Programs & Research
The Research Council
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Introduction

The Research Council is Oman’s exclusive research funding body and leader of research development in the country. TRC serves as a focal point and hub dedicated to promoting and supporting research, scientific enquiry, and innovation in the Sultanate of Oman. At the heart of our work is nurturing research talent to power innovation and create economic benefit for our national prosperity.

Established in June 2005, TRC has been founded by Royal Decree No. 54/2005 under the chairmanship of His Highness Sayyid Shihab Bin Tariq Al-Said, adviser to His Majesty the Sultan. This was notably followed in 2010 by Royal Decree No.30/2010 with TRC set to lead the way in drawing up a national plan for scientific research in the Sultanate.

As a policy-making body and funding agency, TRC encourages the promotion and application of research, innovation and science to create value that serves business, markets and the wider needs of society. It is our belief that research conducted in Oman should further the public good with commitment to the
Vision

- Oman will become a regional hub for innovation, and a leader in producing new ideas, products and services.
- Oman will have the largest research capacity in the region.
- Omani research will excel in selected fields of national importance.
- Oman will have a research culture that responds swiftly to local social and economic needs.
- Oman will have a world-class infrastructure for evidence-based policy making.
Mission

Create an innovation ecology that is responsive to local needs and international trends, fosters social harmony, and leads to creativity and excellence.
Objectives

- Achieving Research Excellence
- Building Research Capacity
- Building Knowledge Transfer and Value Capture
- Providing an Enabling Environment for Research
Research Sectors in TRC

- Energy and industry
- Environmental & Biological resources
- Health and Social services

- Culture, Social & Basic sciences
- Education & Human resources
- Information & Communications Technologies
Research Programs in TRC

1. Open Research Grant Program
2. Researchers’ Incentives Program
3. Faculty-Mentored Undergraduates Research Program
4. Graduate Research Support Program
5. National Research Forum
6. National Research Award

Commissioned research on Omani Tales and Myths associated with Places

1. The Chair of Nanotechnology for Water Desalination
2. Research Chair of Material Sciences

1. Road Safety Research Program
2. Social Observatory Research Program
3. Dubas Research Program
4. Renewable Energy Strategic Program
5. Omani Cultural Heritage Research Program
6. Red Tide Strategic Research Program
7. Food Safety Strategic Research Program
8. Omani Center for Animal & Plant Genetic Resources
9. Institute of Advance Technology Integration

1. Comissioned research on Omani Tales and Myths associated with Places
2. The Chair of Nanotechnology for Water Desalination
3. Research Chair of Material Sciences
4. Open Research Program
5. The Strategic Research Grant Program
6. Research Chair Program
7. Research Centers Program
8. Programs & Research
9. Programs & Research
10. Programs & Research

1. Open Research Grant Program
2. Researchers’ Incentives Program
3. Faculty-Mentored Undergraduates Research Program
4. Graduate Research Support Program
5. National Research Forum
6. National Research Award
The Open Research Grant Program

1. Open Research Grant Program
2. Researchers’ Incentives Program
3. Faculty-Mentored Undergraduates Research Program
4. Graduate Research Support Program
5. National Research Forum
6. National Research Award

The Strategic Research Grant Program

1. Oman Center for Animal & Plant Genetic Resources
2. Institute of Advance Technology Integration

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The Open Research Grant program aims at enhancing research capacity in the Sultanate of Oman by allocating small to mid-sized research grants for short and mid-term projects. This results from demand-driven research initiatives to support researchers in conducting projects within their areas of interest. The program promotes investigator driven research and encourages research-led projects based on international standards. The program also aims to build the research capacity in the country by supporting higher education students with funded projects. The program welcomes research proposals on behalf of researchers from institutions affiliated with The Research Electronic Submission System (TRESS).

