The State of Emerging Therapeutic Companies
June 2023

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FDA Approvals for Novel Therapeutics

Novel drug approvals ahead of 2022 pace, driven by small companies

26 FDA approvals so far in 2023

2023 YTD Approval Pathways

- Accelerated Approvals: 6
- Designation Approvals:
  - Orphan: 11
  - BTD: 3
  - RMAT: 1
  - QIDP: 1

*2023 YTD Small company originated: 65%
- 2013-2015 an average of 44% of approvals originated from a small company
- 2021- May 2023 66% of approvals originated from small companies

Source: FDA.gov
FDA Approvals for Novel Therapeutics

Biologics continue to drive precision targeting for drugs and vaccines

- Since 2013, 180 novel biologics programs have been approved (39%)
- 2013 had the lowest percentage of biologics approvals (13%)
- 2022 had the highest percentage of biologics approvals (60%)
- YTD 2023, 45% of novel approvals have been biologics

11 Biologics approved 2023 YTD

6 protein therapeutics, 2 protein vaccines
1 gene therapy, 1 antisense, 1 microbiome

<table>
<thead>
<tr>
<th>Drug - Company (Partner or Acquirer)</th>
<th>Type --&gt; Target</th>
<th>Disease</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABRYSVO - Pfizer</td>
<td>Vaccine (protein) --&gt; RSV</td>
<td>RSV</td>
</tr>
<tr>
<td>AREXVY - GSK</td>
<td>Vaccine (protein) --&gt; RSV</td>
<td>RSV</td>
</tr>
<tr>
<td>VOWST - Seres (Nestle)</td>
<td>Bacteria --&gt; Microbiome (fecal)</td>
<td>C. difficile infection</td>
</tr>
<tr>
<td>QALSODY - Ionis (Biogen)</td>
<td>Antisense --&gt; SOD1</td>
<td>ALS (SOD1 gene)</td>
</tr>
<tr>
<td>VYJUEK - Krystal Biotech</td>
<td>Gene Therapy (en vivo) --&gt; collagen VII</td>
<td>Epidermolysis Bullosa (DEB)</td>
</tr>
<tr>
<td>EPKINLY - Genmab (Abbvie)</td>
<td>Mab (bispecific) --&gt; CD3/CD20</td>
<td>B-cell Lymphoma (DLBCL)</td>
</tr>
<tr>
<td>ZNYZ - MacroGenics (Incyte)</td>
<td>Mab (full length) --&gt; PD-1</td>
<td>Merkel Cell Carcinoma</td>
</tr>
<tr>
<td>LEQEMBI - BioArctic (Eisai)</td>
<td>Mab (full length) --&gt; amyloid-beta</td>
<td>Alzheimer's Disease</td>
</tr>
<tr>
<td>ALTUVIII - Amunix (Sanofi)</td>
<td>Protein (fusion) --&gt; Factor VIII</td>
<td>Hemophilia A</td>
</tr>
<tr>
<td>ELFABRIO - Protalix (Chiesi)</td>
<td>Enzyme --&gt; α–Galactosidase–A</td>
<td>Fabry Disease (ERT)</td>
</tr>
<tr>
<td>LAMZED - Zymenex (Chiesi)</td>
<td>Enzyme --&gt; alpha-mannosidase</td>
<td>Lysosomal Storage (ERT)</td>
</tr>
</tbody>
</table>

