

Reference

Outline of the Grants-in-Aid for Scientific Research

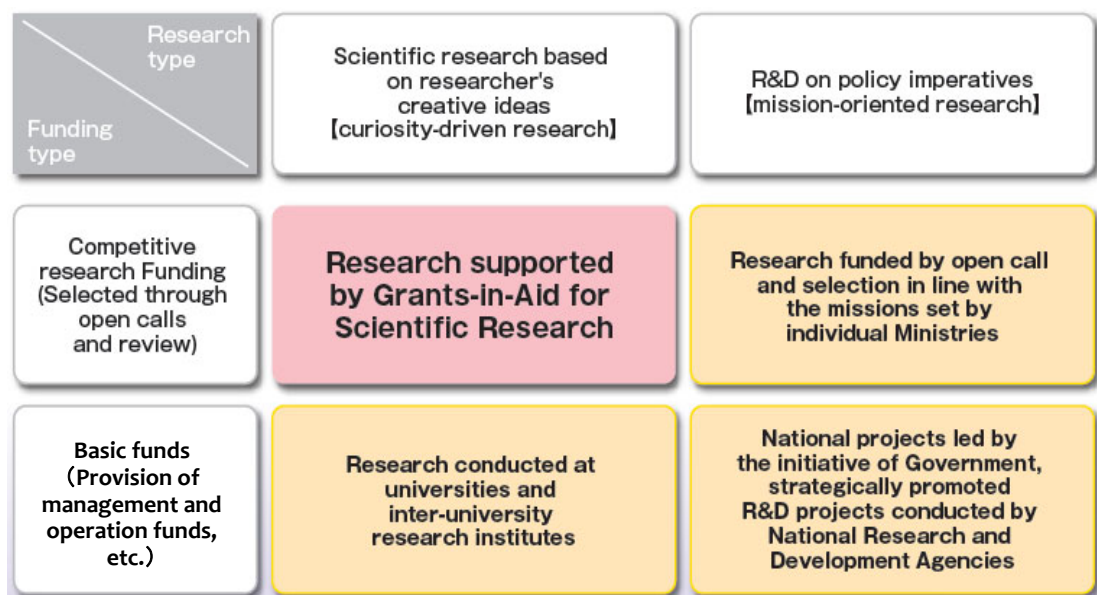
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I. Outline of the Grants-in-Aid for Scientific Research-KAKENHI-

1. Purpose and Character of Grants-in-Aid for Scientific Research-KAKENHI -

Grants-in-Aid for Scientific Research (hereinafter referred to as “KAKENHI”) are competitive funds that are intended to promote development of scientific research (based on original ideas of researchers), encompassing basic to applied researches in all fields ranging from humanities and social sciences to natural sciences. The grants provide financial support for creative and pioneering research projects that will become the foundation of social development. The research projects are selected by peer-review process.

<The placement of “KAKENHI” in the policy on the promotion of science, technology and scientific research in Japan>



2. Research Categories

Different research categories of KAKENHI listed below are provided so as to meet the variety of the research content and budget scale.

