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Global Research Funding and Development

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<p>Abstract</p> <p>Research is a deliberate and systematic inquiry or investigation to establish a fact. Research could focus on any desired discipline like science, education, economy, administration, etc. Resources (e.g. humans, funds, equipment etc) are essential in any research, especially impactful research. Research forms an essential part of development for interdisciplinary or multidisciplinary application of new technologies and procedures. Progress and comfort of human beings are due to success in research outcomes in the society. In the modern world, every sector, like medical, engineering, and basic sciences improves daily and has achieved new horizons because of support from research funding. For comprehensive research and its utility for better progress and output, proper funding is required. This article highlights various research funding opportunities, sources, agencies, and their significance. The fundamental objective is to create awareness through the global involvement of a collaborative team of experts across the world to foster interdisciplinary research collaboration and joint funding applications for economic development. The authors in this paper are open to joint research and collaboration.</p> <p>Keywords: Grant, Research and Development, Funding, Funding Agency, Grant Proposal, Research Proposal.</p>	<p>Article History</p> <p>Received: 28 Sept 2021 Accepted: 15 Jan 2022 Published: 31 Jan 2022</p> <p>Scan QR code to view*</p>  <p>License: CC BY 4.0*</p>  <p>Open Access article.</p>
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Introduction

Research is a deliberate and systematic inquiry or investigation to establish a fact. It could find expression in any discipline or area of the society. Research could focus on any desired discipline like science, education, economy, administration, etc. But sometimes, the outcome of scientific research are unreliable because they suffer biases and conservatism (Severin and Egger, 2021). To surmount these challenges, resources, human/investigator(s), research funds, etc are necessary for impactful research.

A research fund is a grant or financial assistance provided to an investigator or researcher to enable him or her meet certain research expenses (Fig. 1) to ensure that the aim of the research is attained for the progress of the society (Gläser and Serrano-Velarde, 2018; Heyard and Hottenrott, 2021; Severin and Egger, 2021). Since the 19th century, after the 2nd world war, the research system has been regulated by universities and research organizations (Heyard and Hottenrott, 2021). The encouragement of policies of funding agencies, scientific theory, and methodology improvements results in the intellectual development of science. The intellectual progress of science is not only elevated in technological progress but scientists' motivations and the infrastructural, organizational, and financial atmosphere of research production.

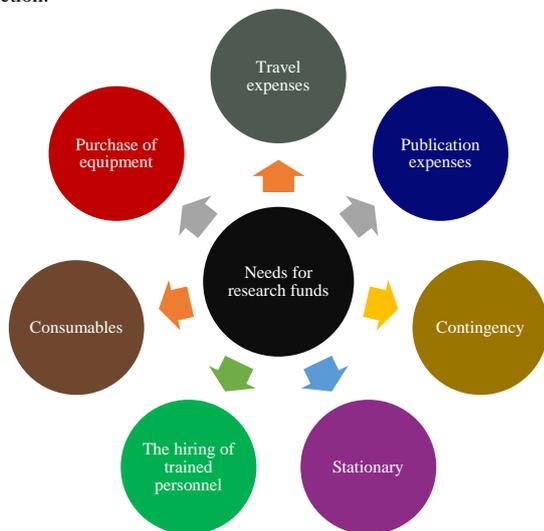


Figure 1: Needs for research funds or grants.

Agencies such as the Pakistan Science Foundation, the Swiss National Science Foundation, the World Bank, and The World Academy of Sciences (TWAS) among hundreds of others are examples of the promoters of scientific research. They provide funds for research projects in the fields of biotechnology, agricultural sciences, chemical sciences, biological sciences, computer or

information technology, environmental sciences, genetic engineering, medical sciences, earth sciences, mathematical sciences, physics and sociology. Funding encourages brainstorming and the development of novel ideas and innovations that build on established knowledge for cutting-edge science. As a result, alternative methods, technologies, techniques, and processes are translated to intellectual concepts by inventions and innovations (Tirmizi *et al.*, 2020). Furthermore, to share research experience and scientific knowledge with researchers, these foundations provide grants to organize workshops, symposiums, conferences and seminars where scientists disseminate/present their research findings or give information on scientific topics which is beneficial and informative. In addition, the foundation awards cash prizes to scientists and researchers to encourage and establish linkages to build research networks (Etzkowitz, 1998; Aldrich, 2012).

