- The major multi-disciplinary R&D institute in E.
- Employs 70% of all scientists affiliated to MoSR.

**Manpower**

- Research staff: 3387
- Scientific assistance: 1407
- Administrative staff: 2423
Research Staff Based on their Disciplines

- Natural Sciences:
  - Ph. D. Man: 652
  - Ph. D. Famel: 703
  - M.A. Man: 163
  - M.A. Famel: 118
  - B.A. Man: 48
  - B.A. Famel: 21

- Agricultural sciences:
  - Ph. D. Man: 611
  - Ph. D. Famel: 391
  - M.A. Man: 49
  - M.A. Famel: 24
  - B.A. Man: 12

- Medical and health sciences:
  - Ph. D. Man: 218
  - Ph. D. Famel: 154
  - M.A. Man: 165
  - M.A. Famel: 93

- Engineering and Technology:
  - Ph. D. Man: 88
  - Ph. D. Famel: 84
  - M.A. Man: 8
  - M.A. Famel: 5
  - B.A. Man: 5
Recent Achievements

5 Centres of Excellency

- Advanced materials
- Medical Sciences
- Human Genetics
- Influenza Virus
- Textile Industries
The NRC Priorities
1- Health

- Stem cells
- Diabetes
- Breast and liver Cancer
Preparation of solar cell layers

Design of solar cell

Manufacture of solar cells

Application of solar cells

The NRC Priorities 2- Solar Cells
Biosensor based on metal and semiconductor nanoparticles for virus, bacteria and DNA detection

Bioactivity of ceramic/polymers nanocomposite for biomedical applications

Application of carbon nanotubes in medicine and environment
The NRC Priorities
4- Renewable energy

Renewable energy

Biofuel

Wind

Solar
The NRC Priorities
5- Industrial Research

- Purification of industrials water from heavy metals and other contaminants
- Functional Food from traditional experience to modern production
- Functional polymers for various applications
The NRC Priorities
6- Agriculture

- Abiotoc stress
- Biocontrol
- Oil-producing crops
The NRC Priorities
7- Climate Changes

- Impact on Agriculture and soil
- Impact on human health
- Impact on water resources
- Sensor for climate change
Lab Facilities & Pilot Plants
Lab Facilities

DNA Sequencer (ION torrent)

Automated Image analysis system

Scanning Electron Microscope (SEM)  Transmission Electron Microscope (TEM)
Lab Facilities

- Gel Documenter with Image lab software
- Zeta Sizer
- Electrophoresis Set
- Microarray Scanner System
Lab Facilities
Biotechnology Plant
Lab Facilities
Pilot Plant
Lab Facilities

Some Plant Equipment

Distillation

2 Reactors

Multi-speed Centrifuge

Extraction

Filtration

Dryer

Absorption
Experimental Park for Agricultural Researches
Experimental Park for Agricultural Researches
Pilot Plant for Textiles
Solar Energy Plant
Fungi Unit
Green Houses
Scientific Records
Number of Research Projects

- **2007-2010**: 147
- **2010-2013**: 199
- **2013-2016**: 308

Total from 2016 – 2019: 371
Budget for the research projects

2007-2010: 17.6
2010-2013: 31.1
2013-2016: 31.1

2016 - 2019: 52,500,000 EGP (expected)
Publication “2015”

- Scopus: 1699
- International: 1596
- National: 193

5.9%
The rate of change in the number of SCOPUS publications
Number of publications in the top 10 Journals
International Cooperation in Publications

997 collaborating institutions
4,594 co-authored publications

North America: 169
Europe: 423
Middle East: 108
Asia Pacific: 174
Africa: 86

North Pacific Ocean
North Atlantic Ocean
South Pacific Ocean
South Atlantic Ocean
### Effect of cooperation on the citation index (2011 – 2015)