<table>
<thead>
<tr>
<th>NO. of funded project</th>
<th>Total Budget</th>
<th>Institutions stakeholders</th>
<th>Capacity Building</th>
</tr>
</thead>
<tbody>
<tr>
<td>134</td>
<td>14,895,952</td>
<td>13</td>
<td>58 PhD</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>130 MSc</td>
</tr>
</tbody>
</table>

To end of 2014
Cont. ORG- achievements

Number of Funded Proposals Per Sector till 2014

- Energy and industry: 32
- Environmental & biological resources: 15
- Health and social services: 22
- Culture, basic & social sciences: 28
- Education & human resources: 12
- Information & Communications Technologies: 25
Number of Funded Proposals per Institutions till 2014
Cont. ORG- achievements

Approved Funds Per Sector till 2014

- Energy and industry
- Culture, basic & social sciences
- Environmental & biological resources
- Education & human resources
- Health and social services

Total = 14,895,952
2. Researchers’ Incentives Program Based On Open Research Grant Outputs

**Objectives**

Rewarding researchers through the Open Research Grant (ORG) Program on the basis of their research outputs came as a means to promote research excellence and build a capacity for research to support the economic and social growth in the Sultanate of Oman. Specifically, the objectives of the program are:

- Increase the level of research productivity and promote interest in research.
- Increase the number of active researchers in Oman.
- Improve the quality of ORG management (Annual budget expenditure and progress/final reports submission date).
- Motivate researchers to contribute to research capacity building by graduating Omani postgraduate students.
- Promote publication in international refereed journals.
- Promote the granting and filing of patents.
- Promote a research culture in the Sultanate.
## Cont.... Researchers’ Incentives Program

### Research Outputs and Financial Rewards

<table>
<thead>
<tr>
<th>Output</th>
<th>Conditions</th>
<th>Financial Incentive in OMR</th>
</tr>
</thead>
</table>
| Publishing in a refereed journal           | • Research published in journals which are indexed in the SCOPUS database or Web of Science  
• Research published in classified Arabic periodicals  
• The Research Council of Oman" should be acknowledged as a funder in the publication. | 1500                        |
• The Research Council of Oman should be acknowledged as a funder in the publication.                                                                                                      | 500                         |
• The Research Council of Oman should be acknowledged as a funder in the publication.                                                                                                      | 2000                        |
| Omani student earning a Master's Degree    | • The Research Council of Oman should be acknowledged as a funder in the thesis.                                                                                                                         | 1000                        |
| Omani student earning a Ph.D. Degree       | • The Research Council of Oman should be acknowledged as a funder in the thesis.                                                                                                                         | 2000                        |
| Granting Patent                             | • Patent should be granted in a registered office by WIPO in any country.                                                                                                                               | 1000                        |
| Spending 75% of the ORG Annual Budget      |                                                                                                                                                                                                          | 500                         |
| TRC Approval of the progress and final     |                                                                                                                                                                                                          |                             |
| reports within two months of the submission date as stated in the contract |                                                                                                                                                                                                          | 200                         |
### Objectives
- To promote research culture in Oman.
- To increase creativity in research activities in Oman.
- To enrich undergraduates research learning experience.
- To encourage undergraduates to seek careers in research.
- To enable student to carry out research that they would not be able to carry out without then necessary funding.
- To elucidate the role of TRC in

### Eligibility
- Omani undergraduates studying in Oman or abroad.
- International students studying in higher institutions in Oman (50%) of the team.
- Full-time or part-time
- GPA =>2.30
- Completed at least first year courses (or

### Benefits
- Gain experience on how to write proposals and research papers.
- Enhance hands-on training in research.
- Develop a better understanding of the process of research and its challenges.
- Enrich undergraduates learning experience.
- Develop communication and management skills.
- Develop a network of undergraduate researchers.
- Improve students' research outputs through funding.
Cont.. FURAP- Accomplishments

Number of Funded Proposals per Institutions till 2014

- Sultan Qaboos University
- University of Nizwa
- Sohar University
- Caledonian College of Engineering
- Oman Medical College
- Al-Sharqia University
- German University of Technology
- Colleges of Applied Science (Rustaq)
- Dhofar University

Total = 111
4. Graduate Research Support Program

Objectives

• Encourage research initiatives by individuals or groups of investigators in areas specific to their interest and relevant to their expertise
• Contribute to human capacity building in research in Oman
• Cultivate individual creativity
• Improve the quantity and quality of the pre-doctoral research.
• Elucidate the role of TRC in

Target groups

• Full time Omani Employees with pre-doctorate qualifications, Bachelor and Master Degree holders or equivalent
• Omani Postgraduate students (Master or PhD students) registered in an institution affiliated with TRC
• Oman Medical Specialty Board (OMSB) Residents.