❖ As of September 2020

| Research categories | Purposes and description of each research category | Type of fund*1 | |
|--|---|----------------|----|
| Grants-in-Aid for Scientific Research | | | |
| Grant-in-Aid for Specially Promoted Research | Outstanding and distinctive research conducted by one or a relatively small number of researchers expected to achieve remarkably excellent research results that opens up a new scientific field. The research period is 3 to 5 years. (In a truly necessary case, period up to 7 years is acceptable.) The budget ranges from 200 million to 500 million yen per project (Only in a truly necessary case, budget exceeding 500 million yen is asked for.) | SG | |
| Grant-in-Aid for Scientific Research on Innovative Areas (Research in a Proposed Research Area) | This category is intended to foster novel research areas proposed by diverse groups of researchers that are expected to lead to development and heightening of Japan's research level in the respective fields, to be conducted by collective research efforts through collaboration, scholarly training, shared use of equipment, etc. The period is 5 years. The budget range is generally set between 10 million to 300 million yen per fiscal year per proposed area. [A call for proposals for "Publicly Offered Research" in the on-going research areas only is put out in FY2020 and beyond.] | SG | |
| Grant-in-Aid for Transformative Research Area | (A) Research areas proposed through co-creative and interdisciplinary efforts of diverse researchers, which aim to create research areas that will lead the way to radical transformation of and change in the existing framework and/or direction of research as well as upgrade and level-up of scientific research in Japan and nurturing young researchers, and will contribute to the development of the proposed research areas through efforts for joint research and shared use of equipment, etc. (5 years; more than 50 million yen and up to 300 million yen per fiscal year per research area (In a truly necessary case, a budget exceeding 300 million yen may be requested.)) (B) Research areas proposed by compact groups of researchers who will be bearers of the next generation of research with a smaller budget scale (about 3 or 4 groups), which aim to create research areas that will lead the way to radical transformation of and change in the existing framework and/or direction of research as well as upgrade and level-up of scientific research in Japan through more challenging and exploratory research, and expected to lead to the Transformative Research Areas (A) in the future. (3 years; 50 million yen or less per fiscal year per research area) | SG | |
| Grant-in-Aid for Scientific Research | (S): Creative/pioneering research conducted by one or a relatively small number of researchers. 5 years (in principle) 50 million to 200 million yen (A), (B), (C): Creative/pioneering research conducted by one researcher or jointly by multiple researchers. (A) 3 to 5 years; 20 million to 50 million yen (B) 3 to 5 years; 5 million to 20 million yen (C) 3 to 5 years; 5 million yen or less | (S) | SG |
| | | (A) | |
| | | (B) | |
| | | (C) | MF |
| Grant-in-Aid for Challenging Research (Pioneering/Exploratory) | Research conducted by a single or multiple researchers that aims at radically transforming the existing research framework and/or changing the research direction and has a potential of rapid development. The scope of the (Exploratory) category encompasses research proposals that are highly exploratory and/or are in their budding stages. (Pioneering) 3 to 6 years; 5 million to 20 million yen (Exploratory) 2 to 3 years; 5 million yen or less | MF | |
| Grant-in-Aid for Early-Career Scientists | Research conducted by an individual researcher (*2) who is less than 8 years after Ph.D. acquisition. 2 to 5 years; 5 million yen or less | MF | |
| Grant-in-Aid for Research Activity Start-up | Research conducted by a single researcher who has been freshly appointed to a research position, or who has returned from his/her maternity, childcare or other kinds of leave. Up to 2 years; Up to 1.5 million per fiscal year | MF | |

