



# Mizutani Foundation for Glycoscience

Annual Report 2020 and Grant Offer for 2021

## 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

## Organization

Chairperson : Ken Mizutani

Trustees : Kazuaki Ohnishi, Tomoya Ogawa, Toshisuke Kawasaki,  
Takashi Sugimura, Kunihiro Suzuki, Yasuo Suzuki,  
Masaki Yanagishita

Auditors : Takayasu Kishi, Nobuhiro Takeuchi

Councilors : Yukishige Ito, Tatsurou Irimura, Tamao Endo, Makoto Kiso,  
Yuji Shimojima, Akimi Suzuki, Naoyuki Taniguchi,  
Shoko Nishihara, Yousuke Funakoshi

Secretary General : Eriko Hagiya

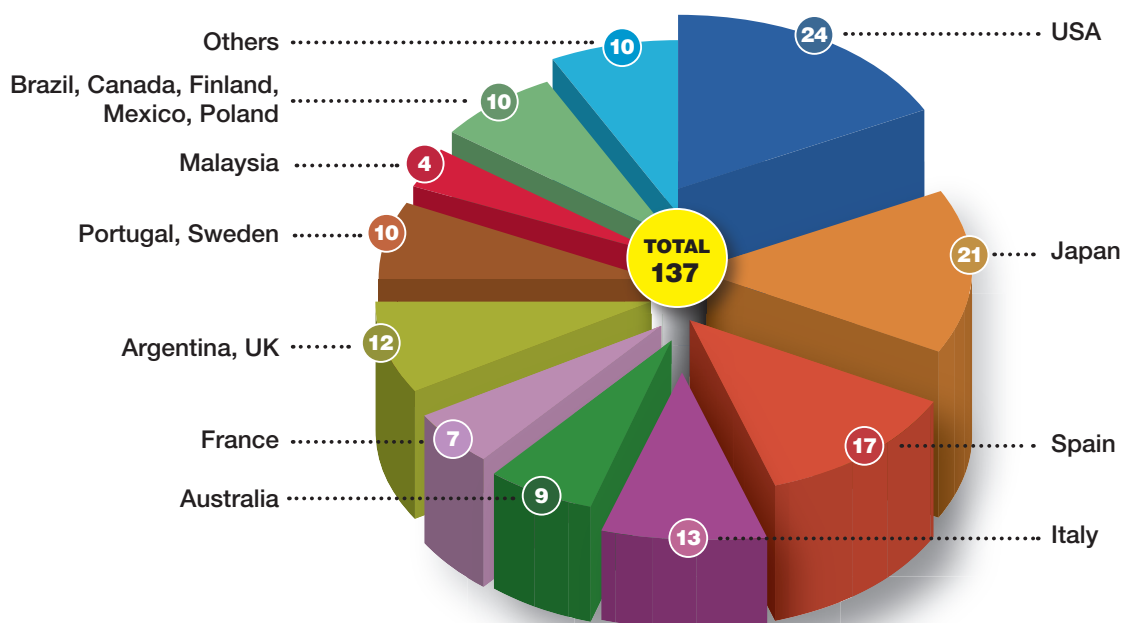
# Research Grant Awarded in 2020

Mizutani Foundation for Glycoscience received 137 research grant applications from 26 countries in 2019. 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 16 projects.

