



International

Human Frontier Science Program

Organization

Support for international interdisciplinary research collaborations

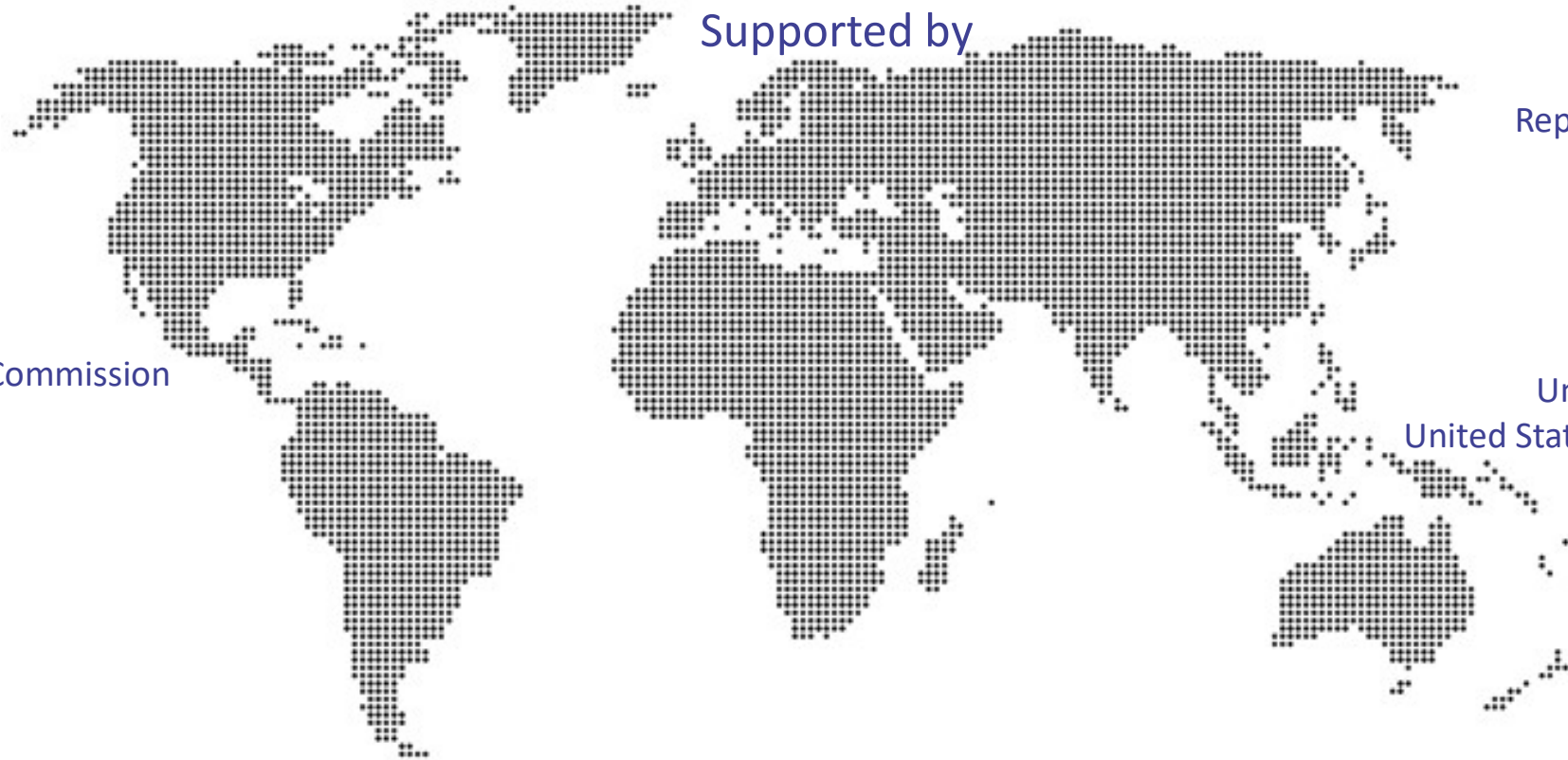
Dr. Almut Kelber
Director of Research Grants



