International Collaboration in Cancer Research

Tanja Cufer
ASCO IAC, Immediate Past Chair
University Clinic Golnik, Medical Faculty Ljubljana, Slovenia

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Disclosure

I have no relevant commercial interest to disclose.
Cancer Clinical Trials: 21st Century Landscape

12.7 million new cases; 7.6 million deaths

Cancer genomics
Fragmentation in cancer subtypes

Need for International Cancer Research

Ethnicity Pharmacogenomics

Multiple new diagnostic and therapeutic procedures
Need for Large Scale Multi-National Trials

- In common and devastating malignancies where even a small improvement in survival will have a major impact on public health
- In rare tumors where multinational effort is necessary to reach required sample size

- To discourage national/small sized trials that are inconclusive, unethical and concomitantly conducted in several countries
International Clinical Cancer Research (CCR): 2012 Landscape

- **Good news**
  - Slow but gradual increase of international CCR
  - Higher level of ethical standards (GCP, Declaration of Helsinki)
  - Higher transparency of CCR (web-based clinical trials platforms, ClinicalTrials.gov; etc.)

- **Bad news**
  - Regulatory hurdles (lack of harmonization, increased costs and bureaucracy)
  - Lack of independent funding
  - Predominance of industry-driven international research
International Participation in Phase 3 Industry-Driven Clinical Trials

Glickman SW et al., NEJM, 2009
Harmonization of Technical and Ethical Standards

- ICH –GCP (International Conference on Harmonization Good Clinical Practice guidelines, 2001)
- Adverse event reporting (NCI CTCAE), tumor response assessment (RECIST criteria, 2000, 2008)
- Transparency of clinical research (Public trials registry, International committee of Medical Journals Editors, 2005)
- Guidelines and best practice for organization of the biobank core processes (OECD, NCI guidelines, TuBaFrost project)
ASCO IAC (International Affairs Committee)
Survey on Challenges to Clinical Cancer Research
asco iac survey: major obstacles for adct ranked from 1 (most) to 8 (least) important

<table>
<thead>
<tr>
<th>Obstacle</th>
<th>Average rank</th>
<th>HIC (n=41)</th>
<th>LMIC (n=39)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Competent authorities procedures</td>
<td>4.25</td>
<td>4.61</td>
<td>3.87</td>
</tr>
<tr>
<td>Ethics committee procedures</td>
<td>4.55</td>
<td>4.80</td>
<td>4.28</td>
</tr>
<tr>
<td>Insurance/indemnification coverage</td>
<td>4.55</td>
<td>4.54</td>
<td>4.56</td>
</tr>
<tr>
<td>Lack of patients/patient accrual</td>
<td>5.43</td>
<td>5.27</td>
<td>5.59</td>
</tr>
<tr>
<td>Lack of funding</td>
<td>3.16</td>
<td>3.15</td>
<td>3.18</td>
</tr>
<tr>
<td>Lack of research materials, e.g. drugs</td>
<td>4.49</td>
<td>4.49</td>
<td>4.49</td>
</tr>
<tr>
<td>Lack of trained personnel</td>
<td>5.00</td>
<td>4.90</td>
<td>5.10</td>
</tr>
<tr>
<td>Lack of time or competing priorities</td>
<td>4.58</td>
<td>4.24</td>
<td>4.92</td>
</tr>
</tbody>
</table>

funding vs. rest significant; patients vs. rest (except personnel) significant marks change in obstacle distribution when stratified by country income

asco 2012, abstract e16505
ASCO IAC Survey: Estimated percentage of ADCT/IDCT conducted with international collaboration

**Academia-driven CT**

- Less than 50%
  - HIC: 21
  - LMIC: 23
- More than 50%
  - HIC: 20
  - LMIC: 16

**Industry-driven CT**

- Less than 50%
  - HIC: 34
  - LMIC: 22
- More than 50%
  - HIC: 23
  - LMIC: 17

\[ p = 0.509 \]
\[ p = 0.014 \]

ASCO 2012, Abstract e16505
BOLERO-2: Everolimus in Postmenopausal HR-positive Advanced Breast Cancer

Lack of Independent Funding
Spending on cancer research Per capita in 2002-2003

Direct Cancer Research Spend per Capita

© ECRM 2005

ECRM: European Cancer Research Managers Forum 2005
Regulatory Hurdles to Cancer Research - 2001/20/EC CTD

Graph showing the number of EORTC New Studies & New Patients x10³ and EORTC Employees over the years 2000 to 2007.

