

# Evolution of Technologies for Therapeutic Antibodies- From mAbs to Biosimilars

<https://marketpublishers.com/r/E37C1B75196EN.html>

Date: December 2014

Pages: 64

Price: US\$ 1,999.00 (Single User License)

ID: E37C1B75196EN

## Abstracts

The report provides in-depth information on technological platforms being developed for monoclonal antibodies and how they have been improvised for biosimilar development. Also various issues pertaining to manufacturing of biosimilars have been highlighted with possible solutions to to address the hurdles.

## Contents

### **1 INTRODUCTION**

- 1.1 Study goals and objectives
- 1.2 Intended audience
- 1.3 Scope of report
- 1.4 Questions answered in the report
- 1.5 Main benefits / Why should you buy this report?
- 1.6 Information sources
- 1.7 Analyst credentials
- 1.8 phamax services

### **2 SUMMARY10**

### **3 TYPE OF ANTIBODIES CURRENTLY DEVELOPED**

- 3.1 Antiserums
- 3.2 Targeted therapies
- 3.3 Chimeric, humanized and fully human antibodies
- 3.4 Antibody drug conjugates/Immunoconjugates
- 3.5 Camouflaged antibodies or Probody™
- 3.6 Bispecific antibodies
- 3.7 Antibody fragments
- 3.8 Future of antibody research
  - 3.8.1 Technological developments to understand O-glycosylations
  - 3.8.2 Developments in manufacturing technologies
  - 3.8.3 Development of robust cell lines
  - 3.8.4 Novel antibody-like technology platforms
  - 3.8.5 Targeting cancer stem cells
  - 3.8.6 Formulations and drug delivery systems

### **4 TECHNOLOGY AND TECHNOLOGICAL PLATFORMS20**

- 4.1 Hybridoma technology
- 4.2 Genetically engineered antibodies
  - 4.2.1 Genetically engineered mouse
    - 4.2.1.1 HuMAb-Mouse®
    - 4.2.1.2 KM Mouse®

- 4.2.1.3 VeloCImmune® mouse
- 4.2.1.4 KyMab™ technology
- 4.2.1.5 XenoMouse® technology
- 4.2.2 Targeting the Fc region
  - 4.2.2.1 XmAb®
- 4.2.3 Note on glycosylations in the human antibodies
  - 4.2.3.1 POTELLIGENT®, COMPLEGENT® and AccretaMab®
  - 4.2.3.2 GlycoMAB®
  - 4.2.3.3 Humanized yeast
- 4.3 Human origin mAbs
  - 4.3.1 Adjuvants and ethical concerns
  - 4.3.2 Human origin antibody technologies

## **5 MAJOR BIOSIMILAR ANTIBODIES IN DEVELOPMENT**

- 5.1 Biosimilars: Originators vs Biosimilars
  - 5.1.1 Challenges in establishing biosimilarity
    - 5.1.1.1 Basic concepts in understanding the differences between two drug versions
    - 5.1.1.2 Achilles heel: Understanding the innovator's product
    - 5.1.1.3 Large number of modified forms: difficulty to get same molecule
  - 5.1.2 Overview of available analytical tools
  - 5.1.3 Current situation of information from analytical tools
  - 5.1.4 Biostatistics in establishing interchangeability
- 5.2 Potential players in the space and their technologies
- 5.3 Current pipeline and future development
  - 5.3.1 Infliximab
  - 5.3.2 Adalimumab
  - 5.3.3 Trastuzumab
  - 5.3.4 Rituximab
    - 5.3.4.1 Recently discontinued efforts:
  - 5.3.5 Etnarcept
    - 5.3.5.1 Recently discontinued effort:
  - 5.3.6 Bevacizumab
  - 5.3.7 Ranibizumab
- 5.4 Drivers and restraints in biosimilar development
  - 5.4.1 Drivers:
    - 5.4.1.1 Increased use of biologics
    - 5.4.1.2 High cost of innovators
    - 5.4.1.3 Government regulations

5.4.1.4 Limited number of players

5.4.1.5 Extrapolated across multiple indications

5.4.1.6 Update in technologies

5.4.2 Restraints:

5.4.2.1 No data for long term effects

5.4.2.2 Lack of technological knowhow of innovator technologies

5.4.2.3 Safety and immunological issues

5.4.2.4 Legal burdens

5.4.2.5 Strong foothold of innovators

5.4.2.6 Reimbursement issues

5.4.2.7 Stakeholder control of substitutions/interchangeability

5.4.3 The current situation

## **6 CONCLUSION<sup>54</sup>**

## **7 APPENDIX<sup>56</sup>**

7.1 Adjuvants and their properties

7.2 Bibliography

7.3 Methodology

7.3.1 Secondary research

7.3.2 Data validation

7.4 Disclaimer

7.5 Contact us

## I would like to order

Product name: Evolution of Technologies for Therapeutic Antibodies-From mAbs to Biosimilars

Product link: <https://marketpublishers.com/r/E37C1B75196EN.html>

Price: US\$ 1,999.00 (Single User License / Electronic Delivery)

If you want to order Corporate License or Hard Copy, please, contact our Customer Service:

[info@marketpublishers.com](mailto:info@marketpublishers.com)

## Payment

To pay by Credit Card (Visa, MasterCard, American Express, PayPal), please, click button on product page <https://marketpublishers.com/r/E37C1B75196EN.html>

To pay by Wire Transfer, please, fill in your contact details in the form below:

First name:  
Last name:  
Email:  
Company:  
Address:  
City:  
Zip code:  
Country:  
Tel:  
Fax:  
Your message:

**\*\*All fields are required**

Customer signature \_\_\_\_\_

Please, note that by ordering from marketpublishers.com you are agreeing to our Terms & Conditions at <https://marketpublishers.com/docs/terms.html>

To place an order via fax simply print this form, fill in the information below and fax the completed form to +44 20 7900 3970