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International Collaboration in Life Science Research

Supported by



Australia
Canada
European Commission
France
Germany
India
Israel
Italy
Japan

Republic of Korea
New Zealand
Norway
Singapore
South Africa
Switzerland
United Kingdom
United States of America





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HFSP's Mission

HFSPO promotes and funds basic research

- innovative, cutting-edge research extending the frontiers of the life sciences
- focused on the elucidation of the sophisticated and complex mechanisms of living organisms (no applied projects)

HFSPO attaches the highest importance to

- scientific merit
- internationality (especially intercontinentality)
- interdisciplinarity



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Elements that distinguish HFSP

No “red tape”: Independent HFSP budget allowing for unrestricted international collaboration

No geo-tagging: Financial contributions to HFSP’s annual budget in a “common pot”

Putting Ideas First: HFSP Research means bottom-up investigator-driven approaches

Not for profit: Intellectual property resulting from HFSP remains with inventors

“HFSP Culture”: Independent, impartial scientific peer review by international and interdisciplinary review committees.

Our Shared Values: Equity, inclusion, diversity, inclusion, freedom of research, open science



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Basic Research in the Life Sciences: molecular level to ecosystems & including higher cognitive functions!

- Scientific research at the frontiers of knowledge
- Competition of ideas: high-risk, high-gain wanted!
- **I**nterdisciplinarity: integration of different research fields (material science, chemistry, physics, mathematics, etc.)
- **I**nnovative, original projects that hold promise for the future
- **I**nternational (intercontinental) collaborations
- Scientific excellence
- **Any frontier research topic in the life sciences**

3 iii

**You are
expected to
shine but
allowed to fail!**

Research that is not supported

HFSP does **not support** research projects that are:

- Applied and translational:
 - clinical and pharmaceutical research (human participants, diagnostics, therapy development)
 - applied technology or applied engineering
 - studies concerned with improving agricultural production and yield
- Mostly environmental/conservation or agricultural/forestry research (unless about complex basic mechanisms of life), studies of bioremediation
- Data collecting, observational studies (-omics without functional questions)
- Research in for-profit environments (but collaboration are possible)

Many projects still lead to patents and applications – this is fine, but should not be the primary aim

Overview HFSP Support 2024

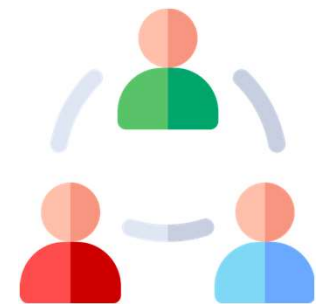
Postdoctoral Fellowships (600 scientists applying for ~ 60 awards/year)

- PhD in biology („Long-Term“)
- PhD in physics, chemistry, etc. („Cross-Disciplinary“)
- Research abroad in a new country – 3 years support
- Salary support (plus child allowance, some support for travel etc)



Research Grants (~2200 applicants in ~700 proposals > 100-120 awardees in ~33 projects)

- International researcher teams (all “Research Grants”)
- Starting investigators (Research Grants - Early Career“)
- One team – one project– 3 years support
- About \$120.000 p.a. per laboratory



Accelerator Grants (New! S-Africa among the eligible countries!)

- A new member can join an awarded Research Grant team from the second year



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HFSP Postdoctoral Fellowships

For PhD candidates that...

