



# Mizutani Foundation for Glycoscience

Annual Report 2019 and Grant Offer for 2020

## 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, Kunihiko Suzuki, Yasuo Suzuki, Masaki Yanagishita

Auditors : Takayasu Kishi, Nobuhiro Takeuchi

Councilors : Taturou Irimura, Tamao Endo, Kenichi Kasai, Yuji Shimojima, Akemi Suzuki, Naoyuki Taniguchi, Masaru Taniguchi, Yousuke Funakoshi, Motonori Hoshi, Takashi Muramatsu

Secretary General : Eriko Hagiya

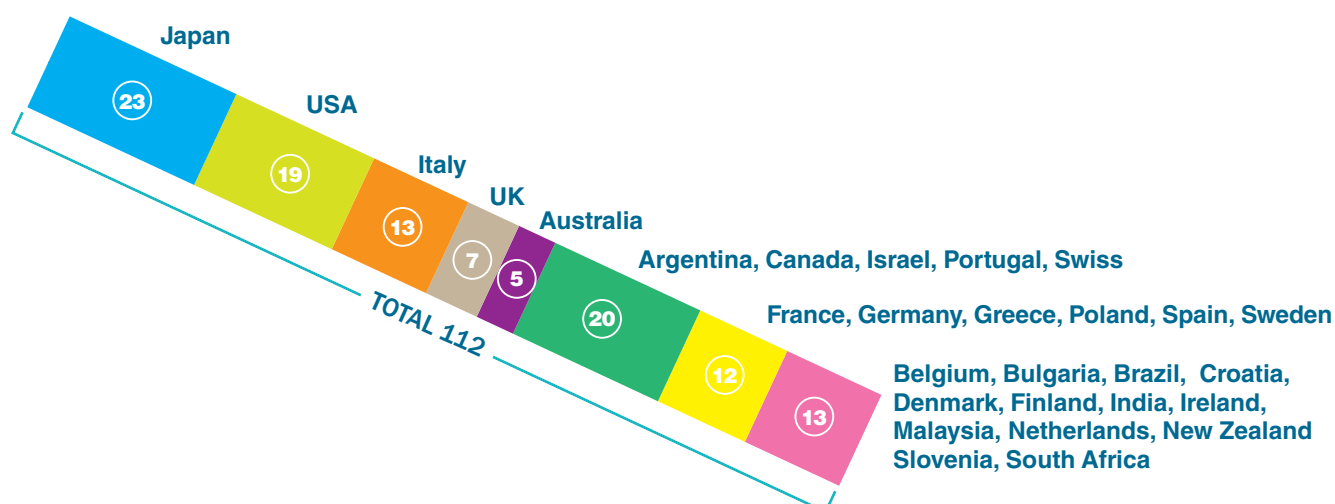
# Research Grant Awarded in 2019

Mizutani Foundation for Glycoscience received 112 research grant applications from 29 countries in 2018. 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. **Anderluh, Gregor**  
National Institute of Chemistry, Slovenia  
**Glycolipids as receptors for toxins of plant pathogens**
2. **Dahan, Rony**  
Weizmann Institute of Science, Israel  
**Effect of IgG Fc glycome on tumor immunity**
3. **Dimitroff, Charles**  
Brigham and Women's Hospital, USA  
**Functional analysis of human endothelial cell galectin-9 on human B cells**
4. **Gupton, Stephanie**  
University of North Carolina, USA  
**Netrin-1 Glycosylation Distinguishes Chemotaxis and Haptotaxis**
5. **Hirabayashi, Yoshio**  
RIKEN, Japan  
**Novel glycolipids generated by crosstalk between sphingolipid and sterol**
6. **Ishimizu, Takeshi**  
Ritsumeikan University, Japan  
**Identification of glycosyltransferases involved in pectin biosynthesis**
7. **Itoh, Kohji**  
Tokushima University, Japan  
**Development of neoglycobiologics by utilizing transglycosylation technology**
8. **Kawashima, Hiroto**  
Chiba University, Japan  
**Pathological role of HEV-specific sulfated glycans revealed by anti-glycan mAbs**
9. **Kolarich, Daniel**  
Griffith University, Australia  
**Identifying the human bisected N-acetylglucosamine modifying glycosyltransferase**
10. **Maor, Bar-Peled**  
University of Georgia, USA  
**Generation of new Vaccine for Whooping Cough**
11. **Marth, Jamey**  
University of California Santa Barbara, USA  
**Environmental and Pathogenic Triggers of Intestinal Inflammatory Disease**
12. **Menon, Anant**  
Weill Cornell Medical College, USA  
**Molecular mechanism of glycosylation of the dolichol-linked N-glycan precursor**
13. **Molinari, Maurizio**  
Universita della Svizzera italiana, Switzerland  
**Role of calnexin in delivery of ATZ from the ER to endolysosomes for clearance**
14. **Song, Jeongmin**  
Cornell University, USA  
**A toolbox to discriminate functionally important glycan receptors for virulence**
15. **Suzuki, Tadashi**  
RIKEN, Japan  
**Clarification of a novel degradation pathway for O-Man glycans in *S. cerevisiae***
16. **Van Sinderen, Douwe**  
University College Cork, Ireland  
**Fucosylated human milk oligosaccharides and the infant microbiome**

