The largest M&A for this quarter was the $5.7 billion in cash ($135 per share) offered by investment firms Veritas Capital and Evergreen for Athenahealth, a provider of network-enabled services for medical centers. The company would be merged with Virence Health (formerly part of GE Healthcare's value-based care division and acquired by Veritas for $1.05 billion). Medical device firms also signed high value M&A transactions, as demonstrated by the $4.3 billion offer of Boston Scientific for BTG to expand Boston's interventional medicine assets and the $3.15 billion acquisition of DJO Global by Colfax, covering orthopedic products. Illumina was paying $1.2 billion for Pacific Biosciences and 3M also acquired M*Medical’s technology business for approximately $1 billion in cash to expand its health information systems business with M*Medical’s cloud-based, conversational artificial Intelligence (AI)-powered systems.

For M&A covering therapeutic firms, cancer remains the main indication in most of them, including the recent acquisition of Tesaro by GlaxoSmithKline (GSK) for $5.1 billion, $2.1 billion reimbursing from Novartis following the Endocyte acquisition, the optional purchase of PellePharma by LEO Pharma for $0.8 billion (combining milestones and M&A consideration fees) and the $0.5 billion offered for Corium by the equity private firm Gurnet.
Over-the-counter firms also made a mark via the $1.6 billion approach of Taisho for UPSA, a subsidiary of BMS, and Johnson & Johnson (J&J)’s acquisition of Ciz Holdings’s remaining stake for $2.1 billion. The diagnostics market was also represented with Aurora’s acquisition by Sonic Healthcare for $0.5 billion.

THREE KEY THERAPEUTIC M&AS

GSK acquired U.S.-based oncology company TESARO for $5.1 billion in cash ($75 per share) following its rebuilding oncology pipeline strategy. GSK is incorporating TESARO’s niraparib, an oral PARP-1/2 inhibitor commercialized for recurrent epithelial ovarian and being investigated for multiple cancers, including breast cancer and advanced non-small-cell lung cancer. The transaction also incorporates dostarlimab, an anti-PD-1 monoclonal antibody in clinical stage for advanced solid tumors, as well as other oncology programs, including TSR-022, an anti-TIM-3 monoclonal antibody, and TSR-033, an anti-LAG-3 monoclonal antibody, both in phase I for advanced solid tumors (See Figure 3).

Endocyte became a Novartis subsidiary for $2.1 billion ($24 per share). The acquisition brings to Novartis a complementary portfolio of clinical-stage oncology radiopharmaceuticals, including Lu-177-PSMA-617 (a PSMA ligand labeled to Lu-177), currently in phase III for metastatic castration resistant prostate cancer (mCRPC), and 225Ac-PSMA-617, a DOTA derivative of a prostate-specific membrane antigen-targeting ligand labeled with 225-Actinium, also in clinical development for mCRPC. Endocyte’s assets also comprise an important portfolio of adaptor-controlled CAR T therapies, such as IND-stage EC17/CAR T-cell for the potential treatment of solid and hematological cancers (See Figure 4).

LEO Pharma injected funds to support the development of PellePharm (BridgeBio company)’s topical gel formulation of patidegib, a semi-synthetic derivative of cyclopamine, currently in phase III for surgically eligible basal cell nevus syndrome in Gorlin syndrome patients and phase II for basal cell carcinoma. LEO acquired a minority stake of Pellepharm for $70 million (including equity fee and R&D funding) and an option to acquire the remaining shares. The stockholders of the U.S. rare dermatologic disease firm are eligible to receive up to $690 million (including merger consideration and regulatory and commercial milestone fees), as well as double-digit royalties (See Figure 5).

THE M&A LANDSCAPE IN APAC

Japan continued as the epicenter of Asia-Pacific (APAC) M&A activity for this period, concentrating the highest value disclosed deals covering...
multiple markets, including pharmaceutical/biotech (oncology), over-the-counter and diagnostics. The deals amounted to a total disclosed value of $4.1 billion, led by the $2.1 billion offer from J&J for remaining stock of the cosmetic company Ci:z Holdings, integrating the target firm into the big pharma’s family of consumer companies, and $1.6 billion offer of Taisho Pharmaceutical by the BMS over-the-counter subsidiary, the France-based firm UPSA (See Figure 6).

