14 – 20 July 2016

Parties	Type	Subject and Financial Terms
Ionis Pharmaceuticals / Janssen Biotech (19 July 2016)	License Agreement	Janssen Biotech obtained the rights to develop and commercialize Ionis Pharmaceuticals' IONIS-JBI1-2.5, an orally delivered antisense drug designed to locally inhibit an undisclosed target in the gastrointestinal (GI) tract for the treatment of a GI autoimmune disease, across three programs. Ionis has received $10 million and is eligible to receive nearly $800 million in milestone payments and license fees for these programs, as well as royalties.
Jounce Therapeutics / Celgene (19 July 2016)	Strategic Collaboration	Collaboration to develop and commercialize next-generation immuno-oncology treatments for cancer patients. Celgene has been granted options to jointly develop and commercialize Jounce's lead product candidate, JTX-2011, and up to four early-stage programs (to be selected from a defined pool of B cell, T regulatory cell and tumor-associated macrophage targets resulting from the Jounce Translational Science Platform) and an additional option to share a checkpoint immuno-oncology program. Jounce will receive an upfront payment of $225 million and potential milestone payments up to a total aggregate of $2.3 billion across all programs reaching commercialization, as well as royalties. Jounce will also receive an equity investment of $36 million from Celgene.
MRC Technology / DRI Capital (15 July 2016)	Asset Purchase	DRI Capital, a private equity fund manager, to acquire a portion of MRC Technology's royalty interest in Keytruda (pembrolizumab), marketed by Merck & Co, for $150 million.
Shionogi / NB Health Laboratory (15 July 2016)	Research Collaboration	Collaboration to discover drug targets to develop novel anti-infective drug candidates. Financial terms not disclosed.

Amgen / Daiichi Sankyo (14 July 2016)	Commercialization Collaboration	Collaboration to commercialize nine biosimilars in Japan, including biosimilars of adalimumab, bevacizumab and trastuzumab. Amgen will be responsible for the development and manufacturing of the biosimilars, while Daiichi Sankyo will file for marketing approval, and be responsible for distribution and commercialization (Amgen will have a limited right to co-promote the products). Amgen will retain all additional distribution and commercialization rights for the biosimilar programs outside of Japan. Financial terms not disclosed.
Five Prime Therapeutics / GlaxoSmithKline (GSK) (14 July 2016)	Exclusive License Agreement	GSK exercised its option to take an exclusive license to the intellectual property rights related to a target identified by Five Prime Therapeutics' proprietary protein discovery platform. Five Prime will receive a $1.5 million license payment and is eligible to receive up to $92.75 million in milestone payments for each product that incorporates or targets the licensed protein, as well as royalties.
RedoxTherapies / Juno Therapeutics (14 July 2016)	Acquisition	Juno Therapeutics to acquire RedoxTherapies, a privately held company. The acquisition provides Juno with an exclusive license to vipadenant, a small molecule adenosine A2a receptor antagonist that has the potential to disrupt important immunosuppressive pathways in the tumor micro-environment in certain cancers. RedoxTherapies will receive an upfront payment of $10 million in cash and is also eligible to receive undisclosed potential milestone payments.

7 – 13 July 2016

Parties	Type	Subject and Financial Terms
Eli Lilly / Boehringer Ingelheim (13 July 2016)	Clinical Trial Collaboration	Collaboration to conduct a Phase 1b study that will evaluate the safety and tolerability of abemaciclib (LY2835219), Lilly's cyclin-dependent kinase (CDK) 4 and CDK 6 inhibitor, in combination with BI 836845, Boehringer Ingelheim's insulin-like growth factor (IGF)-1/IGF-2 ligand neutralizing antibody, in patients diagnosed with HR+, HER2- metastatic breast cancer. Financial terms not disclosed.