<table>
<thead>
<tr>
<th>Metric</th>
<th>Publications</th>
<th>Citations</th>
<th>Citations per Publication</th>
<th>Field-Weighted Citation Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>International collaboration</td>
<td>38.2%</td>
<td>3,395</td>
<td>17,440</td>
<td>5.1</td>
</tr>
<tr>
<td>Only national collaboration</td>
<td>28.6%</td>
<td>2,538</td>
<td>7,520</td>
<td>3.0</td>
</tr>
<tr>
<td>Only institutional collaboration</td>
<td>29.3%</td>
<td>2,605</td>
<td>7,249</td>
<td>2.8</td>
</tr>
<tr>
<td>Single authorship (no collaboration)</td>
<td>3.8%</td>
<td>342</td>
<td>1,230</td>
<td>3.6</td>
</tr>
</tbody>
</table>

### Top Institutions

<table>
<thead>
<tr>
<th>Institution</th>
<th>Publications</th>
<th>Citations</th>
<th>Citations per Publication</th>
<th>Field-Weighted Citation Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>Universidad Autonoma del Estado de Mexico</td>
<td>30</td>
<td>11</td>
<td>37</td>
<td>3.97</td>
</tr>
<tr>
<td>St. Jude Children Research Hospital</td>
<td>14</td>
<td>19</td>
<td>14</td>
<td>3.41</td>
</tr>
<tr>
<td>Broad Institute</td>
<td>10</td>
<td>11</td>
<td>4</td>
<td>3.33</td>
</tr>
<tr>
<td>University of Cambridge</td>
<td>11</td>
<td>8</td>
<td>14</td>
<td>2.98</td>
</tr>
<tr>
<td>Istanbul University</td>
<td>12</td>
<td>14</td>
<td>10</td>
<td>2.92</td>
</tr>
<tr>
<td>University of Washington</td>
<td>11</td>
<td>6</td>
<td>8</td>
<td>2.63</td>
</tr>
<tr>
<td>Universite Paris 6</td>
<td>22</td>
<td>14</td>
<td>27</td>
<td>2.52</td>
</tr>
<tr>
<td>Universite Pierre et Marie Curie</td>
<td>22</td>
<td>14</td>
<td>25</td>
<td>2.52</td>
</tr>
<tr>
<td>University of California at San Diego</td>
<td>31</td>
<td>20</td>
<td>68</td>
<td>2.49</td>
</tr>
<tr>
<td>Universidad Autonoma de Madrid</td>
<td>10</td>
<td>8</td>
<td>16</td>
<td>2.44</td>
</tr>
<tr>
<td>University of Mainz</td>
<td>20</td>
<td>11</td>
<td>25</td>
<td>2.43</td>
</tr>
<tr>
<td>Peking University</td>
<td>9</td>
<td>5</td>
<td>12</td>
<td>2.41</td>
</tr>
<tr>
<td>University of Florida</td>
<td>18</td>
<td>21</td>
<td>31</td>
<td>2.32</td>
</tr>
<tr>
<td>Tohoku University</td>
<td>10</td>
<td>5</td>
<td>10</td>
<td>2.28</td>
</tr>
<tr>
<td>Alfaisal University</td>
<td>15</td>
<td>18</td>
<td>56</td>
<td>2.12</td>
</tr>
<tr>
<td>Dankook University</td>
<td>14</td>
<td>4</td>
<td>23</td>
<td>2.08</td>
</tr>
<tr>
<td>Stanford University</td>
<td>10</td>
<td>5</td>
<td>9</td>
<td>1.92</td>
</tr>
</tbody>
</table>
Patents
Number of accepted patents 1965 - 2016

- 1956-2000: 25 patents
- 2001-2008: 56 patents
- 2009-2016: 117 patents
Number of Submitted Patents

- 2007: 51 patents
- 2008: 51 patents
- 2009: 45 patents
- 2010: 49 patents
- 2011: 41 patents
- 2012: 40 patents
- 2013: 30 patents
- 2014: 50 patents
- 2015: 67 patents
- 2016: 83 patents
NRC Initiatives for CCC
Thank You