Source: FDA.gov
FDA Approvals for Novel Therapeutics

Small molecule approvals outpace biologics YTD 2023

15 Small molecule approvals 2023 YTD

4 novel targets

<table>
<thead>
<tr>
<th>Drug - Company (Partner or Acquirer)</th>
<th>Type --&gt; Target</th>
<th>Disease</th>
</tr>
</thead>
<tbody>
<tr>
<td>VEOZAH - Ogeda (Astellas)</td>
<td>Small Molecule --&gt; NK3 receptor</td>
<td>Hot Flashes (Menopause)</td>
</tr>
<tr>
<td>SKYCLARYS - Reata</td>
<td>Small molecule --&gt; Nrf2</td>
<td>Friedreich’s Ataxia</td>
</tr>
<tr>
<td>JESDUVROQ - GSK</td>
<td>Small molecule --&gt; prolyl hydroxylase</td>
<td>Anemia due to CKD</td>
</tr>
<tr>
<td>PAXLOVID - Pfizer</td>
<td>Small molecule --&gt; 3CL protease (Cov2)</td>
<td>COVID-19</td>
</tr>
<tr>
<td>DAYBUE - Neuren (ACADIA)</td>
<td>Small molecule --&gt; unknown</td>
<td>Rett Syndrome</td>
</tr>
<tr>
<td>MIEBO - Novaliq (Bausch)</td>
<td>Small Molecule --&gt; unknown</td>
<td>Dry Eye Disease</td>
</tr>
<tr>
<td>ZAVZPRET - BMS (Pfizer)</td>
<td>Small molecule --&gt; CGRP Receptor</td>
<td>Migraine</td>
</tr>
<tr>
<td>ORSERDU - Eisai (Menarini)</td>
<td>Small molecule --&gt; estrogen receptor</td>
<td>Breast Cancer</td>
</tr>
<tr>
<td>JAYPIRCA - Redx (Eli Lilly)</td>
<td>Small molecule --&gt; BTK</td>
<td>Mantle Cell Lymphoma</td>
</tr>
<tr>
<td>JOENJA - Novartis (Pharming)</td>
<td>Small molecule --&gt; PI3K</td>
<td>Activated PI3K (APDS)</td>
</tr>
<tr>
<td>XACDURO - Entasis (Innoviva)</td>
<td>Small molecule --&gt; β-lactamase</td>
<td>A. Baummannii infection</td>
</tr>
<tr>
<td>REZZAYO - Cidara (Melinta)</td>
<td>Small molecule --&gt; β-Glucan Synthase</td>
<td>Candida infection</td>
</tr>
<tr>
<td>FILSPARI - BMS (Travere)</td>
<td>Small molecule --&gt; ang + endothelin R</td>
<td>IgA Nephropathy</td>
</tr>
<tr>
<td>BRENZAVVY - TheracosBio</td>
<td>Small Molecule --&gt; SGLT-2</td>
<td>Type 2 Diabetes</td>
</tr>
<tr>
<td>INPEFA - Lexicon</td>
<td>Small Molecule --&gt; SGLT-1/2</td>
<td>Heart Failure</td>
</tr>
</tbody>
</table>

Source: FDA.gov

BIO Industry Analysis 2023
Clinical Pipeline increased 2.8% vs. May 2022

6,918 programs in 2022
7,111 programs in 2023* (+2.8%)

>80% of Pipeline is early-stage (Phase 1/2) due to Oncology

<table>
<thead>
<tr>
<th>Disease</th>
<th>Total</th>
<th>%</th>
<th>P1</th>
<th>P2</th>
<th>P3</th>
<th>NDA &amp; BLA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oncology</td>
<td>3150</td>
<td>44%</td>
<td>1208</td>
<td>1610</td>
<td>299</td>
<td>33</td>
</tr>
<tr>
<td>Neurology</td>
<td>712</td>
<td>10%</td>
<td>229</td>
<td>322</td>
<td>148</td>
<td>13</td>
</tr>
<tr>
<td>Infectious Disease</td>
<td>659</td>
<td>9%</td>
<td>231</td>
<td>261</td>
<td>146</td>
<td>21</td>
</tr>
<tr>
<td>Immunology</td>
<td>449</td>
<td>6%</td>
<td>116</td>
<td>203</td>
<td>110</td>
<td>20</td>
</tr>
<tr>
<td>Endocrine</td>
<td>326</td>
<td>5%</td>
<td>108</td>
<td>162</td>
<td>45</td>
<td>11</td>
</tr>
<tr>
<td>Metabolic</td>
<td>263</td>
<td>4%</td>
<td>76</td>
<td>113</td>
<td>61</td>
<td>13</td>
</tr>
<tr>
<td>Ophthalmology</td>
<td>259</td>
<td>4%</td>
<td>26</td>
<td>152</td>
<td>66</td>
<td>15</td>
</tr>
<tr>
<td>Cardio</td>
<td>186</td>
<td>3%</td>
<td>39</td>
<td>90</td>
<td>51</td>
<td>6</td>
</tr>
<tr>
<td>Psychiatry</td>
<td>181</td>
<td>3%</td>
<td>59</td>
<td>77</td>
<td>36</td>
<td>9</td>
</tr>
<tr>
<td>GI</td>
<td>174</td>
<td>2%</td>
<td>50</td>
<td>89</td>
<td>29</td>
<td>6</td>
</tr>
<tr>
<td>Respiratory</td>
<td>154</td>
<td>2%</td>
<td>47</td>
<td>76</td>
<td>31</td>
<td>0</td>
</tr>
<tr>
<td>Hematology</td>
<td>126</td>
<td>2%</td>
<td>27</td>
<td>52</td>
<td>37</td>
<td>10</td>
</tr>
<tr>
<td>Other</td>
<td>472</td>
<td>7%</td>
<td>112</td>
<td>250</td>
<td>94</td>
<td>16</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>7111</td>
<td>NA</td>
<td>2328</td>
<td>3457</td>
<td>1153</td>
<td>173</td>
</tr>
<tr>
<td><strong>Percent</strong></td>
<td>100%</td>
<td>100%</td>
<td>33%</td>
<td>49%</td>
<td>16%</td>
<td>2%</td>
</tr>
</tbody>
</table>