X-Chem / Bayer (12 July 2016)	Drug Discovery Collaboration	Expanded drug discovery collaboration to discover innovative lead structures for complex drug targets in areas of high unmet medical need. The collaboration extends Bayer's access to X-Chem's DEX technology, which is based on DNA-encoded libraries of small molecules with more than 120 billion molecules. Bayer will have an exclusive option to license any programs generated in the course of the collaboration. X-Chem will receive an upfront payment, research and development funding, as well as potential (pre-clinical, clinical and regulatory) milestone payments up to a total of $528 million. X-Chem will also receive sales-based milestone and royalty payments.
Celyad / Ono Pharmaceutical (11 July 2016)	Exclusive License Agreement	Ono Pharmaceutical obtained the rights to develop and commercialize Celyad's NKG2D-ligand targeting allogeneic CAR T-cell therapy, NKR-2, in Japan, South Korea and Taiwan. Celyad will receive an upfront payment of JPY 1.25 billion (approximately $12.5 million) and a maximum total of JPY 30.075 billion (approximately $299 million) in potential milestone payments, as well as royalties.
Sagent Pharmaceuticals / Nichi-Iko Pharmaceutical (11 July 2016)	Acquisition	Nichi-Iko Pharmaceutical to acquire Sagent Pharmaceuticals via an all-cash tender offer followed by a second-step merger, for a total consideration of approximately $736 million.
Sorrento Therapeutics / Servier (11 July 2016)	Development and Commercialization Collaboration	Collaboration to develop, manufacture and commercialize products using Sorrento's fully human immuno-oncology anti-PD-1 monoclonal antibody (mAb) STI-A1110. The collaboration agreement provides Servier with an exclusive worldwide license to the STI-A1110 mAb asset, covering all indications including hematological and solid tumor cancers. Servier also obtains full rights to develop, register and commercialize the products and will bear all costs for these activities. Sorrento will receive an upfront payment of EUR 25 million and may receive development milestone payments. Sorrento may also receive up to EUR 710 million in various commercial-based milestone payments as well as royalties.
Ligand Pharmaceuticals / Gilead Sciences (8 July 2016)	Worldwide License Agreement	Gilead obtained the rights to use Ligand's OmniRat®, OmniMouse® and OmniFlic® platforms

		to discover fully human mono- and bispecific antibodies to be developed for the treatment of various diseases. Ligand is eligible to receive annual platform access payments, milestone payments and royalties.

30 June – 6 July 2016

Parties	Type	Subject and Financial Terms
Amicus Therapeutics / MiaMed (6 July 2016)	Biologics Pipeline Expansion	Amicus Therapeutics expanded its biologics pipeline with a new preclinical program for cyclin-dependent kinase-like 5 (CDKL5) deficiency, a rare and devastating genetic neurological disease for which there is no currently approved treatment. Amicus obtained the rights to a preclinical CDKL5 program through the acquisition of MiaMed for $1.8 million in cash and approximately $4.7 million in Amicus common stock to the former shareholders of MiaMed. The former shareholders of MiaMed are eligible to receive up to $18 million upon the achievement of clinical and regulatory milestones and up to $65 million upon achievement of commercial milestones.
Carmot Therapeutics / Genentech (6 July 2016)	Discovery Collaboration	Collaboration to discover novel drug hits using Carmot's proprietary lead-identification technology, Chemotype Evolution. Genentech will be solely responsible for lead optimization, pre-clinical and clinical development, manufacturing, and commercialization activities. Carmot will receive an undisclosed upfront payment and is eligible to receive milestone and royalty payments.
Moderna Therapeutics / Vertex Pharmaceuticals (6 July 2016)	Collaboration and License Agreement	Three-year collaboration aimed at discovering and developing messenger Ribonucleic Acid (mRNA) Therapeutics for the treatment of cystic fibrosis (CF). The collaboration will focus on the use of mRNA therapies to treat the underlying cause of CF by enabling cells in the lungs to produce functional copies of the cystic fibrosis transmembrane conductance regulator protein, which is known to be defective in people with CF. Moderna will receive $20 million in cash as part of Vertex's upfront commitment to the collaboration. Vertex will also make a $20 million investment in Moderna, which will Vertex with an ownership stake in Moderna. Vertex will also pay Moderna future

