BCMA Targeted Therapies, 2017-2030

Description: B-cell maturation antigen (BCMA), an important biomarker of the B-cells, has emerged as a promising therapeutic target for the treatment of multiple myeloma and other hematological malignancies. The antigen is universally expressed on the surface of multiple myeloma cells. The research focus shifted towards BCMA targeted therapies in 2004, when the role of BCMA was first indicated in the progression of multiple myeloma. It is the second most common type (13%) of all hematological malignancies.

The disease proves to be fatal due to serious complications associated with it and the frequent events of re-occurrence of illness. The widespread presence of multiple myeloma and other related B-cell malignancies demands confident diagnosis and treatments. Hence, there is an immediate need for effective therapies for proper medical care.

Currently, researchers are actively involved in developing three major types of immunotherapies (classified by product class) targeting BCMA; these are chimeric antigen receptor T-cells (CAR-T cells), bispecific antibodies and antibody drug conjugates (ADCs). Several biopharmaceutical companies have been active in this area since last few years while others have recently stepped in. A number of strategic partnerships have also been inked between various stakeholders to advance R&D activities in this domain.

Results of preclinical and clinical studies have demonstrated the potential benefits of this class of therapies; the major highlight being their attractive safety profile. As more molecules undergo clinical validation and eventually get commercialized, we believe the overall interest will continue to rise. In fact, our promising outlook is backed by a strong belief that this novel class of therapies is likely to cater to the current unmet need where the existing treatment modalities are not efficient. The upside could be higher; however, it depends on a favorable market environment, reimbursement practices and regulatory regimes.

The "BCMA Targeted Therapies, 2017-2030" report features an extensive study on the current market landscape of B-cell maturation antigen (BCMA) targeted therapies and offers a comprehensive discussion on the future potential of this market. With no commercial products, the market is still in its infancy. However, industry experts have pinned significant hopes on the novel technologies being developed by start-ups/small companies and the research being conducted at academic institutes.

The prime target indication of these novel molecules is B-cell malignancies, specifically multiple myeloma. BCMA-specific therapies are anticipated to emerge as viable treatment options for such indications. Post initial research on such therapies, many players have entered into collaborations with other stakeholders to fund the clinical and commercial development of their products. Some clinical stage products that have emerged out of such collaborations include bb2121 (bluebird bio/Celgene) and BCMA-CART (Novartis/Abramson Cancer Center of the University of Pennsylvania).

The pipeline currently comprises of 23 molecules that are under development for the treatment of a variety of B-cell malignancies. One of the key objectives of this report was to understand the evolution of the current market and to quantify the opportunities laid down by the innovative BCMA targeted programs of both small and big pharma companies.

Among other elements, the report provides information on the following:

- The current state of the market with respect to key players, phase of development of pipeline products (both clinical and preclinical/discovery) and the type of molecules.
- Comprehensive profiles highlighting clinical trial details such as dosage regimens, key preclinical/clinical findings, and future market opportunity for the clinical stage BCMA targeted therapies.
- Comparative analysis of the design of clinical trials being conducted for therapies in clinical stages of development.
- Various investments and grants received by companies focused in this area supporting their R&D activities.
- Partnerships that recently been inked amongst different stakeholders, covering product development/commercialization agreements, research collaborations, license agreements and acquisitions.

The study provides a detailed market forecast and opportunity analysis for the period between 2017 and 2030. The research, analysis and insights presented in this report are backed by deep understanding of key
insights gathered from a variety of sources. To account for future uncertainties and add robustness to our model, we have provided three scenarios of our market forecast, namely the conservative, base and optimistic scenarios. All actual figures have been sourced and analyzed from publicly available information forums. All financial figures mentioned in this report are in USD, unless otherwise specified.