*Company drug-indication clinical programs intended to eventually reach FDA approval (Data as of May 2023)
Out-Licensing

R&D-stage drug asset licensing declining in 2023

Upfront payments to emerging companies for pipeline assets

Source: Biomedtracker

Possible down year in $ and # in 2023

Outlier deals
>$1B upfront

<table>
<thead>
<tr>
<th>Year</th>
<th>Clinical</th>
<th>Preclinical</th>
<th>TOTAL UPFRONTS ($B)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2013</td>
<td>$2.6</td>
<td>$108</td>
<td>$2.2</td>
</tr>
<tr>
<td>2014</td>
<td>$5.5</td>
<td>$129</td>
<td>$12.5</td>
</tr>
<tr>
<td>2015</td>
<td>$7.1</td>
<td>$145</td>
<td>$11.2</td>
</tr>
<tr>
<td>2016</td>
<td>$3.8</td>
<td>$129</td>
<td>$6.6</td>
</tr>
<tr>
<td>2017</td>
<td>$4.5</td>
<td>$157</td>
<td>$10.6</td>
</tr>
<tr>
<td>2018</td>
<td>$9.4</td>
<td>$191</td>
<td>$12.2</td>
</tr>
<tr>
<td>2019</td>
<td>$13.2</td>
<td>$238</td>
<td>$16.2</td>
</tr>
<tr>
<td>2020</td>
<td>$9.9</td>
<td>$260</td>
<td>$16.9</td>
</tr>
<tr>
<td>2021</td>
<td>$12.3</td>
<td>$207</td>
<td>$12.3</td>
</tr>
<tr>
<td>2022</td>
<td>$18.2</td>
<td>$77</td>
<td>$18.2</td>
</tr>
<tr>
<td>2023</td>
<td>$2.2</td>
<td>$238</td>
<td>$16.2</td>
</tr>
</tbody>
</table>

Source: Biomedtracker

Possible down year in $ and # in 2023

Outlier deals
>$1B upfront

$1.6B Merck/Seagen
$1.5B Biogen/Sage
$1.0B Biogen/Denali
$5.0B Gilead/Galapagos
$1.1B Roche/Sarepta
$1.8B BMS/Nektar
$1.0B Biogen/Ionis
$5B Nimbus/Takeda Ph2 Tyk2