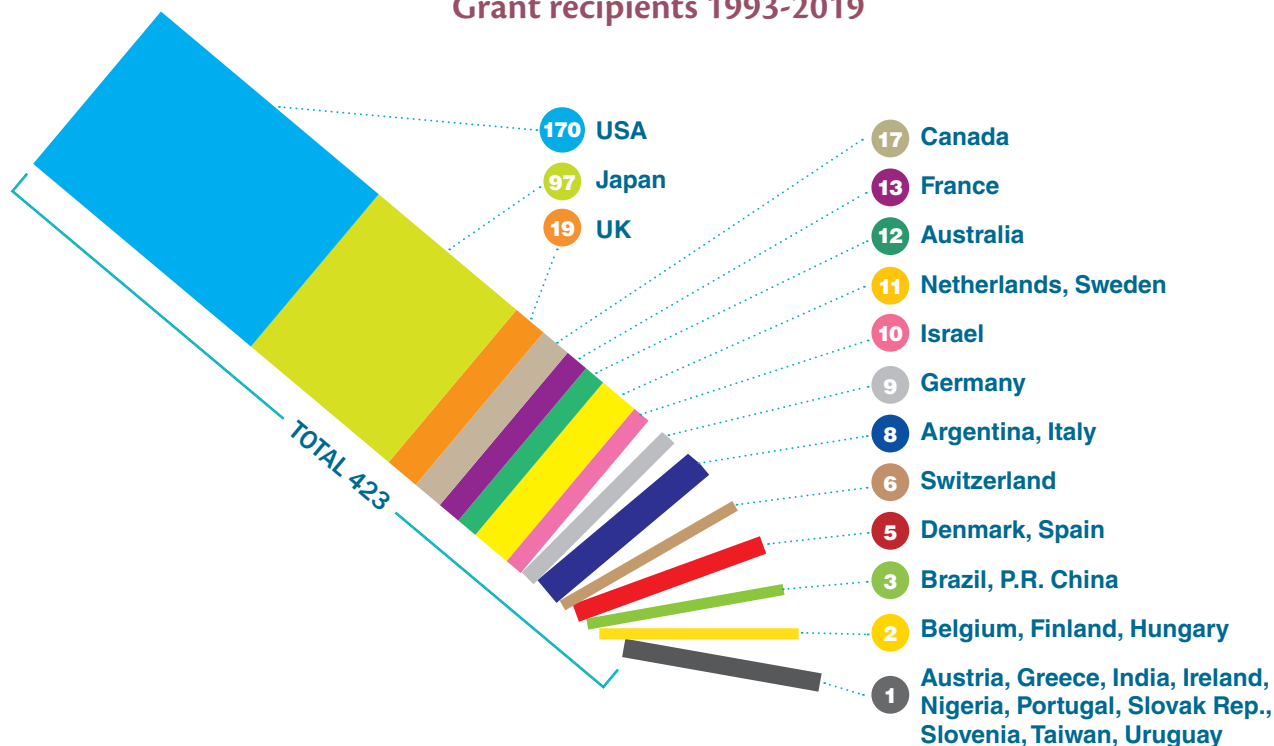
## Number of applicants by country



# Grantees 1993-2019

Mizutani Foundation for Glycoscience invited research grants for twenty six times and received 3,800 applications from 59 countries. After careful evaluation by the selection committee, the Foundation approved 423 projects of 30 countries and awarded a total of approximately 2,015 million yen to them.

## Grant recipients 1993-2019



## Number of applicants by country 1993-2019

Country	Applicants	Country	Applicants	Country	Applicants	Country	Applicants
USA	1,388	Switzerland	42	Slovak Rep.	9	Iceland	2
Japan	543	Finland	38	Korea	8	Serbia&Montenegro	2
UK	235	Brazil	32	Mexico	7	Tanzania	2
Australia	177	India	32	Poland	7	Turkey	2
Italy	170	Belgium	29	Thailand	7	Costa Rica	1
Canada	140	Russia	23	Croatia	6	Cuba	1
Israel	126	Denmark	18	Czech Rep.	6	Iran	1
Sweden	110	Austria	15	Uruguay	6	Jamaica	1
France	93	Hungary	15	Malaysia	5	Kenya	1
Germany	92	Ireland	13	Pakistan	5	Peru	1
Spain	85	Norway	13	Singapore	5	Saudi Arabia	1
Netherlands	74	Greece	11	Chile	4	Sri Lanka	1
Argentina	61	Nigeria	11	South Africa	4	Uganda	1
P.R. China	48	New Zealand	10	Slovenia	3	<b>Total</b>	<b>3,800</b>
Portugal	45	Taiwan	10	Bulgaria	2	<b>Country</b>	<b>59</b>

# The 27<sup>th</sup> Research Grant Offer for 2020

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 2015 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

Application must

- 1) make online registration on our web site (<https://www.mizutanifdn.or.jp/>)  
We open online registration page from July 1st, 2019.
- 2) submit a set of application documents by courier or post. Please obtain application guidelines and form from our web site in your preferred format.