Significance of Research Funding

There are several reasons why research funding is essential to scientists. Firstly, research is good for the country's economy, and nearly every major and successful industry establishes companies by new products, methods, and ideas. Secondly, funded research raises the economy of a country because it provides job opportunities, novel products and ideas developed in Research and Development (R&D) for successful businesses. In the past few decades, The US and China have stood out as the largest source of research funding. The UK, India, Pakistan and European Union have also funded very successful projects in the past. The significance of research cannot be overestimated. The students are not left out because many successful graduate students wouldn't have advanced their careers without funding/grants.

Research on cancer, diabetes mellitus and newly emerging diseases by microbes (especially viruses e.g. COVID-19) are the major focus of science in the present decade. The treatment of these diseases would not advance without funds and fellowships from the government. If funds are responsibly utilized for research, the society may sooner find its cure. Furthermore, scientists are needed to solve climate change problems like global warming, ozone depletion, etc. Research solutions can make people live without fear, and these researchers need funding that governments and organizations provide. The amount of funding and its resources directly affect the services, development, and quality of the study. For example, academic achievement and quality of education are directly linked to funding. Similarly, the quality of drugs, care given in the hospitals, and the environment can be improved by increasing research funding. However, some areas show different outcomes, as only an increase in research funds may not be the solution but requires skilled scientists. Funding is required to improve technologies, products, services, and scientific research, which is only helpful if the funds if used appropriately and regulations are in place to maximize their value.

Research Proposal and its Purpose

A research proposal is mostly a convincing letter to a funding agency by an investigator for securing grants. The purpose of the proposal is to share an idea with a funding agency while presenting convincing evidence that the research

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in which the investigator is interested in is remarkable and worthy of study. A research proposal also indicates the novelty of the methodology and approach with testaments that the investigator is the right person to accomplish the task. Every research investigation starts with the conceptualization of an idea before work commences in developing a research proposal (Fig. 2).

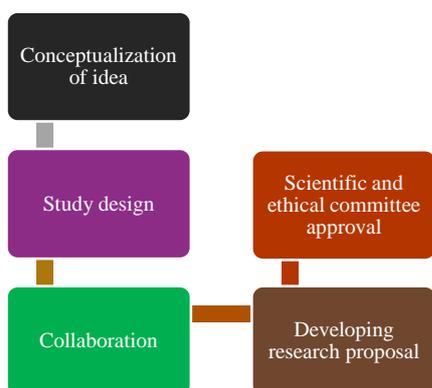


Figure 2: Steps involved in research grant application.

The components of a research proposal include (Abdulai and Owusu-Ansah, 2014).

- ✓ Research topic.
- ✓ Background and gap(s).
- ✓ Aim and objectives.
- ✓ Methodology.
- ✓ Research significance/importance.
- ✓ Research program (budget, Gantt chart etc).
- ✓ References.

Essentially, the first page is usually the cover page which should contain the title of the research, names of investigators (including the principal (compulsory) and co-investigators), institutional affiliations (including their degrees) and contact details (e-mail id's and phone numbers) (Sudheesh *et al.*, 2016).

Research Methodology

In research methodology, the researcher will have to discuss the methods to be used in order to achieve the goals of the project. The research methodology should explain what type of research it is, how the work should be carried out and analyzed. Also, it should indicate any tool or material to be used, then justify the use of the methods. This enables the funding agency to evaluate and validate the reliability of the research in order to provide funds for it.

Sources and Types of Research Funding

Research funding is primarily provided by government or dedicated organizations. There are numerous sources of grants. We have provided links to some sources below:

National Science Foundation	https://www.nsf.gov/funding/
Grants.gov	https://www.grants.gov/
The Fulbright Program	https://us.fulbrightonline.org/about/types-of-awards/study-research
Alexander von Humboldt Foundation	https://www.humboldt-foundation.de/web/sponsorship.html
National Academy of Engineering	https://www.naefoec.org/Login.aspx?view=submit&Redirect=8446
National Institutes of Health	https://grants.nih.gov/grants/oer.htm
U.S. National Library of Medicine	https://www.nlm.nih.gov/grants.html
National Cancer Institute	https://www.cancer.gov/grants-training/grants
Sigma Xi	https://www.sigmaxi.org/programs/grants-in-aid
The World Academy of Sciences (TWAS)	https://twas.org/
Wellcome Trust	https://wellcome.org/
International Development Research Centre	https://www.idrc.ca/en/funding
Biotechnology Industry Research Assistance Council (BIRAC)	https://www.birac.nic.in/