*YTD June 1st
Asian deals lead top 10 clinical-stage deals, all early-stage

Top 10 clinical-stage deals of 2023 YTD by potential payout

<table>
<thead>
<tr>
<th>Licensor/Licensee</th>
<th>Licensor Location</th>
<th>Stage</th>
<th>Area / Assets</th>
<th>Upfront ($M)</th>
<th>Potential ($B)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eisai &lt;-- Bliss Bio</td>
<td>ASIA</td>
<td>P2</td>
<td>ADC - anti-HER2</td>
<td>ND</td>
<td>$2.0</td>
</tr>
<tr>
<td>BioNTech &lt;-- DualityBio</td>
<td>ASIA</td>
<td>P2</td>
<td>ADC - Solid Tumors (2)</td>
<td>$170</td>
<td>$1.7</td>
</tr>
<tr>
<td>Lilly &lt;-- Confo</td>
<td>Europe</td>
<td>P1</td>
<td>Small molecule --&gt; AT2R GPCR (Pain)</td>
<td>$40</td>
<td>$1.2</td>
</tr>
<tr>
<td>AZ &lt;-- Keymed/KYM</td>
<td>ASIA</td>
<td>P1</td>
<td>ADC - anti-Claudin 18.2</td>
<td>$63</td>
<td>$1.2</td>
</tr>
<tr>
<td>Janssen &lt;-- Pipeline</td>
<td>USA</td>
<td>P1</td>
<td>Small mol --&gt; muscarinic M1 receptor (Neuro)</td>
<td>$75</td>
<td>$1.1</td>
</tr>
<tr>
<td>Sanofi &lt;-- Maze</td>
<td>USA</td>
<td>P1</td>
<td>Small mol --&gt; glycogen synthase (Pompe's)</td>
<td>ND</td>
<td>$0.8</td>
</tr>
<tr>
<td>Corbus &lt;-- CSPC</td>
<td>ASIA</td>
<td>P1</td>
<td>ADC - anti-Nectin-4</td>
<td>$8</td>
<td>$0.7</td>
</tr>
<tr>
<td>Roche &lt;-- Zion Pharma</td>
<td>ASIA</td>
<td>P1</td>
<td>Small mol (TKI) --&gt; HER2</td>
<td>$70</td>
<td>$0.6</td>
</tr>
<tr>
<td>Lighthouse &lt;-- Quince</td>
<td>USA</td>
<td>P1</td>
<td>Small mol --&gt; lysine-gingipain (4) (Alzheimer's)</td>
<td>ND</td>
<td>$0.6</td>
</tr>
<tr>
<td>Cullinan &lt;-- Harbour BioMed</td>
<td>ASIA</td>
<td>P1</td>
<td>Bispecific - B7H4 x 4-1BB</td>
<td>$25</td>
<td>$0.6</td>
</tr>
<tr>
<td>Janssen &lt;-- Cellular Biomedicine</td>
<td>USA</td>
<td>P1</td>
<td>CAR-Ts (NHL)</td>
<td>$245</td>
<td>ND</td>
</tr>
<tr>
<td>BioNTech &lt;-- OncoC4</td>
<td>USA</td>
<td>P2</td>
<td>Mab anti-CTLA4 (Solid Tumors)</td>
<td>$200</td>
<td>ND</td>
</tr>
</tbody>
</table>

Source: Biomedtracker

Majority of deals are <$100M upfront, except Duality, Cellular, OncoC4
### Out-Licensing

Top preclinical deals mostly USA-based, mostly biologics

#### Top 10 Preclinical-stage deals of 2023 YTD by potential payout

<table>
<thead>
<tr>
<th>Licensor &lt;-- Licensee</th>
<th>Licensor Location</th>
<th>Stage</th>
<th>Area: Assets</th>
<th>Upfront ($M)</th>
<th>Potential ($B)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Neurocrine &lt;-- Voyager</td>
<td>USA</td>
<td>PC</td>
<td>Gene Therapy: GBA1 Parkinson's + 3 (4)</td>
<td>$175</td>
<td>$4.4</td>
</tr>
<tr>
<td>Genentech &lt;-- Belharra</td>
<td>USA</td>
<td>PC</td>
<td>photoaffinity-based chemoproteomics (multi)</td>
<td>$80</td>
<td>$2.1</td>
</tr>
<tr>
<td>Novo &lt;-- Life Edit (ElevateBio)</td>
<td>USA</td>
<td>PC</td>
<td>Gene Editing (7) (rare &amp; cardio)</td>
<td>ND</td>
<td>$1.9</td>
</tr>
<tr>
<td>Moderna &lt;-- Generation Bio</td>
<td>USA</td>
<td>PC</td>
<td>ctLNP delivery of ceDNA (3) (Immune/Liver)</td>
<td>$76</td>
<td>$1.9</td>
</tr>
<tr>
<td>Novartis &lt;-- Bicycle</td>
<td>USA/Europe</td>
<td>PC</td>
<td>Radiopeptides (2) (Oncology)</td>
<td>$50</td>
<td>$1.7</td>
</tr>
<tr>
<td>Bayer &lt;-- Bicycle</td>
<td>USA/Europe</td>
<td>PC</td>
<td>Radiopeptides (3) (Oncology)</td>
<td>$45</td>
<td>$1.7</td>
</tr>
<tr>
<td>Lilly &lt;-- Scribe</td>
<td>USA</td>
<td>PC</td>
<td>Gene editing (Neuro)</td>
<td>$75</td>
<td>$1.6</td>
</tr>
<tr>
<td>GSK &lt;-- WuXi Biologics</td>
<td>ASIA</td>
<td>PC</td>
<td>Mabs (4) (Oncology)</td>
<td>$40</td>
<td>$1.5</td>
</tr>
<tr>
<td>AbbVie &lt;-- Immunome</td>
<td>USA</td>
<td>PC</td>
<td>Target ID (10) (Oncology)</td>
<td>$30</td>
<td>$1.3</td>
</tr>
<tr>
<td>Moderna &lt;-- CytomX</td>
<td>USA</td>
<td>PC</td>
<td>mRNA masking (via probody peptide, multi)</td>
<td>$35</td>
<td>$1.2</td>
</tr>
</tbody>
</table>