India-based companies showed a high activity in a range of different businesses, including pharmaceutical (Sun’s $1 million approach for Japanese Pola Pharmaceutical), manufacturing (in separate deals, U.S.-based Neopharma and India-based Therapiva acquired Dr. Reddy’s manufacturing facility and assets) and diagnostics (undisclosed offer from Strand Life Sciences to acquire Quest’s Indian business). The Australian market showed high activity between domestic companies and foreign diagnostic oncology companies, including the $540 million acquisition of U.S.-based Aurora Diagnostics by Sonic Healthcare and the $6 million purchase of Belgian firm Advanced Nuclear Medicine Ingredients by Telix Pharmaceuticals. China’s M&A transactions also reflected activity in the medical device market, including the transaction of Regenerative Medical Technologies by U.S. firm Predictive, and in the natural products business, counting Kali’s acquisition of U.S.-based NCM Biotech. Taiwanese firm Civi Investments and U.S. Windtree Therapeutics also announced their intention to merger, combining their clinical and preclinical cardiovascular and respiratory portfolios.

Two key therapeutic M&As in the APAC region included the Japanese-based Astellas Pharma’s option exercised to acquire U.S. firm Potenza Therapeutics for $165 million and Sun’s play for Pola. Astellas reinforced its immune-oncology (IO) clinical and non-clinical portfolio with multiple targets, including immune stimulation, immune checkpoint inhibition and regulatory T-cell function targets, with potential combination with non-I-O assets. The most advanced programs of Potenza include the antibody PTZ-201 (ASP-8374), an inhibitor of the TIGIT immune checkpoint, and PTZ-329 (ASP-1948), an anti-NRPI antibody (Treg function inhibitor), both in phase I for solid tumors. Sun strengthened its commercial dermatological business with Pola’s multiple topical and injectable ethical and generic drugs for skin diseases, including the antifungal topical luliconazole and the old antibiotic colimycin.

The top M&A involving APAC-based companies focused on oncology and dermatology, with representation of pain and gastrointestinal diseases; most of the assets are commercially available and all mainly European and U.S. target companies (See Table 1).

**OUTLOOK IN THE FIRST QUARTER OF 2019**

High value M&As continued to be announced at the beginning of the first quarter 2019 and added to Cortellis Deals Intelligence (See Table 2).

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**Table 1:** Top M&As involving companies based in key Asia Pacific countries (highlighted in bold) during the fourth quarter of 2018, included the $2.1 billion offer of Johnson & Johnson for the cosmetic Japanese firm Ci:z Holdings; $M (million, USD) is the total value at signing. (Source: Cortellis Deals Intelligence)
<table>
<thead>
<tr>
<th>Target</th>
<th>Buyer</th>
<th>Key assets</th>
<th>Stage</th>
<th>Therapy</th>
<th>$M</th>
</tr>
</thead>
<tbody>
<tr>
<td>Celgene</td>
<td>Nordic-Medico Finance</td>
<td>Revlimid/Pomalyst, Imnovid, Otezla</td>
<td>Launched</td>
<td>Cancer, Cardiovascular, Inflammatory</td>
<td>74,000</td>
</tr>
<tr>
<td>Loxo Oncology</td>
<td>Eli Lilly</td>
<td>Larotrectinib sulfate, LOXO-292, LOXO-195</td>
<td>Launched Phase I/II</td>
<td>Cancer</td>
<td>8,000</td>
</tr>
<tr>
<td>Trilagene</td>
<td>Takeda</td>
<td>NACT</td>
<td>Phase II</td>
<td>Genitourinary/Sexual Function</td>
<td>52</td>
</tr>
<tr>
<td>Shanghai JMT-Bio</td>
<td>CSPC Pharmaceuticals</td>
<td>JMT-103, JMT-101, JMT-301</td>
<td>Phase I Preclinical</td>
<td>Cancer</td>
<td>37</td>
</tr>
</tbody>
</table>

Table 2: Outlook for M&As by biotech/pharmaceutical firms in the first quarter of 2019, paced by $74 billion Bristol-Myers Squibb offer for Celgene; $M (million, USD) is the total deal value at signing. (Source: Cortellis Deals Intelligence)

Editor’s Note: All data contributing to this analysis was sourced from Cortellis Competitive Intelligence from Clarivate Analytics. For more information: clarivate.com/cortellis-competitive-intelligence.