Below is also a shortlist of some funding or award agencies that provide funds for scientific communities

- Pakistan Academy of Sciences
- Human Frontier Science Program
- Pakistan Science Foundation
- Research and Advocacy Funds
- COMSTECH ISESCO
- Japan International Cooperation Agencies
- The Scientific Research Society-Sigma Xi
- United Nations ESCAP
- Pakistan Agricultural Research Council
- NAGAO Funds for Environment
- Academy of Finland
- Global Innovation Fund
- East-west center
- Commonwealth Academic Fellowships
- Higher Education Commission
- International Foundation for Science
- Pakistan Health Research Council
- European Union Funding and Grants
- TWAS-COMSTECH
- International Development Research Center
- Alexander von Humboldt Foundation
- National ICT R&D Fund
- British Council Researcher Links
- Australian Agency for International Development
- Talented Researcher Exchange Program
- Tertiary Education Trust Fund-Nigeria
- Global Research Council
- NESTA Funding

Table 1 presents a list of some funding agencies mentioned in Bentham articles. Generally, research funding can be classified based on the commercial application of research: It either falls within non-commercial research funding or commercial research funding.

1. Non-commercial

a) Charities

Charities provide research funding that accompanies the objectives of departments from government and research councils. Charities aim to create knowledge for the sake of the benefits to the society. There are many research funding charities with a broad range of objectives and are managed by charity laws because there are some obligations and limitations to using charity funds for research. Prohibition in commercializing research outcome is usually a rule within such charity.

Medical Research Association Charities leads the UK's charities, which falls within medical and health research funding charities. Presently, there are about a hundred members in "Wellcome Trust", a global charitable foundation and the world's largest charity, whose aim is to enhance human health by disease-specific research funding. It supports the discovery of effective treatments and cures for different serious diseases. The medical research charities are given to researchers to improve human health through research and education by focusing on a specific disease that falls within the charitable objectives.

b) National Academies

The four national academies that are foreign-based with similar objectives were discussed.

▪ Academy of Medical Science

The academy of medical science is an organization established in 1998 in the UK and represents the diversity of medical science. Academy of medical science aims is to promote excellence, influence research and policy, and develop brilliant research. Through a collection of scholarship schemes, it supports the careers of health and biomedical researchers, career policy work, monitoring programmes and career development events (Savill, 1999).

▪ British Academy

British Academy is the national academy of the UK which was created in 1902 and in the same year received its royal charter that serves humanities and social sciences, which is the academic discipline concerned with society and their relationship with individuals. British Academy main objective is to study and conduct research for societies, people, and cultures. The academy provides various fellowships and scholarships to support career development and academic research (Appuhami and Bhuyan, 2015; Astigarraga *et al.*, 2019).

▪ Royal Society

Royal Society is an independent scientific academy of the UK that supports scientists to promote excellence in science through the giving of donations for various purposes, from modernization of laboratories to conference level.

▪ Royal Academy of Engineering (Walkenhorst *et al.*, 2015).

Royal Academy of Engineering is the National Academy of UK for engineering and technology. The academy is made to promote brilliant and successful engineers for the benefit of the society. The academy pursues the activities of engineering and supports the engineers. The academy provides scholarships and prizes that allows closer contact between industry and academy. Some of the Departments of the UK Government that provides funding are as follows:

- Department of Defense Science and Technology Laboratory.
- Department of Health.
- Department of Food, Environment and Rural Affairs.
- Department of Transport.

The key roles of these national academies are:

- ✓ A forum for debate and engagement.
- ✓ Funding bodies support new nationally and internationally research.
- ✓ For world-leading researchers and scholars in independent fellowship, and
- ✓ Legal support for their respective.

c) UK Research and Innovation

UK Research and Innovation is a quasi-autonomous non-governmental organization, also known as Quango. The organization is funded by government sectors yet independent of government and creates the most pleasing environment for research. Funds for research are awarded to researchers in different areas ranging from biological and medical sciences to engineering, arts and humanities, physics, social sciences, astronomy, chemistry, and economics. The following are funding councils that support universities for translation activities and research programs:

- Science and Technology Facilities Council.
- Medical Research Council.
- Economic and Social Research Council.
- Arts and Humanities Research Council.
- National Environment Research Council.
- Engineering and Physical Science Research Council.
- Biotechnology and Biological Sciences Research Councils.
- Research England.
- Innovate the UK.

d) European Commission

In Europe, European Commission (EC) gives funding opportunities for research and innovation to UK HEIs (higher education institutions) through Horizon 2020. EC aim to promote the participation of the UK in Higher Education programs, funded research programs of the European Commission and other activities related to which includes:

- Timely spread the information on funding opportunities of the European Commission.
- Supports the sponsors and subscribers.
- To European Commission Projects, it advises guidance and high-quality training.

2. Commercial Funding

Private funding sources are an excellent choice for the scientific project because the approval time is shorter. Here, private companies or industries fund a wide variety of activities, an alternative to securing bank loans. Several companies and institutes give valuable services by having more relaxed lending necessities and providing fast funding for small businesses. For example, Honda (fuel cells and robotics), Laurel (care product), DuPont (broadly defined polymer science) provides better funding for scientific communities. Hence, mid-range universities require funding to conduct world-class research with university-industry linkages worldwide (Wright, Clarysse *et al.* 2008).

Table 1: Funding agencies mentioned by Bentham articles

Source: Available: <https://benthamscience.com/funding-agencies.php>. Accessed: 29 Jan 2022. (N = Article number).

Funder Name	N	Funder Name	N
National Natural Science Foundation of China (NSFC)	641	Islamic Azad University	3
Conselho Nacional de Desenvolvimento Científico e Tecnológico	72	Alborz University of Medical Sciences	3
Coordenação de Aperfeiçoamento de Pessoal de Nível Superior	64	Universidade Federal de Juiz de Fora	3
China Postdoctoral Science Foundation	51	Nanjing Medical University	3
Science and Engineering Research Board	42	Education Department of Hunan Province	3
National Natural Science Foundation of China-Yunnan Joint Fund	41	Nano Mission Council, Department of Science and Technology	3
University Grants Commission	39	Ontario Mental Health Foundation	3
Shiraz University of Medical Sciences	34	National Research Council of Thailand	3
Fundamental Research Funds for the Central Universities	32	International Islamic University Malaysia	3
Department of Biotechnology, Ministry of Science and Technology	26	Fundação de Amparo à Pesquisa e ao Desenvolvimento Científico e Tecnológico do Maranhão	3
National Institutes of Health	26	Natural Science Foundation of Beijing Municipality	3
Indian Council of Medical Research	24	National High-tech Research and Development Program	3
Fundação de Amparo à Pesquisa do Estado de São Paulo	23	Ministry of Health and Welfare	3
Department of Science and Technology	22	Urmia University	3
Consejo Nacional de Ciencia y Tecnología	22	Università degli Studi di Siena	3
National Science Foundation	22	Jiangsu Provincial Department of Education	3
Consejo Nacional de Ciencia y Tecnología	22	Department of Education of Liaoning Province	3
National Science Foundation	22	National Medicinal Plants Board, Ministry of AYUSH, Government of India	3
Mashhad University of Medical Sciences	22	Universidade Federal de Goiás	3
Fundação Carlos Chagas Filho de Amparo à Pesquisa do Estado do Rio de Janeiro	20	U.S. Department of Defense	3
National Research Foundation of Korea	19	Ministry of Health and Welfare	3
Department of Science and Technology, Ministry of Science and Technology(DST)	18	Shanxi Scholarship Council of China	3
Tehran University of Medical Sciences and Health Services	18	Soochow University	2
National Research Foundation	17	Kuwait Foundation for the Advancement of Sciences	2
National Research Foundation	17	Ministry of Higher Education and Scientific Research	2
Natural Science Foundation of Jiangsu Province	17	Jilin University	2
Russian Science Foundation	16	Fok Ying Tong Education Foundation	2