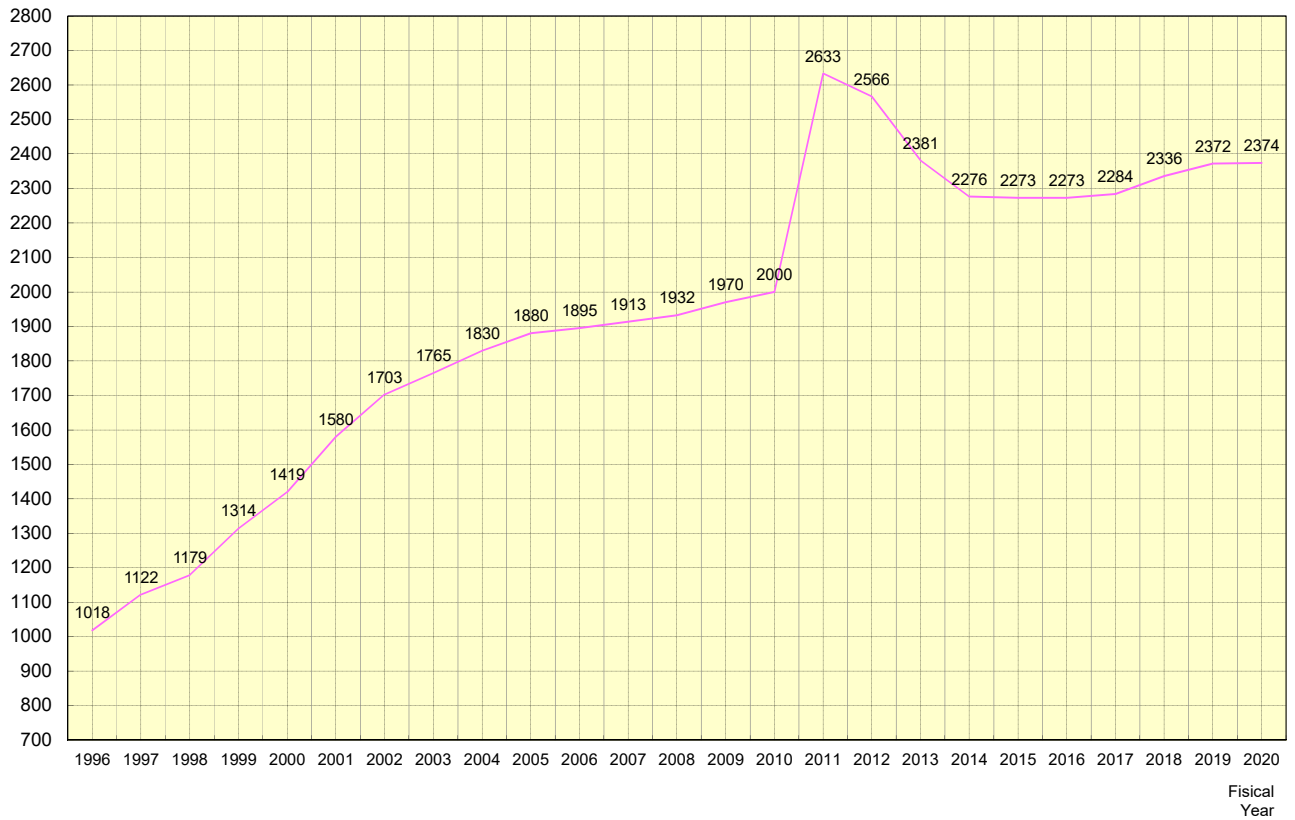
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|---|--|----|
| Grant-in-Aid for Encouragement of Scientists | Research conducted by an individual who is ineligible for application for other KAKENHI categories (e.g., individuals who belong to educational or research institutions, private companies, etc. and engage in the researches to contribute to the promotion of the science). 1 year; 100 thousand to 1 million yen | SG |
| Grant-in-Aid for Special Purposes | Research projects of pressing urgency and importance. | MF |
| Grant-in-Aid for Publication of Scientific Research Results | | |
| Publication of Research Results | Subsidy for publication and/or international dissemination of research achievements of high academic values executed by academic associations and other organizations. | SG |
| Enhancement of International Dissemination of Information | Subsidy for efforts by academic societies and other scholarly organizations to strengthen international dissemination of academic information for the purpose of international academic exchange. | |
| Scientific Literature | Subsidy for academic publication of research results (books) authored by an individual or a group of researchers. | |
| Databases | Subsidy for creation and operation of a database open to public use by an individual or a group of researchers. | |
| Grant-in-Aid for JSPS Fellows | Funding period is up to 3 years for research conducted by JSPS Fellows (including Foreign JSPS Fellows). As for Cross-border Postdoctoral Fellowship (CDP) the period is up to 5 years | SG |
| Fund for the Promotion of Joint International Research | | |
| Fostering Joint International Research | (A) Support of joint international research project conducted by a KAKENHI grantee in collaboration with researcher(s) at a foreign university or a research institution over a period of 6 to 12 months. The grant seeks to markedly advance research plans for the root research project and to foster independent researchers who can be internationally competitive. (The budget is up to 12 million yen.) [The category name is changed from FY2018 call for proposals.] (B) Support of joint international research project conducted by multiple domestic researchers and a researcher who belongs to overseas research institution. In addition to the development of scientific research, the grant seeks to build out infrastructure of joint international research or further strengthen joint international research and to foster researchers who can be internationally competitive. (The period is 3 to 6 years. The budget is up to 20 million yen.) | MF |
| International Activities Supporting Group | Support of international activities within Scientific Research on Innovative Areas. (Set period of the Area, up to 15 million yen per fiscal year) [After FY2018 call for proposals "International Activities Supporting Group" has been incorporated into "Grant-in-Aid for Scientific Research on Innovative Areas "Administrative Group." (It continued until the FY2019 call for proposals.)] | |
| Home-Returning Researcher Development Research | Support of research to be conducted by a Japanese researcher with current affiliation abroad who is to be newly appointed at university or research institution in Japan. (The period is up to 3 years. The budget is up to 50 million yen.) | |

*1 SG: Series of Single-year Grants, MF: Multi-year Fund

*2 Individuals who are in the prospect of acquiring Ph.D. are also eligible. When counting the years after Ph.D. acquisition, the period of maternity leave and childcare leave can be excluded.

