The full-year 2014 BioMeter confirms that 2014 was a banner year for biotechnology. The average BioMeter value for the entire year across all transactions reporting up-front payments and stage of development was $58.7 million, up dramatically from $33.9 million in 2013, and the highest we’ve observed for a full year since we started reviewing data going back to 2006. Increases were at all stages of development, with preclinical and discovery transactions showing a record BioMeter value of $28.1 million, compared to $21.8 million in 2013; the BioMeter for Phase 1 product averaging $44.8 million compared to approximately $40 million in 2013; the BioMeter value for Phase 2 product increasing to $83.5 million compared to $47.4 million in 2013; the BioMeter value for Phase 3 products increasing to $101.1 million from $46.2 million in 2013; and the BioMeter value for approved products increasing to $212.6 million, compared to $50.6 million in 2013. The total average and BioMeter for approved products are aided by the Merck/Bayer pharma-to-pharma blockbuster ($1 billion up-front payment for a family of soluble guanylate cyclase modulators), but even taking that deal out of the picture, the average BioMeter for all stages would be $48.7 million, still the highest annual BioMeter going back to 2006.

So what’s driving the increase? The data shows that buyers are paying more up front for products at all stages of development than in the past. This likely reflects two market forces. First, the IPO market and access to capital are allowing biotechnology companies to drive harder bargains. Companies are less willing to accept modest up-front payments in licensing transactions when they have a viable alternative to raise capital and continue
development on their own, while retaining 100 percent of the rights and future economic potential of their products. For the biotechnology company, it becomes a question of dilution: the company can suffer a certain amount of equity dilution by selling stock, or it can have its economic rights to its assets diluted by licensing them to a pharmaceutical company (or large biotechnology company) for a share of the future economics. The availability of a viable capital-raising path has no doubt altered this calculus for many sellers in the market.

Second, demand for innovative products remains steady, notwithstanding pharmaceutical industry consolidation. While the number of transactions reporting up-front payments and stage of development has declined from levels seen in 2006 through 2011, it has remained relatively stable since. Patent expirations, threats of generic competition, continuing unmet medical needs, and the ability to obtain higher margins on novel therapies are all creating demand for new innovative therapies. At the same time, pharmaceutical companies and large biotechnology companies are continuing to rely on in-licensing to fill their product development pipelines.

The mix of transactions by stage of development also contributed to the increase in the full-year BioMeter value, with an increase in the percentage of deals for Phase 2 and Phase 3 products. While the percentage of transactions for products in the preclinical and discovery stages remained strong, the percentage of Phase 2 transactions increased compared to 2013, at a time when the BioMeter value for Phase 2 products also hit an all-time high of $83.5 million. This includes a stand out $710 million up-front payment in the Celgene/Nogra transaction for the Phase 2 drug for Crohn’s disease GED-0301. Even

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**TABLE 1: BIOMETER VALUES BY STAGE OF DEVELOPMENT AND AVERAGE FOR 2011 THROUGH 2014**

<table>
<thead>
<tr>
<th>Stage of Development</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>Approved</td>
<td>220</td>
<td>200</td>
<td>100</td>
<td>80</td>
</tr>
<tr>
<td>Phase I</td>
<td>60</td>
<td>50</td>
<td>40</td>
<td>30</td>
</tr>
<tr>
<td>Phase II</td>
<td>20</td>
<td>10</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

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**TABLE 2: NUMBER AND PERCENTAGE OF COLLABORATION AGREEMENTS BY STAGE OF DEVELOPMENT FOR 2011 THROUGH 2014**

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continue on page 3
without this transaction, however, the BioMeter value for Phase 2 products in 2014 would still be a record $55 million. Likewise, the percentage of deals for Phase 3 products increased, with a strong number of $100 million plus up-front payments during 2014.

The one soft spot in BioMeter values for 2014 was approved products. While the average BioMeter value for approved products increased to $212.6 million in 2014, there were only six transactions during the year reporting up-front payments for approved products, and this category was dominated by the $1 billion payment from Merck to Bayer noted above. Without this transaction, the BioMeter value for approved products in 2014 would have been only $15.8 million, suggesting that the good ones had already been taken or were not for sale.

About MoFo BioMeter

The MoFo BioMeter is an index that measures the health of the biotechnology industry. The BioMeter averages up-front payments in licensing, collaboration, and development agreements between biotechnology companies (broadly defined) and companies that pay for commercialization rights. We focus on up-front payments because they are the most concrete representation of the value of a development-stage asset, and also because in an era of constricted venture funding for unapproved therapeutics, up-front payments from collaboration agreements have become an increasingly necessary source of capital for companies to sustain their development efforts. The BioMeter also allows us to measure changes in the industry, or by sector, over time.

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