Natural Science Foundation of Guangdong Province	15	Karnataka State Council for Science and Technology, Indian Institute of Science	2	Consejo Nacional de Investigaciones Científicas y Técnicas	8	Japan Agency for Medical Research and Development	2
Tabriz University of Medical Sciences	14	Foundation for the National Institutes of Health	2	Natural Science Foundation of Heilongjiang Province	8	Universiti Putra Malaysia	2
Ministry of Science and Technology of the People's Republic of China	14	National Science Council	2	Agencia Nacional de Promoción Científica y Tecnológica	8	Northwestern Polytechnical University	2
Fundação para a Ciência e a Tecnologia	14	Çanakkale Onsekiz Mart Üniversitesi	2	All India Council for Technical Education	8	Basic Research Programs of Sichuan Province	2
Ministry of Science and Technology, Taiwan	13	National Institute on Alcohol Abuse and Alcoholism	2	Fundamental Research Funds for Central Universities of the Central South University	8	Foundation of Henan Educational Committee	2
Higher Education Commission, Pakistan	13	University Grants Commission- Nepal	2	CSIR - Indian Institute of Chemical Biology	8	Roberts Enterprise Development Fund	2
Australian Research Council	13	Ege Üniversitesi	2	Deanship of Academic Research, University of Jordan	8	Campus France	2
Natural Science Foundation of Shandong Province	13	Kaohsiung Municipal Kai-Syuan Psychiatric Hospital	2	European Cooperation in Science and Technology	8	Kementerian Sains, Teknologi dan Inovasi	2
Ministry of Education and Science of the Russian Federation	13	University Natural Science Research Project of Anhui Province	2	National Institute for Medical Research Development	8	Fourth Military Medical University	2
Ministarstvo Prosvete, Nauke i Tehnološkog Razvoja	12	Department of Health of Shandong Province	2	Natural Science Foundation of Fujian Province	8	Pharmaceutical Research and Manufacturers of America Foundation	2
Japan Society for the Promotion of Science	12	Ministry of Higher Education and Scientific Research	2	National Institute of General Medical Sciences	8	Department of Biotechnology, Savitribai Phule Pune University	2
Ahvaz Jundishapur University of Medical Sciences	12	Promotion and Mutual Aid Corporation for Private Schools of Japan	2	King Khalid University	8	Zhejiang Province Public Welfare Technology Application Research Project	2
Hamadan University of Medical Sciences	12	Shanghai Municipal Education Commission	2	Natural Science Foundation of Hunan Province	8	Yeungnam University	2
Natural Science Foundation of Guangxi Province	11	School of Medicine, Shanghai Jiao Tong University	2	Universiti Malaya	8	Merck KGaA	2
Higher Education Commission, Pakistan	11	Wenzhou Medical University	2	Kashan University of Medical Sciences	7	Suzhou University of Science and Technology	2
UGC-DAE Consortium for Scientific Research, University Grants Commission	11	Fundação de Amparo à Pesquisa do Estado do Piauí	2	National Science Foundation of China, Shandong Province of China	7	Guangzhou Science and Technology Program key projects	2
Natural Science Foundation of Zhejiang Province	11	Liver and Gastrointestinal Diseases Research Center, Tabriz University of Medical Sciences	2	Jordan University of Science and Technology	7	Universidad de Antioquia	2
National Science Centre, Poland	10	Dirección General de Asuntos del Personal Académico, Universidad Nacional Autónoma de México	2	Henan University of Science and Technology	7	Guangzhou Medical University	2
Ferdowsi University of Mashhad	10	Tertiary Education Trust Fund	2	Six Talent Peaks Project in Jiangsu Province	7	National Cancer Institute	2
European Regional Development Fund	10	Islamic Azad University Central Tehran Branch	2	Shahid Beheshti University of Medical Sciences	7	Universidad Nacional de Luján	2
Russian Foundation for Basic Research	10	Anhui University	2	Ministry of Education of the People's Republic of China	7	South-Central University of Nationalities	2
Iran University of Medical Sciences	10	Fundação de Apoio à Pesquisa, Universidade Federal de Goiás	2	Sunway University	7	Fundação de Amparo à Ciência e Tecnologia do Estado de Pernambuco	2
National Heart, Lung, and Blood Institute	10	Cathay General Hospital	2	Isfahan University of Medical Sciences	7	Hebei Normal University of Science and Technology	2
Ministry of Higher Education, Malaysia	10	Generalitat de Catalunya	2	Instituto de Salud Carlos III	7	Indian Institute of Technology (Indian School of Mines), Dhanbad	2
Centre National pour la Recherche Scientifique et Technique	10	Universidade de São Paulo	2	National Council for Scientific Research	7	Direktorat Jenderal Pendidikan Tinggi	2
Iran National Science Foundation	9	Beijing Municipal Science and Technology Commission	2	Ankara Üniversitesi	7	Dokuz Eylül Üniversitesi	2
Mazandaran University of Medical Sciences	9	Zayed University	2	Ministry of Science and Technology	7	Qazvin University of Medical Sciences	2
Kerman University of Medical Sciences	9	Umm Al-Qura University	2	Shahrekord University of Medical Sciences	7	Inspire Foundation	2
Deanship of Scientific Research, King Faisal University	8	University Grants Committee	2	Ministry of Science and Technology	7	Cairo University	2
				Guizhou Science and Technology Department	6	Henan University	2

