

US Biopharmaceuticals

SMid biotech 4Q model updates: RCKT, KROS, BEAM

Price Objective Change

Clinical catalysts remain on track across the board

We update our model for 4Q updates from Rocket, Beam and Keros. Our ratings remain the same and we detail estimate and PO changes in Exhibit 2.

Rocket ready to launch with June 30th PDUFA in place

Rocket announced a 4Q23 update highlighting progress of late stage clinical development including the ongoing pivotal Danon program and a June 30th PDUFA set for Kresladi in LAD-1 (see report). We look for further details surrounding launch preparations for Rocket's initial commercial product, which, while a small population, we think can provide a scalable foundation for commercial gene therapy products in larger indications. Along with a MAA/BLA filing expected for the FA program in 1H24, Rocket also plans to make progress across its pipeline with a pivotal trials ongoing in PKD and Danon (interim data 2024), a phase 1 trial ongoing in PKP2-ACM and IND-enabling studies ongoing for the BAG3-DCM program. Rocket has \$407.5M in cash and cash equivalents with a cash runway into 2026. We update our model for 4Q23 reporting and alter our OpEx assumptions for upcoming years, resulting in a new PO of \$39 (from \$37). We now model 2024 and 2025 EPS of -\$3.26 (from -\$3.21) and -\$2.87 (from -\$2.42), respectively. Reiterate Buy, PO \$39 (from \$37)

Beam brightens ahead of derisking clinical data

Beam provided a positive 4Q23 update with a focus on planned clinical progress in 2024 including BEACON enrollment progress (expansion cohort initiation 1H24) and anticipated interim BEACON data from multiple patients treated with BEAM-101 (2H24). We look for the company to continue to collect and present derisking data with multiple programs approaching the clinic, BEAM-302 in GSD1a (phase 1 initiation 1H24) and BEAM-301 in AATD (IND 1H24) and look for clinical progress to add to our model. We also see encouraging steps forward from ESCAPE research programs as the company plans to initiate phase 1 enabling preclinical studies (2024). With the recent deal with Lilly (see report) highlighting the value seen for base editing products, we look for future updates from Beam's multiple collaboration deals. Beam has \$1.2B in cash and cash equivalents and a cash runway into 2027. Overall we believe Beam continues to execute on the restructuring plans (see report) and we update our model for 4Q23 reporting, update our OpEx assumptions, and increase our PoS for BEAM-101 to 40% (from 30%), resulting in a new PO of \$42 (from \$35). We now model 2024 and 2025 EPS of -\$5.32 (from -\$5.62) and -\$5.47 (from -\$5.60), respectively. Reiterate Neutral, new PO \$42 (from \$35).

See our Keros takeaways and catalyst calendar below (Exhibit 1):

01 March 2024

Equity United States Biopharmaceuticals

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MAA/BLA: Marketing Authorization Application/ Biologics License Application

FA: Fanconi anemia

LAD-1: leukocyte adhesion deficiency type 1

PKD: pyruvate kinase deficiency

IND: Investigational New Drug application

PKP2-ACM: PKP2 arrhythmogenic cardiomyopathy

BAG3-DCM: BAG3 associated dilated cardiomyopathy

GSD1a: glycogen storage disease type 1a AATD: alpha-1 antitrypsin deficiency

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

Keros set to fuel late stage development with 2024 data

Keros announced a 4Q23 update with a focus on the ongoing clinical pipeline programs, which remain on track for upcoming catalysts, and a financial overview. After positive data at ASH 2023 (see report), we look for encouraging data from both KER-050 programs in myelodysplastic syndrome (MDS) and myelofibrosis (MF) with multiple updates expected in 2024 (2Q/4Q) and future details surrounding engagement with regulators on phase 3 development in MDS (1H24). Beyond KER-050, we also look for encouraging progress from the KER-012 program including an enrollment update of the TROPOS trial in pulmonary arterial hypertension (1H24) and initial chronic heart failure data (2H24). With a phase 1 healthy volunteer clinical trial evaluating KER-065 ongoing, we also anticipate proof of concept data to support further development in obesity and neuromuscular indications. Keros has \$331M in cash and cash equivalents as of Dec 31, 2023 and with \$151M from the January offering of common stock, Keros has a cash runway into 2027. We update our model for 4023 reporting and add \$10/sh in platform value based on the muscle and obesity programs, resulting in a new PO of \$78 (from \$66). We now model 2024 and 2025 EPS of -\$4.41 (from -\$5.26) and -\$5.72 (from -\$4.37), respectively. Reiterate Buy, new PO \$78 (from \$66).

