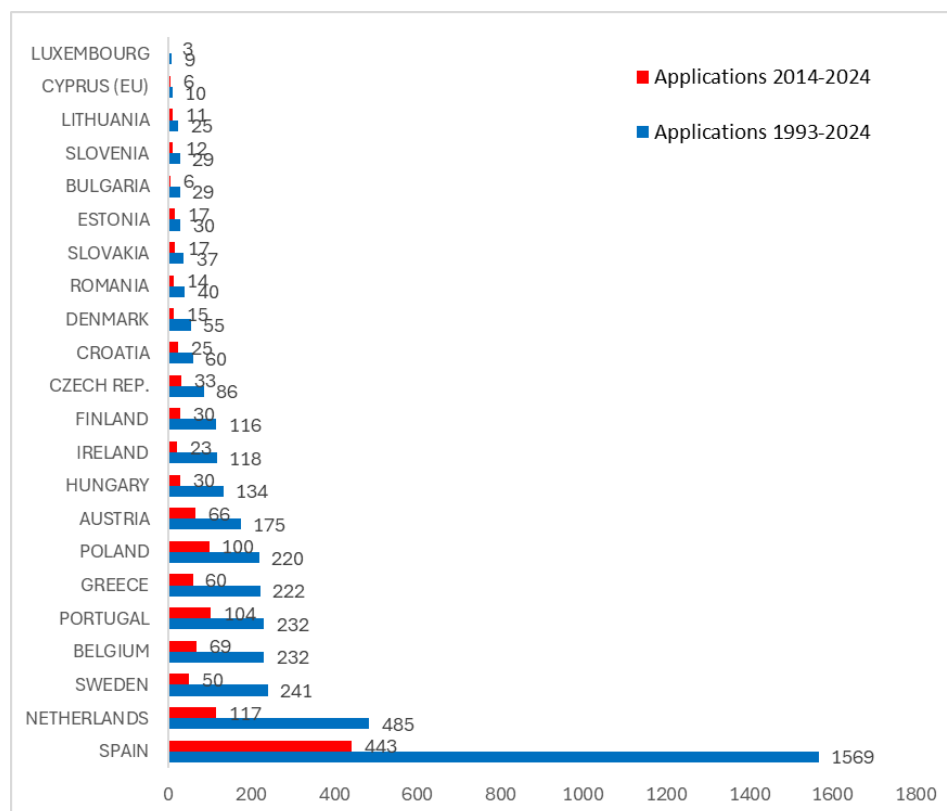


Table IV Applications / Awards listed by HOST COUNTRY
(as approved by the Board in March 2024)

<i>LTF = Long-Term</i> <i>CDF=Cross-Disciplinary</i>	Letters of Intent			Full Proposals			Awards		
	LTF	CDF	TOTAL	LTF	CDF	TOTAL	LTF	CDF	TOTAL
Australia	7	2	9	1	1	2	0	1	1
Canada	24	3	27	3	2	5	2	1	3
EU	75	5	80 (a)	13	1	14 (b)	4	1	5 (c)
France	27	5	32	5	2	7	4	1	5
Germany	38	4	42	13	1	14	10	1	11
India	0	0	0	0	0	0	0	0	0
Israel	5	0	5	0	0	0	0	0	0
Italy	4	1	5	1	0	1	1	0	1
Japan	2	0	2	0	0	0	0	0	0
Korea	0	0	0	0	0	0	0	0	0
New Zealand	3	0	3	0	0	0	0	0	0
Norway	2	0	2	0	0	0	0	0	0
Singapore	6	0	6	0	0	0	0	0	0
South Africa	1	0	1	0	0	0	0	0	0
Switzerland	33	3	36	3	1	4	2	1	3
UK	60	8	68	14	0	14	6	0	6
USA	174	38	212	37	8	45	19	5	24
Other	5	0	5 (a')	1	0	1 (b')	0	0	0
TOTAL	466	69	535	91	16	107	48	11	59

(a) EU host countries in Letters of Intent

LTF: Austria 8, Belgium 6, Croatia 1, Denmark 5, Estonia 1, Finland 3, Ireland 1, The Netherlands 16, Portugal 3, Spain 15, Sweden 16

CDF: Austria 1, The Netherlands 1, Portugal 1, Spain 2

(b) EU host countries in Full Proposals

LTF: Austria 2, Belgium 2, Croatia 1, The Netherlands 3, Portugal 1, Spain 2, Sweden 2

CDF: Austria 1

(c) EU host countries of Awardees

LTF: Austria 1, Belgium 2, Portugal 1

CDF: Austria 1

(a') Other host countries in Letters of Intent

LTF: Brazil 1, China 1, United Arab Emirates 3

(b') Other host countries in Full Proposals

LTF: United Arab Emirates 1

Fig. 5: Fellowship applications 1993-2024 and 2014-2024 (upper panel) and Fellowship awardees 1990-2024 and 2014-2024 (lower panel) per host country