Research Grants Council, University Grants Committee	6	Education Department of Sichuan Province	2	Natural Science Foundation of Hainan Province	5	Russian Academy of Sciences	2
Natural Science Foundation of Hebei Province	6	Taylor's University	2	European Commission	5	Science and Technology Department, Henan Province	2
Fundação de Amparo à Pesquisa do Estado do Rio Grande do Sul	6	Ministry of Higher Education	2	Priority Academic Program Development of Jiangsu Higher Education Institutions	5	China Pharmaceutical University	2
Canadian Institutes of Health Research	6	Fundação de Amparo à Pesquisa do Estado da Bahia	2	Fujian Provincial Department of Science and Technology	5	Lorestan University of Medical Sciences	2
Universiti Sains Malaysia	6	Universiti Teknologi Malaysia	2	Heilongjiang Postdoctoral Science Foundation	5	Universidad Nacional de San Luis	2
Ministry of Electronics and Information technology	6	Shanxi Province Science Foundation for Youths	2	Natural Sciences and Engineering Research Council of Canada	5	Philippine Council for Health Research and Development	2
National Institute on Drug Abuse	6	Department of Science and Technology of Shandong Province	2	Department of Education of Guangdong Province	5	Shiraz University	2
Hunan Provincial Science and Technology Department	6	Firat University Scientific Research Projects Management Unit	2	Coordination for the Improvement of Higher Education Personnel	5	National Institute of Neurological Disorders and Stroke	2
Science and Technology Planning Project of Guangdong Province	6	Ministero dello Sviluppo Economico	2	Royal Golden Jubilee (RGJ) Ph.D. Programme	5	Natural Science Foundation of Shaanxi Province	2
Science and Technology Commission of Shanghai Municipality	6	Birjand University of Medical Sciences	2	National Basic Research Program of China (973 Program)	5	Taishan Scholar Foundation of Shandong Province	2
European Social Fund	6	National Key Clinical Specialty Discipline Construction Program of China	2	Michigan Economic Development Corporation	5	Fundação de Apoio ao Desenvolvimento do Ensino, Ciência e Tecnologia do Estado de Mato Grosso do Sul	2
Sichuan Province Science and Technology Support Program	6	Health and Family Planning Commission of Jiangxi Province	2	Natural Science Foundation of Jilin Province	5	H2020 Marie Skłodowska-Curie Actions	2
Zhejiang Chinese Medical University	6	Department of Education of Guizhou Province	2	Ministero dell'Istruzione, dell'Università e della Ricerca	5	NIH Office of the Director	2
China Scholarship Council	6	Lebanese American University	2	Guangdong Science and Technology Department	5	Hirosaki University	2
Natural Science Foundation of Liaoning Province	5	Department of Science and Technology of Sichuan Province	2	Russian Foundation for Fundamental Investigations	5	Chinese Academy of Sciences Key Project	2
Deanship of Scientific Research, King Saud University	5	Instituto Nacional de Ciência e Tecnologia de Gestão da Inovação em Doenças Negligenciadas	2	Shanghai Jiao Tong University	4	Universiti Malaysia Pahang	2
Secretaría de Investigación y Posgrado, Instituto Politécnico Nacional	5	Shahid Chamran University of Ahvaz	2	Financiadora de Estudos e Projetos	4	Lembaga Ilmu Pengetahuan Indonesia	2
Shaanxi Provincial Science and Technology Department	5	Deutscher Akademischer Austauschdienst	2	Narodowe Centrum Nauki	4	Zhengzhou University	2
Kementerian Riset Teknologi Dan Pendidikan Tinggi Republik Indonesia	5	National Key Laboratory of Science and Technology on Communications	2	Natural Science Foundation of Henan Province	4	Kharazmi University	2
Ministerio de Economía y Competitividad	5	University College, Oxford	2	Key Technologies Research and Development Program	4	Ahar Branch, Islamic Azad University	2
Fundação de Amparo à Pesquisa do Estado de Minas Gerais	5	National Key Scientific Instrument and Equipment Development Projects of China	2	Department of Science and Technology, Government of West Bengal	4	5511 Science and Technology Innovation Talent Project of Jiangxi Province	2
Takeda Pharmaceutical Company	5	Bilimsel Araştırma Projeleri Birimi, İstanbul Üniversitesi	2	Department of Education of Hebei Province	4	Hormozgan University of Medical Sciences	2
Natural Science Foundation of Jiangxi Province	5	National Institute on Minority Health and Health Disparities	2	Universidad de Buenos Aires	4	Pakistan Academy of Sciences	2
National Health and Medical Research Council	5	Hainan Provincial Department of Science and Technology	2	Baqiyatallah University of Medical Sciences	4	Taishan Scholar Foundation of Shandong Province	2
Türkiye Bilimsel ve Teknolojik Araştırma Kurumu	5	Chulalongkorn University	2	Science and Technology Development Fund	4	Shenzhen Technology Development Program	2
Vietnam Academy of Science and Technology	5	Javna Agencija za Raziskovalno Dejavnost RS	2	Natural Science Foundation of Shanghai	4	Alberta Children's Hospital Foundation	2
Bulgarian National Science Fund	5	Xi'an Science and Technology Bureau	2	Türkiye Bilimsel ve Teknolojik Araştırma Kurumu	4	Natural Science Foundation of Anhui Province	2
				Ministerio de Ciencia e Innovación	4	Zahedan University of Medical Sciences	2
				National Research Centre	4	Medical Research Council	2