		milestones up to $275 million, including $220 million in approval and reimbursement milestones, as well as tiered royalties.
Moorfields Eye Hospital / Google DeepMind (6 July 2016)	Research Collaboration	Collaboration to investigate how technology could help to analyze eye scans, giving clinicians a better understanding of eye disease. Financial terms not disclosed.
Sanofi Pasteur / Walter Reed Army Institute of Research (6 July 2016)	Research and Development Agreement	Collaboration to co-develop a Zika vaccine candidate. The Walter Reed Army Institute of Research will transfer its Zika purified inactivated virus vaccine technology to Sanofi Pasteur, opening the door for a broader collaboration with the US government. Financial terms not disclosed.
UCB / Syndax Pharmaceuticals (6 July 2016)	Exclusive Worldwide License Agreement	Syndax Pharmaceuticals obtained the exclusive worldwide rights to UCB's UCB6352, an IND-ready anti-CSF-1R monoclonal antibody. UCB will receive an upfront payment as well as milestone and royalty payments.
Cormorant Pharmaceuticals / Bristol-Myers Squibb (5 July 2016)	Acquisition	Bristol-Myers Squibb acquired Cormorant Pharmaceuticals, a private Sweden-based pharmaceutical company focused on the development of therapies for cancer and rare diseases. Cormorant Pharmaceuticals will receive upfront and near-term potential milestone payments up to $95 million as well as potential development and regulatory milestone payments up to $425 million.
OSE Immunotherapeutics / Janssen Biotech (5 July 2016)	Exercise of Option	Janssen Biotech exercised its option (set out in the global license agreement between Janssen and OSE Immunotherapeutics) to further develop and commercialize FR104, a new generation product, a monoclonal antibody fragment and antagonist of CD28, a key receptor in effector T lymphocytes, with preclinical proof of concept demonstrated in autoimmune diseases and transplantation. OSE Immunotherapeutics is eligible to receive up to a potential total of EUR 155 million, which includes an option exercise fee of EUR 10 million and potential development, regulatory and commercial milestone payments as well as a royalty.
TiGenix / Takeda (5 July 2016)	License, Development and Commercialization Agreement	Takeda Pharmaceutical and TiGenix announced that the companies entered into an exclusive (ex-US) license, development and commercialization

		agreement for Cx601, a suspension of allogeneic adipose-derived stem cells injected intra-lesionally for the treatment of complex perianal fistulas in patients with Crohn's disease. TiGenix will receive an upfront payment of EUR 25 million and will be eligible to receive potential milestone payments up to EUR 355 million plus royalties. Takeda will also make an equity investment of EUR 10 million in the share capital of TiGenix within the next 12 months.
Altos Therapeutics / Takeda (1 July 2016)	Development Collaboration and Option Agreement	Collaboration to further develop Altos' proprietary compound ATC-1906 (an oral dopamine D2/D3 receptor antagonist that addresses the symptoms of nausea and vomiting in gastroparesis patients). The agreement also includes an exclusive option for Takeda to acquire Altos beginning on the date of the agreement and continuing for a period of time following the completion of ongoing Phase 1 studies of ATC-1906. Financial terms not disclosed.
LEO Pharma / AstraZeneca (1 July 2016)	License Agreement	LEO Pharma acquired the global rights to AstraZeneca's tralokinumab in skin diseases. Tralokinumab is a potential new medicine (an anti-IL-13 monoclonal antibody) that has completed a Phase IIb trial for the treatment of patients with atopic dermatitis, an inflammatory skin disease resulting in itchy, red, swollen and cracked skin. (AstraZeneca will retain all rights to tralokinumab in respiratory disease and any other indications outside of dermatology). AstraZeneca will receive an upfront payment of $115 million for the exclusive, global rights to tralokinumab in atopic dermatitis and any future additional dermatology indications. LEO Pharma will also pay up to $1 billion in commercially-related milestones plus royalties.
LEO Pharma / AstraZeneca / Valeant Pharmaceuticals (1 July 2016)	License Agreement	LEO Pharma acquired the exclusive European rights to AstraZeneca's brodalumab, an IL-17 receptor monoclonal antibody under regulatory review for patients with moderate-to-severe plaque psoriasis (a skin disease that causes red patches of skin covered with silvery scales) and in development for psoriatic arthritis (inflammation of the joints associated with psoriasis). Financial terms not disclosed.

		AstraZeneca's agreement with LEO Pharma follows the termination of its license agreement relating to brodalumab with Valeant Pharmaceuticals. Valeant will receive an upfront payment and milestone payments from AstraZeneca in exchange for the termination of its European rights to brodalumab.
Ultragenyx Pharmaceutical (1 July 2016)	Follow-on Equity Offering (NASDAQ)	Follow-on offering to advance Ultragenyx Pharmaceutical's current pipeline products in the US and other markets. Size of offering is $150 million.
Merck / Premier (30 June 2016)	Co-Development Collaboration	Collaboration to co-develop solutions to help improve population health, with an initial focus on reducing fracture rates for at-risk osteoporosis patients. Financial terms not disclosed.
TESARO (30 June 2016)	Follow-on Equity Offering (NASDAQ)	Follow-on offering to fund commercialization activities and clinical trials. Size of offering is $376.7 million.