3. Changes in Budgets

(100 millions of Yen)



| Fiscal Year | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 |
|---------------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Budget (¥ hundreds of millions) | 1,018 | 1,122 | 1,179 | 1,314 | 1,419 | 1,580 | 1,703 | 1,765 | 1,830 | 1,880 | 1,895 | 1,913 | 1,932 | 1,970 | 2,000 | 2,633 | 2,566 | 2,381 | 2,276 | 2,273 | 2,273 | 2,284 | 2,336 | 2,372 | 2,374 |
| Year-on-year increase (%) | 10.2 | 10.2 | 5.1 | 11.5 | 8.0 | 11.3 | 7.8 | 3.6 | 3.7 | 2.7 | 0.8 | 0.9 | 1.0 | 2.0 | 1.5 | 31.7 | -2.5 | -7.2 | -4.4 | -0.1 | -0.1 | 0.5 | 2.3 | 1.5 | 0.1 |

4. Actual Subsidization of Grants-in-Aid for Scientific Research for FY2020

(1) New Projects

As of December 2020

| Research category | Number of proposed projects | | Approval rate | Amount allocated | Amount allocated per project | |
|---|-------------------------------|-----------------------------|-------------------------|---|---|---|
| | Applications | Applications approved | | | Average | Maximum |
| Grants-in-Aid for Scientific Research | [100,258] 102,927 | [28,612] 28,314 | [28.5] 27.5 | Thousands of Yen [65,391,370] 65,592,300 [19,677,690] | Thousands of Yen [2,285] 2,317 | Thousands of Yen [150,900] 243,300 |
| Grant-in-Aid for Specially Promoted Research | [106] 105 | [12] 12 | [11.3] 11.4 | [1,123,000] 1,172,800 [351,840] | [93,583] 97,733 | [150,900] 151,900 |
| Grant-in-Aid for Scientific Research on Innovative Areas (Research in a proposed research area) | [5,079] 3,729 | [966] 839 | [19.0] 22.5 | [6,184,070] 2,059,700 [617,910] | [6,402] 2,455 | [103,700] 9,000 |
| Grant-in-Aid for Transformative Research Areas(A) | [—] 1,956 | [—] 173 | [—] 8.8 | [—] 4,000,400 [1,200,120] | [—] 23,124 | [—] 243,300 |
| Grant-in-Aid for Transformative Research Areas(B) | [—] 2,939 | [—] 91 | [—] 3.1 | [—] 763,000 [228,900] | [—] 8,385 | [—] 21,000 |
| Grant-in-Aid for Scientific Research | [60,225] 60,350 | [16,931] 16,859 | [28.1] 27.9 | [42,726,700] 42,682,700 [12,804,810] | [2,524] 2,532 | [91,600] 114,000 |
| Scientific Research (S) | [659] 685 | [81] 80 | [12.3] 11.7 | [3,114,800] 3,209,800 [962,940] | [38,454] 40,123 | [91,600] 114,000 |
| Scientific Research (A) | [2,412] 2,519 | [605] 611 | [25.1] 24.3 | [7,116,900] 7,066,900 [2,120,070] | [11,763] 11,566 | [35,000] 29,200 |
| Scientific Research (B) | [11,396] 12,198 | [3,327] 3,393 | [29.2] 27.8 | [16,862,200] 17,157,300 [5,147,190] | [5,068] 5,057 | [13,400] 13,000 |
| Scientific Research (C) * | [45,758] 44,948 | [12,918] 12,775 | [28.2] 28.4 | [15,632,800] 15,248,700 [4,574,610] | [1,210] 1,194 | [3,100] 3,000 |
| Grant-in-Aid for Challenging Research * | [11,514] 11,329 | [1,469] 1,389 | [12.8] 12.3 | [3,808,000] 3,933,700 [1,180,110] | [2,592] 2,832 | [17,500] 19,000 |
| (Pioneering) * | [699] 1,607 | [81] 148 | [11.6] 9.2 | [564,400] 1,071,500 [321,450] | [6,968] 7,240 | [17,500] 19,000 |
| (Exploratory) * | [10,815] 9,722 | [1,388] 1,241 | [12.8] 12.8 | [3,243,600] 2,862,200 [858,660] | [2,337] 2,306 | [4,800] 4,600 |
| Grant-in-Aid for Early-Career Scientists * | [19,590] 18,708 | [7,831] 7,496 | [40.0] 40.1 | [10,130,700] 9,497,000 [2,849,100] | [1,294] 1,267 | [3,200] 3,200 |
| Grant-in-Aid for Research Activity Start-up * | [3,744] 3,811 | [1,403] 1,455 | [37.5] 38.2 | [1,418,900] 1,483,000 [444,900] | [1,011] 1,019 | [1,100] 1,100 |
| Fund for the Promotion of Joint International Research | [1,599] 1,231 | [280] 255 | [17.5] 20.7 | [749,900] 643,000 [192,900] | [2,678] 2,522 | [7,100] 11,200 |
| Fostering Joint International Research (B) * | [1,599] 1,231 | [280] 255 | [17.5] 20.7 | [749,900] 643,000 [192,900] | [2,678] 2,522 | [7,100] 11,200 |
| Total | [101,857] 104,158 | [28,892] 28,569 | [28.4] 27.4 | [66,141,270] 66,235,300 [19,870,590] | [2,289] 2,318 | [150,900] 243,300 |