Shandong Province	4	Shanghai Municipal Population and Family Planning Commission	2	Thailand Research Fund	3	Guangdong University of Technology	2
Universitas Indonesia	4	National Youth Science Foundation	2	Atatürk Üniversitesi	3	Council on grants of the President of the Russian Federation	1
Fundação Cearense de Apoio ao Desenvolvimento Científico e Tecnológico	4	Department of Science and Technology, Government of Kerala	2	Egyptian Petroleum Research Institute	3	Cancerfonden	1
Kermanshah University of Medical Sciences	4	Tarbiat Modares University	2	Indian Council of Agricultural Research	3	W. Garfield Weston Foundation	1
Zhejiang Provincial Key Laboratory of Wood Science and Technology	4	National Institute for Genetic Engineering and Biotechnology	2	Uniwersytet Jagielloński Collegium Medicum	3	National Defense Pre-Research Foundation of China	1
Universidad de Guanajuato	4	Belarusian Republican Foundation for Fundamental Research	2	Konkuk University	3	G. Harold and Leila Y. Mathers Foundation	1
Centre for Addiction and Mental Health	4	Doctoral Scientific Research Start-up Foundation from Henan University of Technology	2	University of Tabuk	3	Nanjing University	1
Tianjin University of Science and Technology	4	Yunnan Provincial Science and Technology Department	2	Natural Science Foundation of Shaanxi Provincial Department of Education	3	Nederlandse Organisatie voor Wetenschappelijk Onderzoek	1
Beijing Postdoctoral Research Foundation	4	Universidade do Estado de Santa Catarina	2	Shiraz Institute for Cancer Research, Shiraz University of Medical Sciences	3	Excellent Young Talents Fund Program of Higher Education Institutions of Anhui Province	1
Major State Basic Research Development Program of China	4	Fujian University of Technology	2	Office of Vice Chancellor for Research and Technology, University of Isfahan	3	Interdisciplinary Research Fund for Young Scholars in Zhejiang University	1
Ministry of Education - Singapore	4	Ministry of Science, ICT and Future Planning	2	Natural Science Foundation of Jiangsu Province of China (Jiangsu Provincial Natural Science Foundation)	3	Female Center for Scientific and Medical Colleges, King Saud University	1
Natural Science Foundation of Gansu Province	4	Shanghai Key Discipline Construction Project	2	University of Tennessee	3	Inner Mongolia Agricultural University	1
Department of Atomic Energy, Government of India	4	Jiangsu Key Laboratory of New Drug Research and Clinical Pharmacy	2	Central Mechanical Engineering Research Institute, Council of Scientific and Industrial Research	3	RSF Social Finance	1
Inner Mongolia Autonomous Region	4	Sapienza Università di Roma	2	Shiraz Transplant Research Center, Shiraz University of Medical Sciences	3	Kyoto University	1
National University of Singapore	4	Natural Science Foundation of Ningbo	2	Southwest University	3	Guangdong Innovative and Entrepreneurial Research Team Program	1
Ministry of Oceans and Fisheries	4	Chengdu Science and Technology Bureau	2	Guangxi Medical University	3	University of the Punjab	1
Natural Science Foundation of Tianjin City	4	Ministry of National Education and Religious Affairs	2	Canada Research Chairs	3	University of Johannesburg	1
Golestan University of Medical Sciences	3	Mae Fah Luang University	2	Health and Family Planning Commission of Heilongjiang Province	3	Stavanger Universitetssjukehus	1
Beijing Municipal Natural Science Foundation	3	Office of Extramural Research, National Institutes of Health	2	Ministry of Education, Science and Technology	3	Universiti Pendidikan Sultan Idris	1