- ...are driven by adventurous new ideas (**high-risk, high-gain** wanted)
- ...intent to expand their work beyond the scope of the PhD project
- ...are willing to leave their scientific comfort zone and propose a significant change of fields/topics
- ...are motivated to move to a **new research environment & country**
- ...want to experiment with **new methods and approaches**
- ...aim to disrupt existing paradigms and established ways of thinking



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HFSP Postdoctoral Fellowships

- **Long-Term Fellowships:**

- for applicants with a PhD in a biological field
- to embark on a new project in a different field in the life sciences

- **Cross-Disciplinary Fellowships:**

- for applicants with a PhD from outside the life sciences (e.g. in physics, chemistry, mathematics, engineering or computer sciences)
- no prior training or research experience in the life sciences
- want to move to biological research



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HFSP Postdoctoral Fellowships

Application criteria

Applicants must....

- ...propose to work in a new country and with a new supervisor
 - Citizen of a HFSP Member? -> Choose to go anywhere in the world
 - Not from a Member country? -> Choose a lab in any Member country
- ...apply within 3 years of PhD
- ...have at least one first-author paper (or preprint, at LOI stage)
- **no preliminary results needed on the new project**



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HFSP Postdoctoral Fellowships Success Rate & Funding

- Award includes 3 year salary support plus travel, child and parental leave allowances
- **Career building:** HFSP fellowship can be deferred for up to one year
- Option to use 3rd year for **repatriation** to home country
- Success rate ~ 10 – 15%

Country	Currency	yearly living allowance Year 1	Yearly living allowance Year 2	yearly living allowance Year 3	Yearly child allowance (per child)	Yearly R/T allowance
Italy	EUR	55,956	56,892	57,816	5,596	6,432
Japan	JPY	6,898,740	7,013,712	7,128,696	689,874	784,692
Korea	KRW	68,281,452	69,419,484	70,557,504	6,828,145	8,395,260
UK	GBP	65,772	66,864	67,956	6,577	5,640
USA	USD	59,460	60,456	61,440	5,946	7,200



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HFSP Postdoctoral Fellowships

2-stage application process

1. Letter of Intent

1. Submission deadline **14 May 2024** (~600)
2. Triage (~ 10% not in scope & formal)
3. Initial review by Review Committee members
4. Ranking by scores
5. Top ~ 20% of Lol will receive an invitation to submit a full application
6. All others will be notified

2. Full Proposal

1. Submission deadline **September 2024**
2. Reviewed by 2-3 external experts
3. Reviewed by the initial Lol Review Committee members
4. Scoring w/o cut off
5. Meeting of the full Review Committee in January to discuss all full applications and establish the final ranking
6. Notification **late March 2025**

**Review process and list of committee members available on
<https://www.hfsp.org/funding>**



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Developing an application

Important in a successful application

In your **Curriculum Vitae**, give evidence of your ability to

- think independently and beyond conventional approaches
- adopt new approaches and methodology

Propose a **Research Project** that

- is clearly **your idea** (conceptual input from supervisor is OK)
- is creative, **frontier** and basic research, challenges existing paradigms, addresses barriers to progress in the field
- will introduce you to **new fields, theory and methodology** (a clear departure from your previous research)



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Developing an application

Do not propose a project

- that is only an incremental step forward
- that is the logic next step after your PhD (you need to be willing to significantly change your field of research)
- that is a mainstream project in your host's lab
- that represents the next logical step for your host supervisor
- that fails to make clear *your* intellectual contribution

**Review process and list of committee members can be found on
<https://www.hfsp.org/funding>**



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Next Call for Applications

Award year 2025:

