

Mizutani Foundation for Glycoscience

Annual Report 2022 and Grant Offer for 2023

Aim

The Mizutani Foundation for Glycoscience, on the basis of its global policy, awards grants to glycoscientists worldwide for innovative basic and applied research proposals, supports international exchanges of researchers in the field of glycoscience and also relevant meetings and their hosting organizations, aiming to promote glycoscience and contribute to the welfare of humankind.

Major Activities

The Foundation conducts the following activities in order to achieve the above goals.

1. Worldwide award of research grants for innovative basic and applied research proposals in the field of glycoscience
2. Assistance in international exchanges between Japanese and overseas glycoscientists
3. Contribution to glycoscience-related meetings and their hosting organizations
4. Conduct other activities necessary to achieve the aims of the Foundation

Chairperson : Ken Mizutani

Trustees : Tamao Endo, Tomoya Ogawa, Toshisuke Kawasaki,
Koji Kimata, Kunihiro Suzuki, Yasuo Suzuki,
Masaki Yanagishita

Auditors : Takayasu Kishi, Nobuhiro Takeuchi

Councilors : Yukishige Ito, Taturou Irimura, Makoto Kiso,
Yuji Shimojima, Akemi Suzuki, Naoyuki Taniguchi,
Shoko Nishihara, Yousuke Funakoshi

Secretary General : Eriko Hagiya

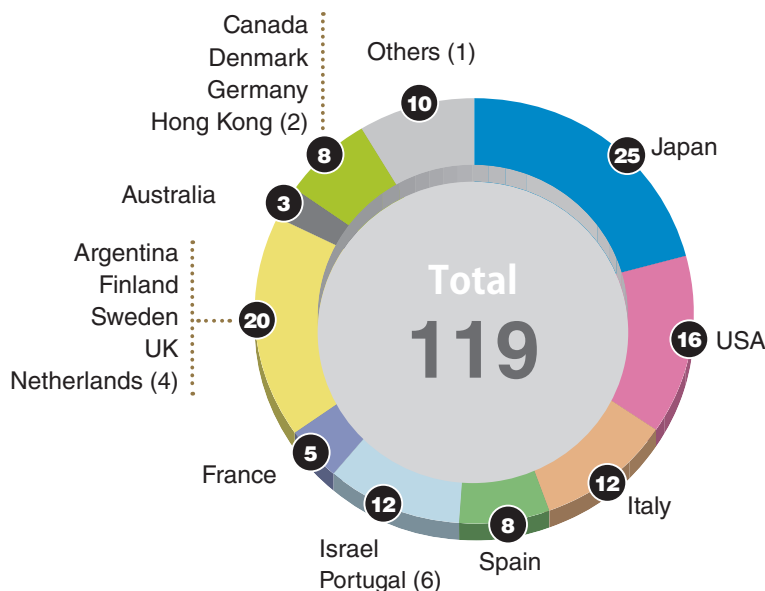
Organization

Research Grant Awarded in 2022

Mizutani Foundation for Glycoscience received 119 research grant applications from 28 countries in 2021. After careful evaluation for scientific and social merit, potentiality and feasibility, the Foundation decided to award the grants of approximately 70 million yen in total to the following 14 projects.

Grant recipients (in alphabetical order)

1. **Aureli, Massimo** University of Milan, Italy
Dissecting the molecular mechanism linking GCCase-dependent lysosomal impairment with Parkinson's disease
2. **Corzana, Francisco** University of La Rioja, Spain
Carbon Dots-MUC1 conjugates: synthesis and applications of a novel class of fluorescent self-adjuvating cancer vaccines
3. **Halim, Adnan** University of Copenhagen, Denmark
Exploring novel O-mannosylation pathways targeting cell-surface receptors
4. **Jafar-Nejad, Hamed**
Baylor College of Medicine, United States
Role of deglycosylation at the interface of metabolism and innate immunity
5. **Katagiri, Yasuhiro** National Heart, Lung, and Blood Institute, United States
Novel Cleavage-Dependent Interaction of Proteoglycan Receptors with Neuropilin-1
6. **Katoh, Hiroto** The University of Tokyo, Japan
Elucidation of the biology of sulfated-GAG using human antibody library
7. **Kitazume, Shinobu** Fukushima Medical University, Japan
Regulatory role of HNK-1 capped O-Man glycan for glioma activation
8. **Kizuka, Yasuhiko** Gifu University, Japan
Mechanisms for protein-selective action of GnT-V
9. **Koiwa, Hisashi** Texas A&M University, United States
Genetic dissection of plant complex N-glycan functions- enigma in plant biology
10. **Minsky, Neri** Sheba Medical Center, Israel
Deciphering Liver Glycome Regulation by the PGC-1/FN3K Axis
11. **Okino, Nozomu** Kyushu University, Japan
Synthetic machinery of bacterial glycosphingolipids and their applications
12. **Scott, Nichollas E.** University of Melbourne, Australia
Understanding the substrate targeting of the pglL oligosaccharyltransferase family
13. **Shaul, Yoav D.** Hebrew University, Israel
Decoding heparan sulfate proteoglycans essential role in cancer aggressiveness
14. **Takeuchi, Hideyuki**
University of Shizuoka School of Pharmaceutical Sciences, Japan
A new tactic to inhibit leukemia cell growth via the function of NOTCH O-glycans