Exhibit 1: Catalyst Calendar

The PDUFA for the approval of RP-L201 is June 30, 2024.

| Compan | y Asset | Indication | Event | Timing | Importance |
|--------|----------------------|------------------------|-------------------------------------------|-------------|------------|
| Beam | BEAM-101 | SCD | BEACON trial readout | 2H24 | High |
| Beam | BEAM-101 | SCD | Expansion cohort initiation | 1H24 | Moderate |
| Beam | BEAM-201 | T-ALL/T-LL | Initial data | 2H24 | High |
| Beam | BEAM-301 | GSD1a | Regulatory filing | 1H24 | Low |
| Beam | BEAM-302 | AATD | Trial initiation | 1H24 | Moderate |
| Keros | KER-050 | MDS | Complete phase 2 TD enrollment | 1H24 | Low |
| Keros | KER-012 | Chronic heart failure | Initial data from phase 2 trial | 2H24 | High |
| Keros | KER-012 | PAH | Update on enrollment of TROPOS | 1H24 | Moderate |
| Keros | KER-050 | MDS | Additional data from Ph2 part 2 MDS trial | 2Q and 4Q24 | High |
| Keros | KER-050 | MF | Additional data from Ph2 MF trial | 2Q and 4Q24 | High |
| Keros | KER-065 | Obesity/ neuromuscular | Phase 1 proof of concept data | 1Q25 | High |
| Rocket | RP-L201 | LAD-1 | PDUFA | 30-Jun-24 | High |
| Rocket | RP-A501 | Danon disease | Pivotal trial interim update | 2024 | High |
| Rocket | RP-L102 | Fanconi anemia | BLA-MAA filing | 1H24 | High |
| Rocket | BAG3-association DCN | 1 BAG3-DCM | IND filing | 2024 | Low |

Source: BofA Global Research, company reports

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Exhibit 2: PO and estimate changes

We detail PO and estimate changes below.

| | Previous | | | | | |
|---------|----------|-------------------|-------------------|------------------|-------------------|------------------|
| Company | PO | Current PO | Previous 2024 EPS | Current 2024 EPS | Previous 2025 EPS | Current 2025 EPS |
| BEAM | \$35 | \$42 | (\$5.62) | (\$5.32) | (\$5.60) | (\$5.47) |
| KROS | \$66 | \$78 | (\$5.26) | (\$4.41) | (\$4.37) | (\$5.72) |
| RCKT | \$37 | \$39 | (\$3.21) | (\$3.26) | (\$2.42) | (\$2.87) |

Source: BofA Global Research

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Exhibit 3: Stocks mentioned

Prices and ratings for stocks mentioned in this report

| BofA Ticker | Bloomberg ticker | Company name | Price | Rating |
|-------------|------------------|-------------------|------------|--------|
| BEAM | BEAM US | Beam Therapeutics | US\$ 39.49 | C-2-9 |
| KROS | KROS US | Keros | US\$ 67.50 | C-1-9 |
| RCKT | RCKT US | Rocket Pharma | US\$ 29.03 | C-1-9 |

Source: BofA Global Research

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Price objective basis & risk

Beam Therapeutics (BEAM)

Our \$42/share price objective is based on a probability adjusted (30%) NPV analysis of its primary program under development. We use a WACC of 15%, similar to other early-stage companies in our coverage universe and a -2% terminal growth rate.

Downside risks: 1) failure of early clinical trials, 2) dangerous safety signals, 3) superior competitor data, 4) soft market uptake.

Keros (KROS)

Our \$78/share price objective is based on a probability adjusted (20%-50%) net present value (NPV) analysis of its program under development. We use a weighted-average cost of capital (WACC) of 15%, similar to other early-stage companies in our coverage universe, and a terminal growth rate of -5%. Given these assumptions we estimate a value of \$36/sh for KER-050 in MDS (previously of \$38/sh), \$3/sh for KER-050 in MF, \$6/sh in KER-050 royalties, \$9/sh in KER-012 (previously \$10/sh), \$12/sh in platform value, and \$12/sh in net cash (previously \$9/sh).