23 – 29 June 2016

Parties	Type	Subject and Financial Terms
Moderna / Merck (29 June 2016)	Strategic Collaboration and License Agreement	Collaboration to develop novel messenger RNA (mRNA)-based personalized cancer vaccines by utilizing Moderna's mRNA vaccine technology to encode a patient's specific neoantigens, unique mutations present in that specific patient's tumor. Moderna will receive an upfront payment of $200 million. Merck has the right to elect to make an additional undisclosed payment to Moderna. If exercised, the two companies will then equally share cost and profits under a worldwide collaboration. The agreement entails exclusivity around combinations with KEYTRUDA. Moderna and Merck will each have the ability to combine mRNA-based personalized cancer vaccines with other (non-PD-1) agents.
Syros Pharmaceuticals (29 June 2016)	Initial Public Offering (NASDAQ)	Initial public offering to fund clinical activity readouts for Syros Pharmaceuticals' product and development candidates. Size of offering is $50 million.
Xencor / Novartis (28 June 2016)	Strategic Collaboration and License Agreement	Collaboration to develop and commercialize novel therapeutics, including XmAb®14045 (expected to begin clinical development for acute myeloid leukemia in 2016) and XmAb®13676 (also expected to begin clinical development for B-cell malignancies in 2016). Xencor and Novartis will share development costs for the worldwide development of XmAb®14045 and

		XmAb®13676. Xencor will maintain its US commercialization rights, while Novartis will have commercialization rights in the rest of the world. Novartis will also receive the worldwide rights to Xencor's bispecific technology to develop and commercialize four additional targets selected by Novartis, one of which Xencor may elect to co-detail in the US. Additionally, Novartis will receive a worldwide non-exclusive license to use Xencor's XmAb Fc technologies in up to ten molecules. Xencor will receive a $150 million upfront payment and is eligible to receive potential milestone payments plus royalties.
Daiichi Sankyo / Servier Canada (27 June 2016)	Commercialization Collaboration	Commercialization collaboration whereby Servier Canada will market Daiichi Sankyo's oral, once-daily anti-coagulant edoxaban in Canada (subject to approval by the Canadian health authority). Daiichi Sankyo will receive an upfront payment, potential regulatory and commercial milestone payments, as well as royalties.
Anacor Pharmaceuticals / Pfizer (16 May 2016 and 24 June 2016)	Acquisition	Pfizer to acquire Anacor, a biopharmaceutical company focused on discovering, developing and commercializing novel small-molecule therapeutics derived from its boron chemistry platform, for $99.25 per Anacor share, in cash, for a total transaction value, net of cash, of approximately $5.2 billion. Update: On 24 June 2016, Pfizer announced the completion of its acquisition of Anacor.
Pfizer / Hikma Pharmaceuticals (24 June 2016)	Asset Purchase	Hikma Pharmaceuticals to acquire a portfolio of six injectable products and their related customer contracts from Pfizer. The portfolio comprises one anti-infective, one anti-fungal and four oncology products. The divestiture of these products was mandated by the European Commission as a condition to Pfizer's acquisition of Hospira. Financial terms not disclosed.

16 – 22 June 2016

Parties	Type	Subject and Financial Terms
Teva Pharmaceutical and Allergan / Impax Laboratories (21 June 2016)	Asset Purchase	Impax Laboratories to acquire a broad portfolio of generic products across solid oral, inhalable, injectable and topical dosage forms, as well as the return of its rights from Teva to its pending abbreviated new drug application for a generic

		version of Concerta (methylphenidate hydrochloride), for an aggregate purchase price of $586 million. The transaction is in connection with the divestiture process mandated by the Federal Trade Commission in connection with Teva's acquisition of Allergan's generics business.
Teva Pharmaceutical and Actavis / Sagent Pharmaceuticals (16 June 2016)	Asset Purchase	Sagent Pharmaceuticals to acquire a portfolio of five abbreviated new drug applications in the US from Teva Pharmaceutical for $40 million. The portfolio consists of products that are being divested by Teva as a pre-condition to its closing of the acquisition of Allergan's generics business