Example Highlights

- BCMA is an important antigen that is expressed during B-cell development in almost 60%-70% of the multiple myeloma cases. During the course of our research, we identified over 20 therapies targeting BCMA that are currently in different stages of development. Of these, 26% are already undergoing clinical validation.
- CAR-T therapies (constituting 44% of the development pipeline) are the most common anti-BCMA therapies, followed by bispecific antibodies (26%) and ADCs (13%). Multiple myeloma remains the prime focus of drug developers in this space. However, efforts are also being made to develop these therapies for the treatment of other B-cell malignancies such as leukemia and lymphoma.
- We have provided a comparative analysis of the design of clinical trials being conducted for therapies in clinical stages of development. This primarily includes comparisons on the basis of study goals, primary and secondary endpoints being evaluated and the interim trial results.
- The current market landscape features contributions from big pharmaceutical companies and small to mid-sized players. Established pharmaceutical players engaged in this space include (in alphabetical order) Amgen, bluebird bio, Boehringer Ingelheim, Celgene, GSK, Juno Therapeutics, Novartis and Pfizer. Small firms/start-ups and mid-sized firms that are actively investing in this market include (in alphabetical order) Affimed, Alexo Therapeutics, Cellectis, Five Prime Therapeutics, Heidelberg Pharma (a subsidiary of WILEX), Kite Pharma, Poseida Therapeutics (spun out of Transposagen Biopharmaceuticals), Sutro Biopharma and Triumvira Immunologics.
- Prominent academic players that are involved in this space include (in alphabetical order) the Abramson Cancer Center of the University of Pennsylvania, California Institute for Biomedical Research, Memorial Sloan Kettering Cancer Centre (MSKCC), National Cancer Institute (NCI), Southwest Hospital (China) and The Scripps Research Institute.
- We came across over 25 collaborations covering product development/commercialization agreements, product licensing agreements, technology licensing, acquisitions and research collaborations. Among these, development/commercialization agreements (52%) have been the most popular, followed by licensing agreements (26%).
- Overall, we expect the field to witness considerable success in the long term. In fact, we expect six such therapies to be made commercially available in different geographies in the coming decade. Post the launch of the first wave of products, we predict the market to grow at an annualized rate of 98% till 2030.
4. MARKET LANDSCAPE
4.1. Chapter Overview
4.2. BCMA Targeted Therapies: Development Pipeline
4.3. BCMA Targeted Therapies: Distribution by Phase of Development
4.4. BCMA Targeted Therapies: Distribution by Type of Molecule
4.5. BCMA Targeted Therapies: Distribution by Type of Developer
4.6. BCMA Targeted Therapies: Distribution by Indication
4.7. BCMA Targeted Therapies: Geographical Landscape
4.8. BCMA Targeted Therapies: Developer Landscape

5. DRUG PROFILES: CLINICAL MOLECULES
5.1. Chapter Overview
5.2. bb2121 (bluebird bio, Celgene)
  5.2.1. Drug Specifications
  5.2.2. Trial Design and Dosage Regimen
  5.2.3. Manufacturing Information
  5.2.4. Key Preclinical/Clinical Findings
  5.2.5. Collaborations
5.3. CART-BCMA (Novartis, Abramson Cancer Center of the University of Pennsylvania)
  5.3.1. Drug Specifications
  5.3.2. Trial Design and Dosage Regimen
  5.3.3. Manufacturing Information
  5.3.4. Key Preclinical/Clinical Findings
  5.3.5. Collaborations
5.4. Anti-BCMA CAR-T (National Cancer Institute)
  5.4.1. Drug Specifications
  5.4.2. Trial Design and Dosage Regimen
  5.4.3. Key Preclinical/Clinical Findings
5.5. Anti-BCMA CAR-T (Southwest Hospital, China)
  5.5.1. Drug Specifications
  5.5.2. Trial Design and Dosage Regimen
5.6. GSK2857916/J6M0-mcMMAF (GSK, Seattle Genetics)
  5.6.1. Drug Specifications
  5.6.2. Mechanism of Action
  5.6.3. Trial Design and Dosage Regimen
  5.6.4. Key Preclinical/Clinical Findings
  5.6.5. Collaborations
5.7. AMG 420/BI 836909 (Amgen, Boehringer Ingelheim)
  5.7.1. Drug Specifications
  5.7.2. Mechanism of Action
  5.7.3. Trial Design and Dosage Regimen
  5.7.4. Technology Overview
  5.7.5. Key Preclinical/Clinical Findings
  5.7.6. Collaborations
5.8. BCMA Targeted Therapies: Clinical Development Analysis
  5.8.1. Clinical Development Analysis: Study Goal Comparison
  5.8.2. Clinical Development Analysis: Clinical Endpoint Comparison
  5.8.3. Clinical Development Analysis: Interim Trial Results Comparison