Majority of deals are <$100M upfront, except Duality, Cellular, OncoC4
Acquisitions of R&D-stage BioPharma

Acquisitions of pre-market companies pick up in Spring 2023

2023 > 2022 in Total Dollar Amount

Aggregate Acquisition Amount (w/CVR) ($B)

2013: $10.0
2014: $14.5
2015: $35.3
2016: $24.2
2017: $22.9
2018: $43.9
2019: $41.9
2020: $52.5
2021: $41.2
2022: $22.0
2023: $21.9

>$5B upfront 2022: 0
>$5B upfront 2023: 2
- MRK → Prometheus $10.8B (Ph2)
- Astellas → Iveric Bio $5.9B (Ph3)

Top 4 of all time:
1. Myokardia (P3, $13B, BMS 2020)
2. Kite (P3, $12B, GILD 2017)
3. Pharmasset (P2, $11B, GILD 2011)
4. Prometheus (P2, $10.8B)

Source: Biomedtracker

Therapeutic companies acquired for minimum $10M deal value

June 1st

*YTD

2023 > 2022 in Total Dollar Amount

>$5B upfront 2022: 0

>$5B upfront 2023: 2
- MRK → Prometheus $10.8B (Ph2)
- Astellas → Iveric Bio $5.9B (Ph3)

Top 4 of all time:
1. Myokardia (P3, $13B, BMS 2020)
2. Kite (P3, $12B, GILD 2017)
3. Pharmasset (P2, $11B, GILD 2011)
4. Prometheus (P2, $10.8B)

Source: Biomedtracker

Therapeutic companies acquired for minimum $10M deal value
Acquisitions of Market-Stage BioPharma with <$1B Sales

Post Pfizer 2022, mostly sub-$5B market-stage acquisitions

Below average dollar volume YTD

>$5B upfront in 2022: 2
  • Pfizer → Biohaven $11.6B
  • Pfizer → GBT $5.6B

Top 5 of all time:
1. Pharmacyclics $21B (ABBV 2015)
2. Immunomedics $21B (GILD 2020)
3. Medivation $14B (PFE 2016)
4. Biohaven $11.6B (PFE 2022)
5. Acceleron $11.5B (MRK 2021)

Not included (over $1B sales):
  Pfizer → SGEN $42B (2.0B in Revenue)
  Amgen → HZNP $27.8B ($3.6B Revenue)

*YTD June 1st

Source: Biomedtracker
39% of small biotechs trade under cash balance

Record Number of Small Companies*
Trading Below Cash

Nearly Half of R&D-stage Companies
Trade under $100M

* U.S. Companies with <500 FTEs
Double the pace in 2023 for BioPharma Layoff announcement

**As of May 25th**

Source: Company Press Releases, Biospace, EndPoints, Biopharmadive, Fierce
Follow-On Offerings

Most R&D-Stage U.S. companies struggle to raise capital

Follow-on rebound in late 2021 has not gained momentum
S&P Biotech Index Fund (XBI) is also sideways, recovering from SVB drop

