

## US Biopharmaceuticals

## Day 3 &amp; 4 Conference Takeaways

## Industry Overview

## Top Takeaways from the HC Conference

The annual [January HC conference](#) wrapped up this afternoon and we've highlighted below the most meaningful updates and takeaways from Wednesday/ Thursday presentations as well as our management meetings. See our [Day 1 Takeaways](#) and [Day 2 Takeaways](#).

## Takeaways from Analyst Meetings: AbbVie

**AbbVie:** The AbbVie presentation this year focused largely on the company's strategy to grow against Humira erosion through a combination of internal and external assets. AbbVie reaffirmed floor EPS guidance of \$11.00 and announced the commercial launch of Produopa (ABBV-951) for Parkinson Disease. Maintain Neutral. [See our AbbVie takeaways here](#)

## Takeaways from SMid Biotech Presentations

**Caribou** – Caribou's presentation at the healthcare conference this year focused on upcoming catalysts in 2024, including: 1) initial dose expansion data and RP2D expected in 2Q24 for the ANTLER phase 1 trial of CB-010 with plans to initiate a pivotal trial by YE24, 2) initial dose escalation data in r/r MM from the CB-011 CaMMouflage phase 1 trial by YE24, and 3) CB-012 AMpLify phase 1 trial initiation in r/r AML by 1H24. Management provided further details on expectations for the CB-010 dose expansion data, adding that the company plans to disclose data from at least 30 patients, and that manufacturing capacity should be sufficient for phase 3 development. Overall, we continue to view Caribou's editing technology platform and the opportunity for allogeneic CAR-T therapy as promising. Maintain Buy, \$20 PO.

**Lyell** – Management noted that the LYL797 (ROR1-targeted CAR-T therapy) phase 1 study is on track with data expected in 2024. Looking into 2024, management is committed to focusing on clinical execution with phase 1 data for LYL797 and LYL845 (a Tumor-infiltrating lymphocytes (TIL) product candidate) likely in 2024. To be fair, the faster Lyell can advance the clinical studies, the more likely we think the Street will focus on the differentiation of its CAR-T and TIL technologies in solid tumors. In our view, initial data in 2024 from LYL845 and/ or LYL797 could be viewed as positive clinical progress. Maintain Buy \$9 PO

11 January 2024

Equity  
United States  
Biopharmaceuticals

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See abbreviations on pg. 2

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Refer to important disclosures on page 5 to 8. Analyst Certification on page 3. Price Objective Basis/Risk on page 2.

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Timestamp: 11 January 2024 08:52PM EST

**Abbreviations:**

iPSC: induced pluripotent stem cells  
iNK: induced natural killer  
iT: induced T cell  
CD19: cluster of differentiation 19  
CAR: chimeric antigen receptors  
ADCC: antibody dependent cell cytotoxicity  
ADC: antibody drug conjugate  
BCMA: B cell maturation antigen  
CLL-1: C-type lectin domain family 12 member A  
ROR1: receptor tyrosine kinase like orphan receptor 1  
CAR-T: chimeric antigen receptor T-cells  
r/r: relapsed and refractory  
MM: multiple myeloma  
AML: acute myeloid leukemia  
IND: investigational new drug application  
NK: natural killer cell  
CMO: contract manufacturing organization  
PBC: primary biliary cholangitis  
OCA: Obeticholic Acid  
FDA: Food and Drug Administration  
sAH: subarachnoid hemorrhage  
sNDA: supplemental new drug application  
T1D: type 1 diabetes  
CAR-T: chimeric antigen receptor T-cells  
PCV: personalized cancer vaccine

**Exhibit 1: Stock Mentioned**

Stock prices and ratings mentioned in this report

| BofA Ticker | Bloomberg ticker | Company name       | Price       | Rating |
|-------------|------------------|--------------------|-------------|--------|
| ABBV        | ABBV US          | AbbVie             | US\$ 163.78 | B-2-7  |
| CRBU        | CRBU US          | Caribou            | US\$ 5.3    | C-1-9  |
| LYEL        | LYEL US          | Lyell Immunopharma | US\$ 2.2    | C-1-9  |

Source: BofA Global Research

BofA GLOBAL RESEARCH

**Price objective basis & risk****AbbVie (ABBV)**

Our \$160 price objective (PO) is based on a 50/50 blended valuation of our DCF and 2024 non-GAAP EPS estimate P/E multiple of 12x (giving a value of \$132). Our 12x P/E multiple lags peers (18.0x) due to concentration risk of the company's assets and LOE concerns to drive significant growth in the future. We assume a 7% WACC and a -1% terminal growth in our estimates to arrive at our \$188 DCF valuation.