6. VENTURE CAPITAL INTEREST
6.1. Chapter Overview
6.2. BCMA Targeted Therapies: List of Funding Instances
6.3. Funding Instances: Distribution by Year
6.4. Funding Instances: Distribution by Type of Model
6.5. Leading Players: Distribution by Number of Funding Instances
6.6. Most Active Venture Capital Firms/Investors

7. RECENT COLLABORATIONS
7.1. Chapter Overview
7.2. Partnership Models/Agreements
7.3. BCMA Targeted Therapies: Recent Collaborations
7.4. Recent Collaborations: Distribution by Year
7.5. Recent Collaborations: Distribution by Type of Model
7.6. Recent Collaborations: Distribution by Type of Molecule
7.7. Recent Collaborations: Most Active Companies

8. MARKET FORECAST
8.1. Chapter Overview
8.2. Scope and Limitation
8.3. Forecast Methodology
8.4. Overall BCMA Targeted Therapeutics Market
8.5. BCMA Targeted Therapeutics Market: Drug Specific Forecasts
8.5.1. bb2121 (bluebird bio, Celgene)
8.5.1.1. Target Patient Population
8.5.1.2. Sales Forecast
8.5.2. CART-BCMA (Novartis, Abramson Cancer Center of the University of Pennsylvania)
8.5.2.1. Target Patient Population
8.5.2.2. Sales Forecast
8.5.3. Anti-BCMA CAR-T (National Cancer Institute)
8.5.3.1. Target Patient Population
8.5.3.2. Sales Forecast
8.5.4. Anti-BCMA CAR-T (Southwest Hospital, China)
8.5.4.1. Target Patient Population
8.5.4.2. Sales Forecast
8.5.5. GSK2857916/J6M0-mcMMAF (GSK, Seattle Genetics)
8.5.5.1. Target Patient Population
8.5.5.2. Sales Forecast
8.5.6. AMG 420/Bi836909 (Amgen, Boehringer Ingelheim)
8.5.6.1. Target Patient Population
8.5.6.2. Sales Forecast

9. CONCLUSION
9.1. BCMA has Emerged as a Potential Antigen for the Treatment of Multiple Myeloma
9.2. Led by a Number of Technological Advances, CAR-T Therapies are the Current Flag-Bearer
9.3. Even Though Big Pharmaceutical Companies Dominate the Current Space, Several Start-Ups/Small Companies Have Emerged
9.4. Growing Partnerships and Venture Capital Support are Indicative of the Future Potential
9.5. Once Approved, BCMA Targeted Therapies are Poised to Achieve an Accelerated Growth