Notes:

1. The data shown are for Grants-in-Aid for "Specially Promoted Research", "Scientific Research on Innovative Areas (Research in a proposed research area)" (Publicly Offered Research), "Transformative Research Areas" (Planned Research), "Scientific Research" (other than Generative Research Fields), "Challenging Research" (other than Generative Research Field Review Division), "Early-Career Scientists", "Research Activity Start-up", and "Fund for the Promotion of Joint International Research (Fostering Joint International Research(B))".
2. "Grant-in-Aid for Transformative Research Areas(A/B)" was established from the fiscal 2020 call for proposals.
3. Figures in [] are direct expenses for the preceding fiscal year.
4. Figures in [] are indirect expenses (excluded values).
5. Items marked * are multi-year fund-based research categories, so the figures shown in the "Funding Allocated" and "Allocation per Project" columns are based on allocations for fiscal 2020 initial plans.
6. As a result of rounding, the sum of individual values may differ from the total values.

(2) New and Ongoing Projects

As of December 2020

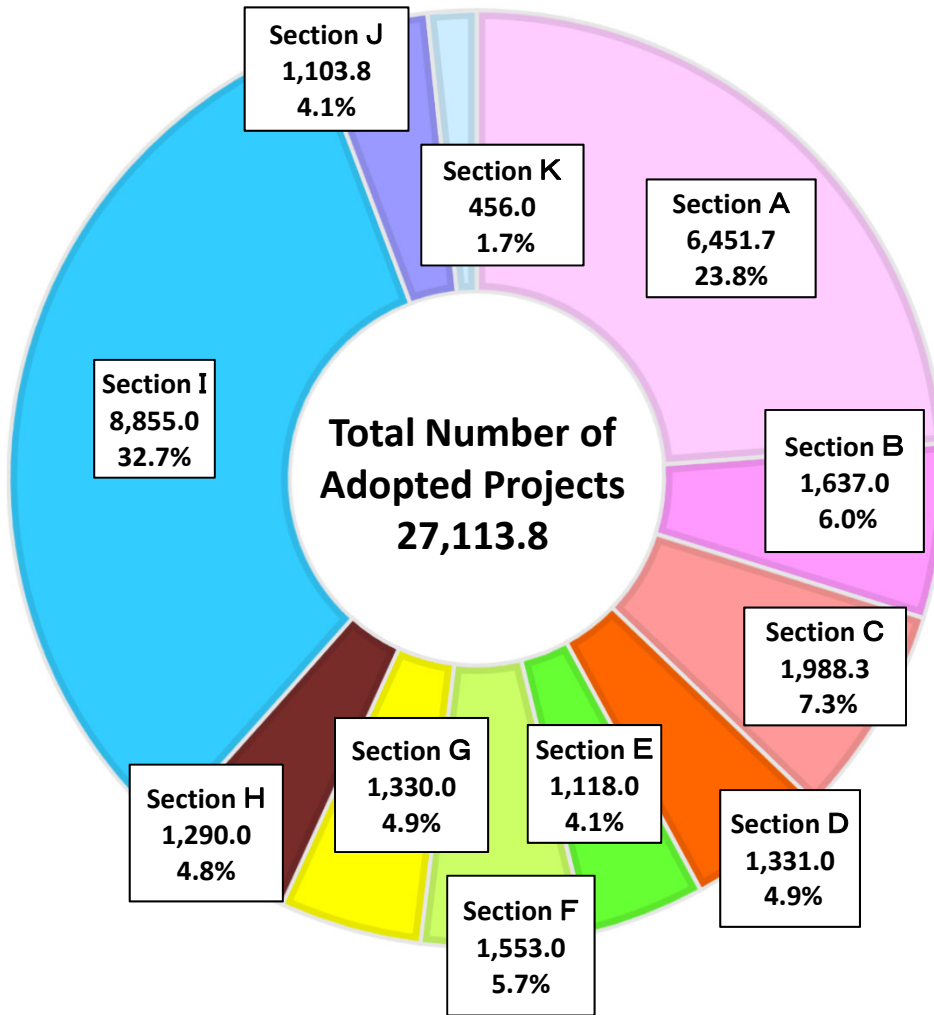
| Research category | Number of proposed projects | | Applications allocated | Amount allocated per project | |
|---|-------------------------------|-----------------------------|---|------------------------------|-------------------------------|
| | Applications | Applications approved | | Average | Maximum |
| Grants-in-Aid for Scientific Research | [149,981] 156,686 | [78,106] 81,982 | [163,914,123] 166,839,462 [50,050,564] | [2,099] 2,035 | [178,200] 243,300 |
| Grant-in-Aid for Specially Promoted Research | [158] 155 | [64] 61 | [5,168,000] 4,952,300 [1,485,690] | [80,750] 81,185 | [178,200] 208,500 |
| Grant-in-Aid for Scientific Research on Innovative Areas (Research in a proposed research area) | [6,674] 5,229 | [2,561] 2,338 | [21,185,325] 16,699,894 [5,009,968] | [8,272] 7,143 | [103,700] 80,400 |
| Grant-in-Aid for Transformative Research Areas(A) | [—] 1,956 | [—] 173 | [—] 4,000,400 [1,200,120] | [—] 23,124 | [—] 243,300 |