Expected Outcomes

• Develop skills in grant writing and research methodology
• Develop communications and management skills in research
• Enhance hands-on training in research
• Establish a network of researchers
• Improve research outputs; publications, patents and transfer of knowledge
National Research Award

Award Objectives:

• Encourage researchers to continue their activities and initiatives in conducting high quality research.
• Encourage the development of the research culture and enhance the quality of the research output in the Sultanate of Oman.
• Increase research output, that is relevant and of important to the Sultanate of Oman.
• Increase the level of awareness about TRC and its various initiative and programs to support research and innovation.

Research Fields

• Education and Human Resources
• Information Systems and Communication Technologies
• Health and Community Service
• Energy and Industry
• Culture, the Social, and Basic Sciences
• Environmental and Biological Resources

Research categories

• Best scientific research publication led by a PhD holder or equivalent (Consultant or Senior Consultant for Medical field only)
• Best Scientific Research Publication led by a young researchers (non-PhD holders)
The Strategic Research Grant Program

- Open Research Grant Program
- Researchers’ Incentives Program
- Faculty-Mentored Undergraduates Research Program
- Graduate Research Support Program
- National Research Forum
- National Research Award

1. Road Safety Research Program
2. Dubas Research Program
3. Social Observatory Research Program
4. Renewable Energy Program
5. Omani Cultural Heritage Research Program
6. Red Tide Research Program
7. Food Safety Research Program
8. Communicable Diseases (NCD) Research Program

- The Chair of Nanotechnology for Water Desalination
- Research Chair of Material Sciences

1. Oman Center for Animal & Plant Genetic Resources
2. Institute of Advance Technology Integration

Commissioned research on Omani Tales and Myths associated with Places
Road Traffic Accidents are a growing critical issue in need of sustainable solutions. It is certainly one of the main challenges facing community development in the Sultanate with its social, economic, health and environmental impact.

TRC has therefore positioned this research as part of its Strategic Research Grant Programs to present research recommendations on projects and initiatives that serves strategic needs with mid to large research grants.
The Program Accept Proposals in Four Main Themes:
Cont. RSRP - achievements

Six Research project funded:

1. Heavy Vehicles Safety, Queensland University of Technology, Australia
2. Novice Driver Safety, Queensland University of Technology, Australia
3. Improving Trauma Care System of road crashes injuries in Oman, Johns Hopkins, USA
4. Prevent Accidents and Injuries on the Road - PAIR. – Strengthening Preventive Efforts and Enforcing Speed Management in Oman, Karolinska Institute, Sweden
5. Road Traffic Crashes Database using iMAAP, Transport Research Laboratory, UK
6. Improving road traffic crashes database using iMAAP Mobile, Transport Research Laboratory, UK
2. Dubas Research Program

The Dubas bug causes serious plant disease and great damage to palm trees in the sultanate, as well as in other countries around the world. The first incidence of the Dubas bug in Oman was recorded in 1962. Furthermore, despite the efforts made so far to control Dubas bug, it is still a serious problem indicating the necessity of promoting the management strategy of Dubas to integrate several techniques and tactics. The achievement of this goal requires solid research to investigate and build up informative databases and develop advanced tactics to manage the Dubas problem and preserve the agricultural environment.

Thus, to the increasing problems caused by this insect, and to avoid the use of harmful insecticides, Integrated Pest Management (IPM) was included in the Strategic Research Grants Program by TRC. Its aim is to find a safe, environmentally friendly and effective solution to the
Cont. Dubas Research Program- Themes

The Call for Proposals for projects on the Dubas bug IPM presents its objectives under five relevant research themes:

- Ecology and biology of Dubas bug
- Insecticide screening and resistance management
- Improved biocide application and evaluation
- Socioeconomics and implementation of IPM
- Cultural practice
• The Steering Committee approved (6) proposal out of (26) proposal from the launching of the program till 2013.
• The Research Council signed a contract with RealSoft Advanced Applications for developing a database & platform for the integrated management of all data/research/experiments, etc on the Dubas Bug. The database will be established through development of the relevant information on the Dubas bug, including the concerned respective stakeholders such as the Ministry of Agriculture and Fisheries. The objective of the database is to form a fundamental basis for implementation of the program as well as to integrate the management of Dubas bug in obtaining a solid data base that can be relied upon for an effective battle against the problem which has adversely impacted on the date palm in the Sultanate. The formation of the database was aimed at
In collaboration with the Ministry of Social Development, TRC has established the Social Observatory Research Program (SORP). The program aims to contribute to social well-being through monitoring social trends and phenomena and responding with research-based solutions.
The Program Accept Proposals on Four Main Themes:

- Work & Standard of Living
- Youth Values
- Family Cohesion
- Values
The finalization of (138) indicators under the three domains (Youth values, Family Cohesion, and Work and Standards of living). The project was accomplished through a partnership with Southampton University in the United Kingdom.

Initiating a project on developing Child Rights indicators with UNICEF office in Oman.
4. Renewable Energy Strategic Program

Objectives of the Program

- Develop a strategy for renewable energy
- Develop capacity building
- Allocate funds for:
  - Scientific research
  - Feasibility studies
  - Pilots projects
- Create national & international networks between scientist in renewable energy fields
- Support research related to energy conservation

Year of program Approval 2013
5. Omani Cultural Heritage Research Program

Program objectives:
- Promoting the preservation of Omani Cultural Heritage
- Support the research on Omani cultural heritage.
- Supplement the government efforts of using cultural heritage for sustainable development.
6. Newly approved Strategic Research Programs

- Red Tide Strategic Research Program
- Food Safety Strategic Research Program
- Non-communicable diseases (NCD) Strategic Research program
Research Chair Program

- Open Research Grant Program
- Researchers’ Incentives Program
- Faculty-Mentored Undergraduates Research Program
- Graduate Research Support Program
- National Research Forum
- National Research Award

Road Safety Research Program
Social Observatory Research Program
Dubas Research Program
Renewable Energy Strategic Program
Omani Cultural Heritage Research Program
Red Tide Strategic Research Program
Food Safety Strategic Research program
Strategic program in Non-communicable diseases (NCD)

Road Safety Research Program
Social Observatory Research Program
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The Chair of Nanotechnology for Water Desalination
Research Chair of Material Sciences
Commissioned research on Omani Tales and Myths associated with Places

1. Oman Center for Animal & Plant Genetic Resources
2. Institute of Advance Technology Integration
The Chair of Nanotechnology for Water Desalination in Sultan Qaboos University is sponsored by the Research Council. The main aims of this chair are to provide research leadership and build human capacity in the area of nanotechnology for water desalination. This will include strategic planning, project development and planning, project management and also supervision of research staff and postgraduate students. The team of the Chair will promote collaborative opportunities among Colleges at SQU, and create and strengthen existing collaboration with other national and international institutions and research organizations, placing Oman as a regional leader in the area of Desalination in nanotechnology.
2. Research Chair of Material Sciences – Nizwa University

About the Chair

The Research Council Board Committee approved the proposal submitted by Nizwa University to create a research chair in material and minerals science in collaboration with Cambridge University, UK, at a cost of about 5.5 million Rials for five years. The proposal includes (16) MSc scholars and (8) scholars for PhD. This Chair will enable an eminent research professor from Cambridge to undertake work at an ultra-precompetitive level and have the freedom to develop an area of metallurgy which will ultimately grow so that industry will wish to take it forward.

Objectives

• Yield technology transfer between Cambridge university and Nizwa university in material sciences and establish exchange programs.
• Establish an advanced research laboratory to analyze experiment and yield advanced metal technology that would suite various industries in Oman.
• Research plan for Electro-metallurgical preparation of metallic materials from metal oxides for biomedical applications.
• Research in Silicone wafers for solar photovoltaic cells.
• Research Execution Plan Development of novel cathode materials for lithium ion and lithium sulphur batteries.
Research Centers Program

1. Road Safety Research Program
2. Social Observatory Research Program
3. Dubas Research Program
4. Renewable Energy Strategic Program
   1. Oman Center for Animal & Plant Genetic Resources
   2. Institute of Advance Technology
5. Omani Cultural Heritage Research Program