10. APPENDIX 1: TABULATED DATA
11. APPENDIX 2: LIST OF COMPANIES AND ORGANIZATIONS

List of Figures
Figure 3.1 BCMA Receptor and Ligand Family
Figure 3.2 Components of an Antibody
Figure 3.3 Components of ADCs
Figure 3.4 CAR-T: Structure and Domains
Figure 3.5 Publication Trend: Distribution by Year (2004-2017)
Figure 3.6 Multiple Myeloma: Global Epidemiological Distribution
Figure 3.7 Advantages of BCMA as a Therapeutic Target
Figure 4.1 BCMA Targeted Therapies: Distribution by Phase of Development
Figure 4.2 BCMA Targeted Therapies: Distribution by Type of Molecule
Figure 4.3 BCMA Targeted Therapies: Distribution by Type of Molecule and Phase of Development
Figure 4.4 BCMA Targeted Therapies: Distribution by Type of Developer
Figure 4.5 BCMA Targeted Therapies: Distribution by Indication
Figure 4.6 Developers of BCMA Targeted Therapies: Geographical Presence
Figure 4.7 BCMA Targeted Therapies: Distribution by Developer and Molecule Type
Figure 6.1 Funding Instances: Number of Instances, Pre-2007-2017
Figure 6.2 Funding Instances: Amount Invested, Pre-2007-2017 (USD Million)
Figure 6.3 Funding Instances: Distribution by Type of Funding, 2001-2017
Figure 6.4 Funding Instances: Distribution by Total Amount Invested, 2001-2017 (USD Million)
Figure 6.5 Funding Instances: Distribution by Range of Amount Invested by Type of Funding (USD Million)
Figure 6.6 Most Active Players: Distribution by Number of Funding Instances, 2001-2017
Figure 6.7 Most Active Venture Capital Firms/Investors: Distribution by Number of Funding Instances, 2001-2017
Figure 7.1 BCMA Targeted Therapies Collaboration Landscape: Distribution by Collaborators, Type and Year of Collaboration
Figure 7.2 Recent Collaborations: Distribution by Year
Figure 7.3 Recent Collaborations: Distribution by Type of Model
Figure 7.4 Recent Collaborations: Distribution by Type of Molecule
Figure 7.5 Recent Collaborations: Distribution by Type of Molecule and Partnership Model
Figure 7.6 Recent Collaborations: Most Active Players
Figure 8.1 Overall BCMA Targeted Therapies Market (USD Million), Through 2030, Base Scenario
Figure 8.2 BCMA Targeted Therapies Market: Distribution by Type of Molecule, 2030 (USD Million)
Figure 8.3 BCMA Targeted Therapies Market: Distribution of Market Share, 2030 (USD Million)
Figure 8.4 bb2121 Sales Forecast (USD Million), Through 2030, Base Scenario
Figure 8.5 CART-BCMA Sales Forecast (USD Million), Through 2030, Base Scenario
Figure 8.6 Anti-BCMA CAR-T Sales Forecast (USD Million), Through 2030, Base Scenario
Figure 8.7 Anti-BCMA CAR-T Sales Forecast (USD Million), Through 2030, Base Scenario
Figure 8.8 GSK2857916/j6M0-mcMMAF Sales Forecast (USD Million), Through 2030, Base Scenario
Figure 8.9 AMG 420/Bi 836909 Sales Forecast (USD Million), Through 2030, Base Scenario
Figure 9.1 Overall BCMA Targeted Therapies Market Summary (USD Million): 2024, 2027, 2030