Downside risks are underachievement of key growth drivers, clinical pipeline failure(s), and reduced cash flow generation to pay down debt or dividend.

**Caribou (CRBU)**

Our \$20/share price objective is based on a probability adjusted NPV of CB-010 (\$5/sh), CB-011 (\$4/sh), CB-012 (\$3/sh), CB-020 (\$3/sh), early pipeline and partnerships (\$1/sh), and cash (\$4/sh). We apply a WACC of 11-13% and 3% terminal growth rate, which is comparable to our valuation methodology for other biotech companies of similar size and stage of clinical development.

Downside risks: 1) initial clinical data for pipeline programs fails to demonstrate a meaningful benefit in patients, 2) pipeline therapies fail to differentiate from similar competing products, 3) regulatory/reimbursement environment weighs on commercial economics, 4) patent litigation invalidates or otherwise undermines the IP portfolio, 5) funding is insufficient to move forward pipeline aspirations or manufacturing buildout.

#### **Lyell Immunopharma (LYEL)**

Our \$9 PO is based on a probability-adjusted NPV of Lyell's pipeline, including LYL797 in NSCLC and TNBC, LYL845 in melanoma, head and neck cancer, and colorectal cancer, and earlier stage pipeline assets. We apply a 13-16% WACC in-line with similar preclinical stage biotechs (we project revenues through 2035). We also include \$3/share from Lyell's cash position.

Downside risks to our PO are 1) clinical trial failures, 2) better-than-expected data from competitors, 3) dilution from cash raises

#### **Analyst Certification**

I, Geoff Meacham, hereby certify that the views expressed in this research report accurately reflect my personal views about the subject securities and issuers. I also certify that no part of my compensation was, is, or will be, directly or indirectly, related to the specific recommendations or view expressed in this research report.