Upside risks are better than expect data in clinical trials including MDS/MF patients treated with KER-050 which could lead to higher than anticipated usage if approved.

Downside risks are unexpected safety signals, clinical trial failures, and competitors releasing stronger data.

Rocket Pharmaceuticals, Inc. (RCKT)

Our \$39/share price objective is based on a probability-adjusted (35%-90%) net present value (NPV) analysis of its four programs under development. We use a weighted-average cost of capital (WACC) of 15%, similar to other early-stage companies in our coverage universe, and terminal growth rate of -2%. Given these assumptions, we estimate a value of \$9/share for RP-L102 (Fanconi anemia), \$23/share for RP-A501 (Danon disease) (previously \$21), \$2/share for RP-L201 (LAD-1), \$1/share for RP-L301 (PKD), and \$4/share in net cash.

Risks: 1) failure of early clinical trials, 2) emergence of unacceptable safety signals, 3) shorter efficacy duration than expected, and 4) commercialization failures.

Analyst Certification

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|-------------|---------------------------------|-------------|------------------|-------------------------------------|
| UY | 2011 | | | 0.55 |
| | 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 |
| | Insmed Incorporated | INSM | INSM US | Jason Zemansky |
| | Intellia Therapeutics | NTLA | NTLA US | Greg Harrison, CFA |
| | Janux Therapeutics | JANX | JANX US | Alec W. Stranahan |
| | 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 |
| | , | TVTX | TVTX US | |
| | Travere Therapeutics Inc | TSBX | | Greg Harrison, CFA Geoff Meacham |
| | Turnstone Biologics | | TSBX US | |
| | Vertex Pharmaceuticals Inc. | VRTX | VRTX US | Geoff Meacham |
| | Werewolf Therapeutics | HOWL | HOWL US | Jason Zemansky |
| | Xencor | XNCR | XNCR US | Alec W. Stranahan |
| UTRAL | AbbVie | ABBV | ABBV US | Geoff Meacham |
| | | ALEC | ALEC US | |
| | Alector, Inc | | | 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 | BMY | BMY 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 |
| | Kymera Therapeutics | KYMR | KYMR US | Geoff Meacham |
| | Moderna | MRNA | MRNA US | Geoff Meacham |
| | Pfizer | PFE | PFE US | Geoff Meacham |
| | Recursion Pharmaceuticals, Inc. | RXRX | RXRX US | Alec W. Stranahan |
| | Tyra Biosciences | TYRA | TYRA US | Greg Harrison, CFA |
| | Vir | VIR | VIR US | Alec W. Stranahan |
| | | | | |
| | Y-mAbs Therapeutics, Inc | YMAB | YMAB US | Alec W. Stranahan |
| IDERPERFORM | | | | |



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 |
| | 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 |

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Important Disclosures

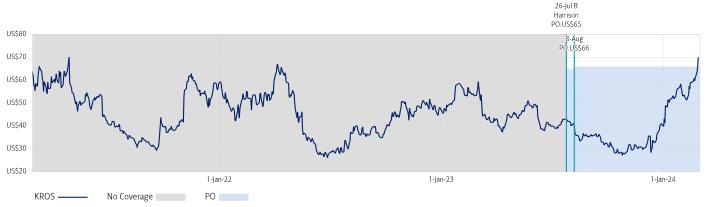
Beam Therapeutics (BEAM) Price Chart



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

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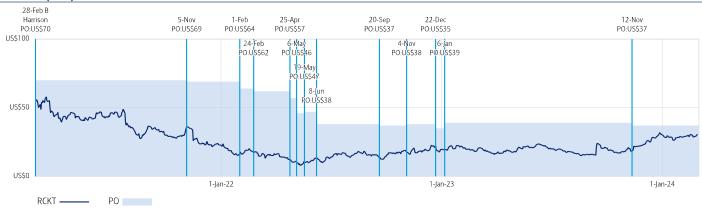
Keros (KROS) Price Chart



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

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Rocket Pharma (RCKT) Price Chart



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

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| Coverage Universe | Count | Percent | Inv. Banking Relationships R1 | 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 R1 | 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% |

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Investment rating Buy Neutral $\geq 10\%$ Separation $\geq 10\%$ Suppose $\geq 10\%$ Supp

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