9 – 15 June 2016

Parties	Type	Subject and Financial Terms
Pfizer / Shire (14 June 2016)	License Agreement	Shire obtained the rights to Pfizer's PF-00547659, an investigational biologic being evaluated for the treatment of moderate-to-severe inflammatory bowel disease. Financial terms not disclosed.
Eleven Biotherapeutics / Roche (13 June 2016)	Exclusive License Agreement	Eleven Biotherapeutics granted an exclusive worldwide license to Roche to develop and commercialize EBI-031, a humanized monoclonal antibody that potently binds IL-6 and inhibits all known forms of IL-6 cytokine signaling, which is currently being developed for the potential treatment of ocular diseases, and all other IL-6 antagonist antibody technology owned by Eleven. Eleven will receive an upfront payment of $7.5 million, along with potential future milestone payments up to $262.5 million plus royalties. Effectiveness of the license agreement is subject to the approval of the license by holders of at least a majority of the outstanding shares of Eleven's common stock.
Teva Pharmaceutical / Dr. Reddy's (11 June 2016)	Asset Purchase	Dr. Reddy's to acquire a portfolio of eight abbreviated new drug applications in the US from Teva for $350 million in cash. The portfolio consists of products that are being divested by Teva as a pre-condition to its closing of the acquisition of Allergan's generics business.

PAREXEL / Pfizer (10 June 2016)	Service Agreement	PAREXEL to provide global clinical research and development services to Pfizer in support of clinical development programs across its portfolio. Financial terms not disclosed.
Afferent Pharmaceuticals / Merck (9 June 2016)	Acquisition	Merck to acquire Afferent Pharmaceuticals, a privately held pharmaceutical company developing therapeutic candidates targeting the P2X3 receptor for the treatment of common, poorly-managed, neurogenic conditions. Merck, through a subsidiary, will acquire all outstanding stock of Afferent in exchange for an upfront payment of $500 million in cash. Afferent shareholders will also be eligible to receive up to an additional $750 million in milestone payments.
AstraZeneca / Aspen (9 June 2016)	Asset Purchase	Aspen Global Incorporated, part of the Aspen Group, to acquire the rights to AstraZeneca's global anesthetics portfolio outside the US. The agreement covers seven established medicines - Diprivan (general anesthesia), EMLA (topical anesthetic) and five local anesthetics (Xylocaine/Xylocard/Xyloproct, Marcaine, Naropin, Carbocaine and Citanest). AstraZeneca will receive an upfront payment of $520 million in relation to the portfolio of anesthetic medicines. Further, AstraZeneca will receive up to $250 million in a product sales-related payment, as well as royalties.

2 – 8 June 2016

Parties	Type	Subject and Financial Terms
Flexion Therapeutics (8 June 2016)	Follow-on Equity Offering (NASDAQ)	Follow-on offering to fund activities related to Flexion's planned new drug application submission. Size of offering is $77 million.
Theravance Biopharma / Takeda (8 June 2016)	License Agreement	Takeda obtained a global license to develop and commercialize Theravance Biopharma's TD-8954, a selective 5-HT4 receptor agonist being investigated for potential use in the treatment of gastrointestinal motility disorders, including enteral feeding intolerance (EFI). Theravance Biopharma will receive an upfront payment of $15 million and will be eligible to receive milestone payments as well as royalties. The first $110 million of potential milestone payments are associated with the development, regulatory and commercial launch milestones for EFI or other intravenously dosed indications.

Bristol-Myers Squibb / MD Anderson (7 June 2016)	Research Collaboration	Collaboration to evaluate innovative strategies for the potential use of Bristol-Myers Squibb's immuno-oncology agents Opdivo (nivolumab) and Yervoy (ipilimumab) to treat early- and advanced-stage lung cancer patients. Financial terms not disclosed.
Dermira (7 June 2016)	Follow-on Equity Offering (NASDAQ)	Follow-on offering to fund external and personnel-related research and development expenses. Size of offering is $126 million.
Innovative Targeting Solutions / Merck (7 June 2016)	Research Collaboration	Collaboration to utilize Innovative Targeting Solutions' proprietary HuTARG™ research platform to help identify and develop biologic therapeutic candidates directed towards targets that have historically been a challenge for biologic therapies. Innovative Targeting Solutions will be eligible to receive potential payments based on the achievement of specified milestones as well as royalties. The total potential value of the agreement is approximately $150 million.
Ultragenyx / Takeda (7 June 2016)	Development and Commercialization Collaboration	Collaboration to develop and commercialize therapies to treat rare genetic diseases. Ultragenyx will initially receive an exclusive license to one pre-clinical Takeda product candidate in a pre-determined field of use, and will have an exclusive option to co-develop and co-commercialize the product candidate in additional therapeutic areas. The companies have also entered into a five-year research collaboration whereby Ultragenyx has the option to license up to five additional Takeda product candidates for rare diseases. Takeda will receive an exclusive option to commercialize any licensed products resulting from the collaboration in Asia. Takeda will also receive an option to exclusively license one Ultragenyx pipeline product in Japan. Each company will receive potential milestone payments and royalties on net sales of licensed products by the other party. Further, Takeda will invest up to $65 million in Ultragenyx.
EpimAb Biotherapeutics / Innovent Biologics (6 June 2016)	Multi-target Bispecific Antibody Collaboration	EpimAb Biotherapeutics, an emerging Shanghai-based biopharmaceutical company specialising in bispecific antibodies, and Innovent Biologics, a biopharmaceutical company in China, announced a multiple target agreement for the development of bispecific antibodies.