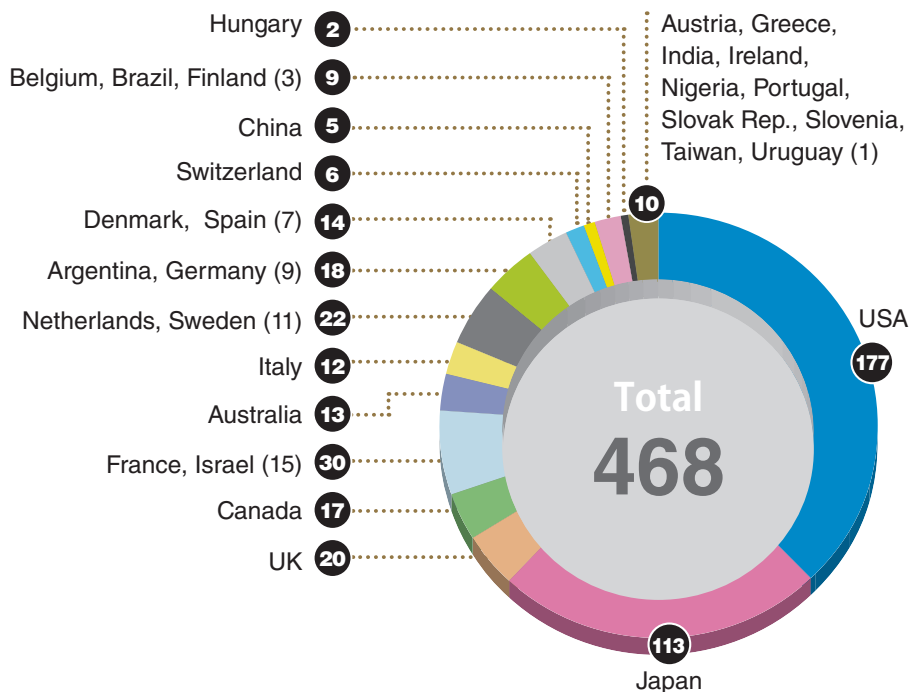


Number of applicants by country

Grantees 1993-2022

Mizutani Foundation for Glycoscience invited research grants for twenty nine times and received 4,193 applications from 62 countries. After careful evaluation by the selection committee, the Foundation approved 468 projects of 30 countries and awarded a total of approximately 2,225 million yen to them.

Grant recipients 1993-2022



Country	Applicants	Country	Applicants	Country	Applicants
USA	1,450	Denmark	22	Chile	4
Japan	615	Hungary	19	South Africa	4
UK	248	Austria	16	Bulgaria	3
Italy	210	Greece	13	Turkey	3
Australia	193	Ireland	13	Costa Rica	2
Canada	145	Malaysia	13	Cuba	2
Israel	143	Norway	13	Hong Kong	2
Sweden	123	New Zealand	12	Iceland	2
Spain	121	Nigeria	11	Serbia & Montenegro	2
France	109	Poland	11	Tanzania	2
Germany	95	Taiwan	11	Colombia	1
Netherlands	80	Mexico	10	Estonia	1
Argentina	73	Slovak Rep.	10	Iran	1
Portugal	62	Korea	8	Jamaica	1
China	52	Croatia	7	Kenya	1
Finland	45	Thailand	7	Peru	1
Switzerland	44	Uruguay	7	Saudi Arabia	1
Brazil	37	Czech Rep.	6	Sri Lanka	1
India	34	Singapore	6	Uganda	1
Belgium	31	Pakistan	5	Total	4,193
Russia	23	Slovenia	5	Country	62

Number of applicants by country 1993-2022

The 30th Research Grant Offer for 2023

Mizutani Foundation for Glycoscience invites grant applications for basic and applied studies in the field of glycoscience.