## US - Biopharmaceuticals Coverage Cluster

| Investment rating   | Company                         | BofA Ticker | Bloomberg symbol | Analyst            |
|---------------------|---------------------------------|-------------|------------------|--------------------|
| <b>BUY</b>          |                                 |             |                  |                    |
|                     | 89bio, Inc                      | ETNB        | ETNB US          | Geoff Meacham      |
|                     | Acumen Pharma                   | ABOS        | ABOS US          | Geoff Meacham      |
|                     | Agios Pharmaceuticals           | AGIO        | AGIO US          | Greg Harrison, CFA |
|                     | Amylyx Pharmaceuticals          | AMLX        | AMLX US          | Geoff Meacham      |
|                     | BioMarin                        | BMRN        | BMRN US          | Geoff Meacham      |
|                     | BioXcel Therapeutics            | BTAI        | BTAI US          | Greg Harrison, CFA |
|                     | BridgeBio Pharma                | BBIO        | BBIO US          | Greg Harrison, CFA |
|                     | Caribou                         | CRBU        | CRBU US          | Geoff Meacham      |
|                     | CRISPR Therapeutics             | CRSP        | CRSP US          | Geoff Meacham      |
|                     | Eli Lilly and Company           | LLY         | LLY US           | Geoff Meacham      |
|                     | Gilead Sciences Inc.            | GILD        | GILD US          | Geoff Meacham      |
|                     | HUTCHMED                        | HCM         | HCM US           | Alec W. Stranahan  |
|                     | Immatics                        | IMTX        | IMTX US          | Alec W. Stranahan  |
|                     | Insmid Incorporated             | INSM        | INSM US          | Jason Zemansky     |
|                     | Intellia Therapeutics           | NTLA        | NTLA US          | Greg Harrison, CFA |
|                     | Janux Therapeutics              | JANX        | JANX US          | Geoff Meacham      |
|                     | Keros                           | KROS        | KROS US          | Greg Harrison, CFA |
|                     | Kiniksa Pharmaceuticals, Ltd.   | KNSA        | KNSA US          | Geoff Meacham      |
|                     | Krystal Biotech                 | KRYS        | KRYS US          | Alec W. Stranahan  |
|                     | Kura Oncology                   | KURA        | KURA US          | Jason Zemansky     |
|                     | Liquidia Corporation            | LQDA        | LQDA US          | Greg Harrison, CFA |
|                     | Lyell Immunopharma              | LYEL        | LYEL US          | Geoff Meacham      |
|                     | MeiraGTx                        | MGTX        | MGTX US          | Alec W. Stranahan  |
|                     | Merck & Co.                     | MRK         | MRK US           | Geoff Meacham      |
|                     | Mineralys Therapeutics          | MLYS        | MLYS US          | Greg Harrison, CFA |
|                     | Neumora Therapeutics            | NMRA        | NMRA US          | Geoff Meacham      |
|                     | Rani Therapeutics               | RANI        | RANI US          | Geoff Meacham      |
|                     | Regenxbio, Inc.                 | RGNX        | RGNX US          | Alec W. Stranahan  |
|                     | Revolution Medicines            | RVMD        | RVMD US          | Alec W. Stranahan  |
|                     | Rocket Pharmaceuticals, Inc.    | RCKT        | RCKT US          | Greg Harrison, CFA |
|                     | Royalty Pharma                  | RPRX        | RPRX US          | Geoff Meacham      |
|                     | Sana Biotechnology              | SANA        | SANA US          | Geoff Meacham      |
|                     | SpringWorks                     | SWTX        | SWTX US          | Alec W. Stranahan  |
|                     | Syndax Pharmaceuticals          | SNDX        | SNDX US          | Jason Zemansky     |
|                     | Traverse Therapeutics Inc       | TVTX        | TVTX US          | Greg Harrison, CFA |
|                     | Turnstone Biologics             | TSBX        | TSBX US          | Geoff Meacham      |
|                     | Vertex Pharmaceuticals Inc.     | VRTX        | VRTX US          | Geoff Meacham      |
|                     | Werewolf Therapeutics           | HOWL        | HOWL US          | Jason Zemansky     |
|                     | Xencor                          | XNCR        | XNCR US          | Alec W. Stranahan  |
| <b>NEUTRAL</b>      |                                 |             |                  |                    |
|                     | AbbVie                          | ABBV        | ABBV US          | Geoff Meacham      |
|                     | Alector, Inc                    | ALEC        | ALEC US          | Greg Harrison, CFA |
|                     | Amgen Inc.                      | AMGN        | AMGN US          | Geoff Meacham      |
|                     | Arcus Biosciences               | RCUS        | RCUS US          | Jason Zemansky     |
|                     | Beam Therapeutics               | BEAM        | BEAM US          | Greg Harrison, CFA |
|                     | Biogen Inc.                     | BIIB        | BIIB US          | Geoff Meacham      |
|                     | Bristol-Myers Squibb            | BMJ         | BMJ US           | Geoff Meacham      |
|                     | Cytokinetics, Incorporated      | CYTK        | CYTK US          | Jason Zemansky     |
|                     | Editas Medicine                 | EDIT        | EDIT US          | Greg Harrison, CFA |
|                     | Erasca                          | ERAS        | ERAS US          | Alec W. Stranahan  |
|                     | Esperion                        | ESPR        | ESPR US          | Jason Zemansky     |
|                     | Exscientia                      | EXAI        | EXAI US          | Alec W. Stranahan  |
|                     | IGM Biosciences                 | IGMS        | IGMS US          | Greg Harrison, CFA |
|                     | Johnson & Johnson               | JNJ         | JNJ US           | Geoff Meacham      |
|                     | Kymira Therapeutics             | KYMR        | KYMR US          | Geoff Meacham      |
|                     | Moderna                         | MRNA        | MRNA US          | Geoff Meacham      |
|                     | Pfizer                          | PFE         | PFE US           | Geoff Meacham      |
|                     | Recursion Pharmaceuticals, Inc. | RXR         | RXR US           | Alec W. Stranahan  |
|                     | Tyra Biosciences                | TYRA        | TYRA US          | Greg Harrison, CFA |
|                     | Vir                             | VIR         | VIR US           | Geoff Meacham      |
|                     | Y-mAbs Therapeutics, Inc        | YMAB        | YMAB US          | Alec W. Stranahan  |
| <b>UNDERPERFORM</b> |                                 |             |                  |                    |
|                     | AlloVir, Inc.                   | ALVR        | ALVR US          | Jason Zemansky     |