- **EORTC new studies**
- **EORTC new patients**
- **EORTC HQ staff**

Bar chart showing the percent cost increase from 2006 to 2009, with categories for increase in costs and cost in 2006.
Impact of EU/CTD on Starting and Conducting Trials in UK

Hearn J, Sullivan R. EJC, 2007
Strengthen International Research Through Partnership

- Industry is the prime sponsor of approx. 50% of clinical trials
- … and approx. 70% of drug trials in oncology
- 93% of industry sponsored trials are drug development trials
Keeping faith with trial volunteers


Increased partnership between academia and industry

Win — win situation!

- Increased credibility of all clinical trials, increased participation of patients in clinical trials
1983: South and East European Oncology Group (SEEOG);

1988: Central and East European Oncology Group (CEEOG)

Scientific activity: 12 countries, 36 centres
International Collaborative Groups

- EORTC (35 institutions, 11 European countries, Turkey, Egypt)
- NCIC-CTG
- International Network for Cancer Treatment and Research
- IAEA (International Atomic Energy Agency)

...
TRANSBIG: Partners

EU: 17 countries + Turkey & Switzerland

39 PARTNERS, 21 COUNTRIES
MINDACT:

Microarray for Node Negative & 1 to 3 + LN Disease may Avoid Chemotherapy

CLINICAL APPLICATION OF GENOMICS FOR IMPROVED TREATMENT TAILORING

BENEFITS:

Only women who NEED chemotherapy RECEIVE it!

- Reduce toxicity & side effects
- Reduce cancer care costs
- Reduce burden on health care systems
MINDACT trial: Example of a Successful Partnership

- Fast accrual
- Successful tissue collection
- Common SOPs on tissue handling
- Data collection, analysis and reporting in academia hands
- Tissue in academia hands
- Policy for access to data and/or sample
- Publication policies
ALTTO (Adjuvant Lapatinib and/or Trastuzumab Treatment Optimisation Trial)

ALTTO Overall Recruitment Data

- ACCOG
- ANZ BCTG
- AGO-NEO
- BOOG
- BrEAST
- DBCG
- EORTC
- GBECAM
- GBG
- GBOC
- GECO PERU
- GOCCHI
- GOCCHI
- GOIRC
- IBCSG/SAKK/EIO
- ICCG
- ICORC
- JBCRG
- JBCRG
- NCCTG / ECOG / SWOG / CALGB
- NCCTG
- NCRI
- NBCG
- NCRI
- SBCG
- SBCG
- SOLTI
- TCOG
- WSG
- YBCRG
- BIG
- TBCI

- Patients per month
- Cumulative number of patients
- Pts randomised per month
- Pts screened per month
- Cumulative recruitment
- Cumulative Expected Recruitment
Improving International Collaboration

- Harmonization of regulatory issues
  - Fast review and approval of trials
  - Insurance requirements
  - Biobanking
- Increased independent funding
- Uniform criteria on academia and industry collaboration
  - Data collection, analyses and reporting (IDMC)
  - Tissue collection, storage and usage (TR SC)
- Set a common academic platform for clinical cancer research
- Train the next generation of oncologists on independent clinical cancer research
Member states and EU commission should encourage closer collaboration between different research centres in Europe and pan-European cancer research through formation of the network of cancer research centres and through increased financial stimulation of pan-European projects.
Thank you and cordially invited to ICTW, Opatija-Croatia, June 12-13th, 2013!