## Grant recipients (in alphabetical order)

1. **Abdel-Mohsen, Mohamed** The Wistar Institute, USA  
[Reversal of HIV Latency by Galectin-9 in vivo](#)
2. **Cao, Hongzhi** Shandong University, China  
[Chemoenzymatic synthesis and functional study of O-series gangliosides](#)
3. **Chiricozzi, Elena** University of Milano, Italy  
[Role of glycan chain of ganglioside GM1 in modulating the neuronal signaling](#)
4. **Forneris, Federico** University of Pavia, Italy  
[Unraveling the molecular mechanisms of collagen glycosyltransferases](#)
5. **Herzon, Seth** Yale University, USA  
[New methods for the synthesis of O-glycosides](#)
6. **Irazoqui, Fernando** National University of Cordoba / CONICET, Argentina  
[Biosynthesis and function of O-GalNAc glycans in the cell nucleus](#)
7. **Itano, Naoki** Kyoto Sangyo University, Japan  
[Hyaluronan metabolism-dependent stress tolerance in cancer stem cells](#)
8. **Jiménez-Osés, Gonzalo** CIC bio GUNE, Spain  
[Addressing Enthalpy-Entropy Compensation in Carbohydrates Binding by Computation](#)
9. **Johannes, Ludger** Institut Curie, France  
[Glycan topology switch to regulate integrin activity](#)
10. **Kameyama, Akihiko** National Institute of Advanced Industrial Science and Technology (AIST), Japan  
[Rapid construction and application of O-glycan library for progressive glycomics](#)
11. **Murakami, Yoshiko** Osaka University, Japan  
[A novel structure of GPI anchored proteins and its physiological role](#)
12. **Platt, Frances** University of Oxford, UK  
[Modifiers of glycosphingolipid biology in health and disease](#)
13. **Rilla, Kirsi** University of Eastern Finland, Finland  
[Hyaluronan-coated extracellular vesicles - dynamic components of the extracellular matrix](#)
14. **Simizu, Siro** Keio University, Japan  
[Identification of Novel C-mannosyltransferase in Human Cells](#)
15. **Takamiya, Kogo** University of Miyazaki, Japan  
[N-glycosylation of AMPA type glutamate receptor regulates memory](#)
16. **Yamaguchi, Yu** Sanford Burnham Prebys Medical Discovery Institute, USA  
[The Novel Cell Surface Hyaluronidase TMEM2 in Tumor Cell Invasion](#)

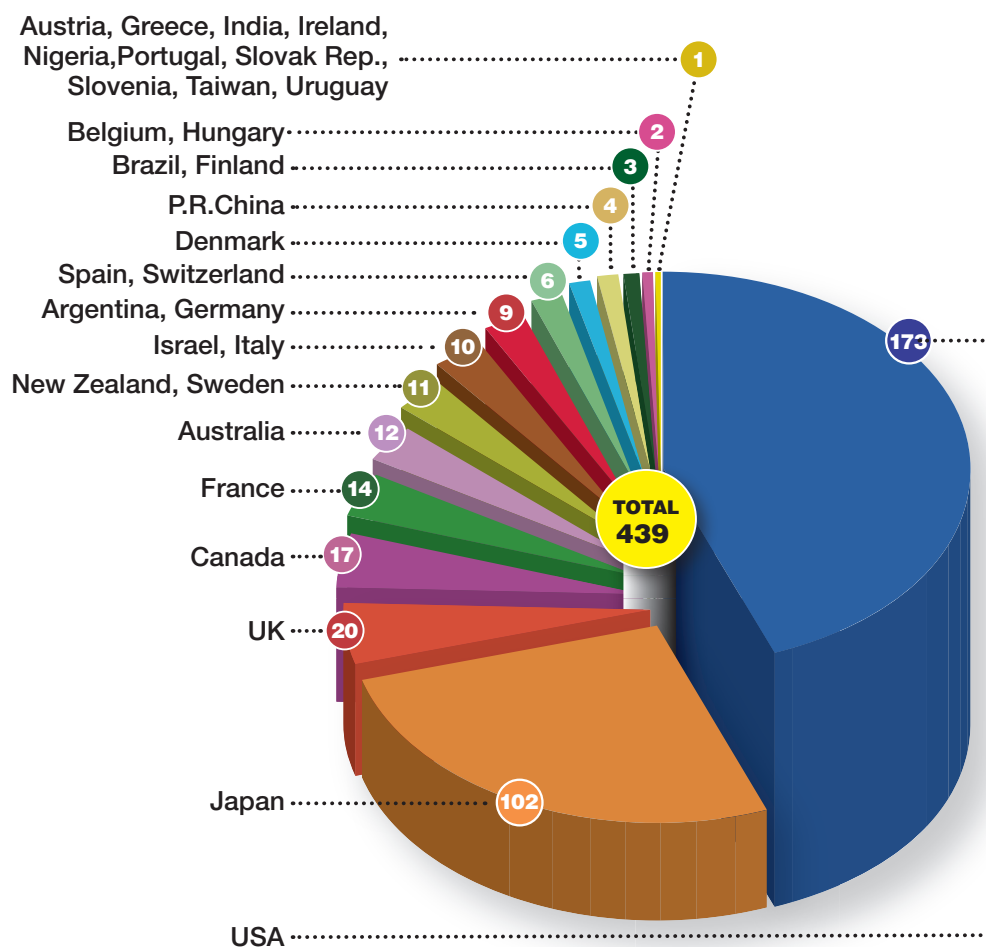
## Number of applicants by country



# Grantees 1993-2020

Mizutani Foundation for Glycoscience invited research grants for twenty seven times and received 3,937 applications from 58 countries. After careful evaluation by the selection committee, the Foundation approved 439 projects of 30 countries and awarded a total of approximately 2,085 million yen to them.