Programs & Research

1. Open Research Grant Program
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4. Graduate Research Support Program

Commissioned research on Omani Tales and Myths associated with Places

Research Chair Program

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2. Research Chair of Material Sciences

The Strategic Research Grant Program
1. Oman Center for Animal & Plant Genetic Resources

About the center

Following His Majesty Sultan Qaboos bin Said’s order to review opportunities in establishing a center for animal and plant genetic resources, a steering committee with members from the concerned authorities chaired by The Research Council, was formed in 2012 with the objective to conduct

To promote the recognition, sustainable exploitation and valuation of the genetic diversity inherent in Oman’s animals, plants and microorganisms as a natural heritage resource.
The Center is working closely with many public organizations in contribution to workshops, conferences and committees. In addition to its role as advisory body for issues related to Genetic Resources.

2013 saw the development of the center’s portal. This will be the primary base of Omani national genetic resources information networks and will link into regional and international information networks.

Collaboration with Bioversity International is ongoing to create a genetic management system – GRIN Global- (Genetic Resources Information Network). This system will assist the digitalization of genetic resources information in a manner that assists curators and managers of gene-banks to manage their accession in the fields or in the stores.
The Research Council and Helmholtz Association signed an agreement in Berlin in October 2012 in which they reiterated their plans to build a technology center. The Helmholtz Association’s main role will involve providing support to TRC by sharing its extensive expertise in developing and running large-scale research institutes, as well as in designing strategic Research Programs. In addition, this rapid launch of projects in the fields of energy, water resources and new extraction technologies is designed to create the staffing, technical and structural basis for the development of the institute. Research at the new institute will focus on Three major theme:

- Water Resources
- Oil & Gas
- Renewable Energy
Research Centers Program

1. Road Safety Research Program
2. Social Observatory Research Program
3. Dubas Research Program
4. Renewable Energy Strategic Program
5. Omani Cultural Heritage Research Program

- Open Research Grant Program
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Oman Center for Animal & Plant Genetic Resources

Research Centers Program

The Strategic Research Grant Program

Research Chair Program
Commissioned research on Omani Tales and Myths associated with Places

This commissioned research project was initiated by a direct request from Ministry of Tourism. The project aims at the following:

1. Enrich the tourism in Oman through using stories and myths to promote places within as a tourism destination.
2. Contributing to preserving Omani cultural heritage through archiving and categorizing stories and myths.
3. Support financially the Omani researchers in the area of humanity and social science.
4. Promote the role of research on sustainable development.
5. Help to redistribute the benefits of tourism to a wider segment of the society.

Project funded:

1. Research Project on Stories and Myths Associated with Places in Al-Batinah North Governorate.
2. Research Project on Stories and Myths Associated with Places in Al-Sharqiah North Governorate.
Other Projects under Research programs
Oman’s architectural heritage dates back to the 13th and 14th centuries and is an expression of our rich and vibrant culture as well as a source of great pride. Through research and innovation in architecture, environment and renewable energy the competition raises awareness of the possibilities and importance of green building and eco-design. Competition buildings have a legacy that goes beyond their imposing beauty; the eco-friendly construction methods used in them including the use of compressed earth blocks and mud mortar and plaster; the water circulation systems and the use of shade. The competition involves three stages which are:
Cont.... Oman Eco-House Competition

Dhofar University Project

University of Nizwa Project

German University of Technology Project
Cont…. Oman Eco-House Competition

The winners Oman Eco-House Competition are as follows:

✓ First place: Higher College of Technology

✓ Second place: German University of Technology

✓ Third place: University of Nizwa
Cont…. Oman Eco-House Competition…. Photos

First Place: Higher College of Technology

Evaluation and announcement of the winners
Virtual Science Library

The Virtual Science Library proposal was approved in 2012 with a budget of 13,000,000 OR

Project Objectives

• Destined to be the biggest electronic library in the country on completion.
• Provide researchers in the Sultanate with an opportunity to get access to an assortment of comprehensive platforms for their scientific publications
• Increasing the research capacity in the Sultanate, besides increasing research production and cooperation at internal and external arenas.
Thank You!!

trc.gov.om