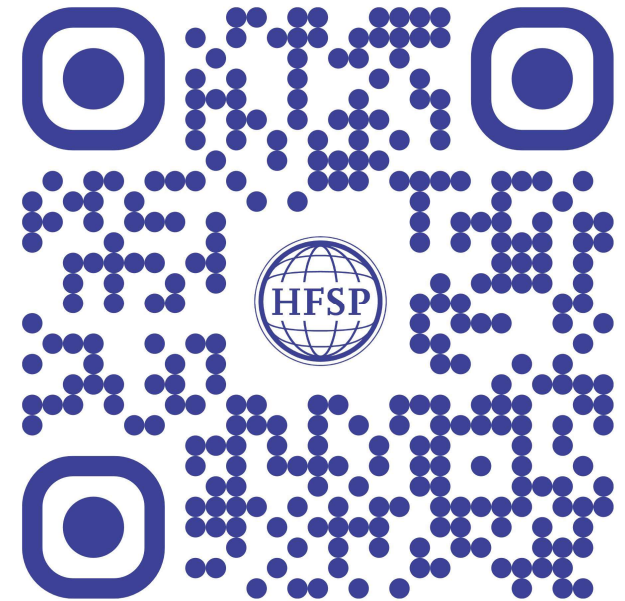
Application site opens March 2024

Application deadline: **14 May 2024**

Award announcement: end-March 2025

Look here:

<https://www.hfsp.org/funding/hfsp-funding/postdoctoral-fellowships>





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HFSP Research Grants

All Research Grants

- team grants for 2-4 scientists
- any basic topic at the frontiers of the life sciences
- a research question that is new for all team members

Research Grants – Program

- scientists at any career stage in their independent career

Research Grants – Early Career

- all team members must be
 - within 5 years of their first independent position
 - within 10 years after PhD



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HFSP Research Grants

Success rate and funding

Funding

- **Three-year grants**
- Principal applicant must lead a laboratory in an HFSP member country, others can be anywhere
 - **300 000 US\$ annually (team of 2), 400 000 US\$ (team of 3), 500 000 US\$ (team of 4, maximum)**
 - Not available for salary of the applicants (no summer salaries)
 - There is a reduction if more than one member works in the same country

Success rate

- ~ 2200 scientists submit ~700 Lols
- 200-250 scientists invited to submit ~ 80-100 full proposals >
- ~ 100 scientists funded in ~ 33 grant awards (~40% of invited proposals are supported)
- **~ 4 – 5% of initial LOIs are supported**



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Two Step Review Process

Letter of Intent

1. Initiation deadline **19 March 2024**
2. Submission deadline **28 March 2024**
(~700 Letters of Intent)
3. Triage (~ 10% not in scope)
4. Review by Review Committee members
5. Discussion of ~250 most promising LOIs by Selection Committee
6. 80 - 100 invitations to submit proposal
(beginning of July)
7. Notification to all teams mid-July

Full Proposal

1. Submission deadline **mid-September**
2. Reviewed by up to 6 external experts
3. Reviewed and ranked by 3 Review Committee members
4. Discussed at the Review Committee meeting end of January
5. Approval by Board of Trustees (late March)
6. Notification **end of March 2025**

**Guidelines for applicants and
Review Committee members can be found on www.hfsp.org**



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Successful HFSP projects

Stimulate novel, daring ideas and innovative approaches in basic life sciences

- preliminary results not required and not wanted
- Investigator driven, no priority areas

Include scientists from outside the life sciences in the team

- to bring new understanding and methodology
- international/intercontinental teams

Develop new lines of research through new interdisciplinary collaborations

- working together on bold, novel, potentially transformative ideas
- Solve problems that a single lab could not tackle



HFSP Research Grants

Developing an application

- **Start early! Start NOW**
- Build a team that is
 - international, preferably intercontinental
 - Interdisciplinary, with complementary expertise for the research project
 - New without previous collaboration and joint publications in the area of the proposed project
 - Blue sky, frontier, paradigm-shifting...
- **HFSP is not looking for preliminary results – nor do our reviewers**



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Developing an application – Good Ideas

Each team member should bring a **completely novel approach** to the research question

- Think of a question at the absolute **frontier of your field**
 - don't shy away from **risk**, but explain **how** the idea **may** work
- Make sure that **each investigator is essential to the team** (no add on's of famous names)
 - teams of 2-3 (Early Career) and no more than 4 member (Program Grants) are most successful
- Convince that **close, ongoing interaction** between team members is essential
- Clearly **articulate the iterations** between theoretical and experimental work
- If models are included, give clear information on approaches