		Innovent will gain access to EpimAb's proprietary Fabs-In-Tandem Immunoglobulin platform to develop multiple bispecific antibodies for the Chinese market, including the right to out-license the developed programs outside of China. EpimAb is eligible to receive an undisclosed upfront payment and milestones of up to $120 million, plus royalties. Should Innovent license the rights of the developed candidates outside of China, EpimAb will receive an undisclosed share of the net receipts.
Array BioPharma / Pierre Fabre / Merck KGaA (4 June 2016)	Clinical Trial Collaboration	The companies jointly initiated the BEACON CRC (Binimetinib, Encorafenib And Cetuximab Combined to treat BRAF-mutant Colorectal Cancer) trial, a randomized, global Phase 3 clinical trial designed to assess the safety and efficacy of binimetinib (MEK inhibitor), encorafenib (BRAF inhibitor) and Erbitux (monoclonal antibody) in comparison to Erbitux and irinotecan-based therapy in patients with BRAF-mutant colorectal cancer. The primary endpoint is overall survival and key secondary endpoints include progression-free survival and objective response rate. Financial terms not disclosed.
Sun Pharmaceuticals / Frontida (4 June 2016)	Asset Purchase	Frontage Laboratories, a Contract Research Organization, announced that its affiliate company, Frontida BioPharm, acquired certain assets from a wholly owned US subsidiary of Sun Pharma, including Sun Pharma's oral solid dosage manufacturing facilities in Philadelphia, PA, and Aurora, IL and 15 related pharmaceutical products. Financial terms not disclosed.
AstraZeneca / Ironwood Pharmaceuticals (3 June 2016)	License Agreement	AstraZeneca completed the licensing agreement with Ironwood Pharmaceuticals for the exclusive US rights to Zurampic (lesinurad) and the fixed-dose combination of lesinurad and allopurinol. Zurampic is approved in the US, in combination with a xanthine oxidase inhibitor, for the treatment of hyperuricemia associated with uncontrolled gout.
Baxalta / Shire (11 January 2016 and 3 June 2016)	Acquisition	Shire will combine with Baxalta in a transaction valued at approximately $32 billion. Update: On 3 June 2016, Shire completed its previously announced combination with Baxalta.

Eisai / Novartis (3 June 2016)	Co-promotion Agreement	Eisai and Novartis to collaborate on commercial and medical affairs activities (including the provision of scientific evidence to healthcare professionals) for Eisai's in-house developed novel anticancer agent Lenvima® (lenvatinib mesylate) and the anticancer agent everolimus in the US. Financial terms not disclosed.
AstraZeneca / Grünenthal GmbH (2 June 2016)	Exclusive License Agreement	Grünenthal obtained the exclusive rights to Zurampic in all 28 EU member states, Switzerland, Iceland, Norway and Lichtenstein, and in all Latin-American countries including Mexico, the Dominican Republic and Cuba. Zurampic was approved by the EMA in February 2016, in combination with a xanthine oxidase inhibitor, for the adjunctive treatment of hyperuricemia (excess of uric acid in the blood) in adult patients with uncontrolled gout. Grünenthal also obtained the exclusive rights to the fixed-dose combination of lesinurad and allopurinol. This combination is currently in clinical trials. AstraZeneca will receive up to $230 million in sales and other related milestones over the lifetime of the contract, as well as royalties.
Genisphere / MedImmune (2 June 2016)	Research Collaboration and Option and License Agreement	MedImmune and Genisphere to develop novel nanoparticles utilizing its 3DNA dendrimer scaffold with up to six MedImmune oncology molecules, as the nanoparticle configuration may help to improve targeting of the drug. Genisphere will receive an upfront payment, development milestones and royalties upon MedImmune triggering an option, and development and commercialization of therapeutics stemming from the collaboration.
Oxford BioMedica / Green Cross LabCell (2 June 2016)	Research and Development Collaboration	Collaboration to identify and develop gene modified natural killer cell-based therapeutics for treatment of life-threatening diseases such as cancer.