| Grant-in-Aid for Transformative Research Areas(B) | [—] 2,939 | [—] 91 | [—] 763,000 [228,900] | [—] 8,385 | [—] 21,000 |
| Grant-in-Aid for Scientific Research | [94,617] 96,407 | [51,253] 52,842 | [106,484,798] 108,449,489 [32,533,572] | [2,078] 2,052 | [91,600] 114,000 |
| Scientific Research (S) | [988] 1,015 | [410] 410 | [11,475,800] 11,534,800 [3,460,440] | [27,990] 28,134 | [91,600] 114,000 |
| Scientific Research (A) | [4,046] 4,130 | [2,229] 2,201 | [18,913,260] 18,705,400 [5,611,620] | [8,485] 8,499 | [35,000] 29,200 |
| Scientific Research (B) | [18,113] 19,573 | [9,984] 10,715 | [37,580,338] 39,963,289 [11,987,712] | [3,764] 3,730 | [13,400] 13,000 |
| Scientific Research (C) *1 | [71,470] 71,689 | [38,630] 39,516 | [38,515,400] 38,246,000 [11,473,800] | [997] 968 | [3,100] 3,000 |
| Grant-in-Aid for Challenging Research | [13,781] 13,555 | [3,736] 3,615 | [8,158,500] 8,355,100 [2,506,530] | [2,184] 2,311 | [17,500] 19,000 |
| (Pioneering) *1 | [874] 1,815 | [256] 356 | [1,416,300] 2,047,300 [614,190] | [5,532] 5,751 | [17,500] 19,000 |
| (Exploratory) *1 | [12,907] 11,740 | [3,480] 3,259 | [6,742,200] 6,307,800 [1,892,340] | [1,937] 1,936 | [4,800] 4,600 |
| Grant-in-Aid for Early-Career Scientists *1 | [25,653] 30,310 | [13,894] 19,098 | [16,212,700] 19,917,800 [5,975,340] | [1,167] 1,043 | [3,200] 3,200 |
| Grant-in-Aid for Young Scientists (A) *2,3 | [604] 206 | [575] 191 | [1,839,171] 514,778 [154,433] | [3,199] 2,695 | [8,800] 7,000 |
| Grant-in-Aid for Young Scientists (A) *1,3 | [3,808] 720 | [3,808] 720 | [2,657,800] 326,300 [97,890] | [698] 453 | [2,200] 2,100 |
| Grant-in-Aid for Research Activity Start-up * | [4,686] 5,209 | [2,215] 2,853 | [2,207,829] 2,860,400 [858,120] | [997] 1,003 | [1,800] 1,100 |
| Fund for the Promotion of Joint International Research | [1,856] 1,761 | [537] 785 | [1,786,600] 2,676,800 [803,040] | [3,327] 3,410 | [11,100] 11,200 |
| Fostering Joint International Research (B) *1 | [1,856] 1,761 | [537] 785 | [1,786,600] 2,676,800 [803,040] | [3,327] 3,410 | [11,100] 11,200 |
| Total | [151,837] 158,447 | [78,643] 82,767 | [165,700,723] 169,516,262 [50,853,604] | [2,107] 2,048 | [178,200] 243,300 |

