Cancer: current perspectives
27 February 2015

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Director General
EORTC
Brussels, Belgium
European Visionaries

1949 NATO
1951 CECA
1957 EEC
1993 EU

1888-1979
JEAN MONNET Mémoires

1911-2000

Henri Tagnon
Co-Founder of EORTC

1962 GECA
1968 EORTC
1972 NCI liaison
1974 EORTC data center

The future of cancer therapy
Medical Practice and Medical Research Depend on Each Other

Basic research

Translational research

Clinical research

Patients Needs

Approbation/Registration

Economic Impact

Medical practice

Teaching
From Dreams to Realities: EORTC today

**Mission:** promote and conduct research to improve cancer care

**Core activity:** clinical research
- International
- Multidisciplinary
- Large academic trials
- Translational research
EORTC 2015

• > 180,000 patients in the databases
• > 50,000 patients being followed-up
• > 2,000 collaborators (clinicians, pathologists, researchers,....)
• > 250 institutions in the network
• >175 members in the HQ staff
• > 1600 publications with EORTC in the title (pubmed)
• 442 publications in 2012-2014
• 34 different countries
• 27 trials open to patient entry
• 21 groups/task forces
## Long term survival (%)

<table>
<thead>
<tr>
<th>Cancer Type</th>
<th>1970</th>
<th>2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>Leukaemia in children</td>
<td>10</td>
<td>90</td>
</tr>
<tr>
<td>Leukaemia in adults</td>
<td>10</td>
<td>55</td>
</tr>
<tr>
<td>Bone cancer</td>
<td>5</td>
<td>60</td>
</tr>
<tr>
<td>Testis cancer</td>
<td>0</td>
<td>95</td>
</tr>
<tr>
<td>Breast cancer</td>
<td>40</td>
<td>90</td>
</tr>
<tr>
<td>Colon cancer</td>
<td>30</td>
<td>65</td>
</tr>
<tr>
<td>Hodgkin’s disease</td>
<td>10</td>
<td>90</td>
</tr>
<tr>
<td>Pancreas</td>
<td>5</td>
<td>10</td>
</tr>
<tr>
<td>Non-small cell lung cancer</td>
<td>10</td>
<td>20</td>
</tr>
</tbody>
</table>
Accrual of screened patients in EORTC clinical studies in 2000 – 2014: 79754 patients

European Union
Netherlands: 18624
France: 16057
Belgium: 8477
United Kingdom: 7538
Germany: 7026
Italy: 6859
Spain: 3184
Poland: 1148
Sweden: 903
Austria: 851
Portugal: 649
Denmark: 577
Slovak Republic: 472
Croatia: 352
Slovenia: 338
Hungary: 222
Ireland: 202
Czech Republic: 176
Cyprus: 83
Greece: 57
Bulgaria: 49
Finland: 35
Latvia: 34
Malta: 20
Romania: 20
Luxembourg: 9
Estonia: 7

> 84%

Non—European Union
Switzerland: 1705
Turkey: 631
Norway: 463
Serbia: 261
Russian Federation: 178
Bosnia And Herzegovina: 8
Macedonia: 6

Rest of the world: 4353

The future of cancer therapy
European cooperation

Dream – Reality - Necessity

- Radium (1898)
- DNA (1947)
- Helsinki (1953)
- Human Genome (2001)
- EU CTD (2005)
- EU CTR (2014)
- Nuremberg (40s)

The future of cancer therapy
Computers for Clinical Trials

1970
punch cards

1975
terminals

1986
PC Randomization

1994
EORTC on the web

1995
Database on Windows

2000
Web clinical applications

2013
Cloud computing

2014
Big Data

The future of cancer therapy
OF MICE AND MEN:

THINGS ARE MUCH MORE DIFFICULT

IN MEN

Professor Henri Tagnon
Facts and figures

Number of trials per year

<table>
<thead>
<tr>
<th>Year</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>2007</td>
<td>5028</td>
</tr>
<tr>
<td>2008</td>
<td>4627</td>
</tr>
<tr>
<td>2009</td>
<td>4619</td>
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<td>2010</td>
<td>4400</td>
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<tr>
<td>2011</td>
<td>3766</td>
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<tr>
<td>2012</td>
<td>4016</td>
</tr>
<tr>
<td>2013</td>
<td>3391</td>
</tr>
<tr>
<td>2014</td>
<td>3343</td>
</tr>
</tbody>
</table>

Impact on EORTC:

Costs

Workload

Timelines
Does the Legislation Protect the Researchers or the Patients?

Median length of Patient Information Sheet, including informed consent
(based on 285 EORTC trials from 1999 to 2014)

Uncertainty is inherent to scientific research

2014 red tape project: 40 pages spread over 3 documents
Need for Comprehensive EU Research Approaches:
High quality clinical research to translate laboratory discoveries to routine practice

- Appropriate infrastructures for:
  - local investigators
  - coordinating centers
- Education and career tracks for clinical investigators
- And Funding!
 Complexity of Legal Framework of International Cancer Research

- National data protection laws & authority decisions*
- National radio-protection laws*
- National Bio-bank & HBM laws*
- National professional codes & guidelines*
- In vitro diagnostics directive* -> regulation (EU)
- Clinical trials directive* -> regulation

*: x 28 Member States

Non-EU European countries laws
THE DECLINE AND FALL OF EUROPE

THE END OF EUROPE

Its economic union is unraveling, London is ablaze, and the continent’s once dependable trading partner the U.S. is too feeble to save the day or the euro. Say goodbye to the old order.

Wake up call

The future of cancer therapy
Looking towards the 21st century

• Cost containment is a major threat for pan-European high quality clinical research
• Less than 5% of EU patients benefit from clinical trials
• Competitiveness of Europe - Brain drain
• Clinical research is not a luxury!
• Capacity for medical excellence: final goal
• Impact on public health and healthcare budget
New Models of Partnerships

Academia

Technology and Diagnostics

Industry

Governments Policy makers

Regulators and HTAs

Patients

Hospital and population registries

Payers health insurance
The Way Forward?

Streamline - Simplify – Harmonize

Building a bright future together requires
Wisdom - Courage – Vision and Trust

“COLLABORATE OR DIE”
(Steve Arlington – PwC)
Age-standardized (world population) total cancer mortality trends in quinquennia from 1970-1974 to 2005-2009 and th predicted rates for 2013, for men and women in the EU.

As mortality goes down, what about morbidity?
EORTC is a Summit Partner at EBS on the 6th May 2015

**Theme:** Cancer and employment

**Targets:** Companies & National and EU deciders
- National and International companies
- Insurance companies
- Banks
- Etc.

More information to follow on: http://ebsummit.eu/news
From the Channel to the Moon

1909

Bleriot

1969
THANK YOU FOR YOUR ATTENTION