26 May – 1 June 2016

Parties	Type	Subject and Financial Terms
AbbVie / EA Pharma (1 June 2016)	Co-promotion Agreement	AbbVie and EA Pharma, a subsidiary of Eisai, to co-promote fully human anti-TNF-α monoclonal antibody HUMIRA® for indications in the field of gastrointestinal disease (ulcerative colitis, Crohn's disease, intestinal Behçet's disease).

		Financial terms not disclosed.
Bayer / U.S. National Surgical Adjuvant Breast and Bowel Project (1 June 2016)	Research Collaboration	Collaboration to investigate Stivarga® (regorafenib) tablets as an additional adjuvant therapy in colon cancer. Financial terms not disclosed.
Clearside Biomedical (1 June 2016)	IPO (NASDAQ)	Initial public offering to fund clinical trials and clinical program activities for Clearside's product candidates. Size of offering is $50,400,000.
Boehringer Ingelheim / Inventiva (31 May 2016)	Development Collaboration	Collaboration to jointly validate a new therapeutic concept with the aim of discovering new medicines for the treatment of Idiopathic Pulmonary Fibrosis and other fibrotic diseases. The partnership combines Inventiva's deep knowhow and proprietary technologies in the field of transcriptional regulation and fibrosis with Boehringer Ingelheim's capabilities in drug discovery and clinical development of new therapeutic agents. Inventiva will receive an upfront payment and is eligible to receive research funding as well as potential milestone payments up to EUR 170 million, and royalties.
Biorap Technologies / Pfizer (31 May 2016)	Research Collaboration	Collaboration to further develop a certain monoclonal antibody into potential new treatment options for a number of chronic autoimmune diseases. BioRap Technologies will receive an undisclosed upfront payment and is eligible to receive potential milestone payments, plus royalties.
Celator Pharmaceuticals / Jazz Pharmaceuticals (31 May 2016)	Acquisition	Jazz Pharmaceuticals, a biopharmaceutical company focused on improving patients' lives by identifying, developing and commercializing meaningful products that address unmet medical needs, to acquire Celator Pharmaceuticals, an oncology-focused biopharmaceutical company that is transforming the science of combination therapy, and developing products to improve patient outcomes in cancer. Jazz will acquire Celator for $30.25 per share in cash, representing a transaction value of approximately $1.5 billion.
FEI Company / Thermo Fisher Scientific (27 May 2016)	Acquisition	Thermo Fisher Scientific, a leader in serving science, to acquire FEI, a company that manufactures and supports a broad range of high-performance microscopy workflow solutions that provide images and answers at the micro-, nano- and picometer

		scale, for $107.50 per share in cash, representing a purchase price of approximately $4.2 billion.
OvaScience (26 May 2016)	Follow-on Equity Offering (NASDAQ)	Follow-on offering to fund commercial expansion and pre-commercial activities for certain OvaScience products. Size of offering is $50,050,000.

19 – 25 May 2016

Parties	Type	Subject and Financial Terms
Reata Pharmaceuticals (25 May 2016)	IPO (NASDAQ)	Initial public offering to advance the development of Reata's lead product candidates. Size of offering is $60.5 million.
Senseonics / Roche (25 May 2016)	Exclusive Distribution Agreement	Senseonics has granted Roche the rights to promote, market and sell the Eversense product line to diabetes clinics and patients in Germany, Italy and the Netherlands. Financial terms not disclosed.
Vertex Pharmaceuticals / Spero Therapeutics (25 May 2016)	Asset Purchase	Spero Therapeutics, a biopharmaceutical company founded to develop novel therapies for the treatment of bacterial infections, acquired the worldwide rights to Vertex's VXc-486/VXc-100 and a portfolio of innovative antibacterial compounds targeted at bacterial gyrase (GyrB) and/or topoisomerase IV (ParE). Vertex will receive an upfront payment for the portfolio rights, and will also be eligible to receive future milestone payments, plus royalties on any therapeutic products resulting from the agreement.
GenQual / R-Pharm (24 May 2016)	Development Collaboration	Collaboration to develop novel predictive diagnostic tools in the area of rheumatoid Arthritis and autoimmune diseases. Financial terms not disclosed.
Noden Pharma / PDL BioPharma (24 May 2016)	Equity Investment	PDL BioPharma announced that it has committed to an equity investment in Noden Pharma DAC. Noden is a new privately held company that has executed a purchase agreement with Novartis to acquire exclusive worldwide rights to manufacture, market, and sell the branded prescription medicine product sold under the name Tekturna® and Tekturna HCT® in the US and Rasilez® and Rasilez HCT® in the rest of the world. PDL's equity investment will ultimately result in an 88% equity interest in Noden. PDL expects to make equity contributions to Noden totaling approximately