## Grant recipients 1993-2020



## Number of applicants by country 1993-2020

Country	Applicants	Country	Applicants	Country	Applicants	Country	Applicants
USA	1,412	Switzerland	43	Malaysia	9	Cuba	2
Japan	564	Finland	40	Mexico	9	Iceland	2
UK	241	Brazil	34	Poland	9	Serbia&Montenegro	2
Australia	186	India	32	Slovak Rep.	9	Tanzania	2
Italy	183	Belgium	29	Korea	8	Turkey	2
Canada	142	Russia	23	Thailand	7	Costa Rica	1
Israel	127	Denmark	18	Uruguay	7	Iran	1
Sweden	115	Hungary	16	Croatia	6	Jamaica	1
Spain	102	Austria	15	Czech Rep.	6	Kenya	1
France	100	Ireland	13	Pakistan	5	Peru	1
Germany	93	Norway	13	Singapore	5	Saudi Arabia	1
Netherlands	74	Greece	12	Chile	4	Sri Lanka	1
Argentina	67	New Zealand	11	South Africa	4	Uganda	1
Portugal	50	Nigeria	11	Slovenia	3	<b>Total</b>	<b>3,937</b>
P.R.China	49	Taiwan	11	Bulgaria	2	<b>Country</b>	<b>58</b>

# The 28<sup>th</sup> Research Grant Offer for 2021

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 2016 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.mizutanifdn.or.jp/grant/apply.html>)  
We open registration page from July 1st, 2020.
- 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, 2020 (Japan Time). Selection Outcome will be notified to the applicants no later than February 20, 2021, and the successful proposals will be funded in March 2021.

The Protection of Personal Information: The Foundation will use personal information obtained in relation to the Research Grant for administrative purposes.

# 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 2019, we supported following conferences.

## Exchange Program

1. International Symposium on Bio-CHAINS from Single Molecules to Highly Organized Systems	Gifu, Japan, 6/3-4, 2019
2. International Society for Hyaluronan Sciences 12th International Conference	Wales, UK, 6/9-13, 2019
3. 60th International Conference on the Bioscience of Lipids	Tokyo, Japan, 6/17-21, 2019
4. 2019 Carbohydrates Gordon Research Conference	Hong Kong, Hong Kong, 6/23-28, 2019
5. MUCINS IN HEALTH AND DISEASE (15th International Workshop on Carcinoma-associated Mucins)	London, UK, 7/29-8/2, 2019
6. 25th International Symposium on Glycoconjugates	Milano, Italy, 8/25-9/1, 2019
7. 1st Japan-Europe Workshop on Glycosphingolipids and Membrane Homeostasis	Strasbourg, France, 9/2-4, 2019
8. 5th International Lafora Epilepsy & Glycan Workshop	Alcala, Spain, 9/9-11, 2019
9. 11th International Conference on Proteoglycans (Proteoglycans 2019)	Ishikawa, Japan, 9/29-10/3, 2019
10. International Symposium on Glyco-lipidologue	Saitama, Japan, 1/21-22, 2020

# 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 2019.

## Domestic Conferences in Japan

1. 第20回関西グライコサイエンスフォーラム	大阪、5/18, 2019
2. 第26回肝細胞研究会	神奈川、5/23-24, 2019
3. 糖鎖科学中部拠点フォーラム「若手の力」と糖鎖科学講義	静岡、8/19-20, 2019
4. 第38回日本糖質学会年会 (日本糖質学会創設40周年記念大会)	愛知、8/19-21, 2019
5. 第6回 FCCA シンポジウム・グライコサイエンス若手フォーラム 2019	愛知、8/22, 2019
6. 第33回日本キチン・キトサン学会大会	神奈川、8/28-29, 2019
7. 第13回東北糖鎖研究会	新潟、9/6-7, 2019
8. 日本応用糖質科学会 2019 年度大会	岐阜、9/11-13, 2019
9. 第19回青森糖質研究会	青森、10/11, 2019
10. 第29回日本メイラード学会年会	宮城、10/26-27, 2019
11. 第17回糖鎖科学コンソーシアムシンポジウム	京都、10/29-30, 2019
12. 第13回多糖の未来フォーラム・第45回日本応用糖質科学会近畿支部会	京都、11/8, 2019
13. 第10回グライコバイオリジクス研究会	東京、11/26, 2019

## 出版物支援

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