HFSP Research Grants

Developing an application – Bad Ideas

Avoid:

- “The next logical step” in your or another team member’s ongoing research
- Applications that can be funded by your national research funding agencies
- Collaborations within a single country
- More than one member from the same institution
- Adding someone famous for the name, not the contribution (“~~Add-on~~”)
- Starting with “we will improve the therapy of...” or “we will cure the ...” – the **research question has to be basic**, potential for application is no hinder but should not be in focus



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Writing the Letter of Intent

The Letter of Intent is a very short format

- The letter of Intent is the critical step in the HFSP selection process
- Win the reader in your first sentence (don't say "malaria is killing millions every year")
- Simple language and style can be very convincing (reviewers are generalists and read many applications)
- Ask someone from outside the field to read it – are abbreviations needed or can they be replaced? Are concepts clear?
- Do not write "this is interdisciplinary, international and innovative" - that should be clear from the text
- Do not waste space to say how fantastic a project/team this is. Focus on the novelty/frontierness of the science itself



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Writing the HFSP Full Proposal

The Full Proposal has space for detailed information

- It will reveal whether the project or collaboration is genuine or simply the mainstream of one participating laboratory
- No preliminary data! If the project has already been started, it does not need HFSP funding... but proof of concept may be ok for risky methods.
- Do not list all possible methods that could be used, say what you plan to do, and if it is risky, which is the plan B
- Specify models and computational methods – the committee has this competence
- Read the literature, don't miss important papers - reviewers know the literature
- Think about which reviewers to list. HFSP will invite some reviewers suggested by the applicants, some suggested by Review Committee members and some selected by the HFSP office. Don't list your collaborators, they are conflicted!



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HFSP Research Grants Next Call for Applications

Award year 2025:
Announcement mid-December 2023
Application site opens January 2024
Initiation deadline: **19 March 2024**
Application deadline: **28 March 2024**
Award announcement: end-March 2025



Look here: <https://www.hfsp.org/funding/hfsp-funding/research-grants>



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Awardees meetings

Initiated in 2001 and held once annually
in a different HFSP Member country

**This year, we are grateful to be
here in Cape Town!**

**Next year's awardees meeting
will take place in June 2024 in
the National Academy of the
USA in Washington**

Additional activities





Additional activities

Nakasone award

- In honour of former Japanese prime minister Nakasone
- Annually awarded to a scientist who has made a major ground-breaking discovery
- Nominations by scientists:

You can nominate candidates for this award, watch out for the next call this year!



**2023 Nakasone awardee
Rotem Sorek**



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HFSP Secretariat, Strasbourg

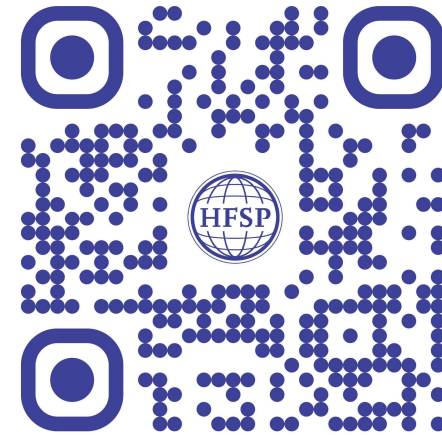
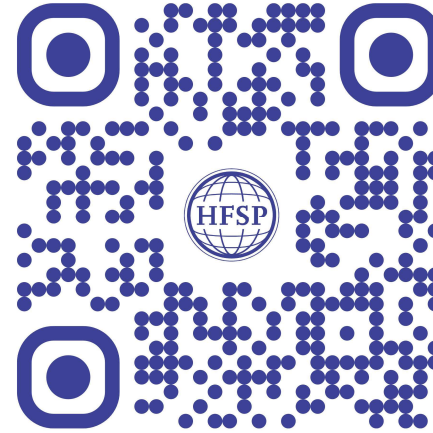
HFSP Contacts & Helpful Resources