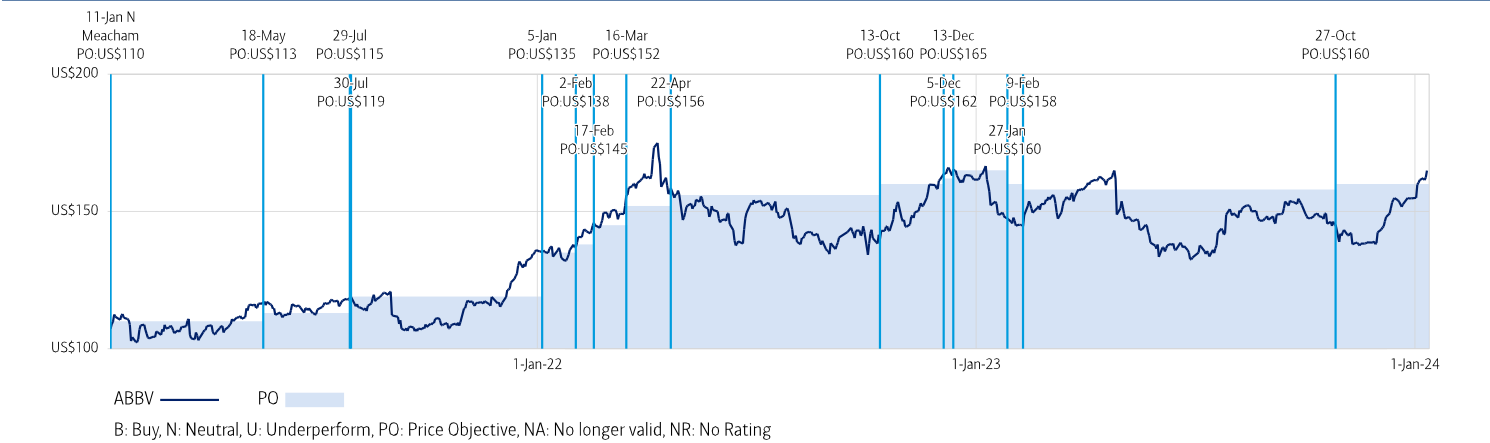
US - Biopharmaceuticals Coverage Cluster

| Investment rating | Company                         | BofA Ticker | Bloomberg symbol | Analyst            |
|-------------------|---------------------------------|-------------|------------------|--------------------|
|                   | CureVac                         | CVAC        | CVAC US          | Geoff Meacham      |
|                   | Day One Biopharmaceuticals      | DAWN        | DAWN US          | Alec W. Stranahan  |
|                   | LianBio                         | LIAN        | LIAN US          | Geoff Meacham      |
|                   | Novavax                         | NVAX        | NVAX US          | Alec W. Stranahan  |
|                   | Regeneron Pharmaceuticals Inc.  | REGN        | REGN US          | Geoff Meacham      |
|                   | Reneo Pharmaceuticals           | RPHM        | RPHM US          | Jason Zemansky     |
|                   | TG Therapeutics                 | TGTX        | TGTX US          | Alec W. Stranahan  |
|                   | United Therapeutics Corporation | UTHR        | UTHR US          | Greg Harrison, CFA |

Disclosures

Important Disclosures

AbbVie (ABBV) Price Chart



The Investment Opinion System is contained at the end of the report under the heading "Fundamental Equity Opinion Key". Dark grey shading indicates the security is restricted with the opinion suspended. Medium grey shading indicates the security is under review with the opinion withdrawn. Light grey shading indicates the security is not covered. Chart is current as of a date no more than one trading day prior to the date of the report.

