Lung cancer research in numbers: briefing for the UK

Overview

Lung cancer has been the most common cancer in the world for several decades. There were estimated to be 1.8 million new cases globally in 2012. It is also the most common cause of death from cancer worldwide, estimated to be responsible for nearly one in five deaths. Research is essential to reduce the death toll from lung cancer and drive improvements in cancer prevention, screening, diagnosis and treatments.

However, greater effort must be made to increase lung cancer research, given its global impact. The Global Lung Cancer Coalition (GLCC) commissioned the Institute of Cancer Policy, experts in the study of research systems, to examine the state of global lung cancer research to understand what research is being carried out in lung cancer, by whom, and to ascertain if and where further investment can be made.

The study identified the 24 countries globally with the most extensive research programmes in lung cancer. It analysed whether research outputs had changed over time as well as the focus of the research and how close it is to patients. The findings of the study are intended to guide public policy and highlight where improvements can and should be made.

Call to action

The GLCC welcomes the overall increase in research into lung cancer, which will – ultimately – improve treatment, care and survival for people with lung cancer. Poor lung cancer survival demonstrates that more can be done.

We are calling for every country to:

1. Invest more in lung cancer research
2. Increase research in aspects of care that are currently under-researched
3. Collaborate with global partners to share research findings and improve patient care

Key findings

How has research output changed globally and in the UK?

<table>
<thead>
<tr>
<th>Country</th>
<th>Ranking</th>
<th>Increase in Lung Cancer Research</th>
<th>2013</th>
<th>2004</th>
<th>Papers</th>
</tr>
</thead>
<tbody>
<tr>
<td>United Kingdom</td>
<td>5</td>
<td>74%</td>
<td>(130)</td>
<td>(226)</td>
<td>(105)</td>
</tr>
<tr>
<td>Global</td>
<td></td>
<td></td>
<td>(217)</td>
<td>(4845)</td>
<td>(125)</td>
</tr>
</tbody>
</table>
What proportion of research output are for breast cancer vs lung cancer vs colorectal cancer in the UK?

![Proportions of research output on lung cancer vs colorectal cancer vs breast cancer](image)

<table>
<thead>
<tr>
<th>Country</th>
<th>Type of Research</th>
<th>Year 1</th>
<th>Year 2</th>
<th>Year 3</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Global</td>
<td>Fundamental</td>
<td>4.4</td>
<td>5.3</td>
<td>9.2</td>
<td>15.9</td>
</tr>
<tr>
<td></td>
<td>Pathology</td>
<td>5.8</td>
<td>6.1</td>
<td>10.0</td>
<td>19.9</td>
</tr>
<tr>
<td></td>
<td>Diagnosis</td>
<td>1.5</td>
<td>5.7</td>
<td>12.3</td>
<td>19.5</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>Fundamental</td>
<td>4.1</td>
<td>7.5</td>
<td>11.3</td>
<td>23.9</td>
</tr>
<tr>
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<td>19.5</td>
</tr>
</tbody>
</table>

What is the focus of the lung cancer research globally and in the UK?

### United Kingdom

- **Fundamental research**: 151 papers
  - 2004-8: 75.2 papers
  - 2009-13: 75.8 papers
- **Pathology**: 95.2 papers
  - 2004-8: 25.9 papers
  - 2009-13: 26.3 papers
- **Diagnosis**: 57.2 papers
  - 2004-8: 15.3 papers
  - 2009-13: 15.9 papers

### Global

- **Fundamental research**: 6614 papers
  - 2004-8: 2335 papers
  - 2009-13: 4079 papers
- **Pathology**: 3005 papers
  - 2004-8: 1114 papers
  - 2009-13: 1891 papers
- **Diagnosis**: 1319 papers
  - 2004-8: 468 papers
  - 2009-13: 807 papers

### Types of research undertaken

**United Kingdom**

- **Medicines and biomarkers**: 675 papers
  - 2004-8: 186 papers
  - 2009-13: 189 papers
- **Epidemiology**: 80.1 papers
  - 2004-8: 46.1 papers
  - 2009-13: 46.1 papers
- **Screening**: 22.6 papers
  - 2004-8: 13.6 papers
  - 2009-13: 16 papers

**Global**

- **Medicines and biomarkers**: 10059 papers
  - 2004-8: 3867 papers
  - 2009-13: 4079 papers
- **Epidemiology**: 2563 papers
  - 2004-8: 1007 papers
  - 2009-13: 1556 papers
- **Screening**: 510 papers
  - 2004-8: 318 papers
  - 2009-13: 308 papers

**Contact us**

For more information about this project and its findings please contact the GLCC secretariat on glcc@roycastle.org.

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