Fellowship Awards:
fellow@hfsp.org

Research Grants:
grant@hfsp.org

Website: *www.hfsp.org*

Follow HFSP on LinkedIn Twitter Facebook



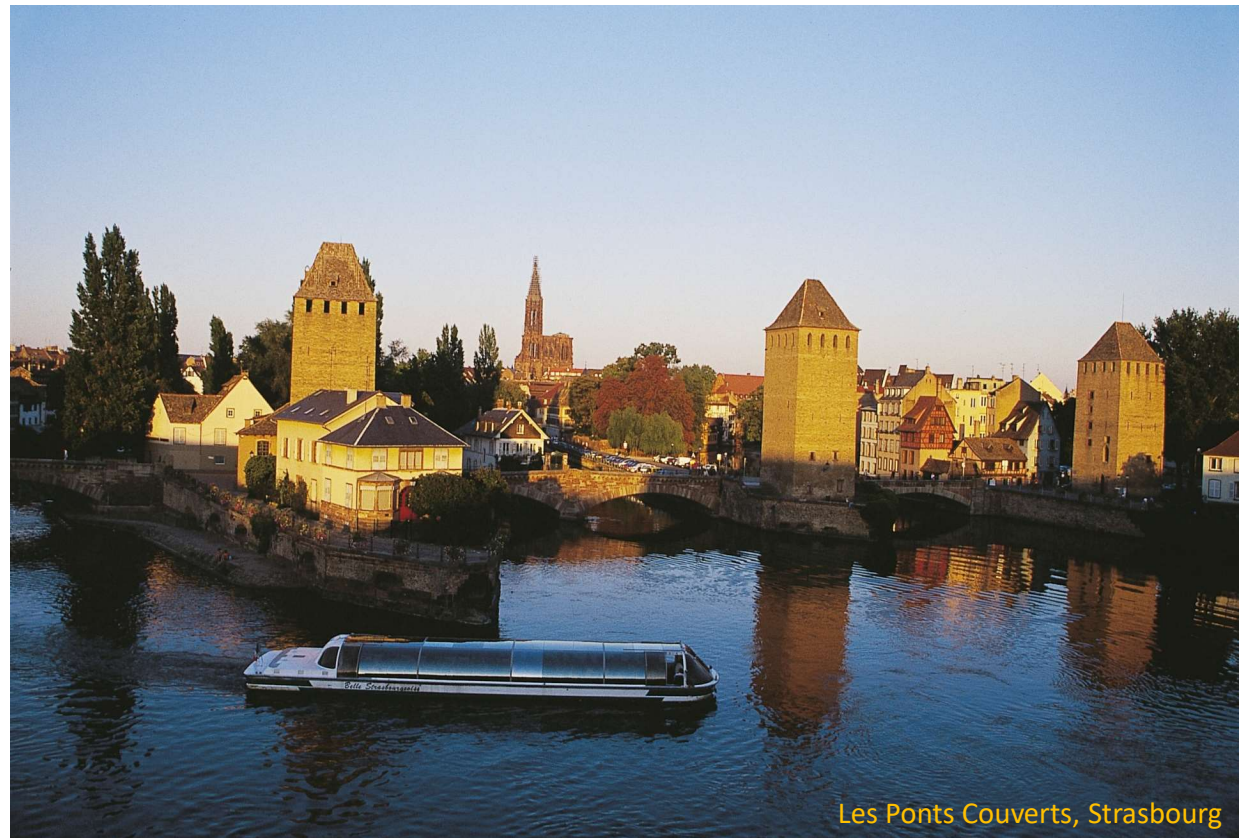


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Thank you! – Questions?



HFSP Secretariat, Strasbourg



Les Ponts Couverts, Strasbourg