

IRIMA Workshop – June 5, 2014 - Brussels

Paulina Ramirez

**The new modes and geography of
pharmaceutical R&D: Implications for policy**

Discussion by

Maria Luisa Mancusi

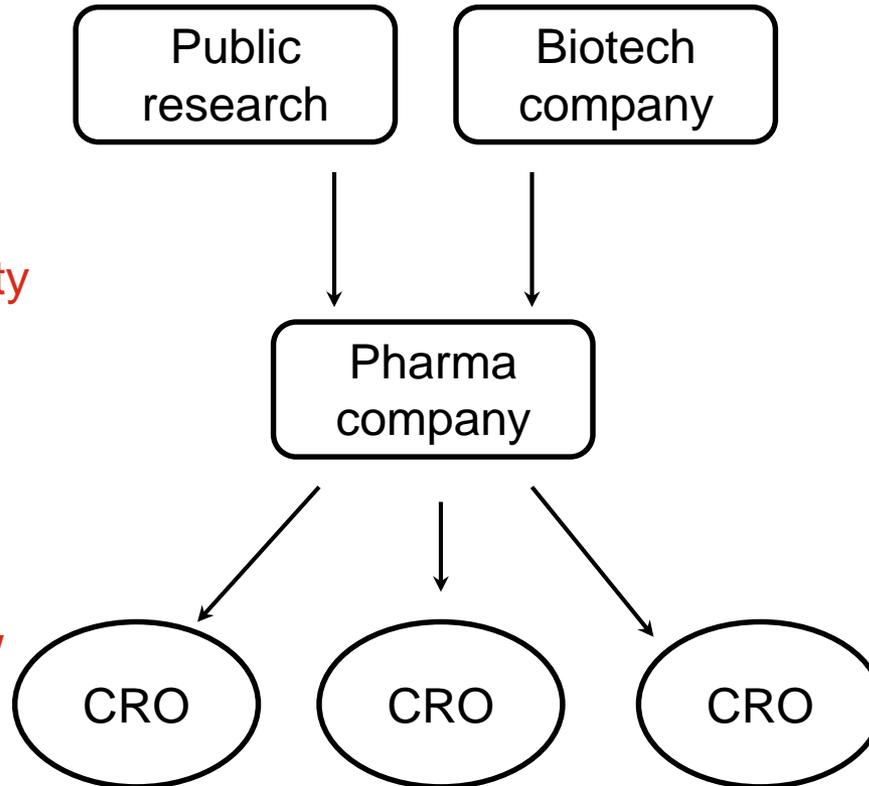
Catholic University and CRIOS-Bocconi (Milan)

Summary

- Paper studies the configuration of the research value chain in the pharma industry
 - Emerging trends:
 - Pharma firms are increasingly becoming buyers of research
 - Still, they keep all parts of the value chain in-house
 - They retain strong power within complex research networks that involve a number of different organizations (public research centres, universities, biotech firms, CROs, etc.)
 - The closure of a number of large in-house R&D facilities has been associated with the relocation of a much reduced internal research effort to geographical areas with scientific and technological excellence in the relevant fields → recentralization of R&D facilities in a smaller no. of geographical areas vs. previous trends towards dispersion
-