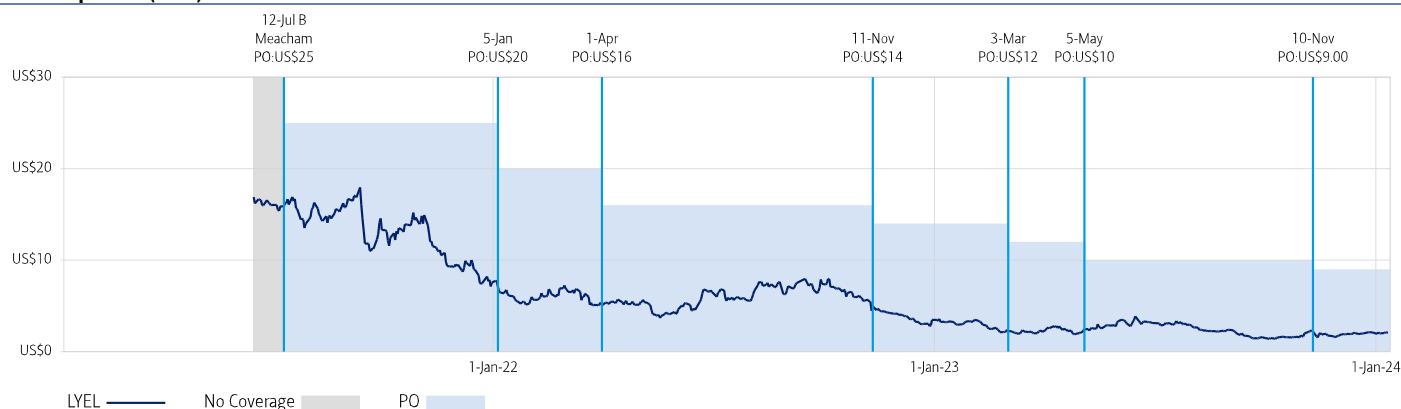
Caribou (CRBU) Price Chart



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## Lyell Immunopharma (LYEL) Price Chart



B: Buy, N: Neutral, U: Underperform, PO: Price Objective, NA: No longer valid, NR: No Rating

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## Equity Investment Rating Distribution: Health Care Group (as of 31 Dec 2023)

| Coverage Universe | Count | Percent | Inv. Banking Relationships <sup>R1</sup> | Count | Percent |
|-------------------|-------|---------|--|-------|---------|
| Buy               | 234   | 60.94%  | Buy                                      | 115   | 49.15%  |
| Hold              | 80    | 20.83%  | Hold                                     | 36    | 45.00%  |
| Sell              | 70    | 18.23%  | Sell                                     | 29    | 41.43%  |

## Equity Investment Rating Distribution: Global Group (as of 31 Dec 2023)

| Coverage Universe | Count | Percent | Inv. Banking Relationships <sup>R1</sup> | Count | Percent |
|-------------------|-------|---------|--|-------|---------|
| Buy               | 1895  | 53.62%  | Buy                                      | 1083  | 57.15%  |
| Hold              | 832   | 23.54%  | Hold                                     | 454   | 54.57%  |
| Sell              | 807   | 22.84%  | Sell                                     | 383   | 47.46%  |

<sup>R1</sup> Issuers that were investment banking clients of BofA Securities or one of its affiliates within the past 12 months. For purposes of this Investment Rating Distribution, the coverage universe includes only stocks. A stock rated Neutral is included as a Hold, and a stock rated Underperform is included as a Sell.

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| Investment rating | Total return expectation (within 12-month period of date of initial rating) | Ratings dispersion guidelines for coverage cluster <sup>R2</sup> |
|-------------------|---|--|
| Buy               | ≥ 10%   | ≤ 70%  |
| Neutral           | ≥ 0%  | ≤ 30%  |
| Underperform      | N/A   | ≥ 20%  |

<sup>R2</sup> Ratings dispersions may vary from time to time where BofA Global Research believes it better reflects the investment prospects of stocks in a Coverage Cluster.

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