		$107 million in the first year of the transaction, with an initial equity investment of $75 million to be made upon closing of the transaction, and an additional $32 million equity contribution commitment on the one-year anniversary of the closing of the transaction.
Optibrium / Janssen Research and Development (24 May 2016)	Worldwide License Agreement	Optibrium, a developer of software for small molecule discovery, announced that Janssen Research and Development signed an agreement to license Optibrium's StarDrop software. Financial terms not disclosed.
Pfizer / Vifor Pharma (24 May 2016)	License Agreement	Vifor Pharma, a company of the Galenica group, expanded its Erythropoiesis Stimulating Agent portfolio by obtaining a license to the US commercialization rights in the dialysis market to Pfizer's RetacritTM, a proposed biosimilar epoetin, in the field of nephrology. Financial terms not disclosed
TriNetX / Celgene (24 May 2016)	Research Collaboration	Collaboration to advance clinical trial design and research for Celgene's next-generation therapeutic programs. Financial terms not disclosed.
Astellas / Daiichi Sankyo / Takeda (23 May 2016)	Research Collaboration	Collaboration to comprehensively acquire and analyze fundamental biomarker data on healthy adult volunteers in order to optimize and accelerate the development of innovative medicines. Financial terms not disclosed.
Coherus BioSciences (23 May 2016)	Follow-on Equity Offering (NASDAQ)	Follow-on offering to fund manufacturing and related activities for late-stage products and for working capital and other general corporate purposes.
Monsanto / Bayer (23 May 2016)	Acquisition Proposal	Bayer submitted an all-cash offer to acquire all of the issued and outstanding shares of common stock of Monsanto, an agriculture company, for $122 per share or an aggregate value of $62 billion.
XenoPort / Arbor Pharmaceuticals (23 May 2016)	Acquisition	Arbor Pharmaceuticals, a specialty pharmaceutical company currently focused on the cardiovascular, hospital and pediatric markets, to acquire XenoPort, a biopharmaceutical company focused on commercializing HORIZANT in the US, for $7.03 per share in cash, or a total equity value of approximately $467 million.
Celldex Therapeutics (19 May 2016)	Follow-on Equity Offering (NASDAQ)	Follow-on offering for working capital and other general corporate purposes. Size of offering is $60 million.

Chugai Pharmaceutical / Osaka University (19 May 2016)	Research Collaboration	Collaboration to advance research in immunology and it is hoped that the collaboration will lead to the unprecedented discovery of innovative novel drugs in the field of immunology. Financial terms not disclosed.
Karyopharm Therapeutics (19 May 2016)	Follow-on Equity Offering (NASDAQ)	Follow-on offering to support continued clinical development of Karyopharm's lead drug candidate. Size of offering is $50 million.

Align Global Consulting is one of the world's leading providers of global structuring solutions for the pharma industry. For information contact Sean M. King at sking@alignglobalconsulting.com or visit www.alignglobalconsulting.com.

With offices in London, Dublin, Research Triangle Park and Silicon Valley, Align Global Consulting is a globalization consulting and advisory firm that represents clients expanding globally or improving existing operations by providing creative legal and tax solutions to address commercial, trade, investment and regulatory matters. Align's comprehensive list of services includes global structuring, global business transactions, cross-border M&A transactions, and international tax planning for outbound and inbound investment. Align assists companies in all stages of growth, from emerging growth companies to the Fortune 100. With "big firm" credentials and experience, Align handles matters traditionally entrusted to larger firms, while maintaining a commitment to the lost art of one-on-one client service.