Follow-on lows steeper than XBI lows

* as of June 1st

Follow-on offerings for >$10M from R&D-Stage companies

Source: Biocentury BCIQ, BIO Industry Analysis
Follow-On Offerings

Most R&D-Stage U.S. companies struggle to raise capital

Companies with solid clinical data can raise via follow-on offerings

Top 3 in 2023
- Vaxcyte $575 Ph2
- Karuna $460 Ph3
- Revolution $345M Ph2

* as of June 1st

Source: Biocentury BCIQ, BIO Industry Analysis

BIO Industry Analysis 2023
Follow-On Offerings

Very few R&D-Stage Ex-U.S. companies raising funds via secondary offerings

European offerings drop significantly from Covid highs

Source: Biocentury BCIQ, BIO Industry Analysis

Follow-on offerings for >$10M from R&D-Stage companies
Initial Public Offerings

IPOs from R&D-Stage U.S. companies declining, with exceptions

IPOs from US-based Companies

Source: SEC, NASDAQ

Top 3 in 2023:
- Acelyrin (SLRN) $540M Ph2b
- Mineralys (MLYS) $192M Ph2
- Structure (GPCR) $161M Ph1

*YTD June 1st
**Initial Public Offerings**

**IPOs from R&D-Stage U.S. companies declining, with exceptions**

IPOs from US-based Companies

Alternative Market Entry

*YTD June 1st

Source: SEC, NASDAQ, Pitchbook, BCIQ

BIO Industry Analysis 2023
83% of U.S. publicly traded Biopharma companies debuted in last 10 years

Number of traded U.S. Biopharmas since 2007

Source: SEC, NASDAQ, Pitchbook, BCIQ
Initial Public Offerings

IPO window closed for R&D-Stage Ex-U.S. companies

2022 was lowest 10 years for Europe, 2023 worse

Europe

Asia back to Pre-Covid levels

Asia

No IPOs >$20M
No Chinese IPOs

Source: SEC, NASDAQ, Pitchbook, BCIQ
Venture Capital

Number of U.S. VC rounds likely to drop for second year

# of $10M+ rounds on declining

2021 was the record year, heading down into 2023

...for both clinical and preclinical companies

# of Preclinical Rounds
Up 2x vs 10 years ago up

Source: Primary: Pitchbook, Biocentury BCIQ, Cortellis/TR, EvaluatePharma
Venture Capital

Biologics remain in focus since 2015 peak

**Biologics remain at 50% of Venture Capital**

- **Modality as a % of Total Funding of Drug R&D**
  - 2003: 40% Large Molecule Drugs, 60% Small Molecule Drugs
  - 2022: 60% Large Molecule Drugs, 40% Small Molecule Drugs

- **# of Preclinical Rounds Up 2x vs 10 years ago up**

Source: Primary: Pitchbook, Biocentury BCIQ, Cortellis/TR, EvaluatePharma
U.S. venture capital reached its peak in 2021.

$3B “committed”
Altos Labs
(antiaging)

# up >100% during Covid

Source: Primary: Pitchbook, Biocentury BCIQ, Cortellis/TR, EvaluatePharma
Venture Capital

Large crossover rounds declining

Sharp rise for Series B $100M+ rounds in the U.S. is now reversing

Source: Primary: Pitchbook, Biocentury BCIQ, Cortellis/TR, EvaluatePharma
Venture Capital

Asian investment declining to European levels

2x more venture investment into Asia vs Europe for both 2021 & 2022…but not 2023 YTD

Europe

# up 110% during Covid

After up 1,800% in 10 yrs into 2021, declining rapidly in 2022, 2023

Possibly up in 2023

Asia

# up 500% during Covid

$1.0B Q1 2023

$12.3

$6.6

Source: Primary: Pitchbook, Biocentury BCIQ, Cortellis/TR, EvaluatePharma
More Biopharma companies in Asia receiving funding than Europe

2x more companies funded with at least $10M VC in Asia vs Europe

Source: Primary: Pitchbook, Biocentury BCIQ, Cortellis/TR, EvaluatePharma
Fewer A-1 rounds in 2023, with RNA-focused start-ups raising the most

Top Series A-1 2023
- ReNAgade $300M (PC) RNA delivery+
- Orbital, $270M (PC) cRNA/siRNA
- Aera, $170M A/B (PC) RNA delivery

Source: Pitchbook, Biocentury BCIQ, Cortellis/TR, EvaluatePharma
Asia has more A-1 rounds than Europe (a proxy for company formation)

Fewer A-1 rounds in 2023 likely Ex-U.S.

Source: Pitchbook, Biocentury BCIQ, Cortellis/TR, EvaluatePharma
BIO Industry Analysis Data
www.bio.org/iareports

Daily BIO News from “Good Day BIO”
www.bio.org/goodday