Eligibility

- An applicant must
- 1) have a doctor's degree or its equivalent
 - 2) have a documented capability of performing independent studies
 - 3) be a member of a research institute where he or she can carry out the proposed project.

Previous grant recipients who were awarded prior to 2018 are eligible.

Grant

As much as 7,000,000 yen may be requested. In principle, a grant will be approved for one year. However, if desired, the period can be extended up to one year with the approval of the Foundation. The total budget for grants is 70,000,000 yen per annum. No more than 10% of the grant may be used for indirect costs (overheads), and no part of the grant may be used for stipends of the principal and/or collaborative investigators.

Selection

The applications will be reviewed by the selection committee consisting of specialists appointed by the Foundation based on followings.

- 1) Glycoscience field
- 2) Originality
- 3) Scientific and social merit
- 4) Feasibility

Application

An applicant must

- 1) make registration on our website,
(<https://www.mizutani.or.jp/grant/apply.html>)
We open registration page from July 1st, 2022.
- 2) submit application documents as a single ZIP file.
(Please obtain application guidelines and forms from our website in your preferred format.)

Deadlines

September 1, 2022 (Japan Time). Selection Outcome will be notified to the applicants no later than February 20, 2023, and the successful proposals will be funded in March 2023.

International Conferences

Mizutani Foundation for Glycoscience offers grants to the organizers of international conferences to promote exchanges between Japanese and foreign glycoscientists.

In the fiscal year 2021, we supported following conferences.

Exchange Program

- | | | |
|----|---|--|
| 1. | 2021 Carbohydrates Gordon Research Conference (GRC) | New Hampshire, USA, 6/20-25, 2021
(Postponed for about two years) |
| 2. | International Scientific CDG Symposium 2021 on Congenital Disorder of Glycosylation | Prague, Czech Republic,
6/23-25, 2021 |
| 3. | The 9th Biannual Meeting on Microbial Carbohydrates (BMMC) | Napoli, Italy, 11/3-5, 2021
(Postponed for about one year) |

Grant for Domestic Conferences in Japan

This grant is for organizers of domestic conferences held in Japan.

We supported following conferences in the fiscal year 2021.

Domestic Conferences in Japan

- | | | |
|----|------------------------------------|---------------------|
| 1. | 第23回比較グライコーム研究会（横浜） | 神奈川、8/21, 2021 |
| 2. | 第15回東北糖鎖研究会 | 岩手、8/25, 2021 |
| 3. | 第35回日本キチン・キトサン学会大会 | 鹿児島、8/26-27, 2021 |
| 4. | 第70回日本応用糖質科学会2021年度大会 | 北海道、8/26-9/10, 2021 |
| 5. | 第20回青森糖質研究会 | 青森、10/15, 2021 |
| 6. | 第40回日本糖質学会年会 | 鹿児島、10/26-29, 2021 |
| 7. | 第15回多糖の未来フォーラム | 福岡、11/12, 2021 |
| 8. | 第17回糖鎖科学中部拠点フォーラム
「若手の力」と糖鎖科学講義 | 岐阜、1/13, 1/18, 2022 |

G rant Offer for Conferences

Grant Application Guidelines for Glycoscience Meeting

The Mizutani Foundation is to contribute to the welfare of mankind through promotion of scientific exchange between Japanese and foreign glycoscientists by contributing international conferences on glycoscience.

Proposals should be made an application format by the chairperson of the meeting.

After the meeting, please submit us a report of the meeting (the form is available from our website) within one month.

Our total yearly budget is JPY 5,000,000 and we expect to support approximatery 20 conferences every year.

The deadline date by which the application must be submitted

Due to taking the time to review, the complete application must be emailed by deadline (Japan time).



1. November, 30 : For the meetings planned to be held in next February, March, April, May, and June
2. March, 31 : For the meetings planned to be held in this July, August, September, October, November, December and next January



Mizutani Foundation for Glycoscience

Marunouchi Center Bldg. 9F
 1-6-1 Marunouchi, Chiyoda-ku, Tokyo 100-0005 Japan
 Phone: 81-3-3211-0861 / Fax: 81-3-3211-0862
 E-mail: info@mizutanifdn.or.jp
 URL: <https://www.mizutanifdn.or.jp/>