Universiti Kebangsaan Malaysia	3	QingHai Department of Science and Technology	2	Universidad Nacional Autónoma de México	3	Ministry of Education, Government of the People's Republic of Bangladesh	1
Associazione Italiana per la Ricerca sul Cancro	3	Bangladesh Council of Scientific and Industrial Research	2	Nanjing Institute of Technology	3	Guangxi University	1
Babol Noshirvani University of Technology	3	University of South China	2	Natural Science Foundation of Hubei Province	3	China Academy of Chinese Medical Sciences	1
Chang Gung Memorial Hospital	3	Centre for Addiction and Mental Health Foundation	2	The Wellcome Trust DBT India Alliance	3	Mansoura University	1
Shanghai Science and Technology Development Foundation	3	American Academy of Child and Adolescent Psychiatry	2	Hungarian Scientific Research Fund	3	AJS Foundation for Metabolic Diseases	1
Natural Science Foundation of Inner Mongolia	3	Natural Science Foundation of Shanxi Province	2	Caixa Foundation	3	Johnson and Johnson Vision Care	1
Zanjan University of Medical Sciences	3	Indian Institute of Technology Madras	2	Office of AIDS Research	3	Fundação Estadual de Amparo à Pesquisa do Estado do Espírito Santo	1
Birjand University of Medical Sciences	3	Azarbaijan Shahid Madani University	2	VIT University	3	South African Medical Research Council	1
Shenzhen Science and Technology Innovation Commission	3	York St John University	2	King Abdulaziz University	3	Arabian Gulf University	1
National Institute for Health Research	3	Fondazione Umberto Veronesi	2	Horizon 2020 Framework Programme	3	National Institute of Child Health and Human Development	1
Guilan University of Medical Sciences	3	Medical Science and Technology Development Foundation, Nanjing Municipality Health Bureau	2	Malaysia Toray Science Foundation	3	Sichuan Provincial Youth Science and Technology Fund	1
Beijing Municipal Administration of Hospitals	3	Ministry of Higher Education and Scientific Research	2	National Institute of Diabetes and Digestive and Kidney Diseases	3	Capital Foundation of Medical Development	1
Narodowym Centrum Nauki	3	Natural Science Foundation of Yunnan Province	2	Çukurova Üniversitesi	3	Bill and Melinda Gates Foundation	1
Science and Technology Department of Henan Province	3	Capital Medical University	2	Defence Research and Development Organisation	3	Tianjin Science and Technology Committee	1

Brain Tumour Foundation of Canada	3	Kurukshetra University	1
National Center for Research and Development	3	Regione Campania	1
Hunan Provincial Innovation Foundation for Postgraduate	3	National Science and Technology Development Agency	1
Henan University of Technology	3	Fundación Alberto J. Roemmers	
NIH Clinical Center	3	American Heart Association	3
Ontario Mental Health Foundation	3	U.S. Department of Agriculture	3

Conclusion

Funds or research grants are always a part of quality research. There is always a financial angle to a well-designed research plan and its outcomes. The importance of a grant cannot be overlooked for quality research. The research grant is critical and plays a pivotal role in the quality outcome that can stand the test of the scientific world. Today, several funding agencies support research proposals for the betterment of human lives. Virtually all countries with booming economic growth have strong agencies financing research and development.

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