Research networks

- working together
- knowledge inflow
- exploration
- ↓ risk - ↑ productivity

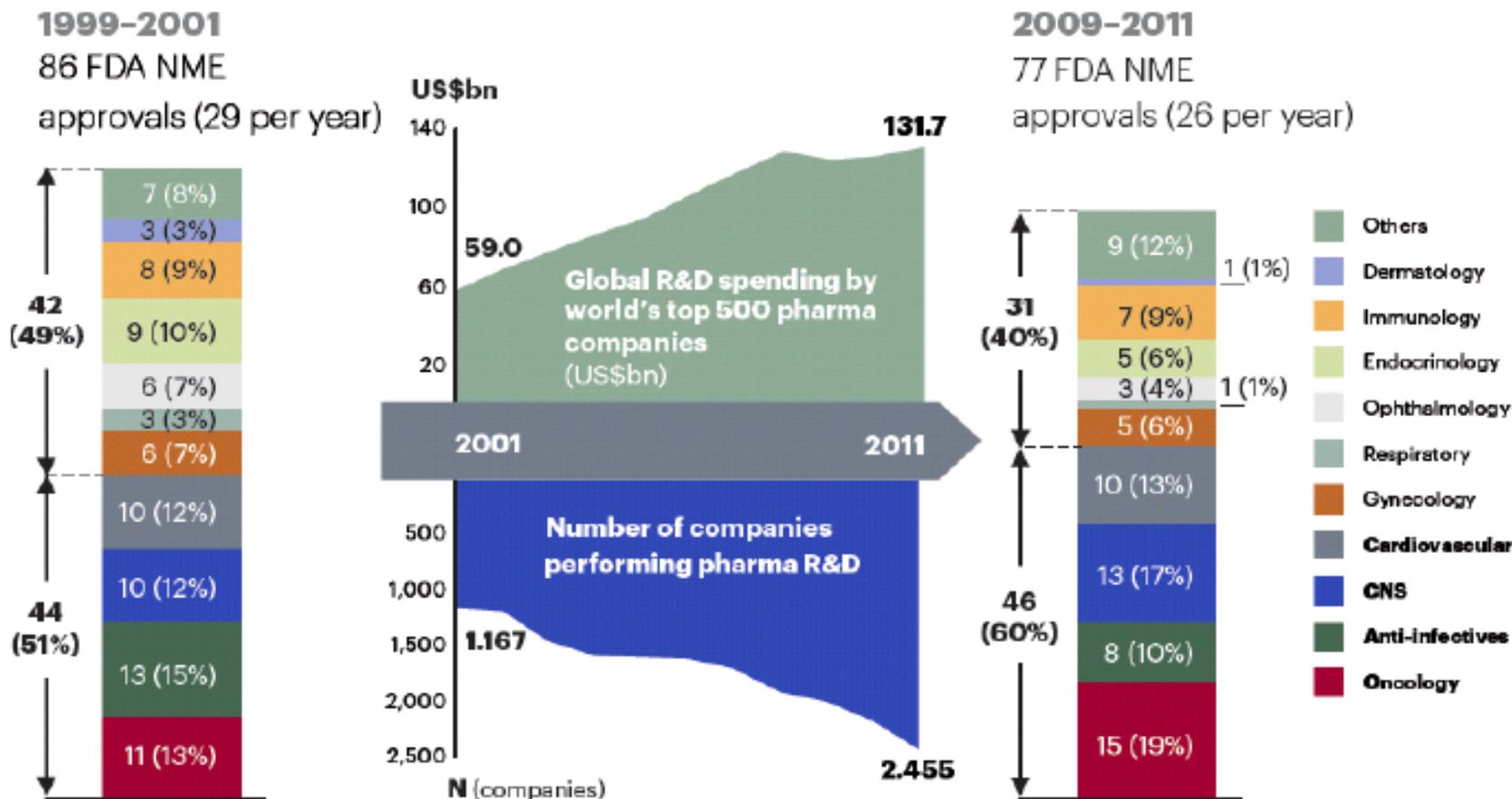


Alliances

- buy vs. make
- knowledge outflow
- exploitation
- ↓ costs

Outsourcing

R&D activity has more than doubled in the past decade, but new molecule approvals have dropped



Note: FDA is the U.S. Food and Drug Administration. Percentages may not resolve due to rounding.

Sources: Parexel Sourcebook Biopharmaceutical R&D Statistical Sourcebook 2011/2012, Food and Drug Administration Center for Drug Evaluation and Research

Comments

■ New modes

□ Alliances

- Have been going on for quite some time. The new feature seems to be that they now are used to access strategies for new product development (not just new science and technology)
- Do you get from interviews “soft” information about the critical aspects of alliances (knowledge sharing, governance, IPR, ..)? Is there any difference between old and new types?

□ What about other emerging modes of doing R&D?

- Open innovation
 - Pre-competitive technological platform sharing
-

Comments

■ New geography

- ❑ Paper emphasizes the centralisation of the R&D facilities of pharma firms in a small number of countries and regions associated with dynamic research communities and reputations for scientific excellence
 - ❑ Seems to be in the developed world (where?) + China (not India or Brazil)
 - ❑ CROs in India
 - ❑ What is the overall picture by location-type of facility?
 - ❑ What is the relative role of supply and demand side factors?
-

Comments

■ Role of demand

□ Prevention vs. treatment

- Health management

□ Soaring of cronic deseases

- Aging of population
- Survival to previous terminal illnesses

□ Global warming

- Increase of respiratory illnesses
- Diffusion of deseases to areas where they had been eradicated (e.g. malaria)
- New conditions because of increasing proliferation of common bacteria

□ All these trends may

- Motivate concentration of R&D efforts into some therapeutical areas
- Make ethnic origins potentially more relevant (variations in the nature and incidence of the disease subtypes + differences in response to therapies)
- Both may affect modes and geography