Notes:

- This table shows aggregates for newly-adopted and continued projects in fiscal 2020.
- The data shown are for Grant-in-Aid for "Specially Promoted Research", "Scientific Research on Innovative Areas (Research in a Proposed Research Area)" (Planned Research and Publicly Offered Research), "Transformative Research Areas"(planned research), "Scientific Research" (other than Generative Research Fields), "Challenging Exploratory Research", "Challenging Research" (other than Generative Research Field Review Division), "Early-Career Scientists", "Research Activity Start-up", and "Fund for the Promotion of Joint International Research (Fostering Joint International Research(B))". Only one extended project was adopted in "Challenging Exploratory Research", and this is included in the "Grants-in-Aid for Scientific Research" and "Total" data.
- "Grant-in-Aid for Transformative Research Areas(A/B)" was established from the fiscal 2020 call for proposals.
- Figures in [] are direct expenses for the preceding fiscal year.
- Figures in [] are indirect expenses (excluded values).
- Items marked *1 are multi-year fund-based research categories, so the figures shown in the "Funding Allocated" and "Allocation per Project" columns are based on allocations for fiscal 2020 initial plans.
- Items marked *2 include some projects adopted in 2014 for which multi-year funds were applied, so the figures shown in the "Funding Allocated" and "Allocation per Project" columns are based on allocations for fiscal 2020 initial plans.
- Items marked *3 include only continued projects.
- As a result of rounding, the sum of individual values may differ from the total values.

5. Chart for the Budget by Research Section (FY2020)

New Projects



Notes:

1. For Medium-sized and Basic Sections where there are multiple corresponding Broad Section, the number of adopted cases and the allocated amount are apportioned proportionally.
2. "Specially Promoted Research", "Scientific Research on Innovative Areas (Research in a proposed research area)" (invited research), "Grant-in-Aid for Transformative Research Areas"(planned research), "Scientific Research" (excluded Generative Research Fields), "Challenging Research" (excluded Generative Research Fields Review Divisions), "Young Scientists", and "Fund for the Promotion of Joint International Research (Fostering Joint International Research (B))" are included. ("Research Activity Start-up" is not included because the review is performed by individual review section.)
3. Due to rounding off, the total and breakdown figures may not agree.

Inquiries :

Scientific Research Aid Division, Research Promotion Bureau,
Ministry of Education, Culture, Sports, Science & Technology
3-2-2 Kasumigaseki, Chiyoda-ku, Tokyo 100-8959

Tel : +81-3-6734-4094

(in charge of Transformative Research Areas (A/B) and Scientific Research
on Innovative Areas (Research in a proposed research area))

Research Aid Division II, Research Program Department,
Japan Society for the Promotion of Science
5-3-1 Kojimachi, Chiyoda-ku, Tokyo 102-0083

Tel : +81-3-3263-4254 (in charge of Specially Promoted Research)

Tel : +81-3-3263-4388 (in charge of Scientific Research (S))