List of Tables
Table 3.1 Key Characteristics of CAR-T Cells
Table 3.2 Marketed Therapeutics for Multiple Myeloma
Table 3.3 Immunotherapeutic Targets for the Treatment of Multiple Myeloma
Table 4.1 BCMA Targeted Therapies: Development Pipeline
Table 4.2 T-Cell Based BCMA Targeted Therapies: Transfection Methods and Associated Domains
Table 5.1 BCMA Targeted Therapies: List of Drugs Profiled
Table 5.2 Clinical Development Analysis: Study Goal Comparison
Table 5.3 Clinical Development Analysis: Clinical Endpoint Comparison
Table 5.4 Clinical Development Analysis: Interim Trial Result Comparison
Table 6.1 List of Funding Instances and Investors, 2001-2017
Table 6.2 Types of Funding Instances, 2001-2017
Table 7.1 BCMA Targeted Therapies: Recent Collaborations (2009-2017)
Table 8.1 BCMA Targeted Therapies: Estimated Launch Years
Table 8.2 bb2121: Target Patient Population
Table 8.3 CART-BCMA: Target Patient Population
Table 8.4 Anti-BCMA CAR-T: Target Patient Population
Table 8.5 Anti-BCMA CAR-T: Target Patient Population
Table 8.6 GSK2857916/j6M0-mcMMAF: Target Patient Population
Table 8.7 AMG 420/Bi 836909: Target Patient Population
Table 10.1 Publication Trend: Distribution by Year (2004-2017)
Table 10.2 BCMA Targeted Therapies: Distribution by Phase of Development
Table 10.3 BCMA Targeted Therapies: Distribution by Type of Molecule
Table 10.4 BCMA Targeted Therapies: Distribution by Type of Molecule and Phase of Development
Table 10.5 BCMA Targeted Therapies: Distribution by Type of Developer
Table 10.6 BCMA Targeted Therapies: Distribution by Indication
Table 10.7 Funding Instances: Number of Instances, Pre-2007-2017
Table 10.8 Funding Instances: Amount Invested, Pre-2007-2017 (USD Million)
Table 10.9 Funding Instances: Distribution by Type, 2001-2017
Table 10.10 Funding Instances: Distribution by Total Amount Invested, 2001-2017 (USD Million)
Table 10.11 Most Active Players: Distribution by Number of Funding Instances, 2001-2017 (USD Million)
Table 10.12 Most Active Venture Capital Firms/Investors: Distribution by Number of Funding Instances, 2001-2017
Table 10.13 Recent Collaborations: Distribution by Year
Table 10.14 Recent Collaborations: Distribution by Type of Model
Table 10.15 Recent Collaborations: Distribution by Type of Molecule
Table 10.16 Recent Collaborations: Distribution by Type of Molecule and Partnership Model
Table 10.17 Recent Collaborations: Most Active Players
Table 10.18 Overall BCMA Targeted Therapies Market (USD Million), Through 2030, Base Scenario
Table 10.19 Overall BCMA Targeted Therapies Market (USD Million), Through 2030, Optimistic Scenario
Table 10.20 Overall BCMA Targeted Therapies Market (USD Million), Through 2030, Conservative Scenario
Table 10.21 BCMA Targeted Therapies Market: Distribution by Type of Molecule, 2030 (USD Million)
Table 10.22 BCMA Targeted Therapeutics Market: Distribution of Market Share, 2030 (USD Million)
Table 10.23 bb2121 Sales Forecast (USD Million), Through 2030, Base Scenario
Table 10.24 bb2121 Sales Forecast (USD Million), Through 2030, Optimistic Scenario
<table>
<thead>
<tr>
<th>Table Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Table 10.25</td>
<td>bb2121 Sales Forecast (USD Million), Through 2030, Conservative Scenario</td>
</tr>
<tr>
<td>Table 10.26</td>
<td>CART-BCMA Sales Forecast (USD Million), Through 2030, Base Scenario</td>
</tr>
<tr>
<td>Table 10.27</td>
<td>CART-BCMA Sales Forecast (USD Million), Through 2030, Optimistic Scenario</td>
</tr>
<tr>
<td>Table 10.28</td>
<td>CART-BCMA Sales Forecast (USD Million), Through 2030, Conservative Scenario</td>
</tr>
<tr>
<td>Table 10.29</td>
<td>Anti-BCMA CAR-T Sales Forecast (USD Million), Through 2030, Base Scenario</td>
</tr>
<tr>
<td>Table 10.30</td>
<td>Anti-BCMA CAR-T Sales Forecast (USD Million), Through 2030, Optimistic Scenario</td>
</tr>
<tr>
<td>Table 10.31</td>
<td>Anti-BCMA CAR-T Sales Forecast (USD Million), Through 2030, Conservative Scenario</td>
</tr>
<tr>
<td>Table 10.32</td>
<td>Anti-BCMA CAR-T Sales Forecast (USD Million), Through 2030, Base Scenario</td>
</tr>
<tr>
<td>Table 10.33</td>
<td>Anti-BCMA CAR-T Sales Forecast (USD Million), Through 2030, Optimistic Scenario</td>
</tr>
<tr>
<td>Table 10.34</td>
<td>Anti-BCMA CAR-T Sales Forecast (USD Million), Through 2030, Conservative Scenario</td>
</tr>
<tr>
<td>Table 10.35</td>
<td>GSK2857916/J6M0-mcMMAF Sales Forecast (USD Million), Through 2030, Base Scenario</td>
</tr>
<tr>
<td>Table 10.36</td>
<td>GSK2857916/J6M0-mcMMAF Sales Forecast (USD Million), Through 2030, Optimistic Scenario</td>
</tr>
<tr>
<td>Table 10.37</td>
<td>GSK2857916/J6M0-mcMMAF Sales Forecast (USD Million), Through 2030, Conservative Scenario</td>
</tr>
<tr>
<td>Table 10.38</td>
<td>AMG 420/BI 836909 Sales Forecast (USD Million), Through 2030, Base Scenario</td>
</tr>
<tr>
<td>Table 10.39</td>
<td>AMG 420/BI 836909 Sales Forecast (USD Million), Through 2030, Optimistic Scenario</td>
</tr>
<tr>
<td>Table 10.40</td>
<td>AMG 420/BI 836909 Sales Forecast (USD Million), Through 2030, Conservative Scenario</td>
</tr>
<tr>
<td>Table 10.41</td>
<td>Overall BCMA Targeted Therapies Market Summary (USD Million): 2024, 2027, 2030</td>
</tr>
</tbody>
</table>

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