## Deadlines

September 1, 2019 (Japan Time). Selection Outcome will be notified to the applicants no later than February 20, 2020, and the successful proposals will be funded in March 2020.

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

# Exchange Program

Mizutani Foundation for Glycoscience offers grants to the organizers of international conferences to promote exchanges between Japanese and foreign glycoscientists. In the fiscal year 2018, we supported following conferences.

## International Conferences

1. International Symposium on ER stress, glycosylation, homeostasis and disease	Saitama, Japan, 3/22-23, 2018
2. Sialoglyco 2018	Banff, Canada, 5/10-14, 2018
3. Federation of American Societies for Experimental Biology (FASEB) Science Research Conference (SRC) for Microbial Glycobiology	Scottsdale, USA, 6/17-22, 2018
4. 18th Gordon Research Conference on Proteoglycans	Andover, USA, 7/8-13, 2018
5. 29th International Carbohydrate Symposium (ICS2018)	Lisbon, Portugal, 7/15-19, 2018
6. The 2018 Golgi meeting	Sorrento, Italy, 10/15-19, 2018

# 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 2018.

## Domestic Conferences in Japan

1. 第31回日本軟骨代謝学会	愛知、3/2-3, 2018
2. 第19回関西グライコサイエンスフォーラム	大阪、5/19, 2018
3. 第60回日本脂質生化学会	東京、5/31-6/1, 2018
4. 日本ケミカルバイオロジー学会第13回年会	東京、6/11-13, 2018
5. 第50回日本結合組織学会学術大会	福岡、6/29-30, 2018
6. 第37回日本糖質学会年会	宮城、8/28-30, 2018
7. 第5回 FCCA シンポジウム・FCCA グライコサイエンス若手フォーラム 2018	宮城、8/31, 2018
8. 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、9/6, 2018
9. 日本応用糖質科学会平成30年度大会	秋田、9/10-12, 2018
10. 第18回青森糖質研究会	青森、10/5, 2018
11. 第28回日本メイラード学会年会	北海道、10/6-7, 2018
12. 第12回多糖の未来フォーラム	京都、11/9, 2018
13. 第16回糖質科学コンソーシアム (JCGG) シンポジウム	東京、11/26-27, 2018

# G Grant 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.

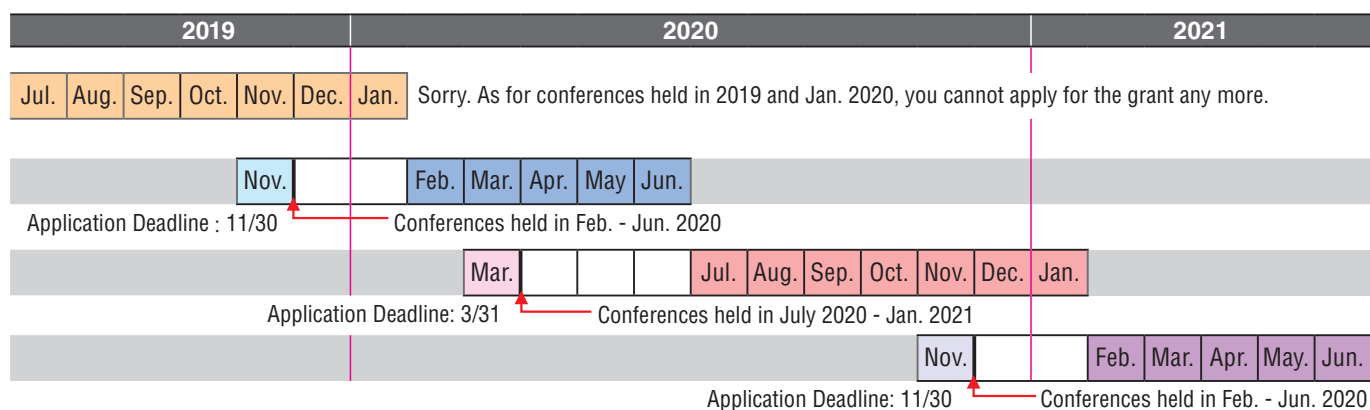
Proposals should be made with a proposal letter addressed to Mr. Ken Mizutani, Chairperson of the Foundation and an application format by the chairperson of the meeting.

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 about 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 sent to us by deadline date (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

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