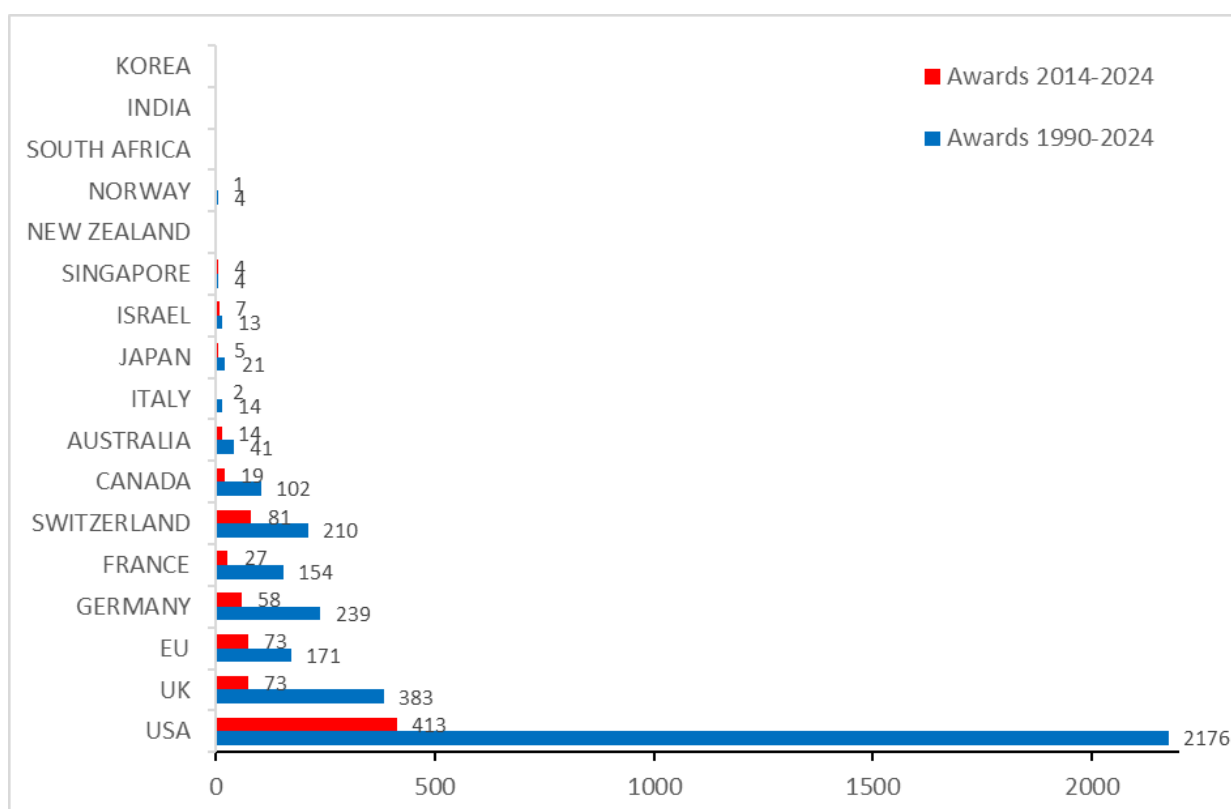
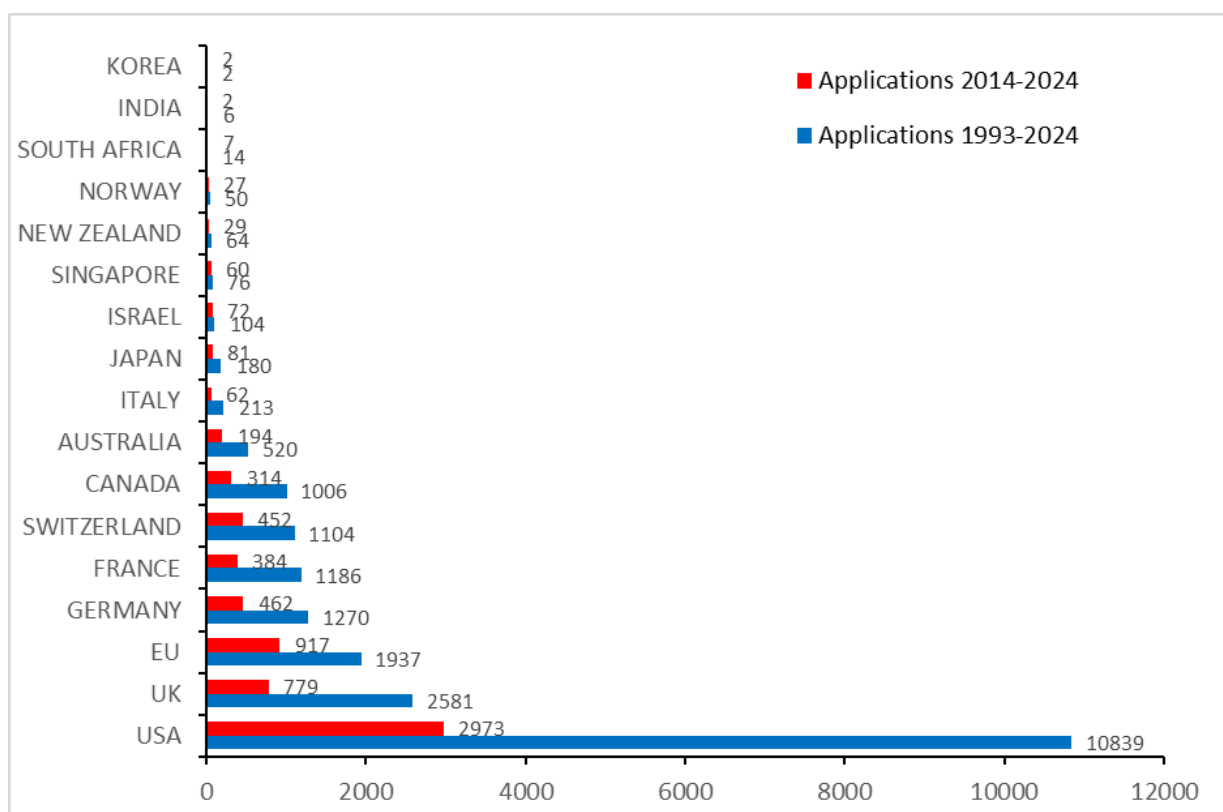


Fig. 6: Fellowship applications 1993-2024 and 2014-2024 (upper panel) and Fellowship awardees 1990-2024 and 2